

NOTES ON SUMMER BIRDS OF GUERRERO

By WILLIAM B. DAVIS

The paucity of information concerning the birds of the Mexican state of Guerrero (see Griscom, Bull. Mus. Comp. Zool., 75, 1934:367-422, and Auk, 54, 1937:192-199) seems to warrant the recording of information gathered in that state by the expedition of 1942 of the Department of Fish and Game, Agricultural and Mechanical College of Texas. Our interest was divided about equally between the mammals and birds of the region, and due to limited time, the collections were neither as large nor as representative as desired. Even so, we were able to preserve 153 specimens of 67 species, four of which seemingly constitute additions to the state list. These are *Colymbus dominicus brachypterus*, *Heterocnus cabanisi*, *Crocethia alba*, and *Progne chalybea chalybea*. Most of the birds taken had previously been reported in Guerrero, and consequently I have limited my remarks about them to such topics as abundance, habits, breeding condition, and weights, which supplement the printed record.

COLLECTING STATIONS

(1) Rio Aguacatillo, 30 km. N Acapulco, 1000 feet, August 3-14. Collecting was done within a radius of two miles, except for one trip on August 14 to Laguna Coyuca. Collecting was done at the Laguna (12-22 km. NW Acapulco) and en route to and from camp. Collecting also was done on August 3, en route to the camp from Mexico City, at El Naranjo, Rincon, Tierra Colorada (at Rio Papagayo), and along the Rio Xolapa. Our camp at Rio Aguacatillo was near the village of El Treinta. The vegetation is tropical in nature (bananas, coffee) and of two types: (1) riparian and (2) upland "brush." One hundred and twenty-three specimens of birds of 45 species were taken.

(2) 15 km. S Chilpancingo, 4300 feet, August 14-20. Collecting was done within a radius of two miles of camp except for one short trip (August 16-18) to the cloud forests on the mountains southwest of Chilpancingo. The main purpose of this trip was to obtain mammals, consequently few birds were taken. The main camp was established on a small creek near the divide, in open, grassy, rolling hills. Three lagoons were near by, as was a deep canyon in which the vegetation was a dense jungle. Shrubs and maguey-like plants covered the higher ridges, especially the north slopes, adding a semi-desert aspect. Thirty-two specimens of 21 species were taken. This area is rich in bird life and well deserves the undivided attention of the ornithologist.

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LIST OF SPECIES

Colymbus dominicus brachypterus. Mexican Grebe. 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 19. Several of these grebes were observed in the lagoons near our camp. The female taken had an egg, covered with shell, in the oviduct. The bird weighed 131 grams. Seemingly this grebe has not been recorded hitherto from Guerrero as it is not listed by Griscom (*op. cit.*).

Butorides virescens maculatus. Spotted Green Heron. 1 ♂, 15 km. NW Acapulco, August 14; 1 ♀, 22 km. NW Acapulco, August 14. In the marshy areas along the seacoast these small herons were common. The gonads were small (non-breeding). The male weighed 161 grams; the female, 168 grams.

Heterocnus cabanisi. Mexican Tiger Bittern. 1 ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 7. Tiger Bitterns were not common at this locality, but doubtless they breed here. This specimen is in juvenal plumage with part of the natal down still adhering to the feathers on the head and neck. The bird was taken from a large nest, built of sticks, placed about twenty feet up in a

large tree overhanging the river. No marshes were in the vicinity. Seemingly this constitutes the first record of this species in Guerrero. The juvenile weighed 914.4 grams.

Buteo magnirostris xantusi. Colima Gray-tailed Hawk. 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 8. These hawks were not common at this locality; only three were encountered. The ova were minute; the bird weighed 290.7 grams.

Asturina nitida plagiata. Mexican Goshawk. 1 ♂, 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 6. This hawk was by far the commonest raptor at this locality, where it was observed daily, flying over camp or sitting on bare limbs of trees near the river. The gonads of both birds were small; the male weighed 404 grams; the female, 571.5 grams.

Ortalis vetula poliocephala. Gray-headed Chachalaca. 2 ♀ ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 4, 5. Chachalacas were numerous, both in the upland brushy areas and in the riparian growth along the river. They were seen on a number of occasions in trees, feeding on a large, green fruit. The ova of both specimens were small; the birds weighed 733 and 742 grams.

Philortyx fasciatus. Barred Quail. 3 ♀ ♀, 14 km. N Acapulco, 1100 ft., August 3; 4 ♂ ♂, 2 ♀ ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 9-11; 1 ♂, 1 ♀, 16 km. S Tierra Colorada, 800 ft., August 3. These quail were abundant along the highway from Tierra Colorada to Acapulco. They preferred upland brush areas and cornfields and, even though nesting, as evidenced by the presence of eggs in the oviducts of females, they were in coveys of from ten to forty birds. When flushed from the ground, they flew rapidly to the nearest dense brush where they alighted in small trees and concealed themselves. At such times they kept uttering a series of short, loud calls. They were extremely difficult to flush from dense cover, for they kept flying from one tree to another. In areas supporting only scattered low brush, they sought available cover by flying a short distance, alighting, and then running. So well do they hide, even in sparse cover, we were unable to locate one crippled bird that we knew was within a radius of twenty feet.

We were surprised at the lateness of the breeding season. All females taken had eggs, some covered with shell, in the oviducts; the testes of all males were much enlarged. No young of the year were recognized. Males weighed from 120 to 166 grams; females from 145 to 168 grams.

Jacana spinosa gymnostoma. Mexican Jacana. 1 ♀, 22 km. NW Acapulco, August 14. This species is a common inhabitant of the marshy areas along the coast near Acapulco. The ova of this specimen were enlarged; the bird weighed 154.3 grams.

Charadrius collaris. Azaras Ringed Plover. 3 ♀ ♀, 12 to 14 km. NW Acapulco, August 14. Ringed Plovers inhabited the sandy and grassy beaches northwest of Acapulco, where they occurred in considerable numbers. The ova were small; the birds weighed from 25 to 30 grams.

Actitis macularia. Spotted Sandpiper. 3 ♀ ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 9-13. Spotted Sandpipers were common inhabitants of the sand banks and bars in the river. Seemingly they were migrants. The ova of all three were minute; the birds weighed from 32.4 to 36.6 grams.

Crocethia alba. Sanderling. 1 ♂, 1 unsexed, 12 and 16 km. NW Acapulco, August 14. Sanderlings were numerous along the sandy beaches northwest of Acapulco, where they occurred in company with *Charadrius collaris*. These birds were doubtless migrants; the testes of the male were minute. This individual weighed 52.5 grams. Seemingly this is the first record of the species for the state.

Columba fasciata fasciata. Band-tailed Pigeon. 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 20. Some twenty of these birds were observed high on a canyon wall near our camp. The specimen taken is a nearly full grown young; it weighed 262.7 grams.

Columba flavirostris flavirostris. Pink-billed Pigeon. 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 9. This large pigeon was rarely encountered by our party at this locality, and then only in the hills, away from the river, where it resorted to the taller trees. This female had minute ova; the bird weighed 265.4 grams.

Scardafella inca. Inca Dove. 2 ♂ ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 8-9. Inca Doves were the most abundant bird of the riparian association. The large size of the testes indicated that the breeding season had not terminated. These birds weighed 44 and 49 grams.

Leptotila verreauxi angelica. White-fronted Dove. 1 ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 8. On numerous occasions these doves were observed in pairs in the trees along the river. Their antics, plus the fact that the male taken had enlarged testes, led us to think they might still be nesting. This male weighed 173 grams.

Aratinga canicularis eburnirostrum. Salmon-fronted Parakeet. 1 ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 8. This beautiful parakeet was not uncommon at this locality, but it was difficult to collect. Numerous flocks were observed flying high, well out of shotgun range. The testes were small; the bird weighed 87 grams.

Amazona albifrons albifrons. White-fronted Parrot. 6 ♂ ♂, 4 ♀ ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 9-12. "Patriotic" parrots (red, white, and blue on the fore part of the head) were abundant in the upland thickets, especially near cornfields, where they concentrated in

the early morning and again in the evening to feed on the ripening corn. The testes measured about 5 mm. in length; the ova were minute. The weight of adult birds varied from 240 to 256 grams; nearly full grown young weighed from 198 to 203 grams.

Piaya cayana mexicana. Mexican Squirrel Cuckoo. 2 ♂♂, 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 7-12; 1 ♂, 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 18. In spite of their large size, these cuckoos are inconspicuous in the dense brush, which they seem to prefer. The breeding season was still in progress in early August; all the males had enlarged testes (breeding size). The weight of males varied from 101 to 110 grams; females, 94 to 109 grams.

Geococcyx velox. Lesser Road-runner. 1 ♂, 15 km. S Chilpancingo, 4300 ft., August 20. Several of these small road-runners were observed in the semi-arid mountains south of Chilpancingo where they preferred terrain dotted with brush and maguey-like plants. The testes of this specimen were small; the bird weighed 207.6 grams.

Crotophaga sulcirostris sulcirostris. Groove-billed Ani. 2 ♂♂, 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 8-12. These birds were seldom encountered by our party at this locality, but they were common near the coast. They preferred dense thickets and banana groves. Seemingly the nesting season was still in progress in August as both males had enlarged testes. The female weighed 76.5 grams; the two males, 88 and 92 grams.

Ciccaba virgata amplonotata. Kelso Wood Owl. 1 ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 6. These owls were common inhabitants of the upland brush association near our camp where they were heard calling nightly. Our specimen was collected by the aid of a head lamp. The testes were small; the bird weighed 323.7 grams.

Chordeiles acutipennis micromeris. Yucatan Nighthawk. 1 ♀, 14 km. NW Acapulco, sea level, August 14. Nighthawks of this species apparently were nesting in some numbers along the beach at this locality. This female had a well-developed brood patch; the bird weighed 55.2 grams.

Nyctidromus albicollis nelsoni. Nelson Cuiejo. 1 ♂, 16 km. S Tierra Colorada, 800 ft., August 3; 1 ♂, jr., Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 12. This is one of the commonest birds observed or heard at night in the tropics near Acapulco. While hunting at night with the aid of head lamps, our party flushed numbers of them from the ground. The young male is about two-thirds grown, the tail and beak being shorter than corresponding parts of the adult. The testes of the adult were small; the adult weighed 34.5 grams.

Amazilia violiceps violiceps. Violet-crowned Hummingbird. 1 ♂, jr., 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 19, 20. These small hummingbirds, with white under parts, were conspicuous at this locality, occurring on the rolling, grassy hills as well as in the canyons. The male was nearly full grown; its weight was 5.8 grams. The female had small ova and weighed 6.2 grams.

Cynanthus doubledayi. Doubleday Hummingbird. 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 11. This gray-breasted hummingbird was encountered only once at this camp, at the edge of a clearing in the upland brush association. The specimen weighed 2.8 grams.

Anthoscenus constantii leocadiae. Pine Star-throat. 1 ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 11. This long-billed hummingbird was common in the dense upland brush. The testes were large, suggesting that the breeding season was still in progress; the bird weighed 7.9 grams.

Trogon elegans ambiguus. Coppery-tailed Trogon. 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 18. Trogons were not uncommon in the canyons near our camp and also in the rain forest a few miles to the west. They preferred the thickets and were seemingly unafraid of man. The ova of this female were minute; the bird weighed 64.4 grams.

Trogon citreolus. Citreoline Trogon. 2 ♂♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 11. These birds occurred in the riparian growth along the river, but they were more abundant in the dense brush on the hillsides where they were difficult to stalk. The testes of both males were enlarged (breeding condition); the birds weighed 73 and 76 grams.

Chloroceryle americana septentrionalis. Texan Green Kingfisher. 1 ♂, 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 5-12. These small kingfishers were observed on several occasions at this locality. The testes of the male were much enlarged, but the ova of the female were small, suggesting that the breeding season was not long past. The beaks of our specimens are shorter than those of birds from the lowlands of eastern Mexico. The male weighed 37.6 grams; the female, 34.8. Seemingly this is the second record of this species for Guerrero, it having first been reported by Griscom (1937).

Centurus chrysogenys flavinuchus. Acapulco Woodpecker. 4 ♂♂, 3 ♀♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 4-12. "Yellow-headed" woodpeckers were abundant in the large trees along the river where their raucous calls were heard daily. This species was the most abundant woodpecker in the vicinity. The ova of one female were enlarged, those of the others were small; testes of all males taken were small. The weight of males varied from 64.3 to 79.2 grams; of females, 47.4 to 62.8 grams.

Balanosphyra formicivora formicivora. Ant-eating Woodpecker. 1 ♂, 20 km. SW Chilpancingo, 8000 ft., August 17. About a dozen of these birds was observed in the cloud forests southwest of Chilpancingo. The testes of this male were small (non-breeding); the bird weighed 81.4 grams.

Ceophloeus lineatus scapularis. Vigors Pileated Woodpecker. 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 9. In the field this large blackish woodpecker is easily confused with the ivory-bill, but the much smaller beak and black loreal and malar regions of *Ceophloeus* are good field characters. These two woodpeckers occurred in the same areas and resorted to the same corn patches to feed on the ripening corn. The ova of this female were small; the bird weighed 195.4 grams.

Scapanus guatemalensis nelsoni. Nelson Ivory-billed Woodpecker. 2 ♂♂, 2 ♀♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 5-8. Ivory-billed Woodpeckers were observed on several occasions in the vicinity of cornfields in the hills above the river. In each instance they had been attracted to the area by the maturing corn. The gullets of all four specimens were gorged with kernels of this grain. In early August the young of the year were nearly full grown. The gonads of adults were very small; the males weighed 199 and 205 grams; the two females, 183 and 191 grams.

Xiphorhynchus flavigaster mentalis. Grayson Woodhewer. 1 ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 11. This species was encountered only once during our stay in Guerrero. The testes were large (breeding size); the bird weighed 53.3 grams.

Tyrannus vociferans xenopterus. Guerreran Cassin Kingbird. 2 ♂♂, 15 km. S Chilpancingo, 4300 ft., August 18, 20. Many of these dark-colored kingbirds were observed at a lagoon near our camp where they hunted for insects over the water. The testes of one specimen were small, those of the other of medium size, suggesting that the breeding season had terminated. Both birds were in an advanced stage of molt. They weighed 43.5 and 44.3 grams.

Tyrannus melancholicus occidentalis. Western Tropical Kingbird. 2 ♂♂, 2 ♀♀, 1 unsexed, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 7-12. The Tropical Kingbird outnumbered all other tyrannids at this locality, occurring in approximately equal numbers in both the riparian and upland brush associations. The ova of the females were small, but the testes of the males were large (breeding size), suggesting that the breeding season had not yet terminated. The males weighed 35.9 and 36.4 grams; females, 30.1 and 40 grams.

Myiodynastes luteiventris luteiventris. Sulphur-bellied Flycatcher. 1 ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 11. This flycatcher was encountered on only one occasion during our stay in Guerrero. The bird was observed flying out from perches on top of acacias in the upland area and catching insects. The testes were small (non-breeding); the bird weighed 47.5 grams.

Myiozetetes similis texensis. Giraud Flycatcher. 4 ♂♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 7-12. This tyrannid ranked third in abundance at this locality, being surpassed by *Tyrannus melancholicus* and *Pitangus sulphuratus*. The breeding season of this species at lower elevations in Guerrero seemingly is long, as adult males had enlarged testes in August and young of the year were nearly full grown. Adult males weighed from 32.3 to 33.6 grams; a young male of the year weighed 32.4 grams.

Pitangus sulphuratus derbianus. Derby Flycatcher. 4 ♂♂, 3 ♀♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 7-12. Next to *Tyrannus melancholicus*, this large flycatcher was the most numerous tyrannid encountered at this locality. Most of the birds were observed in the riparian association; a few were encountered in the brushy uplands. The nesting season was still in progress on August 9, as a female with an egg covered with shell was taken on that date. The testes of all males taken were in breeding condition. Adult males weighed from 69 to 85.7 grams; females, from 71.2 to 79.5 grams.

Myiarchus tuberculifer querulus. Querulous Flycatcher. 1 ♂, 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 10-12. These small, crested flycatchers were not numerous at this locality. They seemed to prefer the dense upland thickets. The gonads were small; the bird weighed 27.8 and 27.3 grams, respectively.

Camptostoma imberbe. Beardless Flycatcher. 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 600 ft., August 7. Beardless Flycatchers frequented the dense brush in the uplands in small numbers. The specimen at hand is a nearly full grown young of the year, which suggests that the species breeds in Guerrero. The bird weighed 6.9 grams.

Progne chalybea chalybea. Gray-breasted Martin. 1 ♂, 16 km. N Acapulco, 1000 ft., August 14. This bird was not uncommon along the river at this locality. Seemingly this specimen constitutes a new record for the state. The specimen is a bird of the year; it weighed 40.4 grams.

Calocitta formosa formosa. Bullock Magpie Jay. 2 ♂♂, 2 ♀♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 4-6; 1 ♂, 1 ♀, Tierra Colorada (10 km. S), 500 ft., August 3; 1 ♂, 1 ♀, El Rincon, 57 km. S Chilpancingo, 2250 ft., August 3. These large, noisy jays are conspicuous members of the avifauna from sea level to an elevation of approximately 2500 feet. They showed preference for the taller trees in the densely vegetated hillsides, where they fed in groups of 5 to 15. Young

of the year in early August were nearly full grown and could scarcely be distinguished from their elders. The gonads of all specimens collected were small. Adult males weighed from 184 to 212 grams; adult females, 192 to 225 grams. Young of the year weighed from 163 to 175 grams.

Aphelocoma coerulescens remota. Chilpancingo Jay. 1 ♂, 2 ♀♀, 15 km. S Chilpancingo, 4300 ft., August 20. These jays were common in the wooded draws and canyons near camp. They fed to some extent on the open, grassy, hillsides, gathering their food from the ground. Family groups were in evidence in August. The gonads of all specimens were small; the male weighed 93.3 grams; the females, 100 and 102.6 grams.

Heleodytes jocosus jocosus. Boucard Cactus Wren. 1 ♂, 2 ♀♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 7-9. As near as I can determine from the descriptions of Ridgway (Birds N. and M. Amer., 3, 1904:524-527) these specimens are intermediate between *gularis* and *jocosus*, having characters of both races. This large wren was numerous at this locality, preferring the dense brush where it was more often heard than seen. The male had large testes (breeding size); the bird weighed 28.2 grams. The females, one a nearly full grown young of the year, weighed 24 grams.

Melanotis caerulescens effuticus. Blue Mockingbird. 1 ♂, 15 km. S Chilpancingo, 4300 ft., August 20. Several of these mockingbirds were observed in a deep, brushy canyon near our camp. The largest number observed in one day was five. The testes of this male were small; the bird weighed 73.8 grams.

Turdus assimilis renominatus. West Mexican Thrush. 1 ♂, jv., 15 km. S Chilpancingo, 4300 ft., August 18. This thrush was not uncommon in the wooded canyons near our camp. Numerous nearly full grown young of the year were noted. This bird weighed 87.6 grams.

Myadestes obscurus occidentalis. Jalisco Solitaire. 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 19. This species was encountered by our party in Guerrero on only one occasion. This bird, a nearly full grown young in spotted juvenal plumage, was taken in open, rolling terrain. It weighed 38.6 grams.

Poliopitula nigriceps nigriceps. Black-headed Gnatcatcher. 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 11. Gnatcatchers were observed occasionally at the edges of thickets of upland brush where they were feeding from the peripheral foliage. The ova of this female were minute; the bird weighed 6.7 grams.

Lanius ludovicianus mexicanus. Mexican Shrike. 1 ♂, 1 ♀, jv., 15 km. S Chilpancingo, 4300 ft., August 18, 19. Shrikes were fairly common inhabitants of the maguey-covered slopes near our camp; also, numerous individuals were observed along the highway in the semi-arid country between Chilpancingo and Iguala. Griscom does not record this species, but Hellmayr (Cat. Birds Amer., 8, 1935:315) reports two specimens from Iguala. The young bird is nearly full grown; they weighed 48.2 and 49.6 grams, respectively.

Basileuterus rufifrons dugesi. Chestnut-crowned Warbler. 1 ♂, 15 km. S Chilpancingo, 4300 ft., August 16. This brightly colored warbler was not uncommon in the thickets on the rolling terrain at this camp. The testes of this male were small (non-breeding); the bird weighed 9.9 grams.

Cassiculus melanicterus. Mexican Cacicque. 4 ♂♂, 3 ♀♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 4-12. These large, crested, black and yellow icterids were conspicuous inhabitants of the riparian association near camp. Seemingly the breeding season is long and two or more broods are reared each season as nearly full grown young were taken and each of the adult females had an egg, covered with shell, in the oviduct, indicating they were laying. Adult males weighed from 99.4 to 128.4 grams; adult females, 66 to 72.3 grams.

Cassidix mexicanus obscurus. Colima Boat-tailed Grackle. 1 ♂, 16 km. N Acapulco, 600 ft., August 14. This species is locally abundant in Guerrero. It was not observed at our camp at Rio Aguacatillo, but it was common in the semi-marshy country near the coast. These birds were still breeding in August when former broods were nearly full grown. This male weighed 227.7 grams.

Icterus graduacauda dickcyeae. Black-headed Oriole. 1 ♂, jv., 20 km. SW Chilpancingo, 9000 ft., August 17. Encountering this species in the cloud forests southwest of Chilpancingo was indeed a surprise. This is a bird of the year that probably was reared in the vicinity.

Icterus gularis gularis. Lichtenstein Oriole. 1 ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 7. This large yellow and black oriole was observed on two or three occasions. It probably breeds here, however, as the testes of this specimen were much enlarged. The bird weighed 84.7 grams.

Icterus pustulatus pustulatus. Scarlet-headed Oriole. 2 ♂♂, 2 ♀♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 8. This oriole was a common inhabitant of the area near our camp, particularly in the large trees bordering the river. A pair was observed constructing a nest in a tree overhanging the river on August 8. The testes of one specimen taken that day measured 12 mm. in length (breeding condition). This male weighed 41.9 grams. An adult female, containing large ova, weighed 38.7 grams.

Sturnella magna alticola. Highland Meadowlark. 1 ♂, 15 km. S Chilpancingo, 4300 ft., August 19. Meadowlarks were common inhabitants of the grassy, rolling hills near camp, as well as of the corn-

fields near Chilpancingo. This specimen is in worn, faded plumage; the bird weighed 101 grams.

Piranga flava hepatica. Hepatic Tanager. 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 19. This tanager was uncommon at this locality. The ova were small; the bird weighed 39.7 grams.

Richmondia cardinalis carnea. Colima Cardinal. 1 ♂, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 12. Cardinals were not numerous at this locality, as only two individuals were observed during our stay, both in brushy areas along a small creek that emptied into the river. The breeding season probably was still on since this male had large testes. The bird weighed 34.1 grams.

Hedymeles melanocephalus maculatus. Pacific Black-headed Grosbeak. 1 ♂, 20 km. SW Chilpancingo, 7000 ft., August 7. These grosbeaks were not uncommon in the wooded mountains above an elevation of 6000 ft. where they doubtless breed. The testes of this male were enlarged, suggesting that the breeding season was still in progress. The bird weighed 44.2 grams.

Guiraca caerulea eurhyncha. Big-billed Blue Grosbeak. 1 ♂, 15 km. S Chilpancingo, 4300 ft., August 14. Blue Grosbeaks were common inhabitants of the small, brushy ravines. The testes of this male were large (breeding size). The bird weighed 34.3 grams.

Carpodacus mexicanus mexicanus. Mexican House Finch. 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 20. House Finches were common inhabitants of the valley near Chilpancingo, but they were far less numerous in the vicinity of our camp. The ova of this female were small; the bird weighed only 15.3 grams. This is from 20 to 25 per cent less than the weight of birds from the states of Puebla and Tlaxcala.

Sporophila torqueola torqueola. Collared Seed-eater. 2 ♂♂, 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 19. Seed-eaters were common on the open, grassy slopes near camp. Young of the year accompanied their elders about in family groups. The gonads of all birds were small; the males weighed 8.9 grams; the female, 8.4 grams.

Aimophila humeralis humeralis. Ferrari-Perez Sparrow. 2 ♀♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 11. This black-fronted sparrow was fairly abundant in the marginal areas of dense brush along the river and near the highway. A pair was observed building a nest in a small tree near the river. The ova of the females taken were small; the birds weighed 24.8 and 25.7 grams.

Aimophila acuminata guerrerensis. Guerreran Ground Sparrow. 1 ♀, Rio Aguacatillo, 30 km. N Acapulco, 1000 ft., August 10; 1 ♀, El Naranjo, 30 km. S Taxco, 3250 ft., August 3. This species was not as common as *Aimophila humeralis* in the vicinity of our camps. It was observed only occasionally in areas of scattered brush. Seemingly it was not nesting, as the ova of these females were small. The birds weighed 26 and 32 grams.

Aimophila rufescens subvespera. Guerreran Rusty Sparrow. 1 ♀, 15 km. S Chilpancingo, 4300 ft., August 20. This large *Aimophila* was a common inhabitant of the rolling, grassy, brush-dotted hills at this locality. The ova of this female were large; the bird weighed 44.6 grams.

Aimophila ruficeps fusca. Rufous-crowned Sparrow. 2 ♂♂, jv., 15 km. S Chilpancingo, 4300 ft., August 16. Rufous-crowned Sparrows were common inhabitants of the rolling, grassy hills near camp. These young probably were reared in the vicinity. They weighed 17.8 and 20.2 grams.

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College Station, Texas, November 1, 1943.*