

book lead Mr. Roosevelt to comment (p. 558) that "many of the markings of the mammals, just as is the case with birds, must be wholly independent of any benefit they give to their possessors in the way of concealment".

On page 566 he reverts to birds again as follows: "To say that white herons, and pelicans and roseate-colored flamingoes and spoon-bills are helped by their coloration, when other birds that live exactly in the same fashion and just as successfully, are black, or brown, or black and white, or gray, or green, or blue, certainly represents mere presumption, as yet unaccompanied by a vestige of proof, and probably represents error".

On this page he also attacks Thayer's sweeping conclusions as to the concealing effectiveness of nuptial colors and cites the cock bobolink and breeding cock tanager in refutation, and follows (p. 567) with a most vigorous defense of the advertising coloration of "multitudes of birds, of the red-winged blackbird, of the yellow-headed grackle, of the wood-duck, of the spruce grouse, of birds which could be mentioned off-hand by the hundred, and probably, after a little study, by the thousand". It is noteworthy that in this appendix Mr. Roosevelt refers wholly to birds occurring in America and not to any of his African ornithological experiences.

These references are continued, supplemented and expanded in the letter here published and form the core of his later contribution on the subject, namely, his article entitled "Revealing and Concealing Coloration in Birds and Mammals" (Bull. Amer. Mus. Natural History, New York, vol. 30, article 8). The author's edition bears the date of August 23, 1911. In an appendix to this article he replies to the criticisms of his "extraordinary tirade" by Mr. A. H. Thayer in the Popular Science Monthly for July, 1911. His comments on birds in his Bulletin article are included in the main in his discussion of the theme "Concealment due mainly to cover and habits" (pp. 134-160) which readers will find reminiscent of the letter here published. From these comparisons and from the chronology, it is evident that this letter was written during the time in which the observant and disputatious mind of this versatile naturalist was occupied with the elaboration of his Bulletin article. The capacity of this eminent statesman-naturalist for concentration of thought in the midst of the most diversified activities is strikingly illustrated by this letter and the Bulletin article, which were elaborated during associate editorship of the Outlook and the political turmoil of the incipient Presidential campaign of 1912.

CHARLES A. KOFOID.

University of California, Berkeley, February 26, 1924.

A LIST OF THE LAND BIRDS OF THE GRASS VALLEY DISTRICT, CALIFORNIA

By E. B. RICHARDS

NEVADA COUNTY is located in the north-central portion of California. It is a long, narrow county, seventy-five miles in length and from ten to twenty miles wide. The southwestern end of the county is about 600 feet above sea level, while at the eastern end are found elevations of from 8000 to 9000 feet. Grass Valley, the largest gold-mining town in the state, and Nevada City, the county seat, four miles distant, are located in the south-central part of the county. From vantage points near these towns one may watch the reflected sunset upon the rivers of the Sacramento Valley, then facing about, view the perpetual snows of the Sierra Nevada.

The Grass Valley district, as herein designated, has no sharply defined geographic boundaries, but the entire district may be confined within an imaginary circle of a ten-mile radius of which the city of Grass Valley is the center. It is in the Sierran foot-hills and is mostly in the Upper Sonoran life zone, passing into Transition on the east. Considering the settled condition of the district, the flora and fauna are fairly well represented, though of the birds, resident species are comparatively few.

Passing through the middle of the district, with a course nearly northwest and southeast, is a geological formation known as the "serpentine belt" along which the vegetation is much different from that of the balance of the district. Digger pine (*Pinus sabiniana*) seems to follow this particular rock formation, while the masses of brush upon some of the hill-sides are composed, mainly, of scrub oak (*Quercus dumosa*), manzanita and much wedge-leaved ceanothus (*C. cuneatus*). East of this belt black oak and yellow pine are abundant species, and in some localities Douglas spruce (*Pseudotsuga taxifolia*) and fir (*Abies concolor*) are plentiful. Sugar pine is also found in the mountains. Excepting in the more mountainous parts of the district, the coniferous forests are composed, mostly, of second-growth timber. Mention should be made of the deer-brush and hazel as two of the several plants taking the place of the primitive forest. West of the serpentine belt white oak is prevalent, and small groves of black oak, yellow pine and some species of live oak are found in suitable localities. Many of the rocky, uncultivated hill-sides are covered with manzanita and ceanothus. In some of the numerous canyons and ravines of the district are heavy growths of white alder (*Alnus rhombifolia*), dogwood (*Cornus nuttalli*), and madroña (*Arbutus menziesii*).

While the above outline indicates an abundant native vegetation, it must be borne in mind that a big part of the district is under cultivation, fruit growing being one of the principal industries. As many of the large orchards are young they afford little in the way of food or protection to bird life. In the many little valleys are the "oozy pastures" and meadow-brooks so dear to the blackbirds and meadowlarks; but there are no natural lakes and only a few small storage reservoirs, so we see little of the water birds.

The following list of 114 species and subspecies of land birds is the result of many years of observation by the writer, but it is not offered as a complete catalogue of the district; only birds that could be positively identified are listed.

I wish to acknowledge valuable assistance from Mr. Harry S. Swarth, of the California Museum of Vertebrate Zoology, in identifying specimens. I am also indebted to Mr. E. O. E. Klippahn of Grass Valley for help in classifying the flora of the Grass Valley district.

Oreortyx picta plumifera. Mountain Quail. Fairly common resident of the north-eastern part of the district. Some years numerous as a fall migrant.

Lophortyx californica vallicola. Valley Quail. Common resident, particularly among the lower foothills. A few winter in the central part of the district.

Dendragapus obscurus sierrae. Sierra Grouse. The early settlers say that this grouse was numerous in former days in this part of the county. It is still reported from the more wooded sections of the district at rare intervals.

Columba fasciata fasciata. Band-tailed Pigeon. Irregular winter visitant, particularly to the southern part of the Grass Valley district; also to the oak groves in the Bear River country.

Zenaidura macroura marginella. Western Mourning Dove. Common summer visitant; breeds in considerable numbers on the ranches among the lower foothills. Occurs in small numbers east of the serpentine belt.

Cathartes aura septentrionalis. Turkey Vulture. Common summer visitant. Most numerous in the western part of the district.

Accipiter velox. Sharp-shinned Hawk. Common winter visitant. I have the skin of one shot while feeding from the remains of a freshly killed Valley Quail. Another was taken while trying to capture a Valley Quail in the brush.

Astur atricapillus striatulus. Western Goshawk. Rare winter visitant. I have seen but two of the species in this district. One was shot while feeding upon a chicken it had killed, and the other had been shot by hunters and left hanging on a barbed-wire fence.

Buteo borealis calurus. Western Red-tailed Hawk. Common resident, nesting in the oaks and second-growth pines. It is considered the most troublesome of our birds of prey.

Aquila chrysaetos. Golden Eagle. Casual visitant to certain parts of the district, particularly to Pleasant Valley and other localities in the western section of the county.

Falco columbarius columbarius. Northern Pigeon Hawk. Winter visitant in limited numbers. I have seen only two in this locality.

Falco sparverius sparverius. American Sparrow Hawk. Found breeding in limited numbers. Fairly common in winter.

Aluco pratincola. American Barn Owl. Fairly common resident. Specimens are occasionally taken in the district, mostly south of Grass Valley.

Otus asio quercinus. Southern California Screech Owl. Fairly common resident. This species was more numerous in former years.

Bubo virginianus pacificus. Pacific Horned Owl. Noted sparingly as a resident in wooded localities. Years ago, before the big timber had been cut out, this owl was quite plentiful.

Glaucidium gnoma californicum. California Pigmy Owl. Rather rare winter visitant. Has been found in shade trees within the city limits.

Geococcyx californianus. Road-runner. Resident in limited numbers in the southern part of the Grass Valley district.

Ceryle alcyon caurina. Western Belted Kingfisher. Occasionally seen during fall and winter along the larger streams.

Dryobates villosus hyloscopus. Cabanis Woodpecker. Fairly common resident. Nests in the coniferous groves, particularly in the second-growth pines.

Dryobates pubescens turati. Willow Woodpecker. Common summer visitant. Nests in the willows along the meadow streams and in old orchards. Occasionally met with in winter.

Dryobates nuttalli. Nuttall Woodpecker. Common resident in the White Oak groves west of the serpentine belt. Occasional visitant to the coniferous forests.

Xenopicus albolarvatus albolarvatus. Northern White-headed Woodpecker. Irregular winter visitant. During the winter of 1901-02 hundreds of this species visited Nevada County.

Sphyrapicus varius daggetti. Sierra Red-breasted Sapsucker. Fairly common winter visitant. Rarely seen in summer. No evidence of breeding.

Sphyrapicus thyroideus. Williamson Sapsucker. Occurs sparingly as a winter visitant. Only females noted.

Phloeotomus pileatus picinus. Western Pileated Woodpecker. Fairly common in winter in the more mountainous parts of the district. Rarely seen as far down in the hills as the white oaks.

Melanerpes formicivorus bairdi. California Woodpecker. Abundant resident locally. Sparingly present above the white oaks.

Asyndesmus lewisi. Lewis Woodpecker. Irregular winter visitant. Some years quite numerous among the oaks.

Colaptes cafer collaris. Red-shafted Flicker. Fairly common resident. Nests in old stumps and orchards, and sometimes bores into houses.

Phalaenoptilus nuttalli californicus. Dusky Poor-will. Rare. I have noted but one bird, which was taken at dusk October 9, 1922.

Chordeiles, species? Nighthawk. Fairly common summer visitant. Some years quite numerous in late summer.

Archilochus alexandri. Black-chinned Hummingbird. Summer visitant in small numbers. It is probable that this hummingbird has always been with us as a summer visitant, though I have failed to note it before the last few years.

Calypte anna. Anna Hummingbird. Common summer visitant. Some years, during spring and early summer, the species appears abundantly, many passing on to more northern breeding ranges.

Selasphorus rufus. Rufous Hummingbird. Noted only as a spring migrant. Specimens taken early in April.

Stellula calliope. Calliope Hummingbird. Occasionally seen as a spring migrant. A female taken April 14, 1918, from a number of Anna Hummingbirds among the flowering manzanita.

Tyrannus verticalis. Western Kingbird. Fairly common summer visitant. Apparently less numerous during the last few seasons.

Myiarchus cinerascens cinerascens. Ash-throated Flycatcher. Regular summer visitant, though never plentiful.

Sayornis nigricans. Black Phoebe. Fairly common during fall and winter months. Rarely seen in summer.

Nuttallornis borealis. Olive-sided Flycatcher. Regular summer visitant, but never common.

Myiochanes richardsoni richardsoni. Western Wood Pewee. Common summer visitant. Probably breeds more abundantly than any other flycatcher.

Empidonax difficilis difficilis. Western Flycatcher. Common summer visitant, breeding quite abundantly in suitable localities.

Empidonax hammondi. Hammond Flycatcher. Fairly common spring migrant, though some years it is rarely seen.

Empidonax griseus. Gray Flycatcher. Very rare. In fact, I have but one authentic record: a male taken May 13, 1917, was identified by Mr. Swarth as of this species.

Pica nuttalli. Yellow-billed Magpie. Fairly common resident in the lower valleys of the district. Rarely found above Penn Valley.

Cyanocitta stelleri frontalis. Blue-fronted Jay. Fairly common winter visitant. Often abundant during fall migration. Many spend the winter in the oak groves west of Grass Valley.

Aphelocoma californica californica. California Jay. Common resident, breeding generally throughout the district, but seemingly congregating for the winter in favorable localities.

Corvus brachyrhynchos hesperis. Western Crow. Common in some of the lower valleys of the district, while small flocks occasionally come as far up as the serpentine belt.

Cyanocephalus cyanocephalus. Pinyon Jay. A large flock arrived here about the first of December, 1914. It soon became divided into three or four flocks, which were much in evidence till about the first of April, 1915, when the birds began to leave. My last record is May 25. That was the only time that I have known the Pinyon Jay to visit this part of the county.

Xanthocephalus xanthocephalus. Yellow-headed Blackbird. A straggler is occasionally seen here in summer with the Brewer Blackbirds and Red-wings in the tules.

Agelaius phoeniceus californicus. Bi-colored Red-winged Blackbird. Common summer visitant. A few seen during winter.

Sturnella neglecta. Western Meadowlark. Common resident, nesting in the meadows and grain fields.

Icterus bullocki. Bullock Oriole. Fairly common summer visitant; nesting in the black oaks and often in the shade trees within the city limits. Arrives about April 15.

Euphagus cyanocephalus. Brewer Blackbird. Common resident. In winter large flocks are often seen flying from one rendezvous to another.

Hesperiphona vespertina montana. Western Evening Grosbeak. Irregular winter visitant. Comes in small flocks and seems to prefer the second-growth yellow pines.

Carpodacus purpureus californicus. California Purple Finch. Fairly common winter visitant, usually in small flocks. A few are seen in summer, and may be breeding in the upper sections of the district.

Carpodacus cassini. Cassin Purple Finch. Occurs sparingly as a winter visitant. Seen only in small flocks, and seldom seen in the open ground.

Carpodacus mexicanus frontalis. California Linnet. Abundant resident, though during the winter months they are much less plentiful than at other times, and often disappear during severe weather.

Loxia curvirostra bendirei. Sierra Crossbill. Irregular winter visitant, usually in small flocks. During the winter of 1914-15, however, this species occurred here in great numbers, hundreds congregating in the second-growth yellow pine groves to feed from the pine cones.

Astragalinus psaltria hesperophilus. Green-backed Goldfinch. Common summer visitant. Often seen during mild winters.

Spinus pinus pinus. Pine Siskin. Irregular winter visitant in small flocks. Found along the ravines and creeks feeding on the early buds of the white alder.

Passer domesticus. English Sparrow. An abundant resident, apparently increasing in numbers.

Chondestes grammacus strigatus. Western Lark Sparrow. Common summer visitant, some years nesting abundantly. Occasionally seen during mild winters.

Zonotrichia leucophrys leucophrys. Intermediate Sparrow. Winter visitant in small numbers. More numerous as a fall migrant.

Zonotrichia coronata. Golden-crowned Sparrow. Common winter visitant. This is probably our commonest winter sparrow, haunting the deer-brush and scrub oak in considerable numbers.

Spizella passerina arizonae. Western Chipping Sparrow. Common summer visitant. Never seen in winter.

Junco oreganus shufeldti. Intermediate Junco. Seemingly fairly common as a winter visitant. Skins examined by H. S. Swarth were pronounced *shufeldti*, which subspecies appears to be of rather uncertain status in this state.

Junco oreganus thurberi. Sierra Junco. This subspecies occurs as a winter visitant. It is seen in flocks with other juncos, probably *shufeldti*. We have a breeding junco yet to be classified.

Melospiza melodia merrilli. Merrill Song Sparrow. Winter visitant. Never common, though occasionally appearing in fairly large numbers as a fall migrant.

Passerella iliaca sinuosa. Valdez Fox Sparrow. One specimen collected at Grass Valley, October 21, 1917.

Passerella iliaca mariposae. Yosemite Fox Sparrow. Fairly common summer visitant, nesting in the ceanothus thickets.

Pipilo maculatus megalonyx. Spurred Towhee. Common resident. Breeds abundantly on the brushy hillsides and in the ravines.

Pipilo crissalis carolae. Northern Brown Towhee. One of our few resident birds, abounding in all brushy localities.

Zamelodia melanocephala capitalis. Pacific Black-headed Grosbeak. Common summer visitant. One of the latest arrivals and one of the first to leave.

Passerina amoena. Lazuli Bunting. Common summer visitant. Some years abundant. Found nesting in the chaparral thickets and in small pines and willows.

Piranga ludoviciana. Western Tanager. Fairly common summer visitant. Usually found in second-growth yellow pine groves.

Progne subis hesperia. Western Martin. A few years ago this bird was a fairly common summer visitant, nesting in the oaks and under the eaves in the business part of the town. During the last five or six years it has become irregular, and of decreasing numbers. The ever increasing colony of English Sparrows may be responsible for its desertion.

Petrochelidon lunifrons lunifrons. Cliff Swallow. Common summer visitant, nesting around mines and farm buildings. It arrives about the middle of April.

Hirundo erythrogaster. Barn Swallow. Common summer visitant, nesting in deserted mine shafts and buildings. For three succeeding years my first date of arrival was April 10.

Bombycilla garrula. Bohemian Waxwing. I know of but one occurrence of this species. In February, 1911, a flock of about one hundred appeared in the orchards east of Grass Valley. It soon separated into a number of small flocks which were much in evidence till well along in April, when they finally disappeared. Most of the time they were in the apple orchards, where they fed on the dried fruit still on the trees, though I found them feeding in the pine trees, as well. They attracted much attention.

Bombycilla cedrorum. Cedar Waxwing. Common but irregular fall and winter visitant. Recorded as early as September 25. Also recorded as a late spring visitant; a small flock seen and specimens taken as late as June 3.

Vireosylva gilva swainsoni. Western Warbling Vireo. Common summer visitant. Found in the white alders and dogwoods along the creeks, and sometimes on the brushy hill-sides.

Lanivireo solitarius cassini. Cassin Vireo. Seen only in late summer. A male taken September 2, 1917, and a female taken September 6, 1917, were probably migrants.

Vireo huttoni huttoni. Hutton Vireo. Common summer visitant. Generally found in the pine forests. Also found nesting in the deer-brush thickets.

Vermivora ruficapilla gutturalis. Calaveras Warbler. Occurs only as a migrant; generally seen during May, sometimes late in April.

Vermivora celata lutescens. Lutescent Warbler. Fairly common summer visitant. Numerous as a migrant.

Dendroica aestiva brewsteri. California Yellow Warbler. Common summer visitant. Most numerous of our warblers, nesting in the gardens, orchards and chaparral.

Dendroica coronata hooveri. Alaska Myrtle Warbler. Noted sparingly as a spring migrant. In April, 1918, this species appeared in unusual numbers.

Dendroica auduboni auduboni. Audubon Warbler. Common as a spring migrant, a few staying through the summer to breed. It is also common as a winter visitant.

Dendroica nigrescens. Black-throated Gray Warbler. Fairly common summer visitant. During the summer of 1911 this species was very numerous in this region, evincing a preference for the coniferous groves.

Dendroica townsendi. Townsend Warbler. Noted as a rare migrant. One young male taken in a grove of pines on September 8, 1918.

Oporornis tolmiei. Tolmie Warbler. Rare summer visitant. No nests found, but probably breeding here.

Icteria virens longicauda. Long-tailed Chat. Fairly common summer visitant, breeding along the ravines and creeks. In some localities found nesting in dense thickets of deer-brush.

Wilsonia pusilla chryseola. Golden Pileolated Warbler. Rare summer visitant. Some years fairly common as a migrant.

Anthus rubescens. American Pipit. Fairly common, though irregular, winter visitant; some years appearing in large flocks.

Cinclus mexicanus unicolor. American Dipper. Fairly common resident along the ravines and creeks. In May, 1917, I found a pair nesting under a mine hoist and close to the high-power water wheels, where they had to pass through streams of water from the wheels.

Toxostoma redivivum sonomae. Sonoma Thrasher. Fairly common resident. Generally found along the rocky serpentine belt, where scrub oak, manzanita and ceanothus occur in dense thickets.

Thryomanes bewicki drymoeus. Sacramento Bewick Wren. Fairly common resident. Found nesting on the brushy hill-sides, and often in curious places. I found a pair nesting in the lining of an old coat, which was hanging from a stump.

Troglodytes aedon parkmani. Western House Wren. Occurs sparingly as a summer visitant. Found around deserted mine buildings.

Nannus hiemalis pacificus. Western Winter Wren. Regular winter visitant, though never common. More numerous than usual during the winter of 1918-19.

Certhia familiaris zelotes. Sierra Creeper. Occurs regularly in small numbers as a winter visitant. Generally found in the pine and cedar groves with the nuthatches.

Sitta carolinensis aculeata. Slender-billed Nuthatch. Regular winter visitant in small numbers. Casual in summer, but not found breeding.

Sitta canadensis. Red-breasted Nuthatch. Irregular winter visitant. Some seasons appears in considerable numbers.

Baeolophus inornatus inornatus. Plain Titmouse. Fairly common resident, particularly below the serpentine belt.

Penthestes gambeli. Mountain Chickadee. Occurs regularly, though sparingly, as a winter visitant.

Psaltriparus minimus californicus. California Bush-tit. Noted sparingly in summer; no nests found. Often numerous during fall and winter months.

Chamaea fasciata henshawi. Pallid Wren-tit. Common resident. Breeds on the brushy hill-sides, mainly where scrub oak and manzanita abound.

Regulus satrapa olivaceus. Western Golden-crowned Kinglet. Fairly common as a winter visitant. During the winter of 1916-17 this species was quite numerous.

Regulus calendula cineraceus. Western Ruby-crowned Kinglet. Regular winter visitant, but never abundant.

Poliptila caerulea obscura. Western Gnatcatcher. Noted casually as a summer visitant. Sometimes in small flocks as a migrant.

Myadestes townsendi. Townsend Solitaire. Occurs sparingly as a winter visitant, usually in mid-winter or early spring.

Hylocichla ustulata ustulata. Russet-backed Thrush. Fairly common summer visitant in suitable localities. Ten years ago this thrush was rarely seen here, but it has steadily increased in numbers.

Hylocichla guttata guttata. Alaska Hermit Thrush. Common winter visitant, haunting the tangles of manzanita and ceanothus on the hillsides, particularly along the serpentine belt.

Hylocichla guttata nanus. Dwarf Hermit Thrush. Of several hermit thrush skins examined by Mr. H. S. Swarth, two were found to be *H. g. nanus*, though one was pronounced "not quite typical of that subspecies."

Planesticus migratorius propinquus. Western Robin. Fairly common as a breeding species. Usually common in winter; some winters abundant.

Ixoreus naevius naevius. Varied Thrush. Sparing as a winter visitant. During the winter of 1900-01, however, this thrush occurred here in large flocks.

Sialia mexicana occidentalis. Western Bluebird. Fairly common resident locally. This bird is most in evidence during the winter months, but does not appear to be so numerous as in former years.

Grass Valley, California, January 22, 1924.