# NOTES FROM NORTHWESTERN LOWER CALIFORNIA, WITH THE DESCRIPTION OF AN APPARENTLY NEW RACE OF THE SCREECH OWL.

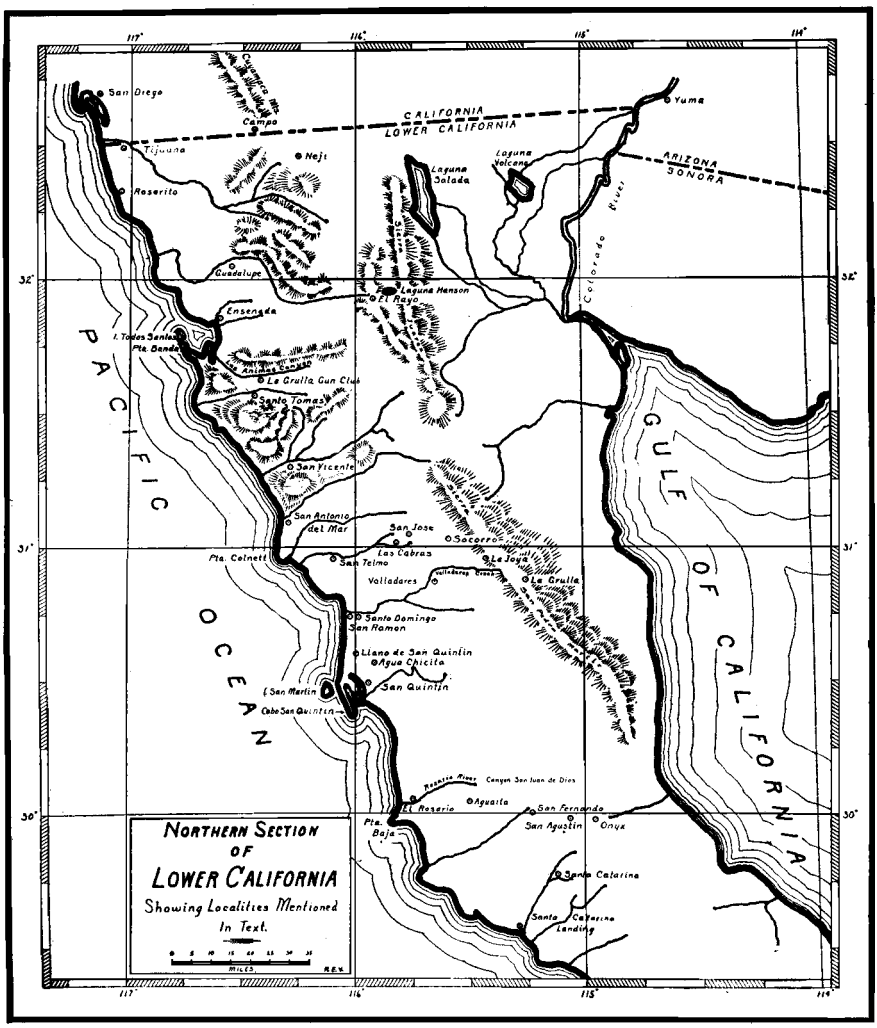
BY LAURENCE M. HUEY.

THE present paper is based on field work in Lower California during parts of the years 1923, 1924 and 1925. In that time five trips were made by the writer, in the interest of the Natural History Museum, San Diego, California, into the Northern District of the peninsula. The dates of the trips, which were made from San Diego in the company of various persons, and their furthest destinations were: April 6 to 21, 1923, to Santa Catarina Landing; May 31 to June 29, 1923, to Sierra San Pedro Martir; June 26 to July 27, 1924, to Sierra Juarez; February 18 to March 3, 1925, to San Quintin; April 27 to June 29, 1925, to Aguaita. All work was done with the cordial and generous support of the Mexican Government, whose respresentative, the late Prof. Jose M. Gallegos of the Department of Estudios Biologicos, was in official charge of the second 1923 and the 1924 trips. Other coworkers in the field include Griffing Bancroft of the San Diego Society of Natural History, who financed the first 1923 trip, Clinton G. Abbott, Director of the Natural History Museum, San Diego, and Mrs. May Canfield of the San Diego Society of Natural History, whose cooperation has made these notes possible.

The attached list is in no sense intended to cover all the birds of the region; it includes only those species to which some reference that seemed worthy of record was made in the field notes. On trips necessarily of such short duration, it would be several years before a comprehensive survey could be made even of the Northern District. Nevertheless, sufficient interesting observations have so far been made it would seem, to warrant, publication of the ornithological findings to date.

The topography of the territory is affected by various factors which are of interest to the naturalist. In the foot-hill area, between Sierra San Pedro Martir and the Pacific Ocean, where most of the field work covered by this paper has been done, diverse influences converge. From the south there is the influence of the

arid tropical desert which occupies the southern half of the peninsula; from the north the influence indicates a combination derived




both from the coast and from the Colorado Desert. Plain evidence of these influences is found in the characteristic flora of each of the

contributing regions. For instance, peculiar desert plants of the south, of which a conspicuous example is a giant cactus locally known as cardon (*Pachycereus*), find their northern limit about four miles east of Santo Domingo. Furthermore, along the coast up to a point some 20 miles north of San Quintin, the low-growing shrubs are fairly smothered with "orchilla," a species of lichen (*Roccella*), that occurs abundantly to the south, where warmth and ocean fog provide the conditions for its growth. On the other hand, the southern limit of chamisal (*Adenostoma fasciculatum*), so abundant along the coast further north, seems to be on the higher hills in the latitude of El Rosario, whereas the desert counterpart of this shrub, redshank (*Adenostoma sparsifolium*), mingles with it at the base of the Sierra San Pedro Martir east of San Quintin. Another plant whose course can be followed from the northeast is Parry's pinyon (*Pinus quadrifolia*), which in San Diego County, California, grows on the east slope of the Laguna Mountains, but on Sierra San Pedro Martir, 250 miles further south, is found on slopes facing the Pacific.

The result of these converging influences is to create a peculiar and limited local area, which may roughly be said to extend from the foot-hills south of San Vicente to El Rosario, and from the ocean to the lower slopes of Sierra San Pedro Martir. This area might be called the San Quintin faunal subdivision of the district, and would take the place of the coastal portion of the southernmost part of the San Diegan District, as outlined by Dr. E. W. Nelson in his "Lower California and its Natural Resources," (Memoirs of the National Academy of Sciences, Vol. XVI, map facing page 118.) Additional evidence of the differentiated character of this limited area may perhaps be found in the abundant growth of a certain wild rose (*Rosa minutifolia*), on the hillsides beyond the reach of the sea fogs which was not found commonly either to the north or south. A new species of kangaroo rat (*Dipodomys gravipes*), was also established,[1] which is apparently confined to this region.

The bird life of the district is such as might be expected when its character is understood. Thus it is not surprising to find the San

[1]Proceedings of the Biological Society of Washington, Vol. 38, Pp. 83-84.

Fernando Flicker (*Colaptes chrysoides brunnescens*), Mearns's Thrasher (*Toxostoma cinereum mearnsi*), San Fernando Woodpecker (*Dryobates scalaris eremicus*), Desert Black-throated Sparrow (*Amphispiza bilineata deserticola*), and others representative of the arid regions inhabiting this locality. These forms from the south find their northern limit in the foot-hills along the coastal slope of Sierra San Pedro Martir, while such northern races as the Rosario Thrasher (*Toxostoma redivivum helva*), San Diego Red-winged Blackbird (*Agelaius phoeniceus neutralis*), and Pallid Wren-Tit (*Chamaea fasciata henshawi*), find their southern limit in the same territory.

Close observation of the birds in such an area brings out forcibly the value of associational study. Thus *Colaptes chrysoides brunnescens*, dependent for nesting sites upon the giant cactus, is not found beyond the northernmost growth of the plant a few miles east of Santo Domingo. Similarly, the form of Thrasher from the south, *Toxostoma cinereum mearnsi*, living in strictly cactus association, finds its northern limit in the vicinity of San Telmo, where the greater part of the wonderful cactus flora characteristic of the peninsula comes to an end.

The presence of streams of water or subterranean flows naturally has a special influence on the flora and fauna. Drainage from the higher mountains creates damp valleys suitable for the growth of willows and arrow-weed. South of Sierra San Pedro Martir such valleys are lacking for long distances. In the foot-hill valleys fed from sources in the Sierra San Pedro Martir many northern species of birds reach their southernmost limit and do not wander far from the plant association that occurs in these valleys.

**Larus glaucescens.** GLAUCOUS-WINGED GULL.—Six birds of this species were seen on the ocean beach at San Ramon, June 6, 1925. Countless numbers of sea birds were congregated at this point owing to the fact that the wave action had dammed up the mouth of the Santo Domingo River, forming two large lagoons of fresh water in which the sea birds were bathing.

**Phalacrocorax auritus albociliatus.** FARALLON CORMORANT.—Seen in thousands along the coast between San Ramon and the vicinity of El Rosario April 29, May 17 and 18, and June 6 and 7, 1925. Its abundance is the only reason for mentioning this bird. The writer watched Cormorants of this subspecies pass in long lines reaching from the beach to a point several miles out to sea for three hours on the morning of June 7,

1925. On all the dates the movement of the birds was toward the north in the morning and toward the south in the evening.

**Mareca americana.** BALDPATE.—This species occurs commonly as a winter visitant. Found in the small ponds at La Grulla, Sierra San Pedro Martir, during June, 1923. Three specimens were shot June 14, 1923, by Dr. John Van Denburgh of the California Academy of Sciences, a member of our party. Dissection showed these birds to be non-breeders.

**Olor columbianus.** WHISTLING SWAN.—Apparently a regular winter visitant to Laguna Hanson, Sierra Juarez. Three specimens in the flesh, all from that lake, have been brought to the Natural History Museum by sportsmen, one on December 13, 1923, and two on November 16, 1924.

**Butorides virescens anthonyi.** ANTHONY'S GREEN HERON.—Observations of this Heron are limited to two occurrences, one on May 11, 1925, at El Rosario and the other on June 6, 1925, at San Ramon. The latter bird was shot, but fell far into a dense tule marsh and could not be retrieved. The date might indicate that the bird was breeding.

**Rallus virginianus.** VIRGINIA RAIL.—This species was recorded as breeding in two localities on the peninsula. At Laguna Hanson in the Sierra Juarez, an adult male was shot July 17, 1924, and a juvenile in black plumage the day following, and at San Ramon on June 6, 1925, an adult female and a juvenile in black plumage were collected. The call of this Rail was also heard in a tule patch at El Rosario, May 12, 1925, and the inference is that the bird was breeding, as conditions were even more suitable than at the two localities where specimens were collected.

**Creciscus coturniculus.** CALIFORNIA BLACK RAIL.—A male bird of this species was caught on June 6, 1925, in a mouse-trap set for meadow mice near the water's edge in a tule swamp at San Ramon. Dissection proved that it was breeding. However, a careful search of the nearby marsh failed to reveal a nest, nor was the call note of another bird heard. The writer is thoroughly familiar with the habits of this species on its nesting grounds in the salt marshes bordering San Diego Bay, California, but the present location offered new obstacles in the form of tall tules and luxuriant fresh-water vegetation, so that locating a nest was next to impossible.

**Fulica americana.** AMERICAN COOT.—Coots were present and breeding in all suitable localities—Laguna Hanson, La Grulla (Sierra San Pedro Martir), San Ramon and El Rosario. Coots with newly hatched young were seen June 10, 1923, on the small lakes in La Grulla, and nests were found containing fresh eggs as late as July 25, 1924, at Laguna Hanson.

**Limnodromus griseus scolopaceus.** LONG-BILLED DOWITCHER.—A single bird of this species was seen at San Ramon as late as June 7, 1925.

**Limosa fedoa.** MARBLED GODWIT.—A single bird was still at San Ramon on June 7, 1925.

**Totanus melanoleucus.** GREATER YELLOW-LEGS.—Five Greater Yellow-legs were closely scrutinized at San Ramon on June 7, 1925.

**Podasocys montanus.** MOUNTAIN PLOVER.—Found but once, when

a migrating band was discovered February 18, 1925, on the plain near Rosarito Beach, about 18 miles south of the international boundary.

**Columba fasciata fasciata.** BAND-TAILED PIGEON.—One individual seen near the summit of the grade north of Santo Tomas on April 28, 1925.

**Melopelia asiatica trudeaui.** WHITE-WINGED DOVE.—Several heard and seen at a distance amid the giant cactuses 7 miles east of Santa Catarina April 15, 1923. Two pairs were also observed in the giant cactuses in Canyon San Juan de Dios May 2 and 5, 1925, but they were so extremely wild that collecting was impossible. I was informed by Miss Hamilton, who owns a ranch at Santo Domingo, that White-winged Doves are abundant in that vicinity in fall, and mute evidence in support of this statement was provided behind the woodshed, where visiting hunters clean their game; for in a great pile of feathers was a good sprinkling of identifiable feathers from this bird.

**Chaemepelia passerina pallescens.** MEXICAN GROUND DOVE.—Found breeding commonly in the drier parts of the willow bottom a few miles east of El Rosario. Fresh eggs were obtained from May 11 to May 22, 1925. All of the nests were situated a few feet above the ground on horizontal arrow-weed branches.

**Gymnogyps californianus.** CALIFORNIA CONDOR.—Occurs in the higher mountains. One was seen in Sierra San Pedro Martir, June 12, 1923, and one in Sierra Juarez, July 21, 1924.

**Cathartes aura septentrionalis.** TURKEY VULTURE.—Abundant in summer and occurs sparingly in winter. One seen February 21, 1925, at Santo Domingo.

**Circus hudsonius.** MARSH HAWK.—Found in suitable localities as far south as El Rosario, where it undoubtedly breeds, as birds were seen during April and May, and the valley is ideal for their nesting.

**Accipiter cooperi.** COOPER'S HAWK.—Common winter visitant. Three were seen at Santo Domingo as I was leaving that place March 2, 1925. Breeds in suitable localities. A nest with five young was found in an oak near Guadalupe May 31, 1923. On April 28, 1925, in the live oak belt a mile southeast of La Grulla Gun Club (about 20 miles south of Ensenada) a fine adult Cooper's Hawk flew directly in front of my machine. A pair was also noted, together or individually, many times at El Rosario during May, 1925, and always in the same vicinity. They were so shy that it was impossible to get within gun range.

**Parabuteo unicinctus harrisi.** HARRIS'S HAWK.—This bird has been observed three times in the coastal region. On June 3, 1923, one flushed from a fence post by the roadside at Santo Tomas; one was seen flying at sunset near Santo Domingo, February 20, 1925; and five were seen June 6, 1925, about halfway down the valley between Santo Domingo and San Ramon. One of the latter was collected and proved to be an adult male. I stalked the others for an hour, only getting close enough to determine that three were young on the wing and the other an adult, no doubt the female. The question naturally arises of how near this place the young

were hatched. There was no suitable tree within a radius of forty miles, though large sumach bushes fifteen feet high were not uncommon and would offer some suitable nesting sites.

**Buteo abbreviatus.** ZONE-TAILED HAWK.—Seen on the higher ranges. One was secured on June 16, 1923, at La Grulla, Sierra San Pedro Martir, by A. W. Anthony of San Diego, a member of our party; one was seen by the writer at the same place June 22, 1923; a male was collected at El Rayo, Sierra Juarez, July 7, 1924; and a bird was observed four miles east of Laguna Hanson, July 14, 1924.

**Buteo swainsoni.** SWAINSON'S HAWK.—Seen but twice below the border. A pair was observed near Rosarito Beach, April 27, 1925, evidently on migration. Another pair was seen ten miles south of Ensenada in Las Animas Canyon, April 28, 1925. These two birds were perched on the same limb in a large sycamore, and were scrutinized, at a hundred yards' distance, with powerful binoculars. Several old Hawk nests in the nearby trees and the actions of the birds indicated this to be their nesting ground.

**Archibuteo ferrugineus.** FERRUGINOUS ROUGH-LEGGED HAWK.—Occurs in winter along the coastal plains. One was seen eight miles south of Ensenada, February 18, 1925, and two were collected at Santo Domingo —one on February 21 and one on February 22, 1925.

**Aquila chrysaetos.** GOLDEN EAGLE.—One was observed flying over Sierra San Pedro Martir at La Grulla, June 15, 1923, and another was flushed from the reeking carcass of a dead cow near the roadside on the north end of San Quintin plain, February 25, 1925. The bird had been feeding on carrion in company with a dozen Ravens—the writer's first experience of seeing a Golden Eagle partaking of such fare!

**Falco mexicanus.** PRAIRIE FALCON.—A single individual was observed at El Rosario, May 3, 1925.

**Falco peregrinus anatum.** DUCK HAWK.—Of common occurrence along the coast. Observed inland at La Grulla, Sierra San Pedro Martir, June 10 and 17, 1923; a pair was observed several different times in the vicinity of Laguna Hanson, Sierra Juarez, during July, 1924.

**Falco columbarius columbarius.** PIGEON HAWK.—One female specimen collected at Santo Domingo, March 1, 1925.

**Tyto alba pratincola.** AMERICAN BARN OWL.—Not uncommon as far south as El Rosario where their screeches could be heard at night. One was several times seen in its day roost in a dense pepper tree near my camp at Santo Domingo during the latter part of February, 1925, and Barn Owls were frequently heard about my camp near the mouth of Agua Chicita Canyon, on San Quintin plain, during June, 1925.

**Otus asio cardonensis.** BANCROFT'S SCREECH OWL.—A new subspecies described from nine specimens taken during April, 1923, among the giant cactuses in the canyons east of El Rosario where they were nesting in Woodpecker holes. Characters, measurements, etc., are given at the end of the present paper.

**Bubo virginianus pacificus.** PACIFIC HORNED OWL.—A male bird of this species was collected at Santo Domingo, June 1, 1925. The specimen was submitted to Dr. J. Grinnell, Museum of Vertebrate Zoology, Berkeley, who made the identification.

**Speotyto cunicularia hypogaea.** BURROWING OWL.—Not uncommon as far south as El Rosario.

**Dryobates scalaris eremicus.** SAN FERNANDO WOODPECKER.—This form was found sparingly through the cactus-covered areas, where it digs its nest in the stems of the agaves or mescal plants. Specimens were collected as far north as three miles east of San Quintin, February 25, 1925, and seen as far south as Santa Catarina Landing, April 12 to 14, 1923.

**Dryobates nuttalli.** NUTTALL'S WOODPECKER.—Found breeding at Las Cabras, June 5, 1923 and taken at Santo Domingo, February 21, 1925. Search during May at El Rosario, where conditions seemed propitious for the nesting of this Woodpecker, failed to reveal its presence; nor was any work on the trees observed that could have been done by *D. nuttalli.*

**Sphyrapicus varius daggetti.** SIERRA RED-BREASTED SAPSUCKER.—One seen at Santo Domingo, March 1, 1925.

**Melanerpes formicivorus bairdi.** CALIFORNIA WOODPECKER.—This species was found abundantly in the live oak belts on Sierra Juarez and the west slope of Sierra San Pedro Martir at about the 5,000–6,000 foot altitude. Camps were made at La Joya and Valladares Creek during June, 1923, and pine trees that intermingled with the oaks were heavily perforated for the storing of acorns by these birds.

**Colaptes chrysoides brunnescens.** SAN FERNANDO FLICKER.—Fairly common in the giant cactus association. The northernmost observation was six miles northeast of San Quintin on February 25, 1925, when a bird of this species was seen in the cactus-covered hills bordering Llano de San Quintin.

**Phalaenoptilus nuttalli californicus.** DUSKY POOR-WILL.—Rather common. Found nesting at La Joya on the west slope of Sierra San Pedro Martir, June 9, 1923, by Dr. Van Denburgh. Heard calling at Santo Domingo during February, 1925, and specimens collected at this locality during June, 1925.

**Chaetura vauxi.** VAUX'S SWIFT.—Single birds of this species were observed May 12 and 14, 1925, at El Rosario.

**Aeronautes melanoleucus.** WHITE-THROATED SWIFT.—Two males of this species were seen June 26, 1925, near Socorro. Also seen occasionally during May, 1925, in the vicinity of El Rosario.

**Calypte costae.** COSTA'S HUMMINGBIRD.—This was the most abundant Hummingbird of the coastal region and was noted about camp in La Grulla, Sierra San Pedro Martir, during June, 1923, where an adult male was taken on June 14 and an immature on June 21. The occurrence of the species at this altitude seems worthy of note for it illustrates another case of lateral post-breeding migration—a habit that is not uncommon among

the species of Hummingbirds that nest in the foot-hills bordering the higher mountains in California.

**Calypte anna.** ANNA'S HUMMINGBIRD.—Found at Santo Domingo, February 21, 1925, and observed feeding on the blossoms of the Agaves on the hills five miles east of San Quintin, February 25, 1925.

**Selasphorus alleni.** ALLEN'S HUMMINGBIRD.—An adult female taken at Santo Domingo, February 22, 1925. Also seen feeding commonly with Anna's Hummingbird five miles east of San Quintin, February 25, 1925.

**Tyrannus verticalis.** WESTERN KINGBIRD.—Breeds in the conifers on the higher mountains. Seen at La Grulla, Sierra San Pedro Martir, throughout June, 1923, and at El Rayo and Laguña Hanson, Sierra Juarez, in June and July, 1924. Young and adults were collected in the latter locality.

**Tyrannus vociferans.** CASSIN'S KINGBIRD.—This bird was common in the coastal valleys, where it was found nesting during late May and early June, 1925. On my trip through this region in early April, 1923, the species was not seen and, with their presence commonly in the San Diegan region of southern California during winter, the question arises as to whether these Kingbirds, so common during the breeding season, do not go north for the winter.

**Empidonax trailli trailli.** TRAILL'S FLYCATCHER.—The only point where this Flycatcher has been noted was in the willow bottom at Las Cabras, June 5, 1923. Although ideal conditions for this bird seemed to obtain at El Rosario, careful collecting over a three-weeks' period in May, 1925, failed to reveal its presence.

**Pyrocephalus rubinus mexicanus.** VERMILION FLYCATCHER.—One definite record for the region—a male taken by A. W. Anthony at Las Cabras, June 4, 1923. The bird must occur spasmodically, as several people have described it to me, both at Santo Domingo and El Rosario.

**Otocoris alpestris actia.** CALIFORNIA HORNED LARK.—Specimens taken near San Agustin, April 15, 1923, and in the vicinity of San Quintin, June 9, 1925, proved to be of this subspecies.

**Aphelocoma californica obscura.** BELDING'S JAY.—This Jay is normally resident in the oak belt, but occasionally wanders coastward, as on February 21, 1925, two were seen at Santo Domingo. A series of specimens was collected in the Sierra San Pedro Martir. Both Dr. J. Grinnell and Mr. H. S. Swarth of the Museum of Vertebrate Zoology, Berkeley, now agree that *A. c. obscura*, originally described from Valladares, in a valid form.

**Corvus brachyrhyncos hesperis.** WESTERN CROW.—Not observed south of Guadalupe, where it was seen in large flocks on April 6, 1923.

**Nucifraga columbiana.** CLARKE'S NUTCRACKER—But one record—observed at La Grulla, Sierra San Pedro Martir, June 19, 1923.

**Agelaius phoeniceus neutralis.** SAN DIEGO RED-WINGED BLACKBIRD—Found breeding in all suitable localities as far south as El Rosario.

**Agelaius tricolor.** TRICOLORED BLACKBIRD.—Observed but once—at the well in upper San Antonio del Mar, March 2, 1925, when about a dozen males of this species were seen in a large flock of *A. p. neutralis.*

**Icterus parisorum.** SCOTT'S ORIOLE.—Many were observed on migration five miles northeast of San Quintin, February 25, 1925, although the birds were extremely shy, as usual. The presence of this Oriole in numbers so near the Pacific coast offers a problem in migration routing; for the species is of extremely accidental occurrence along the coast further north, in the vicinity of San Diego, whereas inland, on the desert slope of the mountains east of San Diego, it passes regularly. Further observation of these birds will probably determine that they range up the peninsula, equally distributed from coast to coast, as far as the southern extremity of the Sierra San Pedro Martir, and that here they swing toward the Pacific, then northeastward again to the eastern slope of the mountains in southern California. A semi-arid highway, such as the Scott's Oriole prefers, is thus provided. This theory may be geographically explained by the greater distance of the Sierra San Pedro Martir from the coast, as compared with the high mountains in southern California. The eastern slope of the Sierra San Pedro Martir, on the Gulf side, is so precipitous as to offer practically no highway for the birds' passage, hence their choice of the coast side in this region.

**Icterus cucullatus nelsoni.** ARIZONA HOODED ORIOLE.—Apparently the only breeding Oriole in the coastal district south of San Antonio del Mar. Seen as early as February 28, 1925, when an adult male was collected by Mrs. May Canfield at Santo Domingo.

**Icterus bullocki.** BULLOCK'S ORIOLE.—Found breeding as far south as the sycamore filled canyons six miles north of San Vicente, where several pairs were seen June 18, 1925.

**Euphagus cyanocephalus.** BREWER'S BLACKBIRD.—This species was found commonly in the mountain valleys both in the Sierra Juarez and Sierra San Pedro Martir. The most exceptional locality was at Santa Catarina Landing, where a single female was collected April 14, 1923.

**Carpodacus purpureus californicus.** CALIFORNIA PURPLE FINCH.—A breeding bird of this subspecies was taken by Prof. J. M. Gallegos at El Rayo, Sierra Juarez, July 7, 1924. A few were observed at Santo Domingo during the time spent there in late February, 1925, and one specimen was collected on the 21st.

**Astragalinus tristis salicamans.** WILLOW GOLDFINCH.—An immense flock of these Goldfinches was observed on the northern end of San Quintin plain, February 25, 1925. The southernmost locality where this species was observed during the breeding season was Las Animas Canyon, ten miles south of Ensenada, where they were found by the writer, June 28, 1925.

**Astragalinus lawrencei.** LAWRENCE'S GOLDFINCH.—Observed at La Grulla, Sierra San Pedro Martir, June 14, 1923, and one specimen collected. On February 25, 1925, about 100 birds of this species were seen

drinking from a water trough at Rancho Las Escovas on Llano de San Quintin.

**Spinus pinus.** PINE SISKIN.—Breeds in the conifers on the higher elevations of Sierra Juarez and Sierra San Pedro Martir.

**Passer domesticus.** ENGLISH SPARROW.—This species is becoming well established in all the small settlements of the Northern District. In April, 1923, they were observed only as far south as San Antonio del Mar, while on May 8, 1925, I collected a lone specimen at Aguaita, which is situated over 125 miles air line south of San Antonio del Mar. The bird appeared about 10 o'clock in the morning at the lone adobe ruin where I was preparing specimens and chipped about as though it had found a friend! The Sparrow population of El Rosario in May, 1925, was estimated at 50 birds.

**Pooecetes gramineus confinis.** WESTERN VESPER SPARROW.—Observed at Santo Domingo in late February, 1925, and specimens collected.

**Passerculus sandwichensis alaudinus.** WESTERN SAVANNAH SPARROW.—Common winter visitant to suitable regions. Observed at Santo Domingo, February, 1925, and an adult female was collected as late as May 16, 1925, at El Rosario.

**Passerculus beldingi.** BELDING'S SPARROW.—This species finds its southern limit in the marshes about San Quintin where it is not common. Definitely recorded by the writer but once, when he took a snap shot at one on the beach at San Ramon, June 7, 1925.

**Zonotrichia l. leucophrys.** WHITE-CROWNED SPARROW.—One collected at Santo Domingo, February 21, 1925, and one on May 23, 1925, at El Rosario. At the latter locality a flock of about 50 birds of this species was observed on May 22, while but two were seen, and one of them collected, on the day following. Evidently the call of the nesting grounds was strong and they were in a hurry.

**Spizella atrogularis.** BLACK-CHINNED SPARROW.—Not uncommon on the brushy western slopes of Sierra San Pedro Martir and Sierra Juarez. Observed near Socorro, June 9, 1923, and breeding specimens taken five miles south of Neji, June 27, 1924, and at El Rayo, Sierra Juarez, June 30 and July 1, 1924.

**Junco oreganus thurberi.** SIERRA JUNCO.—A single male of this species was collected from a small flock of Juncos in Las Animas Canyon, ten miles south of Ensenada, February 19, 1925.

**Amphispiza bilineata deserticola.** DESERT BLACK-THROATED SPARROW.—This subspecies was found on the Pacific slope as far north as the vicinity of El Rosario. It is of common occurrence further south on both the Gulf and west slopes, even extending its range to some of the islands—Cedros, Natividad and Santa Margarita. Specimens from each of these islands are in the collection of the San Diego Society of Natural History.

**Amphispiza belli.** BELL'S SPARROW.—Bell's Sparrows were found as far south as Santa Catarina Landing, which is as far south as the writer has been on the mainland.

**Melospiza melodia cooperi.** SAN DIEGO SONG SPARROW.—This subspecies finds its southern limits in the valley of El Rosario. Specimens from that locality are not typical of *M. m. cooperi*, but are exact counterparts of those found intermittently along the immediate seacoast from Ventura, California, south.

**Passerella iliaca altivagans.** ALBERTA FOX SPARROW.—A female collected by Mrs. May Canfield at Santo Domingo, February 26, 1925, is the only record. No doubt many of the forms of *Passerella* that winter abundantly in southern California could be found in suitable parts of the coastal slope, from the higher levels of Sierra San Pedro Martir to the sea, and perhaps as far south as El Rosario, if field work were carried on in the region during the winter months. It seems reasonable that the majority of the several races of Fox Sparrows which nest in the Sierra Nevada and adjacent mountains as far south as the San Jacintos, find winter quarters in this region, though the writer has been unable to find a single record of these birds below the border.

**Pipilo maculatus umbraticolus.** CAPE COLNETT SPOTTED TOWHEE.—Breeds in the Upper Sonoran Zone on the slopes of the higher mountains. It makes post-breeding lateral migrations to the higher mountains, like some other birds, *Troglodytes aedon parkmanni*, *Calypte costae*, etc. When the winter snows come, it descends again, getting well down toward the coast. Summer specimens were collected from Sierra Juarez and Sierra San Pedro Martir, and a winter specimen (male) from Santo Domingo, February 24, 1925.

**Oberholseria chlorura.** GREEN-TAILED TOWHEE.—This species was observed as a migrant at Santo Domingo, February 25 and 28, 1925.

**Zamelodia melanocephala capitalis.** PACIFIC BLACK-HEADED GROSBEAK.—Found in limited numbers, breeding, as far south as Las Cabras, June 5, 1923. Occurs more abundantly from the vicinity of Las Animas Canyon, near Ensenada, northward.

**Guiraca caerulea salicarius.** CALIFORNIA BLUE GROSBEAK.—A specimen was collected by A. W. Anthony at Las Cabras, June 5, 1923, and found to be a male of the previous year. A male was also seen by C. G. Abbott in Box Canyon, near San Antonio del Mar, May 16, 1925.

**Piranga ludoviciana.** WESTERN TANAGER.—This species met with in the live oak belt at Valladares Creek on the western slope of Sierra San Pedro Martir, June 25, 1923, when two males were collected by members of our party. Also found in the higher parts of Sierra Juarez during June and July, 1924. Observed as a migrant April 28, 1925, in Box Canyon, a mile north of San Antonio del Mar.

**Piranga rubra cooperi.** COOPER'S TANAGER—A male of this form was singing in the tall eucalyptus trees at Santo Domingo on the evening of June 6, 1925, and the following day the writer tried hard to catch sight of it within gun range, but was unable to do so. The song and shy habits of this bird are well known to him, as the result of considerable experience with Tanagers in the Lower Colorado Valley. A fleeting glimpse proved

it to be a year-old bird which had not yet attained the conspicuous bright red plumage.

**Progne subis hesperia.** WESTERN MARTIN.—Nests commonly in the higher mountains—Sierra Juarez and Sierra San Pedro Martir—and even amongst the giant cactuses in Canyon San Juan de Dios, where a pair were observed flying to and from a hole May 5, 1925. Also seen flying over the marshes at San Ramon, June 6 and 7, 1925.

**Hirundo erythrogastra.** BARN SWALLOW.—Common coast-wise migrant. Observed as late as June 6, 1925, at San Ramon.

**Tachycineta thalassina lepida.** NORTHERN VIOLET-GREEN SWALLOW.—Breeds commonly on the higher mountains—Sierra Juarez and Sierra San Pedro Martir. Observed on the coast as late as June 6, 1925, at San Ramon, where a few were seen coursing over the marsh.

**Bombycilla cedrorum.** CEDAR WAXWING.—Winter visitant to this region, staying late. Observed at San Telmo, June 4, 1923, when five individuals were seen eating sprouts in an apricot tree. A small flock of 20 or 25 stayed about the Red Rock Ranch at Santo Domingo from the time the writer passed on April 29, 1925, until he was returning north on June 18, 1925.

**Phainopepla nitens.** PHAINOPEPLA.—This bird would be expected to occur commonly on the deserts from San Antonio del Mar south, but the only observation of the species in this region was at Santo Domingo, June 18, 1925, when an adult male was seen in the brush near the riverbed. Further north in the vicinity of Ensenada this species was breeding abundantly; several nests were discovered June 27, 1925.

**Dendroica aestiva brewsteri.** CALIFORNIA YELLOW WARBLER.—Breeds commonly in the willow association as far south as El Rosario and was observed inland as far as Las Cabras and San Jose, June 4, 5 and 6, 1923.

**Dendroica auduboni auduboni.** AUDUBON'S WARBLER.—Abundant winter visitant. A mated pair was noted at La Joya, on the west slope of Sierra San Pedro Martir, June 9, 1923.

**Dendroica nigrescens.** BLACK-THROATED GRAY WARBLER.—A most abundant nester in the oak belt on Sierra Juarez and the west slope of Sierra San Pedro Martir. After the young are on the wing they go higher into the coniferous forests, where many specimens of young on the wing were taken during June, 1923, and July, 1924, in the two above-mentioned ranges.

**Geothlypis trichas scirpicola.** TULE YELLOW-THROAT.—These birds were found abundantly near the coast, breeding in suitable localities, such as Las Cabras (June 5, 1923), San Ramon (June 6, 1925) and El Rosario (May 10–26, 1925).

**Toxostoma cinereum mearnsi.** MEARNS'S THRASHER.—Fairly abundant among the Cactus on the arid slopes of the coastal hills from the vicinity of San Antonio del Mar to Santa Catarina Landing.

**Toxostoma redivivum helva.** ROSARIO THRASHER.—The southern-

most point at which this bird was found was two miles east of San Fernando, April 16, 1923. It was nesting commonly in the willow bottoms near El Rosario during May, 1925.

**Heleodytes brunneicapillus bryanti.** BRYANT'S CACTUS WREN.—This subspecies, like Mearns's Thrasher, was found as far north as suitable Cactus cover existed. The Cactus Wrens, however, do not wander far from the spiny protection of cactus or other thorny shrubs and therefore are more local in their distribution. Old nests of this bird were found as far east as 20 miles east of San Telmo, and specimens were taken as far south as the writer has been on the peninsula—Santa Catarina Landing.

**Psaltriparus minimus minimus.** COAST BUSH-TIT.—Found breeding along the coast as far south as El Rosario.

**Auriparus flaviceps flaviceps.** VERDIN—This species was found near the coast as far north as eight miles east of El Rosario, where young birds but a week or so out of the nest were taken April 30, 1925.

**Chamaea fasciata henshawi.** PALLID WREN-TIT.—Found as far south as Aguaita. On first comparing specimens from this region with those from the vicinity of San Diego, a noticeable color difference was observed. However, when specimens from near the type locality and the western slope of Sierra Nevada were compared, they were found identical with the Aguaita birds A more definite range of *C. f. henshawi* is thus established, indicating that in typical form it occurs inland until deflected toward the coast by the Sierra Juarez and Sierra San Pedro Martir. Birds from the vicinity of Ensenada more nearly resemble those about San Diego and, while given the name of *C. f. henshawi*, are not typical.

**Hylocichla guttata guttata.** ALASKA HERMIT THRUSH.—Abundant in late February, 1925, at Santo Domingo, and found there as late as April 29, 1925.

**Planesticus migratorius propinquus.** WESTERN ROBIN.—Common winter visitant. Latest observation, Santo Domingo, April 29, 1925.

**A New Subspecies of the Genus Otus.**—On the writer's first visit to the giant cactus belt a few miles inland from El Rosario, in company of Mr. Griffing Bancroft during April, 1923, a great deal of Woodpecker work was noticed in the cactuses. Screech Owls were found to be nesting in these cavities, and a number of the birds were secured which, upon examination, seemed to be worthy of subspecific recognition. The form may be known as:

**Otus asio cardonensis**[1] subsp. nov.

BANCROFT'S SCREECH OWL.

*Type.*—Female adult; No. 8671, Collection of San Diego Society of Natural History; Canyon San Juan de Dios, about ten miles east of El

[1] The name is based on the word cardon which is the local name for giant cactus.

Rosario, Lower California, Mexico; collected by Laurence M. Huey, April 18, 1923; incubating three eggs.[1]

*Characters.*—Nearest to *Otus asio cineraceus*, but darker, especially about head and neck, where the striping is more pronounced. Averages smaller than *O. a. cineraceus* and larger than *O. a. xantusi.*

*Measurements (in millimeters):*

| Coll. No. | Sex | Wing | Tail | Tarsus | Middle Toe (without nail) | Culmen | Exposed Culmen |
|---|---|---|---|---|---|---|---|
| 8607 | female | 149.0 | 78.5 | 34.5 | 17.0 | 19.0 | 13.0 |
| 8610 | male | 146.5 | 72.0 | 30.5 | 18.0 | 18.5 | 13.0 |
| 8611 | female | 148.5 | 74.0 | 32.5 | 17.5 | 19.0 | 13.0 |
| 8612 | male | 148.0 | 71.5 | 30.0 | 18.5 | 18.0 | 13.0 |
| 8613 | male | 147.0 | 73.0 | 33.0 | 18.0 | 19.0 | 13.0 |
| 8614 | female | 147.5 | 73.5 | 32.5 | 18.5 | 18.0 | 13.5 |
| 8615 | male | 144.5 | 72.5 | 31.0 | 17.5 | 18.0 | 12.5 |
| 8616 | female | 152.0 | 80.0 | 32.5 | 19.0 | 19.0 | 13.5 |
| 8671 | female | 150.5 | 77.0 | 33.0 | 18.0 | 18.0 | 13.0 |
| Av. of females | | 149.5 | 76.6 | 33.0 | 17.8 | 18.6 | 13.2 |
| Av. of males | | 146.5 | 72.2 | 31.1 | 18.0 | 18.3 | 12.8 |
| General Average | | 148.0 | 74.4 | 32.0 | 17.9 | 18.4 | 13.0 |

Nos. 8607 to 8616 were taken about 6 miles east of El Rosario, No. 8671 (type specimen) about 10 miles east of El Rosario. Nos. 8607 and 8614 were laying, and Nos. 8611, 8616 and 8671 were each incubating three eggs.[1] All specimens are in the collection of the San Diego Society of Natural History.

*Range.*—As far as known, the giant cactus (*Pachycereus*) association of the Pacific slope of Lower California from the vicinity of the hills east of Santo Domingo and San Quintin (Bancroft MS.) to the region lying east of El Rosario.

*Specimens examined.*—*Otus asio cineraceus*, Huachuca Mountains, Arizona—1; Tucson, Arizona—2; Fort Lowell, Arizona—2; Total 5. *Otus asio gilmani*, Palo Verde, California—1; Mellen, Colorado River, Arizona—1; 20 miles north Picacho, Colorado River, Californa—1; 4 miles north Potholes, Colorado River, California—1; Sahuaro patch near Potholes, Imperial County, California—1; Vicinity of Bard, Imperial County, California—1: Total 6. *Otus asio quercinus*, Mount Wilson, Los Angeles County, California—1; Arroyo Seco near Pasadena, California—1; Pasadena, California—1; San Bernardino, California—2; Pine Mountain, San Diego County, California—1: Total 6. *Otus asio xantusi*, Mira Flores, Baja California, Mexico—2.

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[1] The eggs are now in the Bancroft Collection.

access to his private library and collection was courteously granted by Mr. D. R. Dickey of Pasadena, California. The type and series were sent to Dr. E. W. Nelson, Chief of the Bureau of Biological Survey, and through his courtesy they were examined by Dr. H. C. Oberholser, who confirmed the writer's conclusion by returning them with the notation "subsp. nov."

*Natural History Museum,*
*Balboa Park, San Diego, California.*

Photo by Photographer of 'The Detroit News.

TWO PHOTOGRAPHS OF A FLOCK OF WHISTLING SWANS AT THE MOUTH OF THE DETROIT RIVER. SPRING, 1925.