

## ORNITHOLOGICAL NOTES FROM LOWER CALIFORNIA

By HAROLD M. HILL and IRA L. WIGGINS

From October 3 to December 6, 1946, field studies of birds and plants were conducted in Lower California for the Stanford Natural History Museum. This project was organized and directed by Ira L. Wiggins, director of the museum, with the assistance of A. M. Volmer, who also generously provided a truck for the expedition. Harold M. Hill, who concerned himself chiefly with the ornithological work, completed the starting party. Telford H. Work, accompanied by his father, Telford Work, were present during the latter part of the trip and assisted particularly in the ornithological work.

Our itinerary, briefly, began at Mexicali and took us through the Sierra Juárez, via Laguna Hanson, to Ensenada. From there we journeyed south to the Sierra San Pedro Mártir, making a pack trip to the crest of the range at La Encantada. Returning to the west coast we continued southward, following the main road which traverses the length of the peninsula, and arrived at La Paz on November 25, 1946. We retraced our path back as far as Santa Rosalía where we obtained passage on December 6, 1946, across the Gulf of California to Guaymas, on the Mexican mainland.

We were fortunate to be able to take our truck practically the length of Purísima Canyon. This road has only recently been opened and few previous observers have been in this area. It constitutes the largest perennial fresh water stream which we encountered in the southern portion of the peninsula. Wintering ducks were abundant.

In extensive areas along the Pacific coast between latitudes 24° and 26° there had been no rainfall, according to the local inhabitants, for several years. The cacti, particularly the cardóns, had become brown and shriveled and in some areas were dying. The thorny shrubs showed no signs of leaves or blossoms. Bird and mammal life was conspicuously scarce in these areas.

The material used in the preparation of this paper consists of 154 bird skins and a daily field journal kept by Hill. Only the more noteworthy records, however, are presented here. Specimens were identified by Wiggins with the use of the collections at the Museum of Vertebrate Zoology, Berkeley, California, and the cooperation of its staff, particularly Alden H. Miller and Frank A. Pitelka. Also, a number of skins were critically examined with reference to subspecific identification by A. J. van Rossem. Specimens not sent to the Mexican government are deposited in the Stanford University Natural History Museum.

Grinnell's "A Distributional Summation of the Ornithology of Lower California" (Univ. Calif. Publ. Zool., 32, 1928:1-300) has been used as the chief reference in evaluating our field and specimen data. All references in this paper to Grinnell refer to that publication. All localities mentioned which are not listed in the gazeteer of Grinnell's paper (p. 19) are approximately located by giving the latitude.

Of considerable interest in our results is evidence of fall breeding of some desert species of birds, occasioned, apparently, by heavy fall rains. During the latter part of October, 1946, we traversed the upper and middle peninsula. Approximately a month to six weeks prior, there had been considerable though variable rainfall in much of this area. Wild flowers were occasionally found blooming in profusion. In this area some birds were in full song, and a few specimens showed enlargement of gonads indicative of breeding, although no nests were found. Several Horned Larks (*Eremophila alpestris actia*) collected from a flock on October 21, 1946, at latitude 31° had apparently enlarged gonads, but no measurements were taken. On the San Quintín Plain, October 22, 1946,

latitude  $30^{\circ} 20'$ , Western Meadowlarks (*Sturnella neglecta*) and Bell Sparrows (*Amphispiza belli*) were singing vigorously. The testes of one meadowlark collected at this time measured 10 by 5 mm. each, and a testis of another measured 6 by 3 mm. These measurements were compared with those of testes from specimens of the Western Meadowlark obtained in Texas and now in the University of Michigan collection. The latter were examined through the courtesy of Josselyn Van Tyne. The average of three testes from Texas birds taken in March, April, and May was 12 by 5 millimeters, while two testes from Texas birds collected in February, and presumably not breeding, average only

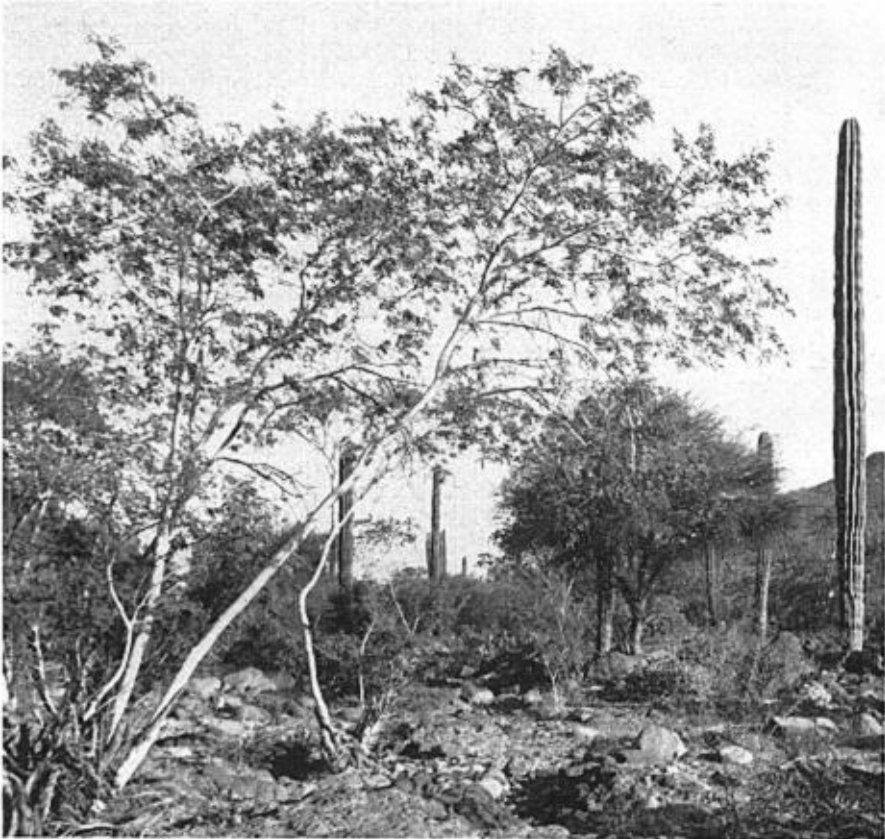


Fig. 33. Typical dry arroyo on the gulf side of the lower peninsula at latitude  $26^{\circ} 30'$  showing palo blanco (*Lysiloma candida*) on the left, palo verde (*Cercidium microphyllum*) on the right, and several cardón cacti (*Pachycereus Pringlei*).

3 by 2 millimeters. Anthony is reported to have taken four fresh meadowlark eggs from this San Quintín locality on March 21 (Bendire, U. S. Nat. Mus. Spec. Bull. No. 3, 1895:464) suggesting, as we would expect, that fall breeding of meadowlarks is not the rule in this area. The gonads of California Quail collected during October and November, 1946, between latitudes  $30^{\circ} 20'$  and  $29^{\circ} 40'$  also indicated breeding activity although the birds were still gathered in flocks (see text beyond). Six testes of birds from this area averaged 7 by 4 mm. and one enlarged ovary contained an egg yolk 2 cm. in diameter.

There was also evidence to suggest breeding in two specimens collected in the lower third of the peninsula, at latitude  $26^{\circ} 15'$ . These were a Brown Towhee (*Pipilo fuscus*

*albigula*) collected 5 miles northwest of Canipolé, November 18, 1946, with testes measuring 6.0 by 3.5 mm. and 5.0 by 4.0 mm. and a Costa Hummingbird (*Calypte costae*) collected November 17, 1946, with testes measuring 2.0 by 1.5 and 1.5 by 1.0 mm. By way of contrast, a male Costa Hummingbird in immature plumage collected the same day showed testes each only 0.5 by 0.4 mm.

*Colymbus auritus*. Horned Grebe. One specimen collected November 14, 1946, on Concepción Bay twenty miles south of Mulegé along with two Eared Grebes. This species is not listed by Grinnell as occurring in Lower California, and this record represents a southern extension of the winter range, which the A. O. U. Check-list (1931:4) defines as south to southern California on the Pacific coast.

*Phalacrocorax auritus*. Double-crested Cormorant. Three observed at Laguna Hanson, October 8, 1946.

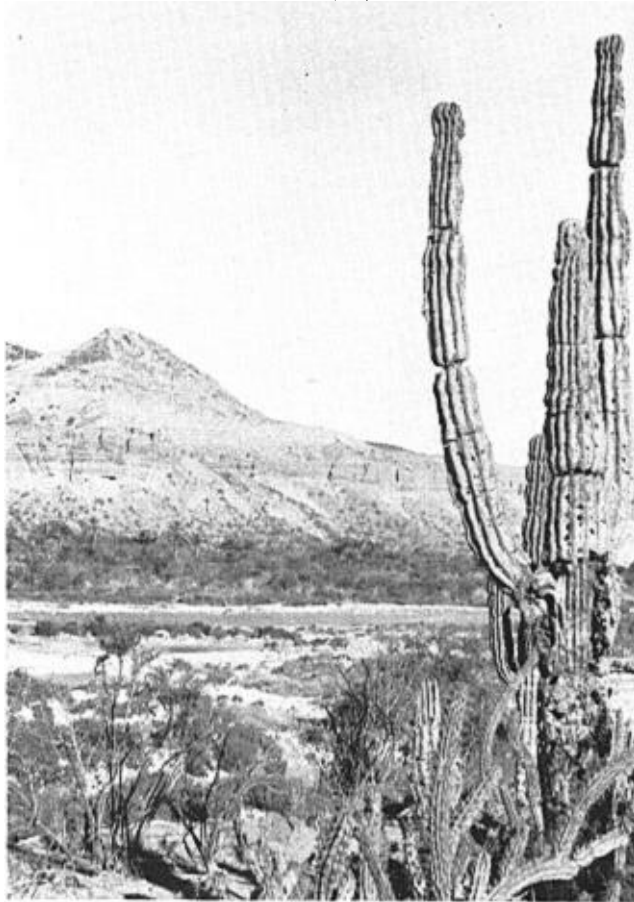


Fig. 34. Small stream in lower Purisima Canyon where wintering waterfowl were abundant. A Cackling Goose (*Branta canadensis minima*) was collected at this spot.

*Florida caerulea*. Little Blue Heron. An individual in adult plumage was observed at close range in the company of a Reddish Egret at San Gregorio, November 20, 1946. An immature specimen was collected at Almejas Bay, latitude 24° 20', November 22, 1946. This species has been previously reported only from Magdalena Bay, Todos Santos, and twice from La Paz. It is considered rare by Grinnell (p. 84).

*Nycticorax nycticorax*. Black-crowned Night Heron. Numerous about fresh-water ponds twelve miles west of La Purísima, November 20, 1946. On one occasion six were observed at the same time.

*Mycteria americana*. Wood Ibis. A small number was observed in a field ten miles southwest of Mexicali, October 3, 1946. Thirty-five were seen the day before in a flooded field between El Centro and Calexico before crossing the Mexican border.

*Plegadis guarauna*. White-faced Glossy Ibis. An individual observed eleven miles east of La Purísima, November 18, 1946, and another near La Purísima, November 30, 1946.

*Branta canadensis minima*. Cackling Goose. Two of these geese were observed and one of them collected in Purísima Canyon four miles west of La Purísima, November 21, 1946. One individual, perhaps the remaining one of the two previously seen, was present on the same pond November 30, 1946. This species is not listed by Grinnell as occurring in Lower California, and this record represents a southern extension of the known winter range.

*Mareca americana*. Baldpate. Numerous at Laguna Hanson, October 6, 7, and 8, 1946, second in abundance to the Pintail. Forty to fifty present at La Grulla, October 17 and 18, 1946, where several were shot. Three were shot on the small stream at San José de Magdalena, November 5, 1946. One specimen collected from a flock of about twelve on a salt water estuary one mile south of Santa Rosalía, November 9, 1946. This species was observed at several places while we were passing through Purísima Canyon. Two were shot and one preserved three miles south of La Purísima, November 30, 1946.

*Anas acuta*. Pintail. Commonest duck at Laguna Hanson where several hundred were present October 6, 7, and 8, 1946. An estimated fifty birds present at La Grulla, October 17 and 18, 1946. Several were shot here. Seen commonly while passing through Purísima Canyon where one was shot twelve miles west of La Purísima, November 19, 1946, another shot four miles west of La Purísima, November 21, 1946, and two specimens taken four miles west of La Purísima, November 30, 1946.

*Anas carolinensis*. Green-winged Teal. One observed at San José de Magdalena, November 6, 1946. A specimen was collected on the beach at San Bruno, November 11, 1946. An individual was shot twelve miles west of La Purísima, November 19, 1946, and two specimens were collected three miles south of La Purísima, November 30, 1946.

*Spatula clypeata*. Shoveller. One shot twelve miles west of La Purísima, November 19, 1946.

*Aythya americana*. Redhead. Two specimens collected in Purísima Canyon: one taken 25 miles east of La Purísima, November 17, 1946, the other twelve miles west of La Purísima, November 19, 1946. This species is probably not uncommon among the numerous waterfowl wintering in this area. Grinnell (p. 75) lists only two records from the southern part of the peninsula.

*Aythya valisineria*. Canvas-back. A few were noted on Laguna Hanson, October 17, 1946. A small flock was present on Concepción Bay 35 miles south of Mulegé, November 15, 1946. Two individuals were observed and one of them collected in Purísima Canyon five miles east of La Purísima, November 18, 1946. Two others were observed in this same locality, November 30, 1946. Grinnell (p. 76) states that this species occurs as "winter visitant, apparently irregularly so and only toward the north" and lists but one record south of the vicinity of San Quintín, latitude 30° 29'.

*Aythya affinis*. Lesser Scaup Duck. A specimen collected five miles east of La Purísima, November 30, 1946.

*Oxyura jamaicensis*. Ruddy Duck. Common at Laguna Hanson, October 6, 7, and 8, 1946. Two were shot from a group of about forty on a pond in Purísima Canyon twelve miles west of La Purísima, November 30, 1946.

*Gymnogyps californianus*. California Condor. On October 20, 1946, we talked with Salve Melling on his ranch at San José in the San Pedro Mártir Mountains. He and his family are the most reliable residents in this area. They have contributed considerably to the knowledge of these birds in this area and have packed in most of the ornithologists visiting these mountains, who were more or less interested in the condors. To the best of Melling's recollection condors were common until about 1920. Considerable numbers were seen in 1913 and in 1921. They became quite rare during the '20s. All the birds that he has ever seen were in the mountains of the San Pedro Mártir Range, not in the lowlands. None was ever seen before June and they seemed to come during June and July with the summer rains. La Encantada was always the center of abundance. He has never seen more than 17 to 20 at any one time. No observations of condors are known to any of the Melling family since 1935, as reported by Scott (Condor, 38, 1936:41-42).

We were at San José Ranch and the higher parts of the San Pedro Mártir Range from October 11 to October 21. We visited La Encantada, La Grulla and other places where condors have been observed in the past but none was seen, although we were constantly on the watch for them.

*Buteo albonotatus*. Zone-tailed Hawk. Seen but once, five miles north of Mulegé, December 2, 1946.



Fig. 35. An impressive stand of the giant cardón (*Pachycereus Pringlei*) along the gulf coast at Concepción Bay. A family of Harris Hawks (*Parabuteo unicinctus*) lived here.

*Aquila chrysaetos*. Golden Eagle. One seen a few miles east of Nachogüero Rancho on the west slope of the Sierra Juárez, October 5, 1946. We watched a Golden Eagle stoop over Laguna Hanson, October 7, 1946, flushing many of the ducks from the water. It later stooped at a flock of blackbirds. No kill was made either time. A pair of these eagles was seen on the rocks just north of a small lake at Laguna Hanson, October 8, 1946. Between La Grulla and Santo Tomás, October 16, 1946, several individuals were observed. A nest in good repair in a *Pinus ponderosa* was noted  $\frac{1}{4}$  mile southwest of The Oaks, between La Grulla and San José. One bird was observed at San José Ranch, October 20, 1946. Other observations further south were: three in San Telmo Valley, October 21, 1946; one at El Marmol, October 26, 1946; and one in Purísima Canyon, 16 miles west of Canipolé, November 17, 1946.

*Polyborus cheriway auduboni*. Audubon Caracara. Individuals were observed 15 miles north of San Ignacio, November 1, 1946, at San Bruno, November 11, 1946, and five miles north of Mulegé, December 2, 1946. Grinnell (p. 113) states that this species is rare north of  $26^{\circ}$  north latitude, and these three localities are all considerably north of this latitude. One was observed at San Gregorio, November 19, 1946.

*Falco mexicanus*. Prairie Falcon. One observed at Laguna Hanson, October 7, 1946. At La Grulla we watched a Prairie Falcon dive at a Mourning Dove and later chase a Killdeer, October 17, 1946. Other individuals were observed a few miles south of Hamilton Ranch, October 22 and 23, 1946, and at San José de Magdalena, November 6, 1946.

*Falco sparverius*. Sparrow Hawk. A specimen referable to *F. s. sparverius* was collected 14 miles north of Rosario, October 24, 1946. A specimen referable to *peninsularis* was collected at San Bruno, November 7, 1946, while feeding on a horned lizard.

*Lophortyx californica*. California Quail. Generally common or abundant from the Sierra Juárez south to San Bruno. South of here found only at San Gregorio. The nine specimens collected were examined by A. J. van Rossem. Those referable to *L. c. plumbea* were secured as follows: one 29 miles north of Rosario, October 23, 1946; three 14 miles east of Rosario, October 25, 1946, one of which indicates intergradation with *decolorata*; and one 10 miles northwest of El Aguila, October 25, 1946. A specimen collected 20 miles south of Cataviñá, October 26, 1946, is an intergrade between *plumbea*

and *decolorata*. The following specimens are referable to *decolorata*: one at Rancho Mesquital, October 30, 1946; and two at San Bruno, November 11, 1946. Testes of three males obtained between 30° 20' and 29° 40' measured 8x4 and 7x3 mm., 6x4 and 4x3 mm., and 8x4 and 7x4 mm., respectively. (See comments, page 156.)

*Phasianus colchicus*. Ring-necked Pheasant. None of this species was observed but, according to Salve Melling, fourteen birds were released on his ranch at San José in the San Pedro Mártir Mountains in 1944. He said that some of them had been seen in 1946, a few miles down the creek from the ranch buildings, but that no one had noted any young.

*Limosa fedoa*. Marbled Godwit. A specimen was collected at Laguna Hanson, October 6, 1946. The crop was filled with germinated seeds of *Zanichellia*.

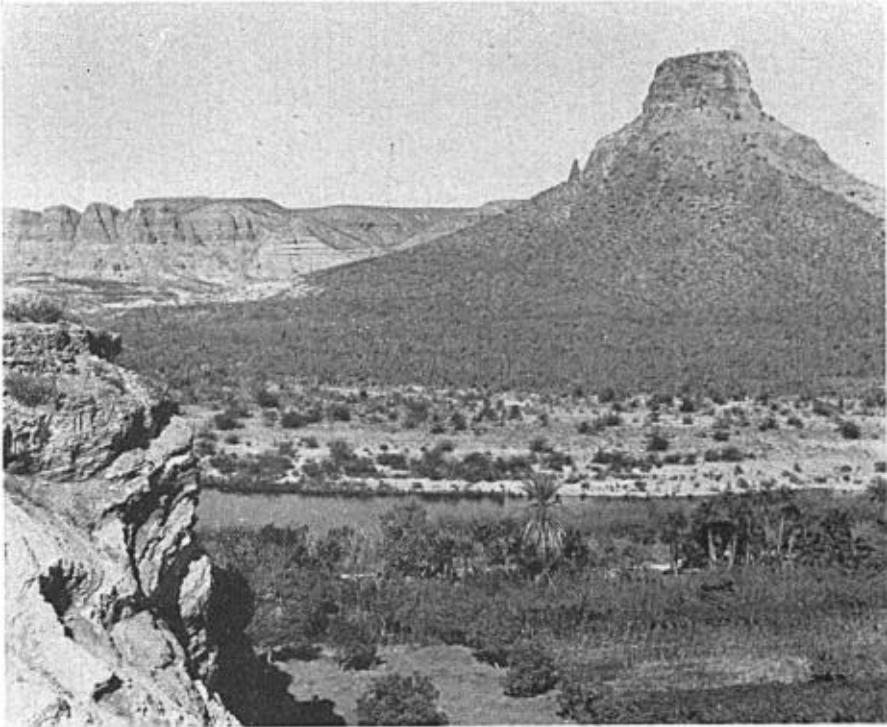


Fig. 36. Oasis at the foot of El Pelón in Purísima Canyon, latitude 26° 10'.

*Zenaidura macroura marginella*. Mourning Dove. In the upper Purísima Canyon near the stream, thousands of doves were present November 17, 1946, and on again passing through this area on November 30, 1946, they were still numerous but less so. In Arroyo Frijole, 25 miles south of Mulegé, hundreds of birds were present December 1, 1946.

*Zenaida asiatica mearnsi*. White-winged Dove. This species was particularly abundant in the upper part of Purísima Canyon, November 17, 1946, where hundreds were present in the same area where the Mourning Doves were so numerous. When we again passed through this area November 30, 1946, the White-winged Doves were even more numerous than on the earlier date.

*Chordeiles acutipennis inferior*. Sharp-winged Nighthawk. Abundant at San José de Magdalena, November 5 to 7, 1946, where a specimen was obtained. Identification was confirmed by A. J. van Rossem.

*Pyrocephalus rubinus flammeus*. Vermilion Flycatcher. Two specimens were collected at San José de Magdalena, November 6, 1946. Two birds were observed twenty miles south of Mulegé on Concepción Bay, November 14, 1946. One was seen five miles east of La Purísima, November 18, 1946.

*Eremophila alpestris*. Horned Lark. Flocks of this species were numerous three miles west of San José Ranch, October 21, 1946, where five specimens were collected. These are all referable to the race *actia*. Both testes and ovaries appeared to be enlarged in these specimens though no measurements were taken. Horned Larks were also observed commonly on the San Quintín Plain, October 22, 1946, and a small flock was observed at Rosario, October 24, 1946.

*Hirundo rustica*. Barn Swallow. Observed a few miles south of Ensenada, October 10, 1946.

*Aphelocoma coerulescens*. Scrub Jay. Jays were numerous in bands of four to six in the pine forest a few miles west of Alaska, October 4, 1946. One specimen was obtained here. This skin has been studied by Frank A. Pitelka and he has tentatively identified it as belonging to a race he has had under study at a more northerly location. It does not represent *A. c. obscura* of the Sierra San Pedro Mártir and coastal lowlands to the west.

*Gymnorhinus cyanocephalus*. Piñon Jay. Abundant in the pine forests about Laguna Hanson, where three specimens were collected October 7, 1946. The throats of these birds were distended with seeds of *Pinus ponderosa*, one containing 33, one 34, and one 43 seeds.

*Telmatorhynchus palustris plesius*. Marsh Wren. Two specimens were collected at San Gregorio Ranch, November 20, 1946. Identification was checked by A. J. van Rossem.

*Myadestes townsendi*. Townsend Solitaire. Three were observed above La Encantada at an elevation of about 8,000 feet, October 18, 1946.

*Poliopitula caerulea amoenissima*. Western Gnatcatcher. A specimen was collected twelve miles north of Punta Prieta, October 28, 1946, and another two miles south of Punta Prieta on the same date.

*Vermivora celata lutescens*. Orange-crowned Warbler. Two observed  $\frac{1}{2}$  mile south of Miller's Landing at latitude  $28^{\circ} 30'$ , one of which was collected on October 29, 1946.

*Passer domesticus*. English Sparrow. Common at Santa Rosalia.

*Euphagus cyanocephalus*. Brewer Blackbird. Observed at San Agustín, October 25, 1946.

*Chlorura chlorura*. Green-tailed Towhee. A specimen was collected seven miles east of Miller's Landing at latitude  $28^{\circ} 30'$  on October 29, 1946.

*Calamospiza melanocorys*. Lark Bunting. This species was one of the commonest and most conspicuous of the wintering passerine birds. On our southward journey they were first observed seven miles south of Socorro at latitude  $30^{\circ} 15'$ , October 25, 1946. Our southernmost observation was at Almejas Bay, latitude  $24^{\circ} 20'$ , November 24, 1946. These birds were usually seen in flocks of perhaps twenty or thirty individuals, but on November 29, 1946, five miles southwest of La Purísima, a flock containing an estimated two hundred to three hundred individuals was observed. One specimen was collected seven miles south of Socorro, October 27, 1946, and four specimens were obtained seven miles north of Miller's Landing at about latitude  $28^{\circ} 30'$ , October 29, 1946. The beaks of these latter specimens were stained red from the fruit of the pitáhuaya cactus on which they had been feeding.

*Passerculus sandwichensis*. Savannah Sparrow. Two specimens were collected at San Gregorio Ranch, November 20, 1946. A. J. van Rossem examined one of these specimens and places it as an intergrade of *halophilus* and *magdalenae*.

*Chondestes grammacus*. Lark Sparrow. Several observed on the outskirts of Santa Rosalia, December 4, 1946.

*Spizella breweri breweri*. Brewer Sparrow. This species was common at Laguna Seca Chapala, latitude  $29^{\circ} 30'$ , where two specimens were collected October 27, 1946. A few were observed thirty miles south of Punta Prieta, October 29, 1946. They were numerous ten miles east of San Ignacio, November 2, 1946, where a specimen was obtained but not preserved. A specimen was collected 25 miles southwest of Canipolé, November 18, 1946. They were common 18 miles west of La Purísima, November 19, 1946. This species was one of the most abundant of the numerous wintering sparrows.

*Redlands and Palo Alto, California, February 25, 1948.*