COOPER ORNITHOLOGICAL CLUB

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PACIFIC COAST AVIFAUNA NUMBER 21

A REVISED LIST OF THE BIRDS OF SOUTHWESTERN CALIFORNIA

BY

GEORGE WILLETT

CONTRIBUTION FROM THE LOS ANGELES MUSEUM



LOS ANGELES, CALIFORNIA PUBLISHED BY THE CLUB December 1, 1933

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NOTE

The publications of the Cooper Ornithological Club consist of two series—The Condor, which is the bi-monthly official organ, and the Pacific Coast Avifauna.

PACIFIC COAST AVIFAUNA No. 21 is the twenty-first in the series of publications issued by the Cooper Ornithological Club for the accommodation of papers whose length prohibits their appearance in The Condor.

For information as to either of the above series, address the Club Business Manager, W. Lee Chambers, 2062 Escarpa Drive, Eagle Rock, Los Angeles County, California.

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INTRODUCTION

Since the publication of Avifauna Number 7, in 1912, more than twenty years have passed. This intervening period has been one of great activity in the study of California ornithology, resulting in a very considerable increase in knowledge of our birds, both as to their occurrence and distribution, and their systematic classification. In addition to this, when we consider the changes in bird population brought about by bringing under cultivation a large percentage of hitherto wild land, as well as by introduction of foreign species, it is clear that our bird list of more than twenty years ago is subject to much emendation. It has been considered worth while, therefore, to entirely re-vamp the old list and bring it up to date, so far as is possible.

The writer had hoped to have enough information available to enable him to include our desert regions in the scope of this paper, but data on the avifauna of the region east of the coastal mountains has accumulated so slowly in comparison with that of the Pacific slope, that any paper including the two sections would be unevenly balanced. While the birds west of the mountains could be rather exhaustively treated, the report on the eastern part of southern California would necessarily be very incomplete. Though frequent excursions, generally of short duration, have been made to the desert regions by ornithologists, there has been no careful compilation of data by observers residing there for extended periods of time, and, without information of the latter character, it seems obviously impossible to produce a satisfactory report. Therefore, the territory included herein is the same as covered in 1912; that is the Pacific slope of southern California, from, and including, Santa Barbara County to the Mexican boundary, and from the summits of the mountains to the ocean, also including all the islands of the Santa Barbara group. This territory comprises all of Santa Barbara and Ventura counties, Los Angeles County south and west from the Liebre Mountains, Sierra Pelona and Sierra San Gabriel, San Bernardino County south and west from the Sierra Madre and San Bernardino Range, all of Orange County, Riverside County west from the San Jacinto Range, and San Diego County west from the Volcan and Cuyamaca ranges. In some instances it has been deemed advisable to refer to records outside the limits as described above in order to show certain connecting features in distribution or migration.

The nomenclature employed in this paper is essentially that of the 1931 edition of the American Ornithologists' Union Check-list of North American Birds. This is based largely on the work of Max Fürbringer (1888), Hans Gadow (1893) and Robert Ridgway (1901), revised by Alexander Wetmore (1930), the chief fundamental changes in this revision being the elevation of certain sub-orders to the rank of orders. Also, several old, familiar genera have been split up by raising sub-genera to generic rank. In a few cases, where it appears to the writer that this has been done on insufficient grounds, it has not been followed in this paper. Much criticism of the 1931 Check-list, particularly as regards the new sequence, has been voiced. It seems certain, however, that it is more nearly correct genetically than the old one. True, the change is inconvenient to those of us who for many years have been accustomed to the old order, but it appears to be a case where convenience must give way to accuracy.

It is apparent that there will always be a clash of opinion on matters of nomenclature between what may be termed the ultra-conservatives and the ultra-liberals. The one extreme deplores changes of almost any character, and the other apparently considers change and progress synonymous. It would be a boon to ornithology if we could arrive at an agreement stabilizing our nomenclature, so that long-established and familiar names could not be displaced—often more or less arbitrarily—in favor of others unearthed from some obscure and antiquated publication. Furthermore, there are many ornithologists-the writer among the number-who believe that the continued naming of subspecies on very slight average differences is threatening to produce nomenclatural chaos. If there was any assurance that a halting point in this practice might be reached within a reasonable time, we would be less concerned about the outcome. There is, however, no such assurance. The school that apparently considers the naming of new races an end, rather than a means in ornithology is well away on an endless road. Lessening the degree of difference between named races can be continued indefinitely.

During the preparation of the 1912 paper, the writer was handicapped by not having access to a large study collection of birds, consequently he followed entirely the systematic conclusions of other students. Within the past few years, however, much more study material has been available, with the result that he has been able to form first-hand opinions on many debatable questions. While some of these opinions will undoubtedly be incorrect, they will at least be original.

The attempt is made to treat conservatively all instances of unusual occurrence recorded without absolute evidence of their authenticity. Some of these that appear most unlikely, and probably the result of mis-identification, are omitted entirely, and others whose occurrence in this region, although appearing doubtful, is supported by a certain amount of apparently authentic evidence, are assigned to the Hypothetical List. Reports of foreign birds that are clearly escapes from aviaries are omitted unless they are known to have bred in a wild state. While it is always of interest to an ornithologist to add a new visitant to the list of birds of a region, in most instances such an addition is not of great scientific value. The wandering of birds from their normal habitat is apparently a common occurrence, and it is easily conceivable that careful observations over an extended period of time might result in the listing of most species of North American birds from southern California.

In the case of the rarest breeding birds, an attempt is made to give all, or at least several, breeding records. In case of species that breed more

BIRDS OF SOUTHWESTERN CALIFORNIA

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commonly, the earliest and latest known nesting dates from one or more localities are given. The dates given for migration and nesting are probably nearly correct. However, there will be found exceptional instances, particularly as to time of migration, which will not come within the dates as given here. This, of course, is to be expected, as it is a well-known fact that individuals or small companies of many species either precede or straggle behind the main migratory body. Especially is this true of many of the water birds, which are frequently noted along our coast at times when, according to the general dates given here for their migrations, they should be engaged in incubating their eggs or raising their young in a more northern latitude. Some of these stragglers may have dropped behind the main body of their species as the result of wounds or disease which renders them incapable of making the long northward journey to their breeding grounds. In some instances where the species does not mature the first year, many of the immature birds may remain with us, while the mature birds go north to perform their reproductive duties. This is particularly noticeable in the case of the scoters.

Of some birds, ordinarily migratory, there seems to be a considerable number of indivduals that are non-breeders, these being frequently noted with us during the summer months. Especially is this true with the turnstones, tattlers and many other waders. Some species, also, maintain different routes of migration in spring and fall; they may be abundant in a certain locality during the fall migration and rare in spring, or vice-versa. Furthermore, there appears to be a considerable variation from year to year in the dates of the migrations of many species, probably due principally to weather conditions and food supply. In studying the birds in the channel between San Pedro and Catalina Island, the writer has found that occurrence of open-water groups, such as shearwaters, petrels and jaegers, in any particular locality, varies greatly from year to year, in direct proportion to abundance or scarcity of fish. It is probable, however, that if reports were available from the entire general region, this irregularity in occurrence would prove to be largely local.

Taking all the above facts into consideration, it is easily seen that migration dates, while they may be substantially correct, are bound to be far from infallible, and exceptional instances, instead of being regarded as surprising, are to be expected.

No attempt has been made to give a complete synonymy of the species, only such synonyms as have been used at a comparatively recent date being considered.

The writer has aspired to make this list as complete and as correct as possible and, with this end in view, has studied available collections, searched all obtainable literature on the birds of the region, and has culled thoroughly his own notes and those of many other students of southern California ornithology. For all errors of commission or omission the indulgence of the reader is asked and correction or criticism is invited, it being fully realized that absolute freedom from error in a list of this kind is an impossibility.

There are here listed 446 of all forms, 373 species, 239 genera, 61 families, and 18 orders.

THE RECENT AVIFAUNA OF SOUTHWESTERN CALIFORNIA

By Groups Designated Vernacularly, as Now Known

Loons 3	Turnstones	Titmice 2
Grebes 5	Sandpipers, etc 21	Bush-Tit 1
Albatrosses 2	Avocet 1	Nuthatches 3
Shearwaters 4	Stilt 1	Creeper 1
Fulmar 1	Phalaropes 3	Wren-Tit 1
Petrels 6	Jaegers 3	Dipper 1
Tropic-bird 1	Gulls 13	Wrens 12
Pelicans	Terns 8	Mockingbird 1
Cormorants 3	Murre 1	Thrashers 5
Man-o'-war-bird1	Guillemot 1	Thrushes 8
Herons, etc 9	Murrelets 4	Bluebirds 2
Wood Ibis 1	Auklets 2	Solitaire 1
Ibis 1	Puffins 2	Gnatcatchers 2
Spoonbill1	Pigeons and Doves 6	Kinglets 2
Swan 1	Cuckoos 2	Pipit 1
Geese	Barn Owl 1	Waxwings 2
Tree-duck 1	Typical Owls 10	Phainopepla 1
Ducks	Poor-wills	Shrikes
American Vultures 2	Nighthawks 2	Starling1
Kites 2	Swifts 3	Vireos 7
Hawks 10	Hummingbirds 7	Wood Warblers 26
Eagles	Kingfisher 1	Weaver Finch 1
Marsh Hawk 1	Woodpeckers 14	Meadowlark 1
Osprey 1	Tyrant Flycatchers 17	Blackbirds 4
Falcons 6	Horned Larks 4	Orioles 4
Grouse 1	Swallows	Grackles
Quails 4	Jays 3	Cowbird 1
Pheasant 1	Magpie 1	Tanagers 4
Cranes 2	Raven 1	Finches 75
Rails, etc 7	Crow 1	
Oyster-catchers	Piñon Jay 1	Total species and
Plovers	Nutcracker 1	subspecies
Surf-bird 1	Chickadee 1	T

Gaviiformes 3 Colymbiformes 5	
Procellariiformes 13	
Pelecaniformes 7	
Ciconiiformes 12	Cuculiformes 2
Anseriformes 35	Strigiformes 11

Falconiformes 24

By Orders

Caprimulgiformes 4

Micropodiiformes	10
Coraciiformes	1
Piciformes	14
Passeriformes	212
Total	. 446

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GEORGE WILLETT.

Los Angeles, California, October 1, 1933.

ACCOUNTS OF SPECIES

CLASS Aves Birds

Subclass NEORNITHES Recent Birds

Order GAVIIFORMES Loons

FAMILY GAVIIDAE Loons

Gavia immer (Brünnich) Common Loon

Synonyms-Gavia immer elasson: Lesser Loon.

Common winter visitant along coast; also occurs on inland lakes and ponds. Arrives in October and leaves mostly in late April and early May, but immature birds occasional in summer. Noted by W. L. Dawson near Santa Barbara June 25, 1914, and May 29 and June 15, 1915 (Condor, 18, 1916: 23), and by G. Willett at Manhattan Beach, Los Angeles County, July 6, 1911, and at Bolsa Chica, Orange County, July 24, same year (Pac. Coast Avif., No. 7, 1912: 10). Reported by J. G. Cooper as abundant in winter in San Diego Bay, some remaining as late as May (Baird, Brewer and Ridgway, W.B.N.A., 2, 1884: 447).

L. B. Bishop has shown that the Common Loon is somewhat larger in the more northern part of its range than it is further south, and has called the more southern bird *Gavia immer elasson* (Auk, **38**, 1921: 364-370). Although this latter name is used in the 1931 A.O.U. Check-list, the writer feels that its characters are hardly pronounced enough to warrant the division of *immer*.

Gavia arctica pacifica (Lawrence) Pacific Loon

Common winter visitant on ocean; particularly abundant around Santa Barbara Islands. Arrives in September and remains until late in May.

Gavia stellata (Pontoppidan)

Red-throated Loon

Synonym—Gavia lumme.

Regular winter visitant along coast. Arrives at about same time as preceding species, but majority appear to depart about a month earlier in spring (Beck, Proc. Calif. Acad. Sci., ser. 4, vol. 3, 1910: 58). Male secured by J. G. Cooper at Santa Barbara April 27, 1863 (Baird, Brewer and Ridgway, W.B.N.A., 2, 1884: 458). Twelve specimens (L. A. Mus.) taken along coast of Los Angeles and Orange counties between November 7 (1899) and March 26 (1905). Example obtained by A. L. Heermann at San Diego (Pac. R. R. Rep., 10, 1859: 76).

Order COLYMBIFORMES Grebes FAMILY COLYMBIDAE Grebes

Colymbus grisegena holboelli (Reinhardt) Holboell Grebe

Rare winter visitant; no existing specimens from southern California known to the writer. Recorded from Santa Barbara by A. L. Heerman (Pac. R. R. Rep., **10**, 1859: 76) and W. L. Dawson (Bird-Lore, **17**, 1915: 47). Bird seen by Mrs. F. T. Bicknell on Franklin Canyon Reservoir, near Hollywood, Los Angeles County, January 12, 1921 (Schneider, Bird-Lore, **23**, 1921: 98). Remains of immature bird found by C. B. Nordhoff at Elsinore Lake, Riverside County, in February, 1902 (Auk, **19**, 1902: 212). At least some of **a**bove records probably open to question.

Colymbus auritus Linnaeus Horned Grebe

Fairly common winter visitant on ocean; less plentiful on inland bodies of water. Specimens taken by C. P. Streator at Santa Barbara in 1885 (Orn. and Ool., **11**, 1886: 90), by G. Willett at Hyperion, Los Angeles County, March 10, 1911, and January 3 and 8, 1912 (Pac. Coast Avif., No. **7**, 1912: 9), by L. B. Bishop (MS) at Hyperion April 19, 1923, by C. B. Linton, at Alamitos, Los Angeles County, January 14, 1907, and at San Diego Bay November 4, 1906 (Condor, **9**, 1907: 110), and by J. W. Sefton, Jr., on San Diego Bay March 28, 1926, and January 22, 1928 (specimens in S.D.S.N.H.). Male taken at Catalina Island January 6, 1920 (Dickey and van Rossem, Condor, **25**, 1923: 126), and pair seen at Santa Cruz Island in late April, 1915 (Dawson, Condor, **17**, 1915: 204). Specimen taken by E. Heller near Riverside in winter of 1893 (Condor, **3**, 1901: 100).

Colymbus nigricollis californicus (Heermann) Eared Grebe

Common in winter on both salt and fresh water. Formerly bred at Elizabeth Lake, Nigger Slough (irregularly) and Railroad Lake, Los Angeles County, and San Jacinto Lake, Riverside County. About fifteen nests containing eggs found by H. J. Lelande at Nigger Slough July 8, 1911, and more than forty nests with eggs examined by A. M. Ingersoll and W. B. Judson at San Jacinto Lake in 1897 (Willett, Pac. Coast Avif., No. 7, 1912: 9). Since 1912 these bodies of water have been drained and the bird colonies have disappeared.

Until recent years there were substantial colonies of Eared Grebes at Bear and Baldwin lakes, San Bernardino Mountains. Many nests containing fresh eggs found by G. Willett in the former locality June 22, 1907 (loc. cit.). According to W. M. Pierce (MS), no nests seen on either Bear or Baldwin lakes in 1931, but, on the latter lake, about fifty pairs nested in 1932, and about 150 pairs in 1933. Nest containing seven partly incubated eggs found by C. S. Sharp in San Pasqual Valley, San Diego County, April 22, 1906 (Condor, 9, 1907: 85). According to J. B. Dixon (MS), an irregular breeder near Escondido; twelve to fifteen pairs nesting at Lake Hodges in 1930, starting to lay eggs June 26. Seven nests, all containing incomplete sets, found by F. Stephens (MS) at Cuyamaca Lake July 22, 1920.

Aechmophorus occidentalis (Lawrence) Western Grebe

Synonym-Aechmophorus clarkii.

Winter visitant to ocean and salt lagoons along coast. Recorded in summer at Santa Barbara (Torrey, Condor, **12**, 1910: 204), Santa Monica (Schneider, Bird-Lore, **23**, 1921: 256), San Pedro (Baird, Brewer and Ridgway, W.B. N.A., **2**, 1884: 24), and San Diego (Grinnell [Belding MS], Pac. Coast Avif. No. **11**, 1915: 15). Has bred abundantly at Buena Vista Lake, Kern County (Lamb, Condor, **24**, 1922: 184), and one nesting record for Pacific slope, set of three heavily incubated eggs taken by I. D. Nokes at Mystic (San Jacinto) Lake, Riverside County, May 13, 1916 (Condor, **19**, 1917: 24).

Podilymbus podiceps podiceps (Linnaeus) Pied-billed Grebe

Fairly common in winter, both coastwise and on inland waters. Formerly bred plentifully at Nigger Slough, Los Angeles County, and San Jacinto Lake, Riverside County, but these bodies of water now drained. Incubated eggs taken by Antonin Jay at Nigger Slough from May 17 to June 7 (1903) (Willett, Pac. Coast Avif., No. 7, 1912: 10). Found breeding commonly at San Jacinto Lake May 27-28, 1911, most of eggs being hatched at this date (Willett and Jay, Condor, 13, 1911: 157). Fresh eggs taken by C. S. Sharp in vicinity of Escondido, San Diego County, from May 3 to June 24 (Condor, 9, 1907: 86). Several nests containing eggs found by L. Stevens (MS) near Goleta, Santa Barbara County, in early June.

Order PROCELLARIIFORMES Tube-nosed Swimmers

FAMILY DIOMEDEIDAE Albatrosses

Diomedea nigripes Audubon Black-footed Albatross

Formerly common out at sea during entire year; now much less plentiful, but still met with occasionally. Birds seen during late winter and spring probably immature. Some sight records of this species may be really referable to the next, as juvenals of *albatrus* are similar in color (except the bill) to *nigripes*.

Diomedea albatrus Pallas Short-tailed Albatross

Formerly common on ocean; now rare, if not extinct. At one time apparently more common than *nigripes*, or else came closer to shore, as specimens of albatrosses taken along beaches mainly of this species; furthermore, large majority of albatross bones so far found in coastal kitchen-middens referable to albatrus (Howard and Dodson MS). Recorded by C. P. Streator (Orn. and Ool., 11, 1886: 90) near Santa Barbara, and by B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 88) along Ventura County coast. Bird found dead by M. L. Wicks, Jr., near Long Beach July 26, 1892 (Oologist, 10, 1893: 88). Specimens taken, by C. Rutter at San Pedro April 3, 1898 (McLain, Auk, 15, 1898: 267), by Evan Davis at Newport, Orange County (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 8), and by A. W. Anthony off San Diego January 9, 1896 (S.D.S.N.H.). Noted by J. G. Cooper at San Nicolas Island July 1, and at San Diego Bay in December (Proc. Calif. Acad. Sci., 4, 1868: 11). Four birds in Los Angeles Museum (three from Cline coll. and one from Daggett coll.) taken in southern California many years ago. Latest known record of capture, San Nicolas Island, April 1, 1909, reported by C. B. Linton (Willett, Pac. Coast Avif., No. 7, 1912: 17).

FAMILY PROCELLARIIDAE Shearwaters and Fulmars

Puffinus tenuirostris (Temminck) Slender-billed Shearwater

Inhabitant of southern oceans; occurring irregularly north along Pacific coast of North America. So far, noted in southern California only in winter, as follows: Bird taken by L. H. Miller at Hyperion, Los Angeles County, November 22, 1913 (Condor, 16, 1914: 41); remains of another found by L. E. Wyman in same locality December 15, 1915 (Condor, 18, 1916: 203); bird (L. B. Bishop coll.) brought to J. Hornung from some miles north of Santa Monica December 5, 1915 (Wyman, loc. cit.). Specimen taken by A. W. Anthony from small flock near San Diego January 9, 1896 (Auk, 13, 1896: 171).

Puffinus griseus (Gmelin) Sooty Shearwater

Synonyms-Puffinus griseus stricklandi: Dark-bodied Shearwater.

Common on ocean throughout year; most abundant from late April to November. Frequently seen in large flocks a short distance outside breakers.

Puffinus opisthomelas Coues Black-vented Shearwater

Breeds on islands off Lower California, and migrates north along whole California coast. Usually appears off southern California in July and August, but sometimes as early as May. Return journey to breeding grounds made

mostly in March. Observed in immense numbers, by J. Grinnell, off San Pedro May 11, 1897. Condition of birds secured indicated recent breeding (Pub. 1, Pasadena Acad. Sci., 1897: 24). Specimen taken by H. S. Swarth at Redondo, Los Angeles County, May 26, 1899 (Willett, Pac. Coast Avif., No. 7, 1912: 18). Many specimens collected by the writer off San Pedro in fall and winter. Four eggs of this shearwater, in National Museum, supposed to have been collected by Captain C. M. Scammon on Santa Barbara Island in 1873. This record regarded as doubtful by most California ornithologists.

Puffinus creatopus Coues Pink-footed Shearwater

Common on ocean in summer and fall. Originally described from San Nicholas Island (Proc. Acad. Nat. Sci. Phil., **16**, 1864; 131). Found rather common off San Pedro by the writer, specimens being secured from April 30, (1929) to September 30 (1933). Three specimens (L. A. Mus.) taken by L. E. Wyman; one at Hyperion, Los Angeles County, April 24, 1916, and two at Sunset Beach, Orange County, May 25, same year. Species seen by J. G. Cooper near San Nicolas Island in July, 1863 (Proc. Calif. Acad. Sci., **4**, 1868: 11) and recorded by F. Stephens (Trans. S. Diego Soc. Nat. Hist., **3**, 1919: 5) as rather common at sea off San Diego County in summer and fall.

The writer now believes that his record (Pac. Coast Avif., No. 7, 1912: 18) of birds seen among the Santa Barbara Islands in winter may be referable to P. opisthomelas.

Fulmarus glacialis rodgersii Cassin Pacific Fulmar

Synonym-Fulmarus glacialis glupischa.

Irregularly common on ocean in fall, winter and spring; generally arriving in September and October, and leaving in April. During some winters occurs in large numbers close to shore and around piers, and during others apparently remains well out at sea. Frequently found dead on beaches. Specimens taken by the writer along the southern California coast show every variation from nearly pure white to the dark phase formerly known as *glupischa*.

FAMILY HYDROBATIDAE Petrels

Oceanodroma furcata (Gmelin) Forked-tailed Petrel

Apparently rather rare winter and spring visitant on ocean, south at least to San Diego. Specimen (Mus. Vert. Zool.) taken by Mr. Lorquin off San Pedro, recorded by J. G. Cooper (Proc. Calif. Acad. Sci., **4**, 1868: 10). Nine birds found dead on beach near Sunset Beach, Orange County, by L. E. Wyman, between May 15 and June 1, 1916; two preserved as skins and two more as skeletons (Condor, **19**, 1917: 141). These specimens now in Los Angeles Museum. Bird (S. D. S. N. H.) found dead on beach at San Diego, by F. Stephens, December 23, 1918 (Condor, **21**, 1919: 87).

Oceanodroma leucorhoa kaedingi Anthony Kaeding Petrel

Breeds on islands off Lower California. Only one specimen known from north of Mexican boundary, an adult male (L. H. Miller coll.) which flew on board ship "Albatross" between San Clemente Island and San Diego March 22, 1904 (Willett, Pac. Coast Avif., No. 7, 1912: 19). Exact latitude of capture, as later given by Dr. Miller (Condor, 20, 1918: 211), 32 degrees, 32 minutes north, about two seconds inside our boundary.

The writer is not entirely convinced that *kaedingi* is a race of *leucorhoa*. Though, as H. C. Oberholser has pointed out (Proc. U.S. Nat. Mus., **54**, 1917: 170-172), there is intergradation in size between *kaedingi* and *leucorhoa beali*, intergradation in color is not apparent in specimens in the Los Angeles Museum, when only birds that have not been plastered are considered. The race *beali*, with which *kaedingi* was confused in Avifauna No. 7, breeds to the north of us and should occur along our coast after the nesting season, but, so far, no specimens have been secured.

Oceanodroma socorroensis Townsend Socorro Petrel

Breeds on islands off coast of Lower California, from Los Coronados south. Straggles north on ocean at least to latitude of San Diego, where found fairly common by A. W. Anthony during April and May, 1895, at which time small series of specimens was taken (Auk, **12**, 1895: 387). The bird (L. A. Mus., no. 1213) recorded by A. Cookman (Oologist, **33**, 1916: 121) from the Santa Barbara Channel, proves to be a specimen of *homochroa*.

Godman (Mon. Petrels, 1907: 32-33) considers O. socorroensis identical with O. monorhis, a race found on the coast of China and Japan; Anthony states (Proc. Calif. Acad. Sci., 14, 1925: 287-288) that they grade perfectly from white-rumped birds into specimens with no white, typical of monorhis, and Loomis (Proc. Calif. Acad. Sci., ser. 4, vol. 2, 1918: 160) considers that this variation in the amount of white on the rump shows intergradation between monorhis and leucorhoa, and includes under this latter species both socorroensis and monorhis.

Oceanodroma melania (Bonaparte) Black Petrel

Common on ocean during entire year, straggling north at least to Monterey. Not known to nest north of Los Coronados. During winter season feeds commonly on garbage on ocean off San Pedro. Nesting birds taken by the writer in summer off San Pedro, about one hundred miles from nearest known breeding grounds.

Oceanodroma homochroa (Coues) Ashy Petrel

So far, recorded from southern California only in spring, summer and fall. As R. H. Beck secured specimens off Monterey County November 1 and 4, 1909 (Proc. Calif. Acad. Sci., 3, 1910: 67-68), the species may also occur in winter. Adult from San Miguel Island (now in British Museum) given to H. W. Henshaw by Captain Forney, of the Coast Survey, who stated that the species bred on San Miguel in great numbers (Ann. Rep. Ch. Eng. U.S.G.S., 1876, App. JJ: 277). During recent years has not been found nesting on San Miguel, though sought for on several occasions. Four eggs and one young found by H. Wright at Painted Cave, Santa Cruz Island, July 10, 1912 (Condor, 15, 1913: 88). Three sets of fresh eggs taken by M. C. Badger and S. B. Peyton (MS) near Scorpion Harbor, Santa Cruz Island, May 20, 1928. Egg, together with incubating bird, taken by F. Stephens on Los Coronados April 20, 1916; another bird picked up by Mr. Stephens south of Coronado Beach, San Diego County, May 2, 1915 (Huey, Condor, 27, 1925: 72). L. H. Miller took an adult female near Santa Barbara Island April 10, 1904, and in June, 1910, I found the species plentiful in the channel between Santa Barbara and San Nicolas islands. Although, at this time, I made a careful search over all of the former island and part of the latter, no evidence of its breeding was found (Pac. Coast Avif., No. 7, 1912: 20). In 1931 I saw a single bird off San Pedro September 27, and two or three the following day. Attempts to approach within gun range were fruitless. Specimen taken by A. Cookman in Santa Barbara Channel April 3, 1916, recorded as O. socorroensis (Oologist, **33,** 1916 : 121).

Halocyptena microsoma Coues Least Petrel

A lower Californian bird, known from our waters by two specimens; male (S.D.S.N.H.) secured by J. W. Sefton, Jr., off Point Loma, San Diego County, September 9, 1926 (Condor, **29**, 1927: 72), and female (Dickey coll.) taken by A. J. van Rossem a short distance north of Mexican boundary (Lat. 32° 33') July 19, 1927.

Order PELECANIFORMES Totipalmate Swimmers

FAMILY PHAËTHONTIDAE Tropic-birds

Phaëthon aethereus Linnaeus Red-billed Tropic-bird

Specimen in adult plumage, taken by W. H. Graves about midway between Long Beach and Catalina Island in August, 1916, examined by J. E. Law (Condor, **21**, 1919: 88).

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FAMILY PELECANIDAE Pelicans

Pelecanus erythrorhynchos Gmelin White Pelican

Visitant to lakes, sloughs and marsh lands in fall, winter and spring. Arrives in September and October, and leaves mostly in May. Breeds on islands in Salton Sea, Imperial County, and formerly bred at Buena Vista Lake, Kern County. Recorded by B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 87) as often seen on lagunas of Ventura County in winter. Flock of about 125 birds noted by F. S. Daggett flying over Pasadena November 25, 1900, one being secured with high-powered rifle (Condor, 3, 1901: 15). Thirty-five or forty birds seen by H. Robertson near Los Angeles April 27, 1900; about 250 birds seen by Alphonse Jay near Sierra Madre, Los Angeles County, May 22, 1910, and single bird seen by G. Willett at Nigger Slough, same county, May 25, 1907 (Pac. Coast Avif., No. 7, 1912: 21). Six birds, associated with several Brown Pelicans, seen by J. McB. Robertson (MS) at Bolsa Chica, Orange County, March 27, 1926. According to W. M. Pierce (MS) several hundred birds visited Bear Lake, San Bernardino Mountains, in September, 1931.

J. G. Cooper stated that few of this species reach San Diego, most of them veering to the eastward toward the Gulf of California (Baird, Brewer and Ridgway, W.B.N.A., **2**, 1884: 136). A male was taken at San Diego in the early 50's by A. Cassidy (Lawrence, Pac. R. R. Rep., **9**, 1858: 869). J. C. von Bloeker, Jr. (MS) has noted the White Pelican at Cuyamaca, Henshaw and Hodges lakes, San Diego County; J. B. Dixon (MS) finds it occurring frequently at Lake Henshaw and believes that it would nest there, if not persecuted by fishermen. He has found several eggs dropped by the birds along the shores of the lake.

Pelecanus occidentalis californicus Ridgway California Brown Pelican

Common resident along coast. Breeds irregularly on several of Santa Barbara Islands, the largest nesting colony being undoubtedly on Anacapa Island. During some seasons, however, apparently does not nest there at all. Anacapa colony first described by C. F. Holder (Museum, 5, 1899: 71), who visited it in August, 1898, at which time the young were nearly full grown. In June, 1899, H. Robertson and V. W. Owen covered Anacapa thoroughly, but the pelicans were apparently not nesting there at that time. On June 5, 1910, I visited the island, in company with several other members of the Cooper Ornithological Club. We found about 500 nests of the pelican containing eggs and young (Condor, 12, 1910: 170). In May, the following year, H. C. Burt visited the locality and found no birds nesting (Willett, Pac. Coast Avif., No. 7, 1912: 21). S. B. Peyton estimated 1500 pairs nesting on Anacapa March 7, 1916, and 2000 pairs March 2, 1917. On latter date many eggs were heavily incubated and one newly-hatched young was found (Condor, 19, 1917: 102). C. W. Ashworth and R. Thompson noted about 200 nests containing incubated eggs and downy young on the same island March 9, 1930 (Oologist, 47, 1930: 122). H. Wright found several nests of this species, all of which

contained young, on Santa Cruz Island in July, 1909 (Willett, loc. cit.); Mr. Wright also found between 300 and 400 birds nesting on Santa Barbara Island July 2, 1912, on which date all nests contained young (Condor, **15**, 1913: 90-91). Five nests containing young noted by G. Willett on San Miguel Island June 15, 1910 (Condor, **12**, 1910: 173).

FAMILY PHALACROCORACIDAE Cormorants

Phalacrocorax auritus albociliatus Ridgway Farallon Cormorant

Common resident along coast; frequently seen on inland bodies of water. Breeds on Santa Barbara Islands in May and June. Reported by J. L. Partin as nesting at La Jolla, San Diego County (Michener, Condor, **33**, 1931: 44). J. Grinnell and H. A. Gaylord took two sets of fresh eggs on Santa Barbara Island May 15, 1897; at this date most of the birds were nest building (Pub. **1**, Pasadena Acad. Sci., 1897: 25). Found breeding commonly on San Miguel Island, by G. Willett, June 15, 1910, nest contents varying from fresh eggs to half-grown young (Condor, **12**, 1910: 173). In some instances, probably where previous sets have been destroyed, eggs may be found as late as August.

J. Grinnell and H. S. Swarth observed flock of about fifty birds flying through San Gorgonio Pass, near Cabezon, May 11, 1908; single bird taken at Banning June 8, following, and another noted on Hemet Lake August 9, same year (Univ. Calif. Publ. Zool., **10**, 1913: 224). According to J. B. Dixon (MS), nests plentifully at Lake Henshaw, San Diego County, in spite of relentless persecution by persons interested in fishing at that place. The species is fairly common on Salton Sea, Imperial County, and undoubtedly breeds there.

Phalacrocorax penicillatus (Brandt) Brandt Cormorant

Common resident along coast, south to Lower California. Breeds on Santa Barbara Islands in April, May and June. Incomplete sets noted by C. B. Linton on San Nicolas Island April 3, 1910, and four sets of fresh eggs taken by G. Willett on Catalina Island April 11, 1904 (Pac. Coast Avif., No. 7, 1912: 20). Thirty sets of eggs taken by J. Grinnell and H. A. Gaylord on Santa Barbara Island May 15, 1897. They were in all stages of incubation and several nests contained newly-hatched young (Pub. 1, Pasadena Acad. Sci., 1897: 25). Nests containing fresh and incubated eggs and young of various ages noted by G. Willett on San Miguel Island June 15, 1910 (Condor, 12, 1910: 173).

Phalacrocorax pelagicus resplendens Audubon Baird Cormorant

Common resident on some of Santa Barbara Islands, but less plentiful than the two preceding species. Occurs south to Lower California. Occasional

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along mainland shores in winter. Breeds in May and June. Found nesting on Santa Barbara Island by J. Grinnell and H. A. Gaylord May 15, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 26), and on Anacapa and San Miguel islands by G. Willett in June, 1910. Fresh eggs taken on latter island as late as June 19 (Condor, 12, 1910: 170, 174). Bird found dead on beach at Hyperion, Los Angeles County, by L. E. Wyman January 6, 1919 (Condor, 21, 1919: 172), and specimens taken by G. Willett off San Pedro April 2, 1929 and September 20, 1933. Eight specimens (S.D.S.N.H.) secured by J. W. Sefton, Jr., off Point Loma, San Diego County, from October 10 (1926) to March 5 (1924).

FAMILY FREGATIDAE Man-o'-war-birds

Fregata magnificens Mathews Man-o'-war-bird

Synonyms—Fregata aquila, of many authors; not of Linnaeus: Fregata minor palmerstoni, of some authors; not of Gmelin.

Resident of southern Lower California and Mexico; occasionally straggling north along coast of California. Recorded by J. G. Cooper from San Diego (Baird, Brewer and Ridgway, W.B.N.A., 2, 1884: 130) and Catalina Island (Proc. Calif. Acad. Sci., 4, 1870: 69, 79). Specimen (S.D.S.N.H.) shot off San Diego June 27, 1927 (Abbott, Condor, 29, 1927: 272). Young female (L. B. Bishop coll.) caught at Huntington Beach, Orange County, in early September, 1925. Bird shot by A. C. Parsons at Alamitos Bay, Los Angeles County, June 17, 1906 (Willett, Pac. Coast Avif., No. 7, 1912: 22), and another (L. A. Mus.) captured by fishermen at Redondo, Los Angeles County, July 30, 1928. Two immature birds caught with hook and line at Long Beach June 13, 1911 (Linton, Condor, 13, 1911: 168). Immature bird shot by L. Price at North Pasadena in August, 1892 (Lawrence, Auk, 10, 1893: 362), and three birds, circling overhead, seen by H. S. Swarth near Los Angeles in December, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 10). Bird shot by L. Myers at Hueneme, Ventura County, about 1895, seen by J. S. Appleton (Willett, loc. cit.), and bird seen in same locality July 29, 1925, reported by R. Hoffmann (Condor, 28, 1926: 102). Two birds seen near Carpinteria, Santa Barbara County, August 12, 1912, and another thirteen miles west of Santa Barbara August 27, following, recorded by W. L. Dawson (Condor, **14**, 1912 : 223).

H. S. Swarth (Condor, **35**, 1933: 150) believes that Lower California birds of this species are really referable to F. *m. rothschildi* Mathews. In such case, California records would probably fall under that name. Mr. Swarth states further that a form of *Fregata minor* occurs on the Revillagigedo Islands, off the coast of Mexico, a fact that is substantiated by specimens of this species from Clarion Island, in the Los Angeles Museum. Although these islands are about 300 miles further south than the most northern Lower Californian nesting grounds of *magnificens*, it would not be surprising if both species should

wander to our shores. The only California specimens now available to the writer, Dr. Bishop's bird, from Huntington Beach, and the •Los Angeles Museum bird, from Redondo, are definitely referable to *magnificens*.

Order CICONIIFORMES Stork-like Birds

FAMILY ARDEIDAE Herons and Bitterns

Ardea herodias hyperonca Oberholser California Blue Heron

Synonyms-Ardea herodias, part: Ardea herodias oligista.

This bird, commonly known as the "blue crane," formerly nested in many localities in Southern California. At present time, although birds rather common in marshes, nesting colonies few in coast district. J. G. Cooper took eggs near Santa Barbara and San Diego (Baird, Brewer and Ridgway, W.B.N.A., **1**, 1884: 16). L. Stevens (MS) knows of two colonies, of about fifteen pairs each, now nesting near Santa Barbara, eggs being laid about March 15. A colony existed near Santa Monica, Los Angeles County, until about 1901. W. L. Chambers took sets of heavily incubated eggs in this locality May 13, 1895 (Condor, **4**, 1902: 47). Evan Davis took eggs near Santa Ana, Orange County, and H. J. Lelande and O. W. Howard found two small colonies nesting near San Onofre, San Diego County, in late March, 1905, two sets of fresh eggs being taken March 30 (Willett, Pac. Coast Avif., No. **7**, 1912: 30). W. M. Pierce informs me that about fifteen pairs were nesting in the San Onofre colony on March 30, 1919. He also found about fifty pairs nesting near Laguna, Orange County, April 6, 1918.

A few birds may be seen at all seasons of the year around the Santa Barbara Islands, where they nest on cliffs. H. C. Oberholser (Proc. U.S.N.M., 43, 1912: 553) has given the name *oligista* to the blue heron of the islands, alleging that it is smaller than the bird of the mainland. As I have frequently seen these birds in mid-channel flying to and from the islands, the idea of an insular form seems untenable.

Casmerodias albus egretta (Gmelin) American Egret

Synonym-Herodias egretta.

After seeing the great decrease in numbers of so many species of water birds, it is gratifying to be able to mention one whose numbers have increased during late years. That we have many more egrets with us now than when Avifauna No. 7 was published in 1912, there can be no doubt. Twenty years ago the species had diminished in numbers until the sight of a bird or two was an event. At the present time it is common on our coastal marshes in winter, south to Lower California, and may be seen in lesser numbers throughout the rest of the year. It also occurs in suitable localities inland. On January 13, 1928, between Anaheim and Newport bays, Orange County, I counted sixty-five egrets, and on November 6, 1929, H. N. McCoy (MS) saw twenty-eight birds near Seal Beach, same county. Though most common in fall, winter and spring, there are records for the region in every month during the summer. Birds seen at Mugu Bay, Ventura County, by G. Willett and H. N. McCoy May 13 and May 30, 1933, and by W. Brandler (MS) in same locality June 12, 1932. Two birds remained at Del Rey, Los Angeles County, throughout summer of 1924 (Schneider, Bird-Lore, **26**, 1924: 346). One seen by G. Willett and Antonin Jay at San Jacinto Lake, Riverside County, May 29, 1911 (Condor, **13**, 1911: 160). Other inland records are: Twelve birds seen by L. B. Bishop at Chatsworth Lake, Los Angeles County, in 1927 (Michener, Condor, **29**, 1927: 211); many seen by J. McB. Robertson (MS) at Buena Park, Orange County, from September 27 (1928) to May 1 (1927), and single bird seen by W. C. Hanna (MS) near Colton, San Bernardino County, May 12-13, 1933.

No nesting records for Pacific slope of southern California. Species believed to have bred formerly in vicinity of Buena Vista Lake, Kern County (Willett, Pac. Coast Avif., No. 7, 1912: 31), as it may at Salton Sea, Imperial County, where I found the birds common May 17, 1930.

Egretta thula brewsteri Thayer and Bangs Western Snowy Egret

Synonyms—Egretta candidissima, of many authors; not of Gmelin: Egretta candidissima brewsteri: Egretta thula, part: Leucophoyx thula brewsteri.

A. M. Bailey has shown (Auk, **45**, 1928: 430-440) that our western Snowy Egret is larger than the eastern bird and, while averaging somewhat smaller than *brewsteri*, of Lower California, is nearest to that form. Therefore, the latest A.O.U. Check-list includes our birds under *brewsteri*.

Like the last species, the Snowy Egret is apparently much more plentiful than it was twenty years ago, though it is still considerably less common than its larger relative. No southern California records for the small egret are known to me for more than twenty years previous to 1912, but, since that time, reports of its occurrence are frequent. In earlier years found by J. G. Cooper to be plentiful at all seasons along our coast (Baird, Brewer and Ridgway, W.B.N.A., **1**, 1884: 30). He saw one bird at an elevation of 4500 feet in the Cuyamaca Mountains, San Diego County, in the spring of 1862 (Am. Nat., **8**, 1874: 18). Recorded by B. W. Evermann (Pac. Sci. Monthly, **1**, 1886: 85) as common in Ventura County marshes, and by C. P. Streator (Orn. and Ool., **11**, 1886: 89) as common winter visitant at Santa Barbara in 1885. Many specimens taken in Los Angeles County in the early 80's reported by J. Grinnell (Pub. **2**, Pasadena Acad. Sci., 1898: 14).

Single bird seen by W. L. Dawson at Carpinteria, Santa Barbara County, May 2 and 4, 1912 (Condor, **14**, 1912: 223). Bird recorded by Mrs. F. T. Bicknell (Condor, **24**, 1922: 213) from Del Rey, Los Angeles County, September 25, 1922. Six birds observed by J. McB. Robertson (MS) at Sunset Beach, Orange County, November 11, 1928; three or four by H. N. McCoy (MS) near Newport April 15 and May 14, 1932, and one at Alamitos and another at Bolsa Chica June 8, 1933. Single bird noted by G. Willett near Encinitas, San Diego County, May 3, 1928, and two at Bolsa Chica, Orange County, May 19, 1933. Seen several times by W. M. Pierce (MS) on marshes of San Diego County during 1929, 1930 and 1931. According to Mrs. F. B. Schneider (Bird-Lore, **26**, 1924: 346), a bird summered at Del Rey, Los Angeles County, in 1924.

Dichromanassa rufescens (Gmelin) Reddish Egret

Synonym-Dichromanassa rufescens dickeyi.

Rare straggler from Lower California. Bird seen by L. M. Huey and F. F. Gander on San Diego Bay February 12, 1931 (Condor, **33**, 1931: 125). Another seen by J. C. von Bloeker, Jr., and S. G. Harter on Los Coronados May 6, 1928 (Condor, **30**, 1928: 253).

Hydranassa tricolor ruficollis (Gosse) Louisiana Heron

Synonym-Hydranassa tricolor occidentalis.

Four records, all from San Diego Bay. Two adult females collected by L. M. Huey, one January 17, 1914 (Condor, 17, 1915: 57), and the other March 22, 1925 (Condor, 27, 1925: 210). First year female shot by F. F. Gander December 20, 1932, and another bird seen by L. W. Smith last week in January, 1933 (Huey, Condor, 35, 1933: 126).

Butorides virescens anthonyi (Mearns) Anthony Green Heron

Common migrant. A few remain through summer and breed in willow thickets of lower country. Occasional in winter, north at least to San Bernardino, where bird was noted by J. B. Feudge January 3, 1903 (Condor, 5, 1903: 80). Another bird seen by L. M. Huey at Lakeside, San Diego County, January 1, 1928 (Condor, 30, 1928: 251). Found breeding by L. Stevens (MS) near Santa Barbara and along Santa Ynez River, Santa Barbara County. According to L. and S. B. Peyton (MS), a common breeder in some parts of Ventura County. Eggs taken by them in Sespe Canyon as early as April 28 (1931), and on Santa Clara River as late as June 7 (1914) (Oologist, 33, 1916: 96). Eggs taken by E. Wall and W. C. Hanna near San Bernardino (Condor, 21, 1919: 209), June 6 and 18, 1919 (Hanna, MS). Fresh eggs found by L. M. Huey near San Diego as early as May 11 (1915) (Condor, 28, 1926: 95), and as late as June 8 (1913) (Condor, 17, 1915: 59).

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Nycticorax nycticorax hoactli (Gmelin) Black-crowned Night Heron

Synonym-Nycticorax nycticorax naevius.

Resident locally in suitable localities, though much rarer and less generally distributed than formerly. Breeds during latter part of April and early May. Until about 1906 small colony nested at Bixby, Los Angeles County, and eggs taken by W. Chamberlain near Newport, Orange County (Willett, Pac. Coast Avif., No. 7, 1912: 31). Formerly bred rather commonly at San Jacinto Lake, Riverside County, in company with White-faced Glossy Ibis. On May 27 and 28, 1911, I found several nests in this locality, all containing young birds except one, which held three half-incubated eggs. In one case the young were nearly full grown (Condor, 13, 1911: 160). Although I know of no local breeding colonies at the present time, it is probable that the species still nests in the vicinity of Los Angeles, as I have recently examined breeding birds that were shot near Inglewood, Los Angeles County. E. A. Mearns and A. W. Anthony noted this heron on San Clemente Island in August, 1894 (Bull. U.S.N.M., 56, 1907: 141), and I saw a single bird on Catalina Island September 10, 1932.

Botaurus lentiginosus (Montagu) American Bittern

Fairly common in marsh lands in fall, winter and spring, majority arriving in September and leaving in early May. Has been known to remain through summer and breed and may still do so occasionally. Three fresh eggs taken by H. Robertson at Alamitos Bay, Los Angeles County, May 14, 1899 (Bull. Cooper Orn. Club, **1**, 1899: 94). Five fresh eggs taken by Antonin Jay at Nigger Slough, same county, May 28, 1903, and nest containing three young and one addled egg found by O. W. Howard in same locality May 25, 1911 (Willett, Pac. Coast Avif., No. **7**, 1912: 30). Four eggs taken by L. B. Bishop (MS) and W. L. Chambers at Sunset Beach, Orange County, May 3, 1917. Found by G. Willett and Antonin Jay to be fairly common at San Jacinto Lake, Riverside County, May 27 and 28, 1911 (Condor, **13**, 1911: 159).

Ixobrychus exilis hesperis Dickey and van Rossem Western Least Bittern

Synonym-Ixobrychus exilis, part.

Dickey and van Rossem (Bull. S. Calif. Acad. Sci., 23, 1924: 11-12) have recently separated our western Least Bittern from the eastern bird, the type specimen of the new race, *hesperis*, being from Buena Vista Lake, Kern County. Examination of specimens in the Los Angeles Museum seems to substantiate the claim of considerably larger size for the western bird.

The Western Least Bittern is a fairly common summer resident of tulebordered ponds, but, owing to its secretive habits, is easily overlooked. Migration dates seem to be lacking for this region. One winter record, a female, now BIRDS OF SOUTHWESTERN CALIFORNIA

in the Los Angeles Museum, taken by R. B. Moran at Sunset Beach, Orange County, December 10, 1927 (Willett, Condor, **32**, 1930: 64). Five halfincubated eggs taken by G. Willett at Nigger Slough, Los Angeles County, May 16, 1911, and five fresh eggs taken by Antonin Jay in same locality June 7, 1903 (Pac. Coast Avif., No. 7, 1912: 30). Found nesting commonly at San Jacinto Lake, Riverside County, May 27 and 28, 1911. Seven nests found, one of which contained one fresh egg, one five eggs hatching, and the others held sets, variously incubated (Willett and Jay, Condor, **13**, 1911: 159).

FAMILY CICONIIDAE Storks and Wood Ibises

Mycteria americana Linnaeus Wood Ibis

So many southern California summer records of this species have come to light that it would seem unnecessary to mention them all here. One record for Santa Barbara, bird seen there by J. G. Cooper (Auk, 4, 1887: 90); several flocks also noted by Dr. Cooper at Saticoy, Ventura County, in June, 1872 and 1873 (loc. cit.). Other Ventura County records are: Bird shot from flock of nine by R. Hoffmann near mouth of Santa Clara River July 26, 1925 (Condor, 28, 1926: 47); mounted bird, in collection of J. S. Appleton, shot in Simi Valley in summer of 1904, and about twenty birds seen by L. and S. B. Peyton on Sespe River in summer of 1901 (Willett, Pac. Coast Avif., No. 7, 1912: 29). Many records for Los Angeles County, mostly in June and July. Extreme dates of occurrence in this section are: Bird seen by G. Willett near Los Angeles May 18, 1912 (Condor, 14, 1912: 194), and one shot by G. H. Coffin at Bixby August 23, 1902 (Daggett, Condor, 5, 1903: 18). Twenty birds seen by B. W. Evermann near Oceanside, San Diego County, August 13, 1916 (Condor, 18, 1916: 231). Many records from near San Diego, between late May and September 13, cited by C. G. Abbott (Condor, 33, 1931: 29-30).

One winter record, bird seen by H. Grey near San Diego January 14, 1921 (Condor, **27**, 1925: 37). Two birds seen by Mr. Grey^{*} in same locality March 17, 1918 (Condor, **20**, 1918: 126), might also be classed as winter visitants.

FAMILY THRESKIORNITHIDAE Ibises and Spoonbills

Plegadis guarauna (Linnaeus) White-faced Glossy Ibis

Formerly common in lower country, from Los Angeles County southward, in spring, summer and fall; apparently rather rare in Ventura and Santa Barbara counties. Small flocks seen at San Diego in January, 1885 (Holterhoff, Auk, **2**, 1885: 312). In the interior of California has been recorded in winter as far north as Stockton (Grinnell, Bryant and Storer [Belding MS], Game Birds Calif., 1918: 271). Several birds seen and photographed by W. L. Dawson near Santa Barbara September 4, 1913 (Condor, **16**, 1914: 8-10). Specimen

taken by B. W. Evermann at Santa Paula May 14, the only one seen by him in Ventura County (Pac. Sci. Monthly, 1, 1886: 85). Has been noted by J. S. Appleton in Simi Valley, Ventura County, in late summer, and six birds seen by S. B. Peyton on Sespe River in July, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 29). Formerly a substantial breeding colony at San Jacinto Lake, Riverside County. Two or three hundred nests examined by G. Willett and Antonin Jay in this locality May 27 and 28, 1911. About half the nests contained young and most of the others incubated eggs (Condor, 13, 1911: 159). W. C. Hanna writes me that the species bred at San Jacinto Lake until 1917, at which time the lake was drained. About a dozen birds found nesting by C. S. Sharp near Escondido, San Diego County, in 1901 (Condor, 9, 1907: 91). I know of no nesting colonies on the Pacific slope of southern California at the present time.

Ajaia ajaja (Linnaeus) Roseate Spoonbill

Rare straggler. Recorded by W. Gambel (Journ. Acad. Nat. Sci. Phil., 2nd ser., 1, 1849: 222) as occuring on coast of California in 1849, but it is not known that he secured specimens in the state. According to F. Stephens (Condor, 6, 1904: 139), single bird of this species seen by R. B. Herron about four miles south of San Bernardino June 20, 1903. Mr. Stephens was also informed by H. E. Wilder that during 1902, while in Riverside, he saw a bird fly over that he felt sure was a Roseate Spoonbill.

Order ANSERIFORMES Ducks, Geese, Swans and Screamers

FAMILY ANATIDAE Ducks, Geese and Swans

Cygnus columbianus (Ord)

Whistling Swan

Synonym—Olor columbianus.

Regular winter visitant in small numbers to lakes and ponds, south to San Diego County. Much rarer than formerly. Flock numbering from a dozen to forty-four birds seen by R. Hoffmann at Santa Barbara from middle of November to December 24, 1919 (Condor, 22, 1920: 77). Recorded by B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 86) as frequent winter visitant to lagunas along Ventura County coast. The writer has seen several birds of this species that were shot near Los Angeles, and has occasionally noted them in small flocks on the sloughs of Los Angeles and Orange counties. Two records for San Diego County, as follows: Occurring in winter at Warner Springs (Willett, Condor, 21, 1919: 126-127); also at Sweetwater Reservoir (Stephens, Condor, 22, 1920: 77).

BIRDS OF SOUTHWESTERN CALIFORNIA

Branta canadensis canadensis (Linnaeus) Canada Goose

Probably rather common winter visitant in former years, though few records of specimens taken within our limits. Arrived from north in November, and left mostly in late February and early March. Specimen in Grinnell collection taken near Los Angeles in winter, and F. S. Daggett found the species not uncommon in winter at Bixby, Los Angeles County (Willett, Pac. Coast Avif., No. 7, 1912: 27). Flock of seventeen birds seen by C. B. Nordhoff at Elsinore Lake, Riverside County, in 1902 (Auk, 19, 1902: 214). Southernmost record station, San Diego (Belding, Zoe, 3, 1892: 100).

As a large part of the breeding range of the Canada Goose is in temperate regions, it suffers, not only from being hunted in the winter season, but from being crowded out of many of its nesting localities by the encroachment of civilization.

Branta canadensis leucopareia (Brandt) Lesser Canada Goose

Synonym-Branta canadensis hutchinsi, of many authors; not of Richardson.

This is the bird that for years we have called *Branta canadensis hutchinsi*, Hutchins Goose. P. A. Taverner has recently shown (Ann. Rep. Nat. Mus. Canada, 1929: 30-40), however, that the name *hutchinsi* should be applied to a smaller bird that breeds in the eastern Arctics and is not known to occur in western United States. Our bird, therefore, requires another name, and the 1931 A.O.U. Check-list has followed Mr. Taverner in the use of the name *leucopareia*. It is probably as good a name as any, though the identity of the form it was originally used for seems to be in doubt.

The Lesser Canada Goose was formerly a common winter visitant to our lower country, arriving about October 15 and remaining generally until the middle of April. Though much less plentiful at present, it still occurs in some numbers, especially during migrations. According to A. W. Anthony, it goes at least a hundred miles south of San Diego, and was numerous in parts of San Diego County in winter (Belding, Zoe, **3**, 1892: 99).

Branta canadensis minima Ridgway Cackling Goose

Formerly common in winter in lower country, arriving early in October and leaving in April. Still met with occasionally, though not in large numbers. According to L. Belding (Zoe, **3**, 1892: 100), occurs in San Diego County, and probably goes as far south as the last race.

Branta nigricans (Lawrence) Black Brant

In former years abundant winter visitant on salt water, south to central Lower California (Willett, Condor, 15, 1913: 21). Arrived mostly in November and left in late April. Now usually met with only on ocean during migrations. Formerly found common by H. S. Swarth in kelp beds off San Pedro in winter; male (J. E. Law coll.) taken near Los Angeles November 23, 1905 (Willett, Pac. Coast Avif., No. 7, 1912: 28). Pair taken by E. R. Hull near Newport, Orange County, January 1, 1901 (Daggett, Condor, 3, 1901: 47). Noted in large numbers by J. G. Cooper at San Diego, appearing in October and remaining until April 20 (Baird, Brewer and Ridgway, W.B.N.A., 1, 1884: 473). Still frequents Mission Bay, near San Diego, during winter months; count made by L. M. Huey and F. F. Gander in that locality February 12, 1931, totalled seventy-one birds (Moffitt, Calif. Fish and Game, 17, 1931: 399).

Anser albifrons albifrons (Scopoli) White-fronted Goose

Synonym-Anser albifrons gambeli, of many authors; not of Hartlaub.

Formerly common winter visitant to lowland regions; now met with only occasionally. According to L. Belding (Zoe, **3**, 1892: 98), the first goose to arrive in California and the last to leave, appearing early in September and remaining until the first part of May. The main body, however, does not appear until November and leaves in April.

Swarth and Bryant have shown (Univ. Calif. Publ. Zool., 17, 1919: 209-222) that our common white-fronted goose is identical with *Anser albifrons* albifrons of the Old World, true gambeli being a much rarer bird, so far known in California only from the Sacramento Valley in winter.

Chen hyperborea hyperborea (Pallas) Lesser Snow Goose

The geese have probably suffered more at the hands of man than any other of our California game birds. Without protection for years, they were killed by thousands for the markets and for asserted damage to crops. In earlier years countless thousands wintered in California and, though their center of abundance was in the interior valleys, great numbers appeared on the plains and grass lands of the coastal region, south to Lower California. Only a small fraction of former numbers remains and this is growing smaller yearly. Unless better protection is afforded and more feeding and resting grounds provided, geese will soon be numbered among the rarities of our avifauna.

The Lesser Snow Goose was formerly one of our most abundant species in winter, arriving in October and leaving in March and April. In company with other species, it fed on grain fields and pasture lands. When hunted persistently, most of the feeding was done at night, the birds remaining out at sea during the day. Among the most frequented feeding grounds in later years were those on Santa Cruz and Santa Rosa islands, and, as these islands have not changed greatly, they are probably still visited by the birds. Migrating flocks are still occasionally seen passing over our territory, but the settling up of the region has almost deprived them of any opportunity to alight.

Chen rossii (Cassin) Ross Goose

Formerly common winter visitant, in company with last species, south at least to Orange County. In past years brought to Los Angeles markets in considerable numbers from surrounding country. Found by Evan Davis to be fairly common in winter near Santa Ana (Willett, Pac. Coast Avif., No. 7, 1912: 27). Specimen taken by A. Fenyes near Newport, Orange County, November 10, 1900, reported by F. S. Daggett (Condor, 3, 1901: 15). No specimens known to have been taken in our territory during recent years.

Dendrocygna bicolor (Vieillot) Fulvous Tree-duck

Synonym—Dendrocygna bicolor helva.

Still fairly common on fresh water marshes in spring and fall, and sometimes occurs on ocean beaches during migrations. Formerly bred in small numbers on local marshes, but it is questionable whether it does so at present time. Rare in winter. Two nests found by Antonin Jay at Nigger Slough, Los Angeles County, in 1903; one containing fourteen fresh eggs May 30, and another with thirteen slightly incubated eggs June 7 (Willett, Pac. Coast Avif, No. 7, 1912: 28). Birds found fairly plentiful at San Jacinto Lake, Riverside County, May 27 and 28, 1911, but no nests seen (Willett and Jay, Condor, 13, 1911: 158). Formerly bred commonly at Buena Vista Lake, Kern County (Dickey and van Rossem, Condor, 25, 1923: 39-50). According to J. B. Dixon (MS) has nested in San Luis Rey Valley, San Diego County; small young noted by him in that locality May 18, 1931.

Bird in British Museum taken at San Diego in December (Salvadori, Cat. Birds Brit. Mus., **27**, 1895: 152); also winter records from Marysville, Yuba County (Belding, Proc. U.S.N.M., **1**, 1879: 445), and Washoe Lake, Nevada (Salvadori, loc. cit.), but Dickey and van Rossem (op. cit.: 43) call attention to the fact that some birds found in winter may have been wounded and unable to migrate. W. L. Dawson (Condor, **18**, 1916: 25) reports the species as seen on beaches near Santa Barbara May 2, 1912, August 16, 1913, and May 5, 1915.

The proposed race *helva* (Wetmore and Peters, Proc. Biol. Soc. Wash., **35**, . 1922: 42) seems to the writer to be founded on characters insufficient to warrant recognition by name.

Anas platyrhynchos platyrhynchos Linnaeus Mallard

Fairly common winter visitant, though much less plentiful than formerly. A few remain through summer and breed around fresh water lakes and ponds.

No. 21

1886: 90), and near Saticoy by J. G. Cooper (Auk, **4**, 1887: 93). Nest containing eleven partly incubated eggs found by H. C. Burt near Hueneme, Ventura County, May 1, 1910 (Willett, Pac. Coast Avif., No. **7**, 1912: 22). Recorded by J. Grinnell (Pub. **2**, Pasadena Acad. Sci., 1898: 10) as breeding in Los Angeles County from first of April until last of June, but breeding in this county doubtful at present time. Found nesting by F. Stephens at Bear Lake, San Bernardino Mountains, in June, 1886 (Morcom, Bull. Ridg. Orn. Club, **2**, 1887: 38), but, according to W. M. Pierce (MS), during recent years, occurs at Bear Lake only as migrant or winter visitant. Nest found near Escondido, San Diego County, in 1896, recorded by C. S. Sharp (Condor, **9**, 1907: 86); young birds seen by J. B. Dixon (MS) at Lake Henshaw, same county, in 1931. Female with egg nearly matured taken by J. G. Cooper at San Diego April 24, 1862 (Proc. U.S.N.M., **2**, 1880: 251); eggs taken in same locality May 19, 1897, recorded by C. A. Reed (N. Am. Birds' Eggs, 1904: 70).

Chaulelasmus streperus (Linnaeus) Gadwall

Formerly common winter visitant; now met with on Pacific slope only occasionally. Probably does not nest in this region at present time, but there are several old breeding records. Nest containing eleven eggs taken by A. M. Shields near Los Angeles April 16 (Davie, Nests and Eggs N. Am. Birds, 1898: 79). Two nests, one of which contained nine eggs, found by J. G. Cooper near San Pedro July 20 (Baird, Brewer and Ridgway, W.B.N.A., 1, 1884: 508). Set of twelve eggs, with female bird, taken by A. M. Ingersoll at San Jacinto Lake, Riverside County, June 7, 1897 (Willett, Pac. Coast Avif., No. 7, 1912: 23).

Mareca penelope (Linnaeus) European Widgeon

Records as follows: Adult male taken by R. G. Fernald at Guadalupe, Santa Barbara County, January 14, 1921 (Colburn, Condor, **23**, 1921: 65-66); male (Grinnell coll.) taken by C. H. Mears at Bixby, Los Angeles County, February 16, 1904 (Grinnell, Auk, **21**, 1904: 383); specimen shot by R. E. Ross in same locality February 5, 1905 (Forest and Stream, **64**, 1905: 153); bird seen by Mrs. F. T. Bicknell at Franklin Canyon Reservoir, near Hollywood, Los Angeles County, January 12, 1921 (Schneider, Bird-Lore, **23**, 1921: 98).

Mareca americana (Gmelin) Baldpate

Synonym-American Widgeon.

Common winter visitant to lakes and ponds. A few appear from the north the latter part of September, but the main body does not generally arrive until well into October. They leave for their breeding grounds mostly in early March. Pair seen by R. Hoffmann near mouth of Santa Clara River, Ventura County, June 25, 1921 (Condor, 23, 1921: 169).

Dafila acuta (Linnaeus) Pintail

Synonyms-Dafila acuta tzitzihoa: American Pintail.

Most abundant of larger ducks during winter season. Arrives in late August and September, and leaves mostly in March. W. M. Pierce informs me that the first fall migrants reach Bear Lake, San Bernardino Mountains, from the tenth to the fifteenth of August, the main body appearing from the first to the tenth of September. W. L. Dawson (Condor, 18, 1916: 24-25) records a heavy migration of Pintails near Santa Barbara August 25, 1915; he states further that the majority of the species leave the Santa Barbara region in February. Reported by A. M. Shields as breeding in small numbers in Los Angeles County (Davie, Nests and Eggs N. A. Birds, 1889: 66). Addled egg taken by L. A. Sanford (MS) in Del Rey Marsh June 13, 1931, and female with eight or ten young seen on same day. Downy young taken by P. Trapier (MS) in same locality in May, 1928. Formerly bred at Bear Lake, San Bernardino Mountains, but W. M. Pierce informs me that he doubts that it does so at present time. Found by G. Willett and Antonin Jay to be rather common at San Jacinto Lake, Riverside County, in May, 1911. Female accompanied by four young seen May 28 (Condor, 13, 1911: 158). Recorded by C. G. Abbott (Condor, **30**, 1928: 162) as breeding commonly at Lake Henshaw, San Diego County.

The bill of the American Pintail appears to average a millimeter or two longer than that of the European bird, but this difference is by no means constant. Other supposed distinguishing characters are not apparent in birds examined by the writer. Recognition of a race by name on such slim grounds seems futile.

Nettion carolinense (Gmelin) Green-winged Teal

Still common winter visitant to favorable localities, though not nearly as abundant as in former years. Arrives mostly in late September and month of October, and leaves in March. Bird shot by Chris Krempel at Green-wing Gun Club, Orange County, in December, 1916, had been banded at Bear River, Utah (Bryant, Calif. Fish and Game, **3**, 1917: 88). Nest containing eleven pipped eggs found by J. B. Dixon (MS) in San Luis Rey Valley, San Diego County, May 18, 1931, the female bird being examined with binoculars at close range. This must be considered a very unusual record and may easily be due to the bird's physical inability to migrate.

Querquedula discors (Linnaeus) Blue-winged Teal

Rather uncommon and irregular winter visitant. Noted near Santa Barbara, by Bradford Torrey from January 21 to May 1, 1908, and from Decem-

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ber 6, 1908, to March 16, 1909 (Condor, **11**, 1909: 173), by J. H. Bowles January 5, 1910 (Willett, Pac. Coast Avif., No. **7**, 1912: 23), and by W. L. Dawson November 4, 1911, and May 7, August 25 and September 11, 1915 (Condor, **18**, 1916: 24). Female secured by W. B. Judson near Los Angeles October 31, 1896 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 11), and two females taken by H. S. Swarth in same locality, one October 3, 1898 (Condor, **2**, 1900: 14), and the other September 28, 1900 (Willett, loc. cit.). Male taken by F. S. Daggett near El Monte, Los Angeles County, March 12, 1897 (Grinnell, loc. cit.). Male (Grinnell coll.) taken at Bolsa Chica, Orange County, October 16, 1907 (Willett, loc. cit.). Adult male shot in El Cajon Valley, San Diego County, in April, 1881, and pair collected by F. Stephens at Agua Caliente, same county, in March, 1886, recorded by L. Belding (Zoe, **2**, 1891: 97). Female taken by C. B. Linton at National City, San Diego County, October 25, 1906 (Willett, loc. cit.).

Querquedula cyanoptera (Vieillot) Cinnamon Teal

Common in spring and fall; less plentiful in summer and mid-winter. Breeds around grass-bordered lakes and ponds, south to San Diego County, and winters in small numbers at least as far north as Santa Barbara (Torrey, Condor, **12**, 1910: 80). Nests from late April through June. Two sets of fresh eggs taken by Evan Davis at Newport Bay, Orange County, April 20, 1897 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 11). Recorded by C. S. Sharp (Condor, **9**, 1907: 86) as breeding near Escondido, San Diego County, from April 18 to May 13; female with matured egg taken by J. G. Cooper at San Luis Rey, same county, June 22, 1861 (Proc. U.S.N.M., **2**, 1880: 251). Small young seen by J. Grinnell at Bear Lake, San Bernardino Mountains, July 30, 1905 (Univ. Calif. Publ. Zool., **5**, 1908: 53), and ten eggs, two-thirds incubated, found by W. M. Pierce (MS) in same locality June 25, 1916.

Spatula clypeata (Linnaeus) Shoveller

Common winter visitant, arriving mostly in October, and usually leaving in April. According to Grinnell and Storer (Game Birds Calif., 1918: 130-131), some years spring migration does not take place until late May. Remains through summer in small numbers and undoubtedly has bred, though I know of no eggs having been taken in southern California. I have frequently seen the birds on fresh water ponds of Los Angeles County in summer, and on May 27 and 28, 1911, I noted several pairs at San Jacinto Lake, Riverside County (Condor, **13**, 1911: 158). E. E. Eckdale informed H. J. Lelande that he had seen Shovellers accompanied by young in the vicinity of Los Angeles (Willett, Pac. Coast Avif., No. **7**, 1912: 24). Record by A. K. Fisher (N. A. Fauna, **7**, 1893: 17) of pair nesting at Gorman, Los Angeles County, last of June, 1891.

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No. 21

Aix sponsa (Linnaeus) Wood Duck

Occasional in winter, but much rarer than formerly. According to C. P. Streator (Orn. and Ool., 11, 1886: 90), occasionally met with in 1885 beyond Santa Ynez Mountains, about ten miles from Santa Barbara. Pair seen by J. H. Bowles near Santa Barbara February 18 and 25, 1912 (Condor, 14, 1912: 225). Formerly recorded by B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 87) as breeding in Ventura County. Male of year killed near Oxnard, Ventura County, about November 6, 1905 (Grinnell, Condor, 8, 1906: 29). Several specimens shot by Antonin Jay in Los Angeles County in the 80's; adult male taken by W. B. Powers near Redlands, San Bernardino County, October 2, 1909; adult male, in collection of M. F. Gilman, shot by his brother at Banning, Riverside County, in April, 1907 (Willett, Pac. Coast Avif., No. 7, 1912:24). Four records for San Diego County: Male killed at Warner Springs in November, 1918 (Willett, Condor, 21, 1919: 127); male shot at Ramona in November, 1905 (Sharp, Condor, 8, 1906: 75); female taken on Lower Otay Reservoir December 7, 1919 (Stephens, Condor, 22, 1920: 77), and another female found dcad at San Diego November 16, 1917 (Grey, Condor, 20, 1918:91).

Nyroca americana (Eyton) Redhead

Synonyms—Marila americana: Aythya americana.

Rather common in winter; less plentiful in summer, majority arriving in October and leaving in March. Formerly bred in small numbers on fresh water marshes in May and June. Probably still breeds occasionally, but marshes most frequented in former years have been drained. Nest containing nine pipped eggs found by G. Willett at Nigger Slough, Los Angeles County, May 13, 1911, and nest containing eleven fresh eggs of Redhead and four eggs of Ruddy Duck found by Antonin Jay in same locality May 31, 1903 (Willett, Pac. Coast Avif., No. 7, 1912: 24). Found breeding at San Jacinto Lake, Riverside County, May 28, 1911, by G. Willett and Antonin Jay. Four nests examined at this time contained fifteen, seventeen, eighteen and twentyseven eggs respectively. The last probably product of at least two females (Condor, 13, 1911: 158); set of twenty-one eggs, advanced in incubation, taken by A. M. Ingersoll in same locality June 7, 1897 (Grinnell, Bryant and Storer, Game Birds Calif., 1918: 149). According to J. B. Dixon (MS) the Redhead nests in small numbers in San Luis Rey Valley, San Diego County; eleven eggs, two-thirds incubated, taken by E. Harrison in this locality May 11, 1933. In the interior of California the species has been found nesting from April 23 (Grinnell, Bryant and Storer, loc. cit.) to June 25 (Shields, Bull. Cooper Orn. Club, 1, 1899: 9).

Nyroca collaris (Donovan) Ring-necked Duck

Synonyms—Marila collaris: Aythya collaris.

Rather rare winter visitant, chiefly on fresh water. Small flock seen by W. L. Dawson near Santa Barbara November 4, 1911; also in late December (Condor, 18, 1916: 25). At least eight winter records for vicinity of Los Angeles between October 15 (1898) (Swarth, Condor, 2, 1900: 14) and March 24 (1925) (Schneider, Bird-Lore, 27, 1926: 198); also recorded from near Chino, Los Angeles County, February 10, 1925 (Schneider, Bird-Lore, 27, 1926: 126). Female shot by W. M. Pierce near Corona, Riverside County, December 12, 1915 (Condor, 18, 1916: 85), and male (one of band of four) secured by Pierce in same locality December 9, 1920 (Condor, 23, 1921: 65). Specimen (Mus. Vert. Zool.) taken at Riverside January 2, 1895 (Grinnell, Pac. Coast Avif., No. 11, 1915: 36). Southernmost record station San Diego (Grinnell, loc. cit.; Huey et al, Bird-Lore, 34, 1932: 76).

Nyroca valisineria (Wilson) Canvas-back

Synonyms—Marila valisineria: Aythya valisineria.

Fairly common winter visitant to lakes of interior and salt lagoons along coast. Arrives in late October and leaves mostly in March. Male, perhaps wounded bird, seen by R. Hoffmann near mouth of Santa Clara River, Ventura County, June 25, 1921 (Condor, **23**, 1921: 169).

Nyroca marila (Linnaeus) Greater Scaup Duck

Synonyms-Marila marila: Aythya marila.

Occasional winter visitant on ocean and salt lagoons along coast, south at least to San Diego. This species and the next being so difficult to differentiate in the field, their comparative abundance has not been determined accurately. It is known, however, that the Greater Scaup is much less plentiful than its smaller relative. Recorded by J. G. Cooper as common in his time along whole coast of California, from October to April (Baird, Brewer and Ridgway, W.B.N.A., 2, 1884: 19), but of recent years only noted occasionally. Taken on several occasions by H. J. Lelande on gun clubs of Los Angeles County (Willett, Pac. Coast Avif., No. 7, 1912: 25). Specimen secured by A. Cassidy near San Diego in early 50's (Baird, Pac. R. R. Rep., 9, 1858: 791), and male taken by C. B. Linton at National City, San Diego County, November 9, 1906 (Willett, loc. cit.).

The specimen referred to this species by F. S. Daggett (Condor, 2, 1900: 19) is now number 5303 collection Los Angeles Museum. It appears to be *Nyroca affinis*, not *marila*, as recorded.

Nyroca affinis (Eyton) Lesser Scaup Duck

Synonyms-Marila affinis: Aythya affinis.

Common winter visitant along coast and on inland bodies of water. Arrives late in October and remains well into April. Two birds, a drake and duck (or young male), noted by Bradford Torrey on small fresh water lake near Santa Barbara June 6, 15 and 16, 1910 (Condor, **12**, 1910: 204).

Glaucionetta clangula americana (Bonaparte) American Golden-eye

Synonym—*Clangula clangula americana*.

Although J. G. Cooper reported this duck common in his time along the whole coast of California in winter (Baird, Brewer and Ridgway, W.B.N.A., 2, 1884: 46), it has only been reported occasionally during late years. A few specimens shot by L. Peyton in marshes of Ventura County (Willett, Pac. Coast Avif., No. 7,1912: 25). Noted by H. S. Swarth in vicinity of Los Angeles (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 12). Two pairs seen by G. Willett at Nigger Slough, Los Angeles County, February 29, 1932. Male taken by A. M. Shields at Ballona, same county, December 14, 1894 (Grinnell, loc. cit.). About a dozen seen at Del Rey, same county, April 23, 1928 (Schneider, Bird-Lore, 30, 1928: 282). Adult male seen by H. N. McCoy (MS) at Bolsa Chica, Orange County, May 12, June 3 and July 1, 1932. Female (L. A. Mus.) taken by W. B. Judson near Huntington Beach, Orange County, December 28, 1911 (Willett, loc. cit.), and male taken by A. Fenyes near Newport, same county, January 5, 1901 (Daggett, Condor, 3, 1901: 47) (see notes under next species). Southern-most record station for Pacific coast, San Diego (Grinnell, Bryant and Storer [Belding, MS], Game Birds Calif., 1918: 168-169). Nine specimens (S.D.S.N.H.) taken on San Diego Bay between October (1919) and March 18 (1923).

Glaucionetta islandica (Gmelin) Barrow Golden-eye

Synonym—Clangula islandica.

F. S. Daggett (Condor, **3**, 1901: 47) recorded a pair of American Goldeneyes taken by A. Fenyes near Newport, Orange County, January 5, 1901. Both these birds are now in the Los Angeles Museum. The male (No. 5305) is a young specimen of *americana*, as recorded, but the female (No. 5306) seems to be undoubtedly referable to *islandica*. This is our only southern California record.

Charitonetta albeola (Linnaeus) Buffle-head

Generally fairly common winter visitant, especially on salt water lagoons. Arrives in late October and leaves mostly in late March and early April. I found the species fairly common at Nigger Slough, Los Angeles County, April 22, 1910, and saw an adult male in same locality May 1, following (Pac. Coast Avif., No. 7, 1912: 26). J. G. Cooper found it abundant at San Diego from October to April 20 (Baird, Brewer and Ridgway, W.B.N.A., 2, 1884: 49).

Clangula hyemalis (Linnaeus) Old-squaw

Synonym—Harelda hyemalis.

Rare winter visitant, south to San Diego. One early summer record, female taken by H. W. Henshaw at Santa Barbara June 9, 1875 (Ann. Rep. Ch. Eng. U.S.G.S., 1876, App. JJ: 274). Female seen at Santa Barbara December 24, 1917 (Dawson, Bird-Lore, **20**, 1918: 50). Two males (Cline coll.) taken in Los Angeles County in early 80's (Willett, Pac. Coast Avif., No. **7**, 1912: 26). Young male and female (L. A. Mus.) shot by E. R. Hull near Newport, Orange County, November 28, 1900 (Daggett, Condor, **3**, 1901: 15). Specimen taken by L. Belding at San Diego January 13, 1896 (Anthony, Auk, **13**, 1896: 172). Specimens taken by Ad Pearson at Mission Bay, near San Diego, January 4, 1920 (Stephens, Condor, **22**, 1920: 43), and December 3, 1920, and November 2 and 19, 1921 (Anthony, Auk, **39**, 1922: 104).

Melanitta deglandi (Bonaparte) White-winged Scoter

Synonyms-Oidemia deglandi: Oidemia deglandi dixoni.

Very common winter visitant along coast and among Santa Barbara Islands. Arrives in September and October, and leaves mostly in late April. Non-breeding birds of this and next species may be found on ocean throughout summer. Flock seen on fresh-water lake in mountains of southwestern Ventura County November 4, 1922 (Schneider, Bird-Lore, **25**, 1923: 54).

Melanitta perspicillata (Linnaeus) Surf Scoter

Synonym—Oidemia perspicillata.

Most abundant of surf ducks, majority of species arriving from north in October and November, and leaving in April. One record for fresh water, male and four females shot on irrigation ditch in La Puerta Valley, San Diego County, April 5, 1922 (Stephens, Condor, **24**, 1922: 134).

Oidemia americana Swainson American Scoter

Recorded by J. G. Cooper from Santa Barbara (Auk, 4, 1887: 87), and as occurring along whole coast of California (Baird, Brewer and Ridgway, W.B.N.A., 2, 1884: 89); Dr. Cooper informed J. Grinnell that he had taken the species at Catalina Island (Pub. **2**, Pasadena Acad. Sci., 1898: 12). Female (L. B. Bishop coll.) taken by L. E. Wyman at Hyperion, Los Angeles County, November 24, 1915 (Condor, **18**, 1916: 203).

Erismatura jamaicensis rubida (Wilson) Ruddy Duck

Synonym-Erismatura jamaicensis, part.

Common in winter on bodies of fresh water, salt water lagoons, and on ocean. Formerly bred plentifully on tule-bordered ponds and lakes, but, as most of these have been drained, the nesting of the species in southern California has decreased greatly. Set of seven half-incubated eggs found by G. Willett at Nigger Slough, Los Angeles County, May 1, 1910 (Pac. Coast Avif., No. 7, 1912: 26), and eggs taken near Los Angeles as late as June 25 (Davie, Nests and Eggs N. A. Birds, 1889: 77). Brood of young noted by L. Belding in Mission Valley, San Diego County, as early as May 20 (Grinnell, Bryant and Storer [Belding, MS], Game Birds Calif., 1918: 207). About a dozen pairs found nesting at Baldwin Lake, San Bernardino Mountains, in July, 1932 (Pierce, Condor, **35**, 1933: 202).

Lophodytes cucultatus (Linnaeus) Hooded Merganser

Although recorded by B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 87) as common in Ventura County during rainy season, few noted of late years. Two females taken by J. E. Law near Fillmore, Ventura County, December 31, 1905; noted occasionally near Los Angeles by H. J. Lelande, and several specimens in Cline collection of mounted birds taken in Los Angeles County in early 80's (Willett, Pac. Coast Avif., No. 7, 1912: 22). Bird seen on lake in Santa Monica Mountains March 17, 1923 (Schneider, Bird-Lore, 25, 1923: 203). Female taken by A. E. Jackson at Del Rey, Los Angeles County, November 27, 1913 (Chambers, Condor, 16, 1914: 92). Male collected by F. Stephens at Alamitos Bay, Los Angeles County, December 23, 1879 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 10). Male shot by W. Smith at Baldwin Lake, San Bernardino Mountains, in November, 1923 (Pierce, Condor, 31, 1929: 224). Young male taken by H. Grey near Westminster, Orange County, about January 20, 1914 (Condor, 17, 1915: 59). Adult female shot by C. Gordon at Warner Springs, San Diego County, November 15, 1922 (Huey, Condor, 26, 1924: 74).

Mergus merganser americanus Cassin American Merganser

Fairly common winter visitant on ocean and lagoons near coast; occasional on inland waters. Many records from coastal region of Los Angeles County from December to May (see Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 10; Willett, Pac. Coast Avif., No. 7, 1912: 22); fall records lacking. About sixty birds seen by Miss M. F. Faddis (MS) at Westlake Park, Los Angeles, December 22, 1932; according to Mrs. M. Deuprey (MS), this flock, varying from forty to sixty, remained through January and February, following, being in evidence, however, only in early morning, leaving each day about 8 a. m. Pair of adults (L. A. Mus.) taken by R. H. Gast at Sunset Beach, Orange County, December 16, 1931. Drake in full plumage seen by C. B. Nordhoff at Elsinore Lake, Riverside County, in February, 1902 (Auk, **19**, 1902: 213). Drake killed at Warner Springs, San Diego County, about 1915 (Willett, Condor, **21**, 1919: 127). Two records for San Diego (Grinnell, Pac. Coast Avif., No. **11**, 1915: 31; Huey et al, Bird-Lore, **34**, 1932: 77).

Mergus serrator Linnaeus Red-breasted Merganser

Rather common along coast and among islands in fall, winter and spring; south to Lower California. Arrives in October and leaves mostly in April, but immature birds sometimes linger well into summer. Recorded several times from east of mountains, so may be expected on inland bodies of water. Female taken by C. B. Linton at Santa Cruz Island December 2, 1907 (Condor, 10, 1908: 126). Noted by J. Grinnell at Catalina Island in December, 1897 (Pub. 2, Pasadena Acad. Sci., 1898: 10), and by G. Willett in same locality in March, 1905 (Pac. Coast Avif., No. 7, 1912: 22). Found by C. B. Linton to be fairly common at San Clemente Island during October, 1908, and at San Nicolas Island during January, February and March, 1909. One bird seen at latter island April 1, 1910, and another on May 3, following (Willett, loc. cit.). Specimen taken by H. S. Swarth near Long Beach May 17, 1901 (Willett, loc. cit.). Birds frequently seen by G. Willett (MS) on San Pedro Bay during winter months. Four immature birds seen by J. Moffitt at Bolsa Chica, Orange County, June 9, 1931 (Condor, 33, 1931: 252), and three birds, all apparently immature, seen by J. Stevenson near Del Rey, Los Angeles County, June 25 and July 2, 1929 (Condor, 34, 1932: 229).

Order FALCONIFORMES Birds of Prey

FAMILY CATHARTIDAE American Vultures

Cathartes aura septentrionalis Wied Turkey Vulture

Synonyms—Cathartes aura, part: Cathartes aura teter.

Common resident from mountains to ocean; also in hills of desert. Breeds plentifully in foothills and occasionally in lower country. Eggs generally deposited in early April in caves in foothills or in blackberry thickets in river bottoms. Extreme nesting dates are: Two eggs, incubation commenced, taken by Antonin Jay near Whittier, Los Angeles County, March 15, 1903, and two eggs, two-thirds incubated, taken by G. Willett in same locality May 8, 1897 (Pac. Coast Avif., No. 7, 1912: 45).

Gymnogyps californianus (Shaw) California Condor

Synonyms-Pseudogryphus californianus: California Vulture.

Still resident in small numbers in mountainous sections of Santa Barbara and Ventura counties; also seen recently in Santa Monica and Tehachapi mountains, and on Mount Pinos, Kern County, but whether it now nests in these localities is problematical. I have seen no recent records for San Bernardino, Orange, Riverside or San Diego counties. There seems to be no doubt that the Condor has decreased in numbers during the last fifteen or twenty years. There are probably less than fifty birds left in California. Numerous eggs of this bird have been taken in Santa Barbara, Ventura and Los Angeles counties in past years, and there are two nesting records for San Diego County; an egg taken by W. V. Dyche in the Cuyamaca Mountains in March, 1900 (Gidney, Condor, 2, 1900: 124), and another taken by F. Stephens (MS) on Palomar Mountain, above San Luis Rey River, March 11, 1897 (this is the egg recorded by R. P. Sharples [Osprey, 2, 1897: 21] as having been taken "in the mountains not far from Monterey"). According to J. B. Dixon (MS), the birds remained in the vicinity of the San Luis Rey River until about 1910. Extreme nesting dates are: Egg found by W. L. Finley and H. T. Bohlman in Eaton Canyon, near Pasadena, March 10, 1906 (Condor, 8, 1906: 135), and egg taken for W. F. Webb in the mountains of Santa Barbara County April 29, 1897 (Museum, 4, 1898: 103). Addled eggs have been taken at considerably later dates.

FAMILY ACCIPITRIIDAE Kites, Hawks and Eagles

Elanus leucurus majusculus Bangs and Penard White-tailed Kite

Synonym-Elanus leucurus, part.

Formerly fairly common resident of oak-covered foothills and willow regions of lowlands; now rare. Set of five eggs taken by C. P. Streator near Santa Barbara April 14, 1886 (Orn. and Ool., **11**, 1886: 152). Four or five breeding pairs located by B. W. Evermann in the Santa Clara Valley, Ventura County, in the early 80's (Pac. Sci. Monthly, **1**, 1886: 84). Sets of eggs taken by A. M. Shields near Alamitos, Los Angeles County, April 4 and 11, 1896 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 20), and by A. M. Ingersoll at Lakeside, San Diego County, March 24 and April 25, 1890 (Willett, Pac. Coast Avif., No. **7**, 1912: 46; locality erroneously given as National City; cf. Huey, Auk, **48**, 1931: 620).

According to S. B. Peyton (MS), four or five pairs still nest along Santa Clara River, Ventura County. Eggs found in that locality by M. C. Badger (MS) as early as February 26 (1928), and by L. and S. B. Peyton as late as May 23 (1915) (Condor, 17, 1915: 230); probably a second laying. According to L. Stevens (MS), at least ten pairs nested near Santa Barbara in 1928 and again in 1929, eggs being noted from February 12 (1928) to May 5

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(1929). The species had not been seen by him in that locality previous to that time, nor does he believe they have nested there since. It is safe to say that no kites now nest in the willow regions of Los Angeles County. The Alamitos birds mentioned above persisted until about 1904, when they disappeared. J. S. Rowley informs me, however, that he knows of two pairs still nesting in a remote section of the foothills of the county. One of these nests. examined April 8, 1929, contained newly-hatched young. Pair of birds and newly-built nest found by A. M. Ingersoll near Del Mar, San Diego County, in early March, 1920; this nest deserted before eggs laid (Huey, Auk, 48, 1931: 20). W. M. Pierce writes me of having seen the species near Chino in 1929, and W. C. Hanna (MS) saw a bird near San Juan Capistrano March 30, 1919. Specimen shot by hunter on Tia Juana Marsh, San Diego County, January 15, 1930 (Huey, loc. cit.).

Ictinia misisippiensis (Wilson) Mississippi Kite

Male (L. B. Bishop coll., no 49334) shot by ranch-hand two miles north of Goleta, Santa Barbara County, June 18, 1933.

Astur atricapillus atricapillus (Wilson) American Goshawk

That the differences in coloration of the underparts of adult and subadult goshawks are due to age, rather than to geographical range, is now a generally accepted fact. As, in the past, this character has been frequently used in identifying specimens, it is impossible to allocate to a certain race records of birds that are not now available for study. It appears that darker coloration of the upper parts in adults and heavier spotting of the underparts in juveniles are the main characters of the race striatulus, the bird breeding in the Pacific coast region, from southeastern Alaska to the mountains of northcentral California. That this bird should occur at times in southern California might be expected, but all specimens now available to the writer appear to be of the race atricapillus.

Of the eleven records for the Goshawk in southern California, nine are for the winter of 1916-1917, when there was evidently a very unusual influx of the birds. Records are: Four birds from Ventura County recorded by S. B. Peyton (Condor, 19, 1917: 103) (as striatulus); male, Nordhoff, October 30, 1916; male, Sespe Canyon, November 26, 1916; female, Ojai Valley, January 2, 1917, and female, between Santa Paula and Ventura, February 27, 1917. Adult female taken by I. D. Nokes near Newhall, Los Angeles County, November 26, 1916 (Wyman, Condor, 19, 1917: 185). Three females recorded by A. E. Colburn (Condor, 19, 1917: 185) from Los Angeles County in 1916: Chatsworth, November 24; Malibu district, December 18, and Whittier, December 27. Bird (recorded as striatulus) shot by A. E. Wueste at Lower Otay Reservoir, San Diego County, November 9, 1916 (Stephens, Condor, 21, 1919: 87). Two records for other years: Bird (recorded as *striatulus*) seen by H. Grey at West Rialto, San Bernardino County, in October, 1900 (Condor, 15, 1913: 129); male shot by R. E. Bushnell at Mesa Grande, San Diego County, January 5, 1928 (Abbott, Condor, **30**, 1928: 192-193).

I have recently examined Dr. Nokes's Newhall bird and the two specimens from San Diego County and find them to be properly referable to A. a. atricapillus. Furthermore, the Ventura County birds recorded by Peyton were identified by me as *striatulus* because of the dark shade of the underparts, a character which now appears to be valueless. In view of these facts, it seems probable that all our southern California records should be referred to *atricapillus* and that *striatulus* has no standing on our list.

Accipiter velox velox (Wilson) Sharp-shinned Hawk

Synonym—Accipiter velox rufilatus.

Common in fall, winter and early spring in lower country and on Santa Barbara Islands. One breeding record for mountains; nest containing four young birds found by H. J. Lelande at Bear Valley, San Bernardino Mountains, June 8, 1904 (Willett, Pac. Coast Avif., No. 7, 1912: 46). Immature male taken at Round Valley, San Jacinto Mountains, July 7, 1908, and another bird seen on Tahquitz Peak July 27, following, recorded by Grinnell and Swarth (Univ. Calif. Publ. Zool., 10, 1913: 235). J. B. Dixon (MS) has seen this hawk in the Cuyamacas and other mountains in San Diego County, in summer. In one instance, on Pine Mountain, the actions of the birds indicated a nest nearby.

Accipiter cooperii (Bonaparte) Cooper Hawk

Synonym—Accipiter cooperi mexicanus.

Fairly common resident from lower country up to about 7000 feet in mountains. Breeds mostly in late April and early May. Eggs taken by L. Stevens (MS) near Santa Barbara from April 1 (1928) to May 25 (1929); by L. and S. B. Peyton (MS) along Santa Clara River, Ventura County, from April 9 (1927) to May 10 (1925); by W. C. Hanna (MS) at West Riverside March 31, 1925, and near Colton May 30, 1919, and by J. B. Dixon (MS) near Escondido, San Diego County, from March 26 to April 21 (1933). Four heavily incubated eggs taken by J. Grinnell near Seven Oaks, 5000 feet altitude in San Bernardino Mountains, June 13, 1905 (Univ. Calif. Publ. Zool., 5, 1908: 58). Pair of birds seen by A. B. Howell and A. J. van Rossem on Santa Cruz Island latter part of April, 1911 (Condor, 13, 1911: 209).

Buteo borealis calurus Cassin Western Red-tailed Hawk

Though much less plentiful than formerly, still fairly common resident from lowlands to at least 9000 feet in mountains, and on larger Santa Barbara Islands. Breeds most plentifully in foothill and mesa country, eggs being

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generally deposited in March. Two fresh eggs taken by J. B. Dixon near Escondido, San Diego County, February 14, 1902 (Condor, 4, 1902: 46); two eggs, advanced in incubation, taken by H. A. Gaylord in San Fernando Valley, Los Angeles County, April 30, 1892 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 21). Two eggs collected by W. M. Pierce (MS) on Mohave Desert May 2, 1920.

Buteo lineatus elegans Cassin Red-bellied Hawk

Formerly common resident of lowlands, especially willow and cottonwood regions; now rather rare and becoming more so yearly. Probably more common in valleys of San Diego County than in any other section of southern California. One bird seen by A. I. van Rossem near Seven Oaks, 5000 feet altitude in San Bernardino Mountains, September 19, 1910 (Condor, 16, 1914: 146). Breeds mostly in late March and early April. Found nesting along Santa Ynez River, Santa Barbara County, by L. Stevens (MS), eggs being taken from March 12 (1933) to April 7 (1929). Several sets of eggs taken by L. and S. B. Peyton (MS) in Santa Clara Valley, Ventura County, from April 1 to April 30 (1926). Until the last few years, nests might be found along willow and cottonwood-bordered streams within a few miles of Los Angeles, but I know of none nesting in Los Angeles County at present time. Eggs taken by W. M. Pierce (MS) near Corona, Riverside County, March 22, 1914, and near South Ontario, San Bernardino County, April 28, 1916. W. C. Hanna writes me that this hawk is now very scarce, if not extinct, in the San Bernardino Valley. Eggs taken by him near Colton March 7, 1922, and May 4, 1925. C. S. Sharp found two fresh eggs near Escondido, San Diego County, March 6, 1904, and two young, a few days old, in same locality, July 4, 1906 (Condor, 8, 1906: 147). J. B. Dixon (Condor, 30, 1928: 228-236) gives the best account of the life history of the Red-bellied Hawk that I have seen. He states that they appear to be holding their own in some sections of San Diego County, where they nest along streams, from sea-level to 1200 feet altitude, the normal nesting season being from March 21 to April 10.

Buteo swainsoni Bonaparte Swainson Hawk

Common during migrations, which occur in September and October, and in March and early April. Remains through summer and breeds in small numbers, though less plentifully than in former years. Has been reported from Catalina Island by J. G. Cooper (Proc. Calif. Acad. Sci., **4**, 1870: 77) and F. S. Daggett (Willett, Pac. Coast Avif., No. **7**, 1912: 47), and from Santa Cruz Island by A. B. Howell (Condor, **13**, 1911: 209). According to the 1931 A.O.U. Check-list, winters in southern South America, so Belding's statement (Land Birds Pac. Dist., 1890: 36) that it occurs occasionally in winter in vicinity of San Diego is probably erroneous. Eggs generally deposited in late April and early May. Fresh eggs taken by C. L. Field (MS) at Santee, San Diego County, April 23, 1921, and by W. L. Chambers near

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Santa Monica, Los Angeles County, the first day of June (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 22). Four slightly incubated eggs collected by W. M. Pierce (MS) near Corona, Riverside County, April 25, 1915. According to J. B. Dixon (MS), still nests regularly near Temecula, Riverside County. Reported by E. E. Sechrist (MS) as now scarce near San Diego; eggs taken by him in that locality May 10, 1906, and April 25, 1926.

Buteo albonotatus Kaup Zone-tailed Hawk

Synonym-Buteo abbreviatus.

Rare straggler in fall and winter. So far, reported from coastal district only from San Diego County, as follows: Male (Mus. Vert. Zool.) collected by J. G. Cooper thirty miles north of San Diego February 23, 1862 (Land Birds Calif., 1870: 480); immature male (J. E. Thayer coll.) taken by C. B. Linton near National City November 26, 1906 (Condor, 10, 1908: 181); unsexed specimen (Mus. Vert. Zool.) taken by W. J. McClosky thirty miles north of San Diego September 10, 1907 (Grinnell, Condor, 11, 1909: 69); bird secured by R. Reynolds, taken near La Jolla, September 11, 1908 (Law, Condor, 10, 1908: 241); male shot at San Diego December 20, 1916 (Grey, Condor, 19, 1917: 103), and immature female shot by N. Rogan at Chula Vista October 10, 1932 (Huey, Condor, 35, 1933: 126).

Buteo lagopus s.johannis (Gmelin) American Rough-legged Hawk

Synonym—Archibuteo lagopus sancti-johannis.

Rare winter visitant. Two birds from San Diego County in Huey collection; one collected near Santee January 26, 1921, and the other in Warner Valley November 15, 1922 (Condor, **26**, 1924: 74). Two birds reported seen by C. G. Abbott, A. W. Anthony and L. M. Huey near Santee December 24, 1922 (Bird-Lore, **25**, 1923: 45).

Buteo regalis (Gray) Ferruginous Rough-leg

Synonym-Archibuteo ferrugineus.

Formerly common in fall, winter and early spring, from lowlands well up into mountains; now rather rare, except in portions of San Diego and Riverside counties. Two specimens secured and many more seen by J. G. Cooper near Saticoy, Ventura County (Auk, **4**, 1887: 91). Male taken by J. S. Appleton in Simi Valley, same county, February 17, 1912 (Willett, Pac. Coast Avif., No. **7**, 1912: 47). Specimens taken near Los Angeles, by H. S. Swarth, October 4, 1897 (Condor, **2**, 1900: 16), and by L. E. Wyman, December 8, 1913 (Condor, **16**, 1914: 145), and at San Pedro, by J. G. Cooper, October 24, 1861 (Willett, loc. cit.). Male (Mus. Vert. Zool.) collected at San

Bernardino December 12, 1864 (Willett, loc. cit.), and male (L. A. Mus.) taken by W. M. Pierce near Corona, Riverside County, February 22, 1916.

Reported by J. McB. Robertson (MS) as fairly common in winter on open country near Cypress, Orange County, his earliest and latest dates being October 9 (1928) and March 5 (1929), respectively. Recorded by A. L. Heermann (Pac. R. R. Rep., 10, 1859: 32) as abundant at some seasons in mountains of San Diego County. Six specimens listed by L. M. Huey from various parts of San Diego county between November 15 (1922) and January 4 (1923). Huey also states that the bird is a regular winter visitant to the San Jacinto Plain region, Riverside County (Condor, 26, 1924: 74-75). H. Grey (Condor, 27, 1925: 37) records flight of Ferruginous Rough-legs in San Diego County during winter of 1923-1924. He had specimens from Escondido, Ramona, El Cajon, Campo, and National City. Male taken by F. Paine in Volcan Mountains, San Diego County, February 25, 1884 (Emerson, Bull. Calif. Acad. Sci., 2, 1887: 421), and male (L. A. Mus.) taken by W. C. Anderson at Warner Springs, same county, November 13, 1926. I found the species rather common in the Cuyamaca Mountains October 27, 1929. Male (Mus. Vert. Zool.) collected by J. G. Cooper fifteen miles north of San Diego March 5, 1862 (Willett, loc. cit.).

Parabuteo unicinctus harrisi (Audubon) Harris Hawk

Rare straggler from desert. Male shot in Mission Valley, San Diego County, November 17, 1912 (Grey, Condor, 15, 1913: 128). Female (Pioneer Mus., Ventura) taken by R. Young near Bardsdale, Ventura County, April 9, 1929 (Peyton, Condor, 34, 1932: 143).

Aquila chrysaëtos canadensis (Linnaeus) Golden Eagle

Synonym-Aquila chrysaëtos, part.

Still rather common resident in mountainous regions, though the area of its habitat has been considerably restricted by encroachment of civilization. Breeds mostly in February and early March. Eggs found by L. Stevens (MS) in Santa Barbara County from February 27 to March 17 (1928), and by M. C. Badger in Ventura County from February 10 (1928) to March 24 (1926). Two slightly incubated eggs taken by W. L. Chambers near Covina, Los Angeles County, March 5, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 48). Eggs collected in Riverside County by W. M. Pierce (MS) as early as February 14 (1926), and by W. C. Hanna (MS) from February 22 to April 11. Extreme nesting dates given by A. M. Ingersoll for first layings in vicinity of San Diego are February 9 (1910) (two fresh eggs), and March 15 (1895) (two eggs, one-third incubated). Mr. Ingersoll states that, upon being robbed, the birds will lay a second and even a third set. He has found third sets as late as May (Willett, loc. cit.).

Haliaeëtus leucocephalus leucocephalus (Linnaeus) Bald Eagle

Fairly common resident on Santa Barbara Islands; rare on mainland. Breeds mostly in late February and early March. Reported by H. W. Henshaw (Ann. Rep. Ch. Eng. U.S.G.S., 1876, App. JJ: 264) as abundant on mainland of southern California in 1876, but is now common only on islands. Two considerably incubated eggs taken by W. L. Chambers near Santa Monica, Los Angeles County, March 13, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898; 22). One pair known to have nested in Malibu region, north of Santa Monica, as late as 1930. Two fresh eggs taken near Laguna, Orange County, March 5, 1895, and two young birds found in same locality, March 15, following, recorded by Evan Davis (Nidologist, 4, 1897: 78). Pair said to have formerly nested at Elsinore Lake, Riverside County (Heller, Condor, 3, 1901: 100). In June, 1910, I noted many nests of this species, all of which contained nearly full-grown young, on Anacapa, Santa Cruz, Santa Rosa and San Miguel islands; in June, 1911, I saw a pair of birds on Santa Barbara Island, and in March, 1905, I took two sets of eggs on Catalina. C. B. Linton took eggs on San Nicolas and San Clemente (Willett, Pac. Coast Avif., No. 7, 1912:48).

Circus hudsonius (Linnaeus) Marsh Hawk

Fairly common resident of lowlands, especially on salt marshes near coast. Frequently seen on deserts in winter. Breeds mostly in late March and early April. Four eggs, incubation commenced, taken by W. M. Pierce (MS) near Corona, Riverside County, March 27, 1915, and five slightly incubated eggs, also taken by Pierce, near Chino, San Bernardino County, April 29, 1922. Immature male collected by H. C. Burt on Anacapa Island March 15, 1911 (Condor, **13**, 1911: 166).

Pandion haliaëtus carolinensis (Gmelin) Osprey

Synonym-Fish Hawk.

Formerly common in spring, summer and fall on coast of southern California and on Santa Barbara Islands; now rare on mainland, and occurring on islands in much reduced numbers. Reported by J. G. Cooper (Auk, 4, 1887: 91) as common along coast of Ventura County in early 70's. Pair at nest seen by Evan Davis near Laguna, Orange County, March 5, 1895 (Willett, Pac. Coast Avif., No. 7, 1912: 49). Bird seen by W. M. Pierce at Bear Lake, San Bernardino Mountains, July 5, 1928 (Condor, **31**, 1929: 80); one or two birds seen in same locality each year since that time (Pierce, MS). Twenty years ago bred commonly on San Clemente and San Nicolas islands and less plentifully on Catalina. Also occasionally reported from more northern islands of Santa Barbara group, but breeding records lacking. Now much reduced in numbers on San Clemente and seldom seen on Catalina. Present

status on San Nicolas unknown to writer. Eggs found by A. B. Howell on islands as early as March 7, and birds constructing nest seen as late as April 28 (Pac. Coast Avif., No. 12, 1917: 58).

Falco mexicanus Schlegel Prairie Falcon

A characteristic bird of desert regions and arid interior valleys. A few pairs known to nest on Pacific slope. Frequently noted in winter throughout southern California. Recorded at 8000 feet on Mount Pinos, Ventura County, July 4, 1904 (Grinnell, Auk, 22, 1905: 383), and at Bear Lake, 6750 feet in San Bernardino Mountains, September 17 and 20, 1914 (van Rossem and Pierce, Condor, 17, 1915: 163), and September 17, 1915 (Pierce, Condor, 18, 1916: 34). Pair nesting regularly on seaward slope of Santa Ynez Range, near Santa Barbara, reported by W. L. Dawson (Condor, 18, 1916: 26). Five sets of eggs taken by L. and S. B. Peyton (MS) in Piru Canyon, Ventura County, between March 30 (1923) and April 14 (1929). W. M. Pierce writes me (1932) that he knows of a pair nesting near Hemet, Riverside County, another in Santa Ana Canyon, Orange County, and a third in Cajon Pass, San Bernardino County. He states that, while he has taken eggs from March 30 (1925) to May 16 (1920), he finds the usual nesting time to be the first week in April. E. E. Sechrist (MS) knows of two pairs nesting on the Pacific slope of San Diego County, both so difficult of access that the eggs have not been collected.

Outside of breeding season, specimens collected by J. Hornung at Hueneme, Ventura County, September 10, 1908 (Dickey coll.); by H. S. Swarth in San Fernando Valley, Los Angeles County, December 13, 1901, and January 30, 1902 (Willett, Pac. Coast Avif., No. 7, 1912: 48); by J. Grinnell near Pasadena November 27, 1896; by W. B. Judson at Cerritos, Los Angeles County, March 27, 1897 (Willett, loc. cit.), and by W. M. Pierce near Chino, San Bernardino County, October 8, 1914, and January 9, 1915, and near Oceanside, San Diego County, December 9, 1914 (Condor, 17, 1915: 166-167). Recorded by L. Belding (Land Birds Pac. Dist., 1890: 42) as rare in winter in San Diego County.

Falco peregrinus anatum Bonaparte Duck Hawk

Fairly common resident on Santa Barbara Islands; less plentiful on mainland. Three slightly incubated eggs collected by O. W. Howard on Santa Cruz Island April 5, 1906, and four eggs, about one-fourth incubated, taken by G. Willett on Catalina Island April 8, 1904 (Pac. Coast Avif., No. 7, 1912: 49). Sets of eggs taken by L. Stevens (MS) between Santa Barbara and Gaviota April 15 and May 5, 1929; by C. S. Sharp near Escondido, San Diego County, from March 24 to April 14 (Oologist, **36**, 1919: 39-43), and by C. L. Field (MS) near San Diego from March 8 to April 19. Bird taken at Hemet Lake, San Jacinto Mountains, August 8, 1908, and another seen in same locality two days later (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 238). Male (L. A. Mus.) taken by A. W. Nolte at Pasadena, Los Angeles County, November 14, 1886.

Falco columbarius bendirei Swann Western Pigeon Hawk

Synonyms-Falco columbarius, part: Tinnunculus columbarius, part.

Fairly common in foothill and mesa regions in fall, winter and spring; occasional on Santa Barbara Islands. Extreme dates of capture are: Immature female, by E. Littlepage, in Merton Valley, San Diego County, September 13, 1925, and immature male, by E. Glidden, at Otay Reservoir, same county, March 24, 1927; both in collection of San Diego Society of Natural History.

This bird, until recently considered identical with the eastern F. c. columbarius, is evidently an intergrade between <math>F. c. suckleyi and F. c. richardsoni, anatural conclusion, as its summer habitat lies between those of these tworaces. It is also to be expected that some birds, of such derivation, shouldclosely resemble the eastern columbarius. To properly appreciate the differences between the various forms of the pigeon hawk, it is absolutely essentialthat only birds of the same sex and similar age be compared. A few wronglysexed specimens, which are not infrequent in winter-taken birds, may easilyresult in confusion. Several intergrades between bendirei and richardsoni, takenin southern California, have been examined, and it is probable that suchintergradation also occurs between bendirei and suckleyi.

Falco columbarius suckleyi Ridgway Black Pigeon Hawk

Synonym-Tinnunculus columbarius suckleyi.

One record. Male (Grinnell coll., Mus. Vert. Zool.) taken by J. F. Illingworth at Claremont, Los Angeles County, December 6, 1895 (Willett, Pac. Coast Avif., No. 7, 1912: 49).

Falco columbarius richardsonii Ridgway Richardson Pigeon Hawk

Synonym-Tinnunculus columbarius richardsoni.

Occasional winter visitant. Immature female (L. A. Mus., no. 5962) taken by F. S. Daggett in San Fernando Valley, Los Angeles County, October 31, 1903 (Condor, 7, 1905: 82). Adult male (Mus. Comp. Zool., no. 241866) taken by W. W. Price at Riverside January 22, 1889 (Peters, Bull. Essex Co. Orn. Club, 1926 [1927]: 22). Immature female (L. B. Bishop coll., no. 10157) taken by F. W. Marsden at Witch Creek, San Diego County, February 9, 1904 (Condor, 7, 1905: 142). Two females (S.D.S.N.H., nos. 358 and 360), the first collected by F. Stephens at Riverside January 31, 1878, and the other, by unknown collector, at San Diego January 10, 1900 (Huey, Condor, 28, 1926: 102). Adult female (L. B. Bishop coll., no. 42290) collected by H. Grey in Mission Valley, San Diego County, April 9, 1925. Specimen taken at San Diego in September, 1915, and recorded by H. Grey as *richardsoni* (Condor, **27**, 1925: 37) said by L. Huey (loc. cit.) to be referable to *columbarius* (*=bendirei*).

Falco sparverius sparverius Linnaeus American Sparrow Hawk

Synonyms—*Cerchneis sparverius sparverius: Falco sparverius phalaena* (California specimens).

Abundant resident, breeding mostly in April and May. Extreme nesting dates are: Five slightly incubated eggs taken by J. Grinnell near Pasadena March 18, 1893, and five half-incubated eggs taken by E. Parker near Claremont June 27, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 23).

The writer has been unable to see any difference between our California sparrow hawk and the bird of the eastern states. Consequently he has not followed the A.O.U. Check-list in the use of the name *phalaena*.

Order GALLIFORMES Gallinaceous Birds and Hoatzins

FAMILY TETRAONIDAE Grouse and Ptarmigans

Dendragapus fuliginosus howardi Dickey and van Rossem Mount Pinos Grouse

Synonyms—Dendragapus obscurus fuliginosus, part: Dendragapus obscurus sierrae, part: Dendragapus obscurus howardi.

This, the most southern race of the Sooty Grouse, was described by Dickey and van Rossem (Condor, 25, 1923: 168-169), the type locality being Mount Pinos, Kern County. It appears to be rather a well-marked race, differing from D. f. sierrae in darker coloration and longer, more graduated tail. Its range, as given in the 1931 A.O.U. Check-list, is "Mt. Pinos, . . . east through the Tehachapi Range and north in the Sierra Nevada to about lat. 36°." I have noted this bird occasionally, above 6000 feet on Mount Pinos, in both Kern and Ventura counties. It has previously been recorded from this mountain by A. K. Fisher (N. A. Fauna, 7, 1893: 31), J. Grinnell (Auk, 22, 1905: 382), and G. Willett (Pac. Coast Avif., No. 7, 1912: 43-44). It also occurs on Frazier Mountain, a few miles southeast of Mount Pinos. Under date of July 28, 1932, D. W. Maxey writes me: "We have always had a few grouse on Frazier Mountain, although never plentiful. In April, of last year, I saw four birds at a spring, about three-fourths of a mile northeast of the Frazier Mountain Lookout." A. Ellis, U. S. Fire Guard, informs me that he saw a small flock of grouse on Frazier Mountain in 1927.

Set of five eggs, nearly ready to hatch, taken by J. R. Pemberton at about 8200 feet altitude, on north slope of Mount Pinos, May 21, 1928 (Condor, **30**, 1928: 347-348).

BIRDS OF SOUTHWESTERN CALIFORNIA

FAMILY PERDICIDAE Partridges and Quails

Lophortyx californica californica (Shaw) California Quail

Synonyms-Lophortyx californica vallicola: Valley Quail.

Common resident of lowland and foothill country, except marsh lands, but less generally abundant than formerly. Occurs frequently up to 4000 feet altitude in mountains and, in some instances, considerably higher, as 6800 feet in San Jacinto Mountains (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 230), and almost 8500 feet on Mount Pinos (Grinnell, Auk, 22, 1905: 382). Has adapted itself well to changed conditions and is common in vineyards, orchards, gardens and parks. Has been introduced on San Clemente Island (Grinnell, Pub. 1, Pasadena Acad. Sci., 1897: 12-13), and on Santa Cruz Island (Henshaw, Ann. Rep. Ch. Eng. U.S.G.S., 1876, App. JJ: 266). Eggs generally deposited between late April and middle of June. Young about a week old reported by L. Belding (Land Birds Pac. Dist., 1890: 12) in Tia Juana Valley, San Diego County, April 3, 1885, an unusually early date. Extreme nesting dates in vicinity of Los Angeles are: Thirteen fresh eggs taken by W. M. Pierce near Claremont April 4, 1901 (Willett, Pac. Coast Avif., No. 7, 1912: 43), and fifteen eggs, incubation advanced, found by J. Grinnell near Pasadena September 6, 1907 (Game Birds Calif., 1918: 524). Fresh eggs found by C. S. Sharp near Escondido, San Diego County, as late as October 29 (1902) (Grinnell, op. cit.: 526). These late eggs probably from birds that have lost earlier layings.

For use of the name *californica* instead of *vallicola* see Grinnell, Condor, **33**, 1931: 37.

Lophortyx californica catalinensis Grinnell Catalina Quail

Abundant resident on Catalina Island. Habits similar to those of California Quail. Described in Auk, 23, 1906: 262. Characters further set forth by Grinnell (Condor, 10, 1908: 94), and Dickey and van Rossem (Condor, 24, 1922: 34). Though there seem to be slight average differences between this form and the mainland bird, it would be difficult, if not impossible, to correctly segregate specimens, if the locality of capture was unknown. The writer fails to perceive any benefit to ornithology in the recognition of such races by name.

Lophortyx gambelii gambelii Gambel Gambel Quail

According to M. F. Gilman (Condor, 9, 1907: 148), the desert quail comes in through San Gorgonio Pass and occurs in small numbers to within three miles of Banning, Riverside County, where mixed flocks of *gambeli* and *californica* have been seen. H. W. Henshaw states (Auk, 10, 1893: 204) that, where the ranges of the two come together, hybrids occur. There are numerous records of Gambel Quail on the Pacific slope of southern California, but, whether these are of birds that have strayed from their desert habitat, or have

been introduced by man, it is impossible to state. As, according to Grinnell, Bryant and Storer (Game Birds Calif., 1918: 39), in 1912, three hundred birds were liberated in Los Angeles County, one hundred in Orange County and a similar number in Ventura County, it seems reasonable to believe that records since that time are of introduced birds or their descendants. H. S. Swarth took an adult male near Los Angeles September 16, 1896 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 19). E. Wall (Auk, 10, 1893: 204) records a male taken by J. S. Bright near San Bernardino January 15, 1893. Adult female trapped by F. F. Gander in Balboa Park, San Diego, September 18, 1924 (Bancroft, Condor, 26, 1924: 229). The species has been reported from San Clemente Island by J. R. Pemberton (Condor, 33, 1931: 219) and L. M. Huey (Condor, 34, 1932: 34). Huey states, on authority of C. T. Howland, that Gambel Quail were released on San Clemente in 1912.

Oreortyx picta picta (Douglas) Plumed Quail

Synonyms-Oreortyx picta plumifera: Mountain Quail.

Common resident from Upper Sonoran zone of foothills up through Transition zone in higher mountains; also well out into higher hills of desert. Occurs south to Mexican boundary. "In times of heavy snow on the mountains, these birds appear in considerable numbers in the lower foothills and individuals have been seen in Pasadena, three miles from the base of the mountains" (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 19). Bird seen by H. Robertson in Garvanza, Los Angeles City, April 23, 1900, and, on another occasion, one noted in small park in central part of Los Angeles (Willett, Pac. Coast Avif., No. 7, 1912: 43). Eggs usually deposited in May, but young birds, apparently but a day or two old, taken by J. Grinnell in San Gabriel Range as late as July 15. Nest containing ten eggs of Plumed Quail and four eggs of Valley Quail, all of which were fresh, found by H. J. Lelande in Linda Vista Hills, west of Pasadena, May 7, 1897 (Grinnell, loc. cit.). Ten fresh eggs taken by W. M. Pierce in San Antonio Canyon May 11, 1907 (Willett, loc. cit.). Pierce (MS) also found eleven eggs, about half incubated, at Big Pines, San Gabriel Mountains, May 29, 1921, and eleven eggs, hatching, near Banning, Riverside County, June 11, 1918. Fourteen slightly incubated eggs taken by W. C. Hanna (MS) at 6000 feet altitude in San Gabriel Mountains June 5, 1932. Nine fresh eggs taken by L. and S. B. Peyton (MS) on Mount Pinos June 6, 1925.

FAMILY PHASIANIDAE Pheasants

Phasianus colchicus torquatus Gmelin Ring-necked Pheasant

Nest containing twelve eggs found by E. Wall near San Bernardino April 22, 1914 (Condor, 17, 1915: 59). Pheasants are known to have been liberated, or to have escaped from aviaries, in various sections of California, but apparently have not thrived, at least in our part of the state. It is doubtful whether all birds liberated were of the above form.

Order GRUIFORMES Cranes, Rails and Allies

FAMILY GRUIDAE Cranes

Grus canadensis canadensis (Linnaeus) Little Brown Crane

Synonym-Megalornis canadensis canadensis.

Though less common along sea coast than in interior valleys, occurs during migrations throughout most of southern California; also occasionally noted during winter months. As it is usually seen at so great a height that it is difficult to distinguish from the Sandhill Crane, definite records are few. Specimen taken by R. Reynolds from flock of twenty-five or thirty birds near Newport, Orange County, in late 90's, recorded by J. Grinnell (Condor, 11, 1909: 128); another flock of about a hundred birds seen by Reynolds on same occasion. Grinnell also mentions adult male and immature female (Outram Bangs coll.), said to have been killed near Los Angeles, secured fresh in market by H. S. Swarth. Immature bird taken by W. Frank near Long Beach, Los Angeles County, March 24, 1912 (Willett, Pac. Coast Avif., No. 7, 1912: 32). Bird (L. A. Mus.) shot by hunter near Los Angeles January 31, 1918 (Wyman, Condor, 21, 1919: 173). Adult male (L. B. Bishop coll.) taken by G. P. Ashcraft near Culver City, Los Angeles County, March 3, 1929. Female (Willett coll.) shot by C. O. Reis near Corona, Riverside County, December 31, 1917. Specimen (L. H. Miller coll.) taken with another bird, apparently of same species, by Holmes Miller, near Riverside, February 19, 1893 (Willett, loc. cit.).

Grus canadensis tabida (Peters) Sandhill Crane

Synonyms—Grus mexicana, of many authors; not of Müller: Megalornis canadensis tabida.

Said to have been common formerly in southern California during migrations and occasional in winter. Recorded by B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 86) as occasionally seen in migration in Ventura County. Stated by J. Grinnell (Pub. 2, Pasadena Acad. Sci., 1898: 15) to be principally in evidence in Los Angeles County during migrations, but noted in winter by A. M. Shields on Centinela hills and grain-fields, and by F. S. Daggett on grain-fields near Pasadena.

As it is generally believed that many observers have confused this bird with the Little Brown Crane and, as no specimens of the larger bird are on record from the Pacific slope of southern California, its status in the region is very imperfectly known. It probably has occurred in the past and may still do so, in small numbers.

FAMILY RALLIDAE Rails, Coots and Gallinules

Rallus obsoletus levipes Bangs Light-footed Rail

Resident on salt marshes from Santa Barbara at least to San Diego. Originally described from specimens taken at Newport, Orange County (Proc. New Eng. Zool. Club, 1, 1899: 45). Formerly common in all coastal marshes, but now, because of drainage of some marshes and pollution of others by oil, much more restricted in distribution. At extreme high tide swims on water after fashion of Coot and, being easily approached, was formerly killed in large numbers by hunters. Nests principally in April and early May. Extreme breeding records are: Nine fresh eggs taken by G. Willett at Bay City (Seal Beach), Orange County, March 19, 1910, and nine half-incubated eggs taken at Nigger Slough, Los Angeles County, June 14, 1906 (Pac. Coast Avif., No. 7, 1912: 32). This last record is the only one away from coastal marshes known to the writer.

Rallus limicola limicola Vieillot Virginia Rail

Synonyms-Rallus virginianus: Rallus virginianus pacificus.

Fairly common resident on both salt and fresh water marshes, south at least to San Diego County. Breeds from early April to late May. Two sets of fresh eggs taken by W. L. Chambers at Ballona, Los Angeles County, April 13, 1902, and set of six eggs taken by O. W. Howard near Newport, Orange County, May 13, 1906. Nest containing two young birds and one egg found by L. Peyton near Sespe, Ventura County, in June, 1907 (Willett, Pac. Coast Avif., No. 7, 1912: 32). Set of seven eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, April 7, 1924. In San Diego County, found nesting by C. S. Sharp at San Pasqual in 1900 and in 1902 (Condor, 9, 1907: 86), and by A. M. Ingersoll, who saw nest containing egg shells, near Ramona, June 2, 1888 (Willett, loc. cit.). Bird seen by J. McB. Robertson at Bear Lake, San Bernardino Mountains, July 16 and 17, 1921 (Condor, 24, 1922: 34).

D. R. Dickey (Condor, **30**, 1928: 322) proposed the separation of the western Virginia Rail under the name *Rallus virginianus pacificus*, on the grounds of average greater size. This purported difference between eastern and western birds is so small that the writer is unable to see the desirability of recognizing it by name.

Porzana carolina (Linnaeus) Sora

Common on marsh-lands in summer, most plentiful around fresh water; winters in fair numbers, though many migrate south in fall. Breeds mostly in April and May. Six slightly incubated eggs taken by C. B. Linton near Whittier, Los Angeles County, April 18, 1896, and six eggs taken by W. L. Dawson at Nigger Slough, same county, May 13, 1911 (Willett, Pac. Coast

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Avif., No. 7, 1912: 33). Found nesting near Escondido, San Diego County, by C. S. Sharp (Condor, 9, 1907: 86), and noted in spring on fresh-water ponds near San Diego, by A. M. Ingersoll (Willett, loc. cit.). Nest containing ten eggs and one newly-hatched young found by W. M. Pierce at Bear Lake, San Bernardino Mountains, June 25, 1916 (Condor, 18, 1916: 178); nine slightly incubated eggs taken by Pierce (MS) in same locality June 9, 1917.

Coturnicops noveboracensis (Gmelin) Yellow Rail

Rare winter visitant. Male taken by J. H. Henderson at Newport Bay, Orange County, December 12, 1896 (Osburn, Condor, **13**, 1911: 108). Female taken by W. M. Pierce near Corona, Riverside County, January 31, 1914, and male secured in same locality several days later (Condor, **16**, 1914: 182). Single bird seen by W. L. Dawson at Santa Barbara December 26, 1914 (Bird-Lore, **17**, 1915: 47).

Creciscus jamaicensis coturniculus (Ridgway) California Black Rail

. Synonym—Farallon Rail.

Rather rare resident, locally, mostly on salt-water marshes. Very inconspicuous, so probably more common than apparent. Occasionally met with inland. Specimen taken by L. H. Miller at Riverside August 13, 1892 (Orn. and Ool., 18, 1893: 104); another secured alive by R. B. Herron at San Bernardino August 3, 1919 (Wall, Condor, 21, 1919: 238). Female taken near small fresh-water pond, east of San Diego and about six miles from salt marshes, August 31, 1929 (Gander, Condor, 32, 1930: 211). Bird seen by W. L. Dawson at Santa Barbara December 26, 1917 (Bird-Lore, 20, 1918: 50). Single birds seen by J. S. Appleton near Hueneme, Ventura County, in March, 1898 (Willett, Pac. Coast Avif., No. 7, 1912: 33), and by G. F. Morcom at Ballona, Los Angeles County, May 16, 1895 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 16). Adult found impaled on barbed-wire fence near Del Rey, Los Angeles County, by J. Ewan, February 25, 1928 (Condor, 30, 1928: 247). Bird picked up dead at Point Loma, San Diego County, August 4, 1876, mentioned in Belding manuscript. It had been killed by flying against the Point Loma Light (Grinnell, Bryant and Storer, Game Birds Calif., 1918: 308).

Though this rail probably nests in salt marshes in other localities in California, it has, so far, only been found breeding in the region near San Diego. A. M. Ingersoll estimated about thirty pairs nesting in marshes between National City and Chula Vista in 1908 (Condor, **11**, 1909: 127). E. E. Sechrist states (Oologist, **32**, 1915: 93) that, while during some seasons he estimated a breeding population of twenty-five to thirty pairs, during other seasons he was unable to locate the species at all. L. M. Huey has seen or taken birds in the San Diego Bay marshes every month in the year. Extreme dates for sets of eggs, given by him, are March 24 (1912) and May 25 (1909) (Condor, **18**, 1916: 58-62). According to F. Stephens (Condor, **21**, 1919: 123),

floods occurring in January, 1916, "drowned" most of the Black Rails in this colony. However, reports recently received from J. C. von Bloeker, Jr., J. M. Dixon and E. E. Sechrist, would indicate that the birds have reappeared in some numbers in their former haunts.

According to J. L. Peters (Proc. Biol. Soc. Wash., 45, 1932: 119-120), the genus *Creciscus* Cabanis, 1856 (1857), is antedated by *Laterallus* Gray, 1855.

Gallinula chloropus cachinnans Bangs Florida Gallinule

Synonym—Gallinula galeata.

Formerly common summer resident on tule-bordered lakes and ponds of lower country, breeding mostly in May and June; less plentiful in winter. Now seen only occasionally, most of our fresh-water marshes having been drained. Extreme nesting dates: Nine eggs found by M. L. Wicks, Jr., near Los Angeles April 27, 1890 (Zoe, **3**, 1893: 363), and five eggs, incubation advanced, taken by Antonin Jay at Nigger Slough, Los Angeles County, June 30, 1895 (Willett, Pac. Coast Avif., No. **7**, 1912: 33). Set of nine eggs collected by A. M. Ingersoll at San Jacinto Lake, Riverside County, June 7, 1897 (Willett, loc. cit.). According to H. S. Swarth (Condor, **2**, 1900: 15), most birds of this species disappear from vicinity of Los Angeles in late fall, a few remaining through winter.

Fulica americana americana Gmelin American Coot

Abundant in winter on bodies of fresh water; occasional on ocean. Less common in summer, breeding in tule patches from April 15 to June 15; later at higher altitudes. Eggs found by J. Grinnell at Bear Lake, 6750 feet altitude in San Bernardino Mountains, as late as July 27 (Univ. Calif. Publ. Zool., **5**, 1908: 54).

Order CHARADRIIFORMES Shore Birds, Gulls, Auks and Allies

FAMILY HAEMATOPODIDAE Oyster-catchers

Haematopus palliatus frazari Brewster

Frazar Oyster-catcher

Breeds on coast of Mexico and Lower California. Has straggled north to coast of Ventura County and Santa Barbara Island. Two adult females (Mus. Vert. Zool.) taken by J. G. Cooper, one at San Diego May 16, 1862, and the other at Santa Barbara Island June 2, 1863 (Baird, Brewer and Ridgway, W.B.N.A., **1**, 1884: 113-114). Noted by B. W. Evermann on coast of Ventura County in summer (Pac. Sci. Monthly, **1**, 1886: 85). Single bird seen by P. I. Osburn at Catalina Island February 12, 1910 (Condor, **13**, 1911: 76).

BIRDS OF SOUTHWESTERN CALIFORNIA

Haematopus bachmani Audubon Black Oyster-catcher

Resident on Santa Barbara Islands; breeding on Santa Barbara, Anacapa, Santa Cruz, Santa Rosa and San Miguel; most plentiful on last named. Fresh eggs found from May 15 to latter part of June. Five sets of fresh and slightly incubated eggs taken on San Miguel Island between June 9 and June 18, 1910 (Willett, Condor, **12**, 1910: 173). Two nests containing eggs found by H. W. Henshaw on Santa Cruz Island early in June (Ann. Rep. Ch. Eng. U.S.G.S., 1876, App. JJ: 270), and four fresh eggs taken by J. G. Cooper on Santa Barbara Island June 3, 1863 (Baird, Brewer and Ridgway, W.B.N.A., **1**, 1884: 117). Nest containing one fresh egg found by H. C. Burt on Anacapa Island May 15, 1911 (Willett, Pac. Coast Avif., No. **7**, 1912: 42); six sets of eggs taken by L. and S. B. Peyton (MS) on same island between May 21 (1932) and June 11 (1915).

FAMILY CHARADRIIDAE Plovers, Turnstones and Surf-birds

Charadrius nivosus nivosus (Cassin) Snowy Plover

Synonym—Aegialitis nivosa.

Common resident along coast, though less plentiful than formerly. Breeds on sandy beaches of mainland, on several of Santa Barbara Islands, and on some inland lakes. Eggs generally deposited between May 1 and June 15. Three eggs, advanced in incubation, taken by W. L. Chambers at Ballona, Los Angeles County, April 15, 1907, and nest containing one fresh egg found by Chambers in same locality August 2, 1903 (Willett, Pac. Coast Avif., No. 7, 1912: 40). Noted by G. Willett on San Nicolas Island in June, 1911, and by O. W. Howard on San Miguel Island in summer (Willett, loc. cit.). Has nested at Buena Vista Lake, Kern County (Linton, Condor, 10, 1908: 197), and does so regularly at Salton Sea, Imperial County.

Charadrius semipalmatus Bonaparte Semipalmated Plover

Synonym—Aegialitis semipalmata.

Common migrant, mostly coastwise; occasional in winter and in midsummer. Most abundant in fall from September 15 to October 10, and in spring from April 20 to May 15. Noted by J. H. Bowles at Santa Barbara in fall from July 12 (1910) to November 1 (1911), and in spring from April 18 to May 16 (1910) (Condor, 14, 1912: 11). Noted by C. B. Linton at San Nicolas Island April 18 and May 6, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 40), and by E. A. Mearns and A. W. Anthony on San Clemente Island in late August, 1894 (Bull. U.S.N.M., 56, 1907: 141). Five birds seen (one secured) by G. Willett at Alamitos Bay June 29, 1907 (Willett, loc. cit.). Five reported as remaining at Playa del Rey, Los Angeles County, throughout summer of

1924 (Schneider, Bird-Lore, 26, 1924: 346); several seen by H. N. McCoy (MS) in same locality May 12, 1932, and July 7, 1928. Recorded by J. G. Cooper (Auk, 4, 1887: 91), as occurring on coast of Ventura County in winter, and referred to in Belding manuscript as tolerably common at San Diego at that season (Grinnell, Bryant and Storer, Game Birds Calif., 1918: 471). Pair taken by L. B. Bishop (MS) at Hyperion, Los Angeles County, December 15, 1925. According to Christmas censuses in "Bird-Lore", occurred at Santa Barbara December 21, 1925, and December 24, 1926; at Playa del Rey December 22, 1924; at Long Beach December 21, 1929, and at San Diego in late December each year from 1924 to 1931. Several birds reported by Mrs. F. B. Schneider (Bird-Lore, 25, 1923: 138), at San Pedro January 16 and 21, 1923; two at Bolsa Chica, Orange County, January 25, 1926 (Bird-Lore, 28, 1926: 148), and two at Playa del Rey February 2, 1928 (Bird-Lore, 30, 1928: 138). Recorded from Salton Sea, Imperial County, and Julian, San Diego County (Grinnell, Bryant and Storer, loc. cit.). A few birds seen by L. B. Bishop (MS) at Nigger Slough, Los Angeles County, April 20, 1917, and May 1, 1918.

Pagolla wilsonia beldingi Ridgway

· Belding Plover

Synonym-Ochthodromus wilsonius, part.

Two records, both from San Diego County. Adult male (Mus. Vert. Zool.) taken by A. M. Ingersoll at Pacific Beach June 29, 1894 (Nidiologist, 2, 1895: 87). Another bird seen by Mr. Ingersoll at Imperial Beach May 11, 1918 (Condor, 20, 1918: 187).

Eupoda montana (Townsend) Mountain Plover

Synonym—Podasocys montanus.

Formerly common winter visitant to grassy fields and pasture lands of lower country, arriving in late August and September, and leaving in February. Now only met with occasionally and in small numbers. Single bird seen by W. L. Dawson on Santa Barbara beach August 25, 1915 (Condor, 18, 1916: 26). Found plentiful by Antonin Jay, near Montebello, Los Angeles County, September 15, 1896, and at Nigger Slough, same county, February 15, 1897 (Willett, Pac. Coast Avif., No. 7, 1912: 41). Latest known spring occurrence for southern California, February 22 (1888), at Riverside (Grinnell, Bryant and Storer, Game Birds Calif., 1918: 483). Reported by G. F. Breninger as wintering on San Clemente Island (Auk, 21, 1904: 222). Some records for recent years are: Flock of one hundred or more seen in San Fernando Valley, Los Angeles County, December 29, 1926 (Schneider, Bird-Lore, 29, 1927: 137), and about seventy seen in same locality December 15, 1927 (Bird-Lore, 30, 1928: 24). About 300 seen (several taken) by L. B. Bishop (MS) and A. J. van Rossem near Corona, Riverside County, November 3, 1920, and fifty or more seen by Dr. Bishop (MS) near Chino January 12, 1921. Accord-

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ing to W. M. Pierce (MS), the species is now rare in these two latter localities. Reported by J. McB. Robertson (MS) from Orange County, as follows: Small flocks near Buena Park November 14, 1909, and November 18, 1917; single bird near Cypress December 5, 1922, and small flock near Wintersburg November 21, 1926.

As this bird both breeds and winters in temperate regions of the United States, it has suffered more than most species by the settling up of the country. Also, in former years, being found in large flocks, it was easy prey for the pot-hunter and was shot in large numbers. Its future would seem to be a doubtful one.

Oxyechus vociferus vociferus (Linnaeus)

Killdeer

Synonyms-Charadrius vociferus: Aegialitis vocifera.

Common resident of lowlands. Occurs in summer up to about 7000 feet altitude around mountain lakes. According to W. L. Dawson (Condor, **18**, 1916: 25), much more abundant in winter than in summer along Santa Barbara County coast. Breeds ordinarily from late March until late May. Extreme nesting dates for Los Angeles County, by Antonin Jay, are: Slightly incubated eggs taken near El Monte April 1, 1906, and at Nigger Slough June 24, 1900 (Willett, Pac. Coast Avif., No. **7**, 1912: 40). According to W. M. Pierce (MS), nests commonly at Bear Lake, 6750 feet altitude in San Bernardino Mountains.

Pluvialis dominica dominica (Müller) American Golden Plover

Synonym-Charadrius dominicus dominicus.

Stated by the 1931 A.O.U. Check-list to be "regular migrant on Pacific coast in autumn", spring migration being up Mississippi Valley. However, must be regarded as rare in southern California, the only records known to the writer being as follows: Young female (L. B. Bishop coll., no. 30815) taken by Dr. Bishop at La Patera Point, near Santa Barbara, November 11, 1918. Single bird seen at Playa del Rey, Los Angeles County, October 4, 1923 (Schneider, Bird-Lore, 25, 1923: 409; Bicknell, Condor, 26, 1924: 77-78); additional records of single birds from same locality, by Mrs. F. B. Schneider, September 4, 1924, November 9, 1926, and November 27, 1927 (Bird-Lore, 26, 1924: 427; 29, 1927: 64; 30, 1928: 24). Two sight records of single birds seen during winter season, one at Santa Barbara, December 23, 1911 (Dawson and White, Bird-Lore, 14, 1912: 44), and the other at Coronado Beach, San Diego County, January 12, 15 and 20, 1908 (Torrey, Condor, 11, 1909: 207). The writer does not consider these sight records sufficient to prove wintering of the American Golden Plover in southern California. Even if correctly identified as to species, their allocation to a particular race would be obviously impossible.

Squatarola squatarola (Linnaeus) Black-bellied Plover

Synonym—Squatarola squatarola cynosurae.

Common migrant along coast, less plentiful during winter. Fall migration, late July to October 20; spring migration, April 1 to late May. Occasional birds seen in June and early July are probably non-breeding laggards. Six or eight birds seen (one taken) by H. S. Swarth at Ballona, Los Angeles County, May 18, 1900, and two seen in same locality May 22, following. One bird in summer plumage noted by C. B. Linton on San Nicolas Island June 1, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 40). Two birds in "winter" plumage seen by W. L. Dawson near Santa Barbara June 5, 1915 (Condor, 17, 1915: 207), and three observed by C. C. Lamb near Venice, Los Angeles County, July 4, 1922 (Condor, 24, 1922: 184). The species was noted by J. H. Bowles at Santa Barbara November 25, 1911 (Condor, 14, 1912: 10), and by C. B. Linton, near San Diego November 6, 1906, at Santa Cruz Island December 8, 1907, and at Alamitos Bay, Los Angeles County, January 9-11, 1907 (Willett, loc. cit.). Specimens in Los Angeles Museum from Redondo, December 13, 1890; Alamitos Bay, March 12, 1908, and Hyperion, March 19, 1907.

Aphriza virgata (Gmelin) Surf-bird

Probably regular migrant in small numbers; may also be looked for in winter, as it is known to occur further north at that season. Generally found on rocky shores. Recorded at Santa Barbara, September 16, 1911 (flock of five) (Bowles and Howell, Condor, 14, 1912: 11); May 3, 1912 (flock of twenty-three) (Dawson, Condor, 14, 1912: 224); May 1, 1913 (Grinnell, Bryant and Storer [Howell MS], Game Birds Calif., 1918: 487), and June 4, 1915 (two individuals) (Dawson, Condor, 17, 1915: 207). Several specimens secured by R. H. Beck on San Miguel Island between March 13 and April 1, 1903 (Willett, Pac. Coast Avif., No. 7, 1912: 41). Adult bird taken by C. B. Linton on San Nicolas Island May 15, 1909 (loc. cit.). Twelve birds seen (one collected) by J. Stevenson at Ventura May 11, 1929 (Condor, 32, 1930: 72). One bird taken by L. E. Wyman at Hyperion, Los Angeles County, May 1, 1915 (Condor, 18, 1916: 203). Two seen by Mrs. F. B. Schneider at Long Beach October 3, 1920 (Bird-Lore, 22, 1920: 362). Immature male taken by H. W. Marsden at Pacific Beach, San Diego County, September 8, 1904 (Bishop, Condor, 7, 1905: 141). Bird (F. Stephens coll.) obtained at Point Loma, San Diego County, March 19, 1898 (Grinnell, Bryant and Storer, loc. cit.). Seventeen birds seen by J. W. Sefton, Jr., at Point Loma April 17, 1932, and five in same locality April 24, following. Two of latter secured (Condor, 34, 1932: 194). Male (L. B. Bishop coll.) taken by J. C. von Bloeker, Jr., near San Diego June 9, 1928.

Arenaria interpres morinella (Linnaeus) Ruddy Turnstone

Synonym—Arenaria interpres oahuensis.

Fairly common migrant along coast and on Santa Barbara Islands; most plentiful in fall. Rare in winter and mid-summer. Recorded from Santa Barbara, in fall of 1885 (Streator, Orn. and Ool., 11, 1886: 89); July 26, 1909 (Torrey, Condor, 11, 1909: 174), and August 22 to September 12, 1911 (Bowles and Howell, Condor, 14, 1912: 11). Immature male collected by J. Stevenson near Ventura September 17, 1929 (Condor, 32, 1930: 72). Two birds seen (one secured) by C. C. Lamb near Point Mugu, Ventura County, August 27, 1921 (Condor, 24, 1922: 184). Bird taken by H. Robertson at Long Beach, Los Angeles County, August 24, 1897 (Bull. Cooper Orn. Club, 1, 1899: 94). Female taken by G. Willett at Sunset Beach, Orange County, September 20, 1901 (Condor, 10, 1908: 50). Immature male taken by J. S. Rowley (MS) at San Juan Capistrano, Orange County, September 12, 1924. Immature female collected by H. W. Marsden at Pacific Beach, San Diego County, September 8, 1904 (Bishop, Condor, 7, 1905: 141), recorded as A. i. interpres. Two birds seen by C. B. Linton on San Miguel Island October 15, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 42); one seen by H. Wright on Santa Cruz Island July 8, 1912 (Condor, 15, 1913: 91); immature male collected by Wright on Catalina Island September 3, 1907 (Grinnell, Condor, 11, 1909: 139); specimens taken by E. A. Mearns and A. W. Anthony on San Clemente Island in late August, 1894 (Bull. 56, U.S.N.M., 1907: 141), and by G. Willett on the same island October 8, 1933.

Nineteen specimens secured by C. B. Linton on San Nicolas Island between March 30 and May 11, 1910 (Willett, loc. cit.); five birds seen (two collected) by C. C. Lamb near Wilmington, Los Angeles County, May 7, 1922 (Condor, 24, 1922: 184). One bird reported as wintering at Playa del Rey, Los Angeles County (Schneider, Bird Lore, 28, 1926: 149). Single bird seen by R. Hoffmann at False Bay, San Diego County, December 29, 1922 (Condor, 25, 1923: 106). Further recorded in winter in vicinity of San Diego, as follows: Five birds seen December 23, 1926 (Abbott et al, Bird-Lore, 29, 1927: 50); one December 21, 1929, and twenty-six December 22, 1930 (Huey et al, Bird-Lore, 32, 1930: 63; 33, 1931: 76).

Arenaria melanocephala (Vigors) Black Turnstone

Common in small flocks, mostly along rocky shores, from August to May. Particularly plentiful on Santa Barbara Islands. Arrives largely in August and leaves in April. Non-breeding birds frequently seen in summer. Found common by C. B. Linton on the channel islands as late as June 1, and several seen on San Nicolas and Santa Barbara islands July 4 and 5, 1909; seen by G. Willett on Santa Barbara Island June 14, 1911, on San Miguel Island June 21, 1910, at Bolsa Chica, Orange County, July 24, 1911, and at Hyperion, Los Angeles County, July 28, 1910 (Pac. Coast Avif., No. 7, 1912: 42).

FAMILY SCOLOPACIDAE Snipes, Sandpipers, etc.

Capella delicata (Ord)

Wilson Snipe

Synonyms-Gallinago delicata: Jack Snipe.

Common in fall, winter and spring, in grassy swamps and wet pasture lands of lower country; occasional in suitable localities at higher altitudes. Arrives mostly in late August and September, and leaves in March and early April. Noted by J. H. Bowles at Santa Barbara as late as April 27, (1911) (Condor, 14, 1912: 7). In southern California, so far, found nesting only in San Bernardino Valley. Several sets of eggs taken by E. Wall near San Bernardino from 1887 to 1893; nest containing three eggs found in same locality in 1917, and another with four young birds and unhatched egg in 1918 (Condor, 21, 1919: 207-209). Nest and three fresh eggs taken by G. M. Archibald near Colton, San Bernardino County, April 26, 1926 (Hanna, Condor, 29, 1927: 163). Bird seen at Hemet Lake, San Jacinto Mountains, August 14, 1908, reported by Grinnell and Swarth (Univ. Calif. Publ. Zool., 10, 1913: 227).

Numenius americanus americanus Bechstein Long-billed Curlew

Synonyms-Numenius longirostris: Numenius occidentalis.

Common in fall, winter and spring on coastal marshes and in suitable localities in interior. Arrives mostly in late July, August and September, and leaves in April and early May. Occasional in early summer. In the Los Angeles Museum collection are a number of specimens of this bird collected during the winter months, also one taken at Hyperion, Los Angeles County, June 4, 1917, and another at Sunset Beach, Orange County, July 2, same year. Seven specimens (S.D.S.N.H.) taken at San Diego Bay between September 22 (1922) and October 12 (1926).

Owing to the difficulty in distinguishing this form from the next in the field, only specimens examined by the writer have been considered here. Of fifteen adult birds in the Los Angeles Museum and Dickey collection, ten are assignable to *americanus*.

Numenius americanus parvus Bishop Northern Curlew

Synonym—Numenius americanus occidentalis, of A.O.U. Check-list (4th edition, 1931); not of Woodhouse, 1853.

After a careful study of all available specimens, the writer is forced to agree with L. B. Bishop (Auk, **27**, 1910: 61) that the bird used by Woodhouse as the type of *Numinius* (sic) *occidentalis* (Proc. Acad. Nat. Sci. Phil., **6**, 1852 [Feb. 7, 1853]: 194) was in reality a young female N. a. americanus. Therefore the name *parvus* is used here.

As most writers on California ornithology have included this form with the last, definite records are few. The following adult, or sub-adult, birds have been examined by the writer: Three females in Los Angeles Museum, taken at Hyperion, Los Angeles County, October 3, 1916, October 10, 1918, and November 9, 1916; male and female in Dickey collection, taken at Seal Beach, Orange County, October 11, 1915, and May 30, 1915, respectively, and male in San Diego Society of Natural History collection, taken at San Diego January 23, 1919. R. Ridgway (Bull. **50**, U.S.N.M., 1919: 394) gives a record for Huntington Beach, Orange County, August 22.

Phaeopus hudsonicus (Latham) Hudsonian Curlew

Synonym-Numenius hudsonicus.

Abundant migrant, mostly coastwise but occasional inland. Winters in small numbers. Fall migration, early July to October; spring migration, late February to early May. Birds seen in late May and month of June probably non-breeders that linger here through nesting season. Flock of twenty-five or thirty birds seen by G. Willett at Nigger Slough, Los Angeles County, May 25, 1907 (Pac. Coast Avif., No. 7, 1912: 39). Noted near Santa Barbara, by J. H. Bowles June 2, 1911 (Condor, 14, 1912: 10), and by W. L. Dawson June 4, 9, 25 and 30, 1915 (Condor, 17, 1915: 207). Specimen taken by C. B. Linton on Santa Cruz Island December 8, 1907 (Condor, 10, 1908: 126). Bird seen by R. Hoffman at Santa Barbara December 20, 1930 (Bird-Lore, 33, 1931: 78), and another by W. L. Dawson in same locality December 26, 1914 (Bird-Lore, 17, 1915: 47). Two collected by L. B. Bishop (MS) between Ventura and Carpinteria December 10, 1918; also noted by Dr. Bishop (MS) at Hyperion, Los Angeles County, December 9, 1920, January 6, 1919, and January 7 and 14, 1921, and by H. N. McCoy (MS) at Del Rey, same county, January 10, 1930. Bird seen by Mrs. F. B. Schneider at Bolsa Chica, Orange County, January 25, 1926 (Bird-Lore, 28, 1926: 148), and several seen at Sunset Beach, same county, February 25, following (op. cit.: 220). According to Christmas bird censuses published in "Bird Lore," the species occurred at San Diego in late December each year from 1923 to 1930.

Actitis macularia (Linnaeus) Spotted Sandpiper

Common along rocky shores from September to May; occasional inland, mostly during migrations. Has been known to nest as far south as Ventura County, and Bear Lake, San Bernardino Mountains. Plentiful in winter around Santa Barbara Islands and on rocky shores of mainland. Noted by C. B. Linton on San Nicolas Island in spring as late as May 18 (1909); one bird seen by G. Willett at Nigger Slough, Los Angeles County, May 28, 1910, and two on Anacapa Island June 5, same year (Pac. Coast Avif., No. 7, 1912: 39). Noted by J. Grinnell and H. S. Swarth in San Gorgonio Pass region May 12 to 20, 1908, and at Hemet Lake, San Jacinto Mountains, August 6 to 16, same year (Univ. Calif. Publ. Zool., 10, 1913: 227). Several birds seen by J. Grinnell at Bear Lake, San Bernardino Mountains, August 2, 1905, and pair noted at Dry Lake, 9000 feet altitude, July 15, 1906 (Univ. Calif. Publ. Zool., 5, 1908: 56). Pair of adults, with four small young, seen by W. M. Pierce at

Bear Lake July 12, 1932 (Condor, **35**, 1933: 201). Set of three eggs taken by B. Ruggles near Santa Paula, Ventura County, in May, 1892, and another set of three taken by M. Richardson in same locality in May, 1900 (Willett, loc. cit.). I have examined these eggs and they are undoubtedly those of the Spotted Sandpiper.

Tringa solitaria cinnamomea (Brewster) Western Solitary Sandpiper

Synonym-Helodromus solitarius cinnamomeus.

Formerly fairly common migrant; now rather rare. Fall migration principally from late July to early September; spring migration mainly during April. Recorded by A. B. Howell and J. H. Bowles (Condor, 14, 1912: 9) as occurring rather rarely on grassy mud-flats in vicinity of Santa Barbara, where noted in fall from July 22 (1910) to September 7 (1911). Their only spring record was of one bird seen April 30, 1910. Found by H. S. Swarth along Los Angeles River in fall from August 25 (1900) to September 22 (1898), and in spring from April 10 to May 14 (1898) (Willett, Pac. Coast Avif., No. 7, 1912: 38). Female (L. B. Bishop coll.) taken by L. E. Wyman at Dominguez, Los Angeles County, September 26, 1915. Noted by J. G. Cooper along freshwater streams of Ventura County (Auk, 4, 1887: 91), and in Cuyamaca Mountains, San Diego County (Am. Nat., 8, 1874: 18). Two birds taken by A. J. van Rossem at Bear Lake, San Bernardino Mountains, August 26, 1910 (Condor, 16, 1914: 145). Migrating individuals seen by J. Grinnell and H. S. Swarth at Hemet Lake, San Jacinto Mountains, on several occasions from August 6 to 16, 1908, specimens being taken August 10 and 15 (Univ. Calif. Publ. Zool., 10, 1913: 227). Noted on San Clemente Island by E. A. Mearns and A. W. Anthony in late August, 1894 (Bull. 56, U.S.N.M., 1907: 141), and on Santa Cruz Island by C. P. Streator March 17 or 18, 1886 (Orn. and Ool., 13, 1888: 53).

The differences usually given for separating the eastern and western forms of the solitary sandpiper are difficult to follow, most of them being due to age or season, rather than to geographical range. Though western birds appear to average slightly larger than eastern examples, this difference alone is hardly great enough to warrant recognition of the two races. The one character that seems to hold in all specimens examined by the writer is the mottling near base of inner web of outer primary in western birds, a feature that appears to be absent in specimens from the east.

Heteroscelus incanus (Gmelin) Wandering Tattler

Synonym—Heteractitis incanus.

Fairly common along rocky shores in fall, winter and spring. Occasional during summer months. Particularly plentiful on Santa Barbara Islands, in company with Spotted Sandpipers and turnstones. Migrations occur mostly in August and April. Found by C. B. Linton to be common on San Clemente, San Nicolas and Santa Barbara islands, from September 1 to June 12 (Willett, Pac. Coast Avif., No. 7, 1912: 39). Seen by E. W. Blake, Jr., on Santa Cruz Island July 4 to 24, 1887 (Auk, 4, 1887: 329), and by G. Willett on San Miguel Island June 9 to 23, 1910 (Condor, 12, 1910: 173), and on Catalina Island August 1 to 13, 1927. Several birds seen by Antonin Jay on Santa Barbara Island July 3, 1909 (Willett, Pac. Coast Avif., No. 7, 1912: 39). Male taken by J. E. Law near Santa Monica, Los Angeles County, December 11, 1905 (loc. cit.). Specimen secured by C. B. Linton at Santa Cruz Island December 17, 1907 (Condor, 10, 1908: 126). Frequently seen by the writer on rocky shores between San Pedro and Redondo during winter months.

Catoptrophorus semipalmatus inornatus (Brewster) Western Willet

Synonym—Symphemia semipalmata inornata.

May be found along coast and on inland bodies of water every month in year. Most abundant during fall migration, from late July to October; less plentiful in spring migration in April and May. Rather common in winter along beaches. Frequently seen during summer, but not known to breed in southern California. Recorded by J. Grinnell (Univ. Calif. Publ. Zool., **5**, 1908: 55) as quite common at Bear Lake, San Bernardino Mountains, from July 28 to August 2, 1905. Small flock seen by G. Willett on San Miguel Island June 17, 1910 (Condor, **12**, 1910: 173).

Totanus melanoleucus (Gmelin) Greater Yellow-legs

Common along coast and on fresh-water ponds during migrations; less common in mid-winter, north at least to Santa Barbara. Occasional during summer. Arrives mostly in September and October and leaves in April. Seen at Nigger Slough, Los Angeles County, by G. F. Morcom June 19, 1897, and by H. S. Swarth in July (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 17). Four birds seen by J. H. Bowles at Santa Barbara July 18, 1910, and one bird noted in same locality January 2, 1911 (Condor, **14**, 1912: 9). Birds taken by C. B. Linton at San Diego Bay December 5, 1906, and at Long Beach, Los Angeles County, January 19, 1907 (Willet, Pac. Coast Avif., No. **7**, 1912: 38).

Totanus flavipes (Gmelin) Lesser Yellow-legs

Rather rare migrant; so far, noted on Pacific slope of southern California only in fall. Recorded from Santa Barbara by W. L. Dawson from August 30 to September 12, 1912 (five individuals seen repeatedly) (Condor, 14, 1912: 224), and August 16 to 30, 1913 (eleven seen) (Condor, 15, 1913: 204). Male of year taken by A. J. van Rossem at Goleta, Santa Barbara County, August 11, 1915 (Condor, 18, 1916: 171). Recorded by Mrs. F. B. Schneider from Playa del Rey, Los Angeles County, September 4, 1924,

September 6 and 10, 1925, and August 11 and 14, and October 5, 1926 (Bird-Lore, **26**, 1924: 427; **27**, 1925: 416; **28**, 1926: 356, 413 and 414). Specimen taken at San Diego about 1880 (Grinnell, Bryant and Storer [Belding MS], Game Birds Calif., 1918: 409).

Calidris canutus rufus (Wilson) American Knot

Synonyms-Tringa canutus, part: Calidris canutus, part.

Regular migrant in small numbers, most common in fall. Several specimens taken by A. B. Howell and J. H. Bowles at Santa Barbara during late August and early September, 1911; first seen August 24; last seen September 9 (Condor, 14, 1912: 8). Bird found dead on beach at Ventura September 16, 1929 (Stevenson, Condor, 32, 1930: 72). Several birds seen at Playa del Rey, Los Angeles County, by Mary Mann Miller August 17, 1923, and by R. C. Ross from August 30 to September 20, following (Condor, 26, 1924: 91). Many sight records for fall dates occur in seasonal lists in "Bird-Lore". Two males and a female secured by C. B. Linton, from flock of about thirty birds, at Alamitos Bay, Los Angeles County, September 18, 1907, and male taken by G. Willett in same locality October 10, following (Pac. Coast Avif., No. 7, 1912: 36). Male taken by C. C. Lamb at Anaheim Landing, Orange County, October 3, 1909 (Condor, 11, 1909: 208). Two young males collected by H. W. Marsden at Pacific Beach, San Diego County, September 8, 1904 (Bishop, Condor, 7, 1905: 141); male and two females, also taken by Marsden in same locality, October 7 and 9, 1903 (Dwight, Auk, 21, 1904: 78). Two birds taken from flock of five or six near Sunset Beach, Orange County, April 24, 1923 (Wyman, Condor, 25, 1923: 132). Recorded by Mrs. F. B. Schneider from Playa del Rey April 19, 1924, and June 4, 1925 (Bird-Lore, 26, 1924: 278; 27, 1925: 273), and from Balboa, Orange County, July 10, 1921, and July 23, 1925 (Bird-Lore, 23, 1921: 256; 27, 1925: 348).

Pisobia acuminata (Horsfield) Sharp-tailed Sandpiper

Synonym-Pisobia aurita.

One record: Young male taken by A. W. Anthony at Mission Bay, near San Diego, September 16, 1921 (Auk, **39**, 1922: 106).

Pisobia melanotos (Vieillot) Pectoral Sandpiper

Synonym—Pisobia maculata.

Rather rare migrant. Two birds seen at Santa Barbara by Bradford Torrey September 18, three September 20 and one September 21 and 23, 1909 (Condor, **12**, 1910: 44); several noted by J. H. Bowles in same locality September 8, 1910, and one collected following day (Condor, **13**, 1911: 85); Mr. Bowles also saw a bird on August 18 and another on August 20, 1911 (Condor, 14, 1912: 8), and noted the species in spring migration April 14, 1910 (Auk, 28, 1911: 172). Further reported from vicinity of Santa Barbara by W. L. Dawson (Condor, 18, 1916: 25) August 20, 1913, and August 25, 1915. Birds seen at Del Rey, Los Angeles County, September 16, 1923 (Schneider, Bird-Lore, 25, 1923: 409; Wyman, Condor, 26, 1924: 36), and September 15, 1927 (Schneider, Bird-Lore, 29, 1927: 438). Several observed by H. H. Kimball near National City, San Diego County, in late October, 1917 (Condor, 24, 1922: 96). Record of sixteen birds seen on the Malibu, above Santa Monica, November 11, 1927 (Schneider, Bird-Lore, 30, 1928: 24), perhaps open to question.

Pisobia bairdii (Coues) Baird Sandpiper

Rather rare migrant coastwise; most plentiful in fall. Found by A. B. Howell and J. H. Bowles to be fairly common near Santa Barbara in fall of 1911; earliest specimen, a male, taken August 11, and they were fairly plentiful from that date until about September 7 (Condor, 14, 1912: 8). Stated by W. L. Dawson (Condor, 18, 1916: 25) to be "of infallible occurrence in autumn" near Santa Barbara, appearances ranging from July 25 (1914) to September 4 (1911); also recorded in spring, April 27, 1912, May 2, 1913, and May 5 and 7, 1915. Five birds seen (three taken) by L. E. Wyman near Del Rey, Los Angeles County, August 17, 1916 (Condor, 19, 1917: 142); female secured by Wyman in same locality September 10, 1918, and male October 4, following (Condor, 21, 1919: 172). Young male taken by H. W. Wright on Catalina Island September 1, 1907 (Grinnell, Condor, 11, 1909: 139), and young female by H. W. Marsden at Pacific Beach, San Diego County, September 8, 1904 (Bishop, Condor, 7, 1905: 141). Many sight records published in "Bird-Lore".

Pisobia minutilla (Vieillot) Least Sandpiper

Abundant migrant along coast and on inland bodies of water. Remains through winter in considerable numbers. Arrives mostly in August and September, and leaves in April and first part of May. Non-breeding birds frequently seen during summer months.

Pelidna alpina sakhalina (Vieillot) Red-backed Sandpiper

Common migrant along coast, occasional on inland ponds; less plentiful in midwinter. Most abundant in fall from September 15 to November 1, and in spring from April 10 to May 7. The writer saw several birds of this species at Nigger Slough, Los Angeles County, May 19, 1906, and found them common at Alamitos Bay December 19, same year (Pac. Coast Avif., No. 7, 1912: 37). Two birds seen by H. N. McCoy (MS) near Long Beach June 3 and 11, 1932.

Limnodromus griseus griseus (Gmelin) Eastern Dowitcher

Synonyms-Macrorhamphus griseus griseus: Limnodromus griseus hendersoni.

Of the authors who have reviewed the dowitchers during recent years, no two have been in complete agreement in regard to their classification and distribution. Earlier students evidently did not appreciate the size differences between the sexes, which was demonstrated by R. H. Howe, Jr. (Auk, 18, 1901: 157-158), and is now generally admitted. R. A. Rowan (Auk, 49, 1932: 14-35) recognized three North American dowitchers, the eastern bird, griseus; an interior bird, which he described as a subspecies of griseus, naming it hendersoni, and the western bird, scolopaceus, which he considered a distinct species. He cites occurrences of both scolopaceus and hendersoni in southern California. P. Brodkorb (Proc. Biol. Soc. Wash., 46, 1933: 123-128) considers both hendersoni and scolopaceus synonyms of griseus and names the western bird fasciatus. He, also, gives several records for both the eastern and western forms from southern California. The 1931 A.O.U. Check-list states that griseus occurs in California as a migrant, and scolopaceus as a migrant and winter visitant.

A study of material available to the writer seems to indicate that there are two forms of dowitchers in our region. One of these is clearly the larger, western bird, which we have been calling *scolopaceus*; the other is Rowan's *hendersoni*, which Brodkorb considers identical with *griseus*. While the writer is inclined to agree with Professor Rowan that there is a perceptible difference between *griseus* and the bird he called *hendersoni*, at least in summer plumage, there may be a question whether some of this difference is not due to age. At any rate, it is so slight that recognition of it by name seems hardly necessary.

In the Los Angeles Museum and L. B. Bishop collections are several southern California specimens of the Eastern Dowitcher, the earliest in the fall being a bird taken by L. E. Wyman at Sunset Beach, Orange County, October 10, 1919, and the latest in the spring, one taken by L. B. Bishop near Del Rey, Los Angeles County, April 25, 1923. There are also specimens (L. B. Bishop coll.) collected by K. Stager at Alamitos Bay, Los Angeles County, November 22 and December 15, 1930, and January 19, 1931, which would indicate that the bird is a winter visitant, as well as a migrant. P. Brodkorb (op. cit.: 126) lists specimens of griseus from Goleta, Santa Barbara County, Point Mague (Mugu), Ventura County, and Playa del Rey, Los Angeles County.

Limnodromus griseus scolopaceus (Say) Long-billed Dowitcher

Synonyms—Macrorhamphus griseus scolopaceus: Limnodromus griseus fasciatus.

Common migrant along shore and on fresh-water bodies, feeding on beaches and mud-flats; less plentiful in winter and in mid-summer. Fall migration, late July to October; spring migration mostly in April and early May. Noted by J. H. Bowles at Santa Barbara in fall from July 18 (1910) to November 1 (1911), and in spring from March 10 to May 2 (1910) (Condor, 14, 1912: 8). Specimen collected by L. L. Gardner at Balboa, Orange County, July 6, 1914 (Condor, 17, 1915: 99). Single bird seen by R. C. Ross at Playa del Rey, Los Angeles County, June 9, 1923, and flock of thirty in same locality July 12, following (Condor, 26, 1924: 91). Noted in San Diego Bay marshes, by C. B. Linton during winter of 1906-07 (Willett, Pac. Coast Avif., No. 7, 1912: 35), and by F. Stephens during winter of 1918-19 (Condor, 21, 1919: 124); also recorded during winter season at Santa Ana, Orange County, and Wilmington, Los Angeles County (Grinnell, Bryant and Storer, Game Birds Calif., 1918: 360). It is very probable that some of the above records are referable to the form *griseus*, as most Pacific coast ornithologists have lumped all our dowitchers under *scolopaceus*. All specimens of the Long-billed Dowitcher in the Los Angeles Museum were taken between October 19 and April 13.

Though P. Brodkorb (op. cit.: 123) has advanced some reasons for believing that the name *scolopaceus* may have been originally applied to the eastern bird, it appears to the writer that this can not be absolutely proven without examination of the type, and that, until such proof is produced, it is better to retain the old, familiar name.

Ereunetes mauri Cabanis Western Sandpiper

Abundant migrant on both fresh and salt water marshes; less common in winter; occasional in summer. Fall migration, late July through October; spring migration mostly between April 1 and May 20. Many winter records, north to San Francisco Bay (Grinnell, Bryant and Storer, Game Birds Calif., 1918: 388). Noted at Santa Barbara June 1 and 9, 1915 (Dawson, Condor, 17, 1915: 207), and July 11, 1910 (Bowles and Howell, Condor, 14, 1912: 9), and at San Luis Rey, San Diego County, July 12, 1908 (van Rossem, Condor, 16, 1914: 145).

Limosa fedoa (Linnaeus) Marbled Godwit

Common migrant along coast; rare inland. Plentiful in winter in vicinity of San Diego; less so further north. Begins arriving from north early in July, but is most common in September and October. Spring migration principally from late March to last of April. Stragglers frequently observed in May and June, as at Alamitos Bay, May 20, 1905 (Grinnell, Bryant and Storer, Game Birds Calif., 1918: 397); Los Angeles, June 16, 1875 (Henshaw, Ann. Rep. Ch. Eng. U.S.G.S., 1876, App. JJ: 272), and Santa Barbara, June 4, 1910 (Torrey, Condor, **12**, 1910: 204), June 4 and 9, 1915 (Dawson, Condor, **17**, 1915: 207) and June 15, 1911 (Bowles and Howell, Condor, **14**, 1912: 9).

Noted by H. S. Swarth at Terminal Island, Los Angeles County in December, 1899, and found common at San Diego Bay by C. B. Linton as late as December 5 (1906) (Willett, Pac. Coast Avif., No. 7, 1912: 37). According

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to Christmas censuses in "Bird-Lore", common at San Diego in late December most years from 1922 to 1931; also reported from Long Beach December 21, 1929, and December 22, 1931, and from Santa Barbara December 26, 1914, and December 27, 1915. Recorded by Mrs. F. B. Schneider at Bolsa Chica, Orange County, December 28, 1925 (Bird-Lore, 28, 1926: 148), at San Pedro January 16, 1923 (Bird-Lore, 25, 1923: 138), and Playa del Rey February 2, 1928(Bird-Lore, 30, 1928: 138). Seen near Playa del Rey, by L. B. Bishop (MS) January 11 and 17, and February 6 (one taken) and 20, 1923, and by H. N. McCoy (MS) January 10, 1930. Inland records from Elsinore Lake, Riverside County, in February, 1902 (Nordhoff, Auk, 19, 1902: 214), and Chatsworth Lake, Los Angeles County, October 3, 1926 (Schneider, Bird-Lore, **28**, 1926 : 414).

Crocethia alba (Pallas) Sanderling

Synonyms-Calidris leucophaea: Calidris arenaria.

Common in flocks on sandy beaches from August 15 to May 15; occasional in summer. Most abundant in spring and fall, part of species wintering to southward. Seen by Bradford Torrey at Santa Barbara every month except June (Field Days in Calif., 1913: 17). Noted by C. B. Linton at San Nicolas Island as late as May 30, 1910, and found common at Hyperion, Los Angeles County, by G. Willett. May 31, same year (Pac. Coast Avif., No. 7, 1912: 37). Specimen taken by H. S. Swarth at Redondo, Los Angeles County, June 4, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 17). Twelve birds seen by W. L. Dawson near Santa Barbara June 5, 1915 (Condor, 17, 1915: 207).

FAMILY RECURVIROSTRIDAE Avocets and Stilts

Recurvirostra americana Gmelin Avocet

Fairly common in marshy districts during migrations, which occur principally from late March to middle of May, and in September and October. Winters in coastal district, at least during some years. Formerly nested commonly at Nigger Slough, Los Angeles County, and at Alkali Lakes, near Santa Ana. Eggs taken by Evan Davis in latter locality from May 1 to August 1 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 16). The last breeding record I have seen for this region is of a colony of about a dozen pairs found nesting near Del Rey, Los Angeles County, by L. H. Miller (MS), June 18, 1923.

Noted at Santa Barbara, by J. H. Bowles from March 18 to May 20, October 12 and November 1, 1911, and by Bradford Torrey September 20, same year (Condor, 14, 1912: 7); single bird seen by W. L. Dawson in same locality June 1, 1915 (Condor, 17, 1915: 207). Pair taken by I. D. Nokes, from large flock, at Nigger Slough, November 15, 1914 (Condor, 17, 1915: 98). Several birds seen at Hemet Lake, San Jacinto Mountains, August 8 and 21, BIRDS OF SOUTHWESTERN CALIFORNIA

1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 226). According to W. M. Pierce (MS), common migrant, in August and September, at Bear Lake, San Bernardino Mountains. In the Daggett collection, Los Angeles Museum, are two specimens taken at Bixby, Los Angeles County, December 15, 1895, and four taken at Bolsa Chica, Orange County, December 15, 1900. In "Bird-Lore" Christmas censuses, from 1924 to 1931, are two late December records from Playa del Rey, one from Long Beach and six from San Diego. Thirteen birds seen by Mrs. F. B. Schneider at San Pedro January 9, 1922 (Bird-Lore, **24**, 1922: 106).

Himantopus mexicanus (Müller) Black-necked Stilt

Summer resident, though much less plentiful than formerly, as favorable breeding localities have largely disappeared. Arrives mostly in March and April, and departs in mid-October. Occasional in winter. Breeds from May 1 through July, most commonly from May 15 to June 15. Nests sparingly in Del Rev marshes, and formerly bred plentifully at Nigger Slough and near Santa Ana. Recorded by W. L. Dawson (Condor, 18, 1916: 25) as nesting in small numbers near Santa Barbara in 1912. Said by J. B. Dixon (MS) to be an irregular breeder in San Diego County. On May 18, 1931, he noted thirty or forty nests near Carlsbad, and several in San Luis Rey Valley. Birds seen at Hemet Lake, San Jacinto Mountains, August 5 and 21, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 227). About twenty-five birds noted by J. Grinnell at Bear Lake, San Bernardino Mountains, July 30, 1905 (Univ. Calif. Publ. Zool., 5, 1908: 55); recorded by W. M. Pierce (Condor, 29, 1927: 82) from same locality from August 1 to September 10 (1926). Male taken by J. Grinnell on San Nicolas Island May 25, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 26). Specimen taken by H. Robertson at Bixby, Los Angeles County, January 5, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 35). Three birds seen at Playa del Rey, Los Angeles County, December 15, 1925, and three more at Bolsa Chica, Orange County, January 25, 1926 (Schneider. Bird-Lore, 28, 1926: 148).

FAMILY PHALAROPODIDAE Phalaropes

Phalaropus fulicarius (Linnaeus) Red Phalarope

Abundant migrant on ocean, a few remaining through winter as far north as Monterey (Beck, Proc. Calif. Acad. Sci., ser. 4, vol. 3, 1910: 70). Fall migration, late July to November; spring migration, late April to early June. Occasional on inland bodies of water. Noted at Santa Barbara in fall, by J. H. Bowles from September 26 (1910) to November 30 (1911) (Willett, Pac. Coast Avif., No. 7, 1912: 33), and in spring by Bradford Torrey May 25 and 31, 1911 (Condor, 14, 1912: 6). Found abundant, by C. B. Linton and G. Willett, at Santa Cruz and Anacapa islands in late November and early December, 1907. By December 5, the majority had disappeared to the south-

ward (Condor, 10, 1908: 126). Found by the writer off San Pedro in fall from July 29 (1933) to December 16 (1928), most plentiful during September and October.

Inland, has been reported from Nigger Slough, Los Angeles County, May 25 and November 8, 1914 (Nokes, Condor, 17, 1915: 98), and May 27, 1918 (Wyman, Condor, 20, 1918: 192); Los Angeles, October 25, 1922 (Ross, Condor, 24, 1922: 66), and November 1, 1911 (Willett, Pac. Coast Avif., No. 7, 1912: 34); Pasadena, in fall (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 16); San Gabriel, Los Angeles County, October 22, 1921 (J. S. Rowley MS), and Corona, Riverside County, November 7, 1914 (Pierce, Condor, 17, 1915: 130).

Steganopus tricolor Vieillot Wilson Phalarope

Fairly common migrant along shore and on fresh water, from coast to mountains. Spring migration, late April to June; fall migration, late July to September. Specimen taken near Riverside in winter of 1891, recorded by E. Heller (Condor, 3, 1901: 100). Noted at Santa Barbara, by Bradford Torrey, from April 30 to May 6, 1909 (Condor, 11, 1909: 173), and by J. H. Bowles, May 20, 1911 (Condor, 14, 1912: 7); also noted in same locality in fall by Mr. Bowles, from July 22 to September 8 (1910) (Condor, 13, 1911: 35). Observed at Playa del Rey, Los Angeles County, by R. Ross, from July 20 to September 16 (1923) (Condor, 26, 1924: 90); by H. N. McCoy (MS), August 6 to 25, 1928; by Mrs. F. B. Schneider, from April 27 (1924) (Bird-Lore, 26, 1924: 279) to June 3 (1923) (Bird-Lore, 25, 1923: 270), and by J. Stevenson, April 13, 1929 (Condor, 34, 1932: 229). Flock of more than 200 birds seen by C. C. Lamb near Wilmington August 21, 1921 (Condor, 24, 1922: 184). Male taken by L. H. Miller at Nigger Slough, Los Angeles County, September 16, 1918 (Condor, 21, 1919: 39); five birds seen by Mrs. F. B. Schneider in same locality April 27, 1921 (Bird-Lore, 23, 1921: 209). Specimens collected by W. M. Pierce near Corona, Riverside County, April 17 and May 11, 1915 (Condor, 17, 1915: 166). Seen on reservoir at Banning, Riverside County, by R. A. Bramkamp (Condor, 24, 1922: 102); female (L. A. Mus.) taken at Elsinore Lake, same county, August 29, 1933. Three birds seen (one taken) at Hemet Lake, San Jacinto Mountains, August 11, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 226). Noted in small flocks at Bear Lake, San Bernardino Mountains, by J. Grinnell, from July 28 to August 2, 1905 (Univ. Calif. Publ. Zool., 5, 1908: 55), and by W. M. Pierce, August 1, 1926; by September 10, nearly all had moved on (Condor, 29, 1927:82).

Lobipes lobatus (Linnaeus) Northern Phalarope

Common migrant on ocean, along shore and on inland bodies of water. Fall migration, late July to late October; spring migration, late April to June. No definite winter record for our territory. Noted at Santa Barbara by Bradford Torrey and J. H. Bowles, in 1911, from August 4 to November 16, and

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from May 8 to June 16 (Condor, 14, 1912: 6). Recorded by J. G. Cooper (Auk, 4, 1887: 90) as seen on ponds in Ventura County every month during summer except June. Specimens taken by H. S. Swarth at Nigger Slough, Los Angeles County, as late as June 19 (1897); seen in large flocks, by F. S. Daggett, on fresh-water ponds at Bixby, same county, August 10 to 27, 1896 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 16). Two specimens taken from large flock, by C. B. Linton, at Santa Cruz Island, October 21, 1908 (Willett, Pac. Coast Avif., No. 7, 1912: 34).

FAMILY STERCORARIIDAE Jaegers and Skuas

Stercorarius pomarinus (Temminck) Pomarine Jaeger

Fairly common along California coast during fall migration; most plentiful five to ten miles off shore. According to R. H. Beck (Proc. Calif. Acad. Sci., ser. 4, vol. 3, 1910: 61), occurs off Monterey every month in year, but really common only during passage southward in August, September and October. Fifteen specimens taken by the writer off San Pedro between August 12 (1933) and October 20 (1929). Not yet detected in southern California during winter and spring.

Stercorarius parasiticus (Linnaeus) Parasitic Jaeger

By far, the most common member of the genus along the southern California coast. Most plentiful during fall migration, but seen occasionally in winter and spring. The writer has taken many specimens off San Pedro from August 12 (1933) through September and October, and also took birds at Hyperion, Los Angeles County, December 15 and 18, 1911 (Pac. Coast Avif., No. 7, 1912: 13). Recorded by H. W. Henshaw (Auk, 2, 1885: 232) as common in December, 1884, from Santa Barbara north, and by B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 88) as frequently seen in winter along the coast above Ventura. Nine specimens (S.D.S.N.H.) taken off San Diego between September 2 and April 1.

Stercorarius longicaudus Vieillot Long-tailed Jaeger

Apparently considerably less common than last species. Four specimens taken by the writer off San Pedro between July 29 (1933) and October 21 (1928). Young male (L. B. Bishop coll., no. 11682) secured by H. W. Marsden at Pacific Beach, San Diego County, September 19, 1904 (Bishop, Condor, 7, 1905: 141). The bird taken by L. E. Wyman at Hyperion, Los Angeles County, January 26, 1916, and recorded as *longicaudus* (Condor, 18, 1916: 203), is now number 37123, L. B. Bishop collection. It appears to be a specimen of *S. parasiticus*.

Some confusion has resulted from identification of this species by color of tarsi. In adult birds, blue tarsi are diagnostic of *longicaudus*, but all juvenile jaegers have tarsi of this color, which, in *parasiticus* and *pomarinus*, changes to black during the second year.

FAMILY LARIDAE Gulls and Terns

Larus hyperboreus Gunnerus Glaucous Gull

Synonyms—Larus hutchinsii: Larus barrovianus.

Undoubtedly winter visitant in small numbers, but close similarity, in some plumages, between it and *Larus glaucescens* renders most sight records questionable. Recorded by W. L. Dawson (Condor, **15**, 1913: 154; Birds of Calif., 1928: 364) from Santa Barbara, and by R. Ross (Condor, **28**, 1926: 241) from channel between San Pedro and Santa Cruz Island in late March, 1926. Yearling birds taken at Hyperion, Los Angeles County, March 13, 1922, and Anaheim Landing, Orange County, May 13, following, recorded by L. B. Bishop (Condor, **29**, 1927: 201). Three specimens secured by L. E. Wyman at Hyperion November 24, 1915, March 26, 1917, and January 28, 1921, also mentioned by Dr. Bishop (loc. cit.).

The November bird referred to above (L. A. Mus., no. 14142) was called by Jonathan Dwight "typical first winter *leucopterus*" (Bull. Am. Mus. Nat. Hist., **52**, 1925: 255). While it is true that this specimen has an unusually small bill for *hyperboreus*, it is matched exactly by an immature bird (L. B. Bishop coll.) from Barrow, Alaska, and I believe it is better to regard it as of that species. The same assignment should probably be made with the bird taken by J. E. Law at Long Beach November 18, 1906, and another taken by A. J. van Rossem at Buena Vista Lake, Kern County, December 30, 1921, though Dr. Dwight states (loc. cit.) that the Long Beach bird is "much like *kumlieni*", and the Buena Vista Lake bird is "perhaps nearer *leucopterus*."

I have never known of an adult Glaucous Gull being taken anywhere in California. This, however, is probably not surprising, as it is well known that immature gulls are more prone to wander than are adults. Variation in size is very great in this species, particularly as regards the bill. The small birds (Ridgway's *barrovianus*) appear to represent a very distinct species, until a large series is examined. Then it is found that intergrades are frequent, and that large and small birds occur in the same colonies.

Larus glaucescens Naumann Glaucous-winged Gull

Immature birds of this species rather common along our coast in winter, adults being more irregular in occurrence. Stated by B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 88) to be a winter visitant at Ventura, though not common. Recorded at San Diego by J. G. Cooper (Baird, Brewer and Ridgway, W.B.N.A., **2**, 1884: 224), and A. W. Anthony (Auk, **23**, 1906: 131). Both adults and immatures abundant along coast during winter of 1913-14, occurring as far south as San Diego Bay, where many individuals noted March 13, 1914 (Willett, Condor, **16**, 1914: 183); similarly abundant off San Pedro during winter of 1932-33. Recorded by J. Grinnell at Catalina Island in December, 1897 (Pub. **1**, Pasadena Acad. Sci., 1897: 6), and by G. F. Breninger at San Clemente Island in February, 1903 (Auk, **21**, 1904: 219). Immature female (Willett coll.) taken by Antonin Jay at Hyperion, Los Angeles County, July 4, 1910 (Pac. Coast Avif., No. **7**, 1912: 13). Seen frequently during winter season at Westlake Park, Los Angeles, by H. N. McCoy (MS), and by members of the Audubon Society (Schneider, Bird-Lore, **30**, 1928: 138).

Larus occidentalis wymani Dickey and van Rossem Wyman Gull

Synonyms-Larus occidentalis, part: Larus occidentalis livens, part.

Abundant resident along sea coast. Breeds in May and June on all Santa Barbara Islands. During nesting season, most Western Gulls seen alongmainland shore are immature birds.

Dickey and van Rossem (Condor, 27, 1925: 162-164) have given the name *Larus occidentalis wymani* to our southern California Western Gull. Though the characters differentiating this form from *L. occidentalis occidentalis*, of the coast further north, are not very pronounced, they seem to be fairly constant, when adult birds in the same stage of plumage are compared.

Larus argentatus smithsonianus Coues Herring Gull

Synonym-Larus argentatus, part.

Fairly common in winter along coast, south to Lower California. Occasional on inland lakes and ponds. Arrives about September, and remains until early May.

Larus argentatus thayeri Brooks Thayer Gull

Synonym-Larus argentatus, part.

Occasional in winter. Following adult specimens from southern California examined by the writer: Two adult females (L. A. Mus., nos. 2960 and 3015) taken by L. E. Wyman at Hyperion, Los Angeles County, December 30, 1918, and February 3, 1919, respectively. Three adult females (L. B. Bishop coll., nos. 31754, 32993 and 32994) collected by Dr. Bishop at Hyperion January 6, 1919, and January 18 and March 14, 1922. In the above-mentioned collections are also a number of immature birds that have been assigned to this race.

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Larus californicus Lawrence California Gull

Common, both along coast and several miles inland, from late September to early May. Acts as a scavenger around our city school-grounds and in other localities where food is to be found. J. McB. Robertson writes me in regard to California and Ring-billed gulls near Buena Park, Orange County: "They are abundant near Buena Park wherever plowing is being done, having been seen from November 24 to May 23 (1927). The two species are found together, and late spring birds are all in immature plumage. The habit of following the plow has developed in this locality during the last ten years. The birds arrive about sunrise and leave for the ocean at sunset. It is about ten miles from here to the nearest beach."

Larus delawarensis Ord Ring-billed Gull

Abundant winter visitant along coast from September to May; also common inland. Adult birds noted by the writer at San Pedro as early as August 8 (1933), and at Hyperion, Los Angeles County, as late as April 25 (1910); immature birds lingering in latter locality as late as May 24 (1910) (Pac. Coast Avif., No. 7, 1912: 14).

Larus canus brachyrhynchus Richardson Short-billed Gull

Fairly common winter visitant along coast, south at least to San Diego. Male taken by A. J. van Rossem near Santa Barbara November 27, 1915 (Condor, 18, 1916: 171). Specimen found dead on beach near Ventura, by B. W. Evermann, in December, 1879 (Pac. Sci. Monthly, 1, 1886: 88). According to H. W. Henshaw (Auk, 2, 1885: 232), not uncommon along coast of southern California during winter of 1884. More than fifty specimens (L. A. Mus.), both adult and immature, taken by L. E. Wyman at Hyperion, Los Angeles County, during winter months; earliest, near-adult male taken November 17, 1915, and latest, immature male taken April 1, 1919. Pair of juvenals (Brit. Mus.) collected at San Diego in December (Saunders, Cat. Birds Brit. Mus., 25, 1896: 284).

Larus pipixcan Wagler Franklin Gull

Synonym-Larus franklini.

Rare straggler. Three specimens taken by J. E. Law at Hyperion, Los Angeles County, as follows: Immature, sex not ascertained, November 22, 1913; immature male, October 17, 1914, and immature female, November 24, 1914 (Condor, **17**, 1915: 96). Immature taken by L. E. Wyman, at Hyperion, October 29, 1917 (Condor, **20**, 1918: 192).

Larus philadelphia (Ord) Bonaparte Gull

Common along coast in fall, winter and spring. Frequently seen on inland bodies of water, mostly during migrations. Found plentiful along Los Angeles County coast, by the writer, from August 20 to May 10 (1910) (Pac. Coast Avif., No. 7, 1912: 15); twelve immature birds seen at San Pedro May 29, 1930 (Willett MS), and immatures common at Nigger Slough, Los Angeles County, as late as June 2 (1910) (loc. cit.). Recorded by H. W. Henshaw (Auk, 2, 1885: 232) as not uncommon in San Diego Bay during winter of 1884.

Larus heermanni Cassin Heermann Gull

Synonym—Blasipus heermanni.

Rather common along coast and among islands, from last week in May until middle of March. Much less plentiful at present time than when Avifauna No. 7 was published, in 1912. Originally described from San Diego (Proc. Acad. Nat. Sci. Phil., **6**, 1852: 187). This interesting species occurs along our shores every month in the year. The majority, however, leave for their breeding grounds off the Mexican coast during the month of March, and return during the last week in May and the month of June. This is the only species of the genus on our coast that goes south to breed.

Rissa tridactyla pollicaris Ridgway Pacific Kittiwake

Apparently rather rare winter visitant. Immature female found dead on beach at Playa del Rey, Los Angeles County, January 9, 1906 (Grinnell, Condor, 8, 1906: 57); immature male found dead by Antonin Jay in same locality December 30, 1911 (Willett, Pac. Coast Avif., No. 7, 1912: 13). Female taken by C. B. Linton at Alamitos Bay, Los Angeles County, April 14, 1907 (Condor, 9, 1907: 199). Immature male (L. A. Mus.) taken by J. Hornung at Manhattan Beach, same county, January 17, 1921. Adult (wing and skull in L. A. Mus.) found dead on beach at Hyperion, by L. E. Wyman, March 8, 1916. Noted by A. W. Anthony as of regular, though not common, occurrence off San Diego and about Coronados Islands (Auk, 15, 1898: 267). Specimen taken by Mr. Anthony near San Diego February 26, 1895 (Auk, 12, 1895: 177).

Xema sabini (Sabine) Sabine Gull

Common fall migrant on ocean; noted much less frequently in spring, the latter migration probably being a more hurried one. Found plentiful by the writer off San Pedro in fall from July 22 (1933) to October 14 (1928), many specimens being collected, but, so far, not seen in this locality in spring.

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Most common some distance off shore, but may often be noted from San Pedro breakwater, and occasionally appears on beaches. Specimens secured by H. W. Wright on several occasions during August, near Santa Cruz Island and Santa Barbara (Pac. Coast Avif., No. 7, 1912: 15; Condor, 15, 1913: 227). Two birds seen by Mrs. F. T. Bicknell on beach at Anaheim Landing, Orange County, August 30, 1921 (Condor, 23, 1921: 193). Five specimens collected by J. W. Sefton, Jr., off Point Loma, San Diego County, July 29, 1926 (Abbott, Condor, 29, 1927: 73).

Spring records, as follows: Single bird seen by L. H. Miller (MS) between Santa Barbara and Santa Cruz Island May 14, 1932; bird seen by Mrs. F. B. Schneider at Playa del Rey, Los Angeles County, April 22, 1926, and another at Hermosa Beach, Los Angeles County, May 20, following (Condor, 28, 1926: 178); several birds seen by E. W. Nelson off San Diego Bay May 15, 1905 (Mem. Nat. Acad. Sci., 16, 1921: 13); two males taken at this time are in Biological Survey collection (Cooke, U. S. Dept. Agr. Bull., 292, 1915: 67). One inland record, of immature bird seen by M. H. Lee near El Cajon, San Diego County, October 10, 1920 (Condor, 23, 1921: 37).

Sterna forsteri Nuttall Forster Tern

Common along coast and on inland lakes and ponds in fall, winter and spring; occasional during summer. Most abundant along Los Angeles County coast, in fall, from September 1 to October 20, and in spring, from March 10 to May 15. Several birds seen by G. Willett at Nigger Slough, Los Angeles County, May 25, 1907 (Pac. Coast Avif., No. 7, 1912: 16); found common at Elsinore Lake, Riverside County, by E. Heller, June 2, 1896 (Condor, 3, 1901: 100). Noted daily by J. Grinnell at Bear Lake, San Bernardino Mountains, from July 28 to August 2, 1905 (Univ. Calif. Publ. Zool., 5, 1908: 52). Although the Forster Tern has been reported as breeding in southern California, no authentic records are known to the writer.

Sterna hirundo hirundo Linnaeus Common Tern

Regular migrant; fall migration occurring in late August, September and October, and spring migration in May. Probably more common than has been generally known, as greater part of migration over open ocean. Record of sick bird taken at San Francisco January 19, 1903 (Littlejohn, Condor, 5, 1903: 81). Presence of this bird in such locality in winter probably due to its illness.

Found fairly common at Santa Barbara, by A. B. Howell and J. H. Bowles, during September, 1911 (Willett, Pac. Coast Avif., No. 7, 1912: 16). Numerous specimens collected by the writer off San Pedro from August 13 (1933) to October 14 (1928). Two birds taken by L. H. Miller at Hyperion, Los Angeles County, October 11, 1913 (Condor, 16, 1914: 40). Three specimens taken by F. S. Daggett near San Pedro September 13, 1902 (Condor, 5, 1903: 17) and one by H. S. Swarth at Terminal Island October 30, 1901

(Willett, loc. cit.) erroneously recorded as *Sterna paradisaea*. Five specimens taken by C. B. Linton at Alamitos Bay, Los Angeles County, September 25, 1907 (Willett, Condor, **10**, 1908: 50). The writer took a pair of adults, from a flock of fifteen or twenty birds, at Hyperion May 24, 1910 (Condor, **12**, 1910: 174), and found the species fairly common (specimen taken) off San Pedro May 7, 1929.

L. M. Huey now believes that his records of this tern at San Diego December 21, 1929, and December 22, 1930 (Bird-Lore, **32**, 1930: 63; **33**, 1931: 76) were probably the result of mis-identification.

Sterna paradisaea Brünnich Arctic Tern

Undoubtedly regular migrant, though not many specimens have been taken in southern California, and its close similarity to the two previous species renders sight records of little value. Several specimens (L. A. Mus.) taken by the writer off San Pedro in fall, from August 27 (1932) to October 14 (1928). One spring record, of female taken by H. G. White at Laguna Beach, Orange County, May 1, 1915 (Pierce, Condor, **21**, 1919: 125).

Regarding records of the Arctic Tern published in Avifauna No. 7, see notes under *Sterna hirundo*, also Swarth (Condor, **17**, 1915: 206).

Sterna antillarum (Lesson) Least Tern

Synonyms-Sterna antillarum browni: Sternula antillarum.

Formerly abundant summer resident along coast. As beaches formerly used by this bird for nesting purposes are now largely over-run by campers and recreationists during summer months, only a pitiful remnant of former numbers persists. The species is probably doomed to early extinction as a breeding bird of southern California. Small numbers still attempt to nest on beaches at Santa Barbara, Hueneme, Mugu Bay, Playa del Rey, Bolsa Chica, Huntington Beach, Balboa and Pacific Beach.

Arrives in April and leaves mostly in September, our latest fall record being of birds seen at Playa del Rey, Los Angeles County, October 16, 1927 (Schneider, Bird-Lore, **30**, 1928: 23). Birds reported seen at San Pedro December 26, 1915 (Fargo, Bird-Lore, **18**, 1916: 41) probably mis-identified. Eggs generally deposited during June and July. Fresh eggs found by Evan Davis at Newport, Orange County, from May 20 to August 12 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 8). Adults still feeding young noted by R. Hoffman at Carpinteria, Santa Barbara County, September 25, 1921 (Condor, **23**, 1921: 192). About forty pairs breeding near Santa Barbara in 1915, reported by W. L. Dawson (Condor, **18**, 1916: 18). According to L. Stevens (MS), about six pairs attempted to nest at foot of State Street, Santa Barbara in 1932; eggs laid, but no young raised, as beach too thickly over-run with bathers. Large colony nesting near entrance to False Bay, San Diego County, June 29, 1913, recorded by E. E. Sechrist (Oologist, **32**, 1915: 18); many nests

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in this colony destroyed by high tides. Under date of May 30, 1933, Mr. Sechrist writes me that these birds are now much less plentiful in San Diego County than formerly. Attempt to change nesting habitat indicated by small colony, reported by C. C. Lamb (Condor, 24, 1922: 182), on mud-flats near Venice, Los Angeles County, a mile or more back from sand dunes, and by

similar colony found by H. N. McCoy (MS) on mud-flats of upper Alamitos Bay June 3, 1932; still another colony, of twenty to twenty-five pairs, found by Mr. McCoy (MS) July 8, 1933, on gravelly flat near head of Newport Bay, Orange County.

E. A. Mearns (Proc. Biol. Soc. Wash., **29**, 1916: 71) proposed the name *Sterna antillarum browni* for the Least Tern of the Pacific Coast, the type specimen being from near the Mexican boundary line, San Diego County. A comparison of Atlantic and Pacific birds does not seem to the writer to show differences worthy of recognition by name.

Sterna maxima maxima Boddaert Roval Tern

Synonym—Thalasseus maximus maximus.

Fairly common along coast from September to May, though much less plentiful than in former years. About fifteen birds reported seen at Elsinore Lake, Riverside County, in February, 1902 (Nordhoff, Auk, **19**, 1902: 213) may have been mis-identified. Several June records, probably all of immature birds. One bird seen by J. Grinnell at Catalina Island June 9, 1897 (Pub. **1**, Pasadena Acad. Sci., 1897: 24); several seen by C. B. Linton at San Nicolas Island June 17, 1910 (Willett, Pac. Coast Avif., No. **7**, 1912: 15); a few immatures noted at San Miguel Island June 17, 1910 (Willett, Condor, **12**, 1910: 173) and two immatures seen by G. Willett (MS) at Long Beach, Los Angeles County, June 29, 1929. Reports of breeding of this tern in southern California almost certainly erroneous, nearest known nesting grounds being in Lower California.

Sterna elegans Gambel Elegant Tern

Synonym-Thalasseus elegans.

Breeds on coast and islands of Lower California and occurs irregularly (?) in fall along California coast north to San Francisco Bay (Cooper, Proc. Calif. Acad. Sci., **4**, 1868: 10). Found off Monterey in September and October, 1906 (Beck, Proc. Calif. Acad. Sci., ser. 4, vol. **3**, 1910: 64), and October 27, 1910 (Grinnell, Condor, **21**, 1919: 231). Numerous birds seen and specimens taken at Morro Bay, San Luis Obispo County, from September 22 to October **4**, 1918 (Grinnell, op. cit.: 232).

From the above it would seem that this tern may be expected to occur along our southern California coast in fall, but, so far, records are few for this locality. Recorded by Mrs. F. B. Schneider (Condor, **29**, 1927: 71) as common during fall of 1926 at various localities along shore, from Bolsa Chica, Orange County, to Playa del Rey, Los Angeles County; first birds seen July 30, and last, September 17. Adult male taken by H. W. Marsden at Pacific Beach, San Diego County, September 21, 1904 (Bishop, Condor, 7, 1905: 31). Recorded by C. G. Abbott (Condor, 29, 1927: 171) as present in some numbers off San Diego from early August to September 19, 1926; specimens collected by J. W. Sefton, Jr., September 5, 12 and 19.

Sterna caspia Pallas Caspian Tern

Synonym-Hydroprogne caspia imperator.

Winters in small numbers along our coast; occasional inland. Breeds at Salton Sea, Imperial County, and on Scammon's Lagoon, Lower California. Single birds recorded by W. L. Dawson (Condor, 18, 1916: 24) at Santa Barbara May 27 and August 6, 1915, and by Mrs. F. B. Schneider (Bird-Lore, 27, 1925: 348) at Playa del Rey, Los Angeles County, June 20, 1925. Noted by L. H. Miller at Point Mugu, Ventura County, in September, 1927, and by Mrs. F. B. Schneider at Playa del Rey in late August, same year (Michener, Condor, **30**, 1928 : 132). Mrs. Schneider also records two birds seen at San Pedro April 1, 1921 (Bird-Lore, 23, 1921: 150) and January 15, 1922 (Bird-Lore, 24, 1922: 106), and three at Bolsa Chica, Orange County, August 11, 1925 (Bird-Lore, 27, 1925: 348). Eight birds seen by C. B. Linton at Alamitos Bay, Los Angeles County, December 27, 1908 (Condor, 11, 1909: 68), and one by H. S. Swarth in same locality May 16, 1901 (Willett, Pac. Coast Avif., No. 7, 1912: 15). Five birds seen by W. C. Hanna (MS) at Norco Lake, near Corona, Riverside County, September 15, 1929, and single bird noted by H. N. McCoy (MS) at Elsinore Lake, same county, September 26, same year. According to J. B. Dixon (MS), about fifteen pairs summered at Lake Henshaw, San Diego County, in 1932, but no eggs were seen. Immature female (Brit. Mus.) taken by H. W. Henshaw at San Diego in December (Saunders, Cat. Birds Brit. Mus., 25, 1896: 32).

Chlidonias nigra surinamensis (Gmelin) Black Tern

Synonym-Hydrochelidon nigra surinamensis.

Common migrant on ocean, along shore, and on inland lakes and ponds. No authentic nesting records for Pacific slope of southern California, but has bred abundantly at Buena Vista Lake, Kern County. Reported by W. L. Dawson (Condor, **18**, 1916: 24) as present in "thousands" over kelp beds just off shore at Santa Barbara August 25, 1915, and still plentiful on coastal lagoons as late as September 11. I found the species abundant at Hyperion, Los Angeles County, from August 20 to September 10, 1910 (Pac. Coast Avif., No. **7**, 1912: 16), and saw four or five off San Pedro August 13, 1929. In 1931 I noted them off La Jolla August 8, off Point Loma August 10 and 15, and off Oceanside August 17. Several birds seen by Mrs. F. B. Schneider at Playa del Rey, Los Angeles County, June 22 and 29, and July 6, 1924 (Bird-Lore, **26**, 1924: 346); in this same locality, Mrs. Schneider also saw four birds July 15, 1925 (Bird-Lore, **27**, 1925: 348), and a large flock August 1, 1926 (Bird-Lore, **28**, 1926: 356).

Black Terns were rather common off San Pedro (some as far as ten miles out) April 23 and May 10, 1929 (Willett, MS), and plentiful at Nigger Slough, Los Angeles County, from April 22 to May 9, 1910, a few remaining as late as May 18 (Willett, loc. cit.). Reported from San Jacinto Lake, Riverside County, May 28, 1911 (Willett and Jay, Condor, **13**, 1911: 158), and Elsinore Lake, same county, June 2, 1896 (Heller, Condor, **3**, 1901: 100). One bird noted by J. Grinnell at Bear Lake, San Bernardino Mountains, July 30, 1905 (Univ. Calif. Pub. Zool., **5**, 1908: 52). These summer birds were probably non-breeding stragglers.

FAMILY ALCIDAE Auks, Murres and Puffins

Uria aalge californica (Bryant)

California Murre

Synonym—Uria troille californica.

Until recently, bred on San Miguel Island in moderate numbers. Occurs south in winter at least to coast of Orange County. Noted by C. P. Streator as rather rare at Santa Barbara in 1885 (Orn. and Ool., **11**, 1886: 107). Seen once in summer near Ventura by B. W. Evermann (Pac. Sci. Monthly, **1**, 1886: 89). Bird in dying condition found on beach at Santa Monica, Los Angeles County, by W. L. Chambers, November 3, 1900 (Swarth, Condor, **3**, 1901: 17); another taken by L. B. Bishop (MS) in same locality April 17, 1927. Bird (L. A. Mus.) found dead at Redondo, Los Angeles County, by C. H. Richardson, Jr., October 15, 1904. Most southern record, bird taken by A. J. van Rossem at Newport, Orange County, January 28, 1914 (Condor, **16**, 1914: 144). Other Orange County records are: Bay City (Seal Beach), March 9, 1910 (Willett, Pac. Coast Avif., No. **7**, 1912: 12), and Sunset Beach, January 19, 1929 (Stevenson, Condor, **31**, 1929: 132).

On June 6, 1906, J. S. Appleton and H. C. Burt took fresh and slightly incubated eggs of the California Murre from a colony of about one hundred pairs found breeding on small island about one-half mile from main island of San Miguel. In June, 1910, the writer visited this colony, accompanied by Mr. Appleton and other members of the Cooper Ornithological Club, and we found that number of birds had not appreciably increased or diminished since Mr. Appleton's first visit. By June 15 some eggs had hatched and most of the others were advanced in incubation (Condor, 12, 1910: 172). This same colony visited by H. W. Wright July 12, 1912, and many small young and addled eggs noted (Condor, 15, 1913: 89). J. R. Pemberton informs me that, although he has visited San Miguel Island on numerous occasions during the past few years, he has seen no murres and he believes that they no longer nest there. It will be a matter of deep regret to southern California ornithologists if this, the most southern colony of the species, has ceased to exist.

Cepphus columba Pallas

Pigeon Guillemot

Common resident on Santa Barbara, Anacapa, Santa Cruz, Santa Rosa and San Miguel islands; recorded south to San Nicolas and San Clemente. Noted breeding on Santa Cruz Island by H. W. Henshaw in summer of 1875 (Ann. Rep. Ch. Eng. U.S.G.S., 1876, App. JJ: 278), and by H. W. Wright July 5 and 6, 1912 (Condor, **15**, 1913: 89). Four sets of slightly incubated eggs taken by J. Grinnell and H. A. Gaylord on Santa Barbara Island May 15, 1897 (Pub. **1**, Pasadena Acad. Sci., 1897: 23). Fresh eggs found by G. Willett on San Miguel Island as late as June 23 (1910) (Condor, **12**, 1910: 172). Several nests containing young and incubated eggs found by M. C. Badger and S. B. Peyton on Anacapa Island May 26, 1917 (Oologist, **34**, 1917: 189). Three birds seen by G. Willett on San Nicolas Island June 26, 1911 (Pac. Coast Avif., No. **7**, 1912: 12). Recorded from San Clemente by J. G. Cooper (Proc. Calif. Acad. Sci., **4**, 1870: 79).

Brachyramphus marmoratus (Gmelin) Marbled Murrelet

Winter visitant on ocean, south at least to Santa Barbara. Though the A. O. U. Check-list and other lists have repeatedly given the range of this species as "south to San Diego in winter," the writer has been unable to find any authentic record south of Santa Barbara. Several specimens taken by C. P. Streator near Santa Barbara during winter of 1885-86 (Orn. and Ool., 11, 1886: 90). Bird found dead on beach by J. H. Bowles in same locality July 30, 1910. Another bird seen by Mr. Bowles around one of the piers at Santa Barbara (Willett, Pac. Coast Avif., No. 7, 1912: 11). The species was noted by L. M. Loomis and R. H. Beck at Monterey from late July (1894) to April 2 (1907). The birds were very irregular in their movements, being plentiful at certain seasons during some years and rare at the same seasons during other years (Proc. Calif. Acad. Sci., ser. 4, vol. 3, 1910: 59-60).

Brachyramphus hypoleucus Xantus

Xantus Murrelet

Synonym—Endomychura hypoleuca.

Fairly common on ocean throughout year. Breeds in small numbers on several of Santa Barbara Islands, north at least to Anacapa. H. W. Wright has noted this bird in summer at San Clemente Island and believes that they were breeding there, though no nests were located (Willett, Pac. Coast Avif., No. 7, 1912: 12). Mr. Wright took an egg at Santa Barbara Island July 2, 1912, and another at Anacapa Island July 5, same year (Condor, 15, 1913: 86-87). Previously recorded as breeding at Santa Barbara Island by J. G. Cooper (Proc. Calif. Acad. Sci., 4, 1868: 12), and G. Willett (loc. cit.). Eggs taken on Anacapa Island from May 12 (1912) (Peyton, Oologist, 30, 1913: 78) to May 29 (1911) (Willett, loc. cit.).

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Brachyramphus craveri (Salvadori) Craveri Murrelet

Synonym—Endomychura craveri.

Breeds on islands in Gulf of California and occurs after breeding season along southern California coast north to Monterey Bay. Six specimens taken by A. J. van Rossem and L. M. Huey between San Diego and Los Coronados August 13, 1914 (Condor, 17, 1915: 74). Specimens taken by G. Willett in channel between San Pedro and Catalina Island August 13, 1928, and August 20, 1932.

For distinguishing marks between this species and B. hypoleucus see van Rossem (Condor, 17, 1915: 74-76; 28, 1926: 80-83). The fact that two birds from Guadalupe Island, examined by the writer, appear to combine the bill of *craveri* with other characters of hypoleucus, may indicate intergradation between the two.

Synthliboramphus antiquus (Gmelin) Ancient Murrelet

Winter visitant along coast, south to Lower California. Specimens taken by C. B. Linton at Santa Cruz Island December 17 and 18, 1907 (Condor, **10**, 1908: 125), and at San Clemente Island in December, 1908 (Condor, **11**, 1909: 102). Bird taken by A. J. van Rossem, from flock of eight, at Catalina Island February 13, 1910 (Osburn, Condor, **13**, 1911: 76). Birds found dead on beach, by G. Willett at Hyperion, Los Angeles County, March 17, 1910 (Pac. Coast Avif., No. **7**, 1912: 11), by H. W. Wright at Terminal Island, same county, January 23 and February 8, 1908 (Condor, **11**, 1909: 64) and by H. W. Marsden at Pacific Beach, San Diego County, April 25, 1904 (Bishop, Condor, **7**, 1905: 141). Three specimens taken by J. W. Sefton, Jr., off Point Loma, San Diego County, November 11, 1926 (Condor, **29**, 1927: 163).

Ptychoramphus aleuticus (Pallas) Cassin Auklet

Common resident along coast. Breeds on Santa Barbara, Santa Cruz and San Miguel islands, and probably also on Santa Rosa. In winter may be found on ocean everywhere. Incubated eggs and young of various ages found by J. Grinnell and H. A. Gaylord on Santa Barbara Island May 16, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 22); this colony later exterminated by cats, but about one hundred nesting pairs found by G. Willett on detached rocky islet, about quarter of mile from main island, June 14, 1911; nine nests examined on this date contained heavily incubated eggs (Pac. Coast Avif., No. 7, 1912: 11). Incubated eggs and young found by R. H. Beck near Scorpion Harbor, Santa Cruz Island, June 5, 1895 (Bull. Cooper Orn. Club, 1, 1899: 85). Found breeding abundantly on small islands lying off San Miguel Island, by G. Willett, in summer of 1910. Two fresh eggs taken June 15, on which date most nests contained young (Condor, 12, 1910: 172).

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Cerorhinca monocerata (Pallas) Rhinoceros Auklet

Common winter visitant along coast, south to Lower California. Arrives mostly in September and October and may be found until early May. Bird taken by K. Stager (MS) off San Pedro as early as August 29 (1933). Frequently found dead along beaches. Recorded by H. W. Henshaw (Auk, 2, 1885: 387) as abundant off San Diego during winter of 1884.

Fratercula corniculata (Naumann) Horned Puffin

Bird found dead on beach at La Jolla, San Diego County, by W. R. Eastman, Jr., February 25, 1933, preserved as mummy (S.D.S.N.H., no. 16183) (L. M. Huey MS).

Lunda cirrhata (Pallas) Tufted Puffin

Fairly common summer resident on Anacapa, Santa Cruz and San Miguel islands and probably also on Santa Rosa; less plentiful on Santa Barbara and San Nicolas. Noted nesting on Santa Cruz Island, by H. W. Henshaw, in summer of 1875 (Ann. Rep. Ch. Eng. U.S.G.S., 1876, App. JJ: 278), and on Anacapa Island, by G. Willett, in June, 1910 (Condor, 12, 1910: 172). Fresh eggs taken by J. S. Appleton and H. C. Burt on San Miguel Island June 6, 1906 (Willett, Pac. Coast Avif., No. 7, 1912: 10). Bird seen on San Nicolas Island, by C. B. Linton, in May, 1910, and another by G. Willett, June 23, 1911 (loc. cit.). Has been noted on Santa Barbara Island by various observers. No winter records for southern California known to the writer.

Order COLUMBIFORMES Pigeon-like Birds FAMILY COLUMBIDAE Pigeons and Doves

Columba fasciata fasciata Say Band-tailed Pigeon

Breeds in moderate numbers in golden oak and black oak association in Transition life zone of mountains, mostly above 3000 feet, south to Laguna Mountains, southern San Diego County. More abundant in winter, at which time all pigeons that summer in Oregon, Washington and British Columbia are believed to be in California. During this season, irregularly plentiful in foothill and mountain regions up to level of heavy snow, occasionally appearing in flocks in lower country, feeding on grain and stubble fields. Noted by W. L. Chambers near Santa Monica, Los Angeles County, February 6, 1901, and by H. S. Swarth near Los Angeles in winter (Willett, Pac. Coast Avif., No. 7, 1912: 44). Abundant in grain fields in San Gorgonio Pass in March, 1901 (Gilman, Condor, **5**, 1903: 134). Flocks seen by L. Belding at El Cajon, San Diego County, December 15, 1883 (Land Birds Pac. Dist., 1890: 20). According to D. C. Meadows (MS), occurred on Catalina Island in January, 1932, twelve birds being seen on the tenth and twenty on the sixteenth of the month; also recorded from Santa Cruz Island in winter (Hoffman, Condor, **34**, 1932: 190).

The nesting season of the Band-tailed Pigeon is, apparently, much extended. It is, however, impossible to state whether more than one brood is reared in a season, or whether exceptionally late eggs are the product of birds that have lost previous layings. Our earliest nesting record is of an egg, near hatching, taken by F. Stephens on Laguna Mountain, San Diego County, March 6, 1877 (Condor, 15, 1913: 129). C. G. Abbott (Condor, 29, 1927: 121-123) reports numerous nests with eggs found at an altitude of about 4000 feet, near Mesa Grande, San Diego County, the earliest date being March 8 (1925) and the latest, October 12 (1922). Egg taken on Palomar Mountain, San Diego County, October 11, 1918, recorded by C. S. Sharp (Condor, 21, 1919: 40). Such extreme nesting dates apparently not reported from more northern sections of region covered by this paper. Egg taken by L. Peyton (MS) on Mount Pinos, Ventura County, May 31, 1926, and another by M. C. Badger (MS) at an elevation of about 2000 feet, in Santa Paula Canyon, same county, July 13, 1924. Incubated egg found by W. B. Judson on Mount Wilson, Los Angeles County, May 23, 1897, and young bird, about a week old, found by C. E. Groesbeck in same locality July 5, 1894 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 20). Egg taken by W. M. Pierce near Bear Lake, San Bernardino Mountains, August 11, 1913 (Condor, 15, 1913: 227). Slightly incubated egg taken at 5900 feet altitude on San Jacinto Mountain July 1, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 233). Nest containing one fully-fledged young found by J. S. Rowley (MS) in live oak tree in Pasadena, about one-half mile from California Institute of Technology, June 22, 1928.

There can be no doubt that the protection afforded the Band-tailed Pigeon since 1915 has resulted in a substantial increase in its numbers. The danger of its extermination, once imminent, has apparently passed.

Zenaidura macroura marginella (Woodhouse) Western Mourning Dove

Synonym-Zenaidura macroura carolinensis, part.

Abundant resident throughout lower country and on larger islands of Santa Barbara group; somewhat less plentiful in winter. In summer occurs up to summits of mountains. Probably breeds most generally in May and June, but nests commonly found from middle of March until late August, and occasionally during remainder of year. Extreme nesting dates are: Two young, out of nest, found by H. H. Gander at San Diego February 24, 1927 (Auk, 44, 1927: 418), and two eggs, incubation advanced, found by A. B. Howell near Covina, Los Angeles County, December 5, 1911 (Condor, 14, 1912: 73).

Spilopelia chinensis chinensis (Scopoli) Chinese Spotted Dove

Our first record of this introduced species is of a bird found dead in Hollywood in 1917. After that time, reports of its occurrence increased in frequency and by 1921 it was established over a large part of Los Angeles City (Wyman, Calif. Fish and Game, 7, 1921: 180). At the present time it is abundant in Hollywood, Beverly Hills and the western portion of Los Angeles, and has spread east to Pasadena and Alhambra, and west and south to Santa Monica and Inglewood. In a large part of the city it is much more abundant than the Mourning Dove. It is most plentiful around evergreen and palm trees, in which it nests. There is not yet much information regarding its breeding season. A full-grown young of the year (L. A. Mus.) taken in Los Angeles May 9, 1933, would indicate fairly early nesting. Two fresh eggs taken by P. E. Trapier (MS) at Palms May 1, 1932.

Streptopelia risoria (Linnaeus) Ringed Turtle Dove

Abundant in Los Angeles city parks for past several years, but, unlike last species, does not seem to spread much beyond park limits. Reported by H. S. Swarth in Central Park (Pershing Square) in 1926 (Grinnell, H. W., Condor, **28**, 1926: 107), and by J. Grinnell (Condor, **31**, 1929: 130), in same locality, February 24, 1929. At least twenty pairs present on this latter date, and one pair observed feeding two small young in stick nest about eight feet up in palm tree. At the present time the species is common, not only in Pershing Square, but also in Westlake and Echo parks.

> Melopelia asiatica mearnsi Ridgway Western White-winged Dove

Synonyms-Melopelia asiatica trudeaui, of some authors; not of Audubon.

Two records. Bird shot by J. Johnson, Jr., ten miles west of Escondido, San Diego County, about September 25, 1911 (Dixon, Condor, 14, 1912: 196). Bird seen by Mr. and Mrs. H. E. Parmenter at Santa Barbara November 8, 1922 (Condor, 25, 1923: 107).

Columbigallina passerina pallescens (Baird) Mexican Ground Dove

Synonym-Chaemepelia passerina pallescens.

Rare straggler from desert. Several specimens said to have been obtained by Mr. Lorquin at San Gabriel, Los Angeles County, in the 60's (Baird, Brewer and Ridgway, N.A.L.B., **3**, 1874: 522). Bird taken by M. F. Gilman at Banning, Riverside County, in October, 1902, and another (A. M. Ingersoll coll.) shot by F. Judson at San Pasqual, San Diego County, about 1900 (Willett, Pac. Coast Avif., No. **7**, 1912: 45). Male (Mus. Vert. Zool.) secured by J. B. Dixon near Escondido, San Diego County, June 29, 1915 (Condor, 18, 1916: 84). Male (S.D.S.N.H.) shot at San Diego November 10, 1915 (Grey, Condor, 18, 1916: 83).

Order CUCULIFORMES Cuckoo-like Birds FAMILY CUCULIDAE Cuckoos, Road-runners and Anis

Coccyzus americanus occidentalis Ridgway California Cuckoo

Fairly common summer visitant to willow regions of lowlands, though, owing to its secretive habits, easily overlooked. As many willow thickets have been cleared during late years, nesting localities much fewer than formerly. The Cuckoo probably arrives in California in late April and early May, and leaves in late September, but definite migration records are few. Bird seen by Antonin Jay near Los Angeles May 5, 1907, and another in same locality September 22, 1904 (Condor, 13, 1911: 69). Nesting usually begins in early June, and fresh eggs may be found until late in July. Eggs collected by M. C. Badger (MS) along Santa Clara River, Ventura County, from July 10 (1920) to July 31 (1921). Many sets of eggs taken by Alphonse and Antonin Jay in willow groves of Los Angeles County, their earliest nesting record being of three newly-hatched young found May 10, 1901 (Jay, loc. cit.), and their latest, two incubated eggs found August 20, 1911 (Willett, Pac. Coast Avif., No. 7, 1912: 54). Found breeding commonly near Anaheim, Orange County, by J. J. Schneider, in June and July, 1899, his latest set being taken July 19 (Condor, 2, 1900: 34). Eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, from May 29 (1923) to July 10 (1921). Breeding female taken by Jos. Dixon near Escondido, San Diego County, June 30, 1915, and others seen and heard later in summer (Condor, 18, 1916: 84); two eggs taken by J. B. Dixon (MS) in same locality July 2, 1932. Nest, with two eggs, found by Mrs. May Canfield (MS) on Sweetwater River, San Diego County, about July 1, 1915. Bird seen by J. C. von Bloeker, Jr., in Tia Juana River bottom, south of San Diego, July 20, 1931 (Journ. Mammalogy, **12**, 1931 : 369).

Geococcyx californianus (Lesson) Road-runner

Common resident of brush and cactus-covered washes and mesas. Most plentiful below 2500 feet, but reported as high as Bear Valley, 6750 feet in San Bernardino Mountains, where bird seen by W. M. Pierce September 1, 1928 (Condor, **31**, 1929: 80). Recorded by J. G. Cooper (Proc. Calif. Acad. Sci., **4**, 1869: 77) as seen on Catalina Island in the 60's, but not met with on any of the islands by any naturalist since that time. Dr. Cooper's Catalina record considered doubtful by A. B. Howell (Pac. Coast Avif., No. **12**, 1917: 103).

BIRDS OF SOUTHWESTERN CALIFORNIA

Forty years ago the Road-runner was abundant all through the Lower Sonoran zone of southern California, from the ocean to the mountains. Its numbers, however, have been greatly reduced by encroachment of civilization and by wanton shooting. The fact that it has been known to destroy eggs and young of other birds is considered by many persons an excuse for shooting it on sight. It seems to the writer that the slight damage it does is more than offset by the pleasure afforded to thousands of nature lovers by its bizarre appearance. When not persecuted, the Road-runner becomes quite tame. The writer has found it nesting in Elysian Park, Los Angeles, and, on one occasion, saw a bird busily hunting bugs on a lawn in a thickly-settled section of Eagle Rock.

Nesting season, ordinarily, April and early May. Eggs taken by W. M. Pierce near Claremont, Los Angeles County, from March 10 (1901) to July 16 (1904) (Willett, Pac. Coast Avif., No. 7, 1912: 54), and by W. C. Hanna (MS) near Colton, San Bernardino County, from April 2 (1923) to July 12 (1927).

Order STRIGIFORMES Owls

FAMILY TYTONIDAE Barn Owls

Tyto alba pratincola (Bonaparte) Barn Owl

Synonyms-Strix pratincola: Aluco pratincola: Tyto perlata pratincola.

Common resident from coast to foothills. One breeding record at 5250 feet altitude in San Bernardino Mountains (Pierce, Condor, 16, 1914: 145); also noted at Hemet Lake, about 4000 feet elevation in San Jacinto Range (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 238). Recorded from Santa Cruz Island (Linton, Condor, 10, 1908: 127), and from Anacapa (Willett, Pac. Coast Avif., No. 7, 1912: 50). Breeds mainly in March and April, usually nesting in cavities in dirt banks. Half-grown young noted by C. E. Groesbeck near Pasadena as early as February 11 (1897) and five fresh eggs taken by H. J. Lelande in same locality June 5, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 23).

FAMILY STRIGIDAE Typical Owls

Otus asio quercinus Grinnell Pasadena Screech Owl

Synonym-Otus asio bendirei, part.

Fairly common resident of timbered regions, from lowlands up to at least 5000 feet in mountains. Breeds mostly in April. Two fresh eggs found by C. E. Groesbeck near Pasadena March 14, 1896, and three eggs, incubation advanced, found by J. Grinnell in same locality June 5, 1895 (Pub. 2, Pasadena

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Acad. Sci., 1898: 24). Eggs found by W. C. Hanna (MS) near Colton, San Bernardino County, from March 23 (1926) to May 5 (1918).

An interesting example of range extension brought about by human agency is cited by J. McB. Robertson (Condor, 23, 1921: 97; 27, 1925: 35). The region surrounding Buena Park, Orange County, was originally a treeless plain, so unfitted for birds with the nesting habits of the screech owl. Growth of trees, particularly eucalyptus, planted by man, has apparently brought an influx of these birds. A nest found in 1923 was not in the usual tree cavity, which is difficult to find in eucalyptus, but in a crotch, protected by strips of bark.

Otus flammeolus (Kaup) Flammulated Screech Owl

Synonyms-Megascops flammeolus: Otus flammeolus idahoensis.

Breeds in higher mountains; so far, in our territory, found only in San Bernardino Range. Specimens from these mountains recorded by E. M. Hasbrouck (Auk, 10, 1893: 260), and H. C. Oberholser (Ornis, 10, 1899: 36 and 38). Male taken by F. Ball near San Bernardino January 18, 1885 (Stephens, Condor, 4, 1902: 40), and another male by E. D. Palmer at an altitude of 5000 feet in San Bernardino Mountains May 26, 1893 (Auk, 11, 1894: 78). Adult female, with two slightly incubated eggs, taken by M. F. Gilman at elevation of about 7500 feet on side of San Gorgonio Peak, June 3, 1894 (Condor, 4, 1902: 85). Adult male taken by J. Grinnell at Bluff Lake, about 7500 feet altitude, July 15, 1905 (Dixon, Condor, 7, 1905: 140; Grinnell, Univ. Calif. Publ. Zool., 5, 1908: 59). W. M. Pierce (MS) has two hitherto unpublished records of this owl at Bear Lake. One bird, found dead in summer of 1931, was too far decomposed to save; another, mounted and in possession of a Mr. Leilman, was found dead several years ago. Mr. Pierce examined this specimen, but does not know its present whereabouts.

Bubo virginianus pacificus Cassin Pacific Horned Owl

Fairly common resident from foothill and mesa region up to over 7000 feet in mountains, but much less plentiful than formerly. As the country settles up, is retreating to more sparsely settled sections and, in many localities where formerly common, is now rare or entirely absent. Breeds mostly during latter part of February and first part of March. Three eggs, hatching, found by W. Hunter near Goleta, Santa Barbara County, February 12, 1928 (L. Stevens MS). Four pipped eggs found by W. C. Hanna (MS) in San Timoteo Canyon, San Bernardino County, February 21, 1926. Two eggs taken by J. B. Dixon near Escondido, San Diego County, February 2, 1902 (Condor, 4, 1902: 46). Two eggs, advanced in incubation, taken by G. Willett near Whittier, Los Angeles County, May 2, 1896 (Pac. Coast Avif., No. 7, 1912: 53); probably a second laying. Bird seen by O. W. Howard on Santa Cruz Island April 29, 1906 (Willett, loc. cit.).

Bubo virginianus pallescens Stone Western Horned Owl

Ocçasional straggler from desert in winter. Female (L. A. Mus., no. 16684) taken by S. B. Peyton at Fillmore, Ventura County, November 16, 1929 (Condor, **32**, 1930: 124). Female (Dickey coll., no. G551) taken by A. J. van Rossem near San Fernando, Los Angeles County, December 16, 1919. Female (L. A. Mus., no. 6045) taken by F. S. Daggett near Pasadena October 2, 1896. Specimen (W. M. Pierce coll., no. 692) found dead at mouth of San Antonio Canyon, Los Angeles County, January 10, 1915 (Condor, **17**, 1915: 206).

Glaucidium gnoma californicum Sclater California Pygmy Owl

Synonyms—Glaucidium gnoma gnoma, of many authors; not of Wagler, 1832: Glaucidium gnoma vigilante.

Resident of mountains and higher foothills, south to San Diego County. Bird taken near Santa Barbara January 2, 1913, and two others seen at later dates, recorded by W. L. Dawson (Condor, **18**, 1916: 26) under name *grinnelli*. Three birds taken by L. H. Miller (MS) above 6000 feet altitude on Mount Pinos in late May (1927, 1928 and 1930). Several specimens from mountains north of Pasadena mentioned by J. Grinnell (Pub. **2**, Pasadena Acad. Sci., 1898: 24). Adult male taken at 4500 feet in San Antonio Canyon, Los Angeles County, December 29, 1913 (Pierce, Condor, **16**, 1914: 94), and another male secured by G. Nicholson at about 2800 feet in Cucamonga Canyon, San Bernardino County, November 11, 1920 (Condor, **23**, 1921: 96). Female (Daggett coll., L. A. Mus.) taken at Fredalba Park, 5000 feet altitude in San Bernardino Mountains, June 26, 1899 (Willett, Pac. Coast Avif., No. **7**, 1912: 53).

Nest containing newly-hatched young found by O. W. Howard near Carpinteria, Santa Barbara County, in summer of 1895 (Taylor, Nidiologist, 2, 1895: 153). Set of four eggs, two-thirds incubated, taken by C. W. Ashworth and R. Thompson in Ventura County (= above Wheeler Springs, about 3000 feet altitude), May 18, 1930 (Oologist, 47, 1930: 122). Nest containing four nearly full-grown young found by Antonin Jay in Arroyo Seco, back of Pasadena, in late July, 1888; nesting of species in same locality for at least three seasons prior to 1896, reported by F. S. Daggett (Willett, loc. cit.). Nest containing four young, about two weeks old, found by H. J. Lelande in San Gabriel Canyon, Los Angeles County, June 5, 1900 (Condor, 4, 1902: 21). Adult female and three juveniles taken by H. S. Swarth and W. B. Judson at Bear Valley, 6750 feet altitude in San Bernardino Mountains, June 28, 1894 (Condor, 12, 1910: 109). Nesting pair found by J. M. Hatch near Escondido, San Diego County, in 1895 and 1896. The first year the nest held heavily incubated eggs, which were not disturbed; the next year young birds were found (Sharp, Condor, 9, 1907: 87). Nest containing four young birds found by C. L. Field (MS) at 5000 feet altitude in Laguna Mountains, San Diego County, May 20, 1920.

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Speotyto cunicularia hypugaea (Bonaparte) Burrowing Owl

Common resident from coast to base of mountains; also found on larger islands of Santa Barbara group. Breeds mostly in late April and month of May. Extreme nesting records are: Ten fresh eggs taken by G. Willett near Highlands, San Bernardino County, April 3, 1897, and nine eggs, advanced in incubation, taken by Antonin Jay near Nigger Slough, Los Angeles County, June 8, 1902 (Willett, Pac. Coast Avif., No. 7,1912: 53).

Strix occidentalis occidentalis (Xantus) California Spotted Owl

Synonym-Syrnium occidentale.

Resident in small numbers in foothill and mountain regions, occurring up to more than 6000 feet; south to San Diego County. Owing to its retiring habits, very inconspicuous, but occasionally noted in many different sections of southern California. Records of birds taken are so many and from such widely scattered localities, that it seems unnecessary to list them all here. They include every county on the Pacific slope of southern California, excepting Santa Barbara and Orange, and it is almost certain that the species will eventually be found in these two counties. Center of abundance seems to be in higher foothills and lower mountains, from about 2500 to 5000 feet. The writer has seen the Spotted Owl at 6000 feet in the San Bernardino Range, and at 6300 feet on Mount Pinos, Kern County. It has been recorded at about 5500 feet in the San Jacintos (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 239), and at 5000 feet on Smith Mountain, San Diego County (Stephens, Auk, 9, 1892: 392). A female (L. M. Huey coll.) was taken by A. W. Casebere on Volcan Mountain, San Diego County, September 21, 1924. It is apparently rare near the sea-coast, the only recorded instance of its occurrence there being the Oceanside breeding record cited below.

Several sets of eggs recorded from southern California, some of them very questionable. The following breeding records undoubtedly authentic. Two considerably incubated eggs taken by L. Peyton from cavity in granite cliff in Fish Canyon, northeastern Los Angeles County, April 1, 1909. Three eggs, with both parent birds, taken by Peyton from same nest March 30, 1910 (Condor, 12, 1910: 122). Nest containing two "well-grown" young found by D. R. Dickey in cavity of cliff, at about 5000 feet altitude in mountains of Ventura County, May 31, 1913 (Condor, 16, 1914: 193-202). Two slightly incubated eggs taken by A. M. Ingersoll from nest on ledge of cliff, near Ocean-side, San Diego County, March 24, 1894. Mr. Ingersoll was able to approach very near to the incubating bird and is positive as to its identity (Willett, Pac. Coast Avif., No. 7, 1912: 51).

Asio wilsonianus (Lesson)

Long-eared Owl

Fairly common resident of oak regions of foothills and willow thickets of lower country. Occasional up to 9000 feet in mountains and on Santa Barbara Islands. Adult female taken by G. Willett at altitude of about 7000 feet in San Bernardino Mountains June 15, 1907 (Condor, 12, 1910: 44). Adult female and two immature males secured at Round Valley, 9000 feet altitude on San Jacinto Mountain, July 27, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 238). Three birds seen (one collected) by C. B. Linton on San Clemente Island in December, 1908 (Condor, 11, 1909: 194). Six nearly half-grown young found by O. W. Howard in old Raven's nest on Catalina Island in April, 1909 (Willett, Pac. Coast Avif., No. 7, 1912: 50). Found by B. W. Evermann to be abundant resident of live oak and willow groves near Santa Paula, Ventura County, eggs being taken as early as February 13 (Pac. Sci. Monthly, 1, 1886: 84). Eggs taken by W. C. Hanna (MS) in Yucaipe Valley, San Bernardino County, March 10, 1925, and near Pedley, Riverside County, April 19, 1928; also by J. M. Hatch near Escondido, San Diego County, as early as February 14 (1896) (Sharp, Condor, 9, 1907: 87), and by R. Arnold in San Fernando Valley, Los Angeles County, as late as May 1 (1892) (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 23). Recorded by J. G. Cooper (Land Birds Calif., 1870: 426) as breeding commonly near San Diego in early 60's.

Asio flammeus flammeus (Pontoppidan) Short-eared Owl

Common winter visitant to wet meadow lands and fresh water marshes, appearing early in October and remaining fairly common until early March. Two definite breeding records: Nest containing two eggs, one on point of hatching, found by J. A. Calder and W. M. Pierce (MS) near Newport, Orange County, April 25, 1928; two sets of eggs taken by E. E. Sechrist (MS) on National City Marsh, near San Diego, April 10, 1906. Birds observed by J. B. Dixon (MS) at San Diego Bay and at Santa Margarita, San Diego County, during summer months. Bird shot on Catalina Island in December, 1897, recorded by J. Grinnell (Auk, **15**, 1898: 234).

Cryptoglaux acadica acadica (Gmelin) Saw-whet Owl

Synonym—Nyctale acadica.

Uncommon resident of higher mountains; occasionally straggling to lower country. Obtained at Fort Tejon, Kern County, by John Xantus (Baird, Pac. R. R. Rep., 9, 1858: 921). Foot and feathers of Saw-whet Owl found at 7800 feet altitude on Mount Pinos May 29, 1929 (Miller and Benson, Condor, 32, 1930: 101). Specimen (examined by the writer) taken by M. C. Badger (MS) at altitude of about 500 feet in hills above Santa Paula, Ventura County, January 28, 1928. Juvenile female, probably raised in vicinity, secured by W. M. Pierce at 6750 feet in San Bernardino Mountains, May 10, 1919 (Condor, **22**, 1920: 40). Adult male taken by F. Stephens at Round Valley, 9200 feet altitude on San Jacinto Mountain, August 11, 1898 (Condor, **4**, 1902: 40). Bird seen at close range, by R. Hoffman, on Santa Cruz Island April 15, 1931 (Condor, **33**, 1931: 171), undoubtedly a straggler.

Order CAPRIMULGIFORMES Goatsuckers and Allies

FAMILY CAPRIMULGIDAE Goatsuckers

Phalaenoptilus nuttallii nuttallii (Audubon) Nuttall Poor-will

Synonym-Phalaenoptilus nuttallii nitidus.

Resident of desert regions of eastern California (except Colorado River Valley). One specimen known from Pacific slope, adult female (Huey coll., no. 2314) collected by L. M. Huey in Mission Valley, near San Diego, February 19, 1922, recorded as *P. n. nitidus* (*=nuttallii*) (Condor, **16**, 1924: 75); identification as *nuttallii* recently confirmed by J. Grinnell and the writer.

Eleven poor-wills secured by H. W. Marsden at Witch Creek, San Diego County, recorded as nearer *nitidus* (*=nuttallii*) than *californicus*, on authority of E. W. Nelson (Bishop, Condor, 7, 1905: 142). These birds examined by the writer, who considers them properly referable to *californicus*. Though the color of the back, in this series, may show a slight tendency toward *nuttallii*, the lower parts appear much more like *californicus*.

Phalaenoptilus nuttallii californicus Ridgway Dusky Poor-will

Fairly common in spring, summer and fall, from foothills up to over 8000 feet in mountains; also occurs on some of Santa Barbara Islands; much less plentiful in winter. Breeds mostly in April and May, but eggs may be found from March until late June. Recorded by B. W. Evermann (Auk, **3**, 1886: 179) as summer resident of Ventura County, though not common. Noted by J. Grinnell up to over 8000 feet on Mount Pinos, Ventura County (Auk, **22**, 1905: 383), and by Grinnell and Swarth to about same altitude in San Jacinto Range (Univ. Calif. Publ. Zool., **10**, 1913: 246). Male taken by H. J. Lelande on Anacapa Island April 6, 1906 (Willett, Pac. Coast Avif., No. **7**, 1912: 57); found fairly plentiful on Catalina Island, by C. H. Richardson, Jr., in April (Condor, **10**, 1908: 66), and female taken by J. Grinnell on San Clemente Island March 31, 1897 (Pub. **1**, Pasadena Acad. Sci., 1897: 14).

Type egg of this bird (U.S.N.M., no 25937) one of set of two, taken near Monrovia, Los Angeles County, May 4, 1893 (Bendire, Life Hist. N. A. Birds, 1895: 159). Eggs taken by L. and S. B. Peyton (MS) near Camarillo, Ventura County, March 31, 1926, and near Piru, same county, June 2, following. In

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Los Angeles County, eggs have been collected by A. J. van Rossem near Saugus April 18, 1919 (Condor, 22, 1920: 61), by F. M. Palmer near Eagle Rock June 24, 1900 (Condor, 2, 1900: 130), and by Antonin Jay near Monrovia June 29, 1902 (Willett, loc. cit.). Two fresh eggs taken by W. C. Hanna (MS) at 6000 feet altitude in Lone Pine Canyon, San Gabriel Mountains, June 3, 1923. Eggs found by J. S. Dixon in vicinity of Escondido, San Diego County, from May 18 to June 20 (1922) (Condor, 25, 1923: 79). Two eggs, incubation advanced, collected by A. M. Ingersoll near San Diego March 22, 1895 (Barlow, Nidiologist, 2, 1895: 126).

Chordeiles minor hesperis Grinnell Pacific Nighthawk

Synonym-Chordeiles virginianus hesperis.

Summer visitant to Boreal and upper part of Transition zone in mountains; so far, recorded only from San Bernardino Range. Occasional (?) visitant to foothills during migrations. Two fresh eggs taken by J. Grinnell at altitude of about 9000 feet on north side of San Gorgonio Peak June 18, 1905 (Univ. Calif. Publ. Zool., **5**, 1908: 67). Three sets of partially incubated eggs taken by W. M. Pierce at Bear Lake, 6750 feet, June 22 to 24, 1916 (Condor, **18**, 1916: 179); additional sets taken by Pierce (MS) in same locality July 22, 1918, and June 21, 1920.

There seems to be almost no data on the migrations of this bird. W. M. Pierce saw no nighthawks at Bear Lake from September 16 to 20, 1915, though they had been plentiful in the locality during the previous June (Condor, **18**, 1916: 34). J. Grinnell took a male bird at Pasadena October 27, 1896 (Pub. **2**, Pasadena Acad. Sci., 1898: 26).

Chordeiles acutipennis texensis Lawrence Texas Nighthawk

Common summer visitant to mesas and dry washes; in late summer wanders up into Transition zone in mountains. Leaves for south in August and early September, and returns mostly during month of March. One winter record for our district, of bird seen by W. L. Dawson and C. B. Linton near Long Beach, Los Angeles County, January 31, 1911 (Condor, **18**, 1916: 26). Another California record for the winter season is of single bird seen by A. B. Howell near Calexico, Imperial County, January 23, 1922 (Condor, **24**, 1922: 97). Three birds noted by L. E. Wyman in San Fernando Valley, Los Angeles County, February 16, 1920 (Bird-Lore, **22**, 1920: 173) may have been early migrants.

Eggs generally deposited during May and early June. Extreme nesting dates are: Two fresh eggs taken by J. Grinnell near Pasadena April 21, 1897, and two slightly incubated eggs taken by H. S. Swarth in San Fernando Valley July 11, 1895 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 27). Breeding female taken by G. Willett on Santa Barbara Island June 20, 1911 (Pac. Coast Avif., No. 7, 1912: 58).

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Order MICROPODIIFORMES Swifts and Hummingbirds

FAMILY MICROPODIDAE Swifts

Nephoecetes niger borealis (Kennerly) Black Swift

Synonym—Cypseloides niger borealis.

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There is much to be learned regarding the status of this bird in southern California. Present available data seem to indicate that it is a summer visitant to higher mountains in small numbers, and is more numerous during migrations, when it occurs also over foothills and mesas. Major Bendire (Life Hist. N. A. Birds, 1895: 176) refers to the Black Swift in the San Bernardino Mountains, where they were observed by R. B. Herron under circumstances that suggested nesting. They were flying in behind a waterfall that poured over a perpendicular cliff and one was found drowned in the basin at the foot of the fall. L. H. Miller saw three birds at about 5500 feet altitude in the same mountains the first week in August, 1907. One of the birds flew into a niche in a cliff and remained several minutes (Willett, Pac. Coast Avif., No. 7, 1912: 59). Two birds seen by J. Grinnell at about 7000 feet altitude in San Bernardinos July 16, 1906, and three more in early July, 1907 (Univ. Calif. Publ. Zool., 5, 1908: 69). In the San Jacinto Range they were noted by Grinnell and Swarth in Strawberry Valley, about 5500 feet altitude, July 9 to 16, 1908 (Univ. Calif. Publ. Zool., 10, 1913: 247). At the time these latter observations were made, the species should be nesting, according to the meager data at hand from points further north.

Most spring migration dates for month of May. One bird noted by J. G. Cooper at Santa Barbara in May, 1863 (Bryant, Zoe, 2, 1891: 128). Female (L. B. Bishop coll.) taken by K. Stager in Big Tujunga Wash, Los Angeles County, May 16, 1931. Several birds seen by Helen S. Pratt in San Gabriel Mountains May 16, 1922 (Schneider, Bird-Lore, 24, 1922: 228). At least two hundred birds seen by H. S. Swarth at Sierra Madre, Los Angeles County. May 27, 1898, and several in San Fernando Valley May 30, following; single bird seen by Swarth near Los Angeles June 29, 1900 (Willett, op. cit.: 58). Eight or ten birds seen by Antonin Jay and G. Willett at San Jacinto Lake, Riverside County, May 28, 1911 (Condor, 13, 1911: 160); female (S.D.S.N.H.) taken by R. B. Herron in same locality June 27, 1897. Twenty or more birds seen by L. Belding (specimen secured) near San Diego May 21 and 22, 1881 (Land Birds Pac. Dist., 1890: 79). Bird found dead by J. B. Dixon near Escondido, San Diego County, June 5, 1921 (Condor, 23, 1921: 168).

Fall migration dates from late August to October. Flocks flying in southeasterly direction observed by J. Grinnell at Pasadena on two occasions toward last of August (Pub. 2, Pasadena Acad. Sci., 1898: 27). Male taken by J. S. Rowley (MS) at San Juan Capistrano, Orange County, September 10, 1924. A few birds seen in San Gabriel Mountains September 29, 1926 (Schneider, Bird-Lore, 28, 1926: 414). Bird (W. C. Hanna coll.) found dead by R. B. Herron at Urbita, near San Bernardino, in October, 1917. In regard to this bird, Mr. Hanna informs me that, while he is sure it was secured in October, he is unable to set the date any more closely.

Chaetura vauxi (Townsend) Vaux Swift

Common spring and fall migrant from lower country well up into mountains. Usually occurs in scattered flocks, sometimes tarrying around lakes or swamp-lands. Seen most abundantly during cloudy weather, probably maintaining greater elevations at other times. Migrations largely in late April and early May, and in August and September. Flock, estimated at nearly six hundred birds, seen by H. H. Sheldon at Santa Barbara April 29, 1922 (Condor, 24, 1922: 184). Noted by J. G. Cooper at Ventura April 22, 1873 (Auk, 4, 1887: 92). Observed by H. S. Swarth near Los Angeles, in spring from April 19 (1898) to May 18 (1899), and in fall from August 4 to October 14 (1899) (Willett, Pac. Coast Avif., No. 7, 1912: 59). During early May, 1933, large numbers noted at Santa Barbara; also at Orange (May 9) (Michener, Condor, 35, 1933: 211-212), and Whittier (May 12) (Watson, Condor, 35, 1933: 203), many birds being found dead, in very emaciated condition. Large flocks seen by W. C. Hanna (MS) near Rialto, San Bernardino County, May 7, 1933, and near San Bernardino May 14, following. Recorded by L. Belding (Land Birds Pac. Dist., 1890: 79) in vicinity of San Diego April 28, 1884, and April 16, 26 and 29, 1885. Record of birds seen over Arroyo Seco, near Pasadena, June 1, 1922 (Schneider, Bird-Lore, 24, 1922: 228), may require confirmation. Birds seen at Bear Lake, San Bernardino Mountains, September 18, 1914 (van Rossem and Pierce, Condor, 17, 1915: 164), and at Jackson Lake, 6000 feet in San Gabriel Range, September 29, 1926 (Schneider, Bird-Lore, 28, 1926: 414). Noted by J. Mailliard on Santa Cruz Island in late April, 1898 (Bull. Cooper Orn. Club, 1, 1899: 44), and by G. Willett (MS) on Catalina Island September 15, 1927.

Aëronautes saxatilis saxatilis (Woodhouse) White-throated Swift

Synonym-Aëronautes melanoleucus.

Common resident of mountains and rugged hill regions, and on some of Santa Barbara Islands. Found in winter in straggling flocks in lower country. Breeds plentifully in May and June, usually in cliffs difficult of access. Five fresh eggs collected by L. Stevens (MS) twenty-five miles north of Santa Barbara June 6, 1928. Eggs taken by L. and S. B. Peyton (MS) near Sespe, Ventura County, from May 8 (1923) to June 12 (1921); by W. C. Hanna (MS) at Colton, San Bernardino County, from May 12 to June 18 (1909), and by C. F. Schnack and J. B. Dixon near Escondido, San Diego County, May 18, 1913 (Oologist, **32**, 1915: 60). Birds feeding young, in crevices in old mission at San Juan Capistrano, Orange County, noted by Florence Merriam Bailey about middle of July, 1907 (Condor, **9**, 1907: 169). On several occasions since Mrs. Bailey's observation, the writer has seen swifts entering crevices in this mission.

FAMILY TROCHILIDAE Hummingbirds Archilochus alexandri (Bourcier and Mulsant) Black-chinned Hummingbird

Synonym—Trochilus alexandri.

Common summer resident from lowlands to foothills and well up into mountain canyons. According to J. Grinnell (Pub. 2, Pasadena Acad. Sci., 1898: 27), arrives in vicinity of Pasadena from middle of April to first week in May, majority disappearing by last week in July; extreme dates at Pasadena, April 3 and September 3 (1895). By early July, when most of the young are out of the nest, and flowering of lowland shrubs is on the wane, this hummingbird ascends the mountains, together with other species, and may be found in numbers at higher elevations (5000 to 8500 feet), where flowers are still blooming profusely.

Nests, usually found after middle of May, most abundant along streams in foothills and canyons of lower mountains, but also far from rare around willow-bordered streams of lower country, and in oaks of foothill and mesa regions. Extreme nesting dates are: Two sets of fresh eggs collected by G. Willett at Arcadia, Los Angeles County, April 26, 1906, and set of fresh eggs taken by Antonin Jay near Whittier, same county, July 19, 1903 (Pac. Coast Avif., No. 7, 1912: 60).

Calypte costae (Bourcier) Costa Hummingbird

Common summer resident of mesa and foothill regions and brush-covered washes and, locally, up to extreme upper Sonoran, as at Schain's Ranch, 4900 feet altitude in San Jacinto Mountains (Grinnell and Swarth, Univ. Calif. Publ. Zool., **10**, 1913: 249). Ascends mountains to even higher altitudes in late summer and during migrations. Less plentiful in northern Ventura County and Santa Barbara County. Found common by G. Willett on Santa Barbara Island during June, 1911; female feeding young just able to fly noted June 19 (Pac. Coast Avif., No. **7**, 1912: 60). Adult male seen by J. Grinnell on San Clemente Island March 30, 1897 (Pub. **1**, Pasadena Acad. Sci., 1897: 15).

Earliest and latest records for the species in vicinity of Pasadena are, respectively, March 21 and September 26 (1896) (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 28). Male collected by N. S. Goss at San Diego March 17, 1884 (Belding, Land Birds Pac. Dist., 1890: 83), and another by W. M. Pierce at Claremont, Los Angeles County, March 21, 1914 (Condor, 16, 1914: 146). Bird seen by L. H. Miller (MS) at Highland Park, Los Angeles, February 20, 1921. Males recorded by R. S. Woods at Azusa, Los Angeles County, March 16, 1923 (Auk, 44, 1927: 300), and March 7, 1928 (Condor, 30, 1928: 324). Mr. Woods (Auk, 44, 1927: 564) has called attention to the fact that the numbers of this species fluctuate strikingly from year to year in the same locality. Eggs usually deposited in May and early June. Extreme nesting records are: Two fresh eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, March 31, 1928, and two slightly incubated eggs taken by J. Grinnell near Pasadena June 28, 1894 (Pub. 2, Pasadena Acad. Sci., 1898: 28).

Calypte anna (Lesson) Anna Hummingbird

Common resident of upper Sonoran zone, breeding from coast to at least 6000 feet in mountains; in late summer occurs up to at least 9000 feet. Fairly plentiful in winter on Santa Barbara Islands and probably nests on some of them. "Like all hummingbirds, it follows the flowers and its local presence or absence is governed by their abundance or scarcity. In August and September hundreds of Anna Hummers are to be found in the stubble fields and sunflower patches, attracted by the flowers of the 'tar-weed.' During the winter months they are found in profusion around the blossoming eucalyptus trees. In January and February, when the weather is mild, they appear high on the mountain sides among the flowering manzanitas and in March and April in the blossoming orange groves in the valley and among the current bushes on the hillsides" (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 28). The Anna Hummer is probably our earliest nesting bird. It breeds commonly through February and March, and eggs may be found from December until August. Two incubated eggs taken by A. I. McCormick near Los Angeles December 21, 1895 (Grinnell, loc. cit.), and nest containing incubated eggs found by R. H. Canterbury near Santa Barbara December 30, 1928 (Condor, 31, 1929: 129). Two eggs taken by H. Robertson near Pasadena August 17, 1900 (Willett, Pac. Coast Avif., No. 7, 1912: 61).

Selasphorus rufus (Gmelin) Rufous Hummingbird

Common migrant. Spring migration, February to April; fall migration, July and August. Single birds reported seen near Los Angeles January 9, 1920 (Wyman, Bird-Lore, 22, 1920: 172), and near Hollywood January 19, 1918 (L. B. Bishop MS). L. H. Miller (MS) doubts the possibility of differentiating between *rufus* and *alleni* in the field, as he has found that the color of the back is not always diagnostic. He states further that specimens collected by him indicate that the main spring migration of *rufus* is about a month later than that of *alleni*. It would seem, therefore, that January records of *rufus* may require confirmation by taking of specimens. Undoubted examples of *rufus* secured by L. B. Bishop (MS) near Hollywood February 6, 18 and 26, 1918. Recorded near Los Angeles February 13, 1922, and February 16, 1928 (Schneider, Bird-Lore, 24, 1922: 163; 30, 1928: 138). Is common through March and greater part of April, mostly disappearing during latter month. R. S. Woods' latest spring date at Azusa, Los Angeles County, is May 1 (1924) (Auk, 44, 1927: 299).

Fall migration begins early in July and continues until late in August. At this season the birds are particularly abundant in the mountains, occurring up to at least 9000 feet. Dates of fall migration of this and next species evidently about the same. Owing to difficulty in distinguishing the two in the field, they are united in most migration notes. Speaking of the two species, J. Grinnell (Univ. Calif. Publ. Zool., 5, 1908: 72) reports them in the San Bernardino Mountains from June 28 (1905) to August 29 (1907), and Grinnell and Swarth (Univ. Calif. Publ. Zool., 10, 1913: 251) record them from the San Jacintos from July 6 to August 21, 1908.

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PACIFIC COAST AVIFAUNA

Selasphorus alleni alleni Henshaw Allen Hummingbird

Breeds in coastal belt as far south as Ventura County; migrant over rest of Pacific slope of southern California. Occurs in July and August up to at least 9000 feet in mountains, frequently in company with last species. According to R. S. Woods (Condor, 32, 1930: 214), earliest spring migrants appear in late January, one bird being seen by him at Azusa, Los Angeles County, January 31, 1924, and another January 29, 1930. Bird noted by Bradford Torrey at San Diego January 26, 1908 (Condor, 11, 1909: 173). Becomes common in February and remains so until late in March. In fall migration, recorded by J. McB. Robertson (Condor, 35, 1933: 134) at Buena Park, Orange County, as early as June 28. According to J. Grinnell (Auk, 22, 1905: 384), appears on Mount Pinos, Ventura County, about July 1, becoming common a few days after that date; males appear first, followed by females and young. By the last of August they have mostly disappeared to the southward. Specimens taken by F. Stephens in San Diego County in summer considered by him (MS) early migrants, not breeding birds, as implied by Major Bendire in his "Life Histories." Bird reported seen by A. C. Henderson at Santa Barbara December 20, 1921 (Hoffmann et al., Bird-Lore, 34, 1932: 78), may have straggled from the islands, or may have been mis-identified.

The Allen Hummer breeds mostly in March and April, but eggs may be found from February to May. Recorded by J. H. Bowles (Condor, 14, 1912: 77) as common nesting bird at Santa Barbara, where he took eggs as early as February 13 (1912). Eggs found by C. W. Ashworth and R. Thompson near Ventura from February 2 to April 24 (1930) (Oologist, 47, 1930: 122), and by S. B. Peyton near Sespe, Ventura County, from March 1 to May 23 (1931) (Oologist, 48, 1931: 162).

Selasphorus alleni sedentarius Grinnell Island Hummingbird

Permanent resident on San Clemente and Catalina islands, and probably also on Santa Cruz and Santa Rosa, though subspecific status of birds of latter islands uncertain as yet. Three nests containing large young and three with eggs found by G. K. Snyder on Catalina March 20, 1914 (Condor, 16, 1914: 182); two sets of fresh eggs taken by R. M. Perez on same island April 15 and 16, 1911 (Willett, Pac. Coast Avif., No. 7, 1912: 61). On San Clemente Island, two partially incubated eggs taken by J. Grinnell March 28, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 15), and two fresh eggs by C. B. Linton March 31, 1907 (Willett, loc. cit.).

J. Grinnell (Condor, **31**, 1929: 226) has shown that the Allen Hummer of San Clemente and Catalina islands differs from the bird of northern California in larger size, particularly of wing and bill. Comparison of birds from these islands with those that migrate through Los Angeles County substantiates claim of longer bill for island birds, but their greater wing-length is hardly perceptible. It is possible that birds breeding in the southern part of the mainland range of the species differ somewhat from those of northern California, the type locality of *alleni*. Ascription of *Selasphorus platycercus* to Catalina Island, on authority of J. Grinnell (Simon, Hist. Nat. Trochilidae, 1921: 405), is an error on the part of Simon.

Stellula calliope (Gould) Calliope Hummingbird

Common summer resident of upper Transition and Canadian zones in mountains, south to San Jacinto Range. Occasional in foothill and mesa country during spring migration; so far, not noted in lower country in fall. Male seen by H. S. Swarth near Los Angeles April 23, 1898, and another by G. F. Morcom in same locality in spring (Condor, 2, 1900: 37). Recorded by R. S. Woods (Auk, 44, 1927: 300) at Azusa, Los Angeles County, only in spring migration, being present in small numbers for a week or two in April, during some years. Adult male taken by L. H. Miller at Riverside in late March, 1892 (Willett, Pac. Coast Avif., No. 7, 1912: 61), and pair taken by N. S. Goss in Volcan Mountains, San Diego County, April 15, 1884 (Belding, Land Birds Pac. Dist., 1890: 89).

Found by J. Grinnell to be fairly common above 6500 feet on Mount Pinos, Ventura County, in summer of 1904 (Auk, 22, 1905: 384). Several sets of eggs taken in San Bernardino Mountains by Dr. Grinnell from June 11 to June 30, 1906 (Univ. Calif. Publ. Zool., 5, 1908: 72). Eggs taken in same region, by W. M. Pierce (MS) from June 5 to July 1 (1920), and by W. C. Hanna (MS) from June 2 (1929) to June 26 (1927). Courting evolutions of male bird observed by W. L. Dawson near Idyllwild, San Jacinto Mountains, May 26, 1913. Other birds seen in Tahquitz Valley June 5 and 6, following (Condor, 18, 1916: 27).

Order CORACIIFORMES Kingfishers, Motmots, Rollers, etc.

FAMILY ALCEDINIDAE Kingfishers

Megaceryle alcyon caurina (Grinnell) Western Belted Kingfisher

Synonyms-Ceryle alcyon, part: Streptoceryle alcyon caurina.

Occurs in considerable numbers during migrations and is occasionally noted at all seasons of the year. Rather common coast-wise and on Santa Barbara Islands. Five eggs taken by L. Stevens (MS) on Nojoqui Creek, Santa Barbara County, April 8, 1924. Nest observed by H. C. Burt near Santa Paula, Ventura County, in summer of 1904 (Willett, Pac. Coast Avif., No. 7, 1912: 54). Pair entering hole in bank seen by C. B. Linton near Whittier, Los Angeles County, in summer of 1895 (Willett, loc. cit.). Nest containing six fully feathered young found by N. K. Carpenter near Oceanside, San Diego County, May 6, 1916 (Condor, 19, 1917: 22). Recorded by L. Belding (Land Birds Pac. Dist., 1890: 58) as resident near San Diego, though not numerous. Nest containing three fresh eggs found by E. E. Sechrist (MS) near San Diego April 18, 1905.

Order PICIFORMES Woodpeckers, Jacamars, Toucans, etc. FAMILY PICIDAE Woodpeckers

Colaptes auratus luteus Bangs Northern Flicker

Synonyms-Colaptes auratus, part: Colaptes auratus borealis.

Recorded as follows: Specimen taken by J. G. Cooper at Saticoy, Ventura County, November 21, 1872 (Proc. Calif. Acad. Sci., **6**, 1875: 200); female by H. S. Swarth near Los Angeles February 20, 1901 (Condor, **3**, 1901: 66); male by E. C. Thurber at Alhambra, Los Angeles County, February 7, 1890 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 26); female by A. Williamson in same locality November 4, 1904 (Richardson, Condor, **7**, 1905: 53); female by F. Ball near San Bernardino in January, 1885 (Auk, **2**, 1885: 383), and male by L. M. Huey at San Diego December 4, 1931 (Condor, **34**, 1932: 140). A sight record of bird seen by L. E. Wyman in Los Angeles in December, 1920, and another of bird seen in Pasadena March 10, 1922 (Schneider, Bird-Lore, **23**, 1921: 97-98; **24**, 1922: 163).

The writer considers it doubtful whether all the above records are of birds that have strayed to California from the north or east. Some, or all, of them may be examples of *Colaptes cafer collaris* showing recessive coloration, a feature that is far from rare in that species. Specimens of *collaris* showing partial displacement of red by yellow (so-called hybrids) are frequently reported. An adult female (L. B. Bishop coll.) apparently typical of *luteus*, was taken by R. H. Coombs at Frazier Mountain, Ventura County, April 4, 1928. At the same time two other specimens (R. H. Coombs coll.) were secured. One of these, a female, matches Dr. Bishop's bird; the other, a male, is intermediate between *luteus* and *collaris*.

Colaptes cafer collaris Vigors Red-shafted Flicker

Common resident of wooded localities from coast to about 9000 feet in mountains. Also occurs on most islands of Santa Barbara group. More widely distributed in winter. In some sections where trees are scarce, nests in holes in banks. Eggs generally deposited during late April and month of May. Young birds found by S. B. Peyton near Sespe, Ventura County, as early as April 25 (Oologist, **48**, 1931: 162). Five fresh eggs found by C. E. Groesbeck in San Fernando Valley, Los Angeles County, April 16, 1896, and four slightly incubated eggs taken by H. A. Gaylord near Pasadena June 15, 1894 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 26).

Centurus uropygialis uropygialis Baird Gila Woodpecker

Rare straggler from desert. One record, bird discovered by R. Hubricht in Griffith Park, Los Angeles, January 2, 1927. This bird remained for about a month thereafter and was seen by many observers, including Mrs. F. B. Schneider and L. E. Wyman (Schneider, Bird-Lore, **29**, 1927: 137; Michener, Condor, **29**, 1927: 176).

Balanosphyra formicivora bairdi (Ridgway) California Woodpecker

Synonym-Melanerpes formicivorus bairdi.

Common resident of oak regions of foothills; less plentiful in mountains up to above 6500 feet. Breeds mostly in April and May. Eggs taken by L. and S. B. Peyton in Sespe Valley, Ventura County, from April 19 (1919) (Peyton MS) to June 12 (1931) (Oologist, **48**, 1931: 162). Five fresh eggs taken by R. Arnold in San Fernando Valley, Los Angeles County, April 5, 1892 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 26). Nest containing small young found by Mrs. H. W. Myers in Los Angeles as late as September 11 (Condor, **17**, 1915: 183). Several birds seen by R. Hoffmann on Santa Cruz Island in 1930 and 1931 (Condor, **33**, 1931: 171). Noted up to 6300 feet in San Bernardino Range (Grinnell, Univ. Calif. Publ. Zool., **5**, 1908: 65), and to 6800 feet in San Jacintos (Grinnell and Swarth, Univ. Calif. Publ. Zool., **10**, 1913: 245).

Asyndesmus lewis Gray Lewis Woodpecker

Common, though irregular, visitant in fall, winter and spring, from lowlands to above 6000 feet in mountains. Not known to breed in coastal district south of San Luis Obispo County. Seen by L. and S. B. Peyton (MS) near Sespe, Ventura County, in early summer. Noted in vicinity of Pasadena, by F. S. Daggett as early as September 30 (1896), and by J. Grinnell as late as May 4 (1895) (Pub. 2, Pasadena Acad. Sci., 1898: 26). Single bird seen by C. G. Abbott at La Jolla, San Diego County, September 24, 1927 (Condor, **30**, 1928: 163). Found common at Witch Creek, San Diego County, by H. W. Marsden, during fall and winter of 1906 (Condor, 9, 1907: 27). Seen by F. E. Blaisdell at Temecula, Riverside County, November 14, 1883, and found abundant in Volcan Mountains, during September and October, 1884 (Belding, Land Birds Pac. Dist., 1890: 70). Recorded by J. G. Cooper (Am. Nat., 8. 1874: 16) as not uncommon in Cuvamaca Mountains in spring of 1862. Specimen taken by L. E. Wyman at Bear Lake, 6750 feet altitude in San Bernardino Mountains, September 22, 1918 (Condor, 21, 1919: 172), and several birds seen by G. Willett (MS) from 6000 to 6500 feet on Mount Pinos, Ventura County, April 25, 1931. Single bird seen by W. L. Dawson on Santa Cruz Island April 4, 1915 (Condor, 17, 1915: 204).

Sphyrapicus varius nuchalis Baird Red-naped Sapsucker

Occasional winter visitant. Male (Willett coll.) taken by J. S. Appleton in Simi Valley, Ventura County, January 10, 1913; female (Willett coll.) taken by G. Willett at Calabasas, Los Angeles County, November 29, 1913; female (L. A. Mus.) taken by H. J. Lelande near Newhall, Los Angeles County, October 26, 1913. Specimens taken near Pasadena December 26, 1895, and February 13, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 25), and near Los Angeles October 17, 1899, and February 18, 1901 (Swarth, Condor, 2, 1900: 37; 3, 1901: 66). Male taken by F. O. Johnson at Riverside December 26, 1889 (Swarth, Condor, 12, 1910: 107). Young female shot near Witch Creek, San Diego County, November 2, 1891, and brought to F. Stephens (Bendire, Life Hist. N. A. Birds, 1895: 88). Male taken by L. Belding about thirty-five miles east of San Diego January 23, 1884 (Land Birds Pac. Dist., 1890: 65). Two immature birds collected by C. B. Linton on San Clemente Island October 11, 1907 (Condor, 10, 1908: 84).

Sphyrapicus varius daggetti Grinnell Southern Red-breasted Sapsucker

Synonyms-Sphyrapicus ruber, of many authors; not of Gmelin: Sierra Sapsucker.

Breeds in Transition zone in mountains, from 5000 to 8500 feet altitude, south to San Jacinto Range. More or less common in winter in wooded districts of lowlands and along base of mountains. Observed by A. H. Miller and S. B. Benson on Mount Pinos, Ventura County, in late spring (Condor, **32**, 1930: 101); nest containing young birds found by L. and S. B. Peyton (MS) in same locality May 22, 1925. Nest containing two large young and one smaller dead one found by W. M. Pierce at Bear Valley, San Bernardino Mountains, June 26, 1916 (Condor, **18**, 1916: 179). Two sets, one of five and the other of four eggs, taken by W. C. Hanna (MS) at about 6000 feet altitude in San Bernardino Mountains, June 5, 1927, and May 26, 1929, respectively. Reported by Grinnell and Swarth (Univ. Calif. Publ. Zool., **10**, 1913: 244) as rather rare in San Jacinto Range, birds being seen only at Fuller's Mill (6000 feet) and Tahquitz Valley (8000 feet).

Recorded by J. Grinnell (Pub. 2, Pasadena Acad. Sci., 1898: 25) at Pasadena in winter from October 9 (1895) to March 21 (1897). In the Los Angeles Museum are winter specimens from many widely scattered localities in Los Angeles and Ventura counties; also immature male taken by J. Hornung on Santa Cruz Island November 30, 1918. Male collected by W. C. Hanna (MS) at Colton, San Bernardino County, February 16, 1919. Reported by F. Stephens (Trans. S. Diego Soc. Nat. Hist., **3**, 1919: 18) as occasional in winter in mountains and foothills of San Diego County.

Though it is true that specimens showing characters of both the rednaped and red-breasted sapsuckers have been taken, such examples do not seem to be common, and the writer inclines to the belief that they may be due to hybridization, rather than to intergradation between two forms of the same species.

Sphyrapicus thyroideus thyroideus (Cassin) Williamson Sapsucker

Fairly common resident of higher mountains south to San Jacinto Range; occasional to lower country in winter. Found by J. Grinnell to be fairly common in Canadian and upper edge of Transition zone in San Bernardino Mountains, several nests containing young being noted in June, 1905, and June, 1906 (Univ. Calif. Publ. Zool., **5**, 1908: 64); nest found by J. S. Dixon at Dry Lake June 22, 1905, contained three small young and two infertile eggs, which were preserved (Condor, **7**, 1905: 140). Reported by Grinnell and Swarth (Univ. Calif. Publ. Zool., **10**, 1913: 245) as present in small numbers in Tahquitz and Round valleys, San Jacinto Mountains, during summer of 1908; five specimens secured. Nest containing three small young found by F. Stephens (MS) in Tahquitz Valley June 20, 1893. G. F. Morcom noted this sapsucker at Pasadena in midwinter, and H. S. Swarth took a female at Los Angeles November 14, 1900 (Condor, **3**, 1901: 66).

Dryobates villosus hyloscopus Cabanis and Heine Cabanis Woodpecker

Common resident of mountains up to at least 10,000 feet; less plentiful in lower country. Quite numerous in oak regions during severe winters. Breeds mostly in April and early May. Four slightly incubated eggs taken by S. B. Peyton near Sespe, Ventura County, April 12, 1907, and four fresh eggs taken by Antonin Jay near El Monte, Los Angeles County, March 25, 1900 (Willett, Pac. Coast Avif., No. 7, 1912: 55). Three slightly incubated eggs collected by G. F. Morcom near Compton, Los Angeles County, May 2, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 25). Four eggs, incubation advanced, taken by W. C. Hanna (MS) in Lone Pine Canyon, San Gabriel Mountains, June 21, 1931.

Dryobates pubescens turati (Malherbe) Willow Woodpecker

Common resident in willow regions of lower country. Breeds in April and May. Seven eggs, two-thirds incubated, collected by G. Willett near Los Angeles April 23, 1906, and five fresh eggs taken by J. E. Law near Pomona May 18, 1902 (Willett, Pac. Coast Avif., No. 7, 1912: 55). Eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, from April 19 (1925) to May 8 (1919).

Dryobates scalaris cactophilus Oberholser Cactus Woodpecker

Common resident of Colorado Desert west to San Gorgonio Pass. Has been found by M. F. Gilman (MS) breeding at Whitewater and Cabezon, and occasionally straggling as far west as Banning. Also noted in small numbers near Vallevista, San Jacinto Valley, Riverside County, between August 29 and September 5, 1908, three specimens being taken (Grinnell and Swarth, Univ. Calif. Publ. Zool., **10**, 1913: 242). Slightly incubated eggs taken by W. M. Pierce (MS) near Victorville, San Bernardino County, May 6, 1916.

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Dryobates nuttallii (Gambel) Nuttall Woodpecker

This woodpecker, originally described from specimens taken near Los Angeles (Proc. Acad. Nat. Sci. Phil., 1, 1843: 259), is a common resident of timbered mesas and foothills, and up to at least 5000 feet in mountain canyons. It breeds mostly in April and early May. Eggs taken by S. B. Peyton near Sespe, Ventura County, March 29, 1931 (Oologist, 48, 1931: 162); by W. M. Pierce (MS) near Corona, Riverside County, from April 9 to May 14 (1916), and by W. C. Hanna (MS) near Colton, San Bernardino County, from March 25 (1926) to June 6 (1921). Five eggs collected by J. G. Cooper near San Diego April 20, 1862 (Land Birds Calif., 1870: 379).

Dryobates albolarvatus albolarvatus (Cassin) Northern White-headed Woodpecker

Synonym—Xenopicus albolarvatus.

Common resident of Transition zone in Sierra Nevada, south to Mount Pinos and Frazier Mountain, Ventura County. Many sets of eggs collected by L. and S. B. Peyton (MS) on Mount Pinos between May 22 and May 31.

Dryobates albolarvatus gravirostris (Grinnell) Southern White-headed Woodpecker

Synonym-Xenopicus albolarvatus, part.

Common resident of Transition zone on San Gabriel, San Bernardino, San Jacinto and Santa Rosa mountains, and south to Volcan and Cuyamaca mountains, San Diego County. Found mostly from 6000 to 8500 feet altitude; occasional to lower levels in winter. Breeds generally in May. Incubated eggs taken by W. M. Pierce (MS) in San Bernardino Mountains May 10, 1919, and May 29, 1921, and by D. I. Shepardson, in same mountains, June 17, 1917 (Condor, **19**, 1917: 169). Nest containing young birds noted by W. C. Hanna (MS) in San Jacinto Mountains May 19, 1918. Found breeding by F Stephens in Cuyamaca Mountains, San Diego County, from 5800 to 7000 feet altitude; nest containing three young birds examined June 19, 1893 (Bendire, Life Hist. N. Am. Birds, 1895: 71).

In specimens in the Los Angeles Museum the larger bill of the southern race of the White-headed Woodpecker is easily appreciable.

Order PASSERIFORMES Perching Birds FAMILY TYRANNIDAE Tyrant Flycatchers

Tyrannus tyrannus (Linnaeus) Eastern Kingbird

Synonym-Tyrannus tyrannus hespericola.

Immature male (Mus. Vert. Zool.) taken by W. B. Judson at Santa Monica, Los Angeles County, August 31, 1895 (Gaylord, Avifauna, 1, 1895: 29). Immature taken by L. H. Miller at Laguna Beach, Orange County, August 28, 1917 (Condor, **20**, 1918:44). Two immature birds seen by R. Hoffmann at Santa Barbara September 13, 1923 (Condor, **26**, 1924:75).

Tyrannus verticalis Say Arkansas Kingbird

Synonym-Western Kingbird.

Common summer resident of lowlands and mesas; occasional up to 7000 feet in mountains. Arrives in March and leaves in September. Breeds mostly in May and early June. Adult male taken by G. Willett at Bear Lake, San Bernardino Mountains, June 24, 1907 (Condor, **12**, 1910: 44). Extreme nesting dates are: Five fresh eggs taken by Antonin Jay at Cerritos, Los Angeles County, May 2, 1897, and four eggs, half incubated, taken by W. M. Pierce in San Antonio Canyon July 8, 1901 (Willett, Pac. Coast Avif., No. 7, 1912: 62).

Tyrannus vociferans Swainson Cassin Kingbird

Fairly common summer resident, locally, in Lower Sonoran zone. Winters in small numbers north to Santa Barbara. While W. L. Dawson (Condor, 18, 1916: 27) states that he has never seen a kingbird in winter at Santa Barbara, C. P. Streator (Orn. and Ool., 2, 1886: 66), writing of Santa Barbara, says under T. verticalis: "A very few remain through the winter." This record undoubtedly referable to *vociferans*. The writer has seen no winter records for Ventura County, but in the Los Angeles Museum are many specimens taken in Los Angeles County at that season. Said by L. M. Huey (MS) to be common near San Diego in winter. According to W. L. Dawson (loc. cit.), breeds throughout interior sections of Santa Barbara County. Found by H. C. Burt to be fairly common breeder in vicinity of Santa Paula, Ventura County, where he took set of five eggs May 10, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 62). Several nests containing young found by J. Grinnell in Simi Valley, Ventura County, in July 1893 (Pub. 2, Pasadena Acad. Sci., 1898: 29). Breeding female (L. A. Mus.) taken by J. Hornung in Los Angeles May 11, 1918; another female taken by L. E. Wyman in same locality June 4, 1915. Four slightly incubated eggs, with female bird, taken by G. Willett near Whittier. Los Angeles County, May 4, 1894 (Willett, loc. cit.). Recorded by C. S. Sharp (Condor, 9, 1907: 88) as an uncommon breeding bird in vicinity of Escondido, San Diego County. According to L. Belding (Land Birds Pac. Dist., 1890: 92), common summer resident around San Diego; noted breeding in that vicinity by J. G. Cooper as early as March 20 (Land Birds Calif., 1870:315).

Muscivora forficata (Gmelin) Scissor-tailed Flycatcher

Male secured by I. D. Nokes near Boquet Canyon, Los Angeles County, June 26, 1915 (Swarth, Condor, 17, 1915: 203).

Myiarchus cinerascens cinerascens (Lawrence) Ash-throated Flycatcher

Common summer resident from oak regions of mesas up to about 6000 feet in mountain canyons; less plentiful near coast. In late summer wanders up mountains to at least 8000 feet, and during spring migration more widely distributed in lower country. J. Grinnell's earliest date of arrival at Pasadena is April 4 (1896), and his latest in fall, September 14 (1895) (Pub. 2, Pasadena Acad. Sci., 1898: 29). Bird seen by H. S. Swarth at Los Angeles March 15, 1914 (Condor, 16, 1914: 183). That the species may occur later than September is indicated by an immature bird (L. B. Bishop coll., no. 38296), taken by W. E. Sherwood at Ashland, Oregon, October 25, 1923. Breeds most plentifully in late May and early June. Fresh eggs taken by S. B. Peyton near Sespe, Ventura County, from May 10 to June 13 (1931) (Oologist, 48, 1931: 162). Four fresh eggs collected by Antonin Jay near Monrovia, Los Angeles County, June 29, 1902 (Willett, Pac. Coast Avif., No. 7, 1912: 62). Eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, from May 22 (1920) to June 30 (1925), and by E. E. Sechrist (MS) near San Diego from May 1 to June 1.

Sayornis phoebe (Latham) Eastern Phoebe

Male taken by H. S. Swarth near San Fernando, Los Angeles County, February 14, 1901 (Condor, 3, 1901: 66).

Sayornis nigricans nigricans (Swainson) Black Phoebe

Synonym-Sayornis nigricans semiatra.

Common resident of lowlands, and occasional along streams up to 7000 feet in mountains; even higher in late summer. Usually found near water; especially plentiful around barns and stock-yards. Occurs on several of the Santa Barbara Islands. Breeds mostly in May. Fresh eggs taken by H. J. Lelande near San Gabriel, Los Angeles County, March 1, 1897, and by Antonin Jay in San Fernando Valley, same county, June 5, 1898 (Willett, Pac. Coast Avif., No. 7, 1912: 63). Three slightly incubated eggs taken by W. M. Pierce (MS) in San Jacinto Mountains June 9, 1918, and four small young found in San Gabriel Canyon July 5. Reported by Grinnell and Swarth (Univ. Calif. Publ. Zool., 10, 1913: 253) as nesting at 6000 feet in San Jacinto Range and occurring up to 9000 feet later in summer.

Sayornis saya saya (Bonaparte) Say Phoebe

Fairly common breeding bird in foothill regions of Santa Barbara and Ventura counties; less common throughout rest of southern California. Much more plentiful in winter, when abundant from ocean to base of mountains. In vicinity of Los Angeles arrives mostly in September and leaves in March. Breeds in April and May. Three slightly incubated eggs taken by L. Peyton at Sespe, Ventura County, May 24, 1909, and found breeding commonly in Simi Valley, same county, by J. S. Appleton (Willett, Pac. Coast Avif., No. 7, 1912: 63). Two nests, one containing five fresh eggs and the other four halfgrown young, found by G. Willett near Whittier, Los Angeles County, April 3, 1906 (loc. cit.). Set of four eggs found by W. C. Hanna near Colton, San Bernardino County, April 25, 1932 (Condor, **35**, 1933: 126). Two half-incubated eggs taken by J. E. Law near Elsinore, Riverside County, April 28, 1901 (Condor, **3**, 1901: 186). Found nesting commonly in San Jacinto Valley, by O. W. Howard and H. J. Lelande, in May, 1910 (Willett, loc. cit.). Nest containing fresh eggs found by B. P. Carpenter at Escondido, San Diego County, April 22, 1906 (Sharp, Condor, **9**, 1907: 88). One or two pairs nesting near San Diego noted by L. Belding in April, 1885 (Land Birds Pac. Dist., 1890: 94).

Sayornis saya yukonensis Bishop Northern Say Phoebe

Synonym-Sayornis saya, part.

Occasional in winter and during migrations. H. S. Swarth reports (Condor, 28, 1926: 46) that an examination of about 130 skins of Say Phoebes (mostly from California) only produced two specimens of the northern bird. One of these, an adult male, was taken by J. Grinnell at Morro, San Luis Obispo County, September 21, 1918. L. M. Huey (Condor, 33, 1931: 171) records a male (Huey coll., no. 119) secured at San Diego January 1, 1914. In the D. R. Dickey collection are four specimens taken in southern California, as follows: Female, by A. B. Howell, at Burbank, Los Angeles County, November 11, 1911; male, by H. H. Kimball, at Long Beach, same county, February 17, 1914; male, by W. M. Pierce, at Claremont, same county, January 8, 1915, and female, by A. J. van Rossem, near Corona, Riverside County, December 8, 1915. These dates would indicate that this bird may be looked for, both during migrations and in the winter season. It is apparently uncommon, however. All the fifty or more southern California specimens of Say Phoebe in the Los Angeles Museum are referable to S. s. saya.

Empidonax traillii brewsteri Oberholser Western Traill Flycatcher

Synonyms—*Empidonax traillii traillii*, of many authors; not of Audubon, 1828: Traill Flycatcher, part: Little Flycatcher.

Common summer resident from willow thickets of lowlands to more than 5000 feet in mountain canyons; during migrations occurs as high as 8000 feet. Breeds most plentifully in June. Noted by J. Grinnell at Pasadena from May 4 (1895) to September 26 (1896) (Pub. 2, Pasadena Acad. Sci., 1898: 30). Slightly incubated eggs taken by A. I. McCormick near Los Angeles May 25, 1895, and by H. A. Gaylord near Pasadena July 11, 1894 (loc. cit.). Three

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eggs found by W. M. Pierce (MS) in Lytle Creek Canyon, San Gabriel Mountains, July 30, 1915. Eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, from May 28 (1919) to July 21 (1926). Mr. Hanna informs me that it is now difficult to find a nest of this flycatcher, near Colton, that does not contain at least one egg of the Dwarf Cowbird.

H. C. Oberholser has shown (Ohio Journ. Sci., 18, 1918: 93) that Audubon's name *traillii*, so long used for our western bird, really applies to the eastern race of the species.

Empidonax hammondii (Xantus) Hammond Flycatcher

Common migrant, mostly to canyons and mesas along base of mountains. Has been recorded as nesting in southern California, but all such records probably referable to next species. Specimen taken by B. W. Evermann at Santa Paula, Ventura County, April 10 (Pac. Sci. Monthly, 1, 1886: 82). Noted by H. A. Gaylord near Pasadena in spring, from April 9 to May 9 (1896), and by J. Grinnell in same vicinity in fall, from first week in September until October 30 (1897) (Pub. 2, Pasadena Acad. Sci., 1898: 30). Specimens taken by H. Robertson near Pasadena April 7, 1899 (Willett, Pac. Coast Avif., No. 7, 1912: 65). Noted in April in various parts of San Diego County by L. Belding, F. Stephens and others (Land Birds Pac. Dist., 1890: 102).

Empidonax wrightii Baird Wright Flycatcher

Common summer resident of upper Transition and Boreal zones of mountains, south to San Jacinto and Santa Rosa ranges. Most plentiful between 6500 and 9000 feet, but occurs as high as 9500 feet and descends, locally, as low as 5500. Found fairly common by the writer on Mount Pinos, Ventura County, set of fresh eggs being taken in that locality June 18, 1933. Recorded by J. Grinnell from slopes of Mount Waterman, San Gabriel Range (7500 to 8500 feet) (Pub. 2, Pasadena Acad. Sci., 1898: 31), and breeding commonly in the San Bernardinos. In latter mountains, newly-hatched young noted as early as June 15 (1905), and partially incubated eggs taken July 14, 1906 (Univ. Calif. Publ. Zool., 5, 1908: 78); fresh eggs taken by W. M. Pierce (MS) in same region from May 30 (1919) to July 15 (1931). Found breeding abundantly in San Jacinto and Santa Rosa ranges by Grinnell and Swarth in 1908 (Univ. Calif. Publ. Zool., 10, 1913: 257-259). These writers (p. 257) call attention to the fact that this flycatcher, while breeding abundantly in the mountains, "apparently departs from the region in fall and enters again in the spring, without visiting the adjacent plains and valleys". In the Los Angeles Museum are two specimens taken in the foothill country. One of these (no. 13336), a female, was collected by C. H. Richardson, Jr., near Sierra Madre, Los Angeles County, February 24, 1908; the other (no. 3307), also a female, was taken by J. Hornung at the mouth of Fish Canyon, Los Angeles County, May 9, 1919. Three specimens (D. R. Dickey coll.) secured by A. J. van Rossem near Newhall, Los Angeles County, in spring of 1921; one of these taken April 23 and the other two April 26.

There has been a great deal of confusion of this and the next species in previous publications. J. Grinnell (Univ. Calif. Publ. Zool., **5**, 1908: 78-82) called the breeding bird of the San Bernardino Mountains *Empidonax griseus*. During the preparation of Avifauna No. 7, published in 1912, it was found that the breeding bird of our mountains was not griseus but wrightii.. The error in this latter paper, however, was the inclusion of the bird that winters in the lower country with the one that summers in the mountains. We now know that these are two different species.

Empidonax griseus Brewster Gray Flycatcher

Synonym—Empidonax canescens.

Fairly common winter and spring visitant to valley and foothill regions. Recorded north to Saticoy and Ventura, where J. G. Cooper secured specimens in winter (Auk, **4**, 1887: 92; Baird, Brewer and Ridgway, N.A.L.B., **3**, 1874: 520). In the Los Angeles Museum are fifteen specimens collected in Los Angeles County in winter and spring; earliest, male taken by H. A. Gaylord at El Monte November 7, 1896 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 31), and latest, male taken by F. S. Daggett at Pasadena May 8, 1899. Two birds taken by H. W. Marsden at Redlands, San Bernardino County, April 20 and 22, 1903 (Bishop, Condor, **7**, 1905: 142).

Empidonax difficilis difficilis Baird Western Flycatcher

Synonyms—*Empidonax insulicola: Empidonax difficilis cineritius,* of some authors; not of Brewster, 1888.

Common summer resident of canyons in foothill and mesa regions and up to about 6000 feet in mountains; ascends to at least 8000 feet in late summer. Rather common on Santa Barbara Islands. Found all over lowlands during migrations. Rare in winter. Noted by J. Grinnell at Pasadena from March 30 to October 10 (1896) (Pub. 2, Pasadena Acad. Sci., 1898: 30). Male taken by H. S. Swarth near Los Angeles March 21, 1899 (Willett, Pac. Coast Avif., No. 7, 1912: 64). Seen by J. G. Cooper at Saticoy, Ventura County, March 18, 1873 (Auk, 4, 1887: 92). Bird seen by L. Belding at San Diego in December (Land Birds Pac. Dist., 1890: 99), and young male (L. B. Bishop coll., no 30913) collected by Dr. Bishop near Santa Barbara December 3, 1918. Reported in late summer up to 8000 feet in San Bernardino Mountains (Grinnell, Univ. Calif. Publ. Zool., 5, 1908: 78), and to about same altitude in San Jacintos (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 255).

Breeds mostly in late May and early June. Two sets of eggs and nest containing four young, found by S. B. Peyton near Sespe, Ventura County, May 9, 1931 (Oologist, **48**, 1931: 162). Two sets of eggs noted by W. M. Pierce in San Gabriel Canyon, Los Angeles County, July 5 and 14, 1914 (Condor, **17**, 1915: 167). Eggs taken by W. C. Hanna (MS) in vicinity of San Bernardino from May 16 (1920) to June 16 (1918).

Synonyms—Myiochanes virens richardsonii: Contopus richardsonii: Horizopus richardsonii.

Common summer resident of canyons and oak and coniferous forests up to 9000 feet in mountains; more or less common, during migrations, along streams and in wooded localities in lowlands. Eggs generally deposited during late May and early June. Observed by J. Grinnell in vicinity of Pasadena from April 18 (1895) to September 30 (1894) (Pub. 2, Pasadena Acad. Sci., 1898: 30). Recorded by J. Grinnell (Pub. 1, Pasadena Acad. Sci., 1897: 10 and 15) from San Nicolas Island May 20 and 23, 1897, and from San Clemente Island June 3, following. Three fresh eggs taken by H. J. Lelande near Pasadena May 1, 1899 (Willett, Pac. Coast Avif., No. 7, 1912: 64), and three slightly incubated eggs taken by H. A. Gaylord in same locality July 11, 1894 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 30).

Nuttallornis mesoleucus majorinus Bangs and Penard Greater Olive-sided Flycatcher

Synonyms-Contopus borealis, part: Nuttallornis borealis, part.

Common summer resident of mountains from about 3000 to 9000 feet altitude, south to northern Lower California. Occurs on mesas and lowlands during migrations. Arrives in April and May, and leaves mostly in September. Extreme migration dates at Pasadena, as given by J. Grinnell (Pub. **2**, Pasadena Acad. Sci., 1898: 30), are April 24 and September 26 (1896). Found by H. S. Swarth near Los Angeles in spring as late as June 4 (1898), and male taken by G. Willett at Colton, San Bernardino County, June 3, 1906 (Pac. Coast Avif., No. **7**, 1912: 63). Observed in migration at Buena Park, Orange County, by J. McB. Robertson (Condor, **33**, 1931: 139) from April 13 (1926) to June 22 (1923), and from August 24 (1925) to October 7 (1928); most common in May and September (Robertson MS).

Eggs taken by W. L. Dawson at elevation of about 2600 feet on seaward slope of Santa Ynez Range, near Santa Barbara, June 5, 1915 (Condor, 18, 1916: 27); by L. and S. B. Peyton (MS) at 7000 feet altitude on Mount Pinos June 16, 1923, and by M. C. Badger (MS), above Wheeler Springs (3000 feet), Ventura County, June 28, 1923, and in Santa Paula Canyon (1500 feet) July 1, 1923. Common breeder in San Bernardino Mountains, slightly incubated eggs being taken by J. Grinnell at Dry Lake, 9000 feet, June 23, 1906 (Univ. Calif. Publ. Zool., 5, 1908: 76). Observed nesting in San Jacinto Mountains in summer of 1908. Nest, which probably contained young, seen at Strawberry Valley July 9 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 254). Set of three eggs taken by F. Stephens in Cuyamaca Mountains, San Diego County, June 5, 1884 (Bendire, Life Hist. N. Am. Birds, 1895: 283).

There seems to be no doubt that birds of this species from the west average slightly larger than those from the east. This difference in size is the principal character used by Bangs and Penard in separating the western bird under the name *majusculus* (Proc. Biol. Soc. Wash., **34**, 1921: 90-91).

Whether ornithology is benefitted by recognition of such slight differences by name, seems questionable to the writer, and the name *majorinus* is used here mainly to accord with other writers on west American birds.

Pyrocephalus rubinus mexicanus Sclater Vermilion Flycatcher

Casual visitant from desert in fall, winter and spring. About twenty-five records from Pacific slope, ranging from Santa Barbara (Torrey, Condor, 9, 1907: 109) to San Diego (Grey, Condor, 19, 1917: 102), in every month from September to May. Earliest in fall, male bird seen by J. McB. Robertson (MS) at Buena Park, Orange County, September 26 and 27, 1927; latest in spring, male taken by T. L. Hurd at Riverside May 24, 1889 (Orn. and Ool., 14, 1889: 94). Other localities of records are Ventura, Los Angeles, Nigger Slough, Long Beach (2), El Monte (several), Santa Ana, Corona, Banning and Escondido.

FAMILY ALAUDIDAE Larks

Otocoris alpestris leucolaema (Coues) Desert Horned Lark

Straggler from desert in winter. Several specimens taken in Riverside County, ten miles south of Ontario, December 3, 1919 and December 11, 1920 (Dickey and van Rossem, Condor, **24**, 1922: 94).

Otocoris alpestris insularis Townsend Island Horned Lark

Abundant resident on Santa Barbara Islands; occasional to mainland in winter. Type specimen from San Clemente Island. Robert Ridgway says of this subspecies: "The characters of this form are most pronounced in specimens from the more northern islands of San Miguel, Santa Rosa and Santa Cruz, those from the more southern islands of San Clemente, Santa Barbara, San Nicolas and Santa Catalina inclining toward the mainland form, *O. a. actia,* thus indicating the origin of this insular form" (Birds N. and Mid. America, **4**, 1907: 318).

Breeding season of Island Horned Lark, like that of mainland bird, quite extensive, at least two broods being reared in a season. J. Grinnell found nest containing four young on Santa Barbara Island May 15, 1897, and took three slightly incubated eggs on San Clemente Island June 3, following (Pub. 1, Pasadena Acad. Sci., 1897: 5 and 16). Eggs collected by C. B. Linton on San Nicolas Island May 12 and 13, 1910, by O. W. Howard on San Miguel Island June 21, 1910, and by Antonin Jay on Santa Barbara Island July 3, 1909 (Willett, Pac. Coast Avif., No. 7, 1912: 66-67).

Mainland records as follows: Male (J. E. Thayer coll.) collected by C. B. Linton at Alamitos Bay, Los Angeles County, "December 4" (=January 18), 1908 (Condor, 10, 1908: 181); two males (D. R. Dickey coll.), one taken

PACIFIC COAST AVIFAUNA

at Goleta, Santa Barbara County, November 26, 1915, and the other near Oxnard, Ventura County, August 22, 1922 (Dickey and van Rossem, Condor, **24**, 1922: 94), and twenty-one specimens (L. B. Bishop coll.) secured by Dr. Bishop at La Patera Point, near Santa Barbara, between November 6 and December 10, 1918. The flock from which these specimens were taken was small November 6, contained more than one hundred birds November 14, several hundred December 3, had decreased to eight or ten December 12, and only two were seen December 17 (Bishop MS).

Otocoris alpestris actia Oberholser California Horned Lark

Abundant resident from coast to base of mountains. Occurs in summer up to about 7000 feet, and at even higher altitudes, after nesting season. Breeding begins early and continues well into summer, at least two broods being raised in a season. Birds, apparently breeding, noted by G. Willett at Bear Valley, 6750 feet altitude in San Bernardino Mountains, during June, 1907 (Pac. Coast Avif., No. 7, 1912: 66). About twenty birds seen by J. Grinnell at summit of San Gorgonio Peak, 11,485 feet altitude, July 16, 1906 (Univ. Calif. Publ. Zool., 5, 1908: 82). Fully fledged young found near Pasadena first week in March (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 31). Eggs taken by M. C. Badger (MS) near Santa Paula, Ventura County, from April 26 (1932) to June 16 (1916).

Otocoris alpestris leucansiptila Oberholser Sonora Horned Lark

Female (L. B. Bishop coll., no 8396) taken by H. W. Marsden at Redlands, San Bernardino County, February 13, 1903, referred to above race by H. C. Oberholser (Bishop, Condor, 17, 1915: 186). This bird recently examined by the writer, who agrees with above identification.

FAMILY HIRUNDINIDAE Swallows

Tachycineta thalassina lepida Mearns Violet-green Swallow

Common summer resident of Transition zone in mountains and, locally, in oak regions of mesas; plentiful over lower country during migrations. Reported by A. J. van Rossem (Condor, **13**, 1911: 133) as occurring in winter in Imperial Valley, and recorded by W. L. Dawson at Santa Barbara December 19-24, 1914 (Bird-Lore, **17**, 1915: 48) and December 24, 1918 (Birds Calif., 1923: 544). Noted by J. Grinnell at Pasadena from February 16 (1895) to October 20 (1894) (Pub. **2**, Pasadena Acad. Sci., 1898: 42). Breeds in late May and month of June. Although principally confined to mountains during nesting season, has been reported as breeding in foothills near Santa Paula, Ventura County, by H. C. Burt, and in oak regions of Santa Barbara County, and San Jacinto Valley, Riverside County, by G. Willett (Pac. Coast Avif., No. 7, 1912: 91). According to L. and S. B. Peyton (MS), in some parts of Ventura County, nests in cavities in cliffs, in company with White-throated Swifts. Five eggs, advanced in incubation, secured in such a situation May 30, 1916. Four eggs taken by H. Robertson in Millard's Canyon, near Pasadena, June 10, 1902 (Willett, loc. cit.). Reported by J. B. Dixon (MS) to be fairly common breeder in vicinity of Escondido, San Diego County; fresh eggs taken by him in that locality May 22, 1932.

Iridoprocne bicolor (Vieillot) Tree Swallow

Common in spring and summer in willow regions of lowlands. The majority migrate south in fall, but a few remain through winter. In spring they become numerous about the middle of March and breed, ordinarily, from latter part of April to early June. Extreme nesting records are: Fresh eggs taken by H. J. Lelande near El Monte, Los Angeles County, April 15, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 42), and by Antonin Jay near Santa Monica, same county, July 4, 1903 (Willett, Pac. Coast Avif., No. 7, 1912: 90). According to J. B. Dixon (MS), the species nests at Henshaw and Hodges lakes, San Diego County.

Riparia riparia riparia (Linnaeus) Bank Swallow

Fairly common summer resident in suitable localities in lowlands. Arrives mostly in March and leaves in September. Reported by W. L. Dawson (Birds Calif., 1923: 533-535) as nesting at Santa Barbara in June. According to L. and S. B. Peyton (MS), irregularly common breeder near Sespe, Ventura County; eggs secured in that locality May 5, 1904. Five eggs, incubation advanced, taken by D. I. Shepardson at San Pedro April 26, 1908 (Condor, 17, 1915: 130); four sets of fresh eggs taken by G. Willett near Whittier, Los Angeles County, July 4, 1894, and four heavily incubated eggs taken by Antonin Jay at Huntington Beach, Orange County, May 27, 1906 (Willett, Pac. Coast Avif., No. 7, 1912: 91). Young and incubated eggs found by N. K. Carpenter near Oceanside, San Diego County, May 13, 1917 (Condor, 20, 1918: 90). Above nesting dates would indicate that two broods are raised in a season; also they would definitely modify Dawson's assertion (op. cit.: 535) that "June is the nesting month."

Stelgidopteryx ruficollis serripennis (Audubon) Rough-winged Swallow

Synonym-Stelgidopteryx ruficollis aphractus.

Fairly common summer resident of foothill and mesa regions. Most numerous during migrations, in March and April and in October. San Diego records for November 9 and January 27 (Cooper, Land Birds Calif., 1870: 111) might indicate wintering, or might refer to late and early migrants. Breeds mostly in May. Six eggs taken by H. C. Burt near Santa Paula,

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Ventura County, May 5, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 91); four fresh eggs taken by H. A. Gaylord near Pasadena May 30, 1896 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 47); sets of eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, May 12, 1921, and May 29, 1923. According to J. B. Dixon (MS), a common breeder throughout lower parts of San Diego County.

Hirundo erythrogaster Boddaert Barn Swallow

Common over lowland and foothill country during migrations, which occur mostly in April and September. Three birds seen by A. J. van Rossem at Anaheim Landing, Orange County, November 3, 1921 (Condor, **25**, 1923: 69), probably late migrants. A few remain through the summer and nest under bridges, or in caves along coast and on Santa Barbara Islands. Extreme nesting records are: Four slightly incubated eggs collected by W. M. Pierce (MS) near Newport, Orange County, May 9, 1920, and two fresh eggs found by L. L. Gardner near Balboa, same county, July 15, 1914 (Condor, **17**, 1915: 99).

Petrochelidon albifrons albifrons (Rafinesque) Cliff Swallow

Synonyms—Petrochelidon lunifrons: Petrochelidon albifrons hypopolia: Petrochelidon albifrons aprophata.

Abundant summer resident from lowlands up to 7500 feet in mountains. Breeds from April to July, at least two broods being raised in a season. Earliest in spring in Los Angeles County noted by W. M. Pierce in San Antonio Canyon February 15, 1904 (Willett, Pac. Coast Avif., No. 7, 1912: 90); latest in fall noted by J. Grinnell at Long Beach September 7, 1895 (Pub. 2, Pasadena Acad. Sci., 1898: 41). Must sometimes remain considerably later, however, as nest containing three fresh eggs found by Evan Davis on coast of Orange County September 1, 1894 (Nidiologist, 2, 1894: 30). J. G. Cooper noted the species at San Diego from March 15 to October 5 (1862) (Land Birds Calif., 1870: 105). The writer observed them nest-building on a barn near Compton, Los Angeles County, March 26, 1910, and found them nesting abundantly on trunks of pine trees at Bear Valley, San Bernardino Mountains, in June, 1907 (Willett, loc. cit.).

Progne subis subis (Linnaeus) Purple Martin

Synonym-Progne subis hesperia, of many authors; not of Brewster.

Fairly common summer resident, locally. Originally confined to timbered regions of mountains and foothills, but now found also in various lowland towns, nesting in crevices in buildings. Such colonies recorded from Santa Barbara, Los Angeles, Pasadena, Whittier, Long Beach, Balboa and Santa Ana. Usually arrives in late March and early April and disappears during September. Reported by H. S. Swarth at Long Beach, Los Angeles County, March 24, 1904 (Willett, Pac. Coast Avif., No. 7, 1912: 90), and by Mrs. F. B. Schneider (Bird-Lore, **30**, 1928: 208) at Whittier, same county, as early as March 17 (1928). Specific dates of fall migration lacking.

Nests principally in late May and early June. Eggs collected by L. Stevens (MS) along Santa Ynez River, Santa Barbara County, May 30 and June 7, 1932. Sets of eggs taken by R. M. Perez and G. K. Snyder in Los Angeles June 2 and 17, 1910 (Condor, 12, 1910: 133). Four fresh eggs taken by J. S. Dixon at San Onofre, San Diego County, May 30, 1904 (Condor, 8, 1906: 95). About twenty pairs of birds found nesting at Lake Henshaw, San Diego County, by J. B. Dixon (MS) in 1932; two sets of eggs taken June 3. Colony of similar size nesting in large dead pine tree near Oak Glen, San Bernardino Mountains, in 1910, reported by W. M. Pierce (Condor, 16, 1914: 145).

The name *hesperia*, which has been used for our California martin, is now believed to apply only to the bird of southern Lower California.

FAMILY CORVIDAE Jays, Magpies and Crows

Cyanocitta stelleri frontalis (Ridgway) Blue-fronted Jay

Common resident of Transition zone in coniferous forests of mountains; also nests, irregularly, in foothill region. Occasional along base of mountains and on oak-covered mesas during severe winters. Breeds mostly in May and early June. Noted by W. L. Dawson in spring near Santa Barbara from March 29 to April 28 (1913) (Condor, 18, 1916: 28). Occurred in small numbers in Griffith Park, Los Angeles, during winter of 1919-20. One pair, remaining to nest in locality, seen carrying nesting material May 5, 1920, and feeding young, out of nest, July 9, following (Miller, M. M., Condor, 22, 1920: 188). According to W. I. Allen (Condor, 28, 1926: 172), occurs at all seasons, during some years, at Altadena, 1050 feet altitude; other years not being seen at all. In 1922 and 1923 nested in eucalyptus groves, at least one brood each year being raised in the locality. Pair seen by L. Little at South Pasadena June 6, 1920, under circumstances that indicated breeding (Condor, 22, 1920: 190). Eggs taken by M. C. Badger (MS) on Mount Pinos May 10, 1929, and in Santa Paula Canyon (2000 feet) May 3, 1925, and by W. M. Pierce (MS), in San Gabriel Canyon April 30, 1916, in San Bernardino Mountains May 12, 1927, and in San Jacintos June 9, 1918. Three fresh eggs secured by D. I. Shepardson in San Bernardinos June 18, 1917, young on wing being noted on same date (Condor, 19, 1917: 169). Several sets of eggs taken by N. S. Goss near Julian, San Diego County, in spring of 1884 (Auk, 2, 1885: 217); set of three partly incubated eggs collected by J. B. Dixon (MS) in same locality May 6, 1933.

Synonym—*Aphelocoma californica obscura,* of some authors; not of Anthony, 1889.

Common resident from coast to about 6000 feet in mountains; occurring at even higher elevations in some localities. Breeds mostly in April. Young about two-thirds grown found by J. Grinnell near Pasadena March 25, 1897 (Pub. 2, Pasadena Acad. Sci., 1898: 32). Fresh eggs collected by W. M. Pierce near Claremont, Los Angeles County, March 20, 1902, and slightly incubated eggs taken by G. Willett at 5400 feet altitude in San Bernardino Mountains June 7, 1906 (Pac. Coast Avif., No. 7, 1912: 68). Noted by J. Grinnell as high as 8500 feet on Mount Pinos (Auk, 22, 1905: 385), and up to 7500 feet in San Bernardino Range (Univ. Calif. Publ. Zool., 5, 1908: 84), and by Grinnell and Swarth to 6000 feet in San Jacintos (Univ. Calif. Publ. Zool., 10, 1913: 261).

Aphelocoma insularis Henshaw

Santa Cruz Jay

Confined to Santa Cruz Island, where common resident. Specimens from which the species was originally described taken by H. W. Henshaw in June, 1875 (Auk, **3**, 1886: 452). Nesting season principally in April and early May. Set of three eggs collected by M. C. Badger (MS) April 14, 1918. Two nests with eggs and two with young birds found by J. Mailliard the latter part of April, 1898 (Bull. Cooper Orn. Club, **1**, 1899: 43). Three sets of eggs taken by R. H. Beck May 8, 1897 (Bull. Cooper Orn. Club, **1**, 1899: 6). Two nests containing slightly incubated eggs and five nests with young birds found by O. W. Howard April 28 and 29, 1906 (Willett, Pac. Coast Avif., No. **7**, 1912: 68). Two fresh eggs taken by J. S. Appleton June 7, 1906 (loc. cit.), probably a second laying.

Pica nuttallii (Audubon) Yellow-billed Magpie

Formerly common resident of oak regions, south to northern Los Angeles County. Still occurs in some numbers, locally, in northern Santa Barbara County, but is rare, or extinct, in other sections of our district. First described from specimens taken at Santa Barbara by Thomas Nuttall (Audubon, Birds Amer. [folio], **4**, 1836: pl. 362, fig. 1). According to early settlers in Conejo Valley, on line of Ventura and Los Angeles counties, magpies were common in that region in the early 80's. None, however, reported from that section in late years. Single bird seen by J. S. Appleton in Simi Valley, Ventura County, about seven miles north of Los Angeles County line, in summer of 1908 (Willett, Pac. Coast Avif., No. **7**, 1912: 67). Bird seen at Chatsworth Lake, Los Angeles County, October 26, 1925 (Schneider, Bird-Lore, **28**, 1926: 69); another seen by C. D. Test (MS) near Riverside in late March, 1926. Specimen recorded (Baird, Pac. R. R. Rep., 9, 1858: 579) as having been taken by Dr. Hammond at San Diego. These last two may have been escaped cage birds.

Found numerous near Santa Barbara in early 60's by J. G. Cooper; young nearly fledged noted by April 25 (Land Birds Calif., 1870: 295). Found abundant by B. W. Evermann in suitable places in Ventura County in early 80's; over eighty eggs obtained in Wheeler Canyon, near Santa Paula, April 2, 1881 (Pac. Sci. Monthly, 1, 1886: 82). Small colony bred in Alisio Canyon, near Wheeler Canyon, in 1911, several sets of eggs being taken by H. C. Burt on April 9 (Willett, loc. cit.). According to M. C. Badger (MS), has not been known to breed in this latter locality since 1915, though a single bird was seen there as late as 1931. L. Stevens (MS) does not believe that magpies now breed anywhere on the coastal slope of Santa Barbara County, but he finds them still common north of Santa Ynez Mountains.

Corvus corax sinuatus Wagler

American Raven

Common resident of more unsettled portions of hill country; particularly plentiful on Santa Barbara Islands, where, owing to its reputation as destroyer of newly-born lambs, it is shot in considerable numbers by sheep herders. Begins nesting in March, and fresh eggs of first laying may be found until late in April. If first set lost, second will be laid. Extreme dates for eggs are: Six, one-third incubated, taken by S. B. Peyton (MS) in Castaic Canyon, Los Angeles County, March 5, 1933, and three, slightly incubated, taken by W. L. Chambers near Santa Monica May 9, 1896 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 32).

The bird of the Santa Barbara Islands has been referred to the race *clarionensis* by at least two American ornithologists (Ridgway, Birds N. and Mid. Amer., **3**, 1904: 265; Bishop, Condor, **17**, 1915: 186), on the grounds of supposed smaller size. Comparison of mainland and island birds in the Los Angeles Museum shows no appreciable difference between them, when only adult birds of the same sex are compared.

Corvus brachyrhynchos hesperis Ridgway Western Crow

Synonyms-Corvus americanus, part: Corvus brachyrhynchos, part.

Common resident of lowlands. Breeds mostly in April, normal nesting locality being willow regions, but, since destruction of many of these, has resorted to eucalyptus groves in some sections. More widely distributed in winter. A. M. Ingersoll states that the Crow nests along Sweetwater and San Diego rivers, a few miles from the coast in southern San Diego County (Willett, Pac. Coast Avif., No. 7, 1912: 69). This is the most southern definite nesting record, though it is known to occur on the Pacific slope of northern Lower California and probably breeds there (Grinnell, Univ. Calif., Publ. Zool., 32, 1928: 148). Four fresh eggs collected by Antonin Jay in San Fernando Valley, Los Angeles County, March 27, 1898 (Willett, loc. cit.), and five incubated eggs taken by R. Arnold in same locality May 17, 1894 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 32). Eggs taken by W. C. Hanna (MS) near Riverside March 30, 1924, and by W. M. Pierce (MS) near Corona, Riverside County, May 14, 1916.

Cyanocephalus cyanocephalus (Wied) Piñon Jay

Common resident, locally, of Upper Sonoran and Transition zones, mostly on desert side of mountain ranges, south to Lower California. Irregular visitant to mesas and foothills, mostly in fall. Noted in San Bernardino Mountains, in large flocks, by F. S. Daggett June 12, 1897, and by G. Willett in June, 1907 (Pac. Coast Avif., No. 7, 1912: 69); found abundant in Hemet Valley, San Jacinto Mountains, in summer of 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 263); one taken and many others seen by F. Stephens on Laguna Mountain, San Diego County, February 21, 1877 (Willett, loc. cit.). Recorded at Santa Barbara October 9, 1914 (Dawson, Condor, 18, 1916: 28), and at Pasadena September 1 to 21, 1895 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 32). About fifteen birds seen by E. Wall at San Bernardino October 4 and 6, 1914 (Condor, 17, 1915: 59). Flock of about seventy-five birds seen by W. M. Pierce (MS) near San Onofre, San Diego County, in March, our only spring record for the lower country.

Probably nests mostly in late March and early April, though breeding records for southern California are few. In the Los Angeles Museum is set of four eggs collected by O. W. Howard at an altitude of 4500 feet on desert slope of San Jacinto Range May 1, 1921; also young bird taken from nest in same locality April 24, 1927. Four eggs, two-thirds incubated, and four eggs, pipped, found by J. B. Dixon (MS) in same region April 21, 1933. The species also found nesting by J. R. Pemberton near Idyllwild, San Jacinto Mountains, and near Baldwin Lake, in San Bernardinos (Cowles, Condor, **34**, 1932: 263).

Nucifraga columbiana (Wilson) Clark Nutcracker

Common resident of coniferous forests in upper Transition and Boreal zones in mountains, from 6000 feet to timber line; south to northern Lower California. In winter descends to lower altitudes, straggling rarely to valleys. Recorded by J. Grinnell (Auk, **22**, 1905: 385) as abundant on Mount Pinos, Ventura County, in June, 1904; occasional as low as 5500 feet; also in San Bernardino Mountains, from higher altitudes down to 6000 feet (Univ. Calif. Publ. Zool., **5**, 1908: 84). Reported by Grinnell and Swarth (Univ. Calif. Publ. Zool., **10**, 1913: 262-263) on San Jacinto and Santa Rosa mountains, mostly above high Transition, but one individual taken at Kenworthy, 4500 feet altitude, June 8, 1908. Found on Laguna Mountains, San Diego County, by F. Stephens February 21, 1877 (Willett, Pac. Coast Avif., No. 7, 1912: 69), and by J. C. Fortiner May 31 and June 1, 1920 (Condor, 22, 1920: 190). Bird seen by H. E. Wilder at Riverside October 15, 1898 (Willett, loc. cit.). Occurred in some numbers on Santa Cruz Island from October, 1919, to April, 1920 (Hoffman, Condor, 22, 1920: 187-188; Dickey and van Rossem, Condor, 25, 1923: 127).

As full-grown young are plentiful in late May and early June, nesting must be early, probably in latter part of March. At this time of year, owing to deep snow, the nesting grounds are difficult of access, consequently few eggs have been taken in southern California. In the Los Angeles Museum are two sets of eggs collected by O. W. Howard at Holcomb Valley, San Bernardino Mountains, March 23, 1923.

FAMILY PARIDAE Titmice, Verdins and Bush-Tits

Penthestes gambeli baileyae (Grinnell) Bailey Mountain Chickadee

Synonyms-Parus gambeli, part: Parus gambeli baileyae.

Common resident of coniferous forests of mountains, from 5000 feet to as high as 10,600 feet (Grinnell, Univ. Calif. Publ. Zool., 5, 1908: 124), south to Cuyamaca and Laguna mountains, San Diego County; also on Santa Ana Mountains, Orange County (Grinnell, Pac. Coast Avif., No. 11, 1915: 164). Occasional to foothills and mesas in winter. Noted by J. E. Law in Calabasas Hills, Los Angeles County, September 15, 1911, and at Pomona March 6, 1901 (Willett, Pac. Coast Avif., No. 7, 1912: 105). Seen by R. S. Woods (MS) at Azusa, Los Angeles County, September 25, 1929, and September 25, 1930. Several birds seen and one specimen taken by F. E. Blaisdell at Poway, San Diego County, February 15 (Belding, Land Birds Pac. Dist., 1890: 241). Six eggs collected by W. C. Hanna (MS) in San Gabriel Mountains May 19, 1922. Fresh and slightly incubated eggs taken in San Bernardinos, by W. M. Pierce (MS), May 14, 1921, and May 30, 1922, and by J. Grinnell, June 15, 1906 (Univ. Calif. Publ. Zool., 5, 1908; 124). Found abundant by Grinnell and Swarth in San Jacinto and Santa Rosa mountains in summer of 1908 (Univ. Calif. Publ. Zool., 10, 1913: 311). Eggs taken by C. L. Field (MS) in Laguna Mountains, San Diego County, from May 20 to June 9.

Baeolophus inornatus inornatus (Gambel) Plain Titmouse

Specimens in the Bishop and Willett collections indicate that the plain titmouse of Mount Pinos, in Kern and Ventura counties, is best referred to the above subspecies. The writer has seen no specimens from the mountains of northern Santa Barbara County, so is uncertain where they should be placed.

No. 21

Baeolophus inornatus transpositus Grinnell San Diego Titmouse

Synonyms—Baeolophus inornatus, part: Baeolophus inornatus murinus, of many authors; not of Ridway, 1903.

Common resident from oak-covered foothills up to about 6000 feet in mountains; south to San Diego County and north, in Coast Range., to Santa Barbara County; more widely distributed in winter. Breeds mostly in April and early May. Eggs collected by L. and S. B. Peyton (MS) near Sespe, Ventura County, from March 31 (1910) to May 9 (1922). Four fresh eggs taken by H. J. Lelande near Arcadia, Los Angeles County, March 3, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 49). Six slightly incubated eggs taken by W. M. Pierce (MS) in San Dimas Canyon, San Gabriel Range, May 31, 1918. Newly-hatched young noted by G. Willett at Seven Oaks, San Bernardino Mountains, June 10, 1906 (Pac. Coast Avif., No. 7, 1912: 104). Recorded by W. O. Emerson (Bull. Calif. Acad. Sci., 2, 1887: 424) as mated and singing by March 2, in Volcan Mountains, San Diego County. Found by J. B. Dixon (MS) to be common breeder in oak regions around Escondido; six incubated eggs taken May 17, 1933.

Psaltriparus minimus minimus (Townsend) Coast Bush-Tit

Synonym—Psaltriparus minimus californicus, of many authors; not of Ridgway, 1884.

Abundant resident from willow thickets of lowlands up to more than 5000 feet in mountains; in late summer has been found as high as 9000 feet (Grinnell and Swarth, Univ. Calif. Pub. Zool., **10**, 1913: 312). Also occurs on some of Santa Barbara Islands. Breeds mostly in April and May. Extreme nesting dates for fresh eggs, taken near Pasadena, are March 7 (1896) and July 18 (1894) (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 50). Eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, from March 14 (1920) to June 25 (1929). According to J. B. Dixon (MS), a common breeder in vicinity of Escondido, San Diego County, frequently nesting in orange and lemon trees.

H. S. Swarth (Auk, **31**, 1914: 499) has shown that our southern California bush-tit is *minimus*, not *californicus* as frequently recorded.

FAMILY SITTIDAE Nuthatches

Sitta carolinensis aculeata Cassin Slender-billed Nuthatch

Common resident of mountains, from 4000 to above 9000 feet; occasional to foothills in fall, winter and spring. According to L. M. Huey (MS), breeds south through San Diego County. Several sets of eggs taken by L. Stevens (MS) in Santa Ynez Mountains, Santa Barbara County, in early April. Birds feeding young noted by W. C. Hanna (MS) in San Gabriel Mountains June 5,

BIRDS OF SOUTHWESTERN CALIFORNIA

1932. Slightly incubated eggs collected by W. M. Pierce (MS) in San Bernardino Mountains May 14, 1921, and May 29, 1916. Young out of nest found by Grinnell and Swarth in San Jacintos by June 25 (Univ. Calif. Publ. Zool., **10**, 1913: 309). Seen in Volcan Mountains, San Diego County, by W. O. Emerson; by March 1 was mated and seemed about to breed (Bull. Calif. Acad. Sci., **2**, 1887: 424). Eggs taken by C. L. Field (MS) in Laguna Mountains, San Diego County, from April 30 to May 29. Noted in January, by F. E. Blaisdell at Poway and by L. Belding at Campo and Escondido; also in Santa Margarita Canyon in April (Land Birds Pac. Dist., 1890: 236).

Sitta canadensis Linnaeus Red-breasted Nuthatch

Resident in limited numbers on higher mountains, south to San Jacinto Range; also on pine-timbered hills of Santa Cruz Island. Occasional visitant to lower country in fall, winter and spring. Noted by L. H. Miller at Los Angeles August 29, 1919 (Condor, 22, 1920: 78); found common in same locality by H. S. Swarth from September 16 to about the middle of October, 1898 (Bull. Cooper Orn. Club., 1, 1899: 95); a few, that wintered in Echo Park, Los Angeles, still present on March 3, 1920 (Wyman, Bird-Lore, 22, 1920: 173). Bird seen by H. Robertson at San Pedro September 8, 1898 (Swarth, loc. cit.) and another by J. McB. Robertson (MS) at Buena Park, Orange County, November 3, 1916. At least eleven birds seen by H. Grey at San Diego in October, 1919 (Condor, 27, 1925: 37).

Iuvenile shot from small group of same species, at 7500 feet altitude on Mount Pinos, Ventura County, July 10, 1929 (Miller and Benson, Condor, 32, 1930: 101). Male taken by H. S. Swarth on Mount Wilson, Los Angeles County, May 21, 1898 (Willett, Pac. Coast Avif., No. 7, 1912: 104). Considered by J. Grinnell one of the rarest birds in San Bernardino Mountains. They were noted at Dry Lake (9000 feet) June 21, 1905; on north side of San Bernardino Peak, at 7500 feet, July 12, and on several occasions during July at Bluff Lake (7500 feet). Single specimen shot in latter locality September 2 (Univ. Calif. Publ. Zool., 5, 1908: 123). Found in small numbers on highest parts of San Jacinto Mountain in July and August, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 309). Found fairly common in pine timber on Santa Cruz Island, by A. B. Howell and A. J. van Rossem, from April 24 to May 2, 1911; one bird watched while it was preparing nesting site (Condor, 13, 1911: 210). Three specimens taken by C. B. Linton on Santa Cruz Island October 3 and 4, 1908 (Willett, Pac. Coast Avif., No. 7, 1912: 104).

Sitta pygmaea leuconucha Anthony White-naped Nuthatch

Synonym-Sitta pygmaea melanotis, California specimens.

Common resident of coniferous forests above 5000 feet; occasional to foothills and mesas in winter. One instance of nesting in foothill region; eight fresh eggs taken by L. A. Sanford (MS) at about 650 feet altitude near

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Simi, Ventura County, April 22, 1933. Eggs taken by G. Willett (MS) on Mount Pinos May 9, 1933; by L. and S. B. Peyton (MS) in same locality from May 31 (1924) to June 9 (1923); by W. C. Hanna (MS) at 6000 feet in San Gabriel Range May 26, 1929, and June 8, 1924, and by J. Grinnell at 7000 feet in San Bernardinos June 12, 1906 (Univ. Calif. Publ. Zool., 5, 1908: 123). Found common in San Jacinto and Santa Rosa mountains, above 5000 feet, by Grinnell and Swarth in summer of 1908, young being already out of nest the third week in June (Univ. Calif. Publ. Zool., 10, 1913: 310). Eggs taken by C. L. Field (MS) in Laguna Mountains, San Diego County, from May 20 to June 1. Bird seen by H. E. Wilder at Riverside in October, 1898 (Willett, Pac. Coast Avif., No. 7, 1912: 104). Noted by F. E. Blaisdell several times during January at Poway, San Diego County (Belding, Land Birds Pac. Dist., 1890: 238).

Since the splitting up of the species *Sitta pygmaea* began, no two reviewers have agreed on the proper disposition of our southern California birds. R. Ridgway (Birds N. and Mid. Amer., **3**, 1904: 459) considered that the Lower California race, *leuconucha*, extended northward to the mountains of San Diego County; Grinnell and Swarth (Univ. Calif. Publ. Zool., **10**, 1913: 310) extend the range of this form to the San Gabriels, and, later, Grinnell (Pac. Coast Avif., No. **11**, 1915: 162) brings it still further, to include Mount Pinos, in Ventura and Kern counties. A. J. van Rossem (Proc. Biol. Soc. Wash., **42**, 1929: 175-178) concludes that *leuconucha* comes only to the San Jacinto Range; that true *pygmaea* is confined to the rest of our southern California birds with those from the Rocky Mountain region under the name *melanotis*. This latter arrangement is followed in the 1931 A.O.U. Check-list.

The truth is that our birds are intergrades and not typical of any race so far named. They are larger and with grayer head than typical *pygmaea* and should not be included with that form. In coloration they are similar to *melanotis*, but in size nearer to *leuconucha*. In other words, if classified according to color, they join most naturally with the Rocky Mountain form, an arrangement that does not seem a natural one; if size alone is considered, they are nearest *leuconucha*, which is what might be expected from the nature of their geographical range. Color differences between birds from the San Bernardinos and those from the San Jacintos are so extremely slight that it seems preferable to regard them as the same. In view of the above, the writer believes that the name *melanotis* should be confined to the Rocky Mountain bird and that our birds should all be considered of the same race as the bird of Lower California.

FAMILY CERTHIIDAE Creepers

Certhia familiaris zelotes Osgood Sierra Creeper

Synonym-Certhia familiaris occidentalis, part.

Common resident of coniferous forests of mountains, from 4000 to 9000 feet altitude, south to San Jacinto Mountains, Riverside County, and Cuyamaca and Laguna mountains, San Diego County. Occasional to foothills in

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winter. Specimen taken by J. H. Bowles at Santa Barbara January 5, 1911 (Auk, **28**, 1911: 177). Noted by J. E. Law in foothills near Hollywood in winter (Willett, Pac. Coast Avif., No. **7**, 1912: 103). About seven birds, reported to have wintered at Whittier, Los Angeles County, still present March 25, 1920 (Wyman, Bird-Lore, **22**, 1920: 173). Found moderately common by J. Grinnell on Mount Pinos, Ventura County, from 7000 feet altitude to the summit, in June, 1904 (Auk, **22**, 1905: 391). Eggs taken in San Bernardino Mountains, by J. Grinnell, June 11, 1905 (Condor, **9**, 1907: 59), and by W. M. Pierce (MS), as late as July 8 (1920). Sets of eggs taken by C. L. Field (MS) in Laguna Mountains, San Diego County, May 15 and 29, 1920.

Two males (L. B. Bishop coll., nos. 36016-7) collected at Bluff Lake, San Bernardino Mountains, October 26, 1923, and in Millard's Canyon, near Pasadena, December 4, 1923, match specimens of *G. f. montana*, from Arizona and New Mexico. While it is possible that these are stragglers from the Rocky Mountain region, the writer hesitates to record them definitely as *montana*.

FAMILY CHAMAEIDAE Wren-Tits

Chamaea fasciata henshawi Ridgway . Pallid Wren-Tit

Common resident from willow thickets of lowlands up to about 7000 feet on brushy mountain sides; occurring at higher altitudes in late summer, as San Jacinto Mountains, 8000 feet, July 17, and 8800 feet, July 22 (Grinnell and Swarth, Univ. Calif. Publ. Zool., **10**, 1913: 313). Breeds mostly in April and May. Extreme nesting dates are: Two sets of fresh eggs taken by N. S. Goss near San Diego March 16, 1884 (Belding, Land Birds Pac. Dist., 1890: 242), and four considerably incubated eggs taken by J. Grinnell near Pasadena June 25, 1897 (Pub. **2**, Pasadena Acad. Sci., 1898: 50).

FAMILY CINCLIDAE Dippers

Cinclus mexicanus unicolor Bonaparte Dipper

Synonym-Water Ousel.

Breeds along streams, mostly from 2000 to 9000 feet altitude, south to mountains of San Diego County. In winter follows streams down as low as foothills. Usually nests in late April and early May. Birds seen along streams near Santa Barbara believed by W. L. Dawson (Condor, **18**, 1916: 29) to be winter visitants, not residents; however, the species was found nesting, by J. Hawley and R. Hoffmann, at an elevation of less than 500 feet, near Carpinteria, Santa Barbara County; nest containing young about three days old noted April 21, 1921 (Condor, **23**, 1921: 137). Three half-incubated eggs collected by L. and S. B. Peyton (MS) in Sespe Canyon, Ventura County, March 23, 1929. W. M. Pierce (MS) took five fresh eggs in San Antonio

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PACIFIC COAST AVIFAUNA

Canyon, San Gabriel Mountains, April 18, 1924, and four incubated eggs in same locality May 25, 1923. Several nests containing young examined by G. Willett along Bear Creek, San Bernardino Mountains, in June, 1907 (Pac. Coast Avif., No. 7, 1912: 99). Found nesting by H. Benbough and A. E. Stillman in Cleveland National Forest in San Diego County, in 1925 and 1926; nest containing four large young examined June 20, 1926 (Abbott, Condor, 29, 1927: 117). Five fresh eggs taken by J. B. Dixon (MS) at an altitude of about 2600 feet on San Luis Rey River, San Diego County, March 28, 1933.

FAMILY TROGLODYTIDAE Wrens

Troglodytes aëdon parkmanii Audubon Western House Wren

Common summer resident, locally, from coast up to over 5000 feet in mountain canyons; ascending to over 8000 feet during fall migration (Grinnell, Univ. Calif. Publ. Zool., **5**, 1908: 120). Remains through winter in small numbers in lowlands, but majority winter to southward. According to J. McB. Robertson (MS), does not breed at Buena Park, Orange County, but is winter visitant, arriving in September and leaving in April. Breeds mostly in May in wooded localities and, occasionally, in holes in banks. Extreme nesting dates are: Eight fresh eggs taken by S. B. Peyton in Ventura County April 5, 1931 (Oologist, **48**, 1931: 162), and six half-incubated eggs taken by G. Willett at Seven Oaks, 5200 feet altitude in San Bernardino Mountains, June 10, 1906 (Pac. Coast Avif., No. **7**, 1912: 102).

Nannus hyemalis pacificus (Baird) Western Winter Wren

Synonym-Nannus troglodytes pacificus.

Winter visitant to mountains, occasional to foothills and valleys; south at least to Pasadena and Pomona. Three birds seen (one taken) by J. H. Bowles near Santa Barbara November 27, 1910 (Condor, 13, 1911: 35). Three or more birds noted (one taken) by J. G. Cooper near Saticoy, Ventura County, in winter (Auk, 4, 1887: 93). Found by J. Grinnell in canyons near Pasadena from October 3 (1897) to January 25 (1896) (Pub. 2, Pasadena Acad. Sci., 1898: 48). Several birds seen by H. S. Swarth in Arroyo Seco October 18 to 26, 1900 (Willett, Pac. Coast Avif., No. 7, 1912: 103). Bird seen by G. Willett (MS) in Pacoima Canyon, Los Angeles County, February 22, 1932, and another in Pine Canyon, above Sespe, Ventura County, March 24, 1919. Female taken by L. B. Bishop (MS) in San Fernando Valley, Los Angeles County, March 12, 1917. Two specimens secured by J. E. Law in San Dimas Canyon, near Pomona, January 20, 1901 (Willett, loc. cit.), and another by W. M. Pierce in same locality January 21, 1915 (Condor, 17, 1915: 167). Female taken by C. B. Linton on Santa Cruz Island October 23, 1908 (Willett, loc. cit.).

Thryomanes bewickii correctus Grinnell San Diego Wren

Synonym-Thryomanes bewickii charienturus, of many authors; not of Oberholser, 1898.

Common resident of foothill oak regions and brushy mountain sides, breeding up to over 6000 feet; in late summer ascending to more than 9000 feet. The majority descend to the lower country in winter, where they may be found commonly on brush and grass lands. Breeds mostly in April and May. Extreme nesting dates by W. M. Pierce near Claremont, Los Angeles County, are: Six eggs, incubation slight, March 9, 1905, and six eggs, partly incubated, June 20, 1903 (Willett, Pac. Coast Avif., No. 7, 1912: 102).

J. Grinnell has shown (Condor, **30**, 1928: 154) that the name *charienturus* properly applies to the bird of the San Pedro Martir Range, Lower California, and has called our southern California bird *correctus*.

Thryomanes bewickii nesophilus Oberholser Santa Cruz Wren

Common resident on Santa Cruz and Santa Rosa islands. Two birds (Willett coll.) taken by O. W. Howard on Anacapa Island in spring of 1906, though in somewhat worn plumage, appear to be referable to *nesophilus*.

None of the three incipient species of the Santa Barbara Islands has yet developed any very strongly marked characters, though the San Clemente bird seems to have changed somewhat more than the other two. If any one of the island birds should be collected on the mainland, it is probable that its origin would not be suspected. Without any implication that the characters ascribed to these forms do not exist, it is safe to state that the easiest means of identification is by the locality given on the label.

Thryomanes bewickii catalinae Grinnell Catalina Wren

Common resident of Catalina Island. Apparently the least differentiated of the island forms of *Thryomanes*.

Thryomanes bewickii leucophrys (Anthony) San Clemente Wren

Common resident of San Clemente Island. There seems to be no report of eggs having been taken, but A. B. Howell believes that the nest is invariably built in the center of a dense patch of cactus (Pac. Coast Avif., No. 12, 1917: 99). Must sometimes nest very early, as specimens taken by L. M. Huey December 12, 1925, showed "unmistakable evidence of breeding" (Abbott, Condor, 29, 1927: 160).

Heleodytes brunneicapillus couesi (Sharpe) Northern Cactus Wren

Common resident, locally, on cactus-covered mesas and washes, north to Ventura County. Much less plentiful in winter than in summer. Reported by B. W. Evermann (Pac. Sci. Monthly, **1**, 1886: 78) as rather common resident of Ventura County in early 80's, but apparently much less plentiful in that section at present time, as land has been largely cleared for agricultural purposes. S. B. Peyton (MS) knows of at least two pairs still nesting near Sespe. According to J. S. Appleton (MS), formerly common resident of Simi Valley, southern Ventura County, but not seen there for several years past. Breeds mostly in April and May. Extreme nesting records in Los Angeles County are: Five fresh eggs taken by H. J. Lelande in San Fernando Valley March 13, 1897 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 48); five sets of eggs, incubation fresh to advanced, found by W. M. Pierce near Claremont March 24, 1914 (Condor, **16**, 1914: 146), and four slightly incubated eggs taken by Antonin Jay near Monrovia, July 9, 1904 (Willett, Pac. Coast Avif., No. **7**, 1912: 101).

Though the Bryant Cactus Wren has been ascribed to southern California on the grounds of specimens taken near San Diego (Stephens, Condor, **6**, 1904: 51; Grinnell, Pac. Coast Avif., No. **11**, 1915: 156), more recent study has shown that this race is really confined to Lower California (Grinnell, Condor, **23**, 1921: 169), its northern limit being at about 31 degrees North latitude (Grinnell, Univ. Calif. Publ. Zool., **32**, 1928: 212), some ninety miles below the border.

Telmatodytes palustris plesius (Oberholser) Western Marsh Wren

Synonym-Cistothorus palustris plesius.

Common migrant and winter visitant to lower country, south throughout Lower California. Of more than twenty southern California specimens in Los Angeles Museum, earliest in fall taken by J. Hornung at Sunset Beach, Orange County, September 23, 1915, and latest in spring by F. S. Daggett at Long Beach, Los Angeles County, February 2, 1896. Earliest and latest in the Dickey collection are, respectively: Male taken by H. H. Kimball at Alamitos Bay, Los Angeles County, September 19, 1913, and male by A. J. van Rossem at Sunset Beach, Orange County, February 8, 1921. Specimen (S.D.S.N.H.) taken at Santa Catarina Landing, Lower California, April 13 (Grinnell, Univ. Calif. Publ. Zool., **32**, 1928: 219).

Telmatodytes palustris aestuarinus Swarth Suisun Marsh Wren

Synonym-Telmatodytes palustris paludicola, part.

Winter visitant; apparently considerably less plentiful than *plesius*. Much yet to be learned regarding its occurrence in southern California. Seven specimens listed by H. S. 'Swarth (Auk, **34**, 1917: 311) from Los Angeles County, and one from Corona, Riverside County. Seven specimens from Los

Angeles and Orange counties in Los Angeles Museum; earliest in fall, taken by L. E. Wyman at Sunset Beach October 10, 1919, and latest in spring by G. Willett in same locality February 7, 1918.

Telmatodytes palustris paludicola (Baird) Tule Wren

Synonym-Cistothorus palustris paludicola.

Common resident of swampy regions of lowlands, south to San Diego County; in winter, occuring south to Lower California. Breeds most commonly in May. Extreme nesting records by G. Willett at Bixby, Los Angeles County, are: Six slightly incubated eggs taken April 15, 1904, and two fresh eggs noted July 2, 1906 (Pac. Coast Avif., No. 7, 1912: 103). Recorded by C. S. Sharp (Condor, 9, 1907: 91) as breeding at San Luis Rey, San Diego County. Pair of marsh wrens seen by C. B. Linton on San Nicolas Island in January, 1911 (Howell, Pac. Coast Avif., No. 12, 1917: 99). It is obviously impossible to say to which race these birds belonged.

Catherpes mexicanus conspersus Ridgway Cañon Wren

Synonym-Catherpes mexicanus punctulatus.

Tolerably common resident from foothills up to about 7000 feet in mountains, south to Lower California; occurs at considerably higher elevations in late summer, as Toro Peak, 8705 feet, San Jacinto Mountains, July 1, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 306). Male taken by C. B. Linton on Santa Cruz Island December 19, 1907 (Condor, 10, 1908: 128). Breeds generally from latter part of April through May. Fresh or slightly incubated eggs taken by S. B. Peyton near Sespe, Ventura County, from March 30 (1931) (Oologist, 48, 1931: 162) to May 23 (1915) (Oologist, 33, 1916: 97). Six fresh eggs taken by J. Grinnell near Pasadena June 23, 1893 (Pub. 2, Pasadena Acad. Sci., 1898: 48). Eggs collected by W. C. Hanna (MS) near Colton, San Bernardino County, from March 30 (1932) to June 21 (1921), and by J. B. Dixon (MS) near Escondido, San Diego County, April 15 and 28, 1931.

After examination of more specimens than were available to Mr. Ridgway when he named *punctulatus*, the writer is unable to see any characters by which to separate the southern California and Rocky Mountain birds, excepting the localities given on the labels.

Salpinctes obsoletus obsoletus (Say) Rock Wren

Synonyms-Salpinctes obsoletus pulverius, San Nicolas Rock Wren: Salpinctes obsoletus proximus, San Martin Rock Wren: Common Rock Wren.

Common resident in suitable localities from coast to summits of highest mountains; also on all Santa Barbara Islands. Breeds mostly in April in lower country, later in mountains. Noted by J. Grinnell at extreme summit of San Gorgonio Peak, over 11,000 feet altitude, June 18, 1905 (Univ. Calif. Publ. Zool., **5**, 1908: 118). Eggs taken by O. W. Howard on Catalina Island April 1, 1905, and on Anacapa Island April 30, 1906 (Willett, Pac. Coast Avif., No. **7**, 1912: 101). Nest containing one fresh egg found by G. Willett on San Nicolas Island June 24, 1911; undoubtedly a second laying, as fullgrown young were plentiful at the time (loc. cit.). Eggs collected by W. C. Hanna near Colton, San Bernardino County, from March 15 (1917) (Condor, **20**, 1918: 126) to May 21 (1926) (Hanna MS).

It is now generally believed that the rock wren of San Nicolas Island, named *pulverius* by J. Grinnell (Auk, **15**, 1898: 238), is the same as the bird on the other Santa Barbara Islands and on the mainland.

FAMILY MIMIDAE Mockingbirds and Thrashers

Mimus polyglottos leucopterus (Vigors) Western Mockingbird

Common resident from coast to base of mountains; highest record station, Bear Valley, 6750 feet altitude in San Bernardino Range, August 6, 1932 (Pierce, Condor, **35**, 1933: 202); also occurs on larger Santa Barbara Islands. Breeds mostly during latter part of April and month of May, but occasionally much earlier and later. Three newly-hatched young noted by Wm. Beebe (MS) at Burbank, near Los Angeles, March 4, 1932; four slightly incubated eggs taken by W. M. Pierce at Claremont, Los Angeles County, March 26, 1914 (Condor, **16**, 1914: 146). Nest containing four eggs observed by W. C. Hanna (MS) at Colton, San Bernardino County, August 3, 1921; four fresh eggs taken by L. M. Huey at Lemon Grove, San Diego County, August 7, 1913; believed to be fourth laying of year (Condor, **15**, 1913: 228).

This is one bird with which civilization seems to agree. It is apparently much more abundant at the present time than it was when the country was less settled. It is partial to orchards and parks and the ornamental trees along the streets of cities and towns.

Toxostoma rufum (Linnaeus) Brown Thrasher

Single bird noted at Pasadena from about December 1, 1932, until late March, 1933. On March 12 it was carefully studied and photographed at close range, by A. J. van Rossem and J. Abbott (Condor, **35**, 1933: 161-162).

Toxostoma bendirei (Coues) Bendire Thrasher

Apparently rather uncommon resident east of mountains. One record for Pacific slope, immature bird (Mus. Vert. Zool., no. 23259) found by Mrs. H. W. Myers in Los Angeles September 10, 1912 (Miller, Condor, **15**, 1913 : 41).

Toxostoma redivivum redivivum (Gambel) California Thrasher

Synonym-Toxostoma redivivum pasadenense.

Common resident of brushy localities from lowlands up to about 5000 feet in mountains. Most abundant in foothill and mesa regions. Breeds mainly in March and April, but eggs occasionally found much earlier and later. Three eggs, incubation begun, taken by J. Grinnell near Azusa, Los Angeles County, December 15, 1899 (Condor, **2**, 1900: 19). Two incubated eggs collected by H. J. Lelande near Pasadena January 27, 1897, and three fresh eggs taken by H. A. Gaylord in same locality June 26, 1894 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 47). Nest and three eggs observed by W. C. Hanna near Colton, San Bernardino County, July 4, 1917 (Condor, **20**, 1918: 126).

Toxostoma lecontei lecontei Lawrence Leconte Thrasher

A desert species, occurring in small numbers as far west as Banning, Riverside County. Nests containing eggs found by M. F. Gilman near Banning from February 17 (1899) until June; most common in late March and early April (Condor, **6**, 1904; 95-98). Bird seen by F. Stephens near Julian, San Diego County, late in August, 1911 (Willett, Pac. Coast Avif., No. **7**, 1912: 100).

Oreoscoptes montanus (Townsend) Sage Thrasher

Breeds in some high valleys in northeastern Ventura County and along desert slope of San Gabriel and San Bernardino mountains, south at least to Victorville. In winter occurs on Pacific slope, north to Ventura County and south to Lower California. Most plentiful on brushy foothills and mesas, but occasionally straggling to lowlands. Specimen taken by B. W. Evermann near Santa Paula, Ventura County, March 12, 1881 (Pac. Sci. Monthly, 1, 1886: 78). Found fairly common by H. S. Swarth in San Fernando Valley, Los Angeles County, from January 20 (1902) to April 18 (1900) (Condor, 2, 1900: 89). Noted by R. S. Woods (MS) at Azusa, Los Angeles County, from October 9 (1918) to early April (1917). Male taken by J. McB. Robertson (MS) at Buena Park, Orange County, March 1, 1925. Found common by H. J. Lelande near Perris, Riverside County, January 11, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 99). Five specimens taken by F. O. Johnson at Riverside in January and February (Swarth, Condor, 12, 1910: 108). Two specimens taken by L. Belding near San Diego in May, 1881 (Evermann, Auk, 3, 1886: 185); recorded by L. M. Huey (Condor, 26, 1924: 75) in the same region from January 23 (1918) to March 15 (1923).

About a dozen nests of the Sage Thrasher found by O. W. Howard at an elevation of about 5000 feet, in Lockwood Valley, Ventura County, during month of May, 1903; four sets of eggs taken May 13 and 14 (Willett, op. cit.: 100).

FAMILY TURDIDAE Thrushes, Bluebirds, Solitaires, etc.

Turdus migratorius propinquus Ridgway Western Robin

Synonym-Planesticus migratorius propinquus.

Common summer resident in mountains from 5000 to 9000 feet altitude, south at least to San Bernardino Range; nesting rarely in foothill region. Common, though irregular, in winter in lower country, south to northern Lower California. Noted by W. L. Dawson on Santa Cruz Island April 11, 1915 (Condor, 17, 1915: 204); by A. B. Howell on San Clemente April 7, 1915, and by H. Linton on San Nicolas during winter of 1912 (Howell, Pac. Coast Avif., No. 12, 1917: 101). Observed by J. Grinnell in vicinity of Pasadena from October 5 to April 17 (1897) (Pub. 2, Pasadena Acad. Sci., 1898: 51), and by W. M. Pierce near Claremont, Los Angeles County, as late as May 3 (1903) (Willett, Pac. Coast Avif., No. 7, 1912: 108). Bird seen by L. Belding at Campo, San Diego County, May 14, 1884 (Land Birds Pac. Dist., 1890: 256).

Eggs taken by M. C. Badger (MS) on Mount Pinos from May 30 (1926) to June 18 (1925), by W. C. Hanna (MS) in San Gabriels May 28, 1922, and by W. M. Pierce (MS) in San Bernardinos from June 10 to July 18 (1917). One pair nested at Monrovia, Los Angeles County, in June, 1931 (Wilson and Campbell, Condor, **33**, 1931: 250), and J. R. Pemberton (MS) saw a pair feeding young in the grounds of E. L. Doheny, in Los Angeles, in June, 1929.

Ixoreus naevius naevius (Gmelin) Pacific Varied Thrush

Synonym-Hesperocichla naevia naevia.

Apparently rather rare winter visitant, most of race remaining in humid coast district north of Monterey. Of more than fifty varied thrushes from southern California in the Los Angeles Museum, only one (no. 13015), a female taken by F. S. Daggett at Pasadena, January 15, 1897, seems referable to *naevius*; three or four are plainly intergrades, and the remainder of the race *meruloides*. Female (Dickey coll.) taken by H. H. Kimball at Montalvo, Ventura County, December 18, 1896. Female (S.D.S.N.H.) collected by F. Stephens at San Diego February 4, 1916. Specimen taken by H. Sheldon on Santa Cruz Island March 5, 1932 (Hoffmann, Condor, **34**, 1932: 190); two varied thrushes seen by W. L. Dawson on same island April 5 and 6, 1915, recorded as *naevius* (Condor, **17**, 1915: 204), may, or may not, have been of this race.

Ixoreus naevius meruloides (Swainson) Northern Varied Thrush

Synonym-Hesperocichla naevia meruloides.

Usually fairly common in winter from foothills to coast, south to Lower California; during some winters much less plentiful than during others. Noted by H. S. Swarth near Pasadena as early as October 23 (1900) (Willett, Pac. Coast Avif., No. 7, 1912: 109), and by J. Grinnell in same locality as late as April 10 (1897) (Pub. 2, Pasadena Acad. Sci., 1898: 51). Found common at Riverside by H. E. Wilder during February, 1907, and specimens taken by H. W. Marsden at Witch Creek, San Diego County, in January and February, same year (Willett, loc. cit.). Pair seen by F. E. Blaisdell in Volcan Mountains, San Diego County, in November (Belding, Land Birds Pac. Dist., 1890: 260). Recorded by J. Grinnell (Univ. Calif. Publ. Zool, **32**, 1928: 233) as irregular winter visitant into northern section of Lower California. Several specimens taken by C. B. Linton on San Clemente Island, from January to April, 1907 (Condor, **10**, 1908: 86).

This race differs very slightly from typical *naevius;* in fact, the males of the two are practically indistinguishable. The females, if typical, are fairly easy to differentiate, in the hand, but not in the field. An interesting feature in the winter distribution of these birds is that it is almost analogous to that of the Alaskan hermit thrushes, the more northern form passing the race of the Sitkan district and wintering largely to the south of it.

Hylocichla guttata guttata (Pallas) Alaska Hermit Thrush

This form and the next are very much alike and impossible to differentiate in the field; also, many of the birds wintering in southern California are variously intermediate between the two. In the past the two races have been rather generally confused, therefore it is unsafe to attempt to allocate many of the old records to either.

Most abundant of the hermit thrushes wintering in our region, being common from foothills to coast and on Santa Barbara Islands. Generally arrives in October and leaves in April. Extreme migration dates, based on specimens examined by the writer, October 16 (1915, Santa Susanna, Ventura County, J. Hornung) and April 10 (1915, Simi Hills, Ventura County, F. S. Daggett).

Hylocichla guttata nanus (Audubon) Dwarf Hermit Thrush

Winter visitant in considerably smaller numbers than preceding. Numerous birds examined by the writer, taken between October 7 (1896, Pasadena, F. S. Daggett) and March 24 (1920, Santa Cruz Island, A. J. van Rossem). Nine specimens (D. R. Dickey coll.) taken by A. J. van Rossem on Catalina Island January 16 to 26, 1920.

Hylocichla guttata slevini Grinnell Monterey Hermit Thrush

Occurs in migration; so far noted only in spring, as follows: Five specimens taken by F. S. Daggett near Pasadena April 8 to 26, 1896 (Condor, **3**, 1901: 131); specimen (Grinnell coll.) taken in same locality April 25, 1896 (Auk, **18**, 1901: 259); female (L. B. Bishop coll.) found dead on Mount Wilson, Los Angeles County, April 30, 1921. Male taken by F. Stephens at Campo, San Diego County, April 4, 1877 (Huey, Condor, **27**, 1925: 72).

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Hylocichla guttata sequoiensis (Belding) Sierra Hermit Thrush

Breeds in mountains above 6000 feet, south to San Bernardino Range. Southeast in migration and in winter to Texas and northern Mexico (A.O.U. Check-list, 1931). Reported in summer from Mount Pinos (Miller and Benson, Condor, **32**, 1930: 101) and the San Bernardinos. Nest containing one fresh egg found by M. C. Badger (MS) at an altitude of about 8000 feet on Mount Pinos June 21, 1925. In the San Bernardinos J. Grinnell found nests containing half-grown young June 18 and June 30, 1905, and took sets of eggs June 12 and 25, 1906, and June 16, 1907 (Univ. Calif. Publ. Zool., **5**, 1908: 130). W. C. Hanna (MS) has set of three eggs taken by M. F. Gilman on San Gorgonio Peak June 1, 1923.

There appear to be no published migration records of this form from southern California, but a male (L. A. Mus.) taken by F. S. Daggett at Pasadena April 16, 1896, seems referable to it.

Hylocichla ustulata ustulata (Nuttall) Russet-backed Thrush

Common summer resident of willow regions of lower country, ranging, locally, up mountain canyons to above 3000 feet altitude; south to Poway, San Diego County (Belding, Proc. Calif. Acad. Sci., ser. 2, vol. 2, 1889: 57); also occurs on Santa Barbara Islands but whether as summer visitant or only as migrant, is not certain. South through Lower California in migrations. Earliest spring record near Pasadena, by H. A. Gaylord, April 11, 1896 (bird in L. A. Mus.), and latest in fall, by H. S. Swarth, October 22, 1900 (Willett, Pac. Coast Avif., No. 7, 1912: 107). Extreme nesting dates are: Three eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, May 6, 1925, and three slightly incubated eggs taken by H. A. Gaylord in Los Angeles County July 11, 1894 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 51). Found nesting by W. M. Pierce (MS) at Glenn Ranch, 3250 feet altitude in San Gabriel Mountains, in summer of 1914.

Sialia mexicana occidentalis Townsend Western Bluebird

Common summer resident from foothills up to over 10,000 feet in mountains; occasionally breeding in lower country; south to San Diego County. More widely distributed over lowlands in winter, south to Lower California. Male taken by C. B. Linton on San Clemente Island in December, 1908 (Condor, 11, 1909: 194), and bird seen by A. B. Howell on Santa Barbara Island May 1, 1908 (Pac. Coast Avif., No. 12, 1917: 102). Breeds mostly in May. Extreme nesting dates are: Five young birds found by S. B. Peyton near Sespe, Ventura County, April 12, 1931 (Oologist, 48, 1931: 163), and four eggs taken by W. C. Hanna (MS) in San Bernardino Mountains June 23, 1901. There are lowland nesting records from Carpinteria (Hoffman, Condor, 23, 1921: 138), Ventura (Arnold and Pemberton, Condor, 18, 1916: 86), Los Angeles (Miller, Condor, 17, 1915: 166; Shepardson, Condor, 17, 1915: 206) and San Diego (Abbott, Condor, 29, 1927: 165).

In the writer's 1912 paper the breeding bluebirds of San Bernardino, Riverside and San Diego counties were referred to the form *anabelae*, on the authority of the 1910 A.O.U. Check-list. Grinnell and Swarth (Univ. Calif. Publ. Zool., **10**, 1913: 317) have shown, however, that all our birds are *occidentalis* and that *anabelae*, so far as is known, is confined to Lower California.

Sialia currucoides (Bechstein) Mountain Bluebird

Synonym—Sialia arctica.

Breeds in higher mountains, mostly on eastern slope, south to San Bernardino Range; more or less common in lower country in winter, south to Lower California. Apparently nests mostly in May. Single bird seen by B. W. Evermann near Saticoy, Ventura County, in December (Pac. Sci. Monthly, **1**, 1886: 78). Occurs plentifully during some winters in vicinity of Los Angeles, and during other winters is apparently absent. According to J. G. Cooper (Land Birds Calif., 1870: 29), appeared in large numbers in vicinity of San Diego during severe winter of 1861-62, remaining until end of February, when all suddenly disappeared. During the spring of 1884, L. Belding found it common at San Diego until March 15, when it disappeared. A large flock returned March 29 and stayed two days. A female taken April 4 was the last seen (Land Birds Pac. Dist., 1890: 263). Found breeding at Bear Valley, San Bernardino Mountains, by G. Willett in June, 1907. Several nests examined, all of which contained young birds (Condor, **12**, 1910: 44).

Myadestes townsendi (Audubon) Townsend Solitaire

Breeds in moderate numbers in mountains from 6000 to 9500 feet altitude, south to San Jacinto Range. During winter, occasionally appears in foothill and mesa regions, more rarely to lowlands; at this season occurs south to Lower California. Noted by B. W. Evermann in Ventura County in spring of 1881 (Pac. Sci. Monthly, 1, 1886: 78), and by H. S. Swarth in Arroyo Seco, near Pasadena, October 19, 1900, and on Mount Wilson October 21, 1899 (Willett, Pac. Coast Avif., No. 7, 1912: 107). Specimen taken by L. H. Miller in San Antonio Canyon December 29, 1904, and another by J. E. Law at San Dimas, Los Angeles County, March 20, 1901 (Willett, loc. cit.). Two taken and others seen by A. K. Fisher in Cajon Pass January 2, 1891 (N. Am. Fauna, No. 7, 1893: 144). Noted by F. E. Blaisdell at Temecula, Riverside County, November 12, 1883, and at Poway, San Diego County, February 23, 1884; specimen taken by L. Belding at San Diego January 24, 1884 (Land Birds Pac. Dist., 1890: 250). Seen by W. O. Emerson in Volcan Mountains, San Diego County, during spring of 1884 (Bull. Calif. Acad. Sci., 2, 1887: 424). Female taken by H. S. Swarth at Los Angeles February 2, 1901 (Willett, loc. cit.); reported by R. Hubricht in Griffith Park, Los Angeles, in January, 1927 (Michener, Condor, **29**, 1927: 176). Bird seen by L. E. Wyman at Hyperion Beach, Los Angeles County, February 9, 1921 (Schneider, Bird-Lore, **23**, 1921: 149). Bird collected on Santa Rosa Island April 3, 1927 (Pemberton, Condor, **30**, 1928: 148), and one seen by R. Hoffmann on Santa Cruz Island March 5, 1932 (Condor, **34**, 1932: 190).

Pair seen (breeding male collected) at 8000 feet altitude on Mount Pinos, Ventura County, June 8, 1929 (Miller and Benson, Condor, **32**, 1930: 102). Four sets of eggs taken by J. Grinnell at about 7000 feet altitude in San Bernardino Mountains between June 16 (1905) and June 24 (1907) (Univ. Calif. Publ. Zool., **5**, 1908: 128-129); three fresh eggs secured by W. M. Pierce in same region June 20, 1916, and large young found June 26, following (Condor, **18**, 1916: 181). Nest and four small young found by O. W. Howard and H. J. Lelande at about 7500 feet altitude in San Jacinto Mountains July 4, 1915 (Swarth, Condor, **18**, 1916: 32).

FAMILY SYLVIIDAE Gnatcatchers, Kinglets, etc.

Polioptila caerulea amoenissima Grinnell Western Gnatcatcher

Synonym-Polioptila caerulea obscura, of many authors; not of Ridgway, 1883.

Common resident of wooded and brushy localities from lowlands up to more than 5000 feet in mountains; occurs as high as 7500 feet in early fall. More widely distributed over lower country in winter. Has been reported from Catalina and Santa Cruz islands, but whether it occurs there as resident or winter visitant is not certain. Breeds mostly in May. Extreme nesting dates are: Nest containing young birds noted by J. Grinnell near Pasadena May 4, 1895 (Pub. 2, Pasadena Acad. Sci., 1898: 50), and four fresh eggs taken by W. M. Pierce in San Antonio Canyon July 5, 1903 (Willett, Pac. Coast Avif., No. 7, 1912: 106).

J. Grinnell (Proc. Calif. Acad. Sci., ser. 4, vol. 15, 1926: 493-494), after having shown that the name *obscura*, so long used for the Western Gnatcatcher, really applies to the race of southern Lower California, has proposed the name *amoenissima* for our bird. This name is used in the 1931 A.O.U. Check-list.

Polioptila melanura californica Brewster Black-tailed Gnatcatcher

Common resident, locally, on brushy mesas, washes and foothills, from northern Lower California to Ventura (Grinnell, Pac. Coast Avif., No. 11, 1915: 169). Breeds mostly in April and early May. Extreme nesting dates are: Four fresh eggs taken by Antonin Jay in San Fernando Valley, Los Angeles County, April 7, 1901, and three eggs, incubation advanced, taken by W. M. Pierce near Claremont, same county, July 12, 1904 (Willett, Pac, Coast Avif., No. 7, 1912: 107).

Regulus satrapa olivaceus Baird Western Golden-crowned Kinglet

Synonym-Regulus regulus olivaceus.

Breeds in small numbers on higher mountains from Mount Pinos south to San Bernardino and San Jacinto ranges. Occasional in lower country in winter, south to Mexico and Central America. Apparently no records of nests found within our limits, but breeding birds taken on Mount Pinos June 6 to 13, 1929 (Miller and Benson, Condor, **32**, 1930: 102), and young bird, apparently fallen from nest, found by W. M. Pierce above Bear Valley, San Bernardino Mountains, August 28, 1926 (Condor, **29**, 1927: 82). The species was also met with by J. Grinnell at an altitude of 5500 feet in Santa Ana Canyon, San Bernardino Mountains, August 19, 1907 (Univ. Calif. Publ. Zool., **5**, 1908: 126), and by Grinnell and Swarth in higher parts of San Jacinto Mountains July 26 to 29, 1908 (Univ. Calif. Publ. Zool., **10**, 1913: 313-314).

Specimens taken on Mount Wilson, San Gabriel Range, October 31, 1896, and October 30, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 50); in Arroyo Seco, above Pasadena, October 19 to 26, 1900; in San Antonio Canyon October 18, 1903, and December 29, 1904 (Willett, Pac. Coast Avif., No. 7, 1912: 105), and in Los Angeles, November 4, 1901 (Willett, loc. cit.), November 27, 1918, and winter of 1919-20 (Miller, Condor, 21, 1919: 42; 22, 1920: 78). Two birds taken by L. B. Bishop (MS) near Santa Barbara November 8 and 21, 1918. Pair taken by C. B. Linton on Santa Cruz Island October 21, 1908 (Willett, loc. cit.).

Corthylio calendula cineraceus (Grinnell) Western Ruby-crowned Kinglet

Synonyms—Regulus calendula, part: Regulus calendula cineraceus: Ashy Kinglet.

Breeds in upper Transition and Boreal zones in mountains, above 7000 feet, south at least to San Jacinto Range. Abundant winter visitant to lowlands and Santa Barbara Islands. Arrives in lower country during late September and month of October, and leaves in March and early April. Extreme migration dates by J. Grinnell near Pasadena are September 24 and April 15 (1896) (Pub. 2, Pasadena Acad. Sci., 1898: 50). Recorded in summer on Mount Pinos (Miller and Benson, Condor, 32, 1930: 102). Seven slightly incubated eggs collected by W. M. Pierce (MS) at Bear Valley, San Bernardino Mountains, July 3, 1920. Nest containing half-grown young found by A. W. Anthony at an altitude of 9000 feet on San Jacinto Mountain July 2, 1895 (Nidiologist, 3, 1895: 16). According to W. O. Emerson, rare in Volcan Mountains, San Diego County, perhaps breeding among firs (Belding, Land Birds Pac. Dist., 1890: 246).

The writer has followed the 1931 A.O.U. Check-list in the use of the name *cineraceus*. It is a very slightly differentiated race.

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PACIFIC COAST AVIFAUNA

FAMILY MOTACILLIDAE Wagtails and Pipits

Anthus spinoletta rubescens (Tunstall) . American Pipit

Abundant winter visitant; often seen in large flocks on ploughed fields and pasture lands. Noted by J. Grinnell near Pasadena as early as August 29 (1895) (Pub. 2, Pasadena Acad. Sci., 1898: 47), and by L. Belding at San Diego as late as April 23 (Land Birds Pac. Dist., 1890: 223). Bird seen by H. S. Swarth at Los Angeles May 1, 1899 (Condor, 2, 1900: 40).

FAMILY BOMBYCILLIDAE Waxwings

Bombycilla garrula pallidiceps Reichenow Bohemian Waxwing

Synonyms-Bombycilla garrula, part: Ampelis garrulus, part.

Irregular visitant in winter. Common at Claremont, Los Angeles County, in January and February, 1920; specimens secured February 15, 16, 17 and 18. At least one hundred and fifty seen February 22 (Pierce, Condor, 22, 1920: 110). Two birds found dead by F. Stephens at Vallecito, eastern San Diego County, March 29, 1920 (Condor, 22, 1920: 159). One found dead in Pasadena in 1932 (January 22), reported by L. H. Miller (Michener, Condor, 34, 1932: 147). About twenty birds seen at close range by K. Stager (MS) in Exposition Park, Los Angeles, April 13, 1933.

Bombycilla cedrorum Vieillot Cedar Waxwing

Synonym—Ampelis cedrorum.

Common, but irregular, winter visitant; also reported during every month of summer, except July. Full-grown juvenal secured at Hemet Lake, San Jacinto Mountains, August 9, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 288) may possibly indicate near-by nesting. Reported from San Clemente Island May 31, 1897 (Grinnell, Pub. 1, Pasadena Acad. Sci., 1897: 19), from Santa Cruz Island April 5, 1915 (Dawson, Condor, 17, 1915: 204) and from Catalina November 8, 1927 (Meadows, Condor, 30, 1928: 250). Noted by J. Grinnell at Pasadena from September 14 (1897) to May 17 (1895) (Pub. 2, Pasadena Acad. Sci., 1898: 42). Two birds seen by L. Little (MS) at South Pasadena June 1, 1932; small flock reported at Whittier, Los Angeles County, June 4, 1922 (Schneider, Bird-Lore, 24, 1922: 289); pair seen by H. J. Lelande at South Pasadena June 16, 1897 (Grinnell, loc. cit.). Three or four birds noted by Elizabeth Hager at Big Pines Camp, San Gabriel Mountains, August 19, 1932 (Michener, Condor, 25, 1933: 45); small flock seen by H. S. Swarth near Los Angeles August 31, 1900 (Willett, Pac. Coast Avif., No. 7, 1912: 91). At least fifty birds observed at Hemet, Riverside County, May 19, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 288).

Noted by C. H. Danielson near San Diego May 14, 1884, and by F. E. Blaisdell in Poway Valley, San Diego County, as late as May 18 (Belding, Land Birds Pac. Dist., 1890: 195).

FAMILY PTILOGONATIDAE Silky Flycatchers

Phainopepla nitens lepida Van Tyne Phainopepla

Synonym-Phainopepla nitens, part.

Common summer resident of lower Sonoran zone of mesas, dry washes and canyons of foothill region. Male seen at 6200 feet altitude on Mount Pinos June 12, 1932 (Stevenson, Condor, **35**, 1933: 79). The majority go south in October and return in April, but a few remain through the winter. Recorded in winter from San Bernardino (Thurber, Auk, **13**, 1896: 265), Cajon Pass (Cooper, Am. Nat., **3**, 1870: 185), Riverside (Willett, Pac. Coast Avif., No. **7**, 1912: 92), Corona (Pierce, Condor, **17**, 1915: 167), Claremont (Pierce, Condor, **16**, 1914: 146; Gardner, Condor, **16**, 1914: 181), Barley Flats, San Gabriel Mountains, 5500 feet (Hoffmann, Condor, **35**, 1933: 166), Los Angeles, and Simi Valley, Ventura County (Willett, loc. cit.). Breeds mostly in June on coastal slope; much earlier on Colorado Desert. Eggs taken by J. S. Appleton in Simi Valley, Ventura County, in late March (Willett, loc. cit.), and by H. A. Gaylord near Pasadena as late as July 28 (1894) (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 43).

The writer has had no opportunity to compare California specimens with typical birds from Mexico, and has followed the 1931 A.O.U. Checklist in using the same *lepida*.

FAMILY LANIIDAE Shrikes

Lanius ludovicianus excubitorides Swainson White-rumped Shrike

Synonym-Lanius ludovicianus nevadensis.

It is with some hesitation that the writer lists this bird from the Pacific slope. Our shrikes vary so much individually in the characters generally used in separating the various races, that it is difficult to be certain where some specimens belong. However, there are three birds in the L. B. Bishop collection that do not seem to be referable to *gambeli* and are probably stragglers from east of the mountains. Two of these (nos. 10234-5), both males, were taken by H. W. Marsden at Witch Creek, San Diego County, November 26, 1903, and January 25, 1904 (Bishop, Condor, **29**, 1927: 78); the other (no. 42505), also a male, was taken by G. G. Cantwell at Palms, Los Angeles County, September 12, 1928. J. Grinnell (Pub. **2**, Pasadena Acad. Sci., 1898: 43) records a specimen taken at Pasadena December 8, 1894, but he later includes it with *gambeli* (Pac. Coast Avif., No. **11**, 1915: 141).

The characters differentiating eastern California birds from those east of the Rocky Mountains do not appear to the writer to be sufficient to warrant recognition of the race *nevadensis*, proposed by A. H. Miller (Condor, **32**, 1930: 155-156).

Lanius ludovicianus gambeli Ridgway California Shrike

Abundant resident from coast to base of mountains. Breeds mostly from late March to latter part of May. Extreme nesting dates are: Four fresh eggs found by D. I. Shepardson at Los Angeles February 8, 1908 (Condor, 17, 1915: 130), and four eggs, incubation advanced, taken by W. M. Pierce near Claremont, Los Angeles County, July 5, 1903 (Willett, Pac. Coast Avif., No. 7, 1912: 92).

Though L. B. Bishop states (Condor, 29, 1927: 78) that he failed to find intergradation between *gambeli* and *excubitorides* (*—sonoriensis*) in specimens taken by him in vicinity of San Gorgonio Pass, both J. Grinnell (Pac. Coast Avif., No. 11, 1915: 141) and A. H. Miller (Condor, 32, 1930: 155) consider that such intergradation is shown in specimens examined by them. A male (L. A. Mus., no. 10590) taken by F. S. Daggett at Pasadena February 27, 1893, possesses the measurements and white underparts of *sonoriensis*, and the dark upper parts of *gambeli*.

Lanius ludovicianus anthonyi Mearns Island Shrike

Synonym-Lanius ludovicianus mearnsi.

Fairly common resident on Santa Cruz Island, where found mostly around ranch houses and cultivated lands; less plentiful on San Clemente and Catalina; also reported from Santa Rosa and Anacapa (Willett, Pac. Coast Avif., No. 7, 1912: 92), but apparently rare on latter island. Four sets of eggs taken by R. H. Beck on Santa Cruz Island May 6 to 11, 1897 (Mearns, Auk, 15, 1898: 264); two sets taken by J. Mailliard on same island in late April, 1898 (Bull. Cooper Orn. Club, 1, 1899: 41). Five slightly incubated eggs collected by J. Grinnell on San Clemente Island April 2, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 19); downy young found by C. B. Linton on same island as early as March 8 (1907) (Condor, 10, 1908: 85). Five fresh eggs taken by R. M. Perez on Catalina Island April 15, 1911 (Willett, loc. cit.).

FAMILY STURNIDAE Starlings

Acridotheres tristis (Linnaeus) Common Mynah

Small colony, of unknown origin, discovered on Lucile Avenue, Los Angeles, in 1930. According to Dr. Calla E. Starbuck, who reported the birds to Dr. Hildegarde Howard, three young had been raised and second nest built between May and July of that year (Willett, Condor, **32**, 1930: 301). Six birds were collected by Los Angeles County Agricultural Commissioner's staff, in cooperation with L. H. Miller, and colony believed exterminated (Condor, **32**, 1930: 302). This bird, a native of Asia, has an unenviable reputation wherever introduced, and it is to be hoped that its extirpation in Los Angeles is an accomplished fact.

FAMILY VIREONIDAE Vireos

Vireo huttoni huttoni Cassin Hutton Vireo

Synonyms-Vireo huttoni oberholseri: Vireo huttoni mailliardorum.

Common resident of foothill and mesa regions, and larger islands of Santa Barbara group. Fairly plentiful over lower country in winter. Breeds, ordinarily, from early April through May. Extreme nesting records, near Pasadena, are: Three fresh eggs taken by J. Grinnell, March 7, 1896 (Pub. 2, Pasadena Acad. Sci., 1898: 44), and four fresh eggs taken by H. A. Gaylord, July 15, 1894 (Avifauna, 1, 1895: 27).

Vireo bellii pusillus Coues Least Vireo

Common in summer in willow regions from coast to foothills. Arrives in late March and early April, and leaves mostly during latter part of August. Noted by H. Robertson near Los Angeles as early as March 11 (1900) (Willett, Pac. Coast Avif., No. 7, 1912: 93), and by R. S. Woods (MS) near Azusa, Los Angeles County, as late as October 3 (1930). Breeds generally in latter part of May. Extreme nesting records are: Three newly-hatched young found by H. Robertson near Los Angeles April 1, 1900 (Willett, loc. cit.), and four eggs, with one of Dwarf Cowbird, taken by W. C. Hanna (MS) at Colton, San Bernardino County, June 23, 1918.

Vireo vicinior Coues Gray Vireo

Synonym-Vireo vicinior californicus.

Summer resident, locally, in Upper Sonoran chaparral belt of foothills, from northwestern Lower California to Mint Canyon, Los Angeles County. Except during its singing season, is difficult to locate, consequently definite migration dates are few. Noted by F. Stephens at Campo, San Diego County, about March 24, 1876 (Bull. Nuttall Orn. Club, **3**, 1878: 42); male secured at Vandeventer Flat, San Jacinto Mountains, August 27, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., **10**, 1913: 296). Found by F. Stephens to be not uncommon in summer at Campo and Julian, San Diego County, from lower limit of pines down to about 3000 feet altitude (Stephens,

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Bernardino County, June 4, 1886 (Morcom, Bull. Ridgway Orn. Club, No. 2, 1887: 51), and another set of four eggs about ten miles east of Riverside April 26, 1889 (Auk, 7, 1890: 159). Eggs taken by W. C. Hanna (MS) near San Bernardino May 28, 1927, in Cajon Pass June 4, 1933, and in San Gabriel Mountains (6000 feet altitude) July 4, 1930. Found nesting by Grinnell and Swarth on brushy slopes of San Jacinto Mountains, from 3000 to 6500 feet altitude, during summer of 1908. Two nests, each containing three eggs, collected May 21 (Grinnell and Swarth, op. cit.: 291-297). Noted by L. H. Miller in Mint Canyon, Los Angeles County, May 31, 1921 (Condor, 23, 1921: 194), and by Mrs. F. B. Schneider at Vasquez Rocks, same region, June 14, 1926 (Bird-Lore, 28, 1926: 289). Pair of birds and set of eggs secured by L. B. Bishop (MS) in latter locality May 26, 1928.

Vireo solitarius cassinii Xantus

Cassin Vireo

Synonym-Lanivireo solitarius cassinii.

Common along foothills and on mesas during migrations, which occur in April, and in late September and early October. Breeds numerously in canyons from foothills up to about 7000 feet, nesting in cottonwoods and white oaks in May and June. Noted by H. S. Swarth migrating near Los Angeles as early as April 3 (1901) and as late as October 13 (1898) (Willett, Pac. Coast Avif., No. 7, 1912: 93). Found common in summer by J. R. Pemberton in Matilija Canyon, Rincon Creek and other localities in coast range of Ventura County (Condor, 12, 1910: 18). Extreme nesting records by J. Grinnell near Pasadena are: Five eggs, incubation advanced, taken May 11, 1895, and three eggs, incubation slight, taken June 26, 1893 (Pub. 2, Pasadena Acad. Sci., 1898: 44).

Vireo flavoviridis flavoviridis (Cassin) Yellow-green Vireo

Synonym-Vireosylva flavoviridis.

Specimen taken by W. W. Price near Riverside October 1, 1887 (Auk, 5, 1888: 210). R. Ridgway (Birds N. and Mid. Amer., 3, 1904: 146) verifies identification of this specimen, but states that date given on label is September 29.

Vireo olivaceus (Linnaeus) Red-eyed Vireo

Synonym—Vireosylva olivacea.

Two records. Adult male taken by L. M. Huey at San Diego October 6, 1914 (Condor, 17, 1915: 58). Male (L. A. Mus., no. 17517) found dead by Gloria Widmann in Los Angeles October 10, 1931 (Condor, 34, 1932: 47).

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Vireo gilvus swainsonii Baird Western Warbling Vireo

Synonym-Vireosylva gilva swainsonii.

Common summer resident, locally, from base of mountains up to about 8500 feet in canyons. Common migrant over lower country. Breeds mostly in May and June. Recorded by Mrs. F. B. Schneider (Bird-Lore, **30**, 1928: 208) near Los Angeles as early as March 19 (1928), and by H. S. Swarth in same locality as late as October 4 (1901) (Willett, Pac. Coast Avif., No. 7, 1912: 93). Immature bird collected by L. B. Bishop (MS) at Montecito, near Santa Barbara, October 27, 1920. Three slightly incubated eggs taken by H. A. Gaylord near Pasadena May 9, 1894, and three fresh eggs taken by J. Grinnell on Pine Flats, 6000 feet altitude in San Gabriel Range, July 2, 1897 (Pub. **2**, Pasadena Acad. Sci., 1898: 43). Nest and eggs collected by F. E. Blaisdell at Poway, San Diego County, June 11, 1883 (Belding, Land Birds Pac. Dist., 1890: 199). According to J. B. Dixon (MS), common breeder in vicinity of Escondido.

FAMILY COMPSOTHLYPIDAE Wood Warblers

Mniotilta varia (Linnaeus) Black and White Warbler

Occasional in winter. Bird seen by H. C. Henderson and R. Hoffmann at Carpinteria, Santa Barbara County, January 9, 1920 (Condor, 22, 1920: 76); another bird seen by Hoffmann in same locality April 20, 1921 (Condor, 23, 1921: 163). Immature female (L. A. Mus.) taken by H. A. Gaylord near Pasadena October 2, 1895 (Nidologist, 3, 1896: 106). Bird seen by Mrs. T. F. Johnson at National City, near San Diego, October 14, 1908 (Condor, 24, 1922: 100); another by C. G. Abbott and L. M. Huey at Dehesa, San Diego County, December 24, 1925 (Condor, 29, 1927: 128). Adult bird seen by J. R. Pemberton on Santa Barbara Island March 27, 1927 (Condor, 30, 1928: 145). In addition to the above, there are numerous sight records for southern California published in *Bird-Lore*.

Vermivora peregrina (Wilson) Tennessee Warbler

Synonym-Helminthophila peregrina.

Three records, all for month of September. Immature female (Grinnell coll.) taken by J. Grinnell in Arroyo Seco, near Pasadena, September 27, 1897 (Pub. 2, Pasadena Acad. Sci., 1898: 45); bird captured and banded by H. Michener at Pasadena September 28, 1925 (Condor, 28, 1926: 50), and bird that came to feeding table at residence of J. E. Law, Altadena, September 27, 28 and 29, 1929 (Condor, 32, 1930: 119).

Vermivora celata celata (Say) Orange-crowned Warbler

Synonyms-Helminthophila celata: Vermivora celata orestera.

Probably regular migrant in small numbers; most common in fall; occasional in winter. Male taken by J. Grinnell at Pasadena September 3, 1896 (Swarth, Condor, 3, 1901; 145). Several specimens secured by H. S. Swarth near Los Angeles in fall, from September 17 (1900) to October 30 (1899) (Condor, 3, 1901: 17). Two females collected by J. E. Law in San Fernando Valley, Los Angeles County, April 15 and 22, 1905, and female taken by H. W. Marsden at Witch Creek, San Diego County, April 24, 1909 (Willett, Pac. Coast Avif., No. 7, 1912: 94). Female (L. A. Mus.) taken by L. E. Wyman at Las Lomas, Los Angeles County, May 4, 1922. Two winter records: Male taken by F. O. Johnson at Riverside December 25, 1888 (Swarth, Condor, 12, 1910: 108), and specimen taken by C. B. Linton on Santa Cruz Island November 29, 1907 (Condor, 10, 1908: 128).

Vermivora celata lutescens (Ridgway) Lutescent Warbler

Synonym-Helminthophila celata lutescens.

Common spring and fall migrant, from coast to at least 9800 feet in mountains; migrations mainly in September and March. Less common in summer, breeding in canyons and on brushy mountain sides, south to San Diego County. May winter, in small numbers, but this not definitely established by specimens. Reported by W. Brewster (Bull. Mus. Comp. Zool., 41, 1902: 179) as wintering as far north as San Diego. Specimens taken by H. S. Swarth near Los Angeles November 20, 1901, and February 21, 1904 (Willett, Pac. Coast Avif., No. 7, 1912: 94). Bird seen near Los Angeles January 28, 1923, reported by Mrs. F. B. Schneider (Bird-Lore, 25, 1923: 203). Male (Willett coll., no. 1914) taken by O. W. Howard on San Miguel Island April 4, 1906.

• Eggs usually deposited in April. Recorded by J. H. Bowles (Auk, 28, 1911: 177) as common summer resident near Santa Barbara, where found nesting not more than two miles from ocean, at elevation of less than 400 feet. Eggs taken by L. and S. B. Peyton (MS) in mountains of Ventura County from April 16 (1916) to May 12 (1929). Four half-incubated eggs collected by J. E. Law near Lankershim (North Hollywood), Los Angeles County, April 23, 1905, and eggs taken by G. Willett in canyon near Monrovia, same county, April 27 and 29, 1902 (Willett, loc. cit.). Four fresh eggs collected by J. B. Dixon (MS) near Escondido, San Diego County, April 11, 1933.

Vermivora celata sordida (Townsend) Dusky Warbler

Synonym—Helminthophila celata sordida.

Common summer resident on large islands of Santa Barbara group; also breeds on mainland coast in vicinity of San Diego, and between San Pedro and Redondo, Los Angeles County. Winters on islands, in small numbers,

BIRDS OF SOUTHWESTERN CALIFORNIA

majority migrating to mainland, where common from middle of July until April, in willow thickets of lowlands and oak regions of mesas. Most abundant on islands of Santa Catalina, San Clemente and Santa Cruz. Found wintering on latter island by C. B. Linton and G. Willett (Condor, 10, 1908: 128), and on Catalina by J. Grinnell (Auk, 15, 1898: 236).

A. B. Howell states (Pac. Coast Avif., No. 12, 1917: 92) that the Dusky Warbler raises at least two broods of young each year, but does not give his reasons for this belief. All nesting records known to the writer are for the months of April and May. Several nests containing eggs and young found by O. W. Howard on Catalina Island in April and May, 1905 (Warbler, ser. 2, vol. 2, 1906: 9); sets of eggs taken by R. M. Perez on same island in late April, 1911 (Willett, Pac. Coast Avif., No. 7, 1912: 95). Slightly incubated eggs collected by O. W. Howard on Santa Cruz Island April 27, 1906, and by H. J. Lelande on Anacapa Island April 6, same year (Willett, loc. cit.). Reported by A. M. Ingersoll as breeding plentifully at Point Loma and Coronado Beach, near San Diego; at least a dozen nests found in these localities, all within mile of salt water (Willett, loc. cit.). Pair of birds, probably nesting, seen on bluffs north of Point Firmin, Los Angeles County, May 4, 1921 (Schneider, Bird-Lore, 23, 1921: 210); several birds, including singing males, noted by G. Willett (MS) on bluffs in vicinity of Point Vicente May 1, 8 and 22, 1927. Though no nests were located, the writer does not doubt that these birds were breeding.

Vermivora ruficapilla ridgwayi van Rossem Calaveras Warbler

Synonyms—Vermivora rubricapilla gutturalis; Helminthophila rubricapilla gutturalis.

Common spring and fall migrant, from lowlands up to at least 9800 feet in mountains. Recorded in spring migration from April 4 (1896, Pasadena, J. Grinnell) (Pub. 2, Pasadena Acad. Sci., 1898: 44) to May 12 (1900, Los Angeles, H. S. Swarth) (Willett, Pac. Coast Avif., No. 7, 1912: 94), and in fall migration, by H. S. Swarth, near Los Angeles, from September 13 (1897) to October 8 (1896) (Grinnell, loc. cit.). Noted by J. Grinnell in San Bernardino Mountains, in 1905, from August 17 (Cactus Flat, 6000 feet) to September 3 (Bluff Lake, 7500 feet). Common at summit of Sugarloaf, 9800 feet, August 19 (Univ. Calif. Publ. Zool., 5, 1908: 110). Found by A. J. van Rossem and W. M. Pierce in same region as late as September 22 (1914) (Condor, 17, 1915: 165). Male (D. R. Dickey coll.) taken by H. H. Sheldon on San Nicolas Island May 1, 1929. Male (L. A. Mus.) captured by J. S. Garth on shipboard off Los Coronados May 28, 1933.

Vermivora virginiae (Baird) Virginia Warbler

Synonym-Helminthophila virginiae.

One record; immature female (S.D.S.N.H., no. 14967) secured by F. F. Gander near Lemon Grove, a short distance east of San Diego, September 3, 1931 (Huey, Auk, **49**, 1932: 107).

PACIFIC COAST AVIFAUNA

Dendroica aestiva rubiginosa (Pallas) Alaska Yellow Warbler

Fairly common late spring and fall migrant. Not identifiable except by securing specimens. Apparently more common on desert slope of mountains. Three specimens taken by E. A. Mearns at Mountain Springs, San Diego County, May 11, 1894 (Oberholser, Auk, 14, 1897: 78). Found common in migration at Dos Palmas, Santa Rosa Mountains, from May 26 to June 2, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 298). Both these localities on desert side of mountains. Two specimens (D. R. Dickey coll.) taken by A. J. van Rossem in Placerita Canyon, Los Angeles County, May 15 and 17, 1921. Birds taken by H. W. Marsden at Witch Creek, San Diego County, May 3, 6 and 11, and October 12, 1904 (Bishop, Condor, 7, 1905: 143). In the Los Angeles Museum are three specimens taken in Los Angeles County during fall migration, as follows: Female (no. 374) taken by P. L. Radir "eight miles southwest of Los Angeles," Septemer 3, 1913; female (no. 10996) taken by F. S. Daggett at Pasadena September 10, 1896, and male (no. 3543) taken by J. Hornung at Greening October 7, 1919.

Dendroica aestiva brewsteri Grinnell California Yellow Warbler

Synonym-Dendroica aestiva, part.

Common summer resident in wooded localities, especially along streams, from lowlands up to at least 5200 feet in mountain canyons. Occurs at much higher altitudes during fall migration. Breeds mostly in late May and early June. Noted by H. S. Swarth near Los Angeles from April 1 (1899) to October 14 (1901) (Willett, Pac. Coast Avif., No. 7, 1912: 95). Extreme nesting dates for Los Angeles County are: Four fresh eggs taken by Antonin Jay near Compton May 5, 1895 (Willett, loc. cit.) and three fresh eggs taken by J. Grinnell near Pasadena June 26, 1893 (Pub. 2, Pasadena Acad. Sci., 1898: 44). Eggs taken by W. C. Hanna near San Bernardino from May 5 (1918) (Condor, 21, 1919: 88) to June 22 (1926) (Hanna MS). Mr. Hanna informs me that it is now practically impossible to find a nest of the Yellow Warbler in the San Bernardino Valley that does not contain one or more eggs of the Dwarf Cowbird.

Dendroica magnolia (Wilson) Magnolia Warbler

Rather rare migrant. Male taken by J. Grinnell on Santa Barbara Island May 15, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 7). Adult male (L. B. Bishop coll.) taken by J. Hornung on Santa Cruz Island May 23, 1908. Two immature females taken by H. S. Swarth near Los Angeles; one October 21, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 45), and the other October 5, 1901 (Condor, 3, 1901: 145).

Dendroica coronata (Linnaeus) Myrtle Warbler

Synonym—Dendroica coronata hooveri.

Fairly common winter visitant, south at least to San Diego County and San Clemente Island. Noted by H. S. Swarth in vicinity of Los Angeles from November 13 (1896) to March 1 (1901) (Willett, Pac. Coast Avif., No. 7, 1912: 96). Several birds seen by G. Willett (MS) in Borrego Valley, northeastern San Diego County, March 10, 1932. Adult female taken by J. Grinnell on Santa Barbara Island May 15, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 7). Found by C. B. Linton to be fairly common in winter on San Clemente (Condor, 11, 1909: 194).

Dendroica auduboni auduboni (Townsend) Audubon Warbler

Summer resident from 4000 to more than 10,000 feet in mountains; south to San Jacinto and Santa Rosa ranges. Very abundant and generally distributed throughout lowlands in winter. Appears in lower country about first week in September and remains well into April. Breeds mostly in June. Eggs taken by J. Grinnell in San Bernardino Mountains June 21, 1905, and June 14, 1906 (Univ. Calif. Publ. Zool., **5**, 1908: 112-114), and by W. M. Pierce (MS) in same region June 22, 1915, and June 25, 1920.

Dendroica nigrescens (Townsend) Black-throated Gray Warbler

Synonym—Dendroica nigrescens halseii.

Common summer resident of mountains, from foothills up to at least 6000 feet. Occurs in considerable numbers on mesas and lowlands during migrations. Earliest in spring in Los Angeles County, male taken by J. Grinnell near Pasadena March 23, 1895 (Pub. 2, Pasadena Acad. Sci., 1898: 46); latest in fall, female taken by H. S. Swarth near Los Angeles October 30, 1899 (Condor, 2, 1900: 91). Two males seen by W. L .Dawson on Santa Cruz Island April 19, 1915 (Condor, 17, 1915: 204). Four eggs taken by L. Stevens (MS) at north end of San Marcos Pass, Santa Barbara County, May 28, 1933. Nest containing young noted by J. R. Pemberton in Santa Ynez Mountains, Ventura County, June 23, 1909 (Condor, 12, 1910: 18). Three heavily incubated eggs taken by M. C. Badger (MS) at an altitude of about 1500 feet in Santa Paula Canyon, Ventura County, June 16, 1925. Nest containing three small young found by J. Grinnell in mountains north of Pasadena May 19, 1895, and three incubated eggs taken by R. Arnold in same locality June 26, 1896 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 46). Four eggs, advanced in incubation, taken by W. M. Pierce (MS) in Cucamonga Canyon, San Gabriel Mountains, May 15, 1918.

Dendroica townsendi (Townsend) Townsend Warbler

Common migrant, most plentiful in spring; occasionally remaining through winter. Spring migration, April and early May; fall migration, October. In the Los Angeles Museum are many specimens taken by F. S. Daggett at Pasadena in spring; the earliest, April 16, and the latest May 20 (1896). Found common by G. Willett at Newport, Orange County, May 12, 1912 (Condor, 14, 1912: 195). Noted by N. S. Goss at Julian, San Diego County, April 17, 1884, and male taken by L. Belding near San Diego April 20, same year (Land Birds Pac. Dist., 1890: 213). Found in small numbers at Campo, San Diego County, by F. Stephens, April 27, 1877 (Bull. Nuttall Orn. Club, 8, 1883: 188), and, according to J. G. Cooper (Land Birds Calif., 1870: 92), small flocks arrived at San Diego about April 20, 1862.

According to W. C. Hanna (MS), observed for several days at Colton, San Bernardino County, about October 1, 1919. Specimen taken by J. Grinnell near Pasadena October 7, 1895; several birds noted by Dr. Grinnell on Mount Wilson December 12, 1896, and specimen taken in that locality January 27, 1894 (Pub. 2, Pasadena Acad. Sci., 1898: 46). Found common at Pasadena, by W. P. Taylor, during January, 1909 (Condor, 11, 1909: 69). Specimen taken by F. O. Johnson at Riverside December 31, 1888 (Swarth, Condor, 12, 1910: 108). Immature male banded by L. M. Huey (MS) at San Diego December 10, 1924. Two specimens collected by C. B. Linton on Santa Barbara Islands; one on Santa Cruz, December 13, 1907 (Condor, 10, 1908: 128), and the other on San Clemente, in December, 1908 (Condor, 11, 1909: 194). Two females (L. A. Mus.) taken by J. Grinnell and H. A. Gaylord on Santa Barbara Island May 15, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 7).

Dendroica occidentalis (Townsend) Hermit Warbler

Fairly common migrant; most plentiful in foothill region in spring, fall migrants usually being found at higher altitudes. Fall migration from late July to early September. Two birds (L. A. Mus.) taken by C. H. Richardson, Jr., on Mount Islip, Los Angeles County, July 30 and August 2, 1905; noted in San Bernardino Mountains, by H. E. Wilder in late July, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 97), by A. J. van Rossem, from August 1 to 31, 1910 (Condor, 16, 1914: 145), and by J. Grinnell, September 3, 1905 (Univ. Calif. Publ. Zool., 5, 1908: 115). Immature male taken in San Jacinto Mountains August 19, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 300). Bird seen by H. S. Swarth near Los Angeles September 10, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 46).

Spring migration, latter part of April and early May. Specimens taken near Pasadena from April 16 (1896) (L. A. Mus.) to May 17 (Grinnell, loc. cit.). Noted by H. S. Swarth near Los Angeles from April 17 (1904) to May 16 (1900), and on Mount Wilson May 20 (1898) (Willett, loc. cit.). Female taken by G. F. Morcom near Redondo, Los Angeles County, May 10, 1901 (Willett, loc. cit.). Found common at Campo, San Diego County, by F. Stephens, April 27, 1877 (Bull. Nuttall Orn. Club, **8**, 1883: 188), in Cuyamaca Mountains, same county, by J. G. Cooper, the last week in April, 1872 (Baird, Brewer and Ridgway, N.A.L.B., **3**, 1874: 506), and by N. S. Goss, April 25, 1884 (Belding, Land Birds Pac. Dist., 1890: 215); three or four birds seen by L. Belding at Tia Juana April 30 and May 2, 1885 (loc. cit.). Female (L. A. Mus.) collected by H. A. Gaylord on Santa Barbara Island May 14, 1897; several more seen same day (Grinnell, Pub. **1**, Pasadena Acad. Sci., 1897: 7). Male (Mus. Vert. Zool.), in worn breeding plumage, taken by W. W. Price in "San Bernardino Mountains" June 13, 1889, may indicate near-by nesting.

Seiurus aurocapillus (Linnaeus) Oven-bird

Rare straggler. Bird closely observed by R. Hoffman near Los Olivos, Santa Barbara County, May 13, 1928 (Condor, **30**, 1928: 327). Young female (L. B. Bishop coll., no. 34390) taken by Dr. Bishop near Glendale, Los Angeles County, October 25, 1922.

Seiurus noveboracensis notabilis Ridgway Grinnell Water-Thrush

Synonym-Seiurus noveboracensis limnaeus.

Apparently rare migrant. Bird of year (Mus. Vert. Zool.) taken by J. Grinnell at Cactus Flat, 6000 feet altitude on desert slope of San Bernardino Mountains, August 16, 1905 (Condor, 9, 1907: 28); female (J. E. Thayer coll.) taken by C. B. Linton near National City, San Diego County, September 29, 1906 (Condor, 9, 1907: 60); bird picked up dead in San Diego September 11, 1887, and presented to Walter Bryant by A. M. Ingersoll (Keeler, Zoe, 1, 1891: 371). One spring record, of bird seen by J. B. Abbott near Altadena, Los Angeles County, May 15, 1933 (Condor, 35, 1933: 203). A sketch of this bird made on the spot by Mr. Abbott clearly establishes its identity.

T. T. McCabe and A. H. Miller (Condor, 35, 1933: 192-197) have separated the water-thrush breeding in the interior of British Columbia from the Alaska bird, calling it *S. n. limnaeus*, under which name is included the San Bernardino Mountain specimen referred to above. The writer, perceiving no benefit to ornithology in recognition of another race of *S. noveboracensis* on such slight characters, has included the name *limnaeus* as a synonym of *notabilis*.

> Oporornis tolmiei (Townsend) Macgillivray Warbler

Synonyms-Geothlypis macgillivrayi: Tolmie Warbler.

Common migrant, from foothills to at least 8500 feet in mountains; occasional to lower country, mostly during fall migration. Rare in winter. Noted by H. S. Swarth near Los Angeles from September 4 (1897) (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 46) to October 24 (1899) (Condor, 2, 1900: 91), and by J. Grinnell in San Bernardino Mountains, 7500 to 8500 feet altitude, from August 19 to September 3, 1905 (Univ. Calif. Publ. Zool., 5, 1908: 116); two females (L. A. Mus.) taken in Strawberry Valley, San Jacinto Mountains, September 28 and October 5, 1916.

Recorded in spring at Pasadena from April 4 to May 13 (1896) (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 46); male taken by J. E. Law near Pomona May 22, 1901, and female seen by H. S. Swarth near Los Angeles June 4, 1898 (Willett, Pac. Coast Avif., No. 7, 1912: 98). Noted on desert slope of San Jacinto Mountains as late as May 27 (1908) (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 300). Recorded by F. E. Blaisdell at Poway, San Diego County, from March 28 (1885) to middle of May (1884) (Belding, Land Birds Pac. Dist., 1890: 216). Specimen taken by L. E. Wyman at Los Angeles December 17, 1914. The fact that this bird was without retrices when secured, may account for its presence at such a date (Condor, 17, 1915: 102). Bird reported seen at Sycamore Grove, Los Angeles, December 15, 1924, and again January 8, 1925 (Everhart, Condor, 27, 1925: 77).

Geothlypis trichas occidentalis Brewster Western Yellow-throat

Synonym—Geothlypis trichas arizela.

Common migrant; occasional in winter. Owing to former confusion of this bird with the two following races, there seem to be few definite migration records. Earliest fall record known to the writer, male (D. R. Dickey coll.) taken by A. B. Howell at El Monte, Los Angeles County, October 18, 1915, and latest in spring, male (L. A. Mus.) taken by F. S. Daggett near Pasadena May 20, 1896. Another male (L. A. Mus.) taken by F. S. Daggett at Bixby, Los Angeles County, January 22, 1896. Male (D. R. Dickey coll.) taken by H. H. Sheldon on Santa Cruz Island December 28, 1927.

Geothlypis trichas scirpicola Grinnell Tule Yellow-throat

Synonyms—Geothlypis trichas occidentalis, part: Geothlypis trichas arizela, of many authors; not of Oberholser.

Common resident of fresh-water and brackish marshes and damp meadow lands, from coast to base of mountains. One winter record for Santa Cruz Island (Hoffmann, Condor, **22**, 1920: 187). Breeds mainly in April and May. Eggs taken by L. and S. B. Peyton (MS) along Santa Clara River, Ventura County, from April 18 (1910) to June 27 (1927), and by W. C. Hanna (MS) near Colton, San Bernardino County, from April 4 (1923) to May 29 (1924). Three fresh eggs collected by Antonin Jay at Nigger Slough, Los Angeles County, July 9, 1905 (Willett, Pac. Coast Avif., No. 7, 1912: 98).

This race appears to the writer to be rather a poorly differentiated one. J. Grinnell's claim (Condor, 3, 1901: 65) that it is appreciably larger than the bird east of the mountains does not seem to be substantiated by measurements of birds in the Los Angeles Museum. It is, however, slightly brighter in color, both above and below.

Geothlypis trichas sinuosa Grinnell Salt Marsh Yellow-throat

Synonym—Geothlypis trichas occidentalis, part.

Fairly common winter visitant coast-wise, south at least to San Diego. Nine specimens taken by A. J. van Rossem at Anaheim Bay, Orange County, between October 3 and March 15 (Condor, **24**, 1922: 134); seven additional specimens (L. A. Mus.) from same locality, taken between September 23 (1915) and March 2 (1918); also male taken by F. S. Daggett at Bixby, Los Angeles County, January 22, 1896, another by G. Willett at Newport, Orange County, January 11, 1906, and a third by L. E. Wyman at Nigger Slough, Los Angeles County, November 28, 1917. Immature male (L. M. Huey coll.) taken at San Diego October 3, 1914.

Icteria virens longicauda Lawrence Long-tailed Chat

Common summer resident of willow regions of lowlands; occurs in small numbers along foothills during migrations; one bird taken by W. M. Pierce (MS) at Bear Valley, 6750 feet altitude in San Bernardino Mountains, in August, 1931. Arrives in April and leaves mostly in September. Reported by W. M. Pierce in San Antonio Canyon, Los Angeles County, as early as April 1 (1900), and by H. S. Swarth at Los Angeles as late as October 7 (1897) (Willett, Pac. Coast Avif., No. 7, 1912: 98). Breeds most plentifully in late May and early June. Eggs taken by H. Robertson near Los Angeles from May 4 to June 25 (1898) (Willett, loc. cit.), and by W. C. Hanna (MS) near Colton, San Bernardino County, from May 4 (1927) to July 13 (1922).

Wilsonia pusilla pileolata (Pallas) Northern Pileolated Warbler

Synonym-Alaska Pileolated Warbler.

Probably fairly common migrant. In the Los Angeles Museum are three birds collected by F. S. Daggett at Pasadena April 29, 1897, and May 1 and September 22, 1896 (Grinnell, Condor, **5**, 1903: 80); also two birds taken by J. Hornung at Los Angeles May 6 and 10, 1915. Two males taken by L. B. Bishop (MS) at Bassett, Los Angeles County, October 16, 1923. Ten spring birds (D. R. Dickey coll.) taken between April 4 (Jacumba, San Diego County), and May 22 (Nigger Slough, Los Angeles County). Specimens taken at Dulzura, San Diego County, April 25; San Diego, May 6, and Julian, San Diego County, August 5, recorded by J. Grinnell (Pac. Coast Avif., No. **11**, 1915: 152). Five specimens taken by J. Grinnell on Santa Barbara Island May 14 to 16, 1897 (Pub. **1**, Pasadena Acad. Sci., 1897: 8); two birds (D. R. Dickey coll.) collected by H. H. Sheldon on San Nicolas Island May 1 and 2, 1929. Adult female taken by C. G. Abbott and L. M. Huey at San Diego December 21, 1927 (Condor, **30**, 1928: 163). Also three sight records for southern California in winter: one by H. S. Swarth (Condor, **2**, 1900: 91) of

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bird seen weekly in Los Angeles from November 11, 1899, until about the end of February, 1900; one by Mrs. F. B. Schneider (Bird-Lore, **23**, 1921: 97) of bird remaining throughout December, 1920, and January, 1921, in same locality, and one by R. Hoffmann (Bird-Lore, **34**, 1932: 78) of bird seen by W. R. Varick at Santa Barbara December 20, 1931. It would seem impossible to definitely allocate these sight records to either race of the Pileolated Warbler.

Wilsonia pusilla chryseola Ridgway Golden Pileolated Warbler

Common summer resident from lowlands to at least 8500 feet in mountains. Breeds in willow regions in May; later at higher altitudes. Noted by J. Grinnell near El Monte, Los Angeles County, from February 16 (1895) to October 27 (1894) (Pub. 2, Pasadena Acad. Sci., 1898: 47). Found common and apparently breeding at head of south fork of Santa Ana River, 8000 to 8500 feet altitude in San Bernardino Mountains, June 27 to 30, 1905 (Grinnell, Univ. Calif. Publ. Zool., 5, 1908: 34); also noted by Grinnell and Swarth in San Jacinto Mountains as high as Tahquitz Valley, 8000 feet (Univ. Calif. Publ. Zool., 10, 1913: 302). Found breeding at Escondido, San Diego County, by C. S. Sharp (Condor, 8, 1906: 75). Extreme nesting records in lower country are: Four fresh eggs taken by Antonin Jay near El Monte April 21, 1907 (Willett, Pac. Coast Avif., No. 7, 1912: 99), and three eggs, incubation slight, taken by J. J. Schneider near Anaheim, Orange County, July 2, 1899 (Condor, 2, 1900: 34).

Setophaga ruticilla (Linnaeus) American Redstart

Four records. Female found dead near Pasadena by P. I. Osburn December 27, 1905 (Condor, 11, 1909: 102); male seen in Griffith Park, Los Angeles, September 13-14, 1923 (Schneider, Bird-Lore, 25, 1923: 409; Ellis, Condor, 26, 1924: 30); female seen at Verdugo Woodlands, near Los Angeles, November 23, 1925 (Miller, Condor, 28, 1926: 98; Schneider, Bird Lore, 28, 1926: 147), and adult female collected by J. McB. Robertson near Artesia, Los Angeles County, September 20, 1925 (Condor, 28, 1926: 47).

Setophaga picta picta Swainson Painted Redstart

Bird observed by R. Hubricht in Elysian Park, Los Angeles, October 27 to November 1, 1926 (Bird-Lore, **29**, 1927: 121); identification confirmed by L. H. Miller, who observed the bird, in company with Mr. Hubricht, October 28 (Condor, **29**, 1927: 77).

FAMILY PLOCEIDAE Weaver Finches

Passer domesticus domesticus (Linnaeus) English Sparrow

Arrived on Pacific coast of southern California during first decade of present century, and now abundant resident throughout lowland and foothill regions. Noted by O. W. Howard at Tehachapi in 1903, and by Cooper Club members at outing meeting at Newhall, Los Angeles County, May 19, 1906 (Condor, 8, 1906: 157). Seen by J. S. Appleton, at Oxnard, Ventura County, in 1905, and in Simi Valley in 1907 (Willett, Pac. Coast Avif., No. 7, 1912: 76). Arrived in Los Angeles about 1907, first being seen at corner of Eleventh and Main streets (Willett, loc. cit.). Reported by Bradford Torrey at Santa Barbara in 1909 (Condor, 11, 1909: 208), by W. L. Holt at Banning, Riverside County, in 1910 (Willett, loc. cit.), and by F. Stephens (MS) at San Diego in 1913. Highest altitude from which recorded, Bear Valley, 6750 feet in San Bernardino Mountains, July 22, 1926 (Sumner, Condor, 29, 1927: 82). Seen on San Clemente Island by A. B. Howell March 30, 1915 (Pac. Coast Avif., No. 12, 1917: 75), and on Santa Cruz by W. L. Dawson April 18, 1915 (Condor, 17, 1915: 204). Data lacking as to time of its arrival on Catalina, but it was common there by 1928. Breeding season extends at least from March to July, two or more broods being raised in a season.

The 1931 A.O.U. Check-list removes this bird from the *Fringillidae*, where it has usually been assigned, and places it with the *Ploceidae*, the Weaver Finches.

FAMILY ICTERIDAE Meadowlarks, Blackbirds, etc.

Sturnella neglecta Audubon Western Meadowlark

Abundant resident of meadows and fields, from ocean to about 7000 feet in mountains. After nesting season, some ascend the mountains to at least 9000 feet (Grinnell and Swarth, Univ. Calif. Publ. Zool., **10**, 1913: 264). Occurs on most of Santa Barbara Islands. In winter gathers in good sized flocks where food is most plentiful. Breeds generally in April and May, though much earlier nesting recorded. Nest containing three fresh eggs found near National City, San Diego County, December 15, 1914 (Sechrist, Oologist, **32**, 1915: 91). Young bird, recently out of nest, flushed by C. G. Abbott at Sweetwater Lake, San Diego County, December 24, 1925; another, probably even younger, taken by Mrs. May Canfield near Mission Gorge, same county, December 27, 1925 (Abbott, Condor, **29**, 1927: 161). Four fresh eggs collected by D. I. Shepardson at Los Angeles February 15, 1909 (Condor, **17**, 1915: 130). Three eggs taken by H. Robertson at Bear Valley, 6750 feet in San Bernardino Mountains, June 28, 1894 (Willett, Pac. Coast Avif., No. **7**, 1912: 71).

Xanthocephalus xanthocephalus (Bonaparte) Yellow-headed Blackbird

Formerly common, but irregular, breeding bird on marsh lands, south to Bear Lake, San Bernardino Mountains (Morcom, Bull. Ridgway Orn. Club, 2, 1887: 47), and San Jacinto Lake, Riverside County (Willett and Jay, Condor, 13, 1911: 160). Scatters out over lower country in fall, winter and spring, adult males usually being seen in bands by themselves, not mixing with flocks made up of females and immature birds. During these seasons occurs southward, through San Diego County, to Lower California. Noted in small flocks by W. O. Emerson at Poway, San Diego County, in spring of 1884 (Bull. Calif. Acad. Sci., 2, 1887: 428). According to L. Belding (Land Birds Pac. Dist., 1890: 118), irregular visitant at San Diego; flock of about 1000 seen there April 19, 1884; also found abundant at Temecula, Riverside County, by F. E. Blaisdell, May 4, 1883. Small flocks seen by W. C. Hanna (MS) at Colton, San Bernardino County, in May. Male taken on Santa Cruz Island in 1914, reported by W. L. Dawson (Condor, 17, 1915: 204). In past years nested abundantly at San Jacinto Lake, Riverside County, and. irregularly, at Nigger Slough, Los Angeles County. Both these bodies of water now drained and colonies no longer exist. Small breeding colony at Baldwin Lake, San Bernardino Mountains (Pierce, Condor, 35, 1933: 202), only one known to the writer in our territory at present. Extreme nesting records by W. M. Pierce (MS) are: Three slightly incubated eggs taken near Newport, Orange County, May 9, 1915, and four eggs, incubation advanced, taken at San Jacinto Lake June 19, 1914.

Agelaius phoeniceus californicus Nelson Bicolored Red-wing

Synonyms—Agelaius gubernator californicus: Agelaius phoeniceus mailliardorum.

Resident in San Joaquin Valley, southwest to Tejon Pass, in Kern and northeastern Los Angeles counties. Breeding specimens from Gorman Station recorded by A. J. van Rossem (Condor, **28**, 1926: 222). The red-wings of northeastern Los Angeles County are variously intermediate between *californicus* and *neutralis*. Of two adult males (L. B. Bishop coll.) taken at Elizabeth Lake April 27, 1918, one (no. 30954) is fairly typical of *californicus* and the other (no. 30953) is characteristic of *neutralis*. Another adult male (L. B. Bishop coll., no. 10848) collected by H. W. Marsden at Witch Creek, San Diego County, April 13, 1904, looks very much like *californicus* and may be a straggler of that race. There is, however, a possibility that it is a variant of *neutralis*.

Agelaius phoeniceus neutralis Ridgway San Diego Red-wing

Formerly abundant resident of lowlands, breeding mostly in tule marshes, often also in grain fields, mustard patches and sometimes even on ground. Considerably less plentiful now, owing to drainage of most marshes. Apparently adapting itself somewhat to changed conditions; for example, J. A. Calder (Condor, 28, 1926: 240) reports colony of more than thirty nests in orange trees at Buena Park, Orange County, in summer of 1925. Breeding season from April 1 through June.

Agelaius tricolor (Audubon) Tricolored Red-wing

Formerly common resident of lowlands, breeding locally in tule marshes from latter part of April through May; more widely distributed in winter. Originally described from specimens taken at Santa Barbara by Thomas Nuttall (Audubon, Orn. Biog., **5**, 1839:1). Now rare throughout former range in southern California, excepting in some sections of San Diego County. According to L. M. Huey and J. B. Dixon (MS), still nests plentifully, though irregularly, at San Luis Rey, Lake Hodges, Sweetwater, and Lakeside. A large number nested in latter locality in 1933.

Icterus cucullatus nelsoni Ridgway Arizona Hooded Oriole

Common summer resident, mostly about orchards, gardens and parks, but occurs also on brushy mesas; sometimes follows up mountain canyons as high as 4000 feet. Recorded from Catalina Island by C. H. Richardson, Jr., (Condor, 10, 1908: 67) and A. B. Howell (Pac. Coast Avif., No. 12, 1917: 72); male (D. R. Dickey coll.) taken by H. H. Sheldon on San Nicolas Island April 28, 1929. Rare in winter. Generally arrives in late March and leaves in early September. Reported near Los Angeles from March 6 (1923) to September 20 (1920) (Schneider, Bird-Lore, 25, 1923: 203; 22, 1920: 362), near Pasadena from March 15 to September 18 (1897) (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 34), and at Poway, San Diego County, from March 11 (1885) to September 20 (1884) (Belding, Land Birds Pac. Dist., 1890: 125). According to L. H. Miller (Condor, 21, 1919: 79), most adult males leave by the last of August, females and young remaining considerably later. According to 1931 A.O.U. Check-List, winters south of United States, but H. and J. R. Michener (Condor, 34, 1932: 208) report specimens captured at Pasadena every month in the year except February, and the species was seen and heard during that month.

Breeds, ordinarily, from late April to early June. A favorite nesting site is the under side of a palm leaf, such nests being frequently seen in gardens and parks and among ornamental trees along city streets. Extreme nesting dates are: Five partially incubated eggs taken by W. M. Pierce near Claremont, Los Angeles County, April 25, 1901 (Willett, Pac. Coast Avif., No. 7, 1912: 71), and nest containing one fresh egg found by H. J. Lelande near Pasadena August 3, 1897 (Grinnell, loc. cit.).

Icterus parisorum Bonaparte Scott Oriole

Normally a bird of desert regions. On Pacific slope, recorded most frequently from vicinity of San Diego, where noted several times in spring, once in fall, and has been known to breed. Straggles occasionally to Los Angeles

County, and there is one record for Santa Barbara, a young male secured by W. L. Dawson May 7, 1913 (Condor, 15, 1913: 158). According to the 1931 A.O.U. Check-list, winters entirely south of United States. Male collected by W. B. Judson in San Fernando Valley, Los Angeles County, November 2, 1903 (Daggett, Condor, 6, 1904: 22) may have been late fall migrant. Male seen by H. S. Swarth near Los Angeles April 19, 1895 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 33); specimen taken at Glendora, Los Angeles County, May 6, 1904 (Grinnell, Condor, 12, 1910: 46). Male collected by R. B. Herron near San Bernardino April 1, 1895 (Thurber, Auk, 13, 1896: 265), and another by H. E. Wilder at Riverside May 8, 1896 (Willett, Pac. Coast Avif., No. 7, 1912: 71). Reported at San Diego, by F. Stephens, in April, and June 2, 1901 (Condor, 3, 1901: 94), and September 2, 1914 (Condor, 17, 1915: 96); by Mrs. Kate Stephens in late April, 1906 (Condor, 8, 1906: 130), and by H. Grev May 29, 1914 (Condor, 17, 1915: 59). Nest containing single young bird found by C. H. Marsh in Telegraph Canyon, ten miles from San Diego, May 16, 1890; male parent bird taken and sent to F. C. Browne (Auk, 8, 1891: 238). Fresh or slightly incubated eggs taken by W. M. Pierce (MS) near Victorville, Mohave Desert, from May 6 (1916) to June 3 (1917).

Icterus bullockii (Swainson) Bullock Oriole

Common summer resident from lowlands to about 5000 feet in mountain canyons; occurring up to 8000 feet after breeding season. Reported on several of Santa Barbara Islands. Arrives from south in March, and leaves mostly in August. Noted by J. Grinnell at Pasadena March 16 (1896) (Pub. 2, Pasadena Acad. Sci., 1898: 34), by F. E. Blaisdell at Poway, San Diego County, March 17 (Belding, Land Birds Pac. Dist., 1890: 126), and by J. G. Cooper at San Diego about March 1 (Land Birds Calif., 1870: 274). Our knowledge regarding time this bird departs in fall seems rather meager, considering its abundance. Apparently, as with last species, males precede females and young. J. Grinnell's latest date, near Pasadena, is August 10 (1897) (Grinnell, loc. cit.), and in the San Bernardino Mountains, August 25 (1905) (Univ. Calif. Publ. Zool., 5, 1908: 88). Late fall records by J. McB. Robertson (MS) at Buena Park, Orange County, are: September 2, 1925; September 4, 1921; September 10, 1931; September 15, 1922; September 17, 1929; September 18, 1927, and September 21, 1923. Male seen by Antonin Jay in Los Angeles January 27 and 30, 1911 (Condor, 13, 1911: 75). The Bullock Oriole breeds mostly in May. Extreme nesting dates are: Six slightly incubated eggs taken by W. M. Pierce near Claremont, Los Angeles County, April 25, 1901 (Willett, Pac. Coast Avif., No. 7, 1912: 72), and five eggs, incubation advanced, taken by H. A. Gaylord near Pasadena July 18, 1894 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 34).

Icterus pustulatus (Wagler) Scarlet-headed Oriole

Immature male (S.D.S.N.H., no. 14521) taken by F. F. Gander at Murray Dam, near La Mesa, San Diego County, May 1, 1931 (Huey, Auk, **48**, 1931: 606). An inhabitant of western and southern Mexico.

Euphagus carolinus (Müller) Rusty Blackbird

Three southern California records, all in November, and two of which are, peculiarly, from the Santa Barbara Islands. Male (Mus. Vert. Zool.) taken by C. B. Linton on San Clemente Island November 20, 1908 (Condor, 11, 1909: 194); adult female (S.D.S.N.H.) taken by J. W. Sefton, Jr., at Jamacha, San Diego County, November 14, 1925 (Condor, 28, 1926: 99), and female (D. R. Dickey coll.) found dead on Santa Rosa Island, by P. E. Trapier, November 6, 1927 (Dickey, Condor, 30, 1928: 162).

Euphagus cyanocephalus (Wagler) Brewer Blackbird

Synonyms—Euphagus cyanocephalus minusculus: E u p h a g u s cyanocephalus uliastus.

Abundant resident from coast up to about 7000 feet in mountain canyons. In winter gathers in large flocks in lower country feeding in meadows and orchards and around barn-yards. Breeds mostly in April and early May. Eggs taken by Evan Davis near Orange as early as March 16 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 34), and by W. M. Pierce (MS) near Chino as late as June 17 (1915).

J. Grinnell (Condor, 22, 1920: 153) has given the name *Euphagus cyano-cephalus minusculus* to the Brewer Blackbird of California, principally on the grounds of its smaller size. Though a slight average difference undoubtedly exists, there is much variation in birds of this species and, without locality labels, many individuals could not be definitely assigned to either form. Therefore, the writer doubts the desirability of recognition of more than one race by name.

Molothrus ater obscurus (Gmelin) Dwarf Cowbird

Synonym—Molothrus ater californicus.

At the time Pacific Coast Avifauna No. 7 appeared, in 1912, no specimens of the cowbird were on record from the Pacific slope of southern California. J. G. Cooper had mentioned (Am. Nat., **8**, 1874: 17) seeing flocks of cowbirds on the east slope of the Cuyamaca Mountains, San Diego County, in the spring of 1862. J. E. Law saw a female yellow-throat feeding a fullyfledged young bird, undoubtedly a cowbird, near Compton, Los Angeles County, July 10, 1910 (Condor, **12**, 1910: 174). A few cowbird's eggs had been taken in Ventura and Los Angeles counties, earliest records being one by H. C. Burt near Santa Paula June 18, 1904, and another by C. B. Linton in Elysian Park, Los Angeles, June 5, 1905 (Willett, Pac. Coast Avif., No. **7**, 1912: 70). One or more eggs collected by S. Sleppy in San Bernardino Valley about thirty years previous to 1919, later recorded by E. Wall (Condor, **21**, 1919: 209). Earliest records of birds secured are: Young female by W. L. Dawson at Carpinteria, Santa Barbara County, September 13, 1912 (Condor, **18**, 1916: 28); female by Emily Hollister at Los Angeles January 26, 1915 (Miller, Condor, **17**, 1915: 165); male by J. E. Law near Los Angeles June 5, 1915 (Miller, loc. cit.), and specimen by W. C. Hanna near Colton, San Bernardino County, in June, 1918 (Condor, **20**, 1918: 211).

The increase in numbers of the cowbird in southern California during the past twenty years has been remarkable; in fact, unparalleled by any other of our native birds. According to J. S. Rowley (Condor, 32, 1930: 130), this increase was most marked in the vicinity of El Monte, Los Angeles County, between 1920 and 1926. J. McB. Robertson (MS) first saw the species at Buena Park, Orange County, May 27, 1923. He finds it now common in spring and sometimes seen at other seasons. W. C. Hanna took nearly one hundred eggs near Colton, San Bernardino County, between 1918 and 1928 (Condor, 30, 1928: 161). It was reported nesting at Fallbrook, San Diego County, in 1919 (Sharp, Condor, 22, 1920: 159), and at San Diego in 1923 (Gander, Condor, 29, 1927: 271). At the present time it is well established throughout our district, frequenting the willow regions in large numbers in summer and found commonly around farms and in parks at other seasons of the year. It apparently breeds most plentifully in May and early June. Extreme egg dates near El Monte are April 14 (1927) and June 8 (1929) (Rowley, loc. cit.), and near Colton, May 3 and July 24 (1926) (Hanna MS).

Dickey and van Rossem (Condor, 24, 1922: 208-210) have given the name *Molothrus ater californicus* to the cowbird of the San Joaquin Valley, the type locality being Buena Vista Lake. The principal features said to distinguish this form from *M. a. obscurus* are larger size, and darker coloration of the females. Specimens referred to *californicus* were taken in fall at Carpinteria, Santa Barbara County, and Oxnard, Ventura County, and in spring at El Monte, Los Angeles County. *Californicus* is apparently an intergrade between *obscurus* and *artemisiae*, somewhat nearer the former. The naming of intergrades is a practice that may be continued indefinitely and cannot but lead toward nomenclatural chaos. With this in mind, *californicus* is here included with *obscurus*, from which it differs very slightly. Furthermore, the writer doubts the possibility of definitely allocating the above-mentioned fall and spring birds from the Pacific slope to *californicus*, believing that they might as logically be considered variants of *obscurus*.

FAMILY THRAUPIDAE Tanagers

Piranga ludoviciana (Wilson) Western Tanager

Synonym-Louisiana Tanager.

Common summer resident of mountain canyons and coniferous forests; most plentiful from 1500 to 8000 feet. Reported from Santa Cruz and San Clemente islands during migrations (Howell, Pac. Coast Avif., No. 12, 1917: 87); also taken by H. H. Sheldon on San Nicolas Island April 26, 1929 (male in D. R. Dickey coll.). Rare in winter. Extreme dates of arrival and departure at Pasadena recorded by J. Grinnell (Pub. 2, Pasadena Acad. Sci., 1898: 41) as April 19 (1896) and September 30 (1897); bird seen by Mrs. F. B. Schneider near Los Angeles April 7, 1921 (Bird-Lore, 23, 1921: 150); two specimens (L.

BIRDS OF SOUTHWESTERN CALIFORNIA

B. Bishop coll.) taken by K. Stager in Morongo Valley, San Bernardino County, October 3 and 10, 1931. During spring migration occurs irregularly over lower country, some years being plentiful and other years scarce. Unusually abundant in spring of 1912; at this time seen daily, by Antonin Jay, at Los Angeles, from early April to May 17, and single male noted May 21; pair seen by G. C. Rich in Hollywood as late as May 19 (Willett, Condor, 14, 1912: 195). Also occurs occasionally in lower country in fall, as at Buena Park, Orange County, August 26 and September 2 and 9, 1928 (Robertson, Condor, 35, 1933: 134). Twice reported by Mrs. T. F. Johnson as occurring in winter at National City, near San Diego. Single bird seen daily from February 12 to April 10, 1922 (Condor, 24, 1922: 135); the same, or a similar bird, appeared February 1, 1927, and remained until February 3, on which date it was collected by L. M. Huey and is now in the San Diego Society of Natural History collection (Condor, 30, 1928: 326). Small flock (three or more birds) appeared at Santa Barbara early in November, 1930, and remained at least until February 10, following. Specimen taken February 3, now in Santa Barbara Museum (Spaulding, Condor, 33, 1931: 129).

Breeds mostly in June. Extreme nesting records for hills north of Pasadena are: Three fresh eggs taken by R. Arnold May 5, 1895 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 41), and three eggs, incubation advanced, taken by Antonin Jay July 3, 1904 (Willett, Pac. Coast Avif., No. 7, 1912: 89). Fresh eggs collected by W. C. Hanna (MS) from May 30 (1919, San Bernardino Mountains) to June 28 (1931, eastern San Gabriels), and by J. B. Dixon (MS) on Palomar Mountain, San Diego County, June 21, 1925.

Piranga erythromelas Vieillot Scarlet Tanager

Immature male (Mus. Vert. Zool., no. 54485) found dead by L. H. Miller on San Nicolas Island October 30, 1929 (Condor, **32**, 1930: 217).

Piranga rubra rubra (Linnaeus) Summer Tanager

Two males secured by L. H. Miller in Arroyo Seco, near Los Angeles; one March 10, 1919 (Condor, **21**, 1919: 129), and the other August 29, same year (Condor, **22**, 1920: 78); another bird reported by Dr. Miller (Condor, **34**, 1932: 48) as seen at Westwood, Los Angeles County, November 8, 1931. Female collected by J. W. Sefton, Jr., at San Diego September 19, 1932 (Huey, Condor, **35**, 1933: 125).

It is obviously impossible to ascertain how many of the records of this and other similar species are the result of birds having escaped from captivity.

Piranga rubra cooperi Ridgway Cooper Tanager

Specimen secured by Mr. Dodge at Santa Barbara in spring of 1885 (Streator, Orn. and Ool., 11, 1886: 52). Adult male (L. A. Mus.) captured by Miss F. Bolton at Hueneme, Ventura County, February 23, 1918. Female

1933

(J. E. Thayer coll.) taken by H. Linton on San Clemente Island October 11, 1907 (Condor, 10, 1908: 85). Also records of birds believed to be *cooperi*, from Pasadena, July 5, 1926, and Sierra Madre, August 29, same year (Michener, Condor, 29, 1927: 88).

FAMILY FRINGILLIDAE Finches

Richmondena cardinalis cardinalis (Linnaeus) Eastern Cardinal

Synonym—Cardinalis cardinalis cardinalis.

Cardinals of some form occasionally reported from various sections of California since about 1880. Earliest known record for southern California, of birds seen near Riverside in 1883 (Miller, A. H., Condor, **30**, 1928: 243). Two males observed by L. H. Miller in Los Angeles in 1905 (loc. cit.). Male seen in Balboa Park, San Diego, May 10 to 14, 1927 (Gander, Condor, **29**, 1927: 245). As specimens not secured in any of above instances, subspecific identity of birds seen is unknown.

Cardinals appeared in vicinity of El Monte and Whittier, Los Angeles County, some time previous to 1923. Several birds seen by A. H. Miller in former locality from March 17, 1923, to April 17, 1926; male collected April 28, 1923 (Miller, loc. cit.) proved referable to R. c. cardinalis, of eastern states (Michener, Condor, 29, 1927: 210; Miller, op. cit.: 244). Presence of cardinals near Whittier first reported by H. N. Henderson (Condor, 27, 1925: 211), single bird being seen October 9, 1924, and on several occasions thereafter; additional birds noted in March, 1925, and nest containing three eggs found April 20, following. Cardinals seen later by Mr. Henderson in several additional localities in same region (Condor, 28, 1926: 243). Nest containing two eggs of Cardinal and one of Dwarf Cowbird found by J. S. Rowley (MS) near Whittier July 5, 1932. That the Whittier birds are referable to the eastern race seems probable, as it is but a short distance to the locality of capture of A. H. Miller's bird. That this introduction is the result of liberation or escape of cage birds appears likely. At any rate, this beautiful species should prove a welcome addition to our avifauna, and it is to be hoped that it will continue to thrive.

Richmondena cardinalis superba (Ridgway) Arizona Cardinal

Synonym-Cardinalis cardinalis superba.

Male found dead at Redlands, San Bernardino County, April 9, 1926, and reported by C. H. Abbott (Condor, **30**, 1928: 353), pronounced by A. H. Miller to be referable to this form. Whether this bird was a straggler from Arizona, or an escape from captivity, remains a question.

Hedymeles melanocephalus (Swainson) Black-headed Grosbeak

Synonyms—Zamelodia melanocephala: Zamelodia melanocephala capitalis: Hedymeles melanocephalus papago: Hedymeles melanocephalus maculatus.

Common summer resident of lowlands and, locally, up to over 6000 feet in mountains. Twice recorded from Santa Cruz Island (Mailliard, Bull. Cooper Orn. Club, **1**, 1899: 45; Howell, Pac. Coast Avif., No. **12**, 1917: 86); female (D. R. Dickey coll.) taken by H. H. Sheldon on San Nicolas Island April 26, 1929. Record of immature male seen by W. L. Dawson at Santa Barbara December 27, 1915 (Bird-Lore, **18**, 1916: 42) may require confirmation. Arrives mostly in late March and early April and departs in September. Exceptional dates are: Los Angeles, February 15, 1913 (Myers, Condor, **15**, 1913: 94), and February 20, 1920 (Wyman, Bird-Lore, **22**, 1920: 92), and Riverside, November 23, 1912 (Miller, Condor, **15**, 1913: 92). Extreme nesting records near Los Angeles are: Three eggs taken by H. Robertson April 28, 1897, and three eggs taken by Antonin Jay July 8, 1906 (Willett, Pac. Coast Avif., No. **7**, 1912: 88). Eggs found by W. C. Hanna (MS) near Colton, San Bernardino County, from April 24 (1928) to July 7 (1922).

A. J. van Rossem (Auk, 49, 1932: 489) considers that the name H. m. melanocephalus properly applies to the Black-headed Grosbeak of the Rocky Mountains, and that the Pacific coast bird should take the name H. m. maculatus (Audubon). While it is true that Rocky Mountain specimens average slightly larger than birds from the Pacific coast, there is so much individual variation that the writer sees no advantage in recognition of two races by name.

Guiraca caerulea salicarius Grinnell California Blue Grosbeak

Synonym-Guiraca caerulea lazula, of many authors; not of Lesson, 1842.

Fairly common summer resident of mesas and willow-bordered streams and ponds of lower country. Two males taken by Jos. Mailliard on Santa Cruz Island April 30, 1898 (Bull. Cooper Orn. Club, 1, 1899: 44). Arrives in April and leaves mostly in September. Breeds most commonly in latter part of May. Four slightly incubated eggs taken by J. E. Law in San Fernando Valley, Los Angeles County, May 11, 1907, and two eggs, incubation commenced, taken by Antonin Jay near Los Angeles, July 4, 1897 (Willett, Pac. Coast Avif., No. 7, 1912: 88). Eggs collected by W. C. Hanna (MS) near Colton, San Bernardino County, from April 18 (1917) to July 2 (1922).

Passerina amoena (Say) Lazuli Bunting

Common summer resident from brush-covered mesas and foothills up to 7000 feet in mountain canyons. Breeds mostly in May and early June. Noted by J. Grinnell in vicinity of Pasadena from April 4 (1896) to September 17 (1897) (Pub. 2, Pasadena Acad. Sci., 1898: 41). Immature male taken by

PACIFIC COAST AVIFAUNA

H. S. Swarth near Los Angeles September 18, 1899 (Willett, Pac. Coast Avif., No. 7, 1912: 88). Eggs collected by E. D. Parker near Pasadena as early as April 30 (1895) (Grinnell, loc. cit.), and by W. C. Hanna (MS) near Colton, San Bernardino County, as late as July 4 (1918). Mr. Hanna states that this species is one of the greatest sufferers from the depredations of the Dwarf Cowbird.

Hesperiphona vespertina brooksi Grinnell Western Evening Grosbeak

Synonyms-Hesperiphona vespertina montana, of many authors; not of Ridgway, 1874: Hesperiphona vespertina californica: Hesperiphona vespertina warreni.

Winter visitant to mountains, south at least to San Gabriel Range; occasionally straggles to foothill region. Earliest fall record, bird seen by H. S. Swarth in Arroyo Seco, above Pasadena, October 21, 1900 (Condor, 3, 1901: 17), and latest in spring, in lower country, bird seen by H. Robertson in Cahuenga Pass, Los Angeles County, May 8, 1902 (Willett, Pac. Coast Avif., No. 7, 1912: 72). Two females taken by H. S. Swarth on Mount Wilson October 30, 1898 (Bull. Cooper Orn. Club, 1, 1899: 95). At least a dozen birds seen by Lilian Zech on Smiley Heights, Redlands, San Bernardino County, November 2 to 4, 1919 (Condor, 22, 1920: 111). Female taken by H. S. Swarth in Arroyo Seco December 13, 1900 (Condor, 3, 1901: 17), and one seen on Mount Wilson December 7, same year (Willett, loc. cit.). Adult male secured by E. B. Towne near Pasadena December 28, 1894 (Nidologist, 3, 1896: 106); another adult male taken by L. H. Miller in Los Angeles December 22, 1919 (Condor, 22, 1920: 111). Large flock seen by W. C. Hanna (MS) in Yucaipe Valley, San Bernardino County, in late March, 1920. Small flock seen by G. Willett (MS) at 6000 feet on Mount Pinos April 26, 1930. About twenty birds seen by H. N. McCoy (MS) at Bear Valley, San Bernardino Mountains, May 16, 1932. Two non-breeding females taken by L. H. Miller (MS) on Mount Pinos May 31, 1930.

Carpodacus purpureus californicus Baird California Purple Finch

Fairly common summer visitant to lower Transition zone on Pacific side of mountains, principally between 4000 and 6000 feet altitude, but occasionally to foothills; south to northern Lower California. Ascends to higher elevations after nesting season. Rather common in winter in lowlands, frequenting thickets and bushy places in small companies. One record for Santa Cruz Island, female taken by H. Linton December 16, 1907 (Condor, 10, 1908: 128). Recorded by J. Grinnell (Pub. 2, Pasadena Acad. Sci., 1898: 34) at Pasadena from October 27 to April 29 (1896). That migration of this species is not confined to movements up and down the mountains is indicated by the fact that a bird banded by H. Michener in Pasadena March 7, 1925, was killed in Porter, Washington, June 20, following (Condor, 27, 1925: 223).

According to L. Stevens (MS), this finch nests in hills above Santa Barbara, as low as 500 feet altitude; four eggs taken by him in Mission Canyon May 15, 1927. Another lowland record is of nest containing three eggs found by J. S. Rowley at Alhambra, Los Angeles County, May 26, 1928 (Condor, **31**, 1929: 77). Three nests found by L. and S. B. Peyton (MS) in Pine Creek, above Sespe, Ventura County, May 31, 1925; one of these nests contained four young birds, another three fresh eggs, and the third held four eggs, advanced in incubation. Found breeding in small numbers by F. Stephens on Cuyamaca and Smith (Palomar) mountains, San Diego County. Mr. Stephens believes that it probably breeds on all mountains in that county that carry fir timber (Willett, Pac. Coast Avif., No. 7, 1912: 72).

Carpodacus cassinii Baird Cassin Purple Finch

Common breeding bird in Transition and Boreal zones of mountains, from 5000 to 10,000 feet altitude, south to Lower California. In winter occurs occasionally in foothill country and sometimes straggles down into valleys. Has been recorded by H. Michener (Condor, 27, 1925: 222) at Pasadena from February 9 to April 7 (1925); by H. S. Swarth (Condor, 3, 1901: 66) at Los Angeles from February 25 to April 26 (1901), and by F. F. Gander (Condor, 31, 1929: 131) at San Diego March 23, 1927, and February 25, 1929. Immature male (D. R. Dickey coll.) taken by H. H. Sheldon on San Nicolas Island May 1, 1929. Three nests, each containing four eggs, found by J. Grinnell at 9000 feet altitude in San Bernardino Mountains, June 23 to 26, 1906. One set was fresh and the others advanced in incubation. As full-grown young were seen in the same locality June 18, 1907, the breeding season must cover at least two months and a half (Univ. Calif. Publ. Zool., 5, 1908: 89). Four slightly incubated eggs collected by W. M. Pierce (MS) at Bear Valley, San Bernardino Mountains, July 10, 1920. Found by Grinnell and Swarth to be rather common from 8000 to 9000 feet altitude in San Jacinto Mountains during summer of 1908 (Univ. Calif. Publ. Zool., 10, 1913: 267).

Carpodacus mexicanus frontalis (Say) House Finch

Synonyms—Carpodacus mexicanus clementis: Carpodacus mexicanus sayi: Linnet.

Abundant resident from coast to mountains, and up mountain canyons to more than 5000 feet altitude; after breeding season occurs up to at least 7500 feet. In winter gathers in large flocks in stubble-fields and sunflower patches, but by early spring is paired off and nesting everywhere, being particularly abundant around gardens and parks. Breeds plentifully through April, May and June, at least two broods being raised in a season. Fresh eggs found by W. M. Pierce near Claremont, Los Angeles County, as early as March 22 (1901) (Willett, Pac. Coast Avif., No. 7, 1912: 73), and by F. B. Jewett near Pasadena as late as August 1 (1896) (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 35). Eggs taken by J. Grinnell on San Clemente Island from March 30 to June 5, 1897, and nearly fledged young noted as early as March 28, same year (Pub. 1, Pasadena Acad. Sci., 1897: 16). Several sets of eggs found by G. F. Breninger on same island in February, 1903 (Auk, 21, 1904: 221).

E. A. Mearns (Auk, 15, 1898: 258) gave the name Carpodacus mexicanus clementis to the House Finch of San Clemente Island. The 1910 A.O.U. Checklist used this name for the birds of all the Santa Barbara Islands. J. Grinnell (Pac. Coast Avif., No. 11, 1915: 108) restricted it to the birds of San Clemente, San Nicolas, Santa Barbara and Santa Catalina islands. A. J. van Rossem states (Condor, 27, 1925: 177) that the characters ascribed to clementis are best developed in birds from San Clemente and Santa Barbara islands, that the bird from Catalina and Los Coronados is clementis, intermediate toward *frontalis*, and that those from the more northern islands of Santa Cruz, Anacapa and San Miguel are frontalis, "occasionally intermediate toward clementis." A. B. Howell (Pac. Coast Avif., No. 12, 1917: 74) has expressed doubt as to the validity of the race *clementis*, as has W. L. Dawson (Birds Calif., 1923: 213). The Los Angeles Museum has a goodly series of birds from all of the islands except Santa Rosa, and the writer has carefully compared them with each other and with birds from the mainland. While birds from San Clemente and Santa Barbara islands appear to show very slight average differences from mainland specimens, these differences are so minute, and there are so many specimens that are identifiable only by the locality of their capture, that the value to ornithology of continuing the use of the name *clementis* seems doubtful.

According to J. S. Garth (MS), on September 11, 1933, a House Finch appeared on the yacht Velero III at San Clemente Island and accompanied it to San Nicolas Island, where it disappeared.

H. C. Oberholser states (Auk, 16, 1899: 186) that the name *frontalis* is preoccupied and that the next available name is *obscurus*, of McCall, 1851. J. D. Figgins maintains (Proc. Colo. Mus. Nat. Hist., 9, 1930: 3) that the name *obscurus* should be used for the bird of the Rocky Mountain region, and proposes the name *sayi* for the bird of the Pacific coast. The retention of the old, familiar name *frontalis* in the 1931 A.O.U. Check-list will meet with the approval of the great number of ornithologists who believe that stability of nomenclature is more important than strict adherence to all technical rules.

Spinus pinus pinus (Wilson) Pine Siskin

Common summer resident of mountains above 5000 feet; irregular visitant to lower country in migrations and in winter. Recorded by J. Grinnell (Pub. 2, Pasadena Acad. Sci., 1898: 35) as abundant near Pasadena during February and March, 1892, and in vicinity of El Monte as late as March 20 (1897). According to H. S. Swarth (Condor, 2, 1900: 38), appeared irregularly in small flocks near Los Angeles during winter of 1898-99, one being seen as late as March 23; further reported by Swarth (Condor, 3, 1901: 66) in same locality April 15, 1901, and November 4, same year (Willett, Pac. Coast Avif., No. 7, 1912: 76). Bird seen by L. H. Miller in Arroyo Seco, Los Angeles, October 29, 1908 (Willett, loc. cit.), and large flock reported by L. E. Wyman (Bird-Lore, 22, 1920: 173) in Elysian Park, Los Angeles, March 3, 1920. Noted in small numbers by J. McB. Robertson (MS) at Buena Park, Orange County, from March 16 to April 10, 1925. According to F. Stephens, a regular migrant through San Diego County, principally along mountains and foothills. He collected a pair at Santa Ysabel April 11, 1890 (Willett, loc. cit.). Several times encountered by W. L. Dawson on Santa Cruz Island between April 3 and 22, 1915 (Condor, 17, 1915: 204). Three partially incubated eggs taken by W. M. Pierce (MS) at Bear Valley, San Bernardino Mountains, July 12, 1920, and three fresh eggs taken by W. C. Hanna (MS) at about 6000 feet altitude in San Gabriel Range June 5, 1932.

Spinus tristis salicamans Grinnell Willow Goldfinch

Synonym—Astragalinus tristis salicamans.

Abundant resident of lowlands, south to northern Lower California. In summer almost wholly confined to willow regions, but in winter congregates in flocks and wanders everywhere, even into canyons of mountains, where it feeds on buds and seeds of sycamores and alders. Breeds most plentifully in May and June, though fresh eggs may be found from early April to late July. Originally described from Pasadena (Auk, **14**, 1897: 397). Fresh eggs noted by G. Willett at Bixby, Los Angeles County, April 6, 1904, and near Compton, same county, July 24, 1910 (Pac. Coast Avif., No. **7**, 1912: 75). According to W. C. Hanna (MS), at the present time, most sets of eggs of this species in the vicinity of Colton, San Bernardino County, are destroyed by the Dwarf Cowbird.

Spinus psaltria hesperophilus (Oberholser) Green-backed Goldfinch

Synonym-Astragalinus psaltria hesperophilus.

Abundant summer resident from mesa and foothill regions to about 3000 feet in mountain canyons, south to Lower California; less common in lower country and in higher mountains. Noted by J. Grinnell as high as 6500 feet (nesting at 6400) in San Bernardino Range (Univ. Calif. Publ. Zool., **5**, 1908: 92), and by Grinnell and Swarth at 6800 feet in San Jacintos (Univ. Calif. Publ. Zool., **10**, 1913: 269). In winter distributed in flocks over whole lower country. Breeds most commonly from April to July, but sometimes considerably later. Eggs noted by J. Grinnell near Pasadena as early as March 22 and as late as October 21 (Pub. **2**, Pasadena Acad. Sci., 1898: 35). Young in nest reported by W. L. Chambers (Condor, **23**, 1921: 33) at Eagle Rock, Los Angeles County, November 1, 1920, and by N. K. Carpenter (Condor, **21**, 1919: 86) at Escondido, San Diego County, November 4, 1918.

Spinus lawrencei (Cassin) Lawrence Goldfinch

Synonym—Astragalinus lawrencei.

Fairly common summer resident of mesas and foothills, though much less plentiful than last two species. Found common by J. Grinnell in San Bernardino Mountains up to 6500 feet, one individual being noted as high as 8500 feet (Univ. Calif. Publ. Zool., **5**, 1908: 92). Rare in winter, majority of species migrating southward. Noted by H. S. Swarth as quite abundant at head of Arroyo Seco, above Pasadena, October 19 to 26, 1900; pair seen by Swarth near Los Angeles February 12, 1900, and another pair February 23, following (Willett, Pac. Coast Avif., No. **7**, 1912: 75). Adult male collected by L. B. Bishop (MS) near La Patera, Santa Barbara County, November 21, 1918. Small flock noted by W. O. Emerson in Volcan Mountains, San Diego County, in late January (Bull. Calif. Acad. Sci., **2**, 1887: 422). Breeds mostly in May, often nesting in cypress or other evergreen trees, in small colonies. Extreme nesting records are: Three nests containing fresh eggs found by D. I. Shepardson in foothills of Los Angeles County April 3, 1908 (Oologist, **32**, 1915: 60), and four slightly incubated eggs found by W. M. Pierce near Claremont, Los Angeles County, July 5, 1903 (Willett, loc. cit.).

Loxia curvirostra bendirei Ridgway Bendire Crossbill

Synonyms-Loxia curvirostra minor, part: Loxia curvirostra pusilla, part: Loxia curvirostra stricklandi, of some authors; not of Ridgway, 1885.

Occurs in small numbers in summer on higher mountains, south to San Jacinto Range and mountains of northern Lower California; straggles occasionally to lower country in fall and winter; has been taken on Santa Cruz Island in early spring. Pair of adult birds secured by J. Grinnell near summit of Mount Pinos, Ventura County, July 6, 1904 (Auk, 22, 1905: 385). Two males and female taken and several more seen by Grinnell at elevation of over 9100 feet in San Bernardino Mountains, July 15, 1906 (Univ. Calif. Publ. Zool., 5, 1908: 91); several specimens taken by A. J. van Rossem in same locality September 3, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 74). Adult male secured by W. M. Pierce at Bear Valley, San Bernardino Mountains, August 30, 1926 (Condor, 29, 1927: 82). Several seen (one collected) by Grinnell and Swarth at Round Valley, 9000 feet altitude on San Jacinto Mountain, August 1 and 2, 1908. Two seen August 31 and another September 3, 1908, at Vallevista, in Lower Sonoran zone on Pacific side of San Jacintos (Univ. Calif. Publ. Zool., 10, 1913: 268). Four males and two females taken by F. S. Daggett at Pasadena December 26, 1898 (Bull. Cooper Orn. Club, 1, 1899: 51); male taken by A. J. van Rossem in same locality November 1, 1908 (Willett, loc. cit.). Adult male (L. A. Mus.) collected by L. E. Wyman at Santa Monica, Los Angeles County, January 1, 1920. Adult male secured by H. E. Wilder at Riverside January 17, 1909 (Willett, loc. cit.). Two birds taken from flock of six at Escondido, San Diego County, March 1, 1920 (Sharp, Condor, 22, 1920: 159). Male (S.D.S.N.H.) collected by F. Stephens at Campo, San Diego County, March 6, 1877. Five males and three females (D. R. Dickey coll.) taken by A. J. van Rossem on Santa Cruz Island March 27 to April 3, 1920.

The above-mentioned Pasadena birds and the one from Riverside were recorded under the name L. c. minor (*pusilla*, of the 1931 A.O.U. Check-list) and have been thus referred to a number of times since. Mr. Daggett's birds are now numbers 8239-8244 collection of the Los Angeles Museum; Mr.

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Wilder's Riverside bird is also at present in the same institution, number 43735 collection of L. B. Bishop. The writer has examined these specimens very carefully and doubts whether any of them are really referable to the eastern race, *pusilla*. All of the Pasadena birds lack the dark red color, typical of *pusilla*, being identical with *bendirei* in color. Furthermore, three of the males and one female are easily assignable to *bendirei* on the grounds of size. The remaining male and female, as well as the male from Riverside, are truly the size of *pusilla*. However, they are also the size of *sitkensis*, of the northwest coast region, and the writer believes that here is where their affinities lie. Specimens at hand show that the bird of Vancouver Island and the Puget Sound region, while small like *sitkensis*, begins to show the coloration of *bendirei* and is probably an integrade between these two forms. The Riverside bird is almost typical of *sitkensis*, but probably shows a slight trace of the color of *bendirei*.

Loxia curvirostra stricklandi Ridgway Mexican Crossbill

Specimens secured by A. J. van Rossem and A. B. Howell on Santa Cruz Island in spring of 1911 and of 1920 were identified by H. C. Oberholser as *stricklandi* (Howell, Pac. Coast Avif., No. 12, 1917: 75; Dickey and van Rossem, Condor, 25, 1923: 127-128). The writer has recently examined some of these specimens, now in the D. R. Dickey collection, and finds a male and female secured May 1 and 2, 1911, and seven males and three females, taken from March 28 to April 3, 1920, that are unmistakably referable to *stricklandi*. During the latter period examples referable to *bendirei* were also collected (see remarks under that subspecies). Mr. van Rossem informs me, however, that the two races were not secured from the same flocks.

To a student unfamiliar with the erratic habits of crossbills, the occurrence of both *bendirei* and *stricklandi* on Santa Cruz Island might seem questionable. The extreme irregularity of their movements, however, might easily account for such occurrence. This same irregularity applies also to their breeding habits. Though they nest during the spring season in some years, at other times nesting does not occur until fall. Therefore, the writer does not concur with Howell's belief (op. cit.: 75) that their presence on Santa Cruz Island in spring necessarily indicates their nesting there.

Oberholseria chlorura (Audubon) Green-tailed Towhee

Synonym—Oreospiza chlorura.

Summer resident of mountains from 6000 to 9000 feet altitude; occurs occasionally in lower country during migrations. Rare in winter. Single bird seen in Griffith Park, Los Angeles, October 10, 1923 (Schneider, Bird-Lore, **25**, 1923: 409). Specimens taken by H. A. Gaylord near Pasadena April 4, 1896, and April 29, 1897 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 40). Bird seen by J. McB. Robertson (MS) at Buena Park, Orange County, April

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20, 1911, and two captured and banded, in same locality, April 19 and 24, 1927. Male collected by H. W. Marsden at Witch Creek, San Diego County, September 25, 1909 (Willett, Pac. Coast Avif., No. 7, 1912: 88). Reported in winter at San Diego by J. G. Cooper (Land Birds Calif., 1870: 249) and Mrs. T. F. Johnson (Condor, 24, 1922: 135). Female (L. M. Huey coll.) taken at El Cajon, San Diego County, January 31, 1918. Specimens collected by H. E. Wilder near San Bernardino in January and February, 1896 (Thurber, Auk, 13, 1896: 265). Bird seen by Mrs. Weedmark at Verdugo, near Los Angeles, December 8, 1927 (Schneider, Bird-Lore, 30, 1928: 137).

Breeds mostly in late May and early June. Eggs taken on Mount Pinos, by M. C. Badger (MS), as early as May 28 (1926), and by G. Willett (MS) as late as June 18 (1933). Heavily incubated eggs collected by W. M. Pierce (MS) at Bear Valley, San Bernardino Mountains, May 30, 1927, and June 25, 1916.

Pipilo maculatus oregonus Bell Oregon Towhee

One record. Female (Mus. Vert. Zool., no. 21273) taken by C. B. Linton on San Clemente Island December 4, 1908 (Condor, **11**, 1909: 194).

Pipilo maculatus megalonyx Baird San Diego Towhee

Synonym—Pipilo maculatus atratus.

Abundant resident of brushy regions, occurring in summer up to 7000 feet in mountains; after breeding season, may be found at even higher altitudes. Also resident on Santa Cruz and Santa Rosa islands. Nests mostly in May and early June. Extreme nesting records are: Two fresh eggs found by Antonin Jay near El Monte, Los Angeles County, April 11, 1897, and two fresh eggs found by W. M. Pierce near Claremont, same county, July 22, 1906 (Willett, Pac. Coast Avif., No. 7, 1912: 87).

Pipilo maculatus clementae Grinnell San Clemente Towhee

This slightly differentiated race, originally described from San Clemente Island (Auk, 14, 1897: 294), is now supposed to be confined to that island and Santa Catalina, where it is a common resident, the towhee of Santa Cruz and Santa Rosa islands being referable to *megalonyx*. Three sets of eggs, advanced in incubation, collected by R. M. Perez on Catalina Island April 13-16, 1911 (Willett, Pac. Coast Avif., No. 7, 1912: 87). The writer has seen no nesting records from San Clemente.

Pipilo fuscus crissalis (Vigors) California Towhee

Synonym-Pipilo crissalis senicula, of many authors; not of Anthony, 1895.

Abundant resident of mesa and foothill regions, less common on lowlands near coast; in summer may be found up to about 5000 feet in moun-

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tains. Breeds mostly in April and May. Nearly fledged young found by J. Grinnell in Pasadena March 20, 1896 (Pub. 2, Pasadena Acad. Sci., 1898: 40); eggs found by W. C. Hanna (MS) at Colton, San Bernardino County, from March 24 (1917) to July 20 (1926).

Calamospiza melanocorys Stejneger Lark Bunting

Irregular visitant, mostly in winter and spring. Three birds seen by Jos. Mailliard at Santa Barbara July 20, 1905 (Condor, 7, 1905: 143). Adult male taken by E. Simmons at Newhall, Los Angeles County, May 3, 1897; three others seen at same time (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 41). Specimens taken by H. S. Swarth in San Fernando Valley, Los Angeles County, December 13, 1901, and January 16, 1902; between latter date and February 11, following, several more seen (Condor, 4, 1902: 95). Bird collected by L. E. Wyman at Los Angeles October 29, 1914 (Condor, 18, 1916: 203). Male seen by J. McB. Robertson at Buena Park, Orange County, April 10, 1927 (Condor, 29, 1927: 203). Adult male secured by F. O. Johnson near Riverside February 23, 1888, and three more adult males taken in same locality April 21, following (Swarth, Condor, 12, 1910: 108). Noted at Poway, San Diego County, by F. E. Blaisdell, May 25, 1886, and at El Cajon, by N. S. Goss, May 16, 1884 (Belding, Land Birds Pac. Dist., 1890: 180). Recorded by L. Belding (loc. cit.) near San Diego May 6, 1884, and April 1, 16 and 30, 1885. Found common by G. Holterhoff near National City, San Diego County, from middle of April through May, 1884 (Auk, 1, 1884: 293).

Passerculus sandwichensis alaudinus Bonaparte Western Savannah Sparrow

Abundant winter visitant to fields and meadows, from coast to foothills; occurring also on Santa Barbara Islands. Noted by J. Grinnell in vicinity of Pasadena from September 18 (1897) to May 3 (1895) (Pub. 2, Pasadena Acad. Sci., 1898: 36). Specimen taken at Cushenberry Springs, San Bernardino Mountains, August 12, 1905 (Grinnell, Univ. Calif. Publ. Zool, 5, 1908: 93). Savannah sparrows, supposed to be of this form, seen by Grinnell and Swarth at Cabezon, Riverside County, May 4, 1908, and at Hemet Lake, San Jacinto Mountains, August 11 to 15, same year (Univ. Calif. Publ. Zool., 10, 1913: 271).

The Savannah sparrows form one of the most difficult groups to the systematic student. To identify the different forms in the field, as has been attempted by some, is impossible. In fact, there are frequent specimens that confuse the most eminent authorities, even in the hand. H. C. Oberholser (Publ. Cleveland Mus. Nat. Hist., 1, 1930: 109-111) believes that the name *alaudinus* is properly referable to the bird of the arid interior regions (now known as *nevadensis*), and that the bird we have been calling *alaudinus* should take the name *anthinus*. After studying the evidence produced, it seems to the writer that Bonaparte's descriptions of *alaudinus* and *anthinus* (Comptes Rendus, **37**, Dec. 19, 1853: 919-920) are subject to different interpretations, if

both size and color are considered. Dr. Oberholser has apparently classified the birds on color characters alone, and has ignored the size differences cited by Bonaparte. In the absence of the types, it would appear that the determination of these forms is largely a matter of opinion and that no advantage is to be gained by changing a long-established classification.

The Los Angeles Museum and L. B. Bishop collections appear to contain examples of four forms of Savannah sparrows (exclusive of *beldingi* and *rostratus*) that winter in southern California, a rather large, brownish bird, *alaudinus;* a slightly smaller, black and grayish bird, *nevadensis;* a large, darkcolored bird, here referred to *anthinus*, and a smaller, dark-colored bird, *brooksi*.

Passerculus sandwichensis nevadensis Grinnell Nevada Savannah Sparrow

Although more plentiful east of mountains, occurrence of this form on Pacific slope is evidenced by a number of specimens from Los Angeles and Orange counties in the Los Angeles Museum; also one (no. 3963) taken by H. J. Lelande on Santa Cruz Island April 5, 1906. Extreme dates for vicinity of Los Angeles are October 11 and March 2 (1918).

Passerculus sandwichensis anthinus Bonaparte Kodiak Savannah Sparrow

Apparently rather uncommon winter visitant. Two specimens in Los Angeles Museum (nos. 2616 and 2750) taken by J. Hornung in Los Angeles County; one at Greening, September 28, 1918, and the other at Baker, October 23, same year. Male (D. R. Dickey coll., no. 27129) secured by W. M. Pierce near Corona, Riverside County, March 14, 1915. According to J. Grinnell (Univ. Calif. Publ. Zool., **32**, 1928: 161), *anthinus* occurs rarely south to the sea-coast of northern Lower California.

Owing to lack of specimens from Kodiak Island, the supposed type locality of *anthinus*, the writer is not certain that the bird here referred to that form is really the same as the Kodiak bird. It appears, however, that the Savannah sparrows of the northwest coast region, from northern Oregon to some point in southern Alaska, are darker than birds from northern Alaska and interior localities. These dark birds are apparently divisible into two forms, a small one from the south, *brooksi*, and a larger, more northern one, which is here called *anthinus*.

Passerculus sandwichensis brooksi Bishop Dwarf Savannah Sparrow

Following birds in Los Angeles Museum collection seem to be examples of this race: Female (no. 1658) taken by L. E. Wyman at Sunset Beach, Orange County, December 20, 1916; female (no. 17635) by G. G. Cantwell at Del Rey, Los Angeles County, February 27, 1932; male and female (nos. 13467-8) by C. H. Richardson, Jr., at Redondo, Los Angeles County, March 1, 1908, and female (no. 628) by J. Hornung at Los Angeles March 25, 1915. Female (L. B. Bishop coll., no. 37866) taken near Corona, Riverside County, March 18, 1925. Female (S.D.S.N.H., no. 14978) collected by L. M. Huey in Tia Juana Valley, San Diego County, October 10, 1931.

Passerculus sandwichensis beldingi Ridgway Belding Sparrow

Abundant resident of salt marshes along coast, and on some alkaline marshes a little distance from ocean. Breeds mostly in May, but the writer has seen nearly grown young as early as April 15 (Pac. Coast Avif., No. 7, 1912: 77). Formerly bred commonly at Nigger Slough, Los Angeles County, several miles from coast. Four slightly incubated eggs collected by G. Willett in that locality May 15, 1906 (loc. cit.). Two partially incubated eggs taken by L. Belding near San Diego April 4, 1885 (Land Birds Pac. Dist., 1890: 144), and three eggs, advanced in incubation, taken by H. A. Gaylord near Long Beach, Los Angeles County, July 5, 1895 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 36).

After studying a large series of specimens, the writer agrees with A. J. van Rossem (Trans. S. Diego Soc. Nat. Hist., **6**, 1930: 218) that *beldingi* and *bryanti* intergrade by overlap of characters; consequently *beldingi* is here treated as a subspecies of *sandwichensis*.

Passerculus sandwichensis rostratus (Cassin) Large-billed Sparrow

Synonym—Passerculus rostratus guttatus.

Common in winter in salt marshes and along beaches of Southern California, north regularly to Santa Barbara (Bowles, Auk, 28, 1911: 174), and occasionally as far north as Santa Cruz (Mailliard, Condor, 6, 1904: 16); also occuring on some of Santa Barbara Islands. Frequently seen on wharves and on streets of beach towns. Has been repeatedly recorded as breeding along our coast, but such records probably all referable to beldingi. Of specimens in the Los Angeles Museum, earliest in fall is female taken by F. S. Daggett at Long Beach, Los Angeles County, August 17, 1900, and latest in spring, female taken by G. Willett at Sunset Beach, Orange County, March 8, 1919. Reported from San Clemente Island by G. F. Breninger (Auk, 21, 1904: 22:3) and A. W. Anthony (Auk, 23, 1906: 149), and from San Miguel Island by J. R. Pemberton (Condor, 33, 1931: 219). Nineteen specimens collected by E. J. Brown on beaches of Orange County, between October 5, 1916, and January 31, 1917, recorded as P. r. guttatus (Auk, 34, 1917: 340). The writer agrees with A. J. van Rossem (Trans. S. Diego Soc. Nat. Hist., 6, 1930: 216) that guttatus is a synonym of rostratus.

According to L. M. Huey (Trans. S. Diego Soc. Nat. Hist., **6**, 1930: 204), *rostratus* is connected with *beldingi* through the recently described race *anulus*, of west-central Lower California. H. C. Oberholser (Publ. Cleveland Mus. Nat. Hist., **1**, 1930: 111), however, expresses a contrary belief. After an examination of the splendid series of birds from Lower California, in the collection of the San Diego Society of Natural History, it seems to the writer that Huey's view is the correct one.

Ammodramus savannarum bimaculatus Swainson Western Grasshopper Sparrow

Fairly common resident, locally, in various parts of southern California, having been recorded from near sea-level to almost 5000 feet in mountains. Irregular in its breeding habits; may nest commonly in a locality one year and be entirely absent the next. Set of five eggs taken and several nests containing young noted by J. H. Bowles near Santa Barbara in summer of 1910 (Condor, 13, 1911: 85). Three slightly incubated eggs secured by J. R. Pemberton at western end of Santa Monica Mountains, in Ventura County, June 12, 1915 (Condor, 19, 1917: 24). Incubated eggs collected by J. S. Appleton in Simi Valley, Ventura County, May 11 and 15, 1896 (Willett, Pac. Coast Avif., No. 7, 1912: 78). Found by J. E. Law to be common in summer in section of San Fernando Valley, Los Angeles County; female whose oviducts contained fully formed egg taken April 5, 1908 (Willett, loc. cit.). Several pairs of birds noted by G. Willett near Gardena, Los Angeles County, in May and June, 1910; nest containing nearly full-grown young found June 2 (Condor, **12**, 1910: 204); no birds seen in this locality the summer following. Discovered by L. L. Gardner, under conditions that indicated breeding, at Laguna Beach, Orange County, in summer of 1914 (Condor, 17, 1915: 99). Young just able to fly found by L. H. Miller at Riverside (Willett, Pac. Coast Avif., No. 7, 1912: 78). Adult female collected by F. O. Johnson at Beaumont, Riverside County, April 23, 1889 (Swarth, Condor, 12, 1910: 108). Adults and young birds taken by Grinnell and Swarth at Schain's Ranch, 4900 feet altitude in San Jacinto Mountains, in late June, 1908 (Univ. Calif. Publ. Zool., 10, 1913: 271). Four partially incubated eggs collected by C. Schnack and Jos. Dixon near Escondido, San Diego County, April 14, 1915 (Condor, 18, 1916: 84). Reported by L. M. Huey (Condor, 17, 1915: 60) as nesting near San Diego in May, 1907, and again in May, 1912.

Pooecetes gramineus affinis (Miller) Oregon Vesper Sparrow

Common winter visitant, occurring in company with next race, but more numerous on damp meadows of lowlands; south rarely to Lower California (Grinnell, Univ. Calif. Publ. Zool., **32**, 1928: 160). Noted by J. Grinnell at Pasadena in fall as early as September 16 (1895), and by H. A. Gaylord in spring as late as April 25 (1896) (Pub. **2**, Pasadena Acad. Sci., 1898: 36).

Pooecetes gramineus confinis Baird Western Vesper Sparrow

Synonym-Pooecetes gramineus definitus.

Common winter visitant to stubble-fields and washes, and dry mesa lands at foot of mountains; northwest to Santa Barbara and south to Lower California. Noted by J. Grinnell in vicinity of Pasadena from September 14 (1897) to March 19 (1895) (Pub. 2, Pasadena Acad. Sci., 1898: 36). Unsexed specimen (L. A. Mus., no. 8594) collected by H. A. Gaylord at Pasadena April 21, 1896. This race differs so slightly from the last that it is hardly possible to distinguish it in the field. Typical *confinis* is considerably larger and grayer than *affinis*, but some of our winter birds appear to be intergrades between the two forms.

Chondestes grammacus strigatus Swainson Western Lark Sparrow

Common resident of foothill and mesa country; rare along coast. Occasional in summer up to 7000 feet in mountains. Particularly plentiful in orchards, gardens and parks, where it nests in fruit trees, hedges and shrubbery. Breeds most commonly from latter part of April through May. Partly incubated eggs taken by W. M. Pierce near Claremont, Los Angeles County, April 19, 1903 (Willett, Pac. Coast Avif., No. 7, 1912: 78), and by H. A. Gaylord near Pasadena July 12, 1894 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 37). Eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, as early as March 29 (1914), and near San Bernardino as late as June 28 (1917). Nest containing young birds found by G. Willett at Bear Valley, 6750 feet altitude in San Bernardino Mountains, June 11, 1907 (Willett, op. cit.: 79); juvenile taken by J. Grinnell at Doble, 7000 feet altitude in same mountains, August 6, 1905 (Univ. Calif. Publ. Zool., 5, 1908: 93).

Aimophila ruficeps canescens Todd Ashy Rufous-crowned Sparrow

Synonyms-Aimophila ruficeps, part: Aimophila obscura.

Fairly common resident of foothill regions, also on some of Santa Barbara Islands. Partial to grass-covered hillsides, where it breeds mostly in April and May. Nest with three young birds found by L. Stevens (MS) near Gaviota, Santa Barbara County, May 5, 1929. Four fresh eggs collected by Dorothy Peyton (MS) above Sespe, Ventura County, April 30, 1927. Nest containing three eggs found and photographed by Harriet Williams Myers near Los Angeles April 10, 1909 (Condor, 11, 1909: 131). Four slightly incubated eggs taken by W. L. Chambers near Santa Monica, Los Angeles County, May 17, 1903, and four eggs, advanced in incubation, taken by Antonin Jay near Whittier, same county, April 17, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 83). Four fresh eggs collected by L. P. Williams near Redlands, San Bernardino County, April 20, 1893 (Osprey, 2, 1897: 27). Seven sets of eggs taken by W. C. Hanna (MS) near Colton, San Bernardino County, between April 14 (1919) and May 29 (1920). Nest containing two young and two pipped eggs found by C. S. Sharp near Escondido, San Diego County, March 11, 1900 (Condor, 9, 1907: 89); N. K. Carpenter took three slightly incubated eggs in same locality June 2, 1907, and saw set of four eggs that was taken near San Diego May 13, 1906 (Condor, 9, 1907: 158).

Found fairly common on Santa Cruz Island, by C. B. Linton and the writer, in November and December, 1907 (Condor, **10**, 1908: 128); noted by J. G. Cooper on Catalina (Proc. Calif. Acad. Sci., **4**, 1869: 78), and by J. R. Pemberton on Santa Rosa (Condor, **30**, 1928: 148). Dickey and van Rossem

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(Condor, 25, 1923: 128) have given the name *Aimophila obscura* to the bird of Santa Cruz Island. Specimens from this island examined by the writer do not appear to exhibit characters worthy of recognition by name.

Amphispiza bilineata deserticola Ridgway

Desert Sparrow

Resident of desert, west to Banning, Riverside County; occasional on Pacific slope in fall, winter and spring, north and west to Los Angeles County. Male taken by H. S. Swarth in San Fernando Valley, Los Angeles County, April 23, 1898, and immature male taken by F. S. Daggett in same locality September 12, 1903 (Condor, **6**, 1904: 24); single birds also noted by Swarth, in San Fernando Valley, October 30, 1903, and in Los Angeles, January 16, same year (Willett, Pac. Coast Avif., No. **7**, 1912: 82). Adult male collected near Pasadena April 10, 1897 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 39), and bird observed in same locality August 6 and 7, 1922 (Schneider, Bird-Lore, **24**, 1922: 290). Adult male taken by W. M. Pierce near Claremont, Los Angeles County, March 14, 1914 (Condor, **16**, 1914: 144). Single bird seen at Vallevista, western slope of San Jacinto Mountains, September 4, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., **10**, 1913: 277).

Amphispiza belli belli (Cassin) Bell Sparrow

Synonym—Amphispiza belli clementae.

Fairly common resident of brush-covered washes, mesas and foothills of interior, also on several of Santa Barbara Islands; in late summer occurs at much higher altitudes. Breeds mostly from late April to early June. According to J. S. Appleton, common breeding bird in Simi Valley, Ventura County (Willett, Pac. Coast Avif., No. 7, 1912: 82). Eggs found by W. M. Pierce near Claremont, Los Angeles County, from April 6 (1905) to June 25 (1903) (Willett, loc. cit.), and by W. C. Hanna (MS) near San Bernardino from April 17 (1926) to June 18 (1927). Found by Grinnell and Swarth to be fairly common in sage-brush of Upper Sonoran zone in San Jacinto Mountains, juvenals occuring in late summer as high as Tahquitz Valley (8000 feet) and Round Valley (9000 feet) (Univ. Calif. Publ. Zool., 10, 1913: 278). Regarded by C. S. Sharp (Condor, 9, 1907: 89) as rare breeder in vicinity of Escondido, San Diego County. Recorded by L. Belding (Land Birds Pac. Dist., 1890: 161) as common resident at San Diego, and by F. E. Blaisdell at Poway. Has been reported from Santa Rosa, San Nicolas and San Clemente islands. Several sets of eggs taken by O. W. Howard on latter island during first week in March, 1903 (Willett, loc. cit.).

Amphispiza nevadensis nevadensis (Ridgway) Northern Sage Sparrow

Synonym—Amphispiza belli nevadensis.

Winter visitant to brush country of interior. H. S. Swarth says of a series of twenty-eight sage sparrows taken by F. O. Johnson near Riverside

during months of November, December and January: "The specimens in this series show every degree of variation from a few individuals typical of canescens to others indistinguishable from true nevadensis. Though the majority of the specimens are probably to be referred to nevadensis, they have mostly smaller bills than examples of that form from northern Nevada. In the matter of wing lengths there are some that might be referred with equal propriety to either race" (Condor, 12, 1910: 108). After an examination of winter specimens of sage sparrows taken on the Colorado Desert, as well as on the Pacific slope, the writer finds his conclusions to coincide with those of Swarth. Though breeding birds from the summer ranges of the two forms possess, in the main, the characters ascribed to them, winter birds are much more difficult to allocate. The two races flock together in winter and many specimens obtained at this season are not typical of either. Results of separation by size do not agree exactly with those obtained when specimens are separated by color. At any rate, it is safe to say that both races occur in our region in winter. Besides the Riverside birds mentioned by Mr. Swarth, there are in the L. B. Bishop collection two adults collected near Corona, Riverside County, December 11, 1924, that are typical of nevadensis.

Amphispiza nevadensis canescens Grinnell California Sage Sparrow

Synonym-Amphispiza belli canescens.

Summer resident of elevated Upper Sonoran and Lower Transition sage valleys of southern Sierras, south to Sierra San Gabriel, Los Angeles County. Ascends to Upper Transition after nesting season. Migratory to somewhat lower levels in winter, south at least to Riverside County. In describing this subspecies, J. Grinnell examined specimens from valleys in vicinity of Mount Pinos, Ventura and Kern counties; near Pine Flats, head of Tujunga Canyon, Sierra San Gabriel, Los Angeles County; San Fernando Valley, Los Angeles County (winter), and Whitewater, Riverside County (winter) (Condor, 7, 1905: 18). Specimens also taken at Riverside in winter by F. O. Johnson (Swarth, Condor, 12, 1910: 108). O. W. Howard found this bird breeding rather plentifully in Piru Basin, 5500 feet altitude, northeastern Ventura County, in May and June, 1903; slightly incubated eggs taken May 16 and June 6 (Willett, Pac. Coast Avif., No. 7, 1912: 83). In late July adults and young occur commonly up to at least 8500 feet on Mount Pinos.

Junco hyemalis hyemalis (Linnaeus) Slate-colored Junco

Winter visitant in small numbers. Specimen taken by W. A. Jeffries at Santa Barbara March 14, 1883 (Auk, **6**, 1889: 221). Two males taken by F. S. Daggett near Pasadena March 15, 1893, and March 4, 1897; female taken by J. Grinnell in same locality November 14, 1896, and another female by H. A. Gaylord February 27, 1897; male taken by H. S. Swarth near Los Angeles February 8, 1897 (Grinnell, Pub. **2**, Pasadena Acad. Sci., 1898: 38). Swarth also took two males near Los Angeles November 3, 1898 (Bull. Cooper Orn. Club, **1**, 1899: 95), and a male on Mount Wilson December 6, 1900 (Condor, **3**, 1901: 17). Two males collected by W. W. Price at Riverside February 10 and December 1, 1888 (Emerson, Zoe, **1**, 1890: 45). Specimen collected by L. Belding thirty miles east of San Diego January 24, 1884 (Land Birds Pac. Dist., 1890: 159).

Some of the above specimens may be really referable to the next race. The Pasadena birds taken by F. S. Daggett and H. A. Gaylord (now in L. A. Mus.) seem identical with examples from the east.

Junco hyemalis connectens Coues Cassiar Junco

Synonym-Junco hyemalis, part.

One record. Male taken by R. Hoffman at Carpinteria, Santa Barbara County, January 27, 1927 (Condor, 29, 1927: 171).

The 1931 A. O. U. Check-list includes this form with *Junco hyemalis hyemalis*. H. S. Swarth, however, believes it to be a recognizable race breeding in the interior of southeastern Alaska and northern British Columbia (Univ. Calif. Publ. Zool., **24**, 1922: 243).

Junco oreganus shufeldti Coale Shufeldt Junco

Synonym-Junco hyemalis connectens, of some authors; not of Coues, 1884.

Specimen (L. M. Huey coll., no. 1747) collected at Sloan's Ranch, five miles east of Dehesa, San Diego County, February 17, 1918 (Huey, Condor, **26**, 1924: 75); three females (S.D.S.N.H.) taken near Ramona, same county, one December 18, 1930, and the other two March 1, 1931.

Junco oreganus thurberi Anthony Sierra Junco

Abundant summer resident of Transition and Boreal zones in mountains, mostly above 5000 feet. Common in winter in lower country, generally appearing in October and remaining until April. Described from specimens taken by E. C. Thurber on Mount Wilson, Los Angeles County, May 24, 1890 (Zoe, 1, 1890: 238). C. B. Linton collected a bird on San Clemente Island October 13, 1907 (Condor, 10, 1908: 85), saw one on San Nicolas March 31, 1910 (Willett, Pac. Coast Avif., No. 7, 1912: 82), and took a pair on Santa Cruz November 28, 1907 (Condor, 10, 1908: 128). On the latter island J. Mailliard shot a female in April, 1898, which he ascribed to *oreganus oreganus* (Bull. Cooper Orn. Club, 1, 1899: 45). According to A. B. Howell (Pac. Coast Avif., No. 12, 1917: 79), Mr. Mailliard now believes the specimen to be referable to *thurberi*.

Three eggs collected by L. Stevens (MS) at northern end of San Marcos Pass, Santa Barbara County, May 28, 1933. Sets of eggs found by G. Willett (MS) on Mount Pinos from April 25 (1931) to June 10 (1933). Three eggs taken by M. C. Badger (MS) at 1500 feet altitude in Santa Paula Canyon, Ventura County, June 24, 1923. Eggs taken by W. M. Pierce (MS) at Bear Lake, San Bernardino Mountains, from May 10 (1919) to July 7 (1918). Nest containing one fresh egg found by J. Grinnell at Bluff Lake, San Bernardino Mountains, July 15, 1906 (Univ. Calif. Publ. Zool., 5, 1908: 95).

Junco mearnsi Ridgway Pink-sided Junco

Adult female (S.D.S.N.H. no. 14117) collected by F. F. Gander four miles southwest of Ramona, San Diego County, December 18, 1930 (Huey, Auk, 48, 1931: 621).

Junco caniceps (Woodhouse) Gray-headed Junco

Synonym-Junco phaeonotus caniceps.

Occasional winter visitant. Female taken by W. B. Judson near Pasadena October 26, 1894 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 38); several birds seen by J. B. Abbott (MS) in same locality January 17 to 20, 1932. Single bird seen by W. B. Judson on Mount Wilson January 23, 1900 (Willett, Pac. Coast Avif., No. 7, 1912: 82). Bird noted in Eagle Rock Park November 10, 1920, and March 8, 1921, and another in Griffith Park, Los Angeles, November 12, 1924 (Schneider, Bird-Lore, 23, 1921: 40 and 149; 27, 1925: 126). Two specimens collected by A. J. van Rossem at Oak Glen, upper Yucaipe Valley, San Bernardino County, March 4, 1922 (Dickey, Condor, 24, 1922: 138). Several birds noted by A. P. Smith at Julian, San Diego County, from November 18 to December 3, 1906 (Condor, 9, 1907: 199). Other records from San Diego County are: Female (L. B. Bishop coll.) taken by H. W. Marsden at Witch Creek January 7, 1906; specimen collected by F. Stephens in La Puerta Valley February 21, 1924 (Condor, 26, 1924: 112), and male taken by P. F. Covel in San Diego River gorge December 18, 1924 (Condor, 27, 1925: 179).

Spizella passerina stridula Grinnell Pacific Chipping Sparrow

Synonym-Spizella passerina arizonae, part.

Common resident of foothill and mesa regions; abundant in summer in coniferous forests of mountains up to 10,000 feet. Resident on some of Santa Barbara Islands. Breeds mostly in May in lower country, later in mountains. Found common on Santa Rosa Island by G. Willett June 7, 1910 (Condor, 12, 1910: 171); on Catalina by F. Stephens in August, 1886 (Belding, Land Birds Pac. Dist., 1890: 155), and on San Clemente by J. Grinnell in March and June, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 18). Female (D. R. Dickey coll.) taken by H. H. Sheldon on San Nicholas Island April 29, 1929. Extreme nesting records for vicinity of Pasadena are: Three fresh eggs taken by E. Parker April 19, 1896, and three slightly incubated eggs noted by H. A. Gaylord June 19, 1894 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 37). Fresh

eggs taken by W. M. Pierce (MS) at Bear Lake, San Bernardino Mountains, as late as July 12 (1918).

The Pacific Coast race of the Chipping Sparrow, *stridula*, described by J. Grinnell (Condor, **29**, 1927: 81), has not been recognized by the A.O.U. Committee. Comparison of southern California and Arizona birds in the Los Angeles Museum shows it to be a well marked race. It appears to resemble the eastern bird, *passerina*, more closely than it does *arizonae*.

Spizella breweri breweri Cassin Brewer Sparrow

Common summer resident of sage-brush slopes of mountains; most plentiful from 5000 to 7000 feet; breeds locally down into foothills. Occurs regularly in spring and fall in favorable localities in lowlands, but not common in mid-winter. Noted frequently by H. S. Swarth in spring and fall near Los Angeles and in San Fernando Valley. One bird seen in latter locality December 27, 1899 (Condor, 2, 1900: 91); specimen taken by J. E. Law in same vicinity December 27, 1903 (Willett, Pac. Coast Avif., No. 7, 1912: 80). Two specimens (L. M. Huey coll.) taken at San Diego January 15, 1914, and two others (S.D.S.N.H.) secured at National City March 15, 1923.

Eggs taken by O. W. Howard in northeastern Ventura County, near Mount Pinos, from May 14 to June 20 (1903) (Willett, loc. cit.), and by J. S. Appleton in Simi Valley, Ventura County, May 21 and 28, 1899 (Condor, 13, 1911: 76). Nest containing three young birds found by H. S. Swarth in San Fernando Valley, Los Angeles County, May 24, 1899 (Bull. Cooper Orn. Club, 1, 1899: 94). Three half-incubated eggs taken by W. M. Pierce (MS) near Etiwanda, San Bernardino County, May 4, 1919, and four eggs, advanced in incubation, taken by G. Willett near Highlands, same county, April 19, 1897 (Willett, loc. cit.).

Spizella atrogularis cana Coues California Black-chinned Sparrow

Synonym-Spizella atrogularis, part.

Common in summer on brushy foothills and mountain sides up to more than 6000 feet; ascending somewhat higher after breeding season. Arrives mostly in April and leaves during August and early September. Adult male seen by C. G. Abbott and L. M. Huey at San Diego December 21, 1927 (Condor, **30**, 1928: 163) and adult male collected by L. B. Bishop (MS) in San Fernando Valley, Los Angeles County, February 18, 1922, would seem to indicate that the species may winter occasionally. Five sets of eggs collected by O. W. Howard in Lockwood Valley and Piru Basin, northeastern Ventura County, between May 16 and July 1, 1903 (Willett, Pac. Coast Avif., No. **7**, 1912: 81). Nest containing large young found by J. E. Law near Newhall, Los Angeles County, May 19, 1906 (Condor, **8**, 1906: 157). Four slightly incubated eggs taken by A. B. Howell in Arroyo Seco, near Pasadena, May 21, 1911 (Willett, loc. cit.). Slightly incubated eggs taken by W. M. Pierce (MS) in San Gabriel Range May 22, 1920, and June 12, 1921. Eggs collected by W. C. Hanna (MS) near San Bernardino May 2, 1928, and in San Gabriel Mountains July 7, 1929. Incubated eggs taken in San Jacinto Range May 21 and June 25, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., **10**, 1913: 274). Eggs secured by F. Stephens (MS) at Witch Creek, San Diego County, May 24, 1895, and in Cuyamaca Mountains April 23, 1900; also by C. L. Pauter at Escondido, June 12, 1905 (Sharp, Condor, **9**, 1907: 89), and by L. M. Huey at San Diego May 12, 1912 (Condor, **17**, 1915: 60).

Zonotrichia querula (Nuttall) Harris Sparrow

Two records. Specimen (Mus. Vert. Zool., no. 21272) taken by C. B. Linton on San Clemente Island October 15, 1907 (Condor, **10**, 1908: 84). Bird of year trapped by H. H. Cozens at Encinitas, San Diego County, December 21, 1927 (Condor, **30**, 1928: 164).

Zonotrichia leucophrys leucophrys (Forster) White-crowned Sparrow

Rather common migrant east of mountains; occasional on Pacific slope during spring migration. Rare in winter. Specimens taken by H. S. Swarth near Los Angeles April 22, 1898, April 26, 1899 (Bull. Cooper Orn. Club, **1**, 1899: 94), and March 16, April 12 and April 19, 1900 (Willett, Pac. Coast Avif., No. **7**, 1912: 79). Eight adult birds banded by H. and J. R. Michener at Pasadena in spring between April 18 (1928-1929) and May 29 (1932) (Condor, **35**, 1933: 34). Adult male shot by H. White near Claremont, Los Angeles County, April 24, 1914 (Pierce, Condor, **17**, 1915: 59). Bird banded by J. McB. Robertson at Buena Park, Orange County, May 1, 1929 (Condor, **35**, 1933: 164). Specimen taken at Kenworthy, upper end of Hemet Valley, Riverside County, May 24, 1908, recorded by Grinnell and Swarth (Univ. Calif. Publ. Zool., **10**, 1913: 272). Male collected by H. W. Marsden at Witch Creek, San Diego County, April 8, 1904 (Bishop, Condor, **7**, 1905: 142), and male and female taken by L. Belding near San Diego May 3 and 5, 1885 (Land Birds Pac. Dist., 1890: 148).

Two winter records. Immature female taken by H. W. Marsden in Volcan Mountains, San Diego County, December 3, 1904 (Bishop, loc. cit.), and two birds observed closely by Mrs. G. H. Schneider at Los Angeles December 15, 1922 (Condor, **25**, 1923: 108).

Zonotrichia leucophrys gambelii (Nuttall) Gambel Sparrow

Synonym-Zonotrichia-leucophrys intermedia.

Abundant in winter all over mesas and lowlands and on Santa Barbara Islands. Arrives mostly in late September and leaves in April. Reported in vicinity of Los Angeles as early as September 9 (1921), and in San Antonio Canyon September 9, 1924 (Schneider, Bird-Lore, 23, 1921: 314; 26, 1924: 426). Adult bird seen by G. C. Rich at Hollywood May 14, 1912 (Willett, Condor, 14, 1912: 195). Noted by R. S. Woods (MS) at Azusa, Los Angeles County, from September 13 (1931) to May 8 (1928).

Zonotrichia leucophrys pugetensis Grinnell Puget Sound Sparrow

Synonym-Zonotrichia leucophrys nuttalli, part.

This bird, an intergrade between Z. l. gambeli and Z. l. nuttalli, was recently named by J. Grinnell (Condor, 30, 1928: 187). It breeds in the northwestern coast district and occurs in winter south to southern California, apparently passing over the range of the more sedentary nuttalli. The difficulty in distinguishing it in the field from the more common gambeli renders our knowledge of its movements rather fragmentary, but specimens taken show it to occur in winter in moderate numbers, south to San Diego County. It has been taken in Ventura County, as Santa Paula, November 28, 1915 (Grinnell, loc. cit.), and Fillmore, February 22, 1923 (L. A. Mus.), and in various sections of Los Angeles County, as Saugus, November 22, 1923 (L. A. Mus.); near Newhall, December, 1920, and January, 1921 (van Rossem, Condor, 24, 1922: 65); Gardena, February 5, 1931 (L. A. Mus.); Los Angeles, January 13, 1896 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 37), and February 19, 1916 (L. A. Mus.), and Pasadena, January 20, 1906 (Willett, Pac. Coast Avif., No. 7, 1912: 80). According to J. McB. Robertson (MS), occurs in small numbers at Buena Park, Orange County, from October to April; fifty-nine birds banded by him in six seasons. Southernmost record, bird collected by W. M. Pierce at La Jolla, San Diego County, January 29, 1925 (Grinnell, Condor, 30, 1928: 188). Two specimens (L. A. Mus.) taken by J. Hornung on Santa Cruz Island November 28 and 29, 1918. The bird recorded as nuttalli from Redlands, San Bernardino County (Bishop, Condor, 7, 1905: 142), later found by Dr. Bishop to be nearer gambeli (Condor, 17, 1915: 188).

Zonotrichia leucophrys nuttalli Ridgway Nuttall Sparrow

Synonym-Zonotrichia leucophrys gambeli, of some authors; not of Nuttall, 1840.

Resident along coast as far south as Santa Barbara County, nesting mostly in May. Southernmost breeding record by J. H. Bowles (Auk, 28, 1911: 174), who found it nesting near Santa Barbara. Under date of May 17, 1933, Mr. Bowles writes me that this locality is, more exactly, near the beach on Goleta Flat, and the date May 21, 1910. Adults feeding large young were found and two specimens taken. According to C. L. Hubbs (Auk, 35, 1918: 324), common in summer at Point Conception, forty miles west of Santa Barbara.

So far as is known, none of the winter specimens from southern California previously recorded as *nuttalli*, really belong to that form, as now understood, most of them being referable to the last subspecies. True *nuttalli* is, apparently, non-migratory.

Zonotrichia coronata (Pallas)

Golden-crowned Sparrow

Common winter visitant from lowlands up to 5000 feet on brushy mountain sides, south to Lower California; also occurs on Santa Barbara Islands. Noted by J. Grinnell at Pasadena as early as September 26 (1896) (Pub. 2, Pasadena Acad. Sci., 1898: 37); specimen taken by A. J. van Rossem near El Monte as late as May 16 (1911) (Willett, Pac. Coast Avif., No. 7, 1912: 80). Though recorded by L. Belding (Land Birds Pac. Dist., 1890: 153) as rare winter visitant at San Diego, L. M. Huey (MS) considers it rather common in that locality. Found tolerably common in Volcan Mountains, by W. O. Emerson, in spring of 1884 (Bull. Calif. Acad. Sci., 2, 1887: 423).

Zonotrichia albicollis (Gmelin) White-throated Sparrow

Occasional winter visitant. Reported by W. L. Dawson (Condor, 18, 1916: 29) as rather common at Santa Barbara in fall and winter of 1915. Recorded at Los Angeles November 13, 1922 (Miller, Condor, 25, 1923: 29; Schneider, Bird-Lore, 25, 1923: 55), late November, 1918, to February, 1919 (Wyman, Condor 21, 1919: 172), February 25, 1897 (Grinnell, Pub. 2, Pasadena Acad. Sci., 1898: 37), and April 10, 1924 (Benjamine, Condor, 26, 1924: 197); at Pasadena November 21, 1894 (Gaylord, Nidologist, 3, 1896: 106), and at Buena Park, Orange County, March 19 to April 10, 1921, and January 15 to March 31, 1923 (Robertson, Condor, 23, 1921: 138; 25, 1923: 139). Two birds seen by Mrs. F. T. Bicknell between Los Angeles and San Diego (= near Laguna, Orange County), January 12, 1923 (Schneider, Bird-Lore, 25, 1923: 137).

Passerella iliaca iliaca (Merrem) Eastern Fox Sparrow

Occasional winter visitant. Seven records for Los Angeles County; earliest in fall, male taken by J. Grinnell on Mount Wilson October 31, 1897 (Pub. 2, Pasadena Acad. Sci., 1898: 39), and latest in spring, specimen secured by J. E. Law in San Fernando Valley March 22, 1908 (Willett, Pac. Coast Avif., No. 7, 1912: 85). Male taken by J. H. Bowles at Santa Barbara January 1, 1911 (Auk, 28, 1911: 175), and another by A. M. Ingersoll at San Diego January 3, 1888 (Bryant, Proc. Calif. Acad. Sci., ser. 2, vol. 2, 1889: 90).

The fox sparrows are probably the most difficult to understand of all western American land birds. Among the numbers of birds of the genus *Passerella* wintering in southern California, or migrating through, are intergrades between different forms that might about as well be assigned to one race as to another. In fact, it is probable that no two authorities would agree on the identity of some of them. It may be readily seen, therefore, that it is entirely impossible to differentiate between some forms in the field; consequently no records are considered here that are not based on birds actually secured. Most specimens of *Passerella* taken on their breeding grounds show characters that make it possible to assign them to their proper races. In

considering this difficult group, its treatment by H. S. Swarth (Univ. Calif. Publ. Zool., **21**, 1920) in his exhaustive work on the genus has been closely followed, though, in one instance, forms that he treated separately have been united. The writer's personal feeling is that we are attempting to recognize too many races of *Passerella* and that the situation might be greatly clarified by uniting some of the most closely allied forms.

Passerella iliaca altivagans Riley

Alberta Fox Sparrow

Evidently fairly common winter visitant. Swarth (op. cit: 185-186) lists thirty specimens from Los Angeles County; earliest, October 12 (1895) (Pasadena), and latest, February 14 (1916) (San Dimas Canyon). He also mentions three specimens from San Bernardino County (two from Yucaipe and one from Cucamonga Canyon), one from Escondido, San Diego County, and two from Volcan Mountains, same county. One of latter taken March 29, 1884, latest spring record known to writer. L. M. Huey (MS) has a specimen taken at Flynn Springs, San Diego County, February 6, 1921. *Altivagans* has been recorded from as far south as Sierra San Pedro Martir, Lower California, one bird having been taken there as early as October 8 (1925) (Grinnell and Lamb, Condor, **29**, 1927: 125).

. Passerella iliaca unalaschcensis (Gmelin) Shumagin Fox Sparrow

Swarth (op. cit.: 187) lists more than forty specimens of this form from southern California, mostly from mountain and foothill regions, though there are two records from Catalina Island. Earliest fall date, October 7 (1918) (Bluff Lake, San Bernardino Mountains), and latest in spring, May 3 (1904) (head of Piru Creek, Ventura County). Southernmost record, La Grulla, Sierra San Pedro Martir, Lower California, September 28, 1926 (Huey, Condor, **29**, 1927: 154).

A union of this and the two following forms would greatly simplify the classification of the group.

Passerella iliaca insularis Ridgway Kodiak Fox Sparrow

Rather common winter visitant to coastal slope of southern California, its center of abundance being, according to Swarth (op. cit.: 133), in western part of San Gabriel Range, in vicinity of Pasadena. Two specimens taken in Volcan Mountains, San Diego County, January 31 and February 12, 1884, furnish most southern record. Female (Grinnell coll.) secured on Catalina Island December 27, 1897. Earliest fall record, female taken on Mount Wilson, October 19, 1896 (Swarth, op. cit.: 189), and latest in spring, female (L. A. Mus.) collected by L. E. Wyman at Bear Flat, San Gabriel Mountains, April 1, 1918.

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Passerella iliaca sinuosa Grinnell

Valdez Fox Sparrow

Common winter visitant to southern California, occurring south to Lower California. Most plentiful in mountain and foothill region. According to Swarth (op. cit.: 139), the predominant winter fox sparrow in foothills and canyons at eastern extremity of San Gabriel Mountains. He gives extreme dates of occurrence as September 28 (Strawberry Valley, San Jacinto Mountains), and April 27 (Santa Cruz Island) (op. cit.: 140).

Passerella iliaca annectens Ridgway Yakutat Fox Sparrow

Synonym—Passerella iliaca meruloides, of some authors.

Swarth (op. cit. 194-197) lists thirteen specimens from southern California that he considers referable to *annectens*. They are all from mountain and foothill region of Los Angeles County except one, a female taken by W. M. Pierce at Upland, San Bernardino County, December 31, 1915. Earliest fall specimen taken in Arroyo Seco, near Pasadena, October 22 (1900) and latest in spring, in San Dimas Canyon, February 14 (1916). Numerous intergrades between *annectens* and *sinuosa* have been taken in southern California.

Though J. Grinnell (Univ. Calif. Publ. Zool., **38**, 1932: 310) states his belief that Vigors' name *meruloides* should apply to this race, the writer has followed Swarth (op. cit.: 140) and the 1931 A.O.U. Check-list in the use of the name *annectens*. In the absence of the type specimen, it does not seem possible to definitely allocate Vigors' name to any particular race.

Passerella iliaca schistacea Baird Slate-colored Fox Sparrow

Apparently fairly common winter visitant to mountain and foothill regions of southern California. Swarth (op. cit.: 200-201) lists twenty-three specimens from Ventura, Los Angeles, San Bernardino, Riverside and San Diego counties, northernmost station being Nordhoff, Ventura County (December 22, 1915). With one exception, all recorded specimens secured between September 2 (1914) (Lytle Creek, San Bernardino County), and April 25 (1913) (Ojai Valley, Ventura County). The exception is bird (Mus. Vert. Zool., no. 2008) taken at Deer Springs, 7500 feet altitude in San Jacinto Mountains, July 3, 1908 (Grinnell and Swarth, Univ. Calif. Publ. Zool., 10, 1913: 281); an occurrence difficult to explain. J. Grinnell (Univ. Calif. Publ. Zool., 32, 1928: 178) records schistacea as a common winter visitant to northern Lower California.

Passerella iliaca fulva Swarth Warner Mountains Fox Sparrow

Synonym-Passerella iliaca schistacea, part.

Apparently rare winter visitant. Swarth (op. cit.: 160-161) lists only one unquestionable specimen from southern California, a bird (Emerson coll.) taken in Volcan Mountains, San Diego County, February 9, 1884. Specimens from Santa Barbara County, Bluff Lake, San Bernardino Mountains, and Cucamonga and San Dimas canyons also referred to this form, though not typical. Bird secured by L. M. Huey at Laguna Hanson, Sierra Juarez, Lower California, October 13, 1926 (Condor, **29**, 1927: 154).

Passerella iliaca megarhyncha Baird Thick-billed Fox Sparrow

Common winter visitant from Santa Barbara County south to northern Lower California; also recorded from Catalina, San Clemente and Santa Cruz islands. Earliest fall record, female (Mus. Vert. Zool.) taken in Arroyo Seco, near Pasadena, September 15, 1895, and latest in spring, male taken by D. R. Dickey in Ojai Valley, Ventura County, April 27, 1913 (Swarth, op. cit.: 202-203).

Passerella iliaca brevicauda Mailliard Trinity Fox Sparrow

Synonym-Passerella iliaca stephensi, part.

Rather common winter visitant from foothills to ocean, south to Los Angeles County; also on Catalina and probably on other islands of Santa Barbara group. Earliest in fall, specimen taken by E. S. Spaulding for J. H. Bowles, on Little Pine Mountain, Santa Barbara County, August 30, 1910 (recorded as *P. i. stephensi*) (Auk, **28**, 1911: 175); latest in spring, female (Biol. Surv. coll.) taken on Catalina Island April 21, 1892 (Swarth, op. cit.: 204).

Passerella iliaca canescens Swarth Invo Fox Sparrow

Swarth (op. cit.: 205) cites nine winter records of this form from southern California; earliest in fall, male taken by L. E. Wyman in San Antonio Canyon, Los Angeles County, October 19, 1917, and latest in spring, male taken by W. M. Pierce in Palmer's Canyon, same county, February 1, 1919. According to J. Grinnell (Univ. Calif. Publ. Zool., **32**, 1928: 178), a fairly common winter visitant to extreme northern Lower California.

Passerella iliaca monoensis Grinnell and Storer Mono Fox Sparrow

Synonyms-Passerella iliaca mariposae: Yosemite Fox Sparrow.

Occasional in winter, from Santa Barbara County to northern Lower California; one record from Catalina Island and one from San Clemente. Extreme migration dates for southern California are: September 24 (San Antonio Canyon) (Swarth, op. cit.: 206-209) and April 4 (Mount Pinos) (L. B. Bishop coll.). According to J. Grinnell (Univ. Calif. Publ. Zool., 32, 1928: 178), winters south to northern Lower California.

A careful examination of a large series of specimens has failed to con-

vince the writer that the proposed race *mariposae* (Swarth, Proc. Biol. Soc. Wash., **31**, 1918: 161) shows sufficient characters to warrant its separation from *monoensis*. While extreme specimens differ appreciably, there are too many individuals that can not be certainly allocated to either race.

Passerella iliaca stephensi Anthony Stephens Fox Sparrow

Common summer visitant to upper Transition and Canadian zones in mountains, mostly above 7000 feet. Breeds on Mount Pinos, Ventura and Kern counties, and in San Gabriel, San Bernardino and San Jacinto ranges. Principal winter home unknown. Breeding grounds apparently abandoned rather suddenly, most of birds being gone by early September. Has been reported several times as wintering in southern California, but some of these records proved referable to other subspecies. Swarth (op. cit.: 180) admits four authentic winter vecords, as follows: Male (F. S. Daggett coll., L. A. Mus.) taken in Franklin Canyon, Santa Monica Mountains, Los Angeles County, November 24, 1915; female (J. E. Law coll.) taken at Hollywood, Los Angeles County, February 22, 1912; male (W. M. Pierce coll.) taken in Palmer's Canyon, Los Angeles County, January 11, 1919, and male (A. Brooks coll.) taken at Santa Barbara January 11, 1913. In addition to the above, five birds in the L. B. Bishop collection appear to the writer referable to stephensi. One of these was taken near Santa Barbara October 27, 1920, the others near Hollywood in December and January. Winter specimens from Catalina Island, mentioned in Avifauna No. 7, considered by Swarth (op. cit.: 180) referable to brevicauda.

Height of nesting season apparently late May and early June. Eggs taken on Mount Pinos, by L. and S. B. Peyton (MS) about June 1, and by M. C. Badger (MS) as late as June 13. Fresh or slightly incubated eggs taken by W. M. Pierce at Bear Valley, San Bernardino Mountains, June 1 and 2, 1919, and June 6, 1920, and in Swartout Canyon, San Gabriel Mountains, May 31, 1920 (Condor, 23, 1921: 80-84). That eggs are sometimes deposited considerably earlier than above dates is certain. The writer found half-grown young on Mount Pinos June 2, 1929, and W. M. Pierce (op. cit.: 81) records young out of nest at Bear Valley May 31, 1919. Grinnell and Swarth found young flying early in July in San Jacinto Mountains (Univ. Calif. Publ. Zool., 10, 1913: 281).

Melospiza lincolnii lincolnii (Audubon) Lincoln Sparrow

Breeds in Boreal zone in mountains, mostly from 7000 to 9000 feet altitude, south to San Jacinto Range. Common winter visitant to lowlands, where generally found in brush in vicinity of water courses; at this season occurs south to Lower California and Mexico. Occasional on Santa Barbara Islands. Noted by H. S. Swarth near Los Angeles as early as September 18 (1897) and by J. Grinnell at Pasadena as late as May 3 (1896) (Pub. **2**, Pasadena Acad. Sci., 1898: 39). Northward migration at San Diego noted by J. G. Cooper about March 25 (Land Birds Calif., 1870: 216); male taken by L.

Belding in same locality April 26, 1884 (Land Birds Pac. Dist., 1890: 167). One bird taken and another seen by J. Grinnell on San Clemente Island March 30, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 19). Male (L. A. Mus.) collected by J. Hornung on Santa Cruz Island December 2, 1918.

Several nests containing nearly grown young found by G. Willett at Bluff Lake, 7500 feet altitude in San Bernardino Mountains, about middle of June, 1907 (Pac. Coast Avif., No. 7, 1912: 85). Five slightly incubated eggs taken by W. M. Pierce in same locality June 21, 1915 (Condor, 18, 1916: 34). Young out of nest and flying noted by Grinnell and Swarth in Round Valley and Tahquitz Valley, San Jacinto Mountains, early in July, 1908 (Univ. Calif. Publ. Zool., 10, 1913: 280).

Though J. M. Linsdale (Condor, **30**, 1928: 349) has given excellent reasons for considering *Passerella* and *Melospiza* inseparable generically, the writer prefers not to indorse such a radical change in long-established custom.

Melospiza lincolnii gracilis (Kittlitz)

Forbush Sparrow

Synonyms-Melospiza lincolnii, part: Melospiza lincolnii striata.

Probably rather common winter visitant, though easily confused with last form. Three specimens taken by C. B. Linton near Long Beach, Los Angeles County, February 12, 1908 (Condor, 10, 1908: 182). Seven birds from Los Angeles County in Los Angeles Museum; earliest in fall taken by G. Willett in Los Angeles October 12, 1916, and latest in spring, by H. A. Gaylord at Pasadena April 25, 1896. According to J. Grinnell (Pac. Coast Avif., No. 11, 1915: 128), examples in Museum of Vertebrate Zoology from Witch Creek, Jacumba and Tiajuana River, San Diego County. Male (L. M. Huey coll.) taken at San Diego February 20, 1917, and female (S.D.S.N.H.) taken at National City March 7, 1923.

Melospiza melodia fisherella Oberholser Modoc Song Sparrow

Synonyms-Melospiza melodia montana, part: Melospiza melodia fallax, part.

Two records. Male (L. B. Bishop coll., no. 39557) taken by P. E. Trapier at Palms, Los Angeles County, December 27, 1925; specimen (D. R. Dickey coll., no. 8586) taken by A. B. Howell near El Monte, Los Angeles County, December 12, 1912 (Condor, **16**, 1914: 93); recorded as *M. m. montana*, but considered by A. J. van Rossem to be referable to *fisherella*.

Melospiza melodia rufina (Bonaparte) Sooty Song Sparrow

Male (A. C. Bent coll., no. 12385) collected by W. M. Pierce near Claremont, Los Angeles County, December 1, 1919 (Condor, **22**, 1920: 156); identified by H. S. Swarth.

Melospiza melodia morphna Oberholser Rusty Song Sparrow

Synonyms-Melospiza melodia rufina, part: Melospiza melodia phaea.

Female (Mus. Vert. Zool., no. 11824) taken by F. O. Johnson at Riverside November 3, 1888 (Swarth, Condor, 12, 1910:108), and female (U.S.N.M., no. 254000) taken by E. J. Brown in Placerita Canyon, Los Angeles County, February 18, 1917 (Auk, 35, 1918: 350), the latter recorded as *M. m. phaea*.

This race is very slightly differentiated from M. *m. rufina* and, unless specimens in fresh plumage are compared, the two are difficult to separate.

Melospiza melodia cooperi Ridgway San Diego Song Sparrow

Synonym-Melospiza melodia heermanni, part.

Abundant resident of lowlands and, in summer, up to 5000 feet in mountain canyons. Breeds mostly in April and early May, along streams and wherever vegetation is luxurious. Extreme nesting dates are: Three partially incubated eggs found by W. M. Pierce (MS) near Upland, San Bernardino County, February 18, 1919, and three eggs collected by W. C. Hanna (MS) near Colton, same county, June 30, 1918.

Melospiza melodia graminea Townsend Santa Barbara Song Sparrow

Abundant resident of Santa Barbara Island. Five sets of fresh and incubated eggs taken by J. Grinnell and H. A. Gaylord on Santa Barbara Island May 14 and 15, 1897 (Pub. 1, Pasadena Acad. Sci., 1897: 6). Nest containing two eggs, advanced in incubation, found by G. Willett June 16, 1911. At this date most of the young birds were full grown (Pac. Coast Avif., No. 7, 1912: 84).

There has been some disagreement regarding the distribution of the three races of song sparrows inhabiting the Santa Barbara Islands. Much, if not all, of this confusion has resulted from comparison of birds in worn plumage. Unless birds in fresh plumage are used, the results obtained are almost certain to be misleading. The writer, in his 1912 paper, followed the 1910 A.O.U. Check-list in including the song sparrow of Santa Cruz Island with graminea. In accord with later studies of A. J. van Rossem (Condor, **26**, 1924: 219) and J. Grinnell (Proc. Biol. Soc. Wash., **41**, 1928: 38), the Santa Cruz Island bird is here referred to *clementae*. However, this seems to be a peculiar grouping and it will not be surprising if, when larger series of fresh specimens are obtained from Santa Cruz and Santa Rosa, birds from these islands prove to be more closely related to *micronyx*, of San Miguel, than to the bird of San Clemente.

Melospiza melodia clementae Townsend San Clemente Song Sparrow

Common resident on San Clemente Island; less so on Santa Cruz and Santa Rosa. Appears to nest early, as C. B. Linton found four nests on San Clemente March 31, 1907. One nest held four young about a week old and the others contained incomplete sets (Willett, Pac. Coast Avif., No. 7, 1912: 84). The writer has seen no breeding records for Santa Cruz or Santa Rosa.

A male specimen (L. B. Bishop coll., no. 31107) collected in Sycamore Canyon, near Santa Barbara, November 20, 1918, looks very much like *clementae*, and may be a straggler from the islands.

Melospiza melodia micronyx Grinnell San Miguel Song Sparrow

Synonym—Melospiza melodia clementae, of many authors; not of Townsend, 1890.

Common resident of San Miguel Island. Nest containing one fresh egg found by O. W. Howard June 15, 1910; probably second laying, as fully fledged young were plentiful at the time (Willett, Pac. Coast Avif., No. 7, 1912: 84).

The song sparrow of San Miguel Island has generally been referred to M. m. clementae. Recently, however, J. Grinnell (Proc. Biol. Soc. Wash., **41**, 1928: 37) called attention to certain differences between it and other forms and gave it the name micronyx. A. J. van Rossem (Condor, **26**, 1924: 219) considered it most closely related to clementae; Grinnell (loc. cit.), on the other hand, believed it nearer graminea. It seems to the writer to be nearer to the former in size and to the latter in coloration.

Calcarius lapponicus alascensis Ridgway Alaska Longspur

Female (S.D.S.N.H., no. 917) collected by F. Stephens near San Diego October 2, 1909 (Condor, **12**, 1910: 44).

HYPOTHETICAL LIST

Colymbus dominicus brachypterus Chapman Mexican Grebe

Alleged to have been ascribed to California by W. Gambel, but no such record found in Gambel's publications by recent students (cf. Grinnell, Pac. Coast Avif., No. 11, 1915: 174).

Phoebetria palpebrata auduboni Nichols and Murphy American Sooty Albatross

Synonym-Phoebetria palpebrata, part.

A southern species said to have been taken off coast of Oregon (cf. Audubon, Orn. Biog., 5, 1839: 116; Stone, Auk, 47, 1930: 414); this record not regarded as satisfactory. Specimen reported by C. P. Streator (Orn. and Ool., 11, 1886: 90) as having been taken near Santa Barbara, probably referable to *Diomedea*.

Priocella antarctica (Stephens) Slender-billed Fulmar

Synonym-Priocella glacialoides, of 1910 A.O.U. Check-list.

Skeleton, said to be of this bird, found by J. G. Cooper on Catalina Island in June, 1863 (Baird, Brewer and Ridgway, W.B.N.A., **2**, 1884: 374); record generally regarded as questionable.

Puffinus carneipes Gould Pale-footed Shearwater

Specimens of this bird, which breeds in Australian seas, taken off Point Pinos, Monterey County, in February, April, June, August, September and November (Beck, Proc. Calif. Acad. Sci., ser. 4, vol. 3, 1910: 66). Should be looked for off our southern California coast.

Thyellodroma bulleri (Salvin) New Zealand Shearwater

Synonym—Puffinus bulleri.

Fifteen specimens taken off Point Pinos, Monterey County, between September 2 and November 8, 1907 (Beck, Proc. Calif. Acad. Sci., ser. 4, vol. 3, 1910: 66). May be expected to occur off our shores.

Oceanodroma leucorhoa beali Emerson Beal Petrel

Dark-colored petrel, with conspicuous white rump, seen by the writer off San Pedro September 28, 1931, probably of this form.

Sula nebouxii Milne-Edwards Blue-footed Booby

A booby, probably of this species, seen by A. J. van Rossem and E. J. Brown between Anaheim Landing and Sunset Beach, Orange County, October 25, 1921 (Condor, **24**, 1922: 28). Single bird appeared at Salton Sea, Imperial County, November 1, 1929, and remained about ten days, its identity being substantiated by photographs (Clary, Condor, **32**, 1930: 160).

Cygnus buccinator Richardson Trumpeter Swan

Synonym-Olor buccinator.

Of this bird, now on verge of extinction, no southern California specimens extant. Recorded by B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 86) as winter visitant in Ventura County in early 80's, "more common" than Whistling Swan. Two Los Angeles County specimens, in A. M. Shields collection, reported by J. Grinnell (Pub. 2, Pasadena Acad. Sci., 1898: 13). These later destroyed by fire (Willett, Pac. Coast Avif., No. 7, 1912: 110).

Urubitinga anthracina anthracina (Lichtenstein) Mexican Black Hawk

Eggs said to have been taken by R. B. Chapman in Los Angeles County April 6, 1889 (Reed, N. Am. Birds Eggs, 1904: 164); probably referable to *Buteo swainsoni*. Record of bird taken at National City, San Diego County (Linton, Condor, 9, 1907: 110) proved based on specimen of *Buteo abbreviatus* (= *albonotatus*) (Linton, Condor, 10, 1908: 181).

Arenaria interpres interpres (Linnaeus) European Turnstone

Turnstone taken at Pacific Beach, San Diego County, September 8, 1904, identified as *interpres* by H. C. Oberholser and L. B. Bishop (Condor, 7, 1905: 141). Probably variant of *A. i. morinella*.

Phaeopus borealis (Forster) Eskimo Curlew

Synonym—Numenius borealis.

Recorded twice from near San Diego (Holterhoff, Auk, 1, 1884: 393; Swenk, Proc. Nebr. Orn. Union, 6, 1915: 31). These records undoubtedly referable to *P. hudsonicus*.

Catharacta chilensis (Bonaparte) Chilean Skua

Synonym-Megalestris skua, of some authors; not of Brünnich, 1764.

A South American species that has been taken on Monterey Bay from August 4 to September 21 (1910) (Grinnell, Pac. Coast Avif., No. 11, 1915: 20), and even further north on Pacific coast. Probably occurs off southern California.

Larus leucopterus Vieillot Iceland Gull

Larus kumlieni Brewster Kumlien Gull

Dr. Jonathan Dwight (Gulls of the World, 1925: 255) lists a female gull taken by L. E. Wyman at Hyperion, Los Angeles County, November 24, 1915, as "typical first winter *leucopterus.*" He also mentions a juvenal bird taken by J. E. Law at Long Beach, same county, November 18, 1906, as being "much like eastern *kumlieni.*" The Hyperion specimen is in the Los Angeles Museum (no. 14142), together with another similar bird (no. 4307), also taken by Wyman at Hyperion, January 28, 1921. These birds are here included under *L. hyperboreus* (see remarks under that species).

Larus occidentalis livens Dwight Yellow-footed Gull

Synonym-Larus occidentalis, part.

Adult female western gull (L. B. Bishop coll., no. 33053), with yellow feet and legs, taken by Dr. Bishop at Hyperion, Los Angeles County, April 25, 1922. Possibly a straggler from Mexico, but, as the color of feet of our local bird varies somewhat, it may be best to leave *livens* in the hypothetical list for the present. The writer has occasionally seen southern California specimens with feet of cream-color, but not bright yellow.

Archilochus violajugulum (Jeffries) Violet-throated Hummingbird

Synonym—Trochilus violajugulum.

Unique type taken near Santa Barbara (Jeffries, Auk, 5, 1888: 168). Probably hybrid between *Archilochus alexandri* and *Calypte anna* (cf. Thayer and Bangs, Auk, 24, 1907: 313).

Eugenes fulgens (Swainson) Rivoli Hummingbird

Male said to have been taken in San Gorgonio Pass July 15, 1899 (Loomis, Auk, 19, 1902: 83). Locality doubtful (cf. Stephens, Condor, 4, 1902: 45).

Muscivora tyrannus (Linnaeus) Forked-tailed Flycatcher

Specimen obtained from dealer in California curiosities at Santa Monica, Los Angeles County, recorded by G. L. Toppan (Orn. and Ool., 9, 1884: 48); supposed to have been shot near that place in late summer, 1883. Locality questionable.

Pitangus sulphuratus sulphuratus (Linnaeus) Kiskadee Flycatcher

Female (L. A. Mus., no. 14319) shot at Inglewood Cemetery, Los Angeles County, September 4, 1926, recorded as P. s. derbianus (Wyman, Condor, **29**, 1927: 73). Having noted that this bird was not typical derbianus, the writer forwarded it to L. Griscom, who states that it is intermediate between P. s. sulphuratus and P. s. bolivianus, and probably came from extreme southeastern Brazil or northeastern Argentina. It seems reasonable to believe that its occurrence in California was adventitious.

Chamaea fasciata fasciata (Gambel) Gambel Wren-Tit

Synonym-Intermediate Wren-Tit.

Female collected by J. H. Bowles at Santa Barbara February 18, 1910 (Auk, 28, 1911: 178), identified by H. C. Oberholser as typical of this form. Probably a variant of *C. f. henshawi*.

Corthylio calendula grinnelli (Palmer) Sitka Kinglet

Synonym-Regulus calendula grinnelli.

According to the A.O.U. Check-list, this subspecies ranges south in winter to middle California. L. B. Bishop records two specimens from southern California in his collection; one (no. 31330) from Santa Barbara (Condor, **28**, 1926: 183), and the other (no. 9287) from Redlands, San Bernardino County (Condor, **7**, 1905: 143). These may be variants of *C. c. cineraceus*.

Dendroica graciae graciae Baird Grace Warbler

B. W. Evermann (Pac. Sci. Monthly, 1, 1886: 79) records taking a male of this species near Santa Paula, Ventura County, May 3, 1881; specimen later destroyed by fire. Possibly misidentified.

Agelaius phoeniceus aciculatus Mailliard Kern Red-wing

Adult male (D. R. Dickey coll., no. C 590) taken by A. J. van Rossem near Corona, Riverside County, December 8, 1915, recorded as "strictly comparable with breeding specimens of *aciculatus*" (Dickey and van Rossem,

Condor, 24, 1922: 26); later declared "not typical but best referable to this race" (van Rossem, Condor, 28, 1926: 226). Awaiting capture of further specimens, it may be best to leave this bird in the hypothetical list.

Agelaius phoeniceus sonoriensis Ridgway Sonora Red-wing

According to A. J. van Rossem (Condor, **28**, 1926: 227), rarely straggles into San Diegan faunal area after breeding season, as at Redlands, January 10 (adult female, L. B. Bishop coll., no. 8304), and Jamacha, San Diego County, October 15 (females of year, S.D.S.N.H., nos. 2801 and 2806). L. B. Bishop (MS) now considers two male red-wings from Redlands and Witch Creek, formerly recorded as *sonoriensis* (Condor, **7**, 1905: 142), as somewhat intermediate with *neutralis* and perhaps better referred to that race. In view of the great amount of individual variation shown in birds of this group, it might be unwise to consider the above records proof of the occurrence of the desert form on the Pacific slope.

Icterus icterus (Linnaeus) Troupial

Two records. Male taken by J. H. Bowles near Santa Barbara April 30, 1911 (Condor, 13, 1911: 109); another by H. and J. R. Michener at Pasadena June 16, 1928 (Storer, Condor, 34, 1932: 202; Michener and Michener, Condor, 34, 1932: 209). This bird, a native of South America, belongs to a group that furnishes many cage birds, and it seems more probable that these individuals were brought here, than that they strayed such a great distance from their normal habitat.

Piranga rubriceps Gray Gray Tanager

A South American species, a specimen of which is said to have been secured at Dos Pueblos (Naples), Santa Barbara County (Bryant, Auk, 4, 1887: 78). Probably an escaped cage bird.

Pinicola enucleator californica Price California Pine Grosbeak

According to J. H. Bowles (Auk, 28, 1911: 175), this species was noted by E. S. Spaulding at an elevation of nearly 3000 feet on Little Pine Mountain, Santa Barbara County, August 30, 1910. Occurrence of pine grosbeaks at such a low altitude in southern California considered very unlikely (cf. Grinnell, Condor, 13, 1911: 141).

Passerculus sandwichensis bryanti Ridgway Bryant Sparrow

Specimen (A. Brooks coll.) shot by W. L. Dawson at Carpinteria, Santa Barbara County, December 23, 1912 (Brooks, Condor, 15, 1913: 182). Female (L. B. Bishop coll., no. 21653) taken by F. S. Daggett at Long Beach, Los

Angeles County, February 21, 1896 (Bishop, Condor, 17, 1915: 187). Specimen recorded by C. B. Linton (Condor, 10, 1908: 128) from Santa Cruz Island is, according to A. B. Howell (Pac. Coast Avif., No. 12, 1917: 77), really referable to *P. s. alaudinus*. Records of birds seen at Santa Barbara in December, 1914, and December 27, 1915 (Dawson, Bird-Lore, 17, 1915: 48; 18, 1916: 42), hardly worthy of consideration, when difficulty of segregating these birds in the hand is considered. Furthermore, if A. J. van Rossem's contention (Trans. S. Diego Soc. Nat. Hist., 6, 1930: 218) that there is intergradation between *bryanti* and *beldingi* is correct, it is possible that none of the above specimens came from the breeding ground of *bryanti*, to the northward.

Passerella iliaca fuliginosa Ridgway Sooty Fox Sparrow

One specimen (Mus. Vert. Zool., no. 27153), collected at Bear Flat, San Antonio Canyon, San Gabriel Mountains, November 30, 1916, is referred to this form by H. S. Swarth (Univ. Calif. Publ. Zool., **21**, 1920: 152), though he states that it is not typical. Definite admission of this bird to our list, on one record of a non-typical specimen, would appear unwise.

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