

chanced upon a nest containing two eggs, uncovered; my visit to this nest on June 20 disclosed three eggs, well covered, evidently a complete set, No. 6. This nest was a large, strong mound, made as usual, 4 inches in height, 22 inches wide at water, cavity 7 inches across and 1.5 inches deep. It was anchored in the edge of a small clump of reeds. The eggs varied from one infertile to an advanced stage of incubation.

At this time it appeared to me that I had located every nest of *C. holboelli* in the swamp, but the morning of June 18 brought a pleasant surprise in the form of nest No. 7, a new nest, among buckbrush in the edge of the swamp. It was made on depressed branches of the bushes, a large, strong mass of decayed reeds with some new material intermingled in the top. Here were four eggs, well baked, incubation far advanced; indeed, the shells appeared to contain only black feathers and bones. However, by patient applications of soda for the better part of a week, the only suitable article in camp, I made a fine set of this find.

A review of the foregoing data shows

that at least five pairs of *C. holboelli* were breeding in the region explored. I am certain that no other species of grebe was living in the swamp, and also that no more than the five pairs were inhabiting the region. No nest was found within at least one hundred yards of any other occupied nest. Seven sets of eggs were taken, as follows: June 4, five eggs, loosely covered, incubated to blood; June 7, four eggs, covered, incubated to blood; June 17, five eggs, uncovered, fresh, likely a second set; June 17, three eggs, covered, incubated to blood; June 18, four eggs, covered, incubation almost complete; June 20, three eggs, well covered, incubated to blood; June 20, four eggs, uncovered, fresh, evidently a second set. In the majority of instances, eggs were deposited not oftener than on alternate mornings.

Thus far I have no time to give to accurate measurements of the eggs, but in preparing them for specimens there was found to be wide variation in size, as they range approximately between 2.10 and 2.50 inches in length, and 1.15 and 1.50 inches in width.

The Redwood Belt of Northwestern California.

II. LAND BIRDS. *

BY WALTER K. FISHER.

THE following list of land birds of the Redwood belt of Humboldt and Del Norte counties is by no means complete. The region is one of considerable interest, and in publishing the list I have been largely actuated by a desire to aid those Californians who are interested in geographical distribution. So far as I am aware no list of the breeding birds of this region has yet appeared. With the exception of *Ampelis cedrorum* and probably of *Melospiza cinerea phæa* all the birds are breeding species in the region. The time, circumstances, and limits of these notes have already been alluded to*. I am much indebted to Dr. T. S. Palmer for the use of a manuscript list of the birds of this region, made by him during the latter half of May and the first part of June, 1889. In each case I have accredited his records by initials. I am also indebted to Dr. C. Hart Merriam for the use of specimens in the Biological Survey collection, and to Mr. Robert Ridgway for the use of types.

*See CONDOR IV, Sept., p. 111.

Lophortyx californicus. California Quail. Common in openings, and in old 'lumbered' tracts near second-growth cover. The species was not observed in the humid belt at Crescent City.

Bonasa umbellus sabiniei. Oregon Ruffed Grouse. I found this species only in the heavy redwood forest north of Mad River, Humboldt Bay. Several individuals were seen, and one had a small family of downy chicks, June 11.

Columba fasciata. Band-tailed Pigeon. Fairly common in the more open land, both near the coast and in the interior, Humboldt Bay to Crescent City.

Zenaidura macroura. Mourning Dove. Found sparingly at Humboldt Bay near the coast north to Crescent City.

Cathartes aura. Turkey Buzzard. Common. ["On June 13 I found a buzzard caught in my steel-trap. The trap was set among bushes on the edge of a dense spruce grove and it was practically impossible to see the bait except within a few feet of the trap. The bait (the body of a rabbit) had remained untouched for several days and was somewhat odoriferous. This seems to be a clear case of the buzzard finding its food by the sense of smell alone." T. S. P.]

Buteo borealis calurus. Western Red-tail. A few seen.

Falco peregrinus anatum. Duck Hawk. ["Seen in the vicinity of Eureka, where Mr. Fiebig informs me it is abundant." T. S. P.]

Falco sparverius. Sparrow Hawk. In the open meadow-land near the coast this species is common.

Pandion haliaetus carolinensis. American Osprey. An osprey had its nest in the top of a big redwood in the dense forest northeast of Humboldt Bay. Several were seen at Crescent City.

Megascops asio subsp. Screech Owl. While at a lumbering camp north of Mad R., Humboldt Bay I heard a screech owl several different times and one of the lumbermen reported a 'small owl.' It is hardly probable that *kennicotti* breeds this far south. Most likely the form will be found to be intermediate between *bendirei* and *kennicotti*.

[**Bubo virginianus saturatus?**] Dusky Horned Owl. "A pair of very wild young were seen among the old hollow burnt redwoods." Crescent City; J. E. McClellan, MS note.]

Ceryle alcyon. Kingfisher. Along all the larger streams.

Dryobates villosus harrisi. Harris Woodpecker. Common in the more open woods, and not infrequently seen in the dense forest.

Dryobates pubescens gairdneri. Gairdner Woodpecker. At Crescent City I found this species in forests of small tideland spruces and occasionally in the open among the willows. This is one of the few localities in California where *typical gairdneri* has been taken. Not observed at Humboldt Bay.

Colaptes cafer collaris. Red-shafted Flicker. Fairly common in the more open country. A single specimen, an adult male, taken at Humboldt Bay is clearly referable to this form. The crown is practically the same as typical *collaris*, and lacks the decidedly brown tint of *saturator*. The ground color of the back is a trifle darker than *collaris*, and the tertials are also darker. The specimen thus shows tendencies in the direction of *saturator*. No specimens were taken at Crescent City so I am unable to say just how the bird looks. (Not *Colaptes cafer saturator*, CONDOR III, 1901, 91).

Chordeiles virginianus. Nighthawk. Very abundant.

Chætura vauxi. Vaux Swift. Common in all open places. The species is said to breed in hollow redwoods.

Selasphorus alleni. Allen Hummingbird. This bird was collected at Hum-

boldt Bay. The species is common here, and is found at Crescent City. Being unable to distinguish this form from *rufus* 'out of the hand', I am unable to say whether *rufus* breeds in the redwood belt.

Tyrannus verticalis. Arkansas Kingbird. ["Seen near Eureka." T. S. P.]

Sayornis nigricans semiatra. Black Phoebe. ["Tolerably common." T. S. P.] I did not observe this species or the preceding. They are probably confined to the Eel R. Valley.

Contopus borealis. Olive-sided flycatcher. Common in the heavier redwood forests at Humboldt Bay. Not seen at Crescent City.

Contopus richardsoni. Western Wood Pewee. ["Observed at Humboldt Bay and Crescent City." T. S. P.]

Empidonax difficilis. Western Flycatcher. ["Vicinity of Eureka." T. S. P.] Common in small woods of Sitka spruce, alders and wild apples (*Pyrus rivularis*). Crescent City.

Cyanocitta stelleri carbonacea. Coast Jay. Abundant and imperious as usual. Both winter and summer specimens from Humboldt Bay are typical *carbonacea*.

Perisoreus obscurus. Oregon Jay. This is not abundant at Humboldt Bay or else its retiring and demure habits render it very inconspicuous. It undoubtedly breeds in the vicinity. None were seen at Crescent City.

Corvus corax [sinuatus?] American Raven. Occurs at Eureka (T. S. P.) and is reported from Crescent City. I saw none at either locality. The form may be *principalis*, which Dr. A. K. Fisher secured at Quinalt, Washington.

Corvus americanus? American Crow. Not common at Humboldt Bay, where a few were seen near the sea; common at Crescent City.

Agelaius sp. A few redwings were seen but as no specimens were taken I am unable to give the precise form.

Sturnella magna neglecta. Western Meadowlark. Common in open meadowland near the coast.

Scolecophagus cyanocephalus. Brewer Blackbird. Common.

Carpodacus purpureus californicus. California Purple Finch. One specimen was taken in the lumbered district near Mad R., Humboldt Bay.

Carpodacus mexicanus frontalis. House Finch. Common.

Astragalinus tristis salicamans. Willow Goldfinch. Abundant in the open country.

Spinus pinus. Pine Siskin. Fairly common in the recently lumbered districts, near heavy forests, Humboldt Bay.

Ammodramus sandwichensis bryanti. Bryant Marsh Sparrow. This is an abundant breeding race in the marshes and meadows about Humboldt Bay. Two specimens, adult male and female, were taken and these are referable to *bryanti* in their smaller size, darker color, and more crowded spotting on breast and sides of throat.

Ammodramus sandwichensis alaudinus. Western Savanna Sparrow. A specimen taken at Crescent City (adult male, July 1, much worn) I have referred to this subspecies. It is not typical however, and in respect to size is intermediate between *bryanti* and *alaudinus*. The specimen matches a small worn *alaudinus* from Honey Lake, California. The Crescent City specimen has much fewer breast and throat spots, than those from Humboldt Bay, but the mesial streaks of the feathers of the back are of about the same intensity.

Zonotrichia leucophrys nuttalli. Nuttall Sparrow. Common all along the coast and in the 'lumbered' areas of the interior.

Spizella socialis arizonæ. Western Chipping Sparrow. [Only tolerably common at Eureka. T. S. P.]

Melospiza cinerea cleonensis. Mendocino Song Sparrow. Abundant breeding bird along the coast from Mendocino county to Crescent City. The species fairly swarms in some places, and is the commonest bird in deforested areas. It is found also in the less dense spruce and arborvitæ swamps. Six breeding birds from Humboldt Bay, and two from Crescent City have been compared with the type of *cleonensis*, which comes from Westport, Mendocino Co. The describer made an unfortunate choice of type, as it is an extremely worn, faded, and generally disreputable-looking female. Allowing for this, however, the Humboldt Bay and Crescent City birds agree with it in color and measurements, except that their upper parts are a trifle darker. *Cleonensis* in its most typical form is found from Humboldt Bay to Crescent City. The type, to use a curious expression, is not typical *cleonensis* but tends ever so little toward *samuelis*. A specimen taken near Eureka is obviously an 'intergrade' with *samuelis*. The Mendocino song sparrow is a good subspecies and is fairly constant throughout its range. It will be found to intergrade with *samuelis*, however, over a rather large area—anywhere in fact south of Cape Mendocino. [Not *Melospiza melodia morphna* CONDOR III, 1901, 91.]

Melospiza cinerea phæa. Oregon Song Sparrow. Three birds, probably migrants, collected near Crescent City by Edmund Heller in the autumn of 1901, are referable to this form. (CONDOR IV, March 1902, 36.)

Melospiza cinerea morphna. Rusty Song Sparrow. I collected a very curious, worn, rufescent male (July 5, 1899) at Crescent City which is an anomaly in many respects. It looks like a small *morphna* and is considerably different from either *cleonensis* or *phæa* in worn plumage. The bird may be an extreme individual variant from *cleonensis* as it is difficult to account for *morphna* in this locality so early.

Pipilo maculatus oregonus. Oregon Towhee. ["Found in the vicinity of Eureka." T. S. P.]

Zamelodia melanocephala. Black-headed Grosbeak. Not uncommon in the open country. Humboldt Bay ["One seen June 17," Crescent City. T. S. P.]

Cyanospiza amœna. Lazuli Bunting. ["Observed in the vicinity of Eureka." T. S. P.]

Progne subis hesperia. Western Martin. [Reported from Mad River, Humboldt Bay and Crescent City. T. S. P.]

Petrochelidon lunifrons. Cliff Swallow. Common.

Hirundo erythrogastra. Barn Swallow. Common.

Tachycineta bicolor. Tree Swallow. Common.

Stelgidopteryx serripennis. Rough-winged Swallow. Seen at Trinidad Head. [Mad R., Humboldt Bay. T. S. P.]

Ampelis cedrorum. Cedar Waxwing ["I found a recently killed specimen in the road June 9th. I am told that the bird is common in the vicinity, staying about the orchards to eat cherries." Crescent City. T. S. P.]

Helminthophila celata lutescens. Lutescent Warbler. [Reported from Eureka. T. S. P.]

Dendroica æstiva. Yellow Warbler. [Common near Eureka; Crescent City. T. S. P.]

Geothlypis trichas arizela. Pacific Yellow-throat. [One seen at Rio Dell, Humboldt Co. T. S. P.]

Wilsonia pusilla pileolata. Pileolated Warbler. One of the few birds found in the deep forest; common also in small woods and copses.

Olbiorchilus hiemalis pacificus. Western Winter Wren. This is the commonest bird in the great redwood forests, where it is thoroughly at home and sings frequently. Humboldt Bay and Crescent City.

Cistothorus palustris paludicola. Tule Wren. I found the tule wren in a small open treeless boreal swamp at Crescent City. [Reported from "marshes of Humboldt Co." C. H. Townsend, Proc. U. S. Nat. Mus. X. 227.]

Certhia familiaris occidentalis. California Creeper. Observed at Humboldt Bay. [Collected at Crescent City. T. S. P.]

Parus rufescens. Chestnut-backed Chickadee. A common and characteristic bird of the redwood swamps, more open forest, and thick groves of shore pine close to the coast. The species probably does not breed farther south than the limit of the Sitka spruce.

Chamæa fasciata phæa. Coast Wren-tit. Not uncommon in thick brush close to the coast where it is oftener heard than seen.

Hylocichla ustulata. Russet-backed Thrush. An abundant and musical species in the shady moss-hung forests. I also found it in groves of shore pine, within sound of the surf. Humboldt Bay and Crescent City.

Ixoreus naevius. Varied Thrush. This superb bird undoubtedly breeds in the dense redwood forest where I secured a specimen June 11, and again saw one June 28. It is, however, rare and so retiring that it has heretofore escaped detection in this region. The specimen, an adult female, is typical *naevius*, the back being a rich brown.

Merula migratoria propinqua. Western Robin. An abundant breeding bird, Humboldt Bay to Crescent City.

Sialia mexicana occidentalis. Western Blue Bird. Not uncommon in cleared land.

A List of Birds Collected in Norton Sound, Alaska.

BY RICHARD C. MCGREGOR.

ON June 13, 1900, the Coast and Geodetic Survey steamer *Pathfinder* left Seattle, Washington, for Norton Sound, Alaska, where she had been detailed to make a survey. Our trip up was a quick one. Several days at Dutch Harbor, and a few hours at Nome City were the only stops in our voyage. With the exception of a very few days we were not inconvenienced by rain, fog or wind. As to temperature we found it very agreeable during our whole stay in Norton Sound, from June 27 to September 25.

From afar the shores of Norton Sound for the most part are uninviting, the great scarcity of trees giving the whole country a desolate appearance. The tundra plain extends a distance of one to three miles from the beach, where it rises on low ranges of hills, barren except for patches of brush and tundra moss. Viewed at close quarters the tundra is found to support an extensive and varied flora, and to be as full of water as a wet sponge.

Along the shore and for several miles east of Thor and extending inland for from one to five miles are thick spruce woods, and just east of Cape Denbigh there is a small patch of the same species.

1. Dutch Harbor is a small bay on the eastern side of Amaknak (=Amaguak) which is a small island separated from Unalaska (=Oonalaska) Island by a narrow strait. All these names refer to practically the same locality. I have included in this paper notes on several species observed at Dutch Harbor, tho they do not belong to Norton Sound.