Northern Sierra Nevada					
Lassen, Tehama, eastern Siski-					
you and Shasta counties, Cali-					
fornia, males (13)	145.9	133.6	20.8	11.5	43.2
females (9)	141.1	134.5	19.7	11.0	42.3

Museum of Vertebrate Zoology, Berkeley, California, November 27, 1933.

## THE ARIZONA STATE LIST SINCE 1914

# By ANDERS H. ANDERSON

It is now nearly twenty years since H. S. Swarth published his "Distributional List of the Birds of Arizona" (Pacific Coast Avifauna, 10, 1914). This was the first comprehensive summary of Arizona ornithology since 1866. It has been the standard reference work in all studies of Arizona birds. From 1914 to the present date, however, numerous additions to the avifauna have been reported, and still more numerous changes in the nomenclature and status of the subspecies have been adopted by the new A. O. U. Check-list. Because many of the changes are widely scattered in the literature, it has been thought best to bring them together, in an effort to show the present status of the state list. The additional information, published since 1914, on the species listed by Swarth, is of such extensive character that there is no room for it in this paper. Only additions and changes are listed.

The A. O. U. Check-list of 1931 has been used as a starting point. Changes in spelling, generic splitting and lumpings, and priority changes have been omitted, except where they occur along with other changes that are listed. Alterations in names as adopted by the 1931 Check-list that are not the result of changed concepts of distribution in Arizona are also omitted. Proposed and controversial forms are, however, listed. Since it has not been possible to examine any specimens no attempt is made to judge the validity of the proposed changes.

I wish to express my thanks to Dr. W. P. Taylor of the United States Biological Survey at Tucson for his generous cooperation, not only in allowing me the full use of his library, but also for much helpful criticism, encouragement, and assistance. I am greatly indebted to Mr. H. S. Swarth of the California Academy of Sciences for valuable criticism and suggestions as to the form and content of this paper.

Appreciation is expressed to Dr. Alden H. Miller and Dr. J. Grinnell of the Museum of Vertebrate Zoology, Berkeley, Dr. H. C. Oberholser and Mr. E. A. Goldman of the United States Biological Survey, Washington, D. C., Mr. Edwin D. McKee, Park Naturalist, Grand Canyon, Arizona, and Dr. Witmer Stone of the Academy of Natural Sciences, Philadelphia, for suggestions and help in furnishing material which could not otherwise have been obtained.

#### GROUP I

# SPECIES AND SUBSPECIES NEW TO THE STATE SINCE THE 1914 LIST

Gavia arctica pacifica. Pacific Loon. One taken September 20, 1886, at Fort Verde, by Dr. Mearns (Cooke, Auk, 31, 1914, p. 403).

Colymbus auritus. Horned Grebe. An adult male taken October 16, 1932, at

Stoneman Lake, south of Flagstaff, by Hargrave (Condor, 35, 1933, p. 75).

Pelecanus occidentalis californicus. California Brown Pelican. One shot by Mrs. J. L. Moore at Dos Cabezos, Cochise County, in the fall of 1914 or 1915 (Law, Condor, 26, 1924, p. 153). A flock of nine seen, March 23, 1925, above Otero Canyon, Baboquívari Mountains (Bruner, Condor, 28, 1926, p. 232). The subspecies is of course assumed in this sight record by Bruner.

Hydranassa tricolor ruficollis. Louisiana Heron. "Arizona (near Fort Verde, September 24, 1884)" is the only information given by Bent (U. S. Nat. Mus. Bull., 135, 1926, p. 177).

Chen rossii. Ross Goose. One taken October 24, 1887, at Fort Verde, by Dr.

Mearns (Cooke, Auk, 31, 1914, p. 403).

Nyroca collaris. Ring-necked Duck. A male taken, February 19, 1910, at Sacaton by Gilman (Condor, 16, 1914, p. 260). Breeding at Marsh Lake, White Mountains, elevation 9000 feet, in June 1915; about fifteen pairs seen and two nests found (Goldman, Condor, 28, 1926, p. 162).

Coragyps atratus atratus. Black Vulture. There are numerous sight records of this species, most of them in later years. The first two specimens were taken by Vorhies, March 21, 1933, from a flock of 30 birds, near Sells (Indian Oasis), about sixty miles west of Tucson, on the Papago Indian Reservation (Condor, 35, 1933, p. 205).

Astur atricapillus striatulus. Western Goshawk. This is the breeding form in Arizona (A. O. U. Check-list, 1931, p. 64; Peters, Check-List of Birds of the World, 1931, p. 208). True atricapillus occurs as a migrant or straggler. No records of specimens of striatulus have been found in the literature available.

Buteo borealis kriderii. Krider Hawk. One taken, October 12, 1931, near Doney Park, elevation 6500 feet, Elden Mountain, Arizona, by Hargrave (Condor, 34, 1932,

p. 217).

Numenius americanus occidentalis. Northern Curlew. Specimens examined from "The Dam, Monument 179, Mexican Boundary Line," February 9, 1894, and "near Naris, Pima County," January 8, 1894 by Oberholser (Auk, 35, 1918, pp. 192-194).

Naris, Pima County," January 8, 1894 by Oberholser (Auk, 35, 1918, pp. 192-194).

Totanus flavipes. Lesser Yellow-legs. Dr. Mearns collected nineteen specimens between August 2 and 29, 1892, at the San Bernardino Ranch, near Monument no. 77, in southeastern Arizona (Lincoln, Condor, 29, 1927, p. 165). One taken August 14, 1932, at Ashurst Lake, south of Flagstaff, by Hargrave (Condor, 35, 1933, p. 76).

Pisobia melanotos. Pectoral Sandpiper. Two taken September 21, 1931, at a "tank," elevation 2900 feet, on the Santa Rita Experimental Range, by Vorhies and Gorsuch (Condor, 34, 1932, p. 46).

Larus californicus. California Gull. One taken November 20, 1932, at Long

Lake, south of Flagstaff, by Hargrave (Condor, 35, 1933, p. 77).

Bubo virginianus pacificus. Pacific Horned Owl. Swarth included this under B. v. pallescens (Pacific Coast Avifauna, 10, 1914, p. 30). Dr. Oberholser writes me that "specimens from the Grand Canyon region and the San Francisco Mountains are practically undistinguishable from California specimens. The only other possible disposition of this bird is to consider it an abnormally dark phase of Bubo virginianus pallescens." Mr. Edwin D. McKee, Park Naturalist, Grand Canyon National Park, writes me that he has collected a specimen of pacificus from the south rim of the Grand Canyon. Ridgway (U. S. Nat. Mus. Bull., 50, pt. 6, 1914, p. 745) agrees with Oberholser in the inclusion of Arizona in the range of pacificus.

Phalaenoptilus nuttallii hueyi. Desert Poor-will. Lower Colorado Valley in Ari-

zona and California (Dickey, Condor, 30, 1928, p. 152).

Chordeiles minor hesperis. Pacific Nighthawk. Three specimens have been taken: one at Winslow, July 14, 1909, by C. Birdseye; one in the Huachuca Mountains, August 11, 1902, by H. S. Swarth; one at Tuba, August 18, 1909, by E. W. Nelson (Oberholser, U. S. Nat. Mus. Bull., 86, 1914, p. 49).

Centurus carolinus. Red-bellied Woodpecker. "Accidental in Arizona (Fort

Grant)" (Ridgway, U. S. Nat. Mus. Bull., 50, pt. 6, 1914, p. 57).

Sphyrapicus varius daggetti. Southern Red-breasted Sapsucker. A female was collected February 9, 1910, and a male October 5, 1910, at Sacaton by Gilman (Condor, 16, 1914, p. 260). An immature male was taken January 17, 1923 at Rosemont, elevation 4700 feet, Santa Rita mountains by Dr. W. P. Taylor (Bailey, Pacific Coast Avifauna, 15, 1923, p. 22).

Dryobates villosus icastus. Chihuahua Woodpecker. The birds of southern Arizona have been separated under this name (Oberholser, Proc. U. S. Nat. Mus., 40,

1911, pp. 597, 612).

Tyrannus tyrannus. Eastern Kingbird. One seen by F. M. Bailey at Phantom

Ranch, Grand Canyon, May 19, 1929 (McKee, Preliminary Check-list, Birds, Grand Canyon, 1930, p. 7). While this is a sight record I believe the circumstances attending it will warrant its inclusion in the state list.

Sayornis phoebe. Eastern Phoebe. Two taken by H. H. Kimball; one at Paradise, east slope of Chiricahua Mountains, October 8, 1918, another at the same place August 16, 1919 (Condor, 23, 1921, p. 57).

Toxostoma curvirostre curvirostre. Curve-billed Thrasher. Resident in south-eastern Arizona. Law (Condor, 30, 1928, p. 151) has taken specimens from the Chiricahua Mountains. Swarth (Proc. Calif. Acad. Sci., 18, 1929, p. 341) has taken specimens in the Patagonia region. Apparently the Santa Rita Mountains form the boundary between palmeri and curvirostre.

Hylocichla guttata sequoiensis. Sierra Hermit Thrush. Ten specimens have been taken in the state: one at Fort Huachuca, May 14, 1892, by Dr. A. K. Fisher (Cooke, Auk, 31, 1914, p. 404); two near the Santa Cruz River, ten miles south of Tucson, March 18 and April 18, 1918, by Kimball (Condor, 23, 1921, p. 57); one by Dr. W. P. Taylor, October 13, 1919 and one by Bailey, April 6, 1921, at Nicholson's Ranch, Santa Rita Mountains (Bailey, Pacific Coast Avifauna, 15, 1923, p. 59); five by Wetmore, two miles below Sedona, Coconino County, October 29, 1932 (Condor, 35, 1933, p. 164).

Regulus satrapa olivaceus. Western Golden-crowned Kinglet. Swarth (1914, p. 85) regarded this as hypothetical since no specimens had been taken. Cooke (Auk, 31, 1914, p. 404) then reported that one was collected in the White Mountains, September 14, 1908, by C. Birdseye. Swarth also collected one, October 24, 1922, on the northeast slope of San Francisco Mountain, elevation 7500 feet (Condor, 26, 1924, p. 190).

Anthus spraguei. Sprague Pipit. One taken April 4, 1905, at Fort Lowell, Pima County (Cooke, Auk, 31, 1914, p. 404).

Lanius ludovicianus gambeli. California Shrike. Migrates to southern Arizona (Miller, Univ. Calif. Publ. Zool., 38, 1931, p. 79). Dr. Miller writes me that two specimens were definitely placed with this race, one a female from Tule Wells, Yuma County, February 12, 1894, another a female from Ehrenberg on the Colorado River, March 28, 1910. He has examined others from Sonora immediately south of Arizona.

Passerina cyanea. Indigo Bunting. Two specimens have been taken: a male at Carr's Ranch in the Sierra Ancha, June 30, 1917, by Swarth (Condor, 20, 1918, p. 23); one in Ramsey Canyon, Huachuca Mountains, July 13, 1930, by S. G. Harter (Huey, Condor, 33, 1931, p. 129).

Hesperiphona vespertina brooksi. Western Evening Grosbeak. Grinnell (Condor, 19, 1917, pp. 20-21) restricted H. v. montana to southern Arizona and Mexico, and called the birds from north-central Arizona H. v. warreni. The A. O. U. Check-list of 1931, while concurring in the restricted range of montana, lumps the other three western races, brooksi, californica, and warreni, under brooksi.

Pinicola enucleator montana. Rocky Mountain Pine Grosbeak. Six seen at Jacob Lake Ranger Station, altitude about 7500 feet, Kaibab Plateau, June 24, 1929, by Vorhies (Condor, 32, 1930, p. 262-263). He verified Mr. D. I. Rasmussen's previous observation of these birds. Subspecific designation tentative pending taking of specimens.

Loxia curvirostra bendirei. Bendire Crossbill. Four specimens have been taken: two females at Carr's Ranch in the Sierra Ancha, June 16, 1917, by Swarth (Condor, 20, 1918, p. 22); a male at Jacob's Lake, Kaibab Forest, June 25, 1931, by Miller (Condor, 34, 1932, p. 99); a male at Coyote Range, San Francisco Mountain region, October 26, 1931, by Hargrave (Condor, 34, 1932, p. 219).

Zonotrichia querula. Harris Sparrow. One taken, March 16, 1913, at Sacaton by Gilman (Cooke, Auk, 31, 1914, p. 403).

Passerella iliaca iliaca. Eastern Fox Sparrow. A female taken, November 6, 1914, in Pinery Canyon, at 6000 feet, Chiricahua Mountains by A. J. van Rossem (Swarth, Univ. Calif. Publ. Zool., 21, no. 4, 1920, p. 118).

Passerella iliaca townsendi. Townsend Fox Sparrow. A male taken, November 28, 1914, in Pinery Canyon, at 6000 feet, Chiricahua Mountains (Swarth, Univ. Calif. Publ. Zool., 21, no. 4, 1920, pp. 146-147).

Passerella iliaca canescens. Inyo Fox Sparrow. A female taken, March 8, 1922, at Oracle, by Kennard (Condor, 26, 1924, p. 76).

Melospiza georgiana. Swamp Sparrow. One taken, December 22, 1915, about twelve miles east of Tucson, along Rillito Creek, by Howell (Condor, 18, 1916, p. 213).

#### GROUP II

### ADDITIONAL SUBSPECIES NOT IN A. O. U. CHECK-LIST OF 1931

This group includes those which have been described or revived since the publication of the 1931 Check-list. I have also listed those which appear in footnotes of the Check-list since opinions on these differ. These are all subdivisions of subspecies now found in the state, either resident or migrant, and each one accepted will add another bird to the state list.

Corvus corax clarionensis Rothschild and Hartert. In southern Arizona Oberholser restricts C. c. sinuatus to the southeastern corner and places the western birds under clarionensis with some overlapping of ranges (Ohio Jour. Sci., 18, no. 6, 1918, p. 224). Swarth (Proc. Calif. Acad. Sci., 4th series, vol. 18, 1929, p. 314) does not believe more than one form can be recognized in southern Arizona. The A. O. U. Check-list recognizes only sinuatus (1931, p. 226).

Auriparus flaviceps ornatus (Lawrence). The birds of southeastern Arizona are separated under this name, true flaviceps being restricted to the area west of Tucson (van Rossem, Trans. San Diego Soc. Nat. Hist., 6, 1930, p. 201). Grinnell believes that A. f. flaviceps is properly the Lower California race and names the birds of western Arizona A. f. acaciarum (Condor, 33, 1931, pp. 167-168).

Catherpes mexicanus punctulatus Ridgway. The range of this subspecies includes central and southern Arizona, except the southeastern corner (Oberholser,

Sci. Publ. Cleveland Mus. Nat. Hist., 1, 1930, pp. 94-95).

Catherpes mexicanus polioptilus Oberholser. Range: "Southeastern corner of Arizona (Graham Mountains)", (Oberholser, Sci. Publ. Cleveland Mus. Nat. Hist., 1, 1930, p. 95). C. m. conspersus extends over that portion (north-central and northern) of Arizona which is not occupied by punctulatus and polioptilus.

Lanius ludovicianus sonoriensis Miller. L. l. excubitorides in Arizona has been divided into two new races, excubitorides becoming extralimital. The range of the southern race sonoriensis is: southern part of the state south of Mohave, Yavapai, Navajo and Apache counties; permanent resident. A zone of intergradation between sonoriensis and the northern race nevadensis occurs over the plateau of the Mogollon Mountains and San Francisco Mountain (Miller, Univ. Calif. Publ. Zool.,

38, 1931, pp. 67-68).

Lanius ludovicianus nevadensis Miller. Breeds in northern Arizona, some individuals migrating into southern Arizona (Miller, Univ. Calif. Publ. Zool., 38, 1931, p. 76). Dr. Miller writes me that he has examined two specimens of nevadensis from the Tunitcha Mountains, northeastern Arizona, taken June 26, 1927. Seven immature birds from San Francisco Mountain taken between September 7 and October 13 are intermediate. Others from the same region he has identified as nevadensis. Winter records are: a male taken at Tinajas Altas, Yuma County, and a female at Tucson, the latter taken February 28, 1905. He adds that there are "quite a few" other nevadensis records from Tucson which he has not listed. Van Rossem believes nevadensis is an intergrade between gambeli and sonoriensis (Trans. San Diego Soc. Nat. Hist., 6, 1931, p. 280).

Geothlypis trichas chryseola van Rossem. San Pedro River in Cochise County,

southeastern Arizona, south into Mexico (Condor, 32, 1930, pp. 297-300).

Carpodacus mexicanus obscurus McCall. The birds of eastern Arizona are separated under this name by Figgins. The west slope birds he designates as C. m. sayi (Proc. Colo. Mus. Nat. Hist., 9, 1930, p. 3). According to a review in the Auk (47. 1930, p. 590) the recognition of this subdivision would not necessitate a substitution of frontalis by sayi.

Junco hyemalis connectens Coues. One taken on Granite Creek, about five miles northeast of Prescott just below the pine belt, January 10, 1927; another just southeast of Prescott, February 8, 1928 (Jacot, Condor, 34, 1932, p. 140). This race is

lumped under J. h. hyemalis by the A. O. U. Check-list (1931, p. 345).

#### GROUP III

#### PROPOSED CHANGES IN SUBSPECIFIC NAMES

In this group are included proposed changes in the subspecific names of Afizona birds which have appeared in print since the A. O. U. Check-list was published, or Western birds, mentioned in footnotes of the Check-list, of which opinions seem to differ widely, are also listed.

Accipiter cooperii mexicanus Swainson. The western Cooper Hawks are considered to belong to this race (van Rossem, Trans. San Diego Soc. Nat. Hist., 6,

1931, p. 242).

Asturina plagiata maxima van Rossem. The Arizona birds are considered to belong to this race (Condor, 32, 1930, pp. 303-304).

Rallus limicola pacificus Dickey. Birds of the Pacific drainage are referred to

this race (Condor, 30, 1928, p. 322).

Glaucidium gnoma californicum Sclater replaces G. g. pinicola Nelson, because the latter is regarded as only a color phase (Bishop, Proc. Biol. Soc. Wash., 44, 1931, pp. 97-98).

Hylocharis leucotis borealis Griscom. Birds of northern Mexico and Arizona are separated under this name (Amer. Mus. Novit. no. 379, 1929, p. 10). Reference

Platypsaris aglaiae richmondi van Rossem. The bird formerly known as P. a. albiventris is now restricted to Mexico and a northern race, richmondi, described to include the Arizona and Sonora birds (van Rossem, Proc. Biol. Soc. Wash., 43, 1930,

Nuttallornis mesoleucus majorinus Bangs and Penard. The birds of the west are separated under this name (Bangs and Penard, Proc. Biol. Soc. Wash., 34, 1921,

Camptostoma imberbe ridgwayi van Rossem. This northern race is described to include the Arizona and Sonora birds, while C. i. imberbe is restricted to Mexico (van Rossem, Proc. Biol. Soc. Wash., 43, 1930, p. 130).

Polioptila melanura lucida van Rossem. Arizona birds are separated under this name. P. m. melanura being restricted to the Atlantic drainage (van Rossem, Condor,

33, 1931, p. 36).

Corthylio calendula cineraceus (Grinnell). Though this is restricted to the Pacific Coast by the Check-list, it is apparently the breeding form in Arizona. Oberholser lists two specimens taken at 9000 feet, Huachuca Mountains, October 24 and 25, 1929, by W. W. Brown (Sci. Publ. Cleveland Mus. Nat. Hist., 1, 1930, p. 99). Others have also called the Arizona birds cineraceus.

Peucedramus olivaceus arizonae Miller and Griscom. The Arizona birds have been separated under this name (Amer. Mus. Novit. no. 183, 1925, 10). Reference

not seen.

Dendroica coronata hooveri McGregor. This western race is accepted by van Rossem (Trans. San Diego Soc. Nat. Hist., 6, 1931, p. 283).

Dendroica nigrescens halseii (Giraud). Oberholser refers the Arizona birds to this new race (Sci. Publ. Cleveland Mus. Nat. Hist., 1, 1930, pp. 101-102).

Sturnella magna lilianae Oberholser. S. m. hoopesi is restricted to central southern Texas and Arizona birds are referred to this new race by Oberholser (Sci. Publ. Cleveland Mus. Nat. Hist., 1, 1930, pp. 103-104).

Piranga flava oreophasma Oberholser. This western race is accepted by van Rossem (Trans. San Diego Soc. Nat. Hist., 6, 1931, pp. 290-291).

Passerculus sandwichensis rostratus (Cassin). The Large-billed Sparrows are considered only subspecifically different from the sandwichensis group (van Rossem, Trans. San Diego Soc. Nat. Hist., 6, 1930, p. 218).

# GROUP IV

# ADDITIONS TO THE HYPOTHETICAL LIST

Otus asio aikeni. Aiken Screech Owl. One taken, October 4, 1873, on the San Pedro River, southeastern Arizona (Ridgway, U. S. Nat. Mus. Bull., 50, pt. 6, 1914, p. 695). Ridgway could not decide whether it was a stray migrant of aikeni or an abnormal variant of cineraceus.

Sayornis nigricans salictaria. San Quintin Phoebe. The A. O. U. Check-list (1931, p. 206) includes southern Arizona in the range of this form. The original description by Grinnell (Auk, 44, 1927, p. 68) did not mention Arizona. No reference to such an extension of range has been found in the literature. Dr. Oberholser writes me that all the specimens from the state that he has seen are of the typical form and he doubts that salictaria occurs "except as an occasional straggler."

Auriparus flaviceps lamprocephalus. Cape Verdin. One taken, April 18, 1891, by F. T. Pember at Gila Bend (Coale, Auk, 32, 1915, p. 106). The record of an apparently non-migratory subspecies so far from its normal range seems improbable.

It should be considered a variant of flaviceps.

Hylocichla ustulata swainsoni. Olive-backed Thrush. An adult male taken September 12, 1929, in the Huachuca Mountains, at 5000 feet, by W. W. Brown (Oberholser, Sci. Publ. Cleveland Mus. Nat. Hist., 1, 1930, p. 98). Dr. Oberholser says this specimen is "decidedly intermediate," though nearer swainsoni. The assignment of migrating intermediates to one camp or the other seems undesirable. Swainsoni, however, should occur in the state, but until more typical specimens are obtained I would leave it off the list.

Vermivora celata sordida. Dusky Warbler. One taken, December 20, 1918, near

Yuma (Kimball, Condor, 23, 1921, p. 58).

Wilsonia pusilla pusilla. Wilson Warbler. One taken September 11, 1929, at 5000 feet, Huachuca Mountains (Oberholser, Sci. Publ. Cleveland Mus. Nat. Hist., 1, 1930, p. 100). This record and the preceding one I would omit from the state list. Since subspecies are so often characterized by average differences, it seems unsafe to admit specimens found so far from their normal range. A good scientific criterion for the assignment of subspecies, collected during migration, would be a band on one leg indicating point of departure. Not until far more intensive banding operations are conducted will we ever be really sure of the movements of closely differentiated subspecies. Some surprising movements of supposedly non-migratory races may be revealed if systematic banding is undertaken.

Leucosticte tephrocotis tephrocotis. Gray-crowned Rosy Finch. One seen at Grand Canyon Village, March 23, 1930 (McKee, Preliminary Check-list, Birds, Grand

Canyon, U. S. Dept. Int. Bull., 1930, p. 13).

Leucosticte atrata. Black Rosy Finch. Four seen, December 8, 1924, at the Grand Canyon (Townsend, Condor, 27, 1925, p. 178). I would want specimens before admitting this record and the preceding one to the state list.

Pooceetes gramineus affinis. The winter range includes Arizona (A. O. U. Checklist, 1931, p. 340). I have found no substantiation of this in the literature available.

#### SUMMARY

In 1914 Swarth listed 362 species and subspecies from the state of Arizona. Since then 32 new records have been made and 3 new subspecies have been described (Group I). The grand total is now 397. The 9 proposed subspecies in Group II constitute 9 additions and 1 elimination. If these are accepted the total will be 405.

Tucson, Arizona, August 31, 1933.

# FROM FIELD AND STUDY

Cooper Hawk Feeds on Eared Grebe.—On December 17, 1933, an employee at my place shot a Cooper Hawk (Accipiter cooperii) that was in the act of devouring an Eared Grebe (Colymbus nigricollis). This item of fare seemed to me to be sufficiently unusual to be put on record. My home is on Point Loma, about a mile from San Diego Harbor on the east, and the same distance from the Pacific Ocean on the west. The hawk had been frequenting the neighborhood for some time and on the morning when it was killed was seen to fly, with prey in its talons, from one low bush to another, in front of my house. The hawk proved to be a female in immature plumage. A wing of its victim was taken to the San Diego Natural History Museum,