American Museum Novitates

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY CENTRAL PARK WEST AT 79TH STREET, NEW YORK 24, N.Y.

NUMBER 1927

MARCH 5, 1959

Notes on Some Birds of Northern Venezuela By E. Thomas Gilliard¹

INTRODUCTION AND ACKNOWLEDGMENTS

During a visit to northern Venezuela (April 17 to May 2, 1955), the author observed 104 species of birds, 30 of which exhibited various stages of their breeding behavior. A total of 49 nests of 19 species were found. Of these, 11 species had nests under construction, many had eggs or nestlings, and two were found feeding fledglings. Because information concerning reproductive activity is particularly wanted for South American birds, the details of these fragmentary observations are presented herewith, with brief annotations of the other species observed.

The immediate purpose of the present survey was to locate for Mr. and Mrs. Crawford H. Greenewalt stations suitable for the stroboscopic photography of birds. The area surveyed extended from sea level to about 5000 feet in the La Guaira, Caracas, Guatire, and Lake Valencia regions.

Grateful thanks are extended to Mr. and Mrs. Greenewalt for the opportunity of participating in their Venezuelan expedition; also to Dr. and Mrs. William H. Phelps for their gracious hospitality and the use of the facilities of the Phelps Ornithological Laboratories. I must also thank Messrs. William H. Phelps, Jr., Ramón Urbano, and Paul Schwartz for their valuable help in the field, and Mrs. William H. Phelps, Jr., and Dr. Ramón Ricardo Ball for their hospitality. Dr.

¹ Associate Curator, Department of Birds, the American Museum of Natural History.

Dean Amadon and Mr. Eugene Eisenmann had the kindness to read and criticize the manuscript.

Mr. William H. Phelps, Jr., aided the expedition in many ways, the most important of which was the establishing and maintaining for several months of some 45 feeding stations. About 40 of these consisted of glass hummingbird feeding tubes which were filled several times a day. These were located from near sea level to about 5000 feet in gardens, fields, at the forest edge, and at various elevations in open, park-like forests. About five feeders which attracted many kinds of birds consisted of feeding tables in Caracas gardens. These were baited with bananas, citrus fruit, and several kinds of grain.

The author began hunting for nesting birds a few hours after his arrival in Venezuela on the morning of April 17. It was known that the breeding season, although imminent, was not yet under way. The search proved successful, apparently because of a shift in the weather which occurred on April 17. During the first half of the day, the Caracas region was hot and parched, with the lawns, golf courses, and trees withered and dusty. There had been no effective rain for many weeks. Most of the birds that the author saw kept quietly to the gardens and ornamental trees and flocked to watering and feeding stations. In the early afternoon, heavy rains began and continued intermittently for the next six days. The streets of Caracas were flash-flooded on April 17 and again on the 18th.

Because of the limited time available before the arrival of the photographic team, the author and Ramón Urbano remained abroad in the rains searching for nests and observing birds. They concentrated their work in the gardens and woodlands near the Phelps Ornithological Laboratories. Except for *Phacellodomus rufifrons*, which was observed building on the afternoon of April 17, no nesting activity was noticed on the first day of rains.

Paul Schwartz, who had been observing birds in the Caracas region until about April 11, had reported that he had seen no breeding birds, and Ramón Urbano, who had reconnoitered the laboratory woodlands just prior to the author's arrival, confirmed that the expected breeding season had not yet begun. On April 18, hardly 24 hours after the first heavy rains, Urbano annd the author began to find birds that were collecting nesting material and building nests. On that morning, Phacellodomus rufifrons was observed beginning nest construction at three sites, and in the afternoon Myiophobus fasciatus and Tolmomyias sulphurescens were found building rapidly. On April 19, Todirostrum cinereum and Coereba flaveola were observed constructing their nests,

and Saltator caerulescens was seen gathering nest material. During the next three days, many other nests in various stages of fresh construction were discovered. This nest building by so many species appeared to be closely correlated with the onset of the rainy season, and the conclusion seemed inescapable that the rain itself had triggered the surge of nest building.

Suddenly, on April 23, the heavy, intermittent rains ceased. During the following week, the sun shone hotly every day, and there was little or no rain. On May 1, the author again examined the nests near the ornithological laboratories which had been started so quickly on April 18 and 19. All of them had been abandoned. Schwartz, on hearing of this, stated that it was his experience that nest building often followed periods of rain, but that such nests were frequently deserted if the rains stopped.

Little is known about the triggering factors that activate breeding seasons in tropical environs where changes in day length are negligible. Many species seem geared to rainfall. Others seem to be motivated by a wide variety of stimuli. Some are cyclic but not linked to the calendar, while an individual species sometimes seems to be linked to several different cycles, particularly if it enjoys broad altitudinal ranges. Many species have cyclic tendencies yet apparently breed in every month of the year. The complexity of these problems is well illustrated by an analysis of Schäfer and Phelps' "Aves de Rancho Grande" (1954), from which one learns that, although hummingbirds breed in every month of the year, the maximum breeding period is in May, the minimum in July and August. Breeding records in Eisenmann's "Annotated list of birds of Barro Colorado Island" (1952) indicate the same tendency.

ITINERARY

- April 17: Casa Blanca (2800 feet) and Quinta Yaví (2800 feet).
- April 18: Casa Blanca, Quinta Yavi, and Macuto (sea level).
- April 19: Macuto and Quinta Yaví.
- April 20: Quinta Yaví, Los Guayabitos (4750 feet), and Casa Blanca.
- April 21: Quinta Yaví, Guatire (2500 feet), and Hacienda La Siria (4500 feet).
- April 22: Quinta Yaví.
- April 23: Laguna Taguaiguai (1500 feet) and forests south of Lake Valencia (1800 feet).
- April 24: Quinta Yaví.
- April 25: Quinta Yaví and Albert Phelps estate, Guatire and Hacienda La Siria.
- April 26: Guatire and road to Hacienda La Siria, Quinta Yaví.

April 27: Quinta Yaví.

April 28: Quinta Yaví, A. Phelps garden, Machado garden, De Bellard

garden, all in Caracas.

April 29: Quinta Yaví, Los Guayabitos. April 30: Quinta Yaví, Casa Blanca. May 1: Casa Blanca, Junquito (6000 feet).

May 2: Casa Blanca, La Guaira.

BREEDING BIRDS: APRIL 17 TO MAY 2, 1955

KEY

A Bred earlier.

B Just beginning to breed.

C Breeding not yet started but imminent.

- A Fulica caribaea: Young three-quarters grown.
- B Phaethornis augusti: Nests (two).
- C Amazilia tobaci: Chasing and copulating.
- A Galbula ruficauda: Three nests, courtship feeding.
- A Melanerpes rubricapillus: Two nests.
- B Phloeoceastes melanoleucos: Chasing.
- AB Certhiaxis cinnamomea: Five nests.
- AB Phacellodomus rufifrons: Ten nests.
- BC Thamnophilus doliatus: Territorial defense.
- ? Chiroxiphia lanceolata: Dancing.
- B Fluvicola pica: Nest with egg.
- B Arundinicola leucocephala: Building nest.
- B Myiophobus fasciatus: Building nest.
- AB Pitangus sulphuratus: Two occupied nests.
- B Tolmomyias sulphurescens: Building nest.
- B Todirostrum cinereum: Three nests being built.
- ? Stelgidopteryx ruficollis: Bird in nest burrow.
- B Atticora cyanoleuca: Seen carrying grass.
- C Thryothorus rufalbus: Singing.
- A Troglodytes musculus: (Bred in March).
- B Mimus gilvus: Nest and egg.
- A Turdus nudigenis: Adult carrying food.
- AB Turdus leucomelas: Nest and eggs; nest and young.
- B Coereba flaveola: Two nests under construction.
- AB Molothrus bonariensis: Eggs found in two nests of hosts; one fledgling.
- B Icterus nigrogularis: Nest under construction; new nest.
- AB Agelaius icterocephalus: Cluster of occupied nests.
- B Tachyphonus rufus: Nest and eggs.
- C Saltator caerulescens: Gathering nesting material.
- C Sporophila minuta: Singing.
- C Volatinia jacarinia: Courtship singing and dancing.
- A Zonotrichia capensis: Two nests (late March); two young.

BIRDS OBSERVED AT FEEDING STATIONS IN CARACAS, LOS GUAYABITOS, AND HACIENDA LA SIRIA

KEY

- 1 Quinta Yaví
- 2 Casa Blanca
- 3 Garden of Dr. De Bellard
- 4 Los Guayabitos
- 5 Hacienda La Siria
- 6 Macuto
- 4 Columbigallina passerina
- 4 Phaethornis augusti
- 1 Campylopterus falcatus
- 1 Chrysolampis mosquitus
- 1,6 Chlorostilbon mellisuga
- 1,4,6,2 Amazilia tobaci
- 5 Chalybura buffoni
- 1,3 Melanerpes rubricapillus
- 1,2,3 Thamnophilus doliatus
- 1,2,3 Pitangus sulphuratus
- 1,2,3 Turdus nudigenis
- 1.2.3 Turdus leucomelas
- 1,2,3,6,5 Coereba flaveola
- 1,2,3 Molothrus bonariensis
- 2 Icterus nigrogularis
- 2 Gymnomystax mexicanus
- 1,2 Tangara cayana
- 1,2,3 Thraupis virens
- 2 Thraupis palmarum
- 2 Rhamphocelus carbo
- 1,2,3 Tachyphonus rufus
- 2 Saltator albicollis
- 1,2,3 Saltator caerulescens
- 2 Cyanocompsa cyanea

(Albert Phelps garden) Spinus psaltria

- 2 (Reported) Coccopsis (Paroaria) gularis
- 1 Sicalis flaveola
- 4 Zonotrichia capensis

ANNOTATED LIST

Trinomials are used herein except in species in which geographical evidence is inconclusive and there is the possibility of the confusing of two subspecies, for example, a migrant with a resident. This procedure was adopted because the area covered by the observations has

been intensely surveyed, particularly by the collectors of the Phelps Ornithological Laboratories, and therefore the possibility of error is remote.

For the most part, the technical names and the general systematic arrangement used herein are those of Phelps and Phelps (1950). For non-passerines, the technical names and systematic arrangement are those of Schäfer and Phelps (1954).

Vernacular names are from Eisenmann (1955) except in the case of species not found in Middle America. For the latter, Mr. Eisenmann has had the kindness to provide acceptable English names. A number of these are standard names, but in several cases the "standard" names were not considered acceptable and have been replaced by new ones. These are the invention of Eisenmann and, in some cases, of Eisenmann in consultation with Paul Schwartz. It should be emphasized that in no case have these names been lightly applied, and in some cases considerable thought and research were involved.

As an example to illustrate the importance of reaching uniformity with regard to vernacular names, Eisenmann found that the name "Blue-winged Tanager" is inappropriate for some races of Tangara cyanoptera, because some of the races have black wings, and the name "Blue-winged Tanager" is also given to an entirely different species of tanager, namely, Thraupis cyanoptera (Hellmayr, 1936). Hence, Eisenmann proposes the name "Black-headed Tanager" for Tangara cyanoptera.

New vernacular names used in this publication are Gray Hermit (Phaethornis augusti), Copper-rumped Hummingbird (Amazilia tobaci), Blue-tailed Emerald (Chlorostilbon mellisuga), Pale-breasted Robin (Turdus leucomelas), Copper-crowned Tanager (Tangara cayana), Black-headed Tanager (Tangara cyanoptera), and Ultramarine Grosbeak (Cyanocompsa cyanea).

Colymbus dominicus speciosus

LEAST GREBE

Laguna Taguaiguai, April 23: Common in small flocks of from three to 18 birds.

Phalacrocorax olivaceus olivaceus

OLIVACEOUS CORMORANT

Laguna Taguaiguai, April 23: Abundant. Strings of hundreds over the lake at dusk.

Anhinga anhinga anhinga Anhinga

Laguna Taguaiguai, April 23: Very common. Many seen drying plumage on exposed limbs of drowned trees of this artificial lake. One was repeatedly driven from a perch by *Pitangus sulphuratus rufipennis* which was defending a nest in a crotch near the top of a dead tree.

Fregata magnificens rothschildi MAGNIFICENT FRIGATEBIRD

Macuto, April 19: Five Man-o'-War Birds were seen along the coast and over the lowlands between the mountains and the sea.

Ardeola ibis ibis CATTLE EGRET

Laguna Taguaiguai, April 23: Abundant. In scattered flocks of from a few birds to a flock containing more than 400 birds. A large flock estimated by Schwartz to contain 500 birds, and by Gilliard to contain 600 birds, consisted largely or entirely of this species.

Casmerodius albus egretta
Common or Large Egret

Laguna Taguaiguai, April 23: Common. Solitary.

Phimosus infuscatus berlepschi

BARE-FACED IBIS

Laguna Taguaiguai, April 23: Three Bare-faced Ibises were seen flying together over the lake.

Coragyps atratus Black Vulture

Common. Seen soaring over cities and towns. The largest concentration was seen on the evening of April 17 in the Caracas Botanical Gardens where about 100 birds were gathered in a tree. Some were molting the primaries.

Cathartes aura ruficollis
Turkey Vulture

Hacienda La Siria, April 26: Several.

Buteo magnirostris insidiatrix

ROADSIDE HAWK

Road from Guatire to Hacienda La Siria, April 26: One adult seen over grassy slopes with spaced-out trees and bushes. The reddish primaries seemed to glow in the sunlight.

Milvago chimachima cordatus

YELLOW-HEADED CARACARA

Common. Often seen along roadways and in fields with spaced-out trees. One was flushed from the edge of the La Guaira-Caracas highway April 17. It had apparently been feeding on carrion.

Caracara plancus cheriway

CRESTED CARACARA

Common. Observed on ground in freshly plowed field at Guatire April 26, and along highway near Laguna Taguaiguai April 23.

Colinus cristatus sonnini

CRESTED BOBWHITE

Laguna Taguaiguai, April 23: A pair of birds in grass between the roadway and the lagoon. Previously the species had been heard calling in the same area.

Porzana flaviventer

YELLOW-BREASTED CRAKE

Laguna Taguaiguai, April 23: Apparently common. Three solitary birds were seen walking on marsh growth in a semi-open swamp. They displayed little fear of man.

Jacana spinosa intermedia

WATTLED JACANA

Laguna Taguaiguai, April 23: Abundant on floating vegetation along the edge of the lagoon. A congregation of 26 birds was flushed from a small inlet.

Fulica caribaea

CARIBBEAN COOT

Laguna Taguaiguai, April 23: Abundant along the swampy edges and on the floating vegetation of the lagoon, where at dusk many

young were to be seen wandering about in company with the adults. Some of the young were two-thirds grown, and others appeared as large as their parents.

Gallinula chloropus galeata Common Gallinule

Laguna Taguaiguai, April 23: Abundant in flocks of up to 35. One gallinule was seen to approach within a foot of the head of an alligator which had emerged at the edge of a marsh filled with feeding birds. The bird seemed unaware of the reptile, and we watched with fascination as it walked within inches of the latter's mouth.

One adult was seen on a horizontal stick about a foot above the marsh treading alternately on its feet and flapping its wings as though trying to break free of a trap. This performance lasted for about four seconds. It was probably a phase of the courtship dance.

Tringa solitaria Spotted Sandpiper

Laguna Taguaiguai, April 23: One seen feeding along the lagoon edge.

Phaethusa simplex simplex Large-billed Tern

Laguna Taguaiguai, April 23: Common but solitary or in small groups along the edge of the lagoon. One flock of five birds consistently perched in the tops of dead bushes and small trees which had been killed by the rising lake waters.

Thalasseus maximus maximus

ROYAL TERN

Macuto, April 20: Three seen flying over the Caribbean close to shore.

Rynchops nigra cinerascens

BLACK SKIMMER

Laguna Taguaiguai, April 23: Common in small flocks cruising close to the surface of the lagoon and skimming often to within a few feet of the shore. One flock of seven birds was seen, but the usual group consisted of two or three.

Columba livia

ROCK DOVE OR DOMESTIC PIGEON

In Caracas and other towns of this region there are many pigeon fanciers, and Domestic Pigeons are abundant. At Macuto it was not uncommon to see small flocks or solitary birds flying over the trees of the ocean edge. Some had large patches of white, but others were of the common street variety.

Scardafella squamata Scaled Dove

Casa Blanca, April 18: Three seen walking close together in open woodlands behind the ornithological laboratories.

Columbigallina passerina albivitta Common Ground Dove

Common. Encountered in pairs in the woodlands behind Casa Blanca (April 17 and 18) where the species was seen both on the ground and on dead limbs near the top of the forest. Also seen commonly at Laguna Taguaiguai, Macuto, Guatire, and Los Guayabitos.

Aratinga pertinax venezuelae Brown-throated Parakeet

La Siria, April 26: A flock of five was seen in the canopy of tall shade trees over the coffee plants near Hacienda La Siria.

Forpus passerinus viridissimus BLUE-WINGED PARROTLET

Casa Blanca, April 18: Three seen flying through woodlands behind the ornithological laboratories. Laguna Taguaiguai, April 20: Four were seen flying and perching in a small dead tree between the roadway and a lagoon edge.

Amazona amazonica amazonica Orange-winged Parrot

Laguna Taguaiguai, April 23: A pair seen flying among trees at edge of lagoon.

Coccyzus americanus americanus YELLOW-BILLED CUCKOO

Woodlands bordering south coast of Lake Valencia, April 23: One in middle portion of the open forest edge.

Piaya cayana mehleri SQUIRREL CUCKOO

Woodlands bordering south coast of Lake Valencia, April 23: A solitary bird skulked through the forest edge. It returned half a dozen times to investigate as we duetted with an inquisitive *Thryothorus rufus*.

Crotophaga ani Smooth-billed Ani

Macuto, April 19: A flock of six was seen in thick seaside brambles.

Crotophaga sulcirostris sulcirostris

GROOVE-BILLED ANI

Laguna Taguaiguai, April 23: Several were seen in the high bushes bordering swamps.

Tapera naevia naevia STRIPED CUCKOO

Road from Guatire to Hacienda La Siria, April 21: Two were seen in bushes along roadway. The feathers of the crest were raised constantly to an almost vertical position, then flattened against the head. Woodlands on south shore of Lake Valencia, April 23: Two birds were seen in the crown of open forest edge. Road to Los Guayabitos, April 20: One bird was seen and heard calling in bushes of the road edge. Call: A plaintive double whistle.

Streptoprocne zonaris albicincta White-collared Swift

Los Guayabitos, April 29: A few birds were seen high in the sky flying in front of a wall of clouds.

Phaethornis augusti augusti Gray Hermit

Apparently uncommon. Casa Blanca, April 18: One was seen in shaded bushes perched on a twig 14 inches from the ground; another was seen flying through thick bushes near the floor of woodlands behind Casa Blanca. Los Guayabitos, April 26: One was seen among banana plants near the home of Ramón Ricardo Ball. Road near south shore of Lake Valencia, April 23: One weighted nest was found suspended from a strand of woven spider webs in a dark culvert. This

nest was located under the center of the roadway about 15 feet from either end of the culvert, which was some 4 feet in diameter and blocked by vegetation at the ends. It hung from the ceiling of the pipe-like structure. Below it numerous little pools of water were trapped in the corrugations. The culvert was populated by about 25 small bats. These bats rested by suspending themselves from the roof. Some of them hung very close to the nest which they thus resembled in the shadows. The nest, which contained no eggs, was discovered by Paul Schwartz.

Los Guayabitos, April 20: Two birds, which were apparently paired, were observed visiting three closely grouped sugar-water feeders. The latter had been installed several weeks before. Between 10:25 A.M. and 10:55 A.M. one feeder was visited seven times, another once, and a third twice. Two other species of hummingbirds also visited the feeders. On April 29, when these feeders were revisited for the purpose of making pictures of *Phaethornis augusti* in flight, apparently the same pair of birds was visiting the same set of feeders and having the same apparent preference for one of the glass feeding tubes. On this second visit Mariano Ortega Lopez, who maintained the feeders, informed

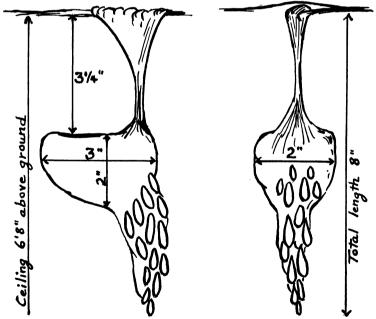


Fig. 1. Nest of *Phaethornis augusti augusti*, Los Guayabitos, Venezuela, April 29.

me that he had found the nest of the pair on April 26. The nest had just been started when he found it in a dark pump house. He reported that the nest was completed in three days' time. After inspecting the nest and discovering its peculiar counterbalancing, I made the sketch shown in figure 1. The nest was suspended in the same manner as the one discovered in the culvert, but its peculiar balance had not been noticed before.

The second nest was located in a concrete pump house with a corrugated asbestos sheet roof. A barred door was the only opening. The house was cave-like and cool. It was situated on a steep grassy slope about 500 feet from the nearest trees. The nest was suspended from the ceiling, which was 6 feet 8 inches above the floor and about 8 feet inside the door. Spider silk formed the main suspension support. The nest rim was 31/4 inches from the ceiling. The nest proper had a depth of 2 inches. Below the nest a "bustle" of yellowish brown lumps of dried mud had been attached with silvery spider webbing. This "bustle" hung under the main suspension shroud which joined one edge of the nest with the ceiling. It was positioned so as to counterbalance the nest exactly and hold the rim horizontal with the ground. Thus this marvelous nest appeared to defy the laws of gravity. The birds were not seen at or near the nest.

Although counterbalancing in hummingbird nests has been known for many years, there are still relatively few specific records in the literature. Martin (1852, p. 69) in a general discussion mentioned nests with "... singular appendages, acting evidently as balancers, in order to steady a pendent cradle." In some of these appendages he found "... a stone, or two or more stones, acting as counterpoise to the weight of the parent and young, thus keeping it evenly balanced." Ridgway (1892, p. 281) noted that, in some species of hummingbirds, "... should the nest be heavier on one side than on the other, the higher side is weighed with a small stone or square piece of earth until an equilibrium is established."

Campylopterus falcatus LAZULINE SABREWING

Quinta Yaví, April 14-30: Common. From one to three birds were often observed at sugar-water feeders in the ornamental gardens. Both male and female were seen, but the female appeared much less frequently. My records of feeding frequencies show that this species visited the honey-water feeders from four to eight times an hour. Campylopterus falcatus rarely attacked other hummingbirds at the

feeder but was once observed to drive off an Amazilia tobaci at a feeder which the latter apparently claimed as its territory and successfully defended (at an average rate of 24 attacks or chases an hour) against its own kind, against Chlorostilbon mellisuga (= prasinus auct.), and against other less aggressive examples of Campylopterus falcatus.

Casa Blanca, April 30: Solitary birds were observed in the crown of woodland trees.

Anthracothorax nigricollis nigricollis BLACK-THROATED MANGO

Casa Blanca, April 17, 18, and 30: Both sexes were frequently seen perching in the crown of tall open woodlands near the laboratory and feeding in the orange blossoms of a large bucare tree overhanging the main residence. The female is easily identified by the black-streaked throat. This species did not visit any of the sugar-water feeders. Unsuccessful attempts were made to lure it to baited flowers placed on roof tops adjacent to the flowering bucare tree.

Chrysolampis mosquitus RUBY-AND-TOPAZ HUMMINGBIRD

Quinta Yaví, April 24: One adult male was observed by Mrs. Crawford Greenewalt at a sugar-water feeder 31/2 feet above the ground in gardens very close to the main dwelling. This was the first observation of the species at Quinta Yaví despite the continuous baiting of sugar-water feeders and the careful observations of William H. Phelps, Jr., which were conducted for two months immediately prior to Mrs. Greenewalt's observation. On April 27 the species was again seen at Quinta Yaví. Phelps discovered it feeding in the uppermost crown limbs of a saman (mimosa) tree 35 to 40 feet above the ground. Thereafter it was seen many times, but apparently it did not return to the low feeder again. All the observations were apparently of a single male.

Amazilia tobaci feliciae Copper-rumped Hummingbird

Common to abundant at Macuto, Casa Blanca, Quinta Yaví, Los Guayabitos, and the woodlands south of Lake Valencia. Not observed at Hacienda La Siria. Amazilia tobaci is an extremely pugnacious bird which defends a feeding territory. At some of the sugar-water feeders it continuously drove away Campylopterus falcatus and Chlorostilbon mellisuga. In defending feeding territories, an adult perched

within 10 to 30 feet of the glass feeder and dove on any hummingbird that attempted to approach it. It successfully attacked and drove off Coereba flaveola. Often such encounters were accompanied by the sound of physical contact as Amazilia tobaci thudded into other hummingbirds in the air. On April 20 at 9:07 A.M., a battle occurred between two individuals of Amazilia which might have involved copulation. While the observer was watching through eight-power glasses, a conflict developed near a garden feeder 31% feet above ground. Suddenly the combatants fell in a flurry of wings to the ground. On the ground one lay horizontally with the wings outspread; the other was clinging or mounted above it in an almost vertical position. The pair, which appeared to be copulating, remained on the grass for about one and one-half seconds. The lower bird then escaped and flew 30 feet to within 6 feet of me. There it was struck to the ground once again, the two birds falling as one, and the two again assumed the position and repeated the actions described above. After about a second, both birds flew off low over the ground.

On April 28 an Amazilia tobaci was seen to perch more or less horizontally across the tip of a dangling palm frond 30 feet from the ground. There it dropped its body and wings as though soliciting another Amazilia which hovered near it.

$Chlorostilbon\ mellisuga\ (=prasinus\ auct.)$

BLUE-TAILED EMERALD

Fairly common in the gardens of Caracas and Los Guayabitos where the Blue-tailed Emerald often visited at sugar-water feeding stations. However, it was easily driven from these feeding areas by *Amazilia tobaci*.

Chalybura buffoni aeneicauda White-vented Plumeleteer

Hacienda La Siria, April 21: A single bird was observed in a small native garden to which it had been attracted by an abundance of flowers and perhaps by bright synthetic flowers attached to two sugarwater feeders. A caretaker who kept this bird under observation for more than a week reported that it would not feed from the sugarwater vial, although it often hovered a foot or so away. On April 25 and 26 I observed this bird as it began feeding at the glass vials on an average of three times an hour, mixing these feedings with visits to near-by flowers, presumably to feed. The garden was isolated in grassy farm lands somewhat removed from other patches of flowers, and the

thin bushes about 30 yards from the nest tunnel. As I watched through glasses, the white-throated male returned to land on a perch beside the buff-throated female. It carried a large butterfly. This insect it turned many times in the outer part of the long bill. It chopped and compressed the butterfly and, after a few violent shakes, ripped the wings off. As soon as the wings fell away, the female reached over, took the insect from the male, and ate it while the male sat quietly by her side.

Later one of this pair captured a large butterfly in flight and carried it to another perch. There it began the process of killing and stripping

with low bushes and trees. The entrance hole was estimated to be nearly 2 inches across and oval in shape.

Near the nest described above, a second nest was found on April 26. Two birds were in attendance but were not seen to enter the burrow. This pair had been observed in the same area five days before, but the nest cavity was not then in evidence. The nest hole was 7 feet up in a dirt bank near a stream. It was roughly oval and about 11/2 inches wide. This nest was watched from 6:50 A.M. to 7:28 A.M. Twice during that period Rough-winged Swallows (Stelgidopteryx ruficollis) flew near the nest hole at distances of 15 to 30 feet, and on both occasions the swallow or swallows were violently attacked and driven off by both Jacamars. After the attacks the Jacamars flew to a slender tree growing several feet from the nest opening and perched close together. The birds seemed to be defending their nest cavity from the swallows. At 4:30 P.M. on April 26 this pair of Jacamars was observed "hawking" for butterflies and other insects from near the top of tall thin bushes about 30 yards from the nest tunnel. As I watched through glasses, the white-throated male returned to land on a perch beside the buff-throated female. It carried a large butterfly. This insect it turned many times in the outer part of the long bill. It chopped and compressed the butterfly and, after a few violent shakes, ripped the wings off. As soon as the wings fell away, the female reached over. took the insect from the male, and ate it while the male sat quietly by her side.

Later one of this pair captured a large butterfly in flight and carried

the insect, but before the Jacamar had progressed very far, the insect escaped, apparently little the worse for wear. One Jacamar was seen to fly down to a vertical dirt bank and strike the ground (dust was visible) with one wing. This may have been done to flush insects on its surface.

On April 25 still another nest was discovered. It was 5 feet up in a roadside bank near Hacienda La Siria. An adult was seen to dart from this hole.

(See Stelgidopteryx ruficollis for the description of a Galbula nest hole appropriated by a Rough-winged Swallow.)

Melanerpes rubricapillus rubricapillus RED-CROWNED WOODPECKER

Casa Blanca, April 17: A pair of Red-crowned Woodpeckers were found nesting 30 feet up in a dead tree. This nest was in park-like woodlands. On April 30 between 3:34 P.M. and 4:04 P.M., the male was seen to enter the nest twice, and the female three times, the birds remaining out of sight within the nest from two to five seconds each visit. At 3:34 P.M. the male entered carrying two small red berries. He remained in the nest four seconds and then emerged, still carrying the two berries. The male did not enter the nest again until 3:53 P.M. During the interval the female had entered twice (at 3:44 P.M. and at 3:59 P.M.). Both adults approached the hole in the same manner, moving cautiously upward on the trunk, bobbing the head in and out of the hole three or four times, then entering.

A second occupied nest hole was found April 25. It was 17 feet up in a dead tree (in the Albert Phelps' garden in Caracas). One bird remained in the tree about 6 feet from the nest, while the other entered and disappeared from view for perhaps 10 seconds while I watched from an exposed position about 25 feet away.

This species appears to be very common to abundant in the Caracas and Lake Valencia region. At Laguna Taguaiguai on April 23, a pair was seen in a dead tree near water. A fresh nest hole had been drilled in this tree.

Veniliornis kirkii continentalis RED-RUMPED WOODPECKER

Hacienda La Siria, April 26: A single bird was observed in tall open woodlands over coffee trees.

Phloeoceastes melanoleucos melanoleucos CRIMSON-CRESTED WOODPECKER

Woodlands south of Lake Valencia, April 23: A pair was seen chasing each other and feeding close together in the upper limbs of the forest edge.

Synallaxis albescens occipitalis PALE-BREASTED SPINETAIL

Quinta Yaví, April 18: One was seen in bushy garden trees. Laguna Taguaiguai, April 23: Another was seen in a bushy thorn-tree growing in sparsely covered stony soil between the roadway and the lake.

Certhiaxis cinnamomea valenciana YELLOW-THROATED SPINETAIL

Laguna Taguaiguai, April 23: Five ball-like nests were found in thorny bushes and brushwood growing beside and overhanging the marshy lagoon edge. All were from 1 to 4 feet up and were composed of short thorny twigs (up to 6 inches in length), which had been fitted together to form a ball or retort-shaped structure. Each had an entrance tube protruding slightly from the side. One structure was about 14 inches in diameter. When its thorny walls were opened, it was found to have a small core consisting of bark and grasses which was no larger than a tennis ball. Another nest was 16 inches from the ground in a small group of fallen limbs and vines at the foot of a dead tree. A Certhiaxis was seen carrying thorns to this nest. About 7 feet directly above it was found a nest of Pitangus sulphuratus rufipennis, and about 15 feet to one side were the nest and egg of Fluvicola pica pica. Nearby was another Certhiaxis nest which had just been started. Still another Certhiaxis nest was 2 feet up in the swamp edge, and, as we approached it, an assortment of excited birds, including Crotophaga sulcirostris, Certhiaxis cinnamomea, and Pitangus sulphuratus, was seen. They were found to be "mobbing" a large snake, probably a boa. The Kiskadee pinpointed its location by diving on a low thick bush through which the snake moved. In still another Certhiaxis nest a lizard about 1 foot long was found. Its long thin tail hung out of the entrance tunnel. On the opposite side the nest had been broken, and the lizard's head and one leg could be seen.

Phacellodomus rufifrons inornatus

RUFOUS-FRONTED THORNBIRD

Abundant. Nests under construction were seen at Hacienda La Siria April 26, at Guatire April 21 and 26, at Caracas April 17 to May 2, and at Laguna Taguaiguai April 23. Along the roadways that connect these scattered localities, old and new nests and nests under construction were seen in trees bordering the roadway and in suburban and farming or grazing fields with spaced-out trees. Some of the nests were within 8 feet of the ground (near the edge of Laguna Taguaiguai) and as high as 50 feet in large isolated trees near human habitations or along roadways.

On April 17 two birds were seen building together in the top of a stick platform which they had just started 25 feet up in the end limbs of a long slender limb which dangled like a pendulum from a large tree in Caracas. About 15 feet away, in a similar situation, was another nest. It was about 2 feet high by 12 inches wide and was woven and fitted into the end limbs. One of the builders was seen to rob this structure of sticks for the new nest.

The most unexpected thing about this species is the size of the sticks that are conveyed to the nests. Most of the material is gathered on the floor of the woodlands and road edges. It is not uncommon to see this vireo-sized bird lift a 16-inch stick. The nests resemble the bowers of "maypole-building" bowerbirds (Amblyornis), except that they were built around arboreal shafts rather than around slender tree saplings on the ground. Some of the Phacellodomus nests are 6 feet tall and 16 inches wide. In places they become narrow as though they had been squeezed. The architects devote much time to the building and maintenance of the structures. On May 1 a bird was seen still building at 6:03 P.M.

Because of their bulk and prevalence, these nests are prominent features of the Venezuelan landscape. There seems to be a tendency for the birds to build pairs of nests. One nest 8 feet from the ground was 6 feet from a larger structure which, in turn, was 10 feet up. Another pair of new nests was found in neighboring trees. These were also very low to the ground.

At Guatire on April 26 at 7:40 a.m., I observed four birds building a nest at one time. Once two of them were side by side on the top vigorously arranging sticks, when a third, which was carrying a stick, arrived and landed beside them. This structure, which was then 2

feet tall by about 10 inches wide, had three side entrances leading to presumably separate chambers, and these faced in different directions. One was near the top, one was about 13 inches from the bottom, and one was several inches from the bottom. This nest was about 25 feet up over a road and near a running stream. It was the only *Phacellodomus* nest in the tree.

On April 23 near Lake Valencia, I found a large *Phacellodomus* nest on the top of a telephone pole with wires running through part of the structure. On April 20 at 1:55 p.m., a bird was observed building its nest in a light rain.

Thamnophilus doliatus fraterculus BARRED ANTSHRIKE

Casa Blanca, April 17 and 18: Several pairs were seen in the open woodlands and in the vicinity of the giant stands of bamboo near the front of the main house. At the latter location a pair followed me, skulking in the leaves and emitting a deep, bubbling, purr-like whistle. The male also delivered a series of plaintive "caws" which excited the female. This pair probably had a nest in the vicinity of the bamboo, but I did not find it. The Barred Antshrike was the only antird I saw commonly in the vicinity of human habitations in the Caracas region. One fed at a feeding tray set near the ground among tall open trees. Others were seen regularly in thicker parts of the gardens at Quinta Yayí.

Drymophila caudata klagesi Long-tailed Antbird

Guatire, April 21: A pair was observed feeding close together in vines and tall bushes bordering the roadway.

Chiroxiphia lanceolata Lance-tailed Manakin

Woodlands south of Lake Valencia, April 23: Three birds were seen dancing about 50 feet up in a tall tree located about 40 yards inside the forest. The dance area consisted of two nearly horizontal limbs about a foot apart and each about 2 inches in diameter. Three birds sat on the limbs, sometimes side by side and sometimes one opposite the others. The dance consisted of leaping back and forth between the two limbs and wing fluttering accompanied by chattering calls. The calls were indistinct but were heard and recognized by Paul Schwartz from a distance of about 50 yards.

Sayornis nigricans angustirostris BLACK PHOEBE

Hacienda La Siria, April 26: A pair was observed hunting from exposed limbs of the middle tier of high open trees shading coffee trees growing on the side of a steep slope.

Fluvicola pica pica Pied Water-Tyrant

Laguna Taguaiguai, April 23: Two pairs were seen in bushes and small trees of the swamp edge. One bird was found perching immediately above a nest which contained a single white egg. The nest was 3 feet up in a small, isolated, dead tree which was ringed with low swamp grass and a few small bushes.

Arundinicola leucocephala White-headed Marsh-Tyrant

Laguna Taguaiguai, April 23: A pair was seen in the bushes of the lagoon edge. The less vividly colored female was observed flying to a nest in a dead bush at the border of a swamp. There it settled into a frail collection of grasses in a crotch about 3 feet up. Through binoculars I watched it shape the grasses into a nest with its breast. For a minute it shifted around deep in the strands, forcing the grass into a cup shape. The male was in the vicinity and soon flew to the same bush where it perched about 3 feet above the nest.

Machetornis rixosa flavigularis Fire-crowned Tyrant

Quinta Yaví, April 17: One was observed hunting, robin-like, on a suburban lawn. This flycatcher has the curious habit of rushing on its longish legs to capture insects on the surface of the ground and in close-cropped grass. At times it leaps from the ground into the air, snags a flying insect, and then flutters down to the ground to eat it. Macuto, April 19: Feeding commonly on the lawns close to the sea.

Muscivora tyrannus tyrannus FORK-TAILED FLYCATCHER

Laguna Taguaiguai, April 23: Two birds were seen flying near and out over the lagoon. One appeared to be "tacking" across the wind in an attempt to fly northwest across the lake. The long tail feathers, which appeared cumbersome, were carried in an open V.

Myiodynastes maculatus tobagensis STREAKED FLYCATCHER

Casa Blanca, May 1: Observed several times in the canopy of open woodlands. Apparently uncommon.

Tyrannus melancholicus chloronotus TROPICAL KINGBIRD

Observed at Macuto, at all the Caracas stations, at Guatire, and in the forest edge immediately south of Lake Valencia during the period of April 17 to May 1. Apparently thinly distributed in the crowns of tall trees and usually solitary at this season.

Myiozetetes similis columbianus SOCIAL FLYCATCHER

Casa Blanca: On April 18 several were seen in the crown of open woodlands. Two were found close to an occupied nest of *Phacellodomus rufifrons*, and one landed on top of this structure several times, as though investigating it for a nest.

Pitangus sulphuratus rufipennis GREAT KISKADEE

Common in the Caracas, Guatire, and Laguna Taguaiguai regions. New nests were observed at Casa Blanca (April 17) and at Laguna Taguaiguai (April 23). The latter was 8 feet up on a tall tree stump. The nest was a bulky ball of brownish grass placed on jagged wood, with a tunnel-like entrance tube hanging down on one side. The Kiskadee entered the nest by diving and then planing deftly upward into the suspended entrance. The prevalence of nests of other species of birds near the base of this nest (see *Certhiaxis cinnamomea*) suggests that the aggressive behavior of this tyrant flycatcher is used as a measure of protection by species with which the Great Kiskadee associates.

A third nest was found at Laguna Taguaiguai in a dead tree over water (April 23). A Great Kiskadee continually drove off a Snake Bird which attempted to perch in this tree (see Anhinga anhinga). At Casa Blanca and Quinta Yaví, Great Kiskadees fed commonly at feeding trays, competing with tanagers, woodpeckers, saltators, finches, cowbirds, and thrushs for the bananas and citrus fruit. On April 29 a Great Kiskadee was seen to capture an insect within 3 inches of the ground from a perch 12 feet up, and then return to the perch to eat its prey.

Myiophobus fasciatus fasciatus Bran-colored Flycatcher

Casa Blanca, April 18: Two birds were observed constructing a nest 4 feet above ground and at the end of a long, horizontal limb under a bushy tree in open woodlands. The nest was a basket construction something like that of a vireo but was much bulkier and formed with thick grasses. Two flycatchers were in attendance at 10:35 A.M. when the nest was found. They worked very rapidly, carrying grasses to the structure every few minutes, and in the afternoon were still at work. This nest was abandoned, perhaps because of changing weather.

This nest was begun some 24 hours after heavy intermittent rains ended a long period of dry weather. Many nests were observed under construction on this same day, in areas that had been "nestless" a day earlier. There seemed to be a strong correlation between the rain and the sudden urge to build nests. The urge appeared to subside during the hot dry period that followed. The "turning on" and "turning off" of the impulse seemed keyed to rainfall.

Tolmomyias sulphurescens exortivus Yellow-Olive Flycatcher

Casa Blanca, April 18: Two birds were observed building a pendulous nest 12 feet up in open woodlands. The nest appeared to be less than a day old and was about one-third complete. Between 11:23 A.M. and 11:48 A.M. single birds brought building material to the nest eight times and in each instance immediately began building. Some of the building sessions were timed as follows: 14, 11, 4, 10, 14, 3, and 11 seconds. Once a builder was seen to apply a long strand of fiber by taking two turns around outside the nest, then spiraling up, over the supporting limb, and then down around the side of the pendulous nest.

The impulse to build seemed to be correlated with heavy rains which had fallen intermittently for some 24 hours. This nest was abandoned when nearly completed, possibly as a result of the hot dry weather which followed the cessation of rain.

Todirostrum cinereum cinereum COMMON TODY-FLYCATCHER

Macuto, April 19: One bird was observed in the act of building a nest 9 feet up in a patch of thorny bushes and small trees near the sea. It visited this nest every few minutes, carrying strands of grass which it

wrapped around the supporting limb in a series of loops. To do this, the builder attached one end of the strand and then fed the rest through its bill as it walked head down, around (or under) and then upward in a circular path, constantly fluttering the wings for support. About 15 feet away was an old nest of the same kind. On April 23 a second nest was found suspended 6 feet from the ground in bushes bordering a field of grass and spaced-out bushes south of Lake Valencia. This nest was also under construction, and the builder was seen several times as it brought strands of grass to it. On May 1 at Casa Blanca a newly completed nest with two birds in attendance was found 12 feet up in a tree in open woodlands. One bird anxiously patrolled about the tree, wagging its tail from side to side.

Todirostrum sylvia griseolum SLATE-HEADED TODY-FLYCATCHER

Woodlands south of Lake Valencia, April 23: One in the middle tier of the forest edge.

Elaenia flavogaster flavogaster Yellow-bellied Elaenia

Casa Blanca. Common in the crown of open woodlands.

Stelgidopteryx ruficollis aequalis
ROUGH-WINGED SWALLOW

The Rough-winged Swallow was seen in all the areas visited. On April 26 on the road between Guatire and the Hacienda La Siria this species was observed being attacked by Galbula ruficauda in what appeared to be nest territory defense on the part of the Rufous-tailed Jacamar. Later that day I observed a Rough-winged Swallow as it entered a burrow which undoubtedly had been excavated by Galbula ruficauda. This nest burrow was 9 feet up on an earthen bank. It had been drilled in a strip of whitish earth which was apparently heavily impregnated with limestone. The swallow flew directly to the hole and entered at 8:31 A.M. I immediately advanced to within 6 feet and watched as the bird emerged. There was no way of determining if the jacamar hole had been stolen from the builder by the swallow or if it was merely a deserted hole which the swallow had appropriated. Nevertheless, the territorial attacks which I had noted earlier in the day at another location made it seem likely to me that the Rough-wing steals nest holes from Galbula ruficauda.

Atticora cyanoleuca

BLUE-AND-WHITE SWALLOW

Common in large flocks at all the localities visited. On April 23 at Laguna Taguaiguai, one was seen carrying grass.

Iridoprocne albiventer
White-winged Swallow

Laguna Taguaiguai, April 23: Seen in small groups over the lagoon.

Thryothorus rufalbus cumanensis Rufous-And-White Wren

Woodlands south of Lake Valencia, April 23: The deep melodious whistle of this species was imitated by Schwartz with sufficient success to entice it out of the depths of the forest to within 15 feet of us. There it hopped about near the ground in brambles and answered Schwartz with its ringing, deep, flute-like notes. I could see the upper chest and lower throat filling with air and bulging far out as the songster delivered his song. It seemed impossible that so small a bird could produce such a penetrating, full-bodied song.

Troglodytes musculus clarus Southern House Wren

Observed commonly at Casa Blanca, Quinta Yaví, and Guatire. Abandoned nests were found in two carriage lamps and behind a cornice at Casa Blanca, as well as in a hanging lamp in a small garden house at Quinta Yaví. Salvadori Reahi, the gardener, informed me that the last-mentioned nest had been in use in March.

Mimus gilvus melanopterus Tropical Mockingbird

Laguna Taguaiguai, April 23: This species is apparently thinly distributed. Two nests were observed. One, located 6 feet up in a small, vine-covered tree, held one egg (28.5 mm. by 21.5 mm.). It was pale blue, with cinnamon flecks at the larger end, and heavily streaked with cinnamon.

Turdus nudigenis nudigenis BARE-EYED ROBIN

Common in Caracas gardens where it was infrequently seen at feeding trays.

Turdus leucomelas albiventer PALE-BREASTED ROBIN

Common in the suburban areas of Caracas where it was frequently seen at feeding trays. Two old nests were found on window ledges at Casa Blanca. One nest was found April 17 in ivy 15 feet up on a house wall. It contained two eggs of *T. leucomelas* and two of the Shiny Cowbird, *Molothrus bonariensis*. The nest was composed of rootlets, mud, and ground vines. The eggs of the Pale-breasted Robin were somewhat larger than those of the cowbird and pale blue-green, with profuse brownish and cinnamon spotting and wreathing.

The eggs of the cowbird were more oval in shape than those of the robin and pale blue with a scattering of small black spots. William H. Phelps, Jr., who discovered this nest, informed me that the Shiny Cowbird is very successful in its efforts at parasitizing Caracas garden birds, and perhaps most successful in the case of T. leucomelas. At Macuto, April 19, a nest with well-developed young robins was found on a porch rafter. In this connection, it is interesting to note that the American Robin (T. migratorius) apparently does not tolerate the eggs of the North American Cowbird (M. molothrus). On April 29 a robin was observed singing from a tree-top perch 70 feet above the ground.

Polioptila plumbea plumbiceps Tropical Gnatcatcher

Macuto, April 19: Observed in thorny bushes near the beach.

Cyclarhis gujanensis parvus Rufous-browed Peppershrike

Quinta Yaví and Casa Blanca. This bugle-throated vireo is very common in Caracas gardens. It is heard more often than seen in the tree tops.

Vireo (olivaceus) vividior Chivi (Red-Eyed) Vireo

Common at Casa Blanca. Observed scanning leaves and small limbs of the upper parts of trees and tall bushes for insect food. One was seen to extract insects from the surface of fruits in the crown of a tall tree. Also observed in woodlands south of Lake Valencia on April 23.

Hylophilus flavipes acuticauda SCRUB GREENLET

Casa Blanca, April 18: One was seen in the middle tier of open woodlands behind the laboratory.

Coereba flaveola luteola Bananaouit

Common everywhere. A nest in early stages of construction was found at Macuto on April 19.

A second *C. flaveola* nest which was in the last stages of construction was found April 27 in the outskirts of Caracas. The nest, which was of the usual retort shape, was 7 feet up in an ornamental tree beside a house. A single bird was seen carrying grass into the nest. On April 20 another Bananaquit was observed carrying grass at Quinto Yaví, Caracas.

Dendroica petechia YELLOW WARBLER

On April 23 one adult was observed in the woodland edge near the south edge of Lake Valencia.

Setophaga ruticilla AMERICAN REDSTART

Casa Blanca, April 17 and 18: An adult male was observed frequently in the bushes and trees behind the laboratory. It had departed when the area was surveyed again on April 30 and May 1.

Basileuterus tristriatus bessereri
Three-striped Warbler
Woodlands south of Lake Valencia, April 23.

Molothrus bonariensis venezuelensis Shiny Cowbird

Abundant in flocks throughout the areas surveyed. (See *Turdus leucomelas* and *Tachyphonus rufus*.) Quinta Yaví, April 18: *Turdus leucomelas* was observed worrying about in bushes a few feet above a fledgling cowbird which it appeared to have reared.

Icterus nigrogularis nigrogularis YELLOW ORIOLE

Laguna Taguaiguai, April 23: A nest of this species was found under construction. It was located only about 16 feet up in a slender tree which projected about 8 feet above the surrounding bushes of the lake edge. The Yellow Oriole was seen building in the partially completed nest pocket.

This species visited a small, table-like, feeding station under trees at Casa Blanca. Bananas and citrus fruit were on the table. A new nest, presumably of this species, was seen 30 feet up in open woodlands near the feeding table.

Gymnomystax mexicanus BLACK-AND-YELLOW ORIOLE

Very common in flocks of five to 15 birds in the suburban areas of Caracas. A large shell fragment with fresh yolk attached was found beneath two long nests of this species which were 40 to 60 feet up in a clump of tall trees of the Albert Phelps homestead. The shell, which was whitish with sparse, irregular, blackish, longitudinal stripes, presumably belonged to this species.

Agelaius icterocephalus icterocephalus Tropical Yellow-headed Blackbird

Laguna Taguaiguai, April 23: A concentration of 10 to 20 Tropical Yellow-headed Blackbirds was seen along the edge of the lagoon and on a bushy island surrounded by swamp. On the latter many nests with birds in attendance were to be seen in bushes close to the water. One nest constructed of grasses was 3 feet up in brush festooned with vines. It resembled the nest of the Red-winged Blackbird.

Tanagra laniirostris crassirostris THICK-BILLED EUPHONIA

South of Lake Valencia, April 23: A pair was observed feeding on small fruits of the middle tier of the forest edge.

Tangara cayana cayana Coppery-crowned Tanager

Casa Blanca, April 17: Very common in the Caracas region where the species was frequently seen in open trees, palms, and at feeding trays.

Tangara cyanoptera cyanoptera Black-headed Tanager

Casa Blanca, April 17, 18, and 30: Common in middle and upper tier of open woodlands.

Thraupis Virens cana BLUE-GRAY TANAGER

Common to abundant everywhere. Often seen in groups. As many as a dozen birds were observed at one time on and near table feeders.

Thraupis palmarum melanoptera PALM TANAGER

Casa Blanca, April 17 to May 2: Rather uncommon. This species frequented the middle and upper tier of suburban woodlands. It also came to a table feeder set under trees. It was less abundant during the period of observation than *T. virens*, and usually solitary in contrast to the latter which generally traveled in small bands.

Ramphocelus carbo venezuelensis SILVER-BEAKED TANAGER

Casa Blanca, April 18 and May 1: Apparently uncommon. Occasionally a lone male was seen in the canopy of open trees. At Quinta Yaví, during the period April 24 to 29, adult males were seen several times.

Tachyphonus rufus White-lined Tanager

Common everywhere in the mid-mountain valleys. A new nest of dry grasses was found by W. H. Phelps, Jr., 13 feet up and 2½ feet from the top of a thickly leaved ornamental tree beside his suburban Caracas home. On April 17 the brown female was observed on the nest. On April 24 at 4:50 p.m. the nest was examined and found to contain two eggs as follows: T. rufus: one white egg with small black spots, chiefly about the larger end, measuring 25 by 18.6 mm.; Molothrus bonariensis: one egg that was bluish white flecked with pale lavender and measuring 23 by 17.5 mm. On April 30 the brown female was still incubating. The male, which for at least six days had been fighting his reflection in a window 10 feet from the nest, was observed to fight it again for nearly two minutes at 11:16 a.m. and for about 10 seconds at 11:46 a.m. The female incubated as he fought. The male was not observed to sit on the nest, but it often flew to the side of the sitting

female. Once, at 11:35 A.M. when the male was absent, a Shiny Cowbird (Molothrus bonariensis) suddenly appeared, flying straight to the nest from the top of a tree about 50 feet distant. It approached by means of a long dipping glide and up-sweep, to land about 3 feet from the nest. The cowbird thus reached the vicinity of the nest very directly. In a moment it had disappeared into the foliage near the nest. As there was no sign of conflict, I presumed that the female Tachyphonus rufus, sometime before the arrival of the cowbird, had left the nest without my detecting it. I advanced cautiously to investigate, but, when I was still 30 feet away, the cowbird glided out of the nest area and flew away close to the ground. To my surprise the female Tachyphonus rufus was still on the nest, sitting tightly when I examined it immediately after the cowbird had departed. This was a particular surprise because at 11:26 A.M. I had observed a small bird hop up to the nest and flush the female tanager from it. Immediately after the encounter with the cowbird I examined the nest for the last time (it was then about noon, April 30) and found the whitish egg with black spots and a freshly hatched gravish nestling of Molothrus bonariensis.

Saltator albicollis striatipectus Streaked Saltator

The Streaked Saltator was fairly common in the suburbs of Caracas where it was occasionally seen at feeding stations and in the canopy of large trees. On April 26 at Hacienda La Siria it was seen jerking tiny hard fruits or seeds from the crown twigs and grinding them in the bill.

Saltator caerulescens brewsteri GRAYISH SALTATOR

The Grayish Saltator was abundant everywhere and particularly in the vicinity of feeding trays at Casa Blanca and Quinta Yaví. It was observed many times breaking open seed pods in the upper tier of Caracas suburban woodlands. On April 19 I observed a Grayish Saltator 12 feet up in a garden tree as it tugged at twigs 8 to 15 inches long, apparently trying to break them off. Next it flew 30 yards to another tree and attacked two more twigs. Finally, it succeeded in shearing one off and, after standing with it in its bill for several seconds, flew with the stick to the top portion of a 35-foot tree where it disappeared. This action was taken to be nest building, although the nest could not be found.

On April 18 a Grayish Saltator was seen bathing in the leaves of bougainvillea after a heavy downpour. It leaped up and dropped several inches into wet leaves, then shook its feathers. Once it ate a large red flower of the bougainvillea, but the petals were so large that they protruded from the bill for several seconds before all the blossom could be swallowed. This was also witnessed by William H. Phelps, Jr. This species is very methodical. It was frequently seen feeding on greenish seeds in tree crowns. The Grayish Saltator is one of the tamest birds that frequented feeding trays.

Cyanocompsa cyanea minor Ultramarine Grosbeak

Casa Blanca, April 17: One was seen in the lower part of a large bush bordering the open woodlands.

Coccopsis (Paroaria) gularis nigro-genis Red-capped Cardinal

Quinta Yaví, April 29: One example of this spectacular, red-headed, masked species was seen in the middle portions of bushy trees 10 feet from the ground. Others were reported to visit feeding trays near Quinta Yaví.

Sporophila minuta minuta RUDDY-BREASTED SEEDEATER

Laguna Taguaiguai, April 23: A small flock was seen in a low grassy field bordering the swampy lagoon edge. Several of the birds had acquired reddish brown nuptial plumage, and one was seen and heard singing from vertical grass stalks about 2 feet from the ground.

Volatina jacarina splendens Blue-Black Grassouit

Fairly common in grassland and bushy areas bordering roadways near Lake Valencia. One male was observed (April 23) as it stood on a fence wire about 2 feet from the ground, performing courtship leaps. It sang, then leapt a foot into the air, only to flutter down to the perch again. The species was also observed in grassy areas near the Caracas Country Club.

Spinus psaltria columbianus Lesser or Dark-backed Goldfinch

Albert Phelps homestead, April 25: A small flock frequented ornamental conifers and the ground near the dwelling house.

Sicalis flaveola flaveola

SAFFRON FINCH

Very common. Often seen feeding like sparrows in small flocks near suburban homes in the Caracas region.

Arremon conirostris conirostris

GREEN-BACKED SPARROW

Casa Blanca, April 17 and 18: Uncommon. One was observed feeding on the ground and in the lower portion of bushes and brambles in the open woodlands behind the laboratory.

Zonotrichia capensis venezuelae

RUFOUS-COLLARED SPARROW

Los Guayabitos (1550 meters), April 29: Very common in flocks of up to five birds among lawns, ornamental pines, and garden bushes. Two mottled young were observed feeding in low limbs of pines and on the ground. The caretaker told me these had fledged some weeks before from a nest which was about 3 feet up in a thick short pine. This nest was about 4 feet from a much-used path in semi-open gardens. It measured: exterior, 140 mm. wide by 100 deep; interior, 52 mm. wide by 47 deep. As was the one following, this nest was built of grasses and rootlets and was thickly lined with horsehair. A second nest, in a similar tree, was 8 inches from the ground and well concealed by heavy boughs. In it was found a rotting egg which was several weeks old. It was pale gray-blue, with dull cinnamon-brown splotches, chiefly about the larger end. On the road from Caracas to Junquito, May 1, the Rufous-collared Sparrow was the bird seen most frequently above 4000 feet.

REFERENCES

EISENMANN, EUGENE

1952. Annotated list of birds of Barro Colorado Island, Panama, Canal Zone. Smithsonian Misc. Coll., vol. 117, no. 5, pp. 1-62.

1955. The species of Middle American birds. Trans. Linnaean Soc. New York, vol. 7, pp. 1-128.

HELLMAYR, CHARLES E.

1936. Catalogue of birds of the Americas and the adjacent islands. Publ. Field Mus. Nat. Hist., zool. ser., vol. 13, pp. 1-458.

MARTIN, W. C. L.

1852. A general history of humming birds. London, H. G. Bohn, pp. 1-232.

PHELPS, W. H., AND W. H. PHELPS, JR.

1950. Lista de las aves de Venezuela. Parte 2. Passeriformes. Bol. Soc. Venezolana Cien. Nat., vol. 12, no. 75, pp. 1-427.

1958. Lista de las aves de Venezuela. Parte 1. No Passeriformes. *Ibid.*, vol. 12, no. 90, pp. 1-317.

RIDGWAY, ROBERT

1892. The humming birds. Rept. U. S. Natl. Mus., for 1890, pp. 253-383. Schäfer, Ernst, and W. H. Phelps

1954. Aves de Rancho Grande. Bol. Soc. Venezolana Cien. Nat., vol. 16, no. 83, pp. 1–167.