

MISCELLANEOUS PUBLICATIONS  
MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN, NO. 55

**BIRDS FROM THE GULF  
LOWLANDS OF SOUTHERN  
MEXICO**

BY  
**PIERCE BRODKORB**

**ANN ARBOR**  
**UNIVERSITY OF MICHIGAN PRESS**  
**JANUARY 30, 1943**

**PRICE LIST OF THE MISCELLANEOUS PUBLICATIONS  
OF THE MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN**

Address inquiries to the Director of the Museum of Zoology, Ann Arbor, Michigan.

**Bound in Paper**

No. 1.	Directions for Collecting and Preserving Specimens of Dragonflies for Museum Purposes. By E. B. WILLIAMSON. (1916) Pp. 15, 3 figures	\$0.25
No. 2.	An Annotated List of the Odonata of Indiana. By E. B. WILLIAMSON. (1917) Pp. 12, 1 map	\$0.25
No. 3.	A Collecting Trip to Colombia, South America. By E. B. WILLIAMSON. (1918) Pp. 24. ( <i>Out of print</i> )	
No. 4.	Contributions to the Botany of Michigan. By C. K. DODGE. (1918) Pp. 14	\$0.25
No. 5.	Contributions to the Botany of Michigan, II. By C. K. DODGE. (1918) Pp. 44, 1 map	\$0.45
No. 6.	A Synopsis of the Classification of the Freshwater Mollusca of North America, North of Mexico, and a Catalogue of the More Recently Described Species, with Notes. By BRYANT WALKER. (1918) Pp. 213, 1 plate, 223 figures	\$3.00
No. 7.	The Anculosae of the Alabama River Drainage. By CALVIN GOODRICH. (1922) Pp. 57, 3 plates	\$0.75
No. 8.	The Amphibians and Reptiles of the Sierra Nevada de Santa Marta, Colombia. By ALEXANDER G. RUTHVEN. (1922) Pp. 69, 13 plates, 2 figures, 1 map	\$1.00
No. 9.	Notes on American Species of Triacanthagyna and Gynacantha. By E. B. WILLIAMSON. (1923) Pp. 67, 7 plates	\$0.75
No. 10.	A Preliminary Survey of the Bird Life of North Dakota. By NORMAN A. WOOD. (1923) Pp. 85, 6 plates, 1 map	\$1.00
No. 11.	Notes on the Genus Erythemis, with a Description of a New Species (Odonata). By E. B. WILLIAMSON. The Phylogeny and the Distribution of the Genus Erythemis (Odonata). By CLARENCE H. KENNEDY. (1923) Pp. 21, 1 plate	\$0.50
No. 12.	The Genus Gyrotoma. By CALVIN GOODRICH. (1924) Pp. 29, 2 plates	\$0.50
No. 13.	Studies of the Fishes of the Order Cyprinodontes. By CARL L. HUBBS. (1924) Pp. 23, 4 plates	\$0.75
No. 14.	The Genus Perilestes (Odonata). By E. B. WILLIAMSON AND J. H. WILLIAMSON. (1924) Pp. 36, 1 plate	\$0.50
No. 15.	A Check-list of the Fishes of the Great Lakes and Tributary Waters, with Nomenclatorial Notes and Analytical Keys. By CARL L. HUBBS. (1926) Pp. 77, 4 plates	\$1.50
No. 16.	Studies of the Fishes of the Order Cyprinodontes. VI. By CARL L. HUBBS. (1926) Pp. 79, 4 plates	\$1.00
No. 17.	The Structure and Growth of the Scales of Fishes in Relation to the Interpretation of their Life-History, with Special Reference to the Sunfish Eupomotis gibbosus. By CHARLES W. CREASER. (1926) Pp. 80, 1 plate, 12 figures	\$1.50
No. 18.	The Terrestrial Shell-bearing Mollusca of Alabama. By BRYANT WALKER. (1928) Pp. 180, 277 figures	\$1.50
No. 19.	The Life History of the Toucan Ramphastos brevicarinatus. By JOSELYN VAN TYNE. (1929) Pp. 43, 8 plates, 1 map	\$0.75
No. 20.	Materials for a Revision of the Catostomid Fishes of Eastern North America. By CARL L. HUBBS. (1930) Pp. 47, 1 plate	\$0.75
No. 21.	A Revision of the Libelluline Genus Perithemis (Odonata). By F. RIS. (1930) Pp. 50, 9 plates	\$0.75
No. 22.	The Genus Oligoclada (Odonata). By DONALD J. BORROR. (1931) Pp. 42, 7 plates	\$0.50
No. 23.	A Revision of the Puer Group of the North American Genus, Melanoplus, with Remarks on the Taxonomic Value of the Concealed Male Genitalia in the Cyrtacanthacrinae (Orthoptera, Acrididae). By THEODORE H. HUBBELL. (1932) Pp. 64, 3 plates, 1 figure, 1 map	\$0.75

(*Continued on last page*)



## ADVERTISEMENT

The publications of the Museum of Zoology, University of Michigan, consist of two series—the Occasional Papers and the Miscellaneous Publications. Both series were founded by Dr. Bryant Walker, Mr. Bradshaw H. Swales, and Dr. W. W. Newcomb.

The Occasional Papers, publication of which was begun in 1913, serve as a medium for original studies based principally upon the collections in the Museum. The papers are issued separately to libraries and specialists, and, when a sufficient number of pages have been printed to make a volume, a title page, table of contents, and index are supplied to libraries and individuals on the mailing list for the entire series.

The Miscellaneous Publications, which include papers on field and museum techniques, monographic studies, and other contributions not within the scope of the Occasional Papers, are published separately, and as it is not intended that they will be grouped into volumes each number has a title page, and, when necessary, a table of contents.

FREDERICK M. GAIGE

Director of the Museum of Zoology

MISCELLANEOUS PUBLICATIONS  
MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN, NO. 55

BIRDS FROM THE GULF  
LOWLANDS OF SOUTHERN  
MEXICO

BY  
PIERCE BRODKORB

ANN ARBOR  
UNIVERSITY OF MICHIGAN PRESS  
JANUARY 30, 1943



## CONTENTS

	PAGE
INTRODUCTION .....	7
PREVIOUS ORNITHOLOGICAL WORK IN THE AREA .....	8
LIST OF BIRDS DESCRIBED FROM THE SOUTHERN GULF LOWLANDS .....	9
ITINERARY OF E. MATUDA .....	10
GAZETTEER OF MATUDA'S COLLECTING LOCALITIES .....	11
PHYSIOGRAPHY .....	12
CLIMATE .....	12
ZOOGEOGRAPHY .....	14
THE TABASCAN FAUNAL DISTRICT .....	15
ANNOTATED LIST OF BIRDS .....	20
Tinamidae .....	20
Pelecanidae .....	21
Phalacrocoracidae .....	22
Anhingidae .....	22
Ardeidae .....	22
Cochleariidae .....	24
Ciconiidae .....	24
Threskiornithidae .....	24
Anatidae .....	24
Cathartidae .....	25
Accipitridae .....	26
Pandionidae .....	29
Falconidae .....	29
Cracidae .....	30
Phasianidae .....	31
Meleagridae .....	31
Aramidae .....	32
Rallidae .....	33
Heliornithidae .....	36
Jacamidae .....	36
Charadriidae .....	36
Scelopacidae .....	37
Recurvirostridae .....	38
Burhinidae .....	38
Laridae .....	38
Columbidae .....	38
Psittacidae .....	40
Cuculidae .....	41
Tytonidae .....	42
Strigidae .....	42
Nyctibiidae .....	43
Caprimulgidae .....	43
Trochilidae .....	44
Trogonidae .....	46
Alcedinidae .....	47
Momotidae .....	48
Bucconidae .....	49

	PAGE
Galbulidae .....	49
Ramphastidae .....	49
Picidae .....	51
Dendrocolaptidae .....	53
Furnariidae .....	54
Formicariidae .....	55
Cotingidae .....	58
Pipridae .....	60
Tyrannidae .....	60
Hirundinidae .....	70
Corvidae .....	71
Troglodytidae .....	72
Mimidae .....	73
Turdidae .....	74
Sylviidae .....	75
Cyclarhidae .....	75
Vireonidae .....	75
Mniotiltidae .....	76
Icteridae .....	78
Thraupidae .....	81
Fringillidae .....	84



# BIRDS FROM THE GULF LOWLANDS OF SOUTHERN MEXICO

## INTRODUCTION

IN April, 1939, Eizi Matuda set out on a botanical exploration of the Río Usumacinta. He took with him three assistants, Gregorio Gómez, Wenceslao Niño, and Esteban Cruz, all of whom had previously been given a few lessons in bird skinning. Although the main object of the trip was to collect plants, the assistants were allowed to put up bird skins when other duties did not interfere. In this manner they were able to prepare more than one thousand specimens representing 226 forms of birds.

This paper is primarily a report on Matuda's collection. It was decided, however, to make the list as complete as possible by including published references to the occurrence of birds within the area, whether secured by Matuda or not. I have limited the geographic scope of the paper to the area visited by Matuda, that is, from the line of the trans-Isthmian branch of the National Railways of Mexico, in southern Veracruz, through the state of Tabasco and the lowlands of northern Chiapas, to the Laguna de Terminos in southwestern Campeche.

I am greatly obliged to Matuda for his offer to collect birds while on this trip and to his three faithful assistants for their industry and perseverance. When one considers the fact that bird collecting had to be done in spare moments under difficult conditions, the record is one of which more experienced collectors might be proud. The three men obtained all but forty-two of the resident birds recorded from the area between Minatitlán, Veracruz, and the Laguna de Terminos, Campeche, and, besides, they added forty-nine residents and twenty-one migrants to the known avifauna of the region visited. Two birds were undescribed, and several others had not previously been found in Mexico.

During the course of working up the collection I have had the co-operation of other ornithologists, who have answered queries or loaned material. For their kind help in this way I should like to thank Mr. Rudyerd Boulton, of Field Museum of Natural History, Dr. Herbert Friedmann and Dr. Alexander Wetmore, of the U. S. National Museum, Major E. A. Goldman and Dr. Harry C. Oberholser, of the Fish and Wildlife Service, Mr. George H. Lowery, Jr., of the Louisiana State University Museum, Mr. James L. Peters, of the Museum of Comparative Zoology, and, especially, Mr. A. J. van Rossem, of the University of California at Los Angeles. Part of the comparative material used in this study was collected under a grant from the Horace H. Rackham School of Graduate Studies of the University of Michigan. The map was prepared by Miss Grace Eager.

## PREVIOUS ORNITHOLOGICAL WORK IN THE AREA

Our knowledge of the birds of the region under consideration commences with 1846, when Viscount Bernard du Bus began publishing descriptions and figures of new species of Tabascan birds collected by Ghiesbreght in 1841.<sup>1</sup> During the next decade a number of the papers of Du Bus and of Bonaparte make mention of this material. Just where within the state the collection was made is not known, and it contains several species undoubtedly erroneously attributed to Tabasco, e.g., *Turdus rufitorques* and *Aphelocoma unicolor*, two montane forms confined to much higher altitudes than are present in Tabasco. Mr. van Rossem has lately examined this collection, which is deposited in the Brussels Museum, and it is to be hoped that he will shortly report upon it. According to information supplied by him, many of the birds which Du Bus originally described as coming simply from Mexico are actually labeled as having been collected in Tabasco.

While residing in southern Mexico, the Swiss naturalist Francis Sumichrast collected some birds on the Atlantic side of the Isthmus of Tehuantepec. He recorded the occurrence of three species on the Río Coatzacoalcos, Veracruz, but did not give any specific locality. From other sources it appears to have been Minatitlán.<sup>2</sup>

The only report of Tabasco birds as such with which I am acquainted is an annotated list of seventy-six species published by José N. Rovirosa.<sup>3</sup> Of this number only thirteen are passerines, and the list contains several obvious errors in identification, notably *Molothrus pecoris*, *Icterus baltimore* (which he stated builds its nests in the palm trees of Tabasco), *Campephilus principalis* and *imperialis*, and *Dendrocygna arborea*. It is apparent that scarcely any reliance can be placed on his records which have not been confirmed by other workers. Nevertheless, rather than ignore his records altogether I have tried for the sake of completeness to allocate them on the basis of probability. Rovirosa resided for some years at the Hacienda San Diego on the Tabasco-Chiapas border, and his observations were made in the neighboring parts of both states.

In January, February, and March, 1888, Mrs. Herbert H. Smith made a rather extensive collection of birds at Teapa, Tabasco, in the interests of Salvin and Godman. Records of many of the species taken are included in the later volumes of the *Biologia Centrali-Americana* and the *Catalogue of Birds in the British Museum*. Most of this collection is now in the British Museum, but some of it was sent to Cory and subsequently to Field Museum.

<sup>1</sup> For date of Ghiesbreght's journey, cf. F. Salvin and O. Godman, *Aves, Biol. Centrali-Amer.*, 1 (1833): 274.

<sup>2</sup> F. Sumichrast, "Enumeracion de las especies de mamíferos, aves, reptiles y batrachios observados en la parte central y meridional de la República Mexicana," *Naturaleza*, 5 (1882): 204, 205, 213, 228.

<sup>3</sup> "Apuntes para la zoología de Tabasco. Vertebrados observados en el territorio de Macuspana," *Naturaleza*, 7 (1887): 345-89.

The Museum of Comparative Zoology has a few birds from Tabasco. Bangs described *Todirostrum cinereum finitimum* on the basis of three specimens collected by Louis Barrett at San Juan Bautista (Villahermosa) on March 7, 1890. The same museum also has a couple of *Aramides* skins labeled as having been collected by G. S. Reynolds at "Tabascot, Mexico," on March 22, 1890. Peters informs me that both these lots were purchased from dealers along with miscellaneous other birds from various countries. It is interesting that both were collected in the same month and year.

Most of our knowledge of the birds of this part of Mexico rests upon the explorations carried out by the pioneer collectors of the former Bureau of Biological Survey, E. W. Nelson and E. A. Goldman. In the year 1896 they worked in southern Veracruz, stopping at Coatzacoalcos (Puerto México) from April 10-16, at Minatitlán from April 17-26, and at Jaltipán from April 27 to May 4. During the early part of 1900 they collected in Tabasco and northern Chiapas. Goldman was at Frontera (Alvaro Obregón) from March 4-13. He then proceeded to Teapa, where he stayed for more than a month, from March 18 to April 21. On April 24 he returned to Frontera, where he was joined by Nelson, and the two men collected thereabouts until April 30. They were at Montecristo (Emiliano Zapata) from May 3-10 and May 22-25. The intervening period of May 10-21 was spent at Palenque, Chiapas. I am greatly indebted to Major Goldman for supplying this information. Bird records from Santa Lucrecia (Jesús Carranza) in Veracruz, and from Moyos, Tila, and Salto de Agua in Chiapas, are apparently also based on the work of Nelson and Goldman.

#### LIST OF BIRDS DESCRIBED FROM THE SOUTHERN GULF LOWLANDS

An asterisk (\*) indicates that the name is considered a synonym.

- \**Morphnus mexicanus* Du Bus, 1847. Type locality, Tabasco and Guatemala. = *Buteogallus anthracinus anthracinus* (Lichtenstein).  
*Colinus godmani* Nelson, 1897. Type locality, Jaltipán, Veracruz. = *C. virginianus godmani*.  
*Colinus minor* Nelson, 1901. Type locality, Palenque, Chiapas. = *C. virginianus minor*.  
*Ceryle septentrionalis* Sharpe, 1892. Type locality, Teapa, Tabasco. = *Chloroceryle americana septentrionalis*.  
 \**Nyctidromus albicollis sumichrasti* Ridgway, 1912. Type locality, "Teapa," i.e., Frontera (Alvaro Obregón), Tabasco. = *N. a. yucatanensis* Nelson.  
*Melanerpes dubius veraecrucis* Nelson, 1900. Type locality, Coatzacoalcos (Puerto México), Veracruz. = *Centurus santacruzii veraecrucis*.

- Dryobates scalaris ridgwayi* Oberholser, 1911. Type locality, Jaltipán, Veracruz.
- \**Attila mexicanus* Nelson, 1901. Type locality, Frontera (Alvaro Obregón), Tabasco. = *A. spadiceus flammulatus* Lafresnaye.
- Todirostrum cinereum finitimum* Bangs, 1904. Type locality, San Juan Bautista (Villahermosa), Tabasco.
- Cissilopha yucatanica rivularis* Brodkorb, 1940. Type locality, Balancán, Tabasco.
- \**Turdus densus* Bonaparte, 1854. Type locality, Tabasco. = *Hylocichla mustelina* (Gmelin).
- Heleodytes zonatus restrictus* Nelson, 1901. Type locality, Frontera (Alvaro Obregón), Tabasco.
- Hemiura leucogastra musica* Nelson, 1903. Type locality, Teapa, Tabasco. = *Nannorchilus leucogaster musicus*.
- Agelaius phoeniceus matudae* Brodkorb, 1940. Type locality, Palizada, Campeche.
- Calliste larvata* Du Bus, 1846. Type locality, Tabasco. = *Tangara nigrocincta larvata*.
- Phoenicothera litoralis* Nelson, 1901. Type locality, Frontera (Alvaro Obregón), Tabasco. = *Habia gutturalis litoralis*.
- Cardinalis cardinalis litoralis* Nelson, 1897. Type locality, Coatzacoalcos (Puerto México), Veracruz. = *Richmondia cardinalis litoralis*.
- \**Ammodramus savannarum obscurus* Nelson, 1897. Type locality, Minatitlán, Veracruz. = *A. s. bimaculatus* Swainson.

#### ITINERARY OF E. MATUDA

On arriving at Jesús Carranza (Santa Lucrecia), Veracruz, on April 22, 1939, Matuda discovered that it would be impossible to get passage for Tabasco until the storms then raging in the Gulf of Mexico had abated. He therefore proceeded to Minatitlán, Veracruz, and collected near by for the next fortnight. Finally, on May 3 the storm lessened in intensity, and the party embarked at Puerto México (Coatzacoalcos), Veracruz, bound for Alvaro Obregón (Frontera), Tabasco. After a rough voyage they docked on the second evening out. On May 6 they boarded a river boat bound up the Río Usumacinta for Balancán, where they arrived on the morning of May 9. This was their first collecting locality in Tabasco. After a couple of weeks at Balancán, they worked at various localities along the Río San Pedro, reaching La Palma, Tabasco, on May 30. From the latter point they went overland to Tenosique on the Usumacinta, and thence went upriver as far as the Guatemalan border. The first half of July was spent in the vicinity of Palenque, Chiapas. On July 19 they again returned to the Usumacinta at the town of Emiliano Zapata (Montecristo), Tabasco. The

last field work of the trip was carried out in southwestern Campeche, on the Ríos Palizada and Marente. On August 4 they embarked at Ciudad del Carmen, Campeche, on their homeward journey.

#### GAZETTEER OF MATUDA'S COLLECTING LOCALITIES

El Aguacate, Chiapas. July 16-19. Altitude about 250 meters. A ranch 24 kilometers northeast of Palenque, and the same distance southwest of Emiliano Zapata, Tabasco. Forest and savanna.

Balancán, Tabasco. May 9-20. Altitude about 50 meters. A town on the right bank of the Río San Pedro. Forest and savanna.

Boca del Cerro, Tabasco. June 30-July 4. Altitude about 100 meters. A village on the right bank of the Río Usumacinta, opposite Santa Margarita, Chiapas. Situated at the foot of the forest-covered hills.

Emiliano Zapata, Tabasco. July 19. Altitude about 50 meters. A town, better known by the name Montecristo, below the junction of the Chacamax with the Usumacinta.

El Jabalero, Chiapas. July 6-8. Altitude about 100 meters. A ranch on the Río Chacamax, 24 kilometers below Palenque. Forest.

Minatitlán, Veracruz. April 22-May 2. Altitude 20-65 meters. A large town on the Río Coatzacoaleos. Situated in the midst of a savanna some 20 kilometers in radius.

Palenque, Chiapas. July 10-15. Altitude 210 meters. A town (and ruins) on the Río Chacamax. Mostly savanna, which extends some 12 kilometers to the east and some 25 kilometers to the northeast. The Sierra de Palenque, altitude about 1000 meters, is about 15 kilometers to the west and south.

Palizada, Campeche. July 20-28. Altitude about 10 meters. A town on the Río Palizada, one of the mouths of the Río Usumacinta.

La Palma, Tabasco. May 30-June 7. Altitude about 60 meters. A village on the Río San Pedro, not far below the Guatemalan border. Rain forest.

Provincia, Tabasco. May 29-30. Altitude about 50 meters. A ranch on the left bank of the Río San Pedro above Reforma.

La Reforma, Tabasco. May 21-28. Altitude about 50 meters. A finca on the lower Río San Pedro, 4 kilometers from El Limón. The period May 24-28 was spent in the forest 15 kilometers north of the finca.

La Ribera, Tabasco. July 1. Altitude about 80 meters. On the riverbank near Boca del Cerro.

San Isidro, Tabasco. June 7-10. Altitude about 200 meters. A locality in the forest 17 kilometers west of La Palma and 33 kilometers east of Tenosique.

Santo Tomás, Tabasco. June 19–24. Altitude about 150 meters. In the midst of the hills bordering the right bank of the Río Usumacinta below the Guatemalan border. By trail 34 kilometers south of Tenosique. High forest.

Tenosique, Tabasco. June 11–18 and 25–29. Altitude 60 meters. A town on the right bank of the Río Usumacinta above its junction with the San Pedro. Savannas to the north.

El Vapor, Campeche. July 29–31. Altitude about 20 meters. A ranch on the Río Marente, a tributary of the Palizada. Open country and forest of dye woods.

### PHYSIOGRAPHY

The whole region here under consideration is a part of the Gulf Coastal Plain physiographic province, as defined by Thayer.<sup>4</sup> This plain extends northward into the United States and southward into Central America. It is composed of recent and undeformed marine sediments. Nearly the entire area lies below the 100 meter contour. Somewhat higher elevations are found at places along the Chiapas and Guatemalan borders, but these are only foothills which fail to reach an altitude of 1000 meters. The area is crossed by numerous rivers which form very complicated drainage systems, owing to the low gradient.

### CLIMATE

Page<sup>5</sup> includes the area in his Southeastern Lowlands temperature province, which consists of the lowlands of both coasts of Mexico as far north as Veracruz and Jalisco, and embraces also the Yucatán Peninsula. "It is a region of high annual temperature with low annual range." May is the warmest month and January is the coldest, but the difference between the means of the two extremes is only 3.7° C.

The Southern Gulf Coast rainfall province of Page<sup>6</sup> is a lowland region which extends through southern Veracruz north to about Alvarado and into the northernmost parts of Oaxaca, and southward through Tabasco and the northern lowlands of Chiapas into the southwestern corner of Campeche. Its boundaries are thus practically coterminous with those of the region under study, except that Page's province extends a little farther northwest. It is a region of heavy rainfall, the average for the whole province being over 2000 mm. annually. The heaviest precipitation of all the lowland weather stations in Mexico falls at Teapa, Tabasco, which reports an annual average of nearly 4600 mm. during the ten years that records were kept.

<sup>4</sup> Warren N. Thayer, "The Physiography of Mexico," *Journ. Geol.*, 24, No. 1 (1916): 82–84.

<sup>5</sup> "Climate of Mexico," *Monthly Weather Review*, Suppl., 33 (1930): 9, 15.

<sup>6</sup> *Ibid.*, pp. 19, 25.

April is the driest month and October the wettest, but rains are frequent even during the dry season.

According to the Köppen system of classification of climates, there is a zone of savanna climate (Aw) extending from southwestern Campeche along the coast almost to the western border of Tabasco. The remaining and larger part of the area under consideration has a tropical forest climate (Am or Af), in which the length and intensity of the wet season compensates for the short dry season.<sup>7</sup> The extent of the arid strip for any considerable distance along the coast of Tabasco, however, would seem to be largely conjectural, for there are no coastwise weather stations between Frontera, Tabasco, and Puerto México, Veracruz.

There are twelve stations in this area for which records of the annual rainfall are available. In the order of greatest precipitation these are as follows:

4600 mm. Teapa, Tabasco	2000 mm., Macuspana, Tabasco
3300 mm., Salto de Agua, Chiapas	1900 mm., Villahermosa, Tabasco
3200 mm., Palenque, Chiapas	1800 mm., Comalcalco, Tabasco
3000 mm., Puerto México, Veracruz	1800 mm., Huimanguillo, Tabasco
2900 mm., Minatitlán, Veracruz	1600 mm., Frontera, Tabasco
2100 mm., Tenosique, Tabasco	1500 mm., Ciudad del Carmen, Campeche

Northwest of this area the rainfall diminishes rapidly. Alvarado, Veracruz, has 2300 mm. annually. Tierra Blanca has 1800 mm., the city of Veracruz has only 1600, and Tuxpan and Tampico report only 1200 mm. On the Atlantic slope of the mountains to the south of this area, in northern Chiapas, the rainfall becomes progressively heavier with increasing altitude. Primavera, Chiapas (altitude, 800 meters), has 5000 mm., and Triunfo (altitude, 1100 meters) has 5400 mm. To the northeast the rainfall again becomes progressively more scant until Progreso at the tip of the Yucatán Peninsula is reached. This station had an average of less than 500 mm. for a thirteen-year period.

In summary, there is an area of heavy precipitation on the coast of southeastern Veracruz, centering on Puerto México. A second area, of even heavier precipitation, lies at the foot of the mountains in southern Tabasco and northern Chiapas. These two wet areas are narrowly separated by an only relatively drier belt. Aside from this, the wet area of southern Veracruz is entirely surrounded by much drier regions. The humid area of southern Tabasco and northern Chiapas, however, is possibly continuous with the wet regions of the Caribbean coast of Central America along a narrow belt at the base of the mountains.

<sup>7</sup> Cf. W. Köppen, in R. DeC. Ward and C. F. Brooks, "The Climates of North America," *Handbuch der Klimatologie*, 2, Teil J (1936): 45-47; K. Sapper, "Klimakunde von Mittelamerika," *Handbuch der Klimatologie*, 2, Teil H (1932): 62.

## ZOOGEOGRAPHY

The known avifauna of the region at present consists of 300 forms of birds, of which 62 are only migrants or winter visitants, and 238 represent the breeding fauna of the area. Of the resident population, 73 forms are recorded from the Coatzacoalcan area, 110 species occur at Teapa, 95 are known from the Palenque region, and 172 from the Río Usumacinta and its tributaries. Of the 238 forms known from the area as a whole, all but 9 are recorded from the area between Teapa and the Usumacinta Valley.

At the Río Coatzacoalcos three birds reach their eastern limits, five reach their western limits, and one bird (*Colinus virginianus godmani*) is endemic to that area. The distribution of a total of nine species, or 12 per cent of the recorded resident fauna of seventy-three, is thus affected by this area.

Teapa has no endemic birds. One form reaches the eastern limit of its range there, and ten birds reach their western limits. Eleven of the 110 residents (10 per cent) are thus affected.

One bird (*Colinus virginianus minor*) is, so far as known, endemic to the Palenque region. Three forms find their eastern and six their western limits there. Ten forms, or 12 per cent of the ninety-five known from the region, reach one or more limits of their distribution here.

In the Usumacinta Valley there are two endemics, seventeen forms reaching their eastern limits, and ten reaching their western limits. The distribution of no less than twenty-nine forms, or 17 per cent of the resident fauna of 172, thus changes in this area. Without doubt the Usumacinta is the most significant faunal boundary in the area under study. It is not to be assumed, however, that the river itself is a factor in limiting the distribution of species, but rather that it forms a convenient place to draw a line in a region where marked climatic changes are taking place.

The significance of the Usumacinta as a faunal boundary may be weighed in another way, by computing the number of birds which range thus far from the west but do not reach Petén, together with the number of birds which occur in Petén but do not reach the Usumacinta Valley. From the Usumacinta 172 resident forms are known, and from Petén 185. The known resident avifauna of these two places combined, less duplicates, comprises 248 forms. Nineteen Usumacintan forms fail to reach Petén or beyond, and thirty-two Petén forms do not range as far as the Usumacinta. Fifty-one forms of birds, or 21 per cent of the combined avifauna of the two areas, thus find one of the boundaries of their ranges between the Usumacinta and Petén. Expressed in other words, the difference between the avifauna of the Usumacinta and Petén amounts to one-fifth of the total population.

The western boundary of the avifauna inhabiting the Usumacinta is not easy to determine. Ninety-five resident forms are known from Palenque. The combined resident avifauna of Palenque and the Usumacinta amounts to



196 forms. Fifteen forms occur in one of these places, but are not known to range as far as the other. The difference between the two places thus amounts to only 8 per cent, an insignificant figure considering the fact that probably less than one-half of the avifauna of Palenque has been collected.

The combined recorded resident bird fauna of Teapa and Palenque consists of 151 forms. Only two forms reach the eastern end of their range at Teapa, and seven forms reach their western limits at Palenque. There is thus a difference of only 6 per cent between the avifaunas of the two places.

The combined recorded resident avifauna of Teapa and the Coatzacoalcos is 144 forms. Ten forms reach their western limits at Teapa, and four reach their eastern limits at the Coatzacoalcos. The difference between the two faunas is thus 10 per cent of the total recorded. Although this difference is rather small, it will probably increase rather than decrease with further exploration, since a number of species are represented by different races in the two areas. Moreover, the difference between these two adjacent areas is nearly as great as between Teapa and the Usumacinta, separated by practically the whole length of the state of Tabasco. There is a difference of less than 11 per cent between the resident birds of Teapa and the Usumacinta (twenty-one of 198 forms).

#### THE TABASCAN FAUNAL DISTRICT

The lowland area comprising the state of Tabasco, the southwestern corner of Campeche, and extreme northern Chiapas, has a homogeneous avifauna and uniform climate and physiography. The term Tabascan faunal district is proposed for this area. It extends from the Gulf of Mexico to the beginning of the subtropical zone on the northern face of the Mesa Central of Chiapas, and from the Laguna de Terminos and the Usumacinta Valley westward about to the Río Coatzacoalcos. More field work is necessary, however, before its western boundary can be accurately determined.

It is a region of heavy precipitation and high temperatures. It supports a tropical rain forest over most of its area. Rather extensive savannas occur, but these are generally considered to be the result of the destructive agricultural methods of the inhabitants, rather than of climatic or edaphic factors.<sup>8</sup>

The recorded resident avifauna of the Tabascan faunal district comprises 226 species. Endemism is not high in the area, being only 5 per cent of the total avifauna and consisting only of subspecies. In addition to the six subspecies of birds endemic to the district, one species and four additional subspecies of mammals and two species and one subspecies of reptiles also have been described as endemic to it. It is, of course, quite possible that

<sup>8</sup> Cf. C. L. Lundell, "The Vegetation of Petén," *Carnegie Inst. Wash. Publ.*, No. 478 (1937): 90-94.

further field work may show that some of these forms are more wide-ranging than is now supposed.

There is a rather strong Yucatán influence in the district. Twelve characteristically Yucatán forms occur within the area, and only three of them cross the western boundary of the district as drawn here.

The chief characteristic of the district is that it is a region of intermediacy between the avifauna of Veracruz on the one hand and Caribbean Guatemala on the other. Some 30 per cent of the birds recorded from the district reach either their eastern or western limits of distribution in this area. In comparing the birds of the Tabascan faunal district with the resident avifaunas of these two adjacent areas, it is found that seven species are represented by different forms in all three places; twenty-three species are represented by the same form in Tabasco and Petén, but fail to reach or are represented by a different form in Veracruz; and twenty-seven species are represented by the same form in Tabasco and Veracruz, but fail to reach or are represented by a different form in Petén (see p. 18).

Minor zoogeographical areas such as this, with only a small amount of endemism, are in my opinion best called faunal districts, if based exclusively on animal distribution, or biotic districts, if based on the distribution of both plants and animals.<sup>9</sup> The term province is better reserved for areas in which greater speciation occurs. Frequently a faunal or biotic province will be found to consist of several faunal or biotic districts.

Hobart Smith<sup>10</sup> has divided Mexico into biotic provinces "defined largely on the basis of physiography and of data afforded by the distribution of *Sceloporus*." His provinces are of decidedly unequal value; some of them have a high degree of endemism, and others have no endemic forms at all, at least as far as *Sceloporus* is concerned. It seems probable that his system will have to be revised considerably, since certain of his provinces seem to be the equivalent of faunal districts as defined here. It would appear to be a very happy coincidence if a system based upon the distribution of a single genus would hold up in all particulars when tested by a larger part of the fauna.

Smith places the area under study here within his Petén province, which he describes as "an area north of the Chiapan Plateau province and on the Atlantic drainage of the isthmus, extending northwest along the coast about to the Rio Papaloapam; on the north, approximately to the 20th parallel; on the west [*sic*], into Guatemala and British Honduras." The Petén province has four forms of *Sceloporus* recorded from within its limits. Two of these are endemic to the province, but their ranges are complementary. It thus

<sup>9</sup> Cf. L. R. Dice, "The Sonoran Biotic Province," *Ecology*, 20, No. 2 (1939): 121.

<sup>10</sup> "The Mexican and Central American Lizards of the Genus *Sceloporus*," *Zool. Ser. Field Mus. Nat. Hist.*, 26 (1939): 14-19.

appears from Smith's data alone that his Petén province is divisible into districts, one of which is proposed here.

#### ENDEMIC ANIMALS OF THE TABASCAN FAUNAL DISTRICT

##### BIRDS

*Colinus virginianus minor*. Known definitely only from Palenque and El Aguacate.  
*Cissilopha yucatanica rivularis*. Reforma to Frontera and Palizada.  
*Thryothorus rutilus umbrinus*. Teapa and Santo Tomás to Frontera and La Palma.  
*Nannorchilus leucogaster musicus*. Teapa, Palenque, and Balancán.  
*Agelaius phoeniceus matudae*. La Palma and Boca del Cerro to Palizada.

##### MAMMALS

*Saccopteryx bilineata centralis*. Teapa.  
*Pipistrellus cinnamomeus*. Montecristo (unique).  
*Artibeus turpis*. Teapa.  
*Peromyscus mexicanus teapensis*. Teapa to Montecristo and El Salto.  
*Oryzomys alfaroi palatinus*. Ocuilapa to Teapa and Tumbala. (Possibly a subtropical zone form, in which case it should not be included.)

##### REPTILES

*Thamnophis rozellae*. Palenque, Aguacate, and Montecristo.  
*Coniophanes bipunctatus biseriatus*. Palenque.  
*Tantilla lintoni*. Piedras Negras (unique).

#### CHARACTERISTIC YUCATÁN FORMS OCCURRING IN THE TABASCAN FAUNAL DISTRICT

##### WESTERN LIMIT OF RANGE

<i>Agriocharis ocellata</i> .....	La Palma, Tabasco
<i>Leptotila verreauxi fulviventris</i> .....	San Andrés Tuxtla, Veracruz
<i>Chordeiles acutipennis micromeris</i> .....	Palenque, Chiapas
<i>Eumomota superciliosa superciliosa</i> .....	Teapa, Tabasco
<i>Sittasomus griseicapillus gracileus</i> .....	Reforma, Tabasco
<i>Tityra semifasciata deses</i> .....	Minatitlán, Veracruz
<i>Pyrocephalus rubinus blatteus</i> .....	Minatitlán, Veracruz
<i>Myiarchus tuberculifer platyrhynchus</i> .....	Teapa, Tabasco
<i>Mimus gilvus clarus</i> .....	Montecristo, Tabasco
<i>Icterus cucullatus igneus</i> .....	El Aguacate, Chiapas
<i>Eucometis penicillata pallida</i> .....	El Jabalinerio, Chiapas
<i>Saltator coerulescens yucatanensis</i> .....	Balancán, Tabasco

## CHARACTERISTIC BIRDS OF THE TABASCAN FAUNAL DISTRICT

TABASCAN DISTRICT	REPRESENTATIVE IN SOUTH- ERN VERACRUZ	REPRESENTATIVE IN PETÉN
<i>Tinamus major robustus</i>	<i>T. m. robustus</i>	<i>T. M. PERCAUTUS</i>
<i>CRYPTURELLUS CINNAMOMUS INTERMEDIUS</i>	<i>C. C. SALLAEI</i>	<i>C. C. GOLDMANI</i>
<i>Butorides virescens virescens</i>	<i>B. v. virescens</i>	<i>B. V. MACULATUS</i>
<i>Ixobrychus exilis exilis</i>	( <i>I. e. exilis</i> )	GENUS ABSENT
<i>Elanus leucurus majusculus</i>	( <i>E. l. majusculus</i> )	GENUS ABSENT
<i>Buteo magnirostris griseocauda</i>	<i>B. m. griseocauda</i>	<i>B. M. DIREPTOR</i>
<i>Asturina nitida micra</i>	<i>A. N. PLAGIATA?</i>	<i>A. n. micra</i>
<i>Ortalis vetula jalapensis</i>	<i>O. v. jalapensis</i>	<i>O. V. INTERMEDIA</i>
<i>COLINUS VIRGINIANUS MINOR</i>	<i>C. V. GODMANI</i>	<i>C. NIGROGULARIS SEGOVIENSIS</i>
<i>Agriocharis ocellata</i>	GENUS ABSENT	<i>A. ocellata</i>
<i>Aramides cajanea mexicana</i>	<i>A. c. mexicana</i>	<i>A. C. ALBIVENTRIS</i>
<i>Heliornis fulica</i>	FAMILY ABSENT WEST OF RIO COATZACOALCOS	<i>H. fulica</i>
<i>Leptotila cassini cerviniventris</i>	SPECIES ABSENT	<i>L. c. cerviniventris</i>
<i>Amazona albifrons nana</i>	SPECIES ABSENT	<i>A. a. nana</i>
<i>Chordeiles acutipennis micromeris</i>	( <i>C. A. TEXENSIS</i> )	( <i>C. a. micromeris</i> )
<i>Phoethornis longirostris veraecrucis</i>	<i>P. l. veraecrucis</i>	<i>P. L. LONGIROSTRIS</i>
<i>Amazilia yucatanensis cerviniventris</i>	<i>A. y. cerviniventris</i>	<i>A. Y. YUCATANENSIS</i>
<i>Eumomota superciliosa superciliosa</i>	<i>E. S. BIPARTITA</i>	( <i>E. s. superciliosa</i> )
<i>Malacoptila panamensis inornata</i>	FAMILY ABSENT	<i>M. p. inornata</i>
<i>Balanosphyra formicivora albeola</i>	<i>B. F. FORMICIVORA</i>	( <i>B. f. albeola</i> )
<i>Centurus santacruzi veraecrucis</i>	<i>C. s. veraecrucis</i>	<i>C. S. DUBIUS</i>
<i>Dryobates scalaris ridgwayi</i>	<i>D. s. ridgwayi</i>	( <i>D. S. LEUCOPTILURUS</i> )
<i>Sittasomus griseicapillus gracileus</i>	<i>S. G. SYLVIODES</i>	<i>S. g. gracileus</i>
<i>Synallaxis erythrothorax furtiva</i>	<i>S. e. furtiva</i>	( <i>S. E. ERYTHROTHORAX</i> )
<i>Thamophilus doliatus intermedius</i>	<i>T. d. intermedius</i>	<i>T. D. YUCATANENSIS</i>
<i>Thamnistes anabatinus anabatinus</i>	GENUS ABSENT	( <i>T. a. anabatinus</i> )
<i>Formicarius analis moniliger</i>	<i>F. a. moniliger</i>	<i>F. A. PALLIDUS</i>
<i>Grallaria guatemalensis mexicana</i>	<i>G. g. mexicana</i>	<i>G. G. GUATEMALENSIS</i>
<i>Pachyramphus cinnamomeus fulvidior</i>	SPECIES ABSENT	<i>P. c. fulvidior</i>
<i>Pachyramphus major australis</i>	<i>P. M. MAJOR</i>	<i>P. m. australis</i>
<i>Tityrta semifasciata deses</i>	<i>T. S. PERSONATA</i> BEYOND RIO COATZACOALCOS	<i>T. s. deses</i>

TABASCAN DISTRICT	REPRESENTATIVE IN SOUTH-ERN VERACRUZ	REPRESENTATIVE IN PETÉN
<i>MYIARCHUS TUBERCULIFER</i> <i>PLATYRHYNCHUS</i>	<i>M. T. LAWRENCEII</i>	<i>M. T. CONNECTENS</i>
<i>Stelgidopteryx ruficollis ful-vipennis</i>	<i>S. r. fulvipennis</i>	<i>S. R. RIDGWAYI</i>
<i>Psilorhinus morio</i>	<i>P. morio</i>	SPECIES ABSENT
<i>Psilorhinus mexicanus</i> <i>cyanogenys</i>	<i>P. M. MEXICANUS</i>	<i>P. m. cyanogenys</i>
<i>Xanthoura yncas centralis</i>	<i>X. Y. LUXUOSA</i>	<i>X. y. centralis</i>
<i>CISSILOPHA YUCATANICA</i> <i>RIVULARIS</i>	GENUS ABSENT	( <i>C. Y. YUCATANICA</i> )
<i>Heleodytes zonatus restrictus</i>	<i>H. Z. ZONATUS</i>	<i>H. z. restrictus</i>
<i>THRYOTHORUS RUTILUS</i> <i>UMBRINUS</i>	<i>T. R. MACULIPECTUS</i>	<i>T. R. CANOBRUNNEUS</i>
<i>Henicorhina leucosticta</i> <i>prostheleuca</i>	<i>H. l. prostheleuca</i>	<i>H. L. TROPAEA</i>
<i>NANNORCHILUS LEUCO-GASTER MUSICUS</i>	<i>N. L. LEUCOGASTER</i>	<i>N. L. BRACHYURUS</i>
<i>Mimus gilvus clarus</i>	<i>M. POLYGLOTTOS LEU-COPTERUS</i>	( <i>M. g. clarus</i> )
<i>Granatellus sallaei sallaei</i>	<i>G. s. sallaei</i>	( <i>G. S. GRISCOMI</i> )
<i>Basileuterus rufifrons flavi-gaster</i>	<i>B. r. flavigaster</i>	( <i>B. R. SALVINI</i> )
<i>Icterus gularis tamaulipensis</i>	<i>I. g. tamaulipensis</i>	( <i>I. G. YUCATANENSIS</i> )
<i>Icterus cucullatus igneus</i>	<i>I. C. CUCULLATUS</i>	( <i>I. c. igneus</i> )
<i>AGELAIUS PHOENICEUS</i> <i>MATUDAE</i>	<i>A. P. RICHMONDI</i>	<i>A. P. SUBSP.</i>
<i>Sturnella magna mexicana</i>	<i>S. m. mexicana</i>	<i>S. M. INEXPECTATA</i>
<i>Tangara nigrocincta larvata</i>	GENUS ABSENT	<i>T. n. larvata</i>
<i>Ramphocelus passerinii</i> <i>passerinii</i>	GENUS ABSENT	<i>R. p. passerinii</i>
<i>Habia gutturalis littoralis</i>	<i>H. g. littoralis</i>	<i>H. G. PENINSULARIS</i>
<i>Eucometis penicillata pallida</i>	GENUS ABSENT	<i>E. p. pallida</i>
<i>Saltator maximus gigantodes</i>	<i>S. m. gigantodes</i>	<i>S. M. MAGNOIDES</i>
<i>Richmondia cardinalis lit-toralis</i>	<i>R. c. littoralis</i>	( <i>R. C. FLAMMIGERA</i> )
<i>Cyanocompsa parellina</i> <i>parellina</i>	<i>C. p. parellina</i>	<i>C. P. DEARBORNI</i>
<i>Arremonops conirostris</i> <i>chloronotus</i>	<i>A. RUFIVIRGATUS CRAS-SIROSTRIS</i>	<i>A. c. chloronotus</i>
<i>Ammodramus savannarum</i> <i>bimaculatus</i>	<i>A. s. bimaculatus</i>	<i>A. S. CRACENS</i>

## SUMMARY

Different in all three places .....	7
Different or absent in Veracruz, same in Petén .....	23
Different or absent in Petén, same in Veracruz .....	27

NOTE.—Forms given in parentheses in the table have not actually been recorded from the place indicated but are known to occur near by.

## ANNOTATED LIST OF BIRDS

In this list an asterisk (\*) precedes the names of forms which occur in the region only as migrants or winter visitants.

## TINAMIDAE

*Tinamus major robustus* Parker

*Tinamus robustus* Parker, *Trans. Zool. Soc. London*, 5 (1866): 205-32, Pl. 34, Fig. 8, Pl. 39, Pl. 40, Figs. 1-7, Pl. 41, Figs. 1-3. San Gerónimo, Baja Verapaz, Guatemala. *Rovirosa, Naturaleza*, 7 (1887): 381. Río Macuspana, Tabasco.

*Tinamus major robustus* Van Tyne, *Univ. Mich. Mus. Zool. Misc. Publ.*, No. 27 (1935): 8, in text. Teapa, Tabasco, 3 specimens.

CHIAPAS: El Aguacate, 1, July 17.

A young specimen about half-grown and still retaining down on the head. The back and wing coverts are dotted with buffy, and the upper tail coverts are boldly barred with the same color. I have not been able to compare it with similarly aged specimens, but it is so very much darker than the original series of *Tinamus major percautus* that I have no hesitation in referring it to *robustus*.

The bird figured in *Exotic Ornithology*<sup>11</sup> cannot rightly be considered the type of *Tinamus robustus*. Selater first introduced the name in the *Proceedings of the Zoological Society*,<sup>12</sup> where it is a *nomen nudum*. This name was subsequently used nine different times by various authors between then and its first formal characterization in *Exotic Ornithology* in 1868. Two years previous to the publication of the latter work, however, Parker<sup>13</sup> described and figured the skeleton of this tinamou in combination with the name *Tinamus robustus*. This seems to be a valid introduction of the name under the rules and consequently takes precedence over Selater and Salvin's description. Parker does not give any locality at all, but the specimen described is one that was given to him by Selater after its death in the gardens of the Zoological Society. This is proved by two statements of Parker, one on page 206 of the current article, the other in the *Proceedings of the Zoological Society*,<sup>14</sup> 1862, p. 257, where he stated that he had examined the skeleton of ". . . a *Tinamus robustus*, for which I am indebted to the Council of this Society."

The only specimen of this tinamou exhibited in the Society's gardens previous to the writing of either of these papers is noticed in the meeting of

<sup>11</sup> P. L. Selater and O. Salvin, *Exotic Ornithology* (London: Quaritch, 1866-69).

<sup>12</sup> "Notes on a Collection of Birds from the Vicinity of Orizaba and Neighboring Parts of Southern Mexico," *Proc. Zool. Soc. London*, 1860, p. 253.

<sup>13</sup> "On the Osteology of Gallinaceous Birds and Tinamous," *Trans. Zool. Soc. London*, 5 (1866): 105-32, Pl. 34, Fig. 8, Pl. 39, Pl. 40, Figs. 1-7, Pl. 41, Figs. 1-3.

<sup>14</sup> "Memoir on the Osteology of the Genera Pterocles, Syrrhaptus, Hemipodius, and Tinamus," *Proc. Zool. Soc. London*, 1862, p. 257.

May 28, 1861, under "Additions to the Menagerie"<sup>15</sup> during the month of April, 1861, as follows: "1 Tinamou, *Tinamus robustus*, presented by Robert Owen, Esq., Corr. Mem. Z. S." I believe that there can be little doubt that this is the bird whose skeleton was given to Parker.

Since Owen's collecting at this time was done at San Gerónimo, Baja Verapaz, Guatemala,<sup>16</sup> I accordingly thus restrict the type locality of *Tinamus robustus* Parker. This change in authority and type locality luckily calls for no upset in current nomenclature, but it is unfortunate to have the name rest upon a skeleton rather than a skin.

Incidentally, T. H. Huxley<sup>17</sup> also published the name *Tinamus robustus* in connection with a figure of the skull of Parker's specimen prior to the characterization of the species in *Exotic Ornithology*.

*Crypturellus soui meserythrus* (Sclater)

*Tinamus meserythrus* Slater, *Proc. Zool. Soc. London*, 1859, p. 392. Playa Vicente, Veracruz (not Oaxaca!).

TABASCO: San Isidro, 1, June 8; Tenosique, 1, June 15.

Compared with a series from Honduras and Guatemala, the Tabascan birds are darker gray on the crown and breast and are much less reddish on the posterior underparts.

*Crypturellus boucardi boucardi* (Sclater)

*Tinamus boucardi* Slater, *Proc. Zool. Soc. London*, 1859, p. 391. Teotalcingo, Oaxaca.

TABASCO: San Isidro, 1, June 8. CHIAPAS: El Aguacate, 1, July 16.

The Aguacate specimen is a half-grown young.

*Crypturellus cinnamomeus intermedius* Traylor

*Crypturellus cinnamomeus intermedius* Traylor, *Zool. Ser. Field Mus. Nat. Hist.*, 24, No. 19 (1941): 199. Pacaitún, Campeche.

TABASCO: 15 kilometers north of Reforma, 1, May 27; Tenosique, 1, June 17.

These two skins agree well with topotypes of *intermedius*. I have not been able to make a direct comparison with *sallaei*.

PELECANIDAE

\**Pelecanus erythrorhynchos* Gmelin

*Pelecanus erythrorhynchos* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 571. Hudson Bay and New York.

<sup>15</sup> *Proc. Zool. Soc. London*, 1861, p. 234.

<sup>16</sup> R. Owen, "On the Nesting of Some Guatemalan Birds," *Ibis*, 1861, pp. 58-68. especially p. 59.

<sup>17</sup> "On the Classification of Birds; and on the Taxonomic Value of the Modifications of Certain of the Cranial Bones Observable in That Class," *Proc. Zool. Soc. London*, 1867, p. 425, Fig. 5.

*Pelecanus trachyrhynchus* Rovirosa, *Naturaleza*, 7 (1887): 388. Lagoons north and northeast of Macuspana, Tabasco.

*Pelecanus occidentalis occidentalis* Linnaeus

*Pelecanus occidentalis* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 215. Jamaica.

*Pelecanus fuscus* Rovirosa, *Naturaleza*, 7 (1887): 388. Enerucijada, Tabasco, 1 specimen, January, 1870.

PHALACROCORACIDAE

*Phalacrocorax olivaceus mexicanus* (Brandt)

*Carbo mexicanus* Brandt, *Bull. Sci. Acad. Imp. Sci. St. Petersburg*, 3 (1837): col. 56. Veracruz (restricted by van Rossem and Hachisuka, *Proc. Biol. Soc. Wash.*, 52 [1939]: 10).

*Graculus mexicanus* Rovirosa, *Naturaleza*, 7 (1887): 389. Tabasco, "from the seashore to the violent rivers of the sierra"; definite localities mentioned are San Diego, San Juan Bautista, San Ramón, and El Mulato.

TABASCO: La Palma, 2, June 4.

ANHINGIDAE

*Anhinga anhinga leucogaster* (Vieillot)

*Plotus leucogaster* Vieillot, *Nouv. dict. hist. nat.*, 1 (1816): 545. Florida.

*Plotus anhinga* Rovirosa, *Naturaleza*, 7 (1887): 389. Río Macuspana, Tabasco.

ARDEIDAE

\**Ardea herodias herodias* Linnaeus

*Ardea herodias* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 143. Hudson Bay. Rovirosa, *Naturaleza*, 7 (1887): 385. Río Macuspana, Tabasco.

CAMPECHE: Palizada, 1, July 28.

The date suggests that this bird, a juvenile female, was hatched near by. Since, however, two other forms inhabit the area between Campeche and the breeding range of true *herodias*, it appears more probable that this specimen is an early migrant. It is no darker than comparable skins from the United States; the wing measures 452 mm., the exposed culmen, 141 mm., and the tarsus, 181 mm.

*Butorides virescens virescens* (Linnaeus)

*Ardea virescens* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 144. Coast of South Carolina (restricted by Oberholser, *postea*, p. 534). Rovirosa, *Naturaleza*, 7 (1887): 385. Río Macuspana, Tabasco.

*Butorides virescens virescens* Oberholser, *Proc. U. S. Nat. Mus.*, 42 (1912): 533, 541. Montecristo, Tabasco, 1 specimen, May 7, 1900.

TABASCO: Balancán, 4, May 10-20; La Palma, 1, June 2.

In wing length these birds measure as follows: male adult, 178, 182, 187 mm.; male immature, 183 mm.; female adult, 177 mm.



*Florida caerulea* (Linnaeus)

*Ardea caerulea* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 143. Carolina. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1901): 165. Teapa, Tabasco.

*Florida caerulea* Roviroso, *Naturaleza*, 7 (1887): 385. Río Macuspana, Tabasco. Sharpe, *Cat. Birds Brit. Mus.*, 26 (1898): 100. Teapa, 1 specimen, February.

*Casmerodius albus egretta* (Gmelin)

*Ardea egretta* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 629. Cayenne (restricted by *A. O. U. Check-List* [ed. 4; 1931], p. 27). Roviroso, *Naturaleza*, 7 (1887): 385. Río Macuspana, Tabasco.

*Leucophoyx thula thula* (Molina)

*Ardea thula* Molina, *Sagg. stor. nat. Chili*, 1782, p. 235. Chile.

*Ardea candidissima* Roviroso, *Naturaleza*, 7 (1887): 385. Río Macuspana, Tabasco.

*Hydranassa tricolor ruficollis* (Gosse)

*Egretta ruficollis* Gosse, *Birds Jamaica*, 1847, p. 338. Burnt Savanna River, Jamaica.

CAMPECHE: Palizada, 1, July 26.

It is in the immature, cinnamon plumage.

*Agamia agami* (Gmelin)

*Ardea agami* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 629. Cayenne. Salvin and Godman, *Aves, Biología Centrali-Amer.*, 3 (1901): 171. Río Coatzacoalcos, Veracruz.

*Agamia picta* Sumichrast, *Naturaleza*, 5 (1882): 233. Río Coatzacoalcos, Veracruz, 1 specimen.

TABASCO: Balancán, 1, May 15.

\**Nycticorax nycticorax hoactli* (Gmelin)

*Ardea hoactli* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 630. Valley of Mexico.

*Nycticorax grisea*, var. *naevia* Roviroso, *Naturaleza*, 7 (1887): 385. Río Macuspana, Tabasco.

*Heterocnus cabanisi cabanisi* (Heine)

*Tigrisoma cabanisi* Heine, *Journ. für Orn.*, 7 (1859): 407. Mexico.

CAMPECHE: Palizada, 2, July 25–28; El Vapor, 1, July 30.

All are in juvenal plumage.

*Ixobrychus exilis exilis* (Gmelin)

*Ardea exilis* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 645. Jamaica.

*Ardetta exilis* Roviroso, *Naturaleza*, 7 (1887): 385. Río Macuspana, Tabasco.

CAMPECHE: El Vapor, 1 ♂, July 31.

It is unfortunate that Matuda got only one specimen of the least bittern, since it differs from United States material in being more richly colored.

The hindneck is deeper chestnut. The lesser and median wing coverts are more golden buffy. The scapulars and interscapulars are mixed with chestnut, instead of being plain black. The color below is deeper and brighter golden buffy throughout, and the feathers of the center of the chin and fore-neck have blackish shaft streaks. Occasional specimens from the United States, apparently young individuals, possess the latter markings, but to a lesser extent.

The Campeche bird possibly represents a distinct form, but until the differences are confirmed by additional material it may be referred to *exilis*, with which it agrees in size. Wing, 121; tail, 38.5; exposed culmen, 46; tarsus, 39.5; middle toe, 38 mm.

The local name of the least bittern was recorded as "Piu."

\**Botaurus lentiginosus lentiginosus* (Montagu)

*Ardea lentiginosa* Montagu, *Suppl. Orn. Dict.*, 1813, text and plate. Piddletown, Dorsetshire, England.

*Botaurus minor* Roviroso, *Naturaleza*, 7 (1887): 385. Río Macuspana, Tabasco.

COCHLEARIIDAE

*Cochlearius cochlearius zeledoni* (Ridgway)

*Cancroma zeledoni* Ridgway, *Proc. U. S. Nat. Mus.*, 8 (1885): 93. Mazatlán, Sinaloa.

*Cancroma cochlearia* Roviroso, *Naturaleza*, 7 (1887): 386. Río Macuspana, Tabasco.

TABASCO: Balancán, 1, May 15; 15 kilometers north of Reforma, 1, May 26; La Palma, 1, June 4.

CICONIIDAE

*Mycteria americana* Linnaeus

*Mycteria americana* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 140. Brazil.

*Tantalus loculator* Roviroso, *Naturaleza*, 7 (1887): 384. Río Macuspana, Tabasco.

THRESKIORNITHIDAE

*Guara alba* (Linnaeus)

*Scolopax alba* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 145. Carolina.

*Ibis alba* Roviroso, *Naturaleza*, 7 (1887): 384. Río Macuspana, Tabasco.

CAMPECHE: Palizada, 1, July 25; El Vapor, 2, July 30-31.

All are in immature plumage.

*Ajaja ajaja* (Linnaeus)

*Platalea ajaja* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 142. Brazil or Jamaica.

*Ajaja rosea* Roviroso, *Naturaleza*, 7 (1887): 386. Río Macuspana, Tabasco.

ANATIDAE

\**Chen hyperborea hyperborea* (Pallas)

*Anser hyperboreus* Pallas, *Spic. Zool.*, Fasc. 6 (1769): 31. Northeastern Siberia. Rovi-

rosa, *Naturaleza*, 7 (1887): 386. Hacienda Sabanas Nuevas, Tabasco, 1873; Río Tepetitán, between La Palma and El Arrastradero, Tabasco, 1874.

*Dendrocygna autumnalis autumnalis* (Linnaeus)

*Anas autumnalis* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 127. West Indies.

*Dendrocygna arborea* [nec Linn.] Rovirosa, *Naturaleza*, 7 (1887): 387. Ríos Macuspana, Tepetitán, and Chilapilla, Tabasco.

It seems likely that Rovirosa's records refer to this species rather than to the West Indian *D. arborea*, as J. C. Phillips<sup>18</sup> has already suggested.

\**Dendrocygna bicolor helva* Wetmore and Peters

*Dendrocygna bicolor helva* Wetmore and Peters, *Proc. Biol. Soc. Wash.*, 35 (1922): 42. Unlucky Lake, San Diego County, California. Peters, *Check-List of the Birds of the World*, 1 (1931): 153. Tabasco in winter.

*Dendrocygna fulva* Rovirosa, *Naturaleza*, 7 (1887): 387. Laguna Matillas, Laguna Tierra Colorado, Laguna Taciste, Laguna Corozal, Playa Grande, Lino, Sabana del Tinto, San Diego, and El Limón, Tabasco.

*Dendrocygna bicolor* Phillips, *Nat. Hist. Ducks*, 1 (1922): 128. Tabasco, *vide* Rovirosa.

\**Anas cyanoptera cyanoptera* Vieillot

*Anas cyanoptera* Vieillot, *Nowv. Dict. Hist. Nat.*, 5 (1816): 104. Río de la Plata and Buenos Aires, Argentina.

*Querquedula cyanoptera* Rovirosa, *Naturaleza*, 7 (1887): 387. Río Macuspana, Tabasco.

\**Anas discors* Linnaeus

*Anas discors* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 205. South Carolina (restricted by *A. O. U. Check-List* [ed. 4; 1931], p. 48).

*Querquedula discors* Rovirosa, *Naturaleza*, 7 (1887): 387. Río Macuspana, Tabasco.

\**Anas crecca carolinensis* Gmelin

*Anas carolinensis* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 533. South Carolina (restricted by *A. O. U. Check-List* [ed. 4; 1931], p. 47).

*Querquedula carolinensis* Rovirosa, *Naturaleza*, 7 (1887): 387. Río Macuspana, Tabasco.

\**Oxyura jamaicensis rubida* (Wilson)

*Anas rubidus* Wilson, *Amer. Orn.*, 8 (1814): 128, 130, Pl. 71, Figs. 5, 6. Delaware River.

*Erismatura rubida* Rovirosa, *Naturaleza*, 7 (1887): 388. Río Macuspana, Tabasco.

CATHARTIDAE

*Sarcoramphus papa* (Linnaeus)

*Vultur papa* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 86. Surinam (designated by Berlepsch, *Novit. Zool.*, 15 [1908]: 289).

*Cathartes papa* Sumichrast, *Naturaleza*, 5 (1882): 235. Río Coatzacoalcos, Veracruz.

*Sarcoramphus papa* Rovirosa, *Naturaleza*, 7 (1887): 378. Hacienda Limón, Tabasco; La Joya and Cerro del Chinal, Chiapas.

<sup>18</sup> *A Natural History of the Ducks* (Boston and New York: Houghton Mifflin Co., 1922), 1: 169.

*Gypagus papa* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1901): 131. Río Coatzacoalcos, Veraacruz.

*Coragyps atratus* (Bechstein)

*Vultur atratus* Bechstein, *Vögel, Allg. Uebers.*, 1 (1793), Anh.: 655. St. Johns River, Florida.

*Cathartes atratus* Roviroso, *Naturaleza*, 7 (1887): 379. Río Macuspana, Tabasco.

*Cathartes aura aura* (Linnaeus)

*Vultur aura* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 86. Veraacruz (restricted by Nelson, *Proc. Biol. Soc. Wash.*, 18 [1905]: 124).

*Cathartes aura* Roviroso, *Naturaleza*, 7 (1887): 379. Río Macuspana, Tabasco.

ACCIPITRIDAE

*Elanus leucurus majusculus* Bangs and Penard

*Elanus leucurus majusculus* Bangs and Penard, *Proc. New England Zool. Club*, 7 (1920): 46. San Rafael, California.

CAMPECHE: Palizada, 3, July 24-26.

One of these birds is an adult male. The other two are juvenile females and must have been hatched near by. They form a notable extension in the summer range of this kite, for the species is not otherwise known to breed between Texas and Venezuela. Wing measurements are as follows: male adult, 304 mm.; female juvenile, 318, 321 mm. The adult is paler above than are northern specimens.

*Odontriorchis palliatus mexicanus* Swann

*Odontriorchis palliatus mexicanus* Swann, *Syn. Accipitres*, ed. 2; 1922, p. 159. Tampico, Tamaulipas.

TABASCO: 15 kilometers north of Reforma, 1, May 26.

After the examination of "nearly fifty" specimens, L. Griscom<sup>19</sup> stated that he was unable to confirm the characters of Swann's form, though he did not publish any measurements to support this stand. The series of the University of Michigan, although not nearly so extensive, shows a well-marked size difference (Table I). Besides, the northern birds have plain black under wing coverts, and the head and neck are darker slate than are Paraguayan specimens. Since these are just the characters claimed by Swann, it seems best to recognize his name. As Griscom has implied, there seems to be a sexual difference in the intensity of the slate coloring of the head and neck, these parts being darkest in females. Nevertheless the adult from Paraguay has a paler head than has any of our other specimens.

<sup>19</sup> "The Ornithology of the Caribbean Coast of Extreme Eastern Panama," *Bull. Mus. Comp. Zool.*, 72 (1932): 312.

TABLE I  
MEASUREMENTS OF *Odontriorchis palliatus palliatus* AND *O. p. mexicanus*

Sex	Locality	Wing (mm.)	Tail (mm.)
<i>palliatus</i>			
♂ ad.	Paraguay	357	247
♂ im.	Paraguay	335	254
<i>mexicanus</i>			
♂ ad.	Tabasco	309	233
♂ im.	Chiapas	302	224
♀ im.	Yucatan	316	252
♀ ad.	Chiapas	318	238
♀ ad.	Chiapas	308	231
♀ im.	Chiapas	312	256
♀ im.	British Honduras	316	252
♀ ad.	Panama	320	248

*Ictinia plumbea* (Gmelin)

*Falco plumbeus* Gmelin, *Syst. Nat.*, 1, Pt. 1 (1788): 283. Cayenne.

TABASCO: La Palma, 4, May 31–June 6; Tenosique, 1, June 14.

Measurements of the Tabascan birds are as follows: wing, 295, 304, 313 (♀ 306); tail, 133, 136, 137 (♀ 135 mm.).

*Rostrhamus sociabilis major* Nelson and Goldman

*Rostrhamus sociabilis major* Nelson and Goldman, *Proc. Biol. Soc. Wash.*, 46 (1933): 193. Catemaco, Veracruz.

CAMPECHE: Palizada, 2, July 25; El Vapor, 1, July 31.

In describing this form, Nelson and Goldman gave measurements of the type only, although they had three additional specimens. The supposed longer wing and tail do not hold in the present series (Table II), but the immense bill is quite enough to separate the form. The Campeche birds help fill the gap between the two localities previously reported for this subspecies.

TABLE II  
MEASUREMENTS OF *Rostrhamus sociabilis major*

Sex	Wing (mm.)	Tail (mm.)	Culmen from Cere (mm.)
♂ juv.	347	177	31
♀ juv.	354	180	31.5
♀ ad.	366	183	33

*Buteo magnirostris griseocauda* Ridgway

*Buteo (Rupornis) magnirostris* var. *griseocauda* Ridgway, *Proc. Boston Soc. Nat. Hist.*, 16 (1873): 87 (in key), 88. Mirador, Veracruz (restricted by Brodkorb, *Occ. Papers Mus. Zool. Univ. Mich.*, No. 425 [1940]: 1).

*Asturina magnirostris* var. *griseocauda* Rovirosa, *Naturaleza*, 7 (1887): 375. "Whole state of Tabasco."

*Rupornis ruficauda* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1900): 76, Teapa, Tabasco.

VERACRUZ: Minatitlán, 3, April 23-27. TABASCO: Balancán, 2, May 14; Reforma, 1, May 22; Tenosique, 1, June 29; La Ribera, 1, July 1; Boca del Cerro, 1, July 4. CHIAPAS: Palenque, 1, July 14; El Aguacate, 2, July 18.

*Buteo brachyurus* Vieillot

*Buteo brachyurus* Vieillot, *Now. Dict. Hist. Nat.*, 4 (1816): 477. Cayenne (restricted by Berlepsch, *Novit. Zool.*, 15 [1908]: 291).

VERACRUZ: Minatitlán, 1, April 24.

*Asturina nitida micra* Miller and Griscom

*Asturina plagiata micrus* Miller and Griscom, *Amer. Mus. Novit.*, No. 25 (1921): 4. Four miles northeast of Chinandega, Nicaragua.

TABASCO: Balancán, 1, May 13.

This specimen is an immature male and measures wing, 239, tail, 164 mm.

*Leucopternis albicollis ghiesbreghti* (Du Bus)

*Buteo ghiesbreghti* Du Bus, *Esq. Orn.*, livr. 1 (1845): Pl. 1. Hacienda Mirador, Veracruz.

*Urubitinga ghiesbreghti* Rovirosa, *Naturaleza*, 7 (1887): 376. Río Maespana, Tabasco.

*Hypomorphnus urubitinga ridgwayi* (Gurney)

*Urubitinga ridgwayi* Gurney, *List of Diurnal Birds of Prey*, 1884, p. 148. Guatemala and Mexico.

CAMPECHE: El Vapor, 1, July 29.

*Buteogallus anthracinus anthracinus* (Lichtenstein)

*Falco anthracinus* Lichtenstein, *Preis-Verz. Mex. Vögel*, 1830, p. 3. Mexico.

*Morphnus mexicanus* Du Bus, *Bull. acad. roy. sci. lettr. beaux-arts Belg.*, 14, Pt. 2, No. 8 (1847): 102. Tabasco and Guatemala.

*Busarellus nigricollis nigricollis* (Latham)

*Falco nigricollis* Latham, *Ind. Orn.*, 1 (1790): 35. Cayenne.

TABASCO: La Palma, 1, June 1. CAMPECHE: Palizada, 1, July 24.

H. K. Swann<sup>20</sup> has described two races of this fish hawk, *Busarellus nigricollis macropus* from Guatemala and British Honduras and *B. n. australis* from northern Argentina and Paraguay. He thus confines true *nigricollis* to the intervening region and also along the Pacific coast as far as Mexico.

<sup>20</sup> *A Synopsis of the Accipitres . . .* (ed. 2; London: Privately printed, 1922), Pt. 2: 95.

Both races described are purported to be larger and paler than *nigricollis*, and in addition *macropus* is said to have stouter feet.

There is considerable variation in depth of color in this species, dependent at least partly upon fading, but on the whole Paraguayan skins are the palest of our series. On the other hand, the two skins from the Usumacinta Valley are certainly not paler than specimens from northern Brazil.

Paraguayan birds again are the largest of all, but I do not find any difference in wing length or stoutness of feet between the Usumacintan and Brazilian birds. Wing measurements of birds from different localities are as follows:

Paraguay, ♂ ♂ 387, 394, 398, 398, 399, 412, 414, 414, 415, 416, 419 mm.

Paraguay, ♀ ♀ 404 (sex incorrect?), 416, 419, 419, 425, 425, 434 mm.

Northern Brazil, ♂ 394 (sex incorrect?), unsexed 368, 391 mm.

Tabasco, ♂ 374 mm.

Campeche, ♀, 410 mm.

Pacific Chiapas, ♀ ♀ 393, 401 mm.

In my opinion *Busarellus nigricollis australis* is an authentic race, differing in pale color and large size, but *macropus* should be synonymized with *nigricollis*.

### *Harpia harpyja* (Linnaeus)

*Vultur harpyja* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 86. Mexico.

*Thrasaetus harpya* Rovirosa, *Naturaleza*, 7 (1887): 376. Cerro del Tortuguero, Tabasco, 1 specimen, 1877; Frontera, Tabasco, 1 specimen, 1885; near San Juan Bautista, Tabasco, 1 specimen, 1886; between Ríos Puscatan and Tulija, Chiapas.

#### PANDIONIDAE

### \**Pandion haliaetus carolinensis* (Gmelin)

*Falco carolinensis* Gmelin, *Syst. Nat.*, 1, Pt. 1 (1788): 263. South Carolina (designated by *A. O. U. Check-List* [ed. 4; 1931], p. 72).

*Pandion haliaetus* Rovirosa, *Naturaleza*, 7 (1887): 377. Río Macuspana, Tabasco.

#### FALCONIDAE

### *Herpetotheres cachinnans chapmani* Bangs and Penard

*Herpetotheres cachinnans chapmani* Bangs and Penard, *Bull. Mus. Comp. Zool.*, 62 (1918): 37. Santa Lucía, Río Hondo, Quintana Roo.

*Herpetotheres cachinnans* Rovirosa, *Naturaleza*, 7 (1887): 377. Río Macuspana, Tabasco. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1901): 112. Teapa, Tabasco.

TABASCO: Tenosique, 3, June 15–28. CHIAPAS: El Aguacate, 1, July 17.  
CAMPECHE: Palizada, 1, July 27.

### *Falco albigularis albigularis* Daudin

*Falco albigularis* Daudin, *Traité Orn.*, 2 (1800): 131. Cayenne.

CHIAPAS: El Aguacate, 1, July 17.

## CRACIDAE

*Crax rubra rubra* Linnaeus

*Crax rubra* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 157. No locality.

*Crax globicera* Rovirosa, *Naturaleza*, 7 (1887): 380. Río Macuspana, Tabasco.

CHIAPAS: Palenque, 2, July 14.

*Penelope purpurascens purpurascens* Wagler

*Penelope purpurascens* Wagler, *Isis von Oken*, 23 (1830): col. 1110. Mexico. Rovirosa, *Naturaleza*, 7 (1887): 380. Río Macuspana, Tabasco.

TABASCO: 15 kilometers north of Reforma, 2, May 24; La Palma, 1, June 5; Tenosique, 1, June 11. CHIAPAS: El Aguacate, 1, July 17.

The specimen from Aguacate is a young bird only about 45 cm. in length. Below it is quite similar in plumage to adult birds. The area of the chin and throat, which is bare in the adult, is sparsely covered with small decomposed white feathers, with here and there large spiny feathers similar to those of the adult. The skin of the chin is light colored, instead of being blackish as in the adult. The breast feathers are bordered with white as in the adult. The belly has a grizzled appearance, caused by the buffy tips and dusky subterminal area of the feathers. The flanks and crissum are olive brown, indistinctly barred with chestnut, and with a dusky subterminal bar. The thighs also have a more reddish appearance than in the adult, due to similar markings. A large part of the top of the head is still in down. This is of a dark brown color on the forehead and behind the eye and chestnut on the occiput, with considerable whitish on the superciliary and postocular regions. The plumage is too far advanced to ascertain the pattern of the down, for the long olive crest feathers of the adult are growing in, as is also the malar stripe. There is a patch of blackish brown down on the ears. The scapulars and wing coverts are olive, but more brownish than in the adult, and with buff tips and a dusky subterminal bar. The back is still in down. There is a chestnut patch in the center of the upper back, bordered laterally by a long golden buff stripe which extends on the rump. The remainder of the back and rump is hair brown with a tuft of golden down here and there. The upper tail coverts are brownish olive, indistinctly banded with chestnut and dusky. The remiges and rectrices are in a stage of molt. The feathers just coming in are like those of the adult plumage. The juvenal ones being replaced are dark brown, mottled or irregularly banded with dusky, and reddish brown or buffy on the terminal part.

*Ortalis vetula jalapensis* Miller and Griscom

*Ortalis vetula jalapensis* Miller and Griscom, *Auk*, 38 (1921): 46. Jalapa, Veraacruz.

*Ortalida mc-calli* Rovirosa, *Naturaleza*, 7 (1887): 380. Río Macuspana, Tabasco.



*Ortalis vetula* Ogilvie-Grant, *Cat. Birds Brit. Mus.*, 22 (1893): 512. Teapa, Tabasco, 2 specimens, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1902): 280. Teapa.

VERACRUZ: Minatitlán, 2, April 28. TABASCO: Balancán, 2, May 16-17; 15 kilometers north of Reforma, 1, May 25; La Palma, 1, June 5; Tenosique, 1, June 17.

The one taken at Tenosique is only about half-grown. The skin measures about 35 cm. In plumage it is already exactly like the adults, except that it is just commencing to lose the juvenal flight feathers. The juvenal primaries are narrowly edged with buffy, and the secondaries and rectrices have a couple of buff bars at the tip.

## PHASIANIDAE

*Colinus virginianus godmani* Nelson

*Colinus godmani* Nelson, *Auk*, 14 (1897): 45. Jaltipán (type) and Minatitlán, Veracruz. *Ortyx godmani* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1903): 301. Jaltipán and Minatitlán, *vide* Nelson.

*Colinus virginianus minor* Nelson

*Colinus minor* Nelson, *Auk*, 18 (1901): 47. Palenque, Chiapas. *Cyrtonyx* sp. Roviroso, *Naturaleza*, 7 (1887): 380. Valle de Bulují and El Carmen, Tabasco; Río Tuliija, El Salto, and Cerro del Limón, Chiapas. *Ortyx pectoralis* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1903): 299. Palenque, *vide* Nelson.

CHIAPAS: Palenque, 1, July 11; El Aguacate, 4, July 18.

## MELEAGRIDAE

*Agriocharis ocellata* (Cuvier)

*Meleagris ocellata* Cuvier, *Mem. Mus. Hist. Nat.*, 6 (1820): 1, 4, Pl. 1. Gulf of Honduras.

TABASCO: La Palma, 1, June 6.

The only specimen secured is a bird in the down with the flight feathers just growing in. It is sexed as a female. I have compared it with two juvenile skins from Petén. These are in a more advanced stage, being two or three times the size of the Tabascan bird, but they still have the head and upper neck downy.

I am not aware of any published description of the downy stage of the ocellated turkey. The Tabascan specimen has the crown near cinnamon of Ridgway,<sup>21</sup> shading into cream-buff on sides of the head and cinnamon-buff on sides of neck; a longitudinal dusky brown spot along mid-line of crown, starting at a point even with the posterior margin of orbit and continuing on occiput; back and rump cinnamon with a large longitudinal spot of dusky

<sup>21</sup> *Color Standards and Color Nomenclature* (Washington, D. C.: Published by the Author, 1912). Pp. 44, 53 pls.

brown on center of upper back, another on lower back, a third on the rump, and with a lateral blotch of the same on either scapular area; lesser wing coverts pinkish buff, fading into light buff toward bend of wing; edge of wing mummy brown; throat cream; foreneck with a suggestion of a pale cinnamon-buff collar; posterior underparts cartridge buff, slightly tipped on the crissum with pale cinnamon; thighs cartridge buff with a stripe of dark brown along either side; under-surface of wings ivory yellow.

The remaining parts of the plumage are not in the down. Primaries and primary coverts dusky, tipped, edged externally, and irregularly blotched with pinkish buff; inner webs of secondaries similar; outer webs of secondaries cinnamon-buff, tipped with whitish, and with four black bands; bastard wing cinnamon, tipped with cinnamon-buff, and with three black bands, the inner webs mixed dusky and cinnamon-buff; greater and median wing coverts cinnamon (paling toward anterior part of wing), broadly tipped with white to form a conspicuous band on wing, with a subterminal black band divided medially by a whitish shaft streak, and with an irregular blotch of blackish on median and basal part of the feathers; rectrices pale cinnamon, tipped with whitish, and with three blackish crossbars.

In the dried skin the maxilla is tawny basally, whitish at tip, and with the two areas separated by a dusky mark; mandible cream-buff; tarsi and toes between cinnamon and tawny-olive.

Owing to the "make" of the skin, I am unable to state whether the brown line on the crown is continuous with the blotch on the upper back.

The older specimens from Petén have the lower neck, breast, belly, and rump brown, with whitish tips to the feathers. The crissum is pale cinnamon brown. The scapulars are cinnamon, tipped with white, with a subterminal blotch of dark brown on either web, and with the basal part dusky. The tertials are barred across by dark brown and cinnamon-buff; the lighter areas are speckled with dusky brown. Since the secondaries and rectrices have emerged further, more bars are visible than there were on the Tabasco specimen.

This turkey has not previously been recorded from Tabasco. A note on the label gives the local name as "Pavo de Monte."

#### ARAMIDAE

### *Aramus scolopaceus dolosus* Peters

*Aramus pictus dolosus* Peters, *Occ. Papers Boston Soc. Nat. Hist.*, 5 (1925): 144. Bolsón, Costa Rica.

TABASCO: La Palma, 1, June 4. CAMPECHE: Palizada, 2, July 26.

Birds from Tabasco and Campeche are somewhat intermediate toward *Aramus scolopaceus pictus* (Meyer) of Florida, since they have less white on the secondaries than typical *dolosus*, in which the white area is said to

extend for nearly 140 mm. They also have somewhat smaller measurements (Table III) than those published by Peters for either *pictus* or *dolosus*, and if these differences should prove constant upon examination of more material, the Mexican birds should probably be named.

TABLE III  
MEASUREMENTS OF *Aramus scolopaceus dolosus* AND *A. s. pictus*

Race and Sex	Locality	Wing	Exposed Culmen	Tarsus	Greatest Extent of White on Secondaries
<i>dolosus</i>					
♂	Petén	338	121	123	137
♀ (= ♂ ♀)	Campeche	313	116	110	96
♀	Campeche	292	108	110	107
♀	Tabasco	295	111	115	97.5*
<i>pictus</i>					
5 ♂	Florida	313-329	118-129	123-136	None
10 ♀	Florida	295-321	108-120	117-132	None

\* Most of the secondaries are without any white, except at the extreme base, as in *pictus*.

#### RALLIDAE

### *Aramides cajanea mexicana* Bangs

*Aramides albiventris mexicanus* Bangs, *Amer. Nat.*, 41 (1907): 178 (in key), 185. Buenavista, Veracruz.

TABASCO: San Isidro, 1, June 10; Tenosique, 1, June 17; Boca del Cerro, 1, July 4.

I have also examined two specimens in the Museum of Comparative Zoology, labeled as having been collected by G. S. Reynolds at "Tabascot, Mexico," on March 22, 1890.

After studying a series of *Aramides cajanea vanrossemi*, consisting of five birds from the Pacific coast of Chiapas, two from the Pacific coast of Guatemala, and three topotypes from Barra de Santiago, Salvador, I find that *vanrossemi* is darker than *albiventris*, both above and below, instead of being slightly paler as stated in the original description. With three of Dickey's original specimens before me, I am at a loss to understand this discrepancy, unless a slip of the pen was made. Van Tyne<sup>22</sup> has already shown that the colors of the soft parts of *albiventris* are not different from those of allied forms of wood rails, so now all of the characters originally attributed to *vanrossemi* have failed. It may be distinguished, however, by the following diagnosis.

Differs from *albiventris* in having the gray of the forehead and neck

<sup>22</sup> "The Birds of Northern Petén, Guatemala," *Misc. Publ. Mus. Zool. Univ. Mich.*, No. 27 (1935): 13.

darker; tawny of breast and sides darker; brown patch on occiput and nape much darker and less reddish; size larger. Differs from *mexicana* in larger size and in always possessing a white patch between the black belly and the tawny breast.

The three specimens from eastern Tabasco are almost halfway between *mexicana* from Veracruz and *albiventris* from Petén. The brownish crown patch is dark as in *mexicana*. The color of the breast is intermediate between the two forms. There is a white crescent anterior to the black belly, but this is not so extensive as in *albiventris*. The Tabascan birds are thus practically identical in coloration with *vanrossemi* of the Pacific coast, but they are smaller (Table IV) than that form, the feet especially.

According to a note on the labels, this rail is known locally as "Tutupana."

TABLE IV  
MEASUREMENTS OF *Aramides cajanea*

Sex	Race	Wing	Exposed Culmen	Tarsus	Middle Toe
1 ♂	<i>mexicana</i>	184	64	81	58.5
1 ♂	"Tabascot"	189	64.5	85.5	59
2 ♂	Eastern Tabasco	190-197	60-66	78-81.5	55.5-57
1 ♂	<i>albiventris</i>	197	71	83	58
3 ♂	<i>vanrossemi</i>	195-201	66-69.5	89.5-90	62-63.5
2 ♀	<i>mexicana</i>	180-183	62.5-64	76.5-78.5	56-57
1 ♀	"Tabascot"	173	61	75.5	59
1 ♀	Eastern Tabasco	187	57.5	73.5	52.5
4 ♀	<i>albiventris</i>	182-190	63-65	76-79	53-57.5
2 unsexed	<i>albiventris</i>	182-184	60-62	79-80.5	54.5-56
7 ♀	<i>vanrossemi</i>	184-196	64-66	82-87.5	55.5-63

### *Laterallus ruber* (Sclater and Salvin)

*Corethrura rubra* Sclater and Salvin, *Proc. Zool. Soc. London*, 1860, p. 300. Verapaz, Guatemala.

CAMPECHE: El Vapor, 2, July 30.

One of the birds taken is a good-sized young. It is entirely covered with down, only slightly glossed. The down is rather paler on the chin and on the auricular region. The bill is black, except for the extreme tips of both mandibles, which are whitish. The legs and toes are dark brown.

I am not much impressed with the characters attributed to the two described races of this rail. *Laterallus ruber tamaulipensis* (Nelson),<sup>23</sup> which was based on two specimens, is said to differ from *ruber* by having a longer and heavier bill and by having the chestnut mantle reduced to a collar, which

<sup>23</sup> *Creciscus ruber tamaulipensis* Nelson, "Two New Birds from Mexico," *Proc. Biol. Soc. Wash.*, 39 (1926): 105. Altamira, Tamaulipas.

is paler and less rufous than in the typical form. *Laterallus ruber ruberrimus* (Miller and Griscom)<sup>24</sup> was based on a single female, compared with two unsexed specimens of *ruber*. It is said to have a relatively shorter and stouter bill than *ruber* and to have chestnut extending over the entire upper parts, including the wing coverts.

We have five adult specimens of the species—a female from El Limón (below Córdoba), Veracruz; the female from El Vapor, Campeche; an unsexed bird from an unspecified locality in Petén; a male from Finca Chamá, Alta Verapaz; and a male from Belize, British Honduras.

Two of these birds (from Veracruz and Alta Verapaz) have the culmen 21 mm. in length, equaling the measurement published by Nelson for *tamaulipensis*. Three of them have actually deeper bills, and all five specimens have the bill proportionately deeper, in comparison with the length of the culmen, than stated for *tamaulipensis*.

The bird from Petén has the culmen as short as that of the type of *ruberrimus*. In actual measurements three of our birds have as deep or even deeper bills than the type, and in the one from Belize the bill is almost as stout relatively.

There is a good deal of variation in the extent of rufous on the dorsal surface. Two of the birds (from Petén and Belize) have the rufous extending on the wing coverts. In two others (from Campeche and Alta Verapaz) this color barely encroaches upon the mantle.

Dickey and van Rossem<sup>25</sup> remarked that of two specimens from El Salvador one is colored like *ruberrimus*, but the other is only slightly redder than *ruber*.

TABLE V  
MEASUREMENTS OF *Laterallus ruber*

Sex	Locality	Wing (mm.)	Culmen (mm.)	Depth of Bill (mm.)	Culmen into Depth (Per Cent)	Tarsus (mm.)	Middle Toe (mm.)
♂	Tamaulipas (type of <i>tamaulipensis</i> )	75	21	7	33.3	33	40
♀	Veracruz	80	21	8	38.1	33.5	39
♀	Campeche	76	19	7	36.8	30	36.5
♂	British Honduras	79	19.5	8	41.0	34	37
♀	Petén	74	18	7	38.8	31	36
♂	Alta Verapaz	80	21	7.5	35.7	32.5	39.5
♀	Nicaragua (type of <i>ruberrimus</i> )	79	18	7.5	41.6	31	37.5

<sup>24</sup> *Circus ruberrimus* Miller and Griscom, "Descriptions of Proposed New Birds from Central America . . .," *Amer. Mus. Novit.*, No. 25 (1921): 2. Jinotega, Nicaragua.

<sup>25</sup> "The Birds of El Salvador," *Field Mus. Nat. Hist. Zool. Ser.*, 23 (1938): 161.

In my opinion neither of the two described races should be accorded recognition on the basis of present information.

In Table V, the measurements of the types of *tamaulipensis* and *ruberimus* are taken from the describers' papers.

#### HELIORNITHIDAE

##### *Heliornis fulica* (Boddaert)

*Colymbus fulica* Boddaert, *Tabl. Pl. enlum.*, 1783, p. 54. Cayenne.

*Heliornis fulica* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1903): 331. Río Coatzacoalcos, Veracruz.

*Heliornis surinamensis* Sumichrast, *Naturaleza*, 5 (1882): 227. Río Coatzacoalcos, 2 specimens.

TABASCO: La Palma, 1, June 4. CHIAPAS: El Jabalinero, 2, July 8.

These three birds, all sexed as males, agree with a female from Panama in having the cheeks white below and along the black line down the neck. In a male from Brazil and a female from Ecuador this area is golden. I suspect that this is a seasonal or age difference.

#### JACANIDAE

##### *Jacana spinosa spinosa* (Linnaeus)

*Fulica spinosa* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 152. Panama (suggested by Todd, *Ann. Carnegie Mus.*, 10 [1916]: 219).

*Parra gymnostoma* Rovirosa, *Naturaleza*, 7 (1887): 382: "All the swamps of Tabasco."

*Jacana spinosa gymnostoma* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 8 (1919): 12. Teapa and San Juan Bautista, Tabasco.

*Asarcia variabilis* Sharpe, *Cat. Birds Brit. Mus.*, 24 (1896): 86. Teapa, "Vera Cruz," 1 specimen, January. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1903): 343. Teapa, Tabasco.

VERACRUZ: Minatitlán, 4, April 23-25. TABASCO: Balancán, 2, May 19-20; Boca del Cerro, 2, July 2. CAMPECHE: Palizada, 6, July 24-26.

After comparing a large series of jacanas from Mexico and Central America, I fail to correlate differences in color or shape of the lappet with locality and therefore propose that the race *gymnostoma* be suppressed.

#### CHARADRIIDAE

##### *Charadrius collaris* Vieillot

*Charadrius collaris* Vieillot, *Nouv. dict. hist. nat.*, 27 (1818): 136. Paraguay. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 8 (1919): 140. Monteeristo, Tabasco.

##### \**Charadrius vociferus vociferus* Linnaeus

*Charadrius vociferus* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 150. South Carolina.

*Aegialitis vociferus* Rovirosa, *Naturaleza*, 7 (1887): 382. Río Macuspana, Tabasco.

*Oxyechus vociferus* Sharpe, *Cat. Birds Brit. Mus.*, 24 (1896): 242. Teapa, Tabasco, 1 specimen, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1903): 355. Teapa.

## SCOLOPACIDAE

\**Numenius phaeopus hudsonicus* Latham

*Numenius hudsonicus* Latham, *Ind. Orn.*, 2 (1790): 712. Hudson Bay. Rovirosa, *Naturaleza*, 7 (1887): 384. Río Macuspana, Tabasco.

\**Totanus flavipes* (Gmelin)

*Scolopax flavipes* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 659. New York.

*Totanus flavipes* Rovirosa, *Naturaleza*, 7 (1887): 383. Río Macuspana, Tabasco.

VERACRUZ: Minatitlán, 4, April 25.

\**Totanus melanoleucus* (Gmelin)

*Scolopax melanoleuca* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 659. Chateau Bay, Labrador.

*Totanus melanoleucus* Rovirosa, *Naturaleza*, 7 (1887): 383. Río Macuspana, Tabasco.

VERACRUZ: Minatitlán, 1, April 26.

\**Tringa solitaria solitaria* Wilson

*Tringa solitaria* Wilson, *Amer. Orn.*, 7 (1813): 53, Pl. 58, Fig. 3. Pocono Mountain, Pennsylvania.

CAMPECHE: El Vapor, 1, July 31.

A female, with the wing measuring 126 mm., and with the outer primary immaculate.

\**Tringa solitaria cinnamomea* (Brewster)

*Totanus solitarius cinnamomeus* Brewster, *Auk*, 7 (1890): 377. San José del Cabo, Lower California.

CAMPECHE: El Vapor, 1, July 31.

A female, measuring 140 mm. on the wing, and with the inner web of the outer primary speckled with whitish.

\**Actitis macularia* (Linnaeus)

*Tringa macularia* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 249. Pennsylvania.

*Tringoides macularius* Rovirosa, *Naturaleza*, 7 (1887): 383. Río Macuspana, Tabasco.

*Tringoides macularia* Sharpe, *Cat. Birds Brit. Mus.*, 24 (1896): 468. Teapa, Tabasco, 1 specimen, February.

\**Capella delicata* (Ord)

*Scolopax delicata* Ord, in Wilson, *Amer. Orn.*, 9 (1825): 218. Pennsylvania.

*Gallinago delicata* Sharpe, *Cat. Birds Brit. Mus.*, 24 (1896): 642. Teapa, Tabasco, 3 specimens, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1903): 392. Teapa.

*Gallinago wilsoni* Rovirosa, *Naturaleza*, 7 (1887): 383. Río Macuspana, Tabasco.

\**Pisobia minutilla* (Vieillot)

*Tringa minutilla* Vieillot, *Nouv. dict. hist. nat.*, 34 (1819): 466. Halifax, Nova Scotia (restricted by *A. O. U. Check-List* [ed. 4; 1931], p. 120). Rovirosa, *Naturaleza*, 7 (1887): 383. Río Macuspana, Tabasco.

\**Pisobia melanotos* (Vieillot)

*Tringa melanotos* Vieillot, *Nouv. dict. nat. hist.*, 34 (1819): 462. Paraguay.

VERACRUZ: Minatitlán, 2, April 25.

## RECURVIROSTRIDAE

*Himantopus himantopus mexicanus* (P. L. S. Müller)

*Charadrius mexicanus* Müller, *Natursyst., Suppl.*, 1776, p. 117. Mexico.

*Himantopus nigricollis* Rovirosa, *Naturaleza*, 7 (1887): 383. Río Macuspana, Tabasco.

CAMPECHE: Palizada, 1, July 24.

## BURHINIDAE

*Burhinus bistriatus bistriatus* (Wagler)

*Charadrius bistriatus* Wagler, *Isis von Oken*, 22 (1829): col. 648. Mexico.

*Oedienemus bistriatus* Rovirosa, *Naturaleza*, 7 (1887): 382. Río Macuspana, Tabasco; El Limón and Santa Lucia, Chiapas.

## LARIDAE

\**Larus argentatus smithsonianus* Coues

*Larus smithsonianus* Coues, *Proc. Acad. Nat. Sci. Phila.*, 14 (1862): 296. North America.

Cooke, *Auk*, 57, No. 2 (1940): 250. Puerto México, Veracruz, and Alvaro Obregón, Tabasco.

\**Larus atricilla* Linnaeus

*Larus atricilla* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 136. Bahamas.

VERACRUZ: Minatitlán, 7, April 25.

\**Sterna hirundo hirundo* Linnaeus

*Sterna hirundo* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 137. Sweden.

VERACRUZ: Minatitlán, 4, April 25-26.

## COLUMBIDAE

*Columba rufina pallidicrissa* Chubb

*Columba pallidicrissa* Chubb, *Ibis*, 1910, p. 60. Costa Rica.

*Chloroenas rufina pallidicrissa* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 305. Montecristo, Tabasco; Palenque, Chiapas.

TABASCO: Tenosique, 1, June 29.

*Columba nigrirostris* Selater

*Columba nigrirostris* Selater, *Proc. Zool. Soc. London*, 1859 (1860): 380. Oaxaca.

TABASCO: 15 kilometers north of Reforma, 1, May 26.

\**Zenaidura macroura carolinensis* (Linnaeus)

*Columba carolinensis* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 286. South Carolina (restricted by *A. O. U. Check-List* [ed. 4; 1931], p. 153).

VERACRUZ: Minatitlán, 2, April 24-26.



*Zenaida asiatica asiatica* (Linnaeus)

*Columba asiatica* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 163. Jamaica (substituted by A. O. U. *Check-List* [ed. 4; 1931], p. 155).

*Melopelia leucoptera* Roviroso, *Naturaleza*, 7 (1887): 380. Río Macuspana, Tabasco.

*Columbigallina passerina pallescens* (Baird)

*Chamaepelia passerina?* var. *pallescens* Baird, *Proc. Acad. Nat. Sci. Phila.*, 1859 (1860): 305. Cape San Lucas, Lower California.

*Chaemepelia passerina pallescens* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 402. Río Macuspana, Tabasco, *vide* Roviroso.

*Chamaepelia passerina* Roviroso, *Naturaleza*, 7 (1887): 380. Río Macuspana, Tabasco.

*Columbigallina talpacoti rufipennis* (Bonaparte)

*Chamaepelia rufipennis* Bonaparte, *Compt. rend. acad. sci. Paris*, 40 (1855): 22. Cartagena, Colombia. Salvadori, *Cat. Birds Brit. Mus.*, 21 (1893): 487. Teapa, Tabasco, 7 specimens, February, March. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1902): 253. Teapa, Tabasco.

*Chaemepelia rufipennis rufipennis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 424. Teapa and San Juan Bautista, Tabasco.

TABASCO: Balancán, 2, May 20; Tenosique, 2, June 27–29; Boca del Cerro, 2, July 4. CHIAPAS: El Jabalinero, 1, July 7.

The Jabalinero specimen is a nearly full-grown young.

*Columbigallina minuta interrupta* (Griscom)

*Chaemepelia minuta interrupta* Griscom, *Amer. Mus. Novit.*, No. 379 (1929): 4. Secanquim, Guatemala.

*Chaemepelia minuta elaeodes* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 422. Montecristo, Tabasco.

TABASCO: Tenosique, 1, June 13.

*Leptotila verreauxi fulviventris* Lawrence

*Leptotila fulviventris* Lawrence, *Ann. N. Y. Acad. Sci.*, 2 (1882): 287. Yucatán.

*Leptotila brachyptera* Salvadori, *Cat. Birds Brit. Mus.*, 21 (1893): 545. Teapa, Tabasco, 3 specimens, January, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1902): 257. Teapa, Tabasco.

*Leptotila fulviventris fulviventris* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 451. Montecristo and Teapa, Tabasco.

TABASCO: Reforma, 1, May 22.

*Leptotila plumbeiceps plumbeiceps* Selater and Salvin

*Leptotila plumbeiceps* Selater and Salvin, *Proc. Zool. Soc. London*, 1868, p. 59. Choctum, Alta Verapaz, Guatemala. Salvadori, *Cat. Birds Brit. Mus.*, 21 (1893): 550. Teapa, Tabasco, 4 specimens, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1902): 261, Pl. 67, Fig. 1. Teapa, Tabasco. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 462. Teapa and Frontera, Tabasco.

TABASCO: Reforma, 1, May 22.

*Leptotila cassini cerviniventris* Sclater and Salvin

*Leptotila cerviniventris* Sclater and Salvin, *Proc. Zool. Soc. London*, 1868, p. 59. Choctum, Alta Verapaz, Guatemala.

TABASCO: Tenosique, 3, June 17–28; Santo Tomás, 1, June 22.

These are the second specimens of this species to be recorded from Mexico. One collected on June 17 is molting from juvenal plumage (similar to that described by Ridgway for *L. c. cassini*) to that of the adult.

*Oreopeleia montana* (Linnaeus)

*Columba montana* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 163. Jamaica.

*Oreopeleia montana* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 478. Teapa, Tabasco.

TABASCO: La Palma, 3, June 2; Santo Tomás, 1, June 21. CHIAPAS: Palenque, 1, July 12.

The Palenque specimen is in juvenal plumage.

## PSITTACIDAE

*Ara macao* (Linnaeus)

*Psittacus macao* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 96. South America.

*Ara macao* Rovirosa, *Naturaleza*, 7 (1887): 372. Río Macuspana, Río Chilapilla, and San Diego, Tabasco; rare in sierras of Chiapas.

*Aratinga astec astec* (Souancé)

*Conurus astec* Souance, *Rev. et mag. zool.*, ser. 2, 9 (1857): 97. Mexico.

*Conurus aztecus* Rovirosa, *Naturaleza*, 7 (1887): 374. Río Macuspana, Tabasco.

*Conurus aztec* Salvadori, *Cat. Birds Brit. Mus.*, 20 (1891): 192. Teapa, Tabasco, 2 specimens, March. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1897): 575. Teapa, Tabasco.

*Eupsittula astec* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 171. Frontera, Teapa, and San Juan Bautista, Tabasco.

VERACRUZ: Minatitlán, 6, April 30–May 1. TABASCO: Balancán, 3, May 9–15.

*Pionopsitta haematotis haematotis* (Sclater and Salvin)

*Pionus haematotis* Sclater and Salvin, *Proc. Zool. Soc. London*, 1860, p. 300. Verapaz, Guatemala.

CAMPECHE: El Vapor, 2, July 31.

*Pionus senilis* (Spix)

*Psittacus senilis* Spix, *Av. Bras.*, 1 (1824): 42, Pl. 31, Fig. 1, Veraeruz (designated by Griscom, *Amer. Mus. Novit.*, No. 379 [1929]: 6).

TABASCO: Tenosique, 1, June 15; Santo Tomás, 1, June 24. CAMPECHE: El Vapor, 3, July 31.

There is a great deal of variation in this species with respect to sex and age, so much so, in fact, that after examining the series of the University of Michigan and the Museum of Comparative Zoology I was unable to confirm the proposed southern race, *P. s. decoloratus* Griscom.

*Amazona albifrons nana* Miller

*Amazona albifrons nana* Miller, *Bull. Amer. Mus. Nat. Hist.*, 21 (1905): 349. Calotmul, Yucatán. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 257. Palenque, Chiapas.

*Chrysotis albifrons* Rovirosa, *Naturaleza*, 7 (1887): 373. Río Macuspana, Tabasco.

TABASCO: Reforma, 8, May 23.

*Amazona autumnalis autumnalis* (Linnaeus)

*Psittacus autumnalis* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 102. Southern Mexico.

*Chrysotis autumnalis* Rovirosa, *Naturaleza*, 7 (1887): 373. Río Macuspana, La Encrucijada, Río Chilapa, Río Chilapilla, Laguna del Congo, and Arroyo San Carlos, Tabasco.

TABASCO: Reforma, 2, May 23; 15 kilometers north of Reforma, 2, May 28-29; La Palma, 1, June 2.

*Amazona ochrocephala oratrix* Ridgway

*Amazona oratrix* Ridgway, *Man. North Amer. Birds*, 1887, p. 587. Petapa, Oaxaca.

TABASCO: 15 kilometers north of Reforma, 1, May 26.

CUCULIDAE

\**Coccyzus americanus americanus* (Linnaeus)

*Cuculus americanus* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 111. South Carolina.

TABASCO: Balancán, 2, May 10.

Measurements of these birds are as follows: wing, male, 146, female, 145 mm.; tail, male, 145, female, 141 mm.

\**Coccyzus americanus occidentalis* Ridgway

*Coccyzus americanus occidentalis* Ridgway, *Man. North Amer. Birds*, 1887, p. 273. Santa Rita Mountains, Arizona.

TABASCO: Reforma, 1, May 22.

A male, with the wing measuring 150 mm.; tail, 146 mm.

*Piaya cayana thermophila* Sclater

*Piaya thermophila* Sclater, *Proc. Zool. Soc. London*, 1859, p. 368. Jalapa, Veracruz.

*Piaya cayana thermophila* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 47. Teapa, Frontera, San Juan Bautista, and Atasta, Tabasco.

*Piaya cayana* Shelley, *Cat. Birds Brit. Mus.*, 19 (1891): 373. Teapa, Tabasco, 2 specimens, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1896): 528. Teapa, Tabasco.

VERACRUZ: Minatitlán, 1, April 30. TABASCO: La Palma, 1, June 2.  
CHIAPAS: Palenque, 1, July 15.

These three specimens, all males, have remarkably short tails, 237–248 mm. in length. In fifteen males from Yucatán, southern Chiapas, Costa Rica, and Panama the tail measures 252–276 mm.

*Tapera naevia excellens* (Selater)

*Diplopterus excellens* Selater, *Proc. Zool. Soc. London*, 1857 (1858): 229. Southern Mexico.

*Tapera naevia excellens* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 67. Teapa, Tabasco.

*Diplopterus naevius* Shelley, *Cat. Birds Brit. Mus.*, 19 (1891): 423. Teapa, Tabasco, 4 specimens, February, March. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1896): 540. Teapa, Tabasco.

VERACRUZ: Minatitlán, 1, April 28. TABASCO: Tenosique, 6, June 13–29.

I have also been able to examine one of the skins which Mrs. Smith collected at Teapa in March, 1888.

*Crotophaga sulcirostris sulcirostris* Swainson

*Crotophaga sulcirostris* Swainson, *Phil. Mag.*, new ser., No. 6 (1827): 440. Temascaltepec, State of Mexico. Shelley, *Cat. Birds Brit. Mus.*, 19 (1891): 432. Teapa, Tabasco, 2 specimens, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1896): 545. Teapa, Tabasco. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 7 (1916): 94. Tabasco.

VERACRUZ: Minatitlán, 1, April 23.

TYTONIDAE

*Tyto alba pratincola* (Bonaparte)

*Strix pratincola* Bonaparte, *Geogr. Comp. List Birds Europe and N. Amer.*, 1838, p. 7. Pennsylvania, ex Wilson.

*Strix flammea*, var. *americana* Roviroso, *Naturaleza*, 7 (1887): 375. Macuspana to the Gulf of Mexico, Tabasco.

STRIGIDAE

*Bubo virginianus mayensis* Nelson

*Bubo virginianus mayensis* Nelson, *Proc. Biol. Soc. Wash.*, 14 (1901): 170. Chichen Itzá, Yucatán.

*Bubo virginianus* Roviroso, *Naturaleza*, 7 (1887): 375. Macuspana to Gulf of Mexico, Tabasco.

*Glaucidium brasilianum ridgwayi* Sharpe

*Glaucidium ridgwayi* Sharpe, *Ibis*, 1875, p. 55 in text. Mexico.

*Glaucidium brasilianum ridgwayi* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 798. Frontera and Teapa, Tabasco.

*Glaucidium phalaenoides* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1897): 33. Teapa, Tabasco.

*Ciccaba virgata centralis* Griscom

*Ciccaba virgata centralis* Griscom, *Bull. Mus. Comp. Zool.*, 69 (1929): 159. Chivela, Oaxaca.

*Ciccaba virgata* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 3 (1897): 29. Teapa, Tabasco.

*Ciccaba virgata virgata* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 763. Minatitlán, Veracruz; Teapa and Montecristo, Tabasco.

TABASCO: Tenosique, 1, June 29.

This bird has a plain white crissum and light-colored, unbarred feet. It is somewhat intermediate toward *Ciccaba virgata eatoni* Kelso and Kelso,<sup>26</sup> of Campeche, but agrees with *centralis* in having dark upperparts and a prominent breast band. J. L. Peters<sup>27</sup> considers *eatoni* to be the light phase of *centralis*. While it is true that there is a great deal of individual variation among these owls at any given locality, I believe that if birds in the same phase are compared the characters of *eatoni* are constant enough to warrant its recognition.

The Tenosique specimen is molting the primaries.

## NYCTIBIIDAE

*Nyctibius griseus mexicanus* Nelson

*Nyctibius jamaicensis mexicanus* Nelson, *Auk*, 17 (1900): 260. Metlaltoyuca, Puebla.

*Nyctibius griseus mexicanus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 592. Teapa, Tabasco.

*Nyctibius jamaicensis* Hartert, *Cat. Birds Brit. Mus.*, 16 (1892): 625. Teapa, Tabasco, 1 specimen, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1894): 399. Teapa, Tabasco.

## CAPRIMULGIDAE

*Chordeiles acutipennis micromeris* Oberholser

*Chordeiles acutipennis micromeris* Oberholser, *Bull. U. S. Nat. Mus.*, No. 86 (1914): 24 (in key), 100. Xbac, Yucatán. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 577. Montecristo, Tabasco; Palenque, Chiapas.

*Nyctidromus albicollis yucatanensis* Nelson

*Nyctidromus albicollis yucatanensis* Nelson, *Proc. Biol. Soc. Wash.*, 14 (1901): 171. Tunkas, Yucatán. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 543. Montecristo, Tabasco.

*Nyctidromus albicollis* Hartert, *Cat. Birds Brit. Mus.*, 16 (1892): 587. Teapa, Tabasco, 5 specimens, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1894): 393. Teapa, Tabasco.

*Nyctidromus albicollis albicollis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 537. Palenque, Chiapas.

<sup>26</sup> "A New *Ciccaba* from Southeastern Mexico and Northern Guatemala," *Auk*, 53 (1936): 215.

<sup>27</sup> *Check-list of the Birds of the World* (Cambridge: Harvard Univ. Press, 1940), 4: 154.

*Nyctidromus albicollis sumichrasti* Ridgway, *Proc. Biol. Soc. Wash.*, 25 (1912): 91. "Teapa," Tabasco, March 19 (the type was actually collected at Frontera, not Teapa; cf. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 [1914]: 544, note d). Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 543. Frontera and Teapa, Tabasco, March.

VERACRUZ: Minatitlán, 1, April 27. TABASCO: Balancán, 6, May 10-16; Tenosique, 2, June 27.

I have also examined a specimen which Goldman collected at Teapa on March 18, 1900.

Although Ridgway states that *sumichrasti* is larger than *yucatanensis*, the present series is actually somewhat smaller than are the Yucatán birds. Wing measurements of five specimens of each sex from Tabasco and Minatitlán are as follows: males, 157-168.5 mm.; females, 157-166 mm. Wing measurements of ten males and six females from Yucatán are: males, 163-175 mm.; females, 163.5-173 mm. The birds from southern Veracruz and Tabasco average slightly darker than Yucatán birds, but I agree with Griscom and with Peters that the difference is not well enough marked for the recognition of *sumichrasti* as a distinct race, since too many specimens would be indeterminable.

\**Caprimulgus vociferus vociferus* Wilson

*Caprimulgus vociferus* Wilson, *Amer. Orn.*, 5 (1812): 71, Pl. 41, Figs. 1-3. Pennsylvania. *Antrostomus vociferus* Roviroa, *Naturaleza*, 7 (1887): 369. Río Macuspana, Tabasco.

TROCHILIDAE

*Phoethornis longirostris veraecrucis* Ridgway

*Phaethornis longirostris veraecrucis* Ridgway, *Proc. Biol. Soc. Wash.*, 23 (1910): 54. Buenavista, Veracruz.

*Phoethornis longirostris veraecrucis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 323. Teapa, Tabasco.

CHIAPAS: Palenque, 3, July 10-14.

Goldman secured two of these hummingbirds at Teapa on April 7, 1900. The male has pure white tips to the lateral rectrices, except for the basal part of the light spot on the inner webs. The female has all the lateral rectrices decidedly buffy on both webs, although on the more central lateral feathers the buff, besides being paler, is confined to the basal part of the light spot.

*Phoethornis longirostris longirostris* (Delattre)

*Ornismya longirostris* Delattre, *Echo du monde savant*, No. 45 (June 15, 1843): col. 1070. Guatemala.

TABASCO: La Palma, 1, June 2.

*Phoethornis adolphi adolphi* Gould

*Phaethornis adolphi* Gould, *Mon. Trochil.*, 1, Pt. 14 (1857): Pl. 35 and text. Córdoba, Veracruz.

*Pygmornis adolphi* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1892): 319. Teapa, Tabasco. Salvin, *Cat. Birds Brit. Mus.*, 16 (1892): 282. Teapa, Tabasco, 2 specimens, February.

*Phoethornis adolphi adolphi* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 324. Frontera, Tabasco; Palenque, Chiapas.

CHIAPAS: Palenque, 1, July 11.

*Campylopterus hemileucurus* (Lichtenstein)

*Trochilus hemileucurus* Lichtenstein, *Vögel, Preis-Verz. Mex.*, 1830, p. 1. Mexico.

*Campylopterus hemileucurus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 358. Teapa, Tabasco.

I have examined two males which Goldman collected at Teapa.

*Florisuga mellivora mellivora* (Linnaeus)

*Trochilus mellivora* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 121. Guiana.

CHIAPAS: Palenque, 1, July 13.

*Agyrtria candida candida* (Bourcier and Mulsant)

*Trochilus candidus* Bourcier and Mulsant, *Ann. sci. phys. et nat. Lyons*, 9 (1846): 326. Cobán, Alta Verapaz, Guatemala.

*Agyrtria candida* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 432. Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Balancán, 3, May 11-17; Tenosique, 1, June 15. CHIAPAS: Palenque, 3, July 12-13.

*Amazilis tzacatl tzacatl* (De la Llave)

*Trochilus tzacatl* De la Llave, *Registro trimestre*, 2 (1833): 48. Mexico.

*Amizilis tzacatl tzacatl* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 408. Teapa, Frontera, and San Juan Bautista, Tabasco.

*Amazilia riefferi* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1892): 300. Teapa, Tabasco. Salvin, *Cat. Birds Brit. Mus.*, 16 (1892): 216. Teapa, Tabasco, 4 specimens, March.

VERACRUZ: Minatitlán, 1, April 27. TABASCO: Balancán, 2, May 11-13; La Palma, 2, June 1-6; Boca del Cerro, 2, July 1-3. CHIAPAS: Palenque, 2, July 13. CAMPECHE: Palizada, 1, April 27.

*Amazilis yucatanensis cerviniventris* Gould

*Amazilius cerviniventris* Gould, *Proc. Zool. Soc. London*, 1856, p. 150. Córdoba, Veracruz.

*Amizilis yucatanensis cerviniventris* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 414. Coatzacoalcos, Veracruz.

*Amizilis yucatanensis yucatanensis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 412. San Juan Bautista, Tabasco.

CAMPECHE: Palizada, 1, July 27.

Traylor<sup>28</sup> records a specimen from Pacaitun, Campeche, as *yucatanensis*. The Palizada bird is definitely *cerviniventris*, since it agrees with two skins from Tierra Colorada, Veracruz, in being decidedly paler than is a series from Yucatán.

*Chlorostilbon canivetii canivetii* (Lesson)

*Ornismya canivetii* Lesson, *Hist. nat. colibris, suppl. Ois.-Mouch.*, 1830, pp. 174, 177, Pls. 37, 38. "Brésil."

*Chlorostilbon canivetii canivetii* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 553. Jaltipán, Veracruz.

*Anthracothorax prevostii prevostii* (Lesson)

*Trochilus prevostii* Lesson, *Hist. nat. colibris*, 1830, p. 87. No locality.

*Anthracothorax prevostii prevostii* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 463. Coatzacoalcos, Veracruz; Palenque, Chiapas.

VERACRUZ: Minatitlán, 1, May 1. CAMPECHE: Palizada, 2, July 25.

*Anthoscenus longirostris pallidiceps* (Gould)

*Helimaster pallidiceps* Gould, *Introd. Troch.*, 1861, p. 139. Jalapa, Veracruz.

TABASCO: Tenosique, 1, June 15.

\**Archilochus colubris* (Linnaeus)

*Trochilus colubris* Linnaeus, *Syst. Nat.*, ed 10; 1 (1758): 120. Carolina.

*Archilochus colubris* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 629. Frontera, Tabasco.

TROGONIDAE

*Trogon collaris puella* Gould

*Trogon puella* Gould, *Proc. Zool. Soc. London*, 1845, p. 18. Esecuintla, Guatemala.

*Trogonurus puella* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 775. Teapa, Tabasco.

TABASCO: Santo Tomás, 2, June 21-24.

*Trogon melanocephalus melanocephalus* Gould

*Trogon melanocephalus* Gould, *Mon. Trogon.*, 1838, Pl. 12. Tamaulipas. Ogilvie-Grant, *Cat. Birds Brit. Mus.*, 17 (1892): 462. Teapa, Tabasco, 4 specimens, February, March. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1896): 498. Teapa, Tabasco.

*Trogon melanocephalus melanocephalus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 756. Minatitlán and Coatzacoalcos, Veracruz; Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Balancán, 6, May 13-17; Reforma, 1, May 22; Boca del Cerro, 1, July 4. CHIAPAS: Aguacate, 1, July 18.

<sup>28</sup> "Birds from the Yucatan Peninsula," *Zool. Ser. Field Mus. Nat. Hist.*, 24, No. 19 (1941): 208.



*Trogon violaceus sallaei* Bonaparte

*Trogon sallaei* Bonaparte, *Compt. rend. acad. sci. Paris*, 42 (1856): 955, note. Near Córdoba, Veracruz.

*Trogon caligatus* Ogilvie-Grant, *Cat. Birds Brit. Mus.*, 17 (1892): 465. Teapa, Tabasco, 4 specimens, January, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1896): 500. Teapa, Tabasco.

*Chrysotrogon caligatus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 786. Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Tenosique, 1, June 13. CHIAPAS: Palenque, 1, July 15.

*Trogon massena massena* Gould

*Trogon massena* Gould, *Mon. Trogon.*, 1838, Pl. 16. Guatemala. Ogilvie-Grant, *Cat. Birds Brit. Mus.*, 17 (1892): 474. Teapa, Tabasco, 1 specimen, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1896): 503. Teapa, Tabasco.

*Curucujus massena* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 744. Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Reforma, 1, May 22; 15 kilometers north of Reforma, 1, May 25; La Palma, 1, June 1; San Isidro, 3, June 8-10; Tenosique, 2, June 15-28; Santo Tomás, 1, June 23.

Males from Panama and Costa Rica have the wing coverts with more white, and females are lighter gray above than specimens from Mexico, British Honduras, and Guatemala.

## ALCEDINIDAE

*Megaceryle torquata torquata* (Linnaeus)

*Alcedo torquata* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 180. Mexico.

*Ceryle torquata?* Roviroso, *Naturaleza*, 7 (1887): 369. Río Macuspana, Tabasco.

*Ceryle torquata* Sharpe, *Cat. Birds Brit. Mus.*, 17 (1892): 121. Teapa, Tabasco, 1 specimen, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1895): 474. Teapa, Tabasco.

*Streptoceryle torquata torquata* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 409. Teapa, Tabasco.

VERACRUZ: Minatitlán, 1, April 26. TABASCO: Balancán, 1, May 15. CHIAPAS: El Jabalínero, 1, July 8.

\**Megaceryle alcyon alcyon* (Linnaeus)

*Alcedo alcyon* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 115. Carolina.

*Ceryle alcyon* Roviroso, *Naturaleza*, 7 (1887): 370. Río Macuspana, Tabasco.

*Chloroceryle amazona mexicana* Brodkorb

*Chloroceryle amazona mexicana* Brodkorb, *Auk*, 57 (1940): 543. Barra de Cahuacán, Chiapas.

*Ceryle amazona* Sharpe, *Cat. Birds Brit. Mus.*, 17 (1892): 129. Teapa, "Vera Cruz," 1 specimen, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1895): 475. Teapa, Tabasco.

*Chloroceryle amazona* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 424. Teapa, Tabasco.

VERACRUZ: Minatitlán, 1, April 26. TABASCO: Balancán, 1, May 15.

*Chloroceryle americana septentrionalis* (Sharpe)

*Ceryle septentrionalis* Sharpe, *Cat. Birds Brit. Mus.*, 17 (1892): 134. Teapa, Tabasco, 6 specimens (including type), January, March. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1895): 476. Teapa, Tabasco.

*Chloroceryle americana septentrionalis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 431. Teapa, Tabasco.

TABASCO: 15 kilometers north of Reforma, 1, May 27; Tenosique, 2, June 16.

The northern limits of *septentrionalis* are in need of further investigation. In the original description of *Chloroceryle americana leucosticta*, van Rossem and Hachisuka assign a specimen in the Biological Survey collection from Brownsville, Texas, to *septentrionalis*. Yet four Brownsville specimens in the University of Michigan collection appear to me to be unequivocally *leucosticta*, and one of them has since even been labeled as such by Mr. van Rossem.

*Chloroceryle aenea stictopectera* (Ridgway)

*Ceryle superciliosa stictopectera* Ridgway, *Proc. Biol. Soc. Wash.*, 2 (1885): 95. Sisal, Yucatán.

TABASCO: Balancán, 1, May 11. CHIAPAS: El Jabalinero, 1, July 8.

MOMOTIDAE

*Momotus momota goldmani* Nelson

*Momotus lessonii goldmani* Nelson, *Auk*, 17 (1900): 256. Motzorongo, Veracruz. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 460. Minatitlán, Veracruz; Frontera and Teapa, Tabasco.

*Momotus lessonii* Sharpe, *Cat. Birds Brit. Mus.*, 17 (1892): 324. Teapa, Tabasco, 4 specimens, February, March. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1895): 456. Teapa, Tabasco.

*Momotus lessonii lessonii* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 457. Palenque, Chiapas.

VERACRUZ: Minatitlán, 1, April 24. TABASCO: La Palma, 1, June 1; Tenosique, 3, June 14-15; Boca del Cerro, 1, July 3.

Ridgway stated that *goldmani* is greener than *exiguus*, but the reverse is true in our series.

*Eumomota superciliosa superciliosa* (Sandbach)

*Pyronites superciliosus* Sandbach, *Athenaeum*, No. 517 (Sept. 23, 1837): 698. Mexico.

*Eumomota superciliosa superciliosa* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 478. Montecristo and Teapa, Tabasco.

TABASCO: La Ribera, 1, July 1; Boca del Cerro, 2, July 3-4.

*Electron carinatus carinatus* (Du Bus)

- Prionites carinatus* Du Bus, *Bull. acad. roy. Belg.*, 14 Pt. 2 (1847): 108. Guatemala.  
*Electron carinatus carinatus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 474.  
 Teapa, Tabasco.

*Hylomanes momotula momotula* Lichtenstein

- Hylomanes momotula* Lichtenstein, *Abh. könig. Akad. Wiss. Berlin*, 1838, p. 149. Valle Real (Veracruz?).  
*Hylomanes momotula momotula* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 485. Santa Lucrecia, Veraacruz; Teapa, Tabasco.

TABASCO: Tenosique, 1, June 17; Santo Tomás, 2, June 21–23.

These birds are much darker than is a series from Petén.

## BUCCONIDAE

*Malacoptila panamensis inornata* (Du Bus)

- Monasa inornata* Du Bus, *Bull. acad. roy. Belg.*, 14, Pt. 2 (1847): 107. Guatemala.  
*Malacoptila panamensis inornata* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 390. Teapa, Tabasco.

TABASCO: Santo Tomás, 1, June 24. CHIAPAS: Palenque, 1, July 11.

## GALBULIDAE

*Galbula melanogenia* Selater

- Galbula melanogenia* Selater, *Jardine's Contrib. Orn.*, 1852, p. 61, Pls. 90, 93. Veragua.  
 Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 366. Palenque, Chiapas.

TABASCO: La Palma, 1, June 3; Tenosique, 2, June 29. CHIAPAS: Palenque, 4, July 10–12.

## RAMPHASTIDAE

*Ramphastos sulfuratus sulfuratus* Lesson

- Ramphastos sulfuratus* Lesson, *Traité orn.*, livr. 3 (1830): 173. Mexico.  
*Ramphastos carinatus* Rovirosa, *Naturaleza*, 7 (1887): 371. Río Macuspana, Tabasco.  
*Ramphastos carinatus* Selater, *Cat. Birds Brit. Mus.*, 19 (1891): 125. Teapa, Tabasco,  
 1 specimen. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1896): 552.  
 Teapa, Tabasco.  
*Ramphastos piscivorus piscivorus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 332. Teapa, Tabasco.

TABASCO: La Palma, 3, June 1–7; Tenosique, 2, June 15; Santo Tomás, 3, June 23; Boca del Cerro, 1, July 2. CHIAPAS: El Jabalero, 2, July 8.

Two of the specimens taken on June 23 are young birds.

Measurements of the nonmolting adults collected are as follows: wing, male, 211–213 (female, 205–208); tail, male, 161–174 (female, 152–160); culmen, male, 146–168 (female, 130–142 mm.). All of them have at least a trace of red between the yellow throat and the black breast. Thus they

approach the recently described *Ramphastos sulfuratus intermedius* Carriker and De Schauensee,<sup>29</sup> from Quiriguá, Guatemala, but they have the large size of typical *sulfuratus*.

The local name of this toucan was recorded as "Pito real."

*Pteroglossus torquatus torquatus* (Gmelin)

- Ramphastos torquatus* Gmelin, *Syst. Nat.*, 1, Pt. 1 (1788): 354. Veracruz, Veracruz (restricted by Brodkorb, *Occ. Papers Mus. Zool. Univ. Mich.*, No. 401 [1939]: 6).  
*Pteroglossus torquatus* Rovirosa, *Naturaleza*, 7 (1887): 371. Río Macuspana, Tabasco. Selater, *Cat. Birds Brit. Mus.*, 19 (1891): 141. Teapa, Tabasco, 4 specimens. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1896): 555. Teapa, Tabasco.  
*Pteroglossus torquatus torquatus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 342. Teapa, Tabasco; Palenque, Chiapas.

TABASCO: 15 kilometers north of Reforma, 1, May 28; La Palma, 2, May 31–June 2; Tenosique, 3, June 13–14.

I have also examined two Nelson and Goldman specimens, taken at Teapa on April 19 and at Palenque on May 17, 1900, respectively.

The birds from the base of the Yucatán Peninsula, as far as Palenque, eastern Tabasco, Petén, Alta Verapaz, and British Honduras, are variously intermediate between *torquatus* and *erythrozonus*. The black spot on the breast is sometimes wholly absent, as in the most extreme *erythrozonus*; in more specimens it is larger than in many skins of *torquatus*, although apparently never reaching the maximum size for that form. The amount of red on the underparts is also variable, although I believe that the value of this character has been overemphasized in differentiating the two forms. A previously unnoticed difference between *torquatus* and *erythrozonus* is that the former has a bluish back, whereas the latter has a greener tone similar

TABLE VI

MEASUREMENTS OF *Pteroglossus torquatus torquatus* AND *P. t. erythrozonus*

Race	Sex	Wing (mm.)	Tail (mm.)	Culmen (mm.)
<i>torquatus</i> .....	12 ♂	141–151	146.5–164	86.5–110.5
Eastern Tabasco and northern Chiapas .....	5 ♂	137–145	144–152	84.5–100.5
Northern Guatemala and British Honduras .....	3 ♂	137–141	140–156	86–96
<i>erythrozonus</i> .....	3 ♂	130–136	140–140.5	76.5–87
<i>torquatus</i> .....	3 ♀	145–151	148–160.5	90–98.5
Eastern Tabasco .....	2 ♀	140–144	141–150	89–95.5
Northern Guatemala and British Honduras .....	5 ♀	130–133	140–150	78–85
<i>erythrozonus</i> .....	2 ♀	132–133	128–134	75–83.5

<sup>29</sup> "An Annotated List of Two Collections of Guatemalan Birds in the Academy of Natural Sciences of Philadelphia," *Proc. Acad. Nat. Sci. Phila.*, 87 (1935): 427.

to that of *esperanzae*. The birds from the base of the peninsula exhibit considerable variation in back color. In size they are also intermediate, though perhaps a trifle closer to *torquatus* (Table VI).

The Teapa specimen is a good *torquatus* on the basis of both color and size. It is a male and measures as follows: wing, 147, tail, 157, culmen, 100.5 mm.

## PICIDAE

*Piculus rubiginosus yucatanensis* (Cabot)

*Picus yucatanensis* Cabot, *Proc. Boston Soc. Nat. Hist.*, 1 (1844): 164. Yucatán.

*Chloronerpes yucatanensis* Hargitt, *Cat. Birds Brit. Mus.*, 18 (1890): 84. Teapa, Tabasco, 3 specimens. Salvin and Godman, *Biol. Centrali-Amer.*, 2 (1895): 407. Teapa, Tabasco.

*Chloronerpes rubiginosus yucatanensis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 131. Teapa and Frontera, Tabasco.

TABASCO: Reforma, 1, May 23; La Palma, 1, June 5; Tenosique, 1, June 27; Boca del Cerro, 1, July 2.

This series agrees well with birds from Yucatán, except that the male from Boca del Cerro is a little larger and has less golden color on the back, thus being somewhat intermediate toward *P. r. maximus* Griscom of the uplands of Guatemala. It measures: wing, 127, tail, 73 mm.

*Balanosphyra formicivora albeola* (Todd)

*Melanerpes formicivorus albeolus* Todd, *Proc. Biol. Soc. Wash.*, 23 (1910): 153. Near Manatee, British Honduras.

*Balanosphyra formicivora formicivora* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 102. Palenque, Chiapas.

TABASCO: Balancán, 2, May 11-19. CHIAPAS: El Aguacate, 1, July 16.

This race of the ant-eating woodpecker was unrecorded from Mexico.

When Dickey and van Rossem<sup>30</sup> described *lineata* from El Salvador they did not have *albeola* for comparison. I find that specimens from the Pacific side of Guatemala and Chiapas, currently assigned to *lineata*, are exceedingly close to *albeola*. The differences (yellowish throat and bolder black streaking below in *lineata*) are only average and in the direction of *striatipectus* of Costa Rica. In a long series from British Honduras there are a number of individuals which can be matched perfectly with specimens from southern Chiapas and Guatemala.

*Tripsurus pucherani perileucus* (Todd)

*Melanerpes pucherani perileucus* Todd, *Proc. Biol. Soc. Wash.*, 23 (1910): 153. Near Manatee, British Honduras.

*Tripsurus pucherani perileucus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 122. Teapa, Tabasco; Palenque, Chiapas.

<sup>30</sup> "Seven New Birds from Salvador," *Proc. Biol. Soc. Wash.*, 40 (1927): 1.

*Centurus santacruzi veraecrucis* (Nelson)

- Melanerpes dubius veraecrucis* Nelson, *Auk*, 17 (1900): 259. Coatzacoalcos, Veraacruz.  
*Centurus dubius veraecrucis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 68.  
 Coatzacoalcos, Veraacruz; Frontera, Montecristo, Atasta, and San Juan Bautista, Tabasco; Tila, Chiapas.  
*Melanerpes dubius* Hargitt, *Cat. Birds Brit. Mus.*, 18 (1890): 172. Teapa, Tabasco, 7 specimens, January, February, March. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1895): 422. Teapa.

VERACRUZ: Minatitlán, 3, April 23–May 1. TABASCO: Balancán, 3, May 9–16; Tenosique, 1, June 13; Emiliano Zapata, 1, July 19. CHIAPAS: El Aguacate, 1, July 17. CAMPECHE: Palizada, 2, July 25.

Bangs and Peters<sup>31</sup> have treated *Centurus polygrammus* as a subspecies of *C. santacruzi*. Griscom<sup>32</sup> goes even farther and makes *dubius*, *santacruzi*, and *polygrammus* all races of *Centurus aurifrons*. In view of the scantiness of our knowledge of the behavior of several of the Mexican forms, I consider this action premature.

*C. s. veraecrucis* is nothing but a connecting stage between *grateloupenis* and *dubius*. It averages a little smaller than either of those forms (Table VII), so perhaps may be accorded recognition. Griscom<sup>33</sup> places *veraecrucis* in the synonymy of *grateloupenis*, on the basis of individual variants of both types occurring together. Such intermediate birds are all from an area in which intergradation might be expected, and the two forms seem distinct enough from each other outside of this area.

TABLE VII  
 WING MEASUREMENTS OF THREE RACES OF *Centurus santacruzi*

Race	Males	Wing (mm.)	Females	Wing (mm.)
<i>grateloupenis</i> .....	3	127.5–134	2	127.5–130
<i>veraecrucis</i> .....	6	122.5–132	6	120–130
<i>dubius</i> .....	10	129–142	6	128–137

Ridgway's measurements also show the smaller size of *veraecrucis*.

*Dryobates scalaris ridgwayi* Oberholser

- Dryobates scalaris ridgwayi* Oberholser, *Proc. U. S. Nat. Mus.*, 41 (1911): 140, 143.  
 Jaltipán, Veraacruz. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 247  
 Jaltipán, Veraacruz.  
*Picus scalaris* Rovirosa, *Naturaleza*, 7 (1887): 370. Río Macuspana, Tabasco.

CAMPECHE: Palizada, 1, July 25.

<sup>31</sup> "A Collection of Birds from Oaxaca," *Bull. Mus. Comp. Zool.*, 68, No. 8 (1928): 391–92.

<sup>32</sup> "The Distribution of Bird-life in Guatemala," *Bull. Amer. Mus. Nat. Hist.*, 64 (1932): 226–30.

<sup>33</sup> *Ibid.*

In markings this specimen is intermediate between *ridgwayi* from southern Veracruz and *parvus* of Yucatán, but is nearer the former. It is somewhat smaller than either of those forms. It is a male, with the wing measuring 85.5 mm., tail, 43.5 mm.

*Celeus castaneus* (Wagler)

*Picus castaneus* Wagler, *Isis*, 1829, p. 515. Valle Real, Veracruz.

*Celeus castaneus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 141. Minatitlán, Veraeruz; Teapa, Tabasco.

TABASCO: 15 kilometers north of Reforma, 4, May 26–28; Tenosique, 1, June 16. CHIAPAS: Palenque, 1, July 11.

*Veniliornis fumigatus sanguinolentus* (Sclater)

*Chloronerpes sanguinolentus* Sclater, *Proc. Zool. Soc. London*, 1859, p. 60, Pl. 151. Omoa, Honduras.

*Veniliornis oleaginus sanguinolentus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6, (1914): 190. Teapa, Tabasco; Palenque, Chiapas.

*Dendrobates caboti* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1895): 438. Teapa, Tabasco.

*Scapanus guatemalensis guatemalensis* (Hartlaub)

*Picus guatemalensis* Hartlaub, *Rev. Zool.*, 1844, p. 214. Guatemala.

*Campophilus guatemalensis* Hargitt, *Cat. Birds Brit. Mus.*, 18 (1890): 473. Teapa, Tabasco, 1 specimen, February. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1895): 446. Teapa, Tabasco.

*Scapanus guatemalensis guatemalensis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 6 (1914): 174. Frontera and Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Balancán, 1, May 10; 15 kilometers north of Reforma, 2, May 28; La Palma, 1, May 31; San Isidro, 1, June 8. CHIAPAS: Palenque, 1, July 15.

*Ceophloeus lineatus similis* (Lesson)

*Picus similis* Lesson, *Compl. oeuvres Buffon*, 20 (1847): 204. San Carlos (La Unión), Salvador.

TABASCO: La Palma, 2, June 2–3; Tenosique, 2, June 16; Santo Tomás, 1, June 23. CHIAPAS: El Aguacate, 1, July 18.

All of these birds are females, but two of them have just a speck of red on the black moustache. Wing measurements are 171–181 mm. and therefore agree with those of *similis* as redefined by Peters.<sup>34</sup>

DENDROCOLAPTIDAE

*Xiphorhynchus flavigaster eburneirostris* Des Murs

*Dryocopus eburneirostris* Des Murs, *Icon. orn.*, livr. 9 (1847): Pl. 52. Realejo, Nicaragua.

<sup>34</sup> "A Review of the Races of *Picus lineatus* Linné," *Occ. Papers Boston Soc. Nat. Hist.*, 5 (1930): 319–20.

*Xiphorhynchus flavigaster flavigaster* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 244. Santa Lucrecia, Veracruz; Frontera and Teapa, Tabasco.

TABASCO: Balancán, 3, May 14; Reforma 1, May 22; 15 kilometers north of Reforma, 1, May 25; San Isidro, 1, June 8; Boca del Cerro, 1, July 3.

For the use of the name *eburneirostris* see van Rossem's remarks on the type of *flavigaster*.<sup>35</sup>

*Lepidocolaptes souleyetii insignis* (Nelson)

*Picolaptes compressus insignis* Nelson, *Auk*, 14 (1897): 54. Otatitlan, Veracruz.

*Picolaptes lineaticeps insignis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 266. Teapa, Tabasco; Palenque, Chiapas.

*Picolaptes compressus* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1891): 186. Teapa, Tabasco.

TABASCO: Reforma, 1, May 22; 15 kilometers north of Reforma, 2, May 25-27.

*Sittasomus griseicapillus gracileus* Bangs and Peters

*Sittasomus griseicapillus gracileus* Bangs and Peters, *Bull. Mus. Comp. Zool.*, 68, No. 8 (1928): 392. Chichen Itzá, Yucatán.

[?] *Sittasomus olivaceus* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1891): 177. Teapa, Tabasco.

[?] *Sittasomus sylvioides sylvioides* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 280. Teapa, Tabasco.

TABASCO: Reforma, 1, May 22.

This specimen agrees in small size and pale coloring with a topotypical series.

*Dendrocincla anabatina anabatina* Selater

*Dendrocincla anabatina* Selater, *Proc. Zool. Soc. London*, 1859, p. 54, Pl. 150. Omoa, Honduras. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1891): 172. Teapa, Tabasco.

*Dendrocincla anabatina anabatina* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 288. Teapa, Tabasco.

TABASCO: 15 kilometers north of Reforma, 1, May 25; La Palma, 2, June 1-4; Tenosique, 1, June 15.

The one from Reforma might be called *typha*, but the others are all perfectly typical of *anabatina*.

FURNARIIDAE

*Synallaxis erythrothorax furtiva* Bangs and Peters

*Synallaxis erythrothorax furtiva* Bangs and Peters, *Bull. Mus. Comp. Zool.*, 67 (1927): 476. Presidio, Veracruz.

*Synallaxis erythrothorax* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1891): 150.

<sup>35</sup> "Notes on Two Woodhewers from Mexico," *Proc. Biol. Soc. Wash.*, 52 (1939): 15.



Teapa, Tabasco. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 189. Jaltipán, Veracruz; Frontera and Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Tenosique, 4, June 13–14.

Three of these birds are closer to *furtiva*, but the fourth specimen might as well be referred to true *erythrothorax*.

*Automolus ochrolaemus cervinigularis* (Selater)

*Anabates cervinigulatus* Selater, *Proc. Zool. Soc. London*, 1856 (1857), p. 288. Córdoba, Veracruz.

*Automolus cervinigularis cervinigularis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 217. Teapa, Tabasco.

TABASCO: Santo Tomás, 2, June 21–23. CHIAPAS: Jabalinero, 2, July 8; Palenque, 1, July 12.

*Xenops minutus mexicanus* Selater

*Xenops mexicanus* Selater, *Proc. Zool. Soc. London*, 1856 (1857): 289. Córdoba, Veracruz.

*Xenops genibarbis mexicanus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 172. Teapa, Tabasco.

*Xenops genibarbis* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1891): 164. Teapa, Tabasco.

CHIAPAS: Palenque, 2, July 10–15.

*Sclerurus guatemalensis guatemalensis* (Hartlaub)

*Tinactor guatemalensis* Hartlaub, *Rev. Zool.*, 7 (1844): 370. Guatemala.

*Sclerurus guatemalensis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 169. Teapa, Tabasco.

FORMICARIIDAE

*Taraba major melanocrissa* (Selater)

*Thamnophilus melanocrissus* Selater, *Proc. Zool. Soc. London*, 1860, p. 252. Choctum, Alta Verapaz, Guatemala. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1892): 197. Teapa, Tabasco.

*Taraba transandean transandean* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 28. Teapa, Tabasco.

TABASCO: Tenosique, 3, June 14–28.

Santecomapam, Veracruz, is accepted as the type locality by Ridgway<sup>36</sup> and by Hellmayr,<sup>37</sup> but Griscom<sup>38</sup> gives Orizaba, Veracruz. As a matter of fact, neither of these places is the correct locality.

<sup>36</sup> *The Birds of North and Middle America*, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 31.

<sup>37</sup> *Catalogue of Birds of the Americas*, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 3 (1924): 52.

<sup>38</sup> *Op. cit.*, p. 232.

The original description occurs in a paper on birds from Orizaba and vicinity, collected by Auguste Sallé, and is as follows:

16. *Thamnophilus melanocrissus*.

*Thamnophilus melanurus*, mihi, P.Z.S. 1857, p. 203.

A female. This *Thamnophilus*, as I have lately ascertained from examination of Mr. Salvin's Guatemalan specimens, differs from the true *T. melanurus* of Grenada in having the crissum black, and I therefore propose to call it *T. melanocrissus*.

The locality of this female, considered the type by the authors mentioned above, is not given here. Griscom assumed from the title of the article that it was Orizaba, but reference to the 1857 paper cited by Selater shows that it was actually collected at Santecomapam, as correctly interpreted by Ridgway and Hellmayr.

This specimen is not the type, however, as a careful reading of Selater's statement will show. In the first place it is a female, and the only distinguishing character mentioned is the black crissum, a condition that holds only in the male sex, for females of both forms have the crissum chestnut. Secondly, Selater said that he determined that the crissum was black, not by examination of the Sallé specimen, but from the Guatemalan birds collected by Salvin. Finally, Selater<sup>39</sup> listed specimens *a* and *b*, collected by Salvin at Choctum, as types of the species.

The three specimens collected by Matuda are all males and further demonstrate the distinctness of *melanocrissa* from *melanurus*.

#### *Thamnophilus doliatus intermedius* Ridgway

*Thamnophilus intermedius* Ridgway, *Proc. U. S. Nat. Mus.*, 10 (1888): 581. Trujillo, Honduras.

*Thamnophilus doliatus* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1892): 202. Teapa, Tabasco.

*Thamnophilus doliatus mexicanus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 40. Teapa and Frontera, Tabasco.

VERACRUZ: Minatitlán, 1, April 26. TABASCO: Balancán, 3, May 9-14; 15 kilometers north of Reforma, 1, May 27; Tenosique, 3, June 14-27; Santo Tomás, 1, June 24.

Peters<sup>40</sup> has already pointed out that the name *Thamnophilus doliatus mexicanus* Allen is antedated by *T. intermedius* Ridgway.

The Tabascan birds are quite pale and possibly should be referred to *T. d. yucatanensis*, but I have not seen enough material of that race to be familiar with its variations. Ridgway also remarked on the paleness of certain Tabascan specimens.

<sup>39</sup> *Catalogue of a Collection of American Birds Belonging to Philip Lutley Selater* (London: Trübner, 1862), p. 172.

<sup>40</sup> "An Ornithological Survey in the Caribbean Lowlands of Honduras," *Bull. Mus. Comp. Zool.*, 69 (1929): 439.

*Thamnistes anabatinus anabatinus* Sclater and Salvin

*Thamnistes anabatinus* Sclater and Salvin, *Proc. Zool. Soc. London*, 1860, p. 299. Choctum, Alta Verapaz, Guatemala.

*Thamnistes anabatinus anabatinus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 22. Teapa, Tabasco.

*Microrhopias quixensis boucardi* (Sclater)

*Formicivora boucardi* Sclater, *Proc. Zool. Soc. London*, 1858, p. 300. Acatepec, Oaxaca.

*Microrhopias boucardi boucardi* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 78. Teapa, Tabasco.

TABASCO: 15 kilometers north of Reforma, 2, May 25–26; La Palma, 2, June 6.

*Ramphocaenus rufiventris rufiventris* (Bonaparte)

*Scolopacinus rufiventris* Bonaparte, *Proc. Zool. Soc. London*, 1837 (1838): 119. Guatemala.

*Ramphocaenus rufiventris rufiventris* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 85. Palenque, Chiapas.

TABASCO: 15 kilometers north of Reforma, 1, May 28; Tenosique, 1, June 28.

*Cercomacra tyrannina crepera* Bangs

*Cercomacra crepera* Bangs, *Auk*, 18 (1901): 365. Divala, Panama.

*Cercomacra tyrannina crepera* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 95. Santa Lucrecia, Veracruz; Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Tenosique, 4, June 13–17; Santo Tomás, 2, June 24. CHIAPAS: Palenque, 1, July 12.

The females collected are slightly darker, less grayish, on the upperparts than are others from Guatemala and Costa Rica.

*Formicarius analis moniliger* Sclater

*Formicarius moniliger* Sclater, *Proc. Zool. Soc. London*, 1856 (1857): 294. Córdoba, Veracruz.

*Formicarius moniliger moniliger* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 119. Teapa, Tabasco.

TABASCO: La Palma, 1, June 2; San Isidro, 1, June 9; Tenosique, 3, June 15–28; Santo Tomás, 2, June 21–22. CHIAPAS: Palenque, 1, July 12.

Traylor<sup>41</sup> has recorded *F. a. pallidus* from southern Campeche, but Matuda's series is definitely *moniliger*.

*Grallaria guatemalensis mexicana* Sclater

*Grallaria mexicana* Sclater, *Proc. Zool. Soc. London*, 1861, p. 381. Jalapa, Veraacruz.

*Grallaria guatemalensis mexicana* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 5 (1911): 150. Teapa, Tabasco.

<sup>41</sup> *Op. cit.*, p. 212.

## COTINGIDAE

*Attila spadiceus flammulatus* Lafresnaye

- Attila flammulatus* Lafresnaye, *Rev. zool.*, 11 (1848): 47. Veracruz (substituted by Bangs and Penard, *Proc. Biol. Soc. Wash.*, 35 [1922]: 223, 224).
- Attila mexicanus* Nelson, *Proc. Biol. Soc. Wash.*, 14 (1901): 172. Frontera, Tabasco.
- Attila citreopygus mexicanus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 810. Frontera, Tabasco.
- Attila citreopygus salvini* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 807. Palenque, Chiapas.

TABASCO: 15 kilometers north of Reforma 1, May 28; San Isidro, 1, June 9.

I have not been able to compare Matuda's specimens with the type of Nelson's *mexicanus*, which Hellmayr considers to be a synonym of *flammulatus*. The two specimens collected measure as follows: wing, male, 92.5, female, 91 mm.; tail, male, 75, female, 71.5 mm. The female (from San Isidro) has just molted and is highly colored, but the male is in worn plumage and is as pale as *Attila spadiceus gaumeri* from Yucatán, from which, however, it may be distinguished by its slightly larger size.

*Lipaugus unirufus unirufus* Sclater

- Lipaugus unirufus* Sclater, *Proc. Zool. Soc. London*, 1859, p. 385. Playa Vicente, Veracruz (not Oaxaca!).
- Lathria unirufa unirufa* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 823. Teapa, Tabasco.

TABASCO: San Isidro, 1, June 8.

*Pachyramphus cinnamomeus fulvidior* Griscom

- Pachyramphus cinnamomeus fulvidior* Griscom, *Bull. Mus. Comp. Zool.*, 72 (1932): 357. Toledo District, British Honduras.
- Pachyramphus cinnamomeus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 840. Teapa, Tabasco.

CHIAPAS: Palenque, 1, July 11.

*Pachyramphus major australis* Miller and Griscom

- Pachyramphus major australis* Miller and Griscom, *Amer. Mus. Novit.*, No. 159 (1925): 3. San Rafael del Norte, Nicaragua.

TABASCO: 15 kilometers north of Reforma, 1, May 28.

Measurements of this bird, an adult male, are wing, 77.5 mm., tail, 58.5 mm. Although it is as small as *Pachyramphus major itzensis* from Yucatán, it has more black on the back, and the underparts are a little darker than in that form. In the male sex, *P. m. major* of eastern Mexico only differs from *australis* by being larger. Female *major* is paler than the corresponding sex of *australis*.

*Platypsaris aglaiae sumichrasti* Nelson

*Platypsaris aglaiae sumichrasti* Nelson, *Auk*, 14 (1897): 52. Otatitlan, Veracruz. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 852. Frontera, Tabasco.

*Hadrostomus aglaiae* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1890): 121. Teapa, Tabasco.

VERACRUZ: Minatitlán, 3, April 28–May 1. CAMPECHE: Palizada, 3, July 21–22.

The Palizada specimens are somewhat intermediate toward *Platypsaris aglaiae yucatanensis*. One of them, collected on July 21, is a young bird with a stubby tail. The labels bear the local name "Canta la Muerte."

*Tityra semifasciata deses* Bangs

*Tityra semifasciata deses* Bangs, *Proc. Biol. Soc. Wash.*, 28 (1915): 125. Chichén Itzá, Yucatán.

*Tityra semifasciata personata* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 871. Teapa and Frontera, Tabasco.

VERACRUZ: Minatitlán, 2, April 28–May 1. TABASCO: Balancán, 2, May 14–17.

In addition I have examined three specimens of this cotinga which Nelson and Goldman collected in Tabasco in the year 1900. These are an adult male taken at Frontera on April 27, and a subadult male and a female obtained at Teapa on April 18 and March 22, respectively. The Teapa female is more reddish brown on the upperparts than any other specimen of *deses* or *personata* examined, but this is perhaps due to foxing.

TABLE VIII  
MEASUREMENTS OF *Tityra s. deses* AND *T. s. personata*

Sex	Locality	Wing (mm.)	Tail (mm.)
7 ♂ ad.*	Yucatán: Chichén Itzá	121–129.5	68–73
1 ♂ ad.	Petén: Uaxactún	127	73
1 ♂ ad.	Tabasco: Frontera	126	70
1 ♂ ad.	Tabasco: Balancán	129	77
1 ♂ vix ad.	Tabasco: Teapa	123	72.5
1 ♂ vix ad.	Veracruz: Minatitlán	121	68
10 ♂ ad.	<i>Tityra s. personata</i>	128–139	72–80
2 ♂ im.	Yucatán: Chichen Itzá	125	70–71
4 ♂ im.	<i>Tityra s. personata</i>	129–130.5	71–73.5
3 ♀	Yucatán: Chichen Itzá	119–126.5	69–72.5
1 ♀	Tabasco: Balancán	124.5	70.5
1 ♀	Tabasco: Teapa	124.5	70
1 ♀	Veracruz: Minatitlán	119	64
12 ♀	<i>Tityra s. personata</i>	122–132	65–77

\* Including the type of *deses*, which has the maximum measurements of both wing and tail.

Although supposed to be limited to Yucatán proper, the range of *deses* extends as far as southeastern Veracruz and northern Petén (Table VIII). As Traylor<sup>42</sup> remarked, the color characters of *deses* are not very constant.

*Tityra inquisitor fraserii* (Kaup)

*Psaris fraserii* Kaup, *Proc. Zool. Soc. London*, 1851 (1852): 47, Pls. 37, 38 (Veracruz, designated by Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 6 (1929): 223, note).

*Tityra albitorques* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1890): 119. Teapa, Tabasco.

*Erator albitorques* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 863. Teapa, Tabasco; Palenque, Chiapas.

CHIAPAS: Palenque, 2, July 10–14.

PIPRIDAE

*Pipra mentalis mentalis* Selater

*Pipra mentalis* Selater, *Proc. Zool. Soc. London*, 1856 (1857): 299, Pl. 121. Córdoba, Veracruz. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1890): 108. Teapa, Tabasco.

*Pipra mentalis mentalis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 746. Santa Lucrecia, Veracruz; Teapa, Tabasco.

TABASCO: Reforma, 1, May 22; 15 kilometers north of Reforma, 1, May 27; La Palma, 1, June 3; San Isidro, 8, June 8–10. CHIAPAS: Palenque, 1, July 10.

*Manacus candei* (Parzudaki)

*Pipra candei* Parzudaki, *Rev. zool.*, 4 (1841): 306. Trujillo, Honduras.

*Manacus candei* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 730. Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Balancán, 1, May 16; San Isidro, 2, June 7–8; Tenosique, 3, June 11; Santo Tomás, 2, June 24. CHIAPAS: Palenque, 3, July 11–13; El Aguacate, 1, July 18.

*Schiffornis turdinus veraepacis* (Selater and Salvin)

*Heteropelma verae-pacis* Selater and Salvin, *Proc. Zool. Soc. London*, 1860, p. 300. Chocutum, Alta Verapaz, Guatemala (cf. Selater, *Cat. Birds Brit. Mus.*, 14 [1888]: 321, specimen a).

TABASCO: 15 kilometers north of Reforma, 2, May 24–28; La Palma, 1, May 31; San Isidro, 2, June 10; Santo Tomás, 2, June 21–24. CHIAPAS: El Jabalinerio, 2, July 7.

TYRANNIDAE

*Pyrocephalus rubinus blatteus* Bangs

*Pyrocephalus rubineus blatteus* Bangs, *Proc. Biol. Soc. Wash.*, 24 (1911): 189. Sabune District, British Honduras.

<sup>42</sup> *Ibid.*, p. 213.

VERACRUZ: Minatitlán, 9, April 24–May 1. TABASCO: Balancán, 3, May 11–19. CHIAPAS: Palenque, 1, July 16; El Aguacate, 3, July 16–18. CAMPECHE: Palizada, 7, July 21–26.

Young birds were taken on July 16 and 25.

Griscom<sup>43</sup> stated that birds from Tabasco and Quintana Roo are *blatteus* and that specimens from the eastern slope of the mountains in Veracruz approach that form. I quite agree with this statement and would even assign the resident birds from as far north as Dos Ríos (below Jalapa), Veracruz, to *blatteus* (Table IX).

Van Rossem<sup>44</sup> has restricted the type locality of *mexicanus* to Tampico, Tamaulipas.

TABLE IX  
MEASUREMENTS OF *Pyrocephalus rubinus mexicanus* AND *P. r. blatteus*

Locality	Males	Wing (mm.)	Tail (mm.)	Females	Wing (mm.)	Tail (mm.)
<i>mexicanus</i>						
Texas .....	10	82.5–85.5	58–64	4	80–83	57–60.5
Northern Mexico .....	5	83–86	59.5–64.5	1	82	58.5
<i>blatteus</i>						
Veracruz: Dos Ríos .....	2	76.5–77	55–55.5	1	78	56.5
Veracruz: Minatitlán ..	6	73–76.5	54–55.5	3	73–74	54.5–55
Tabasco .....	2	74–79	56.5–58	1	73	54
Chiapas .....	1	77	56	2	73–76.5	54.5–56.5
Campeche .....	3	74–78.5	52.5–54.5	3	71–72	52–53.5
Yucatán .....	3	73.5–75.5	54.5–57	3	70.5–73.5	53–55
Alta Verapaz .....	1	71	56.5	.....	.....	.....
British Honduras .....	1	73.5	53.5	.....	.....	.....

### *Muscivora tyrannus monachus* (Hartlaub)

*Tyrannus (Milvulus) monachus* Hartlaub, *Rev. zool.*, 7 (1844): 214. Guatemala.

*Milvulus tyrannus* Rovirosa, *Naturaleza*, 7 (1887): 368 San Diego and Santa Lucia, Tabasco.

VERACRUZ: Minatitlán, 5, May 1. TABASCO: Balancán, 5, May 11–19. CHIAPAS: El Aguacate, 2, July 16–18. CAMPECHE: Palizada, 1, July 25.

Zimmer<sup>45</sup> has recently pointed out that Central American specimens differ from those from southern South America in having paler gray backs and by having the notch of the third primary of the adult male shallower.

### \**Muscivora forficata* (Gmelin)

*Muscicapa forficata* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 931. Mexico.

VERACRUZ: Minatitlán, 3, April 30.

<sup>43</sup> The Ornithology of Guerrero, Mexico, '' *Bull. Mus. Comp. Zool.*, 75, No. 10 (1934): 385.

<sup>44</sup> ''Notes on Some Types of North American Birds, '' *Trans. San Diego Soc. Nat. Hist.*, 7, No. 30 (1934): 353.

<sup>45</sup> ''Studies of Peruvian Birds. No. XXVII, '' *Amer. Mus. Novit.*, No. 962 (1937): 1–10.

*Tyrannus melancholicus chloronotus* Berlepsch

*Tyrannus chloronotus* Berlepsch, *Ornis*, 14 (1907): 474. Temax, Yucatán.

*Tyrannus melancholicus satrapa* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 700. Jaltipán, Veracruz; Frontera, Tabasco.

[?] *Tyrannus vociferans* (nec Swainson?) Rovirosa, *Naturaleza*, 7, 1887, p. 368. Río Macuspana, Tabasco.

VERACRUZ: Minatitlán, 5, April 23–May 1. TABASCO: Balancán, 1, May 10; La Palma 2, June 3–5. CHIAPAS: Jabalínero, 1, July 8; Palenque, 1, July 14.

*Legatus leucophaius variegatus* (Scalater)

*Elaenia variegata* Scalater, *Proc. Zool. Soc. London*, 1856 (1857): 297. Córdoba, Veracruz.

*Legatus albicollis* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1888): 38. Teapa, Tabasco. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 439. Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Tenosique, 2, June 16. CHIAPAS: Palenque, 1, July 11.

Hellmayr<sup>46</sup> proposes to recognize northern birds under Scalater's name on the basis of their longer wings. He gives this measurement as 91–94 mm. in males, 87–92 in females, but, unfortunately, does not give those of typical *leucophaius* for comparison. In our small series I find that although the wing is a trifle longer in *variegatus*, the most noticeable difference is the long, heavy bill. The three specimens collected by Matuda measure as follows: wing, 89, 89 mm. (female, 85.5); culmen from base, 14.5, 15 mm. (female, 14.5). Five males and six females of *leucophaius* measure: wing, 85–87.5 mm. (female, 76.5–85), culmen, 12.5–14 mm. (female, 12.5–13.5).

*Myiodynastes luteiventris luteiventris* Scalater

*Myiodynastes luteiventris* Scalater, *Proc. Zool. Soc. London*, 1859, p. 42. Orizaba, Veracruz.

Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 656. Teapa, Tabasco.

TABASCO: Balancán, 1, May 16; Reforma, 1, May 23.

The first time this species was mentioned in the literature was in 1856, when Scalater<sup>47</sup> reported upon specimens collected by Sallé at Córdoba under the name "*Tyrannus audax* (Gm.)?" and at the same time called attention to certain characters by which the Mexican birds differed from South American examples. In 1854 Bonaparte<sup>48</sup> used the two new names *Myiodynastes luteiventris* in connection with Nicaraguan specimens taken by Delattre, but as was so often the case with that author he failed to validate either generic or specific name with a single word of description. In 1859 Scalater established the specific name on a sound nomenclatural basis,

<sup>46</sup> *Op. cit.*, Pt. 5 (1927): 119.

<sup>47</sup> "Catalogue of the Birds collected by M. Auguste Sallé in Southern Mexico, with Descriptions of New Species," *Proc. Zool. Soc. London*, 1856, p. 297.

<sup>48</sup> "Notes sur les Collections rapportées en 1853 par M. A. Delattre, de son voyage en Californie et dans le Nicaragua," *Compt. rend. acad. sci. Paris*, 38 (1854): 657.



but there is still some question as to what is the proper type locality. Ridgway<sup>49</sup> gives Guatemala with a query. Hellmayr<sup>50</sup> gives Verapaz and Orizaba. Griscom<sup>51</sup> gives only Verapaz, and Zimmer<sup>52</sup> and van Rossem<sup>53</sup> only Orizaba.

In the original description Selater said: "*Hab.* In Mexico merid., Guatemala, et America centrali. *Mus. P. L. S.*" He quoted the earlier references to the species, mentioned above, so that it is possible to ascertain that the Central American locality is Nicaragua from Bonaparte, and that the Mexican localities are Córdoba (from the collection of Sallé) and Orizaba, mentioned in the present connection. The Nicaraguan birds had not been examined by Selater, so that country may be excluded from consideration as the type locality. The Botterian skins from Orizaba probably have the best claim to typeship, since they are the only examples of the species which Selater had in his own possession. It is noteworthy, however, that he did not designate them as types in the catalogue of his ornithological collection,<sup>54</sup> as was his almost invariable practice with the specimens which served as the basis of his new forms. This omission is possibly due to the fact that he took the name from Bonaparte. In order to settle the question I formally designate Orizaba, Veracruz, as type locality.

*Myiodynastes maculatus insolens* Ridgway

*Myiodynastes audax insolens* Ridgway, *Man. N. Amer. Birds*, 1887, pp. 332, 502. Mirador, Veracruz.

*Myiodynastes maculatus insolens* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 661. Teapa, Tabasco.

TABASCO: La Palma, 1, June 3; Boca del Cerro, 3, July 1-4.

Two birds taken on July 4 are partly grown young.

*Megarynchus pitangua mexicanus* (Lafresnaye)

*Scarphorhynchus mexicanus* Lafresnaye, *Rev. mag. zool.*, 3 (1851): 473. Mexico.

*Megarynchus pitangua mexicanus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 665. Frontera, Tabasco. Moore, *Proc. Biol. Soc. Wash.*, 54 (1941): 36. Frontera Tabasco.

*Megarynchus pitangua* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1889): 51. Teapa, Tabasco.

VERACRUZ: Minatitlán, 1, April 24.

<sup>49</sup> *Op. cit.*, p. 658.

<sup>50</sup> *Op. cit.*, p. 122.

<sup>51</sup> "The Distribution of Bird Life in Guatemala," p. 250.

<sup>52</sup> "Studies of Peruvian Birds. No. XXVIII," *Amer. Mus. Novit.*, No. 963 (1937):

1.

<sup>53</sup> *Op. cit.*, p. 354.

<sup>54</sup> Cf. P. L. Selater, *Catalogue Coll. Amer. Birds*, 1862, p. 233, and *idem*, *Catalogue of Birds in the British Museum*, 14 (1888): 183, specimens a and b.

*Myiozetetes similis texensis* (Giraud)

*Muscicapa texensis* Giraud, *Sixteen Sp. Texas Birds*, 1841, Pl. 1. "Texas."

*Myiozetetes similis* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1889): 41. Teapa, Tabasco.

CHIAPAS: El Aguacate, 1, July 18.

I entirely agree with Zimmer<sup>54a</sup> in using *texensis* rather than Bonaparte's misidentified *Tyrannus superciliosus* as the subspecific name of this fly-catcher.

*Pitangus sulphuratus guatemalensis* (Lafresnaye)

*Saurophagus guatemalensis* Lafresnaye, *Rev. mag. zool.*, ser. 2, 4 (1852): 462. Guatemala.

*Saurophagus sulphuratus?* Rovirosa, *Naturaleza*, 7 (1887): 369. Río Macuspana, Tabasco.

*Pitangus derbianus* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1889): 43. Teapa, Tabasco.

*Pitangus sulphuratus derbianus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 672. Montecristo and Frontera, Tabasco.

VERACRUZ: Minatitlán, 1, April 25.

This specimen is really nearer to *texanus* than to *guatemalensis*, but since van Rossem<sup>55</sup> has demonstrated that most of the state of Veracruz is in the zone of intergradation between the two forms, with the dividing line coming about at Misantla, I have followed his action. The bird taken, an adult male, has the following measurements: wing, 122.5, tail, 87.5, culmen, 34, depth of bill, 10, width of bill, 10.8 mm. It agrees rather well in coloration with Texas specimens.

*Myiarchus tyrannulus nelsoni* Ridgway

*Myiarchus magister nelsoni* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 903. Altamira, Tamaulipas.

*Myiarchus magister* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1889): 89. Teapa, Tabasco.

*Myiarchus mexicanus mexicanus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 621. Minatitlán, Veracruz; Teapa and Frontera, Tabasco.

VERACRUZ: Minatitlán, 5, April 23-28. TABASCO: Balancán, 3, May 9-11; Boca del Cerro, 1, July 2.

The one from Boca del Cerro is a bird of the year. The other specimens measure as follows: wing, 105, 105, 105, 106.5 (female, 98, 99, 104.5); tail, 93, 94.5, 95, 96 mm. (female, 85.5, 86.5, 89, 93 mm.).

*Myiarchus tuberculifer lawrenceii* (Giraud)

*Muscicapa lawrenceii* Giraud, *Sixteen Sp. Texas Birds*, 1841, p. 9, Pl. 2, Fig. 1. "Texas."

*Myiarchus lawrenceii lawrenceii* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 642. Santa Lucrecia, Jaltipán, and Minatitlán, Veracruz.

<sup>54a</sup> *Op. cit.*, pp. 20-21.

<sup>55</sup> "Notes on Some North American Birds of the Genera *Myiodynastes*, *Pitangus*, and *Myiochanes*," *Trans. San Diego Soc. Nat. Hist.*, 9 (1940): 82.

VERACRUZ: Minatitlán, 5, April 23–May 1.

These birds are not typical of *lawrenceii*, for although they have rufous in the tail as in that form, they are small, indicating intergradation with *platyrhynchus* or *connectens*. Measurements are as follows: wing, 77, 81, 81.5 mm. (female, 78, 80); tail, 71.5, 76.5, 77 mm. (female, 72, 74).

*Myiarchus tuberculifer platyrhynchus* Ridgway

*Myiarchus platyrhynchus* Ridgway, *Proc. Biol. Soc. Wash.*, 3 (1885): 23. Cozumel Island, Quintana Roo.

*Myiarchus lawrenceii platyrhynchus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 648. Frontera and Montecristo, Tabasco.

*Myiarchus lawrenceii* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1889): 94. Teapa, Tabasco.

*Myiarchus lawrenceii lawrenceii* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 642. Teapa (the locality Atoyac, "Tabasco," is in the state of Veracruz).

TABASCO: Balancán, 1, May 17; Reforma, 1, May 23; Provincia, 1, May 29; Boca del Cerro, 1, July 2.

I have also examined three specimens collected by Nelson and Goldman at Teapa between March 22 and April 12, a male taken at Montecristo on May 5, and three skins from Frontera taken between March 11 and April 27.

When Miller and Griscom separated the race *connectens*, they neglected to compare it with *Myiarchus tuberculifer platyrhynchus*, described from Cozumel Island, but said to range throughout the Yucatán Peninsula. I find that birds from Yucatán, assumed to be the same as those from Cozumel, have greenish backs, and the crown is only slightly more brownish than the rest of the upperparts. Typically, the undersurface of the tail is devoid of rufous. *M. t. platyrhynchus* is the smallest Mexican race of this species of flycatcher. In males the wing measures 76.5–81 mm.; tail, 70–74.5, once 78.5 mm. In females the wing measures 71.5–74 mm.; tail, 67–71 mm.

*Myiarchus tuberculifer connectens* typically has a much more blackish crown and a more brownish olive back, and these parts are more in contrast with each other. There is usually more or less rufous on the inner webs of the undersurface of the rectrices. In size this race is intermediate between *platyrhynchus* and *lawrenceii*. In males the wing measures 81–84.5 mm.; tail, 74.5–78.5, once 81 mm. In females the wing is 77–82 mm.; tail, 73–76.5 mm. The present race occurs throughout northern Central America as far as the Pacific coast of Chiapas.

My material of *Myiarchus tuberculifer lawrenceii* is inadequate, but seems to indicate that *lawrenceii* is colored like *connectens*, although it is perhaps somewhat paler. It is the largest race of the three. The wing in males measures 83–90 mm.; tail, 77.5–82.5 mm. In females the wing measures 84.5–90 mm.; tail, 79.5 mm.

The birds from Tabasco are not typical of any race. They have the brownish olive backs of *connectens*. The crowns are only moderately contrasted with the backs, more so than the average of *platyrhynchus* but less than the average of *connectens*. Those from the Usumacinta have no rufous on the undersurface of the tail, but those from Teapa have the inner webs of the rectrices indistinctly edged with rufous. In size, too, the Tabascan birds come between *platyrhynchus* and *connectens* (Table X), although most of them agree better with the former race. In sum total of characters the present series approaches *platyrhynchus* more closely than it does *connectens*.

TABLE X  
MEASUREMENTS OF *Myiarchus tuberculifer*

Males			Females		
Locality	Wing (mm.)	Tail (mm.)	Locality	Wing (mm.)	Tail (mm.)
Boca del Cerro .....	76	69.5	Balancán .....	75	68
Reforma .....	80	73	Frontera .....	77	70
Provincia .....	80.5	74.5	Teapa .....	78	71.5
Montecristo .....	80.5	73.5			
Frontera .....	82.5	76.5			
Frontera .....	82.5	76.5			
Teapa .....	80.5	73.5			

\**Nuttallornis borealis* (Swainson)

*Tyrannus borealis* Swainson, *Fauna Boreali-Amer.*, 2 (1832): 141, Pl. 35. Carlton House, Saskatchewan (cf. van Rossem, *Trans. San Diego Soc. Nat. Hist.*, 7 (1934): 352.

TABASCO: Balancán, 1, May 16.

Although there is no doubt that western birds average larger than those from the east, Zimmer<sup>56</sup> has demonstrated that only about 50 per cent of over two hundred specimens examined can be identified, so that recognition of two forms seems unwarranted. The wing of the present specimen, a male, measures 109 mm., tail, 68 mm., and it is therefore among the indeterminate ones.

\**Myiochanes virens* (Linnaeus)

*Muscicapa virens* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 327. Carolina.

*Myiochanes virens* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 518. Teapa, Tabasco.

*Myiochanes richardsonii sordidulus* (Selater)

*Contopus sordidulus* Selater, *Proc. Zool. Soc. London*, 1859, p. 43. Orizaba, Veracruz.

*Myiochanes richardsonii sordidulus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 525. Teapa, Tabasco.

<sup>56</sup> "Studies of Peruvian Birds. No. XXXI," *Amer. Mus. Novit.*, No. 1043 (1939): 13-15.

VERACRUZ: Minatitlán, 1, April 27.

A male with the wing measuring 75 mm., tail, 61.5 mm.

*Myiochanes cinereus brachytarsus* (Sclater)

*Empidonax brachytarsus* Sclater, *Ibis*, 1 (1859): 441. Córdoba, Veracruz.

*Contopus brachytarsus* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1889): 86.  
Teapa, Tabasco.

*Myiochanes brachytarsus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 526.  
Teapa, Tabasco.

\**Empidonax flaviventris* (Baird and Baird)

*Tyrannula flaviventris* Baird and Baird, *Proc. Acad. Nat. Sci. Phila.*, 1 (1843): 283.  
Carlisle, Pennsylvania.

*Empidonax flaviventris* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1889): 73.  
Teapa, Tabasco.

\**Empidonax minimus* (Baird and Baird)

*Tyrannula minima* Baird and Baird, *Proc. Acad. Nat. Sci. Phila.*, 1 (1843): 284. Carlisle  
Pennsylvania.

*Empidonax minimus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 561. Jaltipán  
and Coatzacoalcos, Veracruz; Frontera, Tabasco.

I have examined a specimen in the Biological Survey from Palenque, collected on May 16, 1900.

*Myiobius sulphureipygius sulphureipygius* (Sclater)

*Tyrannula sulphureipygia* Sclater, *Proc. Zool. Soc. London*, 1857, p. 296. Córdoba,  
Veracruz.

*Myiobius xanthopygus sulphureipygius* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4  
(1907): 490. Teapa, Tabasco.

TABASCO: 15 kilometers north of Reforma, 1, May 27; Santo Tomás, 1,  
June 22. CHIAPAS: Jabalínero, 1, July 8.

*Onychorhynchus mexicanus mexicanus* (Sclater)

*Muscivora mexicana* Sclater, *Proc. Zool. Soc. London*, 1856 (1857): 295. Córdoba,  
Veracruz.

*Onychorhynchus mexicanus mexicanus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4  
(1907): 354. Teapa, Tabasco.

TABASCO: 15 kilometers north of Reforma, 4, May 24-27; La Palma, 1,  
June 1; San Isidro, 1, June 8; Santo Tomás, 2, June 22-23. CHIAPAS:  
Palenque, 1, July 13.

*Platyrinchus mystaceus cancrominus* Sclater and Salvin

*Platyrinchus cancrominus* Sclater and Salvin, *Proc. Zool. Soc. London*, 1860, p. 299.  
Choctum, Alta Verapaz, Guatemala.

*Platyrinchus cancrominus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 382.  
Teapa, Tabasco.

TABASCO: 15 kilometers north of Reforma, 2, May 27–28; San Isidro, 1, June 8.

The Tabascan specimens are somewhat paler than a topotype from Verapaz, but are not so pale as birds from Petén. Zimmer<sup>57</sup> noted that a skin from Quintana Roo was paler than skins of birds from Guatemala and Nicaragua, so that it is possible that the birds from the base of the Yucatán Peninsula should be separated subspecifically.

*Tolmomyias sulphurescens cinereiceps* (Sclater)

*Cyclorhynchus cinereiceps* Sclater, *Ibis*, 1 (1859): 443. Oaxaca.

*Rhynchocyclus cinereiceps* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1888): 10.

Teapa, Tabasco. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 394.

Santa Lucrecia, Veracruz.

VERACRUZ: Minatitlán, 1, April 30. TABASCO: Balancán, 1, May 15; Reforma, 1, May 22; 15 kilometers north of Reforma, 1, May 28.

A few of the crown feathers of the Reforma bird are creamy white.

*Rhynchocyclus brevirostris brevirostris* (Cabanis)

*Cyclorhynchus brevirostris* Cabanis, *Arch. Naturg.*, 13 (1847): 249. Jalapa, Veracruz.

*Craspedoprion brevirostris* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 388.

Santa Lucrecia, Veracruz.

TABASCO: 15 kilometers north of Reforma, 1, May 27.

*Todirostrum cinereum finitimum* Bangs

*Todirostrum cinereum finitimum* Bangs, *Proc. Biol. Soc. Wash.*, 17 (1904): 114. San

Juan Bautista, Tabasco. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907):

364. San Juan Bautista and Teapa, Tabasco.

*Todirostrum cinereum* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1888): 12.

Teapa, Tabasco.

VERACRUZ: Minatitlán, 1, April 27. TABASCO: Balancán, 1, May 13.

I have also examined several of Nelson and Goldman's Tabascan specimens—one from Teapa, one from Montecristo, and four from Frontera.

*Todirostrum sylvia schistaceiceps* Sclater

*Todirostrum schistaceiceps* Sclater, *Ibis*, 1 (1859): 444. Oaxaca. Salvin and Godman,

*Aves, Biol. Centrali-Amer.*, 2 (1888): 13. Teapa, Tabasco. Ridgway, *Bull. U. S.*

*Nat. Mus.*, No. 50, Pt. 4 (1907): 367. Teapa and San Juan Bautista, Tabasco.

TABASCO: Balancán, 1, May 17.

Compared with birds from Costa Rica, this bird is a little darker green, less yellowish on the back.

*Oncostoma cinereigulare cinereigulare* (Sclater)

*Todirostrum cinereigulare* Sclater, *Proc. Zool. Soc. London*, 1856 (1857): 295. Córdoba, Veracruz.

<sup>57</sup> *Ibid.*, p. 7.

*Oncostoma cinereigulare* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 358. Santa Lucrecia, Veracruz; Frontera, Tabasco; Palenque, Chiapas.

I have examined the Nelson and Goldman specimens forming the basis of Ridgway's above record. These consist of a male from Santa Lucrecia, taken January 25, 1904, a male from Palenque, May 16, 1900, and three specimens from Frontera, taken between March 9 and April 29, 1900.

*Elaenia flavogaster subpagana* Sclater and Salvin

*Elaenia subpagana* Sclater and Salvin, *Ibis*, 2 (1860): 36. Dueñas, Guatemala.

*Elaenia martinica subpagana* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 429. Jaltipán, Veracruz; Teapa, Tabasco; Palenque, Chiapas.

*Elainea pagana* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1888): 34. Teapa, Tabasco.

VERACRUZ: Minatitlán, 2, April 27–May 1. CHIAPAS: Palenque, 1, July 15.

*Elaenia viridicata placens* Sclater

*Elaenia placens* Sclater, *Proc. Zool. Soc. London*, 1859, p. 46. Córdoba, Veracruz.

*Myiopagis placens placens* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 401. Palenque, Chiapas.

TABASCO: Reforma, 1, May 23.

*Camptostoma imberbe imberbe* Sclater

*Camptostoma imberbe* Sclater, *Proc. Zool. Soc. London*, 1857, p. 203. San Andrés Tuxtla, Veracruz. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 414. Frontera, Tabasco.

TABASCO: Balancán, 1, May 17.

*Microtriccus semiflavus semiflavus* (Sclater and Salvin)

*Tyrannulus semiflavus* Sclater and Salvin, *Proc. Zool. Soc. London*, 1860, p. 300. Choctum, Alta Verapaz, Guatemala. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1888): 32. Teapa, Tabasco, 1 specimen.

*Microtriccus semiflavus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 791. Santa Lucrecia, Veracruz; Teapa, Tabasco; Palenque, Chiapas.

*Leptopogon amaurocephalus pileatus* Cabanis

*Leptopogon pileatus* Cabanis, *Journ. Orn.*, 13 (1865): 414. Guatemala. Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1888): 25. Teapa, Tabasco. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 463. Teapa, Tabasco.

*Pipromorpha oleaginea assimilis* (Sclater)

*Mionectes assimilis* Sclater, *Proc. Zool. Soc. London*, 1859, p. 46. Córdoba, Veracruz.

*Pipromorpha assimilis assimilis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 454. Teapa, Tabasco.

*Mionectes oleagineus* Salvin and Godman, *Aves, Biol. Centrali-Amer.*, 2 (1888): 22.  
Teapa, Tabasco.

TABASCO: San Isidro, 1, June 8.

HIRUNDINIDAE

*Progne chalybea chalybea* (Gmelin)

*Hirundo chalybea* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 1026. Cayenne.

TABASCO: Balancán, 3, May 10; La Palma, 2, June 6; Tenosique, 6, June 13-28.

*Stelgidopteryx ruficollis fulvipennis* (Selater)

*Cotyle fulvipennis* Selater, *Proc. Zool. Soc. London*, 27 (1859): 364. Jalapa, Veracruz.

VERACRUZ: Minatitlán, 1, April 28. TABASCO: Balancán, 3, May 10; Tenosique, 12, June 15-28; Santo Tomás, 3, June 21; Emiliano Zapata, 2, July 19.

Since *Stelgidopteryx ruficollis ridgwayi* had been recorded from Teapa, it was a surprise to find that the breeding bird of the Usumacinta is definitely *fulvipennis*. The seven adult birds collected are all light-backed and have the crissum unspotted, although four of them have the terminal part of just the shafts of the longer under tail coverts darkened, as is often the case with United States specimens. Three adults have a trace of rufous on the chin, but it also is no more extensive than in many United States birds. Measurements of the Tabasco adult males are as follows: wing, 107-110; tail, 47-49.5 mm. The Minatitlán male is slightly larger—wing, 111.5, tail, 51 mm.

A good many young of the year were collected between June 15 and July 19.

\**Stelgidopteryx ruficollis stuarti* Brodkorb

*Stelgidopteryx ruficollis stuarti* Brodkorb, *Condor*, 44, No. 5 (1942): 217. Finca Panzamalá, Alta Verapaz, Guatemala.

*Stelgidopteryx ridgwayi* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 61.  
Teapa, tabasco.

I have examined Goldman's specimen from Tabasco. It is a female, collected on March 25, 1900, and is a well-marked example of the race which breeds in the mountains of Verapaz.

*Iridoprocne albilinea albilinea* (Lawrence)

*Petrochelidon albilinea* Lawrence, *Ann. Lyc. Nat. Hist. New York*, 8 (1863): 2.  
Panama.

*Iridoprocne albilinea* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 90. Tabasco.

TABASCO: La Palma, 3, June 4; Boca del Cerro, 2, July 2. CAMPECHE: El Vapor, 1, July 31.

It is interesting to find this tidewater species as far inland as La Palma and Boca del Cerro.



## CORVIDAE

*Psilorhinus morio* (Wagler)

*Pica morio* Wagler, *Isis*, 1829, p. 751. Below Jalapa, Veracruz (cf. van Rossem, *Bull. Mus. Comp. Zool.*, 77 [1934]: 414-16).

*Psilorhinus morio* Roviroso, *Naturaleza*, 7 (1887): 367. Río Macuspana, Tabasco.

*Psilorhinus morio fuliginosus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 300. Montecristo, Tabasco.

VERACRUZ: Minatitlán, 7, April 23-28.

I have also examined two Nelson and Goldman specimens from Tabasco, one collected on March 24 at Teapa, the other taken on May 4 at Montecristo.

There is considerable variation in the depth of color of the underparts of these birds. One of the Minatitlán specimens is the darkest, and the Montecristo skin is the palest. Several of them are paler than a bird from Tamaulipas.

As is the case with certain other species of jays, it appears that specimens with more or less yellow on the bill or feet are subadult, since the plumage of such birds seems to abrade more rapidly than it does in those which have entirely black bills and feet. However, van Rossem<sup>58</sup> apparently believes that the variation in color of bill and feet is not a matter of age.

*Psilorhinus mexicanus cyanogenys* Sharpe

*Psilorhinus cyanogenys* Sharpe, *Cat. Birds Brit. Mus.*, 3 (1877): 140, Pl. 9. Pearl Bay Lagoon, Nicaragua.

*Psilorhinus mexicanus mexicanus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 301. Montecristo, Tabasco.

TABASCO: Balancán, 4, May 10-17.

I have examined Nelson and Goldman's Montecristo bird, which was collected on May 3, 1900.

Specimens examined from Yucatán (*Psilorhinus mexicanus vociferus*) have less white on the tail than examples of *P. m. cyanogenys*, instead of the contrary as stated by Ridgway. In *vociferus* the white area, measured along

TABLE XI  
MEASUREMENTS OF *Psilorhinus mexicanus cyanogenys*

Sex	Locality	Wing (mm.)	Tail (mm.)	Bill from Nostril (mm.)	Depth of Bill at Nostril (mm.)	Tarsus (mm.)	White Tip of Outer Rectrix (mm.)
♂	Montecristo	206	214	29	16	49	26.5
♂	Balancán	203	200	27	16	48	34
♂	Balancán	191	.....	26.5	16.5	50	32 worn
♀	Balancán	192	188	25	15.5	46	36.5
♀	Balancán	203	197	26	16	48.5	39.5

<sup>58</sup> *Op. cit.*, p. 415.

the shaft of the outermost rectrix, extends for 31, 32, 34, 34.5, and 38 mm. in five males (female, 42 mm.). In *cyanogenys* the white area measures 41 and 44.5 mm. in males, and 27.5, 41.5, and 46.5 mm. in females.

*Xanthoura yncas centralis* van Rossem

*Xanthoura luxuosa centralis* van Rossem, *Bull. Mus. Comp. Zool.*, 77 (1934): 397. Secaquim, Alta Verapaz, Guatemala.

TABASCO: Reforma, 1, May 22; 15 kilometers north of Reforma, 2, May 25-28.

This race of the green jay was unrecorded from Mexico. Measurements (in mm.) of the three birds taken are as follows: wing, 110, 116 (female, 109); tail, 131, 135 (female, 124); culmen from base, 28.5, 30 (female, 28); tarsus, 34.5, 35.5 (female, 37.5).

*Cissilopha yucatanica rivularis* Brodkorb

*Cissilopha yucatanica rivularis* Brodkorb, *Auk*, 57 (1940): 547. Balancán, Tabasco.

*Cyanocorax crassirostris*? [sic] Rovirosa, *Naturaleza*, 7 (1887): 368. Río Macuspana, Tabasco.

*Cissilopha yucatanica* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 315. Frontera, Tabasco.

TABASCO: Balancán, 3, May 11-14; Reforma, 5, May 22. CAMPECHE: Palizada, 2, July 28; El Vapor, 6, July 30.

One taken on July 28 is in juvenal plumage, with yellow bill, white head and underparts, duller blue back, and with all except the two middle pairs of rectrices white-tipped.

TROGLODYTIDAE

*Cistothorus platensis elegans* Sclater and Salvin

*Cistothorus elegans* Sclater and Salvin, *Ibis*, 1 (1859): 8. Lake of Dueñas, Guatemala.

*Cistothorus polyglottus elegans* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 484. Palenque, Chiapas.

CHIAPAS: Palenque, 1, July 14; El Aguacate, 2, July 16.

*Heleodytes zonatus zonatus* (Lesson)

*Picolaptes zonatus* Lesson, *Cent. Zool.*, 1832, p. 210, Pl. 70. "California."

VERACRUZ: Minatitlán, 2, April 26.

*Heleodytes zonatus restrictus* Nelson

*Heleodytes zonatus restrictus* Nelson, *Auk*, 18 (1901): 49. Frontera, Tabasco. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 512. Frontera and Teapa, Tabasco.

*Campylorhynchus zonatus* Salvin and Godman, *Ibis*, 1889, p. 235 in text. Abundant at Teapa, Tabasco.

TABASCO: Balancán, 6, May 10-17; Boca del Cerro, 2, July 3. CAMPECHE: Palizada, 8, July 21-22.

The fine series collected fully bears out the characters which Nelson attributed to this race.

One collected on July 3 is only about half-grown, and three taken on July 21-22 are also in the black-crowned juvenal plumage, though larger. The young of this race are practically unspotted below, like *zonatus*.

*Thryothorus rutilus umbrinus* Ridgway

*Thryothorus maculipectus umbrinus* Ridgway, *Man. N. Amer. Birds*, 1887, p. 552. Vera-paz, Guatemala.

*Pheugopedius maculipectus umbrinus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 535. Frontera and Teapa, Tabasco.

TABASCO: Balancán, 2, May 15; La Palma, 3, June 3-5; Tenosique, 1, June 15; Santo Tomás, 2, June 22-23.

*Henicorhina leucosticta prosthaleuca* (Selater)

*Scytalopus prosthaleucus* Selater, *Proc. Zool. Soc. London*, 1856 (1857): 290. Córdoba, Veracruz.

*Henicorhina prosthaleuca prosthaleuca* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 610. Teapa, Tabasco.

CHIAPAS: Jabalínero, 2, July 7-8.

I have also examined five specimens which Goldman collected at Teapa.

Birds from Petén in my opinion are best referred to *Henicorhina leucosticta tropaea*. They certainly have decidedly redder backs and whiter bellies than those from northern Chiapas.

*Nannorchilus leucogaster musicus* (Nelson)

*Hemiura leucogastra musica* Nelson, *Proc. Biol. Soc. Wash.*, 16 (1903): 159. Teapa, Tabasco.

*Nannorchilus leucogaster musicus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 620. Teapa, Tabasco; Palenque, Chiapas.

TABASCO: Balancán, 2, May 10-16.

MIMIDAE

\**Dumetella carolinensis* (Linnaeus)

*Muscicapa carolinensis* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 328. Virginia.

*Dumetella carolinensis* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 7 (1934): 305. Tabasco, 3 specimens.

VERACRUZ: Minatitlán, 2, April 24-May 1.

*Mimus polyglottos leucopterus* (Vigors)

*Orpheus leucopterus* Vigors, *Voyage Blossom*, 1838, p. 17. Monterey, California, generally accepted as type locality.

*Mimus polyglottos leucopterus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 228. Coatzacoalcos, Veraacruz.

*Mimus gilvus clarus* van Rossem

*Mimus gilvus clarus* van Rossem, *Bull. Mus. Comp. Zool.*, 77 (1934): 401. Camp Mengel, Quintana Roo.

*Mimus gilvus gracilis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 237. Montecristo, Tabasco.

*Mimus gilvus guatemalensis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 239. Coatzacoalcos, Veraacruz; Frontera, Tabasco.

CAMPECHE: Palizada, 8, July 21-27.

I have examined the Montecristo specimen, an adult male taken on May 5, 1900. The white on the outer rectrix extends for a distance of 40.5 mm., and there is an exposed black area for some 15 mm. The back of this bird is worn and soiled, but is not different from comparably worn Yucatán skins.

All the Palizada specimens are spotted-breasted young.

TURDIDAE

*Turdus grayi grayi* Bonaparte

*Turdus grayi* Bonaparte, *Proc. Zool. Soc. London*, 1837, p. 118. Alta Verapaz, Guatemala (restricted by Griscom, *Amer. Mus. Novit.*, No. 438 (1930): 6).

*Planesticus grayi grayi* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 117. Teapa, Tabasco.

Goldman's Teapa specimen, a typical *grayi*, was collected on March 30, 1900.

*Turdus grayi tamaulipensis* (Nelson)

*Merua tamaulipensis* Nelson, *Auk*, 14 (1897): 75. Ciudad Victoria, Tamaulipas.

*Planesticus grayi tamaulipensis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 4 (1907): 119. Frontera, Tabasco.

*Turdus grayi* Rovirosa, *Naturaleza*, 7 (1887): 363. Río Macuspana, Tabasco.

TABASCO: Balancán, 1, May 13; 15 kilometers north of Reforma, 2, May 26; Boca del Cerro, 2, July 1-2. CHIAPAS: Jabalinero, 1, July 7.

Two Nelson and Goldman specimens collected at Frontera on March 11 and April 26 are also referable to the pale race.

\**Hylocichla mustelina* (Gmelin)

*Turdus mustelinus* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 817. New York. Rovirosa, *Naturaleza*, 7 (1887): 363. Río Macuspana, Tabasco.

*Turdus densus* Bonaparte, *Compt. rend. acad. sci. Paris*, 37 (1854): 2. Tabasco.

\**Hylocichla ustulata swainsoni* (Tschudi)

*Turdus swainsoni* Tschudi, *Aves, Faun. Peru.*, 1845, p. 28. Carlton House, Saskatchewan.

TABASCO: Balancán, 1, May 13.

## SYLVIIDAE

*Polioptila caerulea deppei* van Rossem

- Polioptila caerulea deppei* van Rossem, *Bull. Mus. Comp. Zool.*, 77 (1934): 402. Río Lagartos, Yucatán.  
*Polioptila caerulea mexicana* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 722. Minatitlán, Veracruz; Montecristo, Tabasco; Palenque, Chiapas.

TABASCO: Balancán, 4, May 9–13. CHIAPAS: Palenque, 1, July 16.

Measurements are as follows: wing, 46.5–49 (female, 44.5–46.5); tail, 44–48 (female, 44–44.5 mm.).

## CYCLARHIDAE

*Cyclarhis gujanensis flaviventris* Lafresnaye

- Cyclarhis flaviventris* Lafresnaye, *Rev. zool.*, 5 (1842): 133. Veracruz (suggested by Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 8 [1935]: 194 note).

VERACRUZ: Minatitlán, 2, April 25–28.

## VIREONIDAE

*Vireo olivaceus flavoviridis* (Cassin)

- Vireosylva flavoviridis* Cassin, *Proc. Acad. Nat. Sci. Phila.*, 5 (1851): 152. San Juan de Nicaragua (restricted by van Rossem and Hachisuka, *Proc. Biol. Soc. Wash.*, 50 [1937]: 160).  
*Vireosylva flavoviridis flavoviridis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 144. Tabasco.

TABASCO: Balancán, 2, May 11–17; Reforma, 4, May 23; 15 kilometers north of Reforma, 1, May 28; Boca del Cerro, 1, July 3.

\**Vireo griseus griseus* (Boddaert)

- Tanagra grisea* Boddaert, *Tabl. pl. enl.*, 1783, p. 45. Louisiana.  
*Vireo noveboracensis noveboracensis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 183. Frontera, Tabasco.

*Hylophilus ochraceiceps ochraceiceps* Selater

- Hylophilus ochraceiceps* Selater, *Proc. Zool. Soc. London*, 1859, p. 375. Playa Vicente, Veracruz.  
*Pachysylva ochraceiceps ochraceiceps* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 218. Teapa, Tabasco.

TABASCO: San Isidro, 1, June 10; Santo Tomás, 1, June 21.

The bird from San Isidro is in juvenal plumage and agrees rather well with Bangs's<sup>59</sup> description of this stage. The crown is Dresden brown; back, scapulars, and rump a little redder than tawny-olive; chin and throat dirty white; suborbital region still duskier; lores olive-yellow; breast cinnamon-buff, becoming brighter on flanks and abdomen; crissum reed yellow; wings and tail as in the adult, but a little more olive.

<sup>59</sup> "On a Collection of Birds from Western Costa Rica," *Auk*, 24 (1907): 305.

Northern birds seem to have the forehead yellower than do those from Costa Rica and Panama.

*Hylophilus decurtatus decurtatus* (Bonaparte)

*Sylvicola decurtata* Bonaparte, *Proc. Zool. Soc. London*, 1837 (1838): 118. Guatemala.

*Pachysylvia decurtata* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 3 (1904): 216. Tabasco.

*Pachysylvia decurtata decurtata* Dickey and van Rossem, *Proc. Biol. Soc. Wash.*, 40 (1927): 4. Palenque, Chiapas; Frontera and Teapa, Tabasco.

TABASCO: 15 kilometers north of Reforma, 1, May 28; Boca del Cerro, 1, July 3. CHIAPAS: Jabalinero, 1, July 7; El Aguacate, 1, July 18.

The one collected on July 18 is in juvenal plumage.

MNIOTILTIDAE

\**Dendroica aestiva aestiva* (Gmelin)

*Motacilla aestiva* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 996. Canada.

TABASCO: Balancán, 2, May 10-11.

\**Dendroica aestiva amnicola* Batchelder

*Dendroica aestiva amnicola* Batchelder, *Proc. New Engl. Zool. Club*, 6 (1918): 82. Curslet, Newfoundland.

VERACRUZ: Minatitlán, 2, April 24-28.

These are the first specimens of this race of yellow warbler to be recorded from Mexico.

\**Dendroica aestiva rubiginosa* (Pallas)

*Motacilla rubiginosa* Pallas, *Zoogr. Rosso-Asiatica*, 1 (1811): 496. Kodiak Island.

VERACRUZ: Minatitlán, 4, April 25-30.

\**Dendroica aestiva sonorana* Brewster

*Dendroica aestiva sonorana* Brewster, *Auk*, 5 (1888): 137. Oposura, Sonora. Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 8 (1935): 366. Teapa, Tabasco, 2 specimens.

\**Dendroica magnolia* (Wilson)

*Sylvia magnolia* Wilson, *Amer. Orn.*, 3 (1811): 65, Pl. 23, Fig. 2. Fort Adams, Mississippi.

*Dendroica magnolia* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 8 (1935): 385. Teapa, Tabasco, 1 specimen.

VERACRUZ: Minatitlán, 1, April 27.

\**Dendroica coronata coronata* (Linnaeus)

*Motacilla coronata* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 333. Pennsylvania.

*Dendroica coronata coronata* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 8 (1935): 388. Teapa, Tabasco, 2 specimens.

\**Dendroica pensylvanica* (Linnaeus)

*Motacilla pensylvanica* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 333. Pennsylvania.

*Dendroica pensylvanica* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 8 (1935): 402.  
Teapa, Tabasco, 2 specimens.

\**Seiurus noveboracensis notabilis* Ridgway

*Seiurus naevius notabilis* Ridgway, *Proc. U. S. Nat. Mus.*, 3 (1880): 12. Lake Como, Wyoming.

TABASCO: Balancán, 1, May 15.

\**Oporornis philadelphia* (Wilson)

*Sylvia philadelphia* Wilson, *Amer. Orn.*, 2 (1810): 101, Pl. 14, Fig. 6. Philadelphia, Pennsylvania.

TABASCO: Reforma, 1, May 22.

\**Geothlypis trichas brachidactyla* (Swainson)

*Trichas brachidactylus* Swainson, *Anim. Menag.*, 1837, p. 295. Northern United States.

*Geothlypis trichas brachidactyla* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 664. Tabasco. Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 8 (1935): 426.  
Teapa, Tabasco, 2 specimens.

TABASCO: Balancán, 1, May 9.

*Chamaethlypis poliocephala palpebralis* (Ridgway)

*Geothlypis palpebralis* Ridgway, *Man. N. Amer. Birds*, 1887, p. 526. Mirador, Veracruz.

*Chamaethlypis poliocephala palpebralis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 689. Montecristo, Tabasco; Palenque, Chiapas.

VERACRUZ: Minatitlán, 1, April 24. Tabasco: Balancán, 1, May 10;  
Tenosique, 2, June 15-16. CHIAPAS: El Aguacate, 3, July 16-18.

*Granatellus sallaei sallaei* (Bonaparte)

*Setophaga sallaei* Bonaparte, *Compt. rend. acad. sci. Paris*, 42 (1856): 957. Córdoba, Veracruz.

CHIAPAS: Palenque, 1, July 10.

I have not seen the Guatemalan race, *Granatellus sallaei griscomi* van Rossem, but since the back of the Palenque specimen is duller, if anything, than that of *boucardi*, it apparently cannot be referred to *griscomi*.

\**Wilsonia pusilla pusilla* (Wilson)

*Muscicapa pusilla* Wilson, *Amer. Orn.*, 3 (1811): 103, Pl. 26, Fig. 4. Southern New Jersey.

*Wilsonia pusilla pusilla* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 8 (1935): 452.  
Teapa, Tabasco, 1 specimen.

\**Setophaga ruticilla* (Linnaeus)

*Motacilla ruticilla* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 186. Virginia.

*Setophaga ruticilla* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 8 (1935): 457.

Teapa, Tabasco, 3 specimens.

VERACRUZ: Minatitlán, 1, April 28. TABASCO: Balancán, 1, May 16.

*Basileuterus rufifrons flavigaster* Nelson

*Basileuterus flavigaster* Nelson, *Auk*, 14 (1897): 67. Yajalon, Chiapas.

*Basileuterus rufifrons flavigaster* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902):

748. Teapa, Tabasco.

VERACRUZ: Minatitlán, 1, April 24.

*Basileuterus culicivorus culicivorus* (Lichtenstein)

*Sylvia culicivora* Lichtenstein, *Preis-Verz. Säug. Vögel Mex.*, 1830, p. 2. Jalapa, Veracruz.

*Basileuterus culicivorus culicivorus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902):

753. Teapa, Tabasco.

## ICTERIDAE

*Zarhynchus wagleri wagleri* (Gray and Mitchell)

*Cacicus wagleri* Gray and Mitchell, *Genera Birds*, 2 (1844): 342, Pl. 85. Cobán, Alta Verapaz, Guatemala.

*Zarhynchus wagleri wagleri* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 10 (1937):

2. Teapa, "Chiapas."

CHIAPAS: Palenque, 1, July 14.

*Gymnostinops montezuma* (Lesson)

*Cacicus montezuma* Lesson, *Cent. Zool.*, livr. 2 (1830): 33, Pl. 7. Mexico.

*Gymnostinops montezumae* Rovirosa, *Naturalista*, 7 (1887): 364. Whole state of Tabasco.

TABASCO: 15 kilometers north of Reforma, 1, May 24; La Palma, 1, June 3; Santo Tomás, 1, June 21; Boca del Cerro, 2, July 2-3.

*Amblycercus holosericeus holosericeus* (Lichtenstein)

*Sturnus holosericeus* Lichtenstein, *Preis-Verz. Säug. Vögel Mex.*, 1830, p. 1. Alvarado, Veracruz (cf. van Rossem, *Bull. Mus. Comp. Zool.*, 77 [1934]: 419).

VERACRUZ: Minatitlán, 1, April 27. TABASCO: Balancán, 3, May 16-17; Tenosique, 1, June 14.

*Psomocolax oryzivorus impacificus* Peters

*Psomocolax oryzivorus impacificus* Peters, *Proc. Biol. Soc. Wash.*, 42 (1929): 123. Pasa Nueva, Veracruz.

TABASCO: La Palma, 2, June 4-5.



*Tangavius aeneus aeneus* (Wagler)

*Psarocolius aeneus* Wagler, *Isis*, 22 (1829): col. 758. Mexico City (cf. van Rossem, *Trans. San Diego Soc. Nat. Hist.*, 7 [1934]: 354).

*Molothrus pecoris* [nec Gmelin] Rovirosa, *Naturaleza*, 7 (1887): 365. Río Macuspana, Tabasco.

VERACRUZ: Minatitlán, 1, April 26. CAMPECHE: Palizada, 1, July 22.

*Cassidix mexicanus mexicanus* (Gmelin)

*Corvus mexicanus* Gmelin, *Syst. Nat.*, 1, Pt. 1 (1788): 375. Veracruz, Veracruz (restricted by Lowery, *Occ. Papers Mus. Zool. Louisiana State Univ.*, No. 1 [1938]: 4).

*Quiscalus macrourus* Rovirosa, *Naturaleza*, 7 (1887): 366. Río Macuspana, Tabasco.

VERACRUZ: Minatitlán, 2, April 26-28.

Four of these grackles collected by Nelson and Goldman at Montecristo, Tabasco, May 3-24, 1900, have also been examined.

The birds from Minatitlán and Montecristo do not differ in size from specimens of *Cassidix mexicanus prosopidicola*, but the females may be distinguished from that form by their darker coloration. Measurements are as follows: wing, 190, 192, 195 (female, 144, 151, 153 mm.); tail, 200, 202, 204 (female, 134, 147, 157 mm.).

*Dives dives dives* (Lichtenstein)

*Icterus dives* Lichtenstein, *Preis-Verz. Säug. Vogel Mex.*, 1830, p. 1. Mexico.

*Dives dives* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 254. Coatzacoalcos, Veracruz.

VERACRUZ: Minatitlán, 5, April 24-26. TABASCO: Balancán, 4, May 9-17.

*\*Icterus galbula* (Linnaeus)

*Coracias galbula* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 108. Virginia.

*Icterus baltimore* Rovirosa, *Naturaleza*, 7 (1887): 366. Río Macuspana, Tabasco.

Since this is the only species of *Icterus* which Rovirosa recorded and since he stated that it breeds in Tabasco, little reliance can be placed on his determination.

*\*Icterus spurius* (Linnaeus)

*Oriolus spurius* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 162. South Carolina.

VERACRUZ: Minatitlán, 7, April 28-30.

*Icterus prothemelas prothemelas* (Strickland)

*Xanthornus prothemelas* Strickland, *Contrib. Orn.*, 1850, p. 120, Pl. 62. Guatemala.

VERACRUZ: Minatitlán, 1, April 27. TABASCO: Balancán, 5, May 13-17; 15 kilometers north of Reforma, 1, May 25; La Ribera, 1, July 1. CAMPECHE: Palizada, 1, July 21.

*Icterus mesomelas mesomelas* (Wagler)

*Psarocolius mesomelas* Wagler, *Isis*, 1829, col. 755. Mexico.

*Xanthornus mesomelas* Bonaparte, *Consp. Gen. Av.*, 1, Pt. 2 (1850): 434. Tabasco.

*Icterus mesomelas mesomelas* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 305. Minatitlán, "Oaxaca"; Tabasco.

VERACRUZ: Minatitlán, 2, April 27–28. TABASCO: 15 kilometers north of Reforma, 1, May 26; Provincia, 1, May 29; Tenosique, 1, June 14; Santo Tomás, 1, June 22. CAMPECHE: Palizada, 1, July 24.

*Icterus gularis tamaulipensis* Ridgway

*Icterus gularis tamaulipensis* Ridgway, *Proc. Wash. Acad. Sci.*, 3 (1901): 152. Altamira, Tamaulipas.

VERACRUZ: Minatitlán, 1, April 25. TABASCO: Balancán, 1, May 14. CAMPECHE: Palizada, 4, July 21–23.

On the basis of these birds the range of the form is extended some 250 miles to the east. Three specimens are fully adult females with black tails. Their measurements are: wing, 103, 106, 107 mm.; tail, 89, 89, 95 mm. They are much less orange than *yucatanensis*.

*Icterus cucullatus igneus* Ridgway

*Icterus cucullatus igneus* Ridgway, *Proc. U. S. Nat. Mus.*, 8 (1885): 19. Yucatán.

TABASCO: Balancán, 7, May 11–17. CHIAPAS: El Aguacate, 4, July 17. CAMPECHE: Palizada, 5, 21–26.

Two specimens from British Honduras (*masoni*) do not appear to differ from Yucatán birds.

*Agelaius phoeniceus richmondi* Nelson

*Agelaius phoeniceus richmondi* Nelson, *Auk*, 14 (1897): 58. Tlacotalpam, Veracruz.

VERACRUZ: Minatitlán, 6, April 25–May 1.

*Agelaius phoeniceus matudae* Brodkorb

*Agelaius phoeniceus matudae* Brodkorb, *Auk*, 57 (1940): 548. Palizada, Campeche.

*Agelaius phoeniceus* Roviroa, *Naturaleza*, 7 (1887): 365. Río Macuspana, Tabasco; El Limón, Chiapas.

*Agelaius phoeniceus richmondi* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 335. Montecristo, Tabasco.

TABASCO: La Palma, 5, May 31–June 2; Boca del Cerro, 2, July 2. CAMPECHE: Palizada, 14, July 21–26.

Three juveniles were taken on July 23.

*Sturnella magna mexicana* Selater

*Sturnella mexicana* Selater, *Ibis*, 1861, p. 179, part. Jalapa, Veracruz. Roviroa, *Naturaleza*, 7 (1887): 366. Santa Lucia, Chiquihuite, and El Zopilote, Tabasco.

*Sturnella magna mexicana* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 10 (1937): 213. Tabasco.

*Sturnella magna inexpectata* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 364. Minatitlán, Veracruz; Palenque, Chiapas.

VERACRUZ: Minatitlán, 7, April 23–May 1.

*Sturnella magna alticola* Nelson

*Sturnella magna alticola* Nelson, *Auk*, 17 (1900): 266. Ocuilapa, Chiapas.

CHIAPAS: [Sierra de] Palenque, 2, July 14.

When I first studied Matuda's meadowlarks I was exceedingly perplexed to find that two labeled Palenque were definitely *alticola*, although the published measurements of five males from Palenque<sup>60</sup> agree just as definitely with the small lowland *mexicana*. There is the following entry, however, in Matuda's diary under the date when the two birds were collected: "July 14, Friday. . . . Collected in the Sierra de Palenque. Not very high, around 1000 meters. . . . We went about 16 kilometers distant" (translation). On the map I find that there is a low range of about that altitude some 15 kilometers west of Palenque, and it seems probable that the two meadowlarks were collected there rather than near the town, which has an altitude of only 210 meters.

TABLE XII

MEASUREMENTS OF *Sturnella magna mexicana* AND *S. m. alticola*

Sex	Locality	Wing (mm.)	Tail (mm.)	Culmen (mm.)	Tarsus (mm.)
♂	Minatitlán	105	65	29.5	41
♂	Minatitlán	107	67	30.5	41
♂	Minatitlán	109	69.5	29	43
♂	[Sierra de] Palenque	116	68	32	44
♀	Minatitlán	94	59.5	28.5	39
♀	Minatitlán	95	57.5	26	37.5
♀	Minatitlán	97	60	26	39
♀	Minatitlán	97	64	26	40.5
[♀]	[Sierra de] Palenque	101	58	30.5	39

THRAUPIDAE

*Tanagra affinis affinis* Lesson

*Tanagra affinis* Lesson, *Rev. Zool.*, 5 (1842): 175. Realejo, Nicaragua. Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 9 (1936): 35. Teapa, Tabasco, 1 specimen.

TABASCO: 15 kilometers north of Reforma, 1, May 25.

*Tanagra lauta lauta* Bangs and Penard

*Tanagra lauta lauta* Bangs and Penard, *Bull. Mus. Comp. Zool.*, 63 (1919): 35. Guatemala. Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 9 (1936): 51. Teapa, Tabasco, 3 specimens.

<sup>60</sup> Cf. Ridgway, *op. cit.*, p. 364 note; Griscom, *op. cit.*, p. 389; *idem*, "The Ornithology of Guerrero, Mexico," p. 406.

VERACRUZ: Minatitlán, 1, April 28. TABASCO: Balancán, 2, May 16; 15 kilometers north of Reforma, 4, May 24–25; La Palma, 2, June 1–6; Santo Tomás, 2, June 21; Boca del Cerro, 1, July 4.

*Tanagra gouldi gouldi* (Sclater)

*Euphonia gouldi* Sclater, *Proc. Zool. Soc. London*, 1857, p. 66, Pl. 124. Guatemala generally accepted as type locality.

TABASCO: 15 kilometers north of Reforma, 2, May 26–27. CHIAPAS: Jabalínero, 1, July 7.

*Tangara nigrocincta larvata* (Du Bus)

*Calliste larvata* Du Bus, *Esq. orn.*, livr. 2 (1846): Pl. 2. Tabasco.

*Calospiza larvata larvata* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 47. Palenque, Chiapas; Teapa, Tabasco.

TABASCO: Tenosique, 1, June 15. CHIAPAS: Palenque, 7, July 10–15.

One collected on July 10 is a juvenile just getting some of the adult feathers.

*Thraupis episcopus diaconus* (Lesson)

*Tanagra (Aglaia) diaconus* Lesson, *Rev. zool.*, 5 (1842): 175. Realejo, Nicaragua.

*Thraupis episcopus diaconus* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 9 (1936): 214. Teapa, Tabasco, 1 specimen.

VERACRUZ: Minatitlán, 5, April 26–May 1. TABASCO: Balancán, 2, May 10–13; La Palma, 1, June 4; Tenosique, 1, June 13. CHIAPAS: Jabalínero, 1, July 7; Palenque, 2, July 15. CAMPECHE: Palizada, 1, July 23.

*Thraupis abbas* (Lichtenstein)

*Tanagra abbas* Lichtenstein, *Preis-Verz. Säug. Vögel Mex.*, 1830, p. 2. Oaxaca (cf. van Rossem, *Bull. Mus. Comp. Zool.*, 77 [1934]: 419).

VERACRUZ: Minatitlán, 1, April 28. TABASCO: Balancán, 1, May 15; Provincia, 1, May 29. CHIAPAS: Palenque, 1, July 11; El Aguacate, 1, July 17.

*Ramphocelus passerinii passerinii* Bonaparte

*Ramphocelus passerinii* Bonaparte, *Antologia*, 1831, p. 3. Guatemala (restricted by Berlepsch, *Verh. 5 Internat. Orn. Kongr. Berlin*, 1912, p. 1060). Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 109. Teapa, Tabasco.

*Ramphocelus passerinii passerinii* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 9 (1936): 261. Teapa, Tabasco, 4 specimens.

TABASCO: Tenosique, 12, June 13–29.

*Phlogothraupis sanguinolenta sanguinolenta* (Lesson)

*Tanagra (Tachyphonus) sanguinolentus* Lesson, *Cent. Zool.*, 1831, p. 107, Pl. 39. Mexico.

*Phlogothraupis sanguinolenta* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 120. Teapa, Tabasco.

*Phlogothraupis sanguinolenta sanguinolenta* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 9 (1936): 269. Teapa, Tabasco, 1 specimen.

TABASCO: Provincia, 1, May 30; La Palma, 1, June 6; Tenosique, 1, June 14. CHIAPAS: Palenque, 1, July 15.

\**Piranga rubra rubra* (Linnaeus)

*Fringilla rubra* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 181. South Carolina.

*Piranga rubra rubra* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 9 (1936): 271. Teapa, Tabasco, 1 specimen.

*Habia rubica rubicoides* (Lafresnaye)

*Saltator rubicoides* Lafresnaye, *Rev. zool.*, 7 (1844): 41. Mexico.

*Phoenicothera rubica rubicoides* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 144. Tabasco.

*Habia rubica rubicoides* Dickey and van Rossem, *Proc. Biol. Soc. Wash.*, 40 (1927): 5. Teapa, Tabasco.

TABASCO: Reforma, 2, May 22. CHIAPAS: Jabalinero, 1, July 7.

Two of these are adult males and agree well with Lafresnaye's type.

*Habia gutturalis littoralis* (Nelson)

*Phoenicothera littoralis* Nelson, *Auk*, 18 (1901): 48. Frontera, Tabasco.

*Phoenicothera salvini littoralis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 149. Frontera, Tabasco.

*Habia salvini littoralis* Dickey and van Rossem, *Proc. Biol. Soc. Wash.*, 40 (1927): 6. Frontera, Tabasco.

*Habia gutturalis littoralis* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 9 (1936): 310. Teapa, Tabasco, 1 specimen.

*Phoenicothera salvini salvini* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 148. El Salto, Chiapas.

TABASCO: Balancán, 4, May 15-17; Reforma, 3, May 22-23; 15 kilometers north of Reforma, 4, May 24-27; Provincia, 1, May 29; La Palma, 3, June 1-3; Santo Tomás, 2, June 22-24; Boca del Cerro, 4, June 30-July 4. CHIAPAS: Jabalinero, 1, July 5.

*Lanio aurantius aurantius* Lafresnaye

*Lanio aurantius* Lafresnaye, *Rev. zool.*, 9 (1846): 204. Guatemala (substituted by Berlepsch, *Verh. 5 Int. Orn. Kongr. Berlin*, 1912, p. 1072). Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 2 (1902): 123. Teapa, Tabasco.

TABASCO: 15 kilometers north of Reforma, 2, May 24-25. CHIAPAS: Jabalinero, 1, July 7; Palenque, 2, July 11-14.

*Eucometis penicillata pallida* Berlepsch

*Eucometis spodocephala pallida* Berlepsch, *Auk*, 5 (1888): 451. Yucatán.

TABASCO: Balancán, 1, May 14; Reforma, 1, May 22; 15 kilometers north

of Reforma, 2, May 26–27; La Palma, 1, June 5; San Isidro, 1, June 9; Boca del Cerro, 1, July 4. CHIAPAS: Jabalinero, 1, July 7.

## FRINGILLIDAE

*Saltator atriceps atriceps* (Lesson)

*Tanagra* (*Saltator*) *atriceps* Lesson, *Cent. Zool.*, 1832, p. 208, Pl. 69. Veracruz (designated by Griscom, *Auk*, 54 [1937]: 198).

*Saltator atriceps atriceps* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 661–74. Tabasco.

TABASCO: Balancán, 2, May 15–16; La Palma, 1, June 2; Santo Tomás, 1, June 21; Boca del Cerro, 1, July 2.

The bird from Boca del Cerro, an adult male, has a brown border on the posterior margin of the white throat patch.

*Saltator maximus gigantodes* Cabanis

*Saltator gigantodes* Cabanis, *Mus. Hein.*, 1 (1851): 142. Mexico.

*Saltator maximus gigantodes* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 11 (1938): 9. Teapa, Tabasco, 6 specimens.

TABASCO: La Palma, 1, June 3; Tenosique, 2, June 14. CHIAPAS: Palenque, 1, July 15.

The Palenque bird is in juvenal plumage, a stage which is apparently undescribed. It differs from the adult in the following particulars: pileum and sides of head, except for yellowish white superciliary stripe, dull olive; entire chin, throat, and upper breast dull black; crissum paler and buffier; maxilla horn; mandible yellowish.

*Saltator coerulescens grandis* (Lichtenstein)

*Tanagra grandis* Lichtenstein, *Preis-Verz. Säug. Vögel Mex.*, 1830, p. 2. Jalapa, Veracruz (cf. Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 11 [1938]: 17).

*Saltator grandis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 666. Teapa, Tabasco.

VERACRUZ: Minatitlán, 4, April 24–28.

I have also examined the specimen which Goldman collected at Teapa, Tabasco, on March 27, 1900.

*Saltator coerulescens yucatanensis* Berlepsch

*Saltator grandis yucatanensis* Berlepsch, *Verh. 5 Intern. Orn. Kongr. Berlin*, 1912, pp. 1114–46. Mérida, Yucatán.

*Saltator grandis* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 666. Frontera, Tabasco.

TABASCO: Balancán, 4, May 12–16; La Palma, 1, June 5. CAMPECHE: Palizada, 2, July 22–27.

I also refer here a male collected by Goldman at Frontera on March 12,

1900. One of the four Balancán specimens could just as well be called *grandis*. The bird from La Palma is a xanthogenic mutant.

*Caryothraustes poliogaster poliogaster* (Du Bus)

*Pitylus poliogaster* Du Bus, *Bull. acad. roy. Belg.*, 14, Pt. 2 (1847): 105. Guatemala.

TABASCO: Reforma, 1, May 22; 15 kilometers north of Reforma, 9, May 24–28; San Isidro, 1, June 10. CHIAPAS: Palenque, 2, July 12–13.

*Richmondia cardinalis littoralis* (Nelson)

*Cardinalis cardinalis littoralis* Nelson, *Auk*, 14 (1897): 64. Coatzacoalcos (type) and Minatitlán, Veracruz. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 643. Coatzacoalcos and Minatitlán, Veracruz.

VERACRUZ: Minatitlán, 1, May 1. TABASCO: Balancán, 3, May 15–16.

The Balancán specimens form a considerable eastward extension of the known range of this cardinal.

*Cyanocompsa parellina parellina* (Bonaparte)

*Cyanoloxia parellina* Bonaparte, *Consp. Gen. Av.*, 1, Pt. 2 (1850): 502. Alvarado, Veracruz.

*Cyanocompsa parellina parellina* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 601. Frontera, Tabasco.

TABASCO: Reforma, 1, May 23; Santo Tomás, 1, June 24.

I have also seen two males taken by Nelson and Goldman at Frontera on March 10 and April 26, 1900. All these birds are somewhat similar to specimens of *Cyanocompsa parellina dearborni*.

*Cyanocompsa cyanooides concreta* (Du Bus)

*Cyanoloxia concreta* Du Bus, *Bull. acad. roy. Belg.*, 22, Pt. 1 (1855): 150. Playa Vicente, Veracruz.

TABASCO: 15 kilometers north of Reforma, 1, May 25; La Palma, 1, June 6; San Isidro, 1, June 8; Santo Tomás, 1, June 24; Tenosique, 1, June 27. CHIAPAS: Palenque, 5, July 11–15; El Aguacate, 1, July 18.

\**Passerina cyanea* (Linnaeus)

*Tanagra cyanea* Linnaeus, *Syst. Nat.*, ed. 12; 1 (1766): 315. South Carolina.

*Passerina cyanea* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 11 (1938): 106. Teapa, Tabasco, 1 specimen.

\**Passerina ciris ciris* (Linnaeus)

*Emberiza ciris* Linnaeus, *Syst. Nat.*, ed. 10; 1 (1758): 179. South Carolina.

*Passerina ciris ciris* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 11 (1938): 111. Teapa, Tabasco, 1 specimen.

\**Passerina ciris pallidior* Mearns

*Passerina ciris pallidior* Mearns, *Proc. Biol. Soc. Wash.*, 24 (1911): 217. Fort Clark, Kinney County, Texas.

VERACRUZ: Minatitlán, 2, April 27-28.

\**Spiza americana* (Gmelin)

*Emberiza americana* Gmelin, *Syst. Nat.*, 1, Pt. 2 (1789): 872. New York.

VERACRUZ: Minatitlán, 1, April 24. TABASCO: Balancán, 1, May 15.

*Spermophila torqueola moreletii* Bonaparte

*Spermophila moreletii* Bonaparte, *Consp. Gen. Av.*, 1, Pt. 2 (1850): 497. Petén, Guatemala.

*Sporophila torqueola moreletii* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 11 (1938): 186. Teapa, Tabasco, 2 specimens.

VERACRUZ: Minatitlán, 5, April 27-28. TABASCO: Balancán, 3, May 9-14. CHIAPAS: Palenque, 1, July 11.

*Oryzoborus funereus* Sclater

*Oryzoborus funereus* Sclater, *Proc. Zool. Soc. London*, 1859, p. 378. Suchapam, Oaxaca. Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 605. Frontera, Tabasco. Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 11 (1938): 248. Teapa, Tabasco, 2 specimens.

CHIAPAS: Palenque, 1, July 15.

*Volatinia jacarina splendens* (Vieillot)

*Fringilla splendens* Vieillot, *Nouv. dict. hist. nat.*, 12 (1817): 173. Cayenne.

*Volatinia jacarina splendens* Hellmayr, *Field Mus. Nat. Hist. Zool. Ser.*, 13, Pt. 11 (1938): 251. Teapa, Tabasco, 1 specimen.

VERACRUZ: Minatitlán, 1, April 27. TABASCO: Balancán, 4, May 16-17; La Palma, 1, June 2; Tenosique, 4, June 13-29. CHIAPAS: El Aguacate, 1, July 17.

I have also examined three specimens collected at Montecristo by Nelson and Goldman.

*Sicalis luteola chrysops* Sclater

*Sycalis chrysops* Sclater, *Proc. Zool. Soc. London*, 1861, p. 376. Southern Mexico.

*Sicalis chrysops* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 523. Palenque, Chiapas.

*Arremon aurantirostris saturatus* Cherrie

*Arremon aurantirostris saturatus* Cherrie, *Proc. U. S. Nat. Mus.*, 14 (1891): 345. Chocutum, Alta Verapaz, Guatemala.

*Arremon aurantirostris* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 455. Teapa, Tabasco.

TABASCO: Santo Tomás, 1, June 23. CHIAPAS: Jabalinero, 1, July 7.



*Arremonops rufivirgatus crassirostris* (Ridgway)

*Embernagra rufivirgata crassirostris* Ridgway, *Proc. U. S. Nat. Mus.*, 1 (1878): 248, 249.  
Córdoba and Orizaba, Veraacruz.

VERACRUZ: Minatitlán, 1, April 28.

On the basis of this specimen the range of the form is extended slightly eastward.

*Arremonops conirostris chloronotus* (Salvin)

*Embernagra chloronota* Salvin, *Proc. Zool. Soc. London*, 1861, p. 202. Choctum, Alta Verapaz, Guatemala.

*Arremonops chloronotus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 452.  
Frontera and Montecristo, Tabasco; Palenque, Chiapas.

TABASCO: Balancán, 4, May 10-16; 15 kilometers north of Reforma, 1, May 26; La Palma, 1, June 2; Tenosique, 1, June 13.

\**Anmodramus savannarum perpallidus* (Coues)

*Coturniculus passerinus* var. *perpallidus* Coues, *Key N. Amer. Birds*, 1872, p. 137. Antelope Island, Great Salt Lake, Utah.

VERACRUZ: Minatitlán, 1, April 24.

This bird, a male, agrees in color with specimens from the western United States. The wing measures 63.5 mm. The tail is missing.

*Anmodramus savannarum bimaculatus* Swainson

*Anmodramus bimaculatus* Swainson, *Phil. Mag.*, new ser., 1, No. 6 (1827): 345. Temascaltepec, State of Mexico.

*Anmodramus savannarum obscurus* Nelson, *Auk*, 14 (1897): 61. Minatitlán, Veraacruz.  
*Coturniculus savannarum obscurus* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 209. Minatitlán, Veraacruz; Palenque, Chiapas.

VERACRUZ: Minatitlán, 5, April 23-24.

One of these birds is a female with the wing measuring 57 mm., tail, 37.5 mm. It is thus smaller than the females which Ridgway doubtfully referred to this race.

Van Rossem<sup>61</sup> and Hellmayr<sup>62</sup> both examined Swainson's type and found it to belong to the resident form of southern Mexico which Nelson described under the name *obscurus*, based on specimens from Minatitlán.

*Aimophila rufescens rufescens* (Swainson)

*Pipilo rufescens* Swainson, *Phil. Mag.*, new ser., 1, No. 6 (1827): 434. Temascaltepec, State of Mexico.

VERACRUZ: Minatitlán, 1, April 24. CHIAPAS: Palenque, 1, July 14.

I have also seen two Nelson and Goldman specimens from Palenque.

<sup>61</sup> "Critical Notes on Middle American Birds," *Trans. San Diego Soc. Nat. Hist.*, 7 (1934): 359.

<sup>62</sup> *Op. cit.*, Pt. 11 (1938): 499.

*Aimophila petenica petenica* (Salvin)

*Ammodramus petenicus* Salvin, *Proc. Zool. Soc. London*, 1863, p. 189. Petén, Guatemala.  
*Aimophila botterii sartorii* Ridgway, *Bull. U. S. Nat. Mus.*, No. 50, Pt. 1 (1901): 259.  
 Palenque, Chiapas.

\**Melospiza lincolni lincolni* (Audubon)

*Fringilla lincolni* Audubon, *Birds Amer.*, folio ed.; 2 (1834): Pl. 193. Natashaquan  
 River, Quebec.

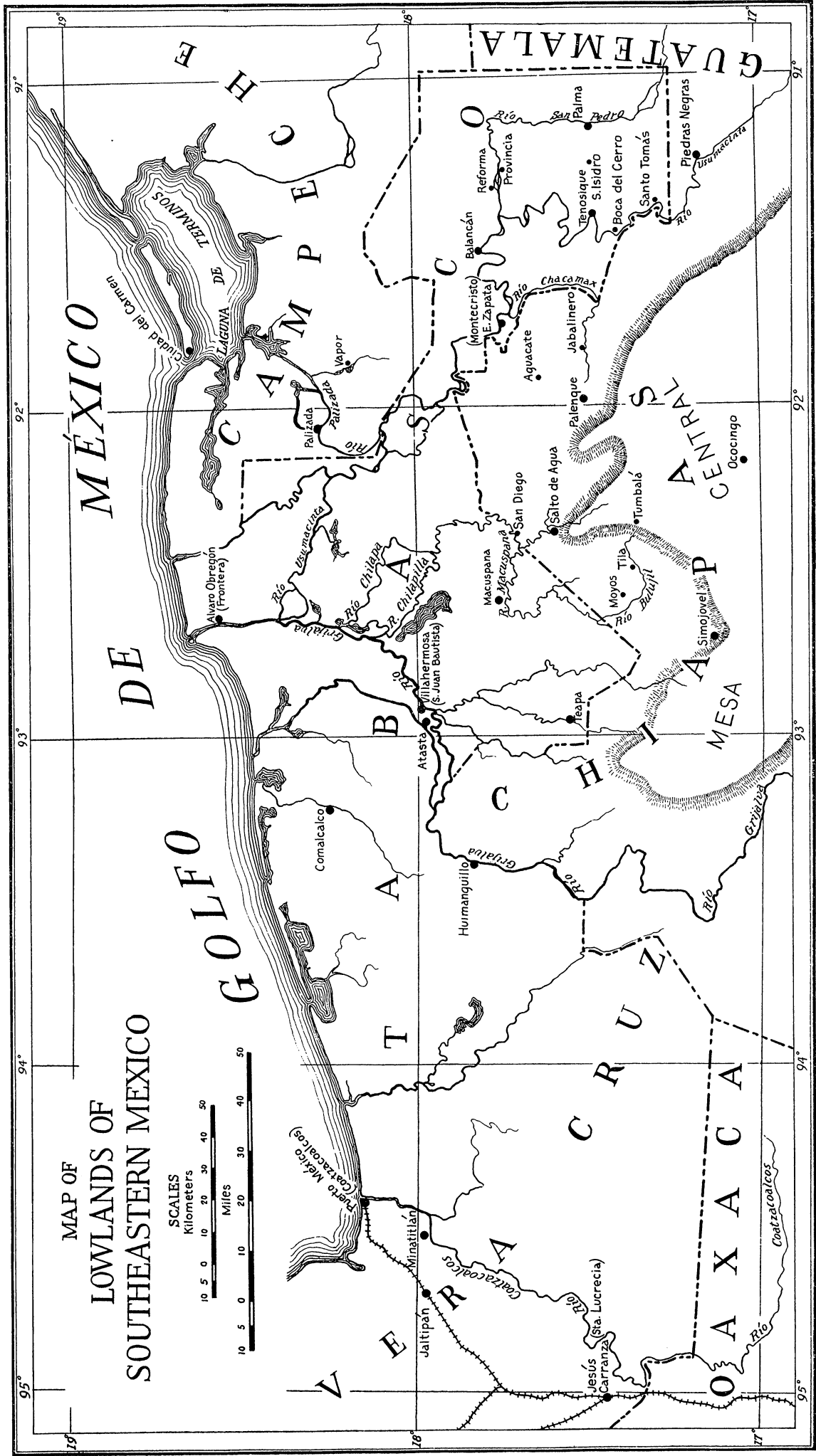
VERACRUZ: Minatitlán, 1, April 27.

\**Melospiza lincolni alticola* (Miller and McCabe)

*Passerella lincolni alticola* Miller and McCabe, *Condor*, 1935, pp. 156, 159. Bluff Lake,  
 San Bernardino County, California.

VERACRUZ: Minatitlán, 1, April 23.

This bird, a male, has a wing measuring 65 mm., tail, 56 mm.



MAP OF  
LOWLANDS OF  
SOUTHEASTERN MEXICO

SCALES  
Kilometers  
10 5 0 10 20 30 40 50  
Miles  
10 5 0 10 20 30 40 50

MAP 1



No. 24.	A Comparative Life History Study of the Mice of the Genus <i>Peromyscus</i> . By ARTHUR SVIHLA. (1932) Pp. 39 .....	\$0.50
No. 25.	The Moose of Isle Royale. By ADOLPH MURIE. (1934) Pp. 44, 7 plates .....	\$0.70
No. 26.	Mammals from Guatemala and British Honduras. By ADOLPH MURIE. (1935) Pp. 30, 1 plate, 1 map insert .....	\$0.35
No. 27.	The Birds of Northern Petén, Guatemala. By JOSSELYN VAN TYNE. (1935) Pp. 46, 2 plates, 1 map .....	\$0.45
No. 28.	Fresh-water Fishes Collected in British Honduras and Guatemala. By CARL L. HUBBS. (1935) Pp. 22, 4 plates, 1 map .....	\$0.25
No. 29.	A Contribution to a Knowledge of the Herpetology of a Portion of the Savanna Region of Central Petén, Guatemala. By L. C. STUART. (1935) Pp. 56, 4 plates, 1 figure, 1 map .....	\$0.50
No. 30.	The Darters of the Genera <i>Hololepis</i> and <i>Villora</i> . By CARL L. HUBBS AND MOTT DWIGHT CANNON. (1935) Pp. 93, 3 plates, 1 figure .....	\$0.50
No. 31.	Goniobasis of the Coosa River, Alabama. By CALVIN GOODRICH. (1936) Pp. 60, 1 plate, 1 figure .....	\$0.35
No. 32.	Following Fox Trails. By ADOLPH MURIE. (1936) Pp. 45, 6 plates, 6 figures .....	\$1.00
No. 33.	The Discovery of the Nest of the Colima Warbler ( <i>Vermivora crissalis</i> ). By JOSSELYN VAN TYNE. (1936) Pp. 11, colored frontis., 3 plates, 1 map .....	\$0.35
No. 34.	Mollusca of Petén and North Alta Vera Paz, Guatemala. By CALVIN GOODRICH AND HENRY VAN DER SCHALIE. (1937) Pp. 50, 1 plate, 1 figure, 1 map .....	\$0.50
No. 35.	A Revision of the Lamprey Genus <i>Ichthyomyzon</i> . By CARL L. HUBBS AND MILTON B. TRAUTMAN. (1937) Pp. 109, 2 plates, 5 figures, 1 map .....	\$2.00
No. 36.	A Review of the Dragonflies of the Genera <i>Neurocordulia</i> and <i>Platycor-</i> <i>culia</i> . By C. FRANCIS BYERS. (1937) Pp. 36, 8 plates, 4 maps .....	\$0.50
No. 37.	The Birds of Brewster County, Texas. By JOSSELYN VAN TYNE AND GEORGE MIKSCH SUTTON. (1937) Pp. 115, colored frontis., 5 plates, 1 map .....	\$1.25
No. 38.	Revision of <i>Sciurus variegatoides</i> , a Species of Central American Squir- rel. By WILLIAM P. HARRIS, JR. (1937) Pp. 42, 3 plates (2 colored), 3 figures, 1 map .....	\$0.50
No. 39.	Faunal Relationships and Geographic Distribution of Mammals in Sonora, Mexico. By WILLIAM H. BURT. (1938) Pp. 77, 26 maps .....	\$0.75
No. 40.	The Naiad Fauna of the Huron River, in Southeastern Michigan. By HENRY VAN DER SCHALIE. (1938) Pp. 83, 12 plates, 28 figures, 18 maps .....	\$1.00
No. 41.	The Life History of Henslow's Sparrow, <i>Passerherbulus henslowi</i> (Aud- bon). By A. SIDNEY HYDE. (1939) Pp. 72, 4 plates, 3 figures, 1 map .....	\$0.75
No. 42.	Studies of the Fishes of the Order Cyprinodontes. XVI. A Revision of the Goodeidae. By CARL L. HUBBS AND C. L. TURNER. (1939) Pp. 85, 5 plates .....	\$0.90
No. 43.	Aquatic Mollusks of the Upper Peninsula of Michigan. By CALVIN GOODRICH AND HENRY VAN DER SCHALIE. (1939) Pp. 45, 2 maps .....	\$0.50
No. 44.	The Birds of Buckeye Lake, Ohio. By MILTON B. TRAUTMAN. (1940) Pp. 466, 15 plates and a frontis., 2 maps .....	\$2.50
No. 45.	Territorial Behavior and Populations of Some Small Mammals in South- ern Michigan. By WILLIAM H. BURT. (1940) Pp. 58, 2 plates, 8 figures, 2 maps .....	\$0.50
No. 46.	A Contribution to the Ecology and Faunal Relationships of the Mam- mals of the Davis Mountain Region, Southwestern Texas. By W. FRANK BLAIR. (1940) Pp. 39, 3 plates, 1 map .....	\$0.35
No. 47.	A Contribution to the Herpetology of the Isthmus of Tehuantepec. IV. By NORMAN HARTWEG AND JAMES A. OLIVER. (1940) Pp. 31 .....	\$0.35
No. 48.	A Revision of the Black Basses ( <i>Micropterus</i> and <i>Huro</i> ) with Descrip- tions of Four New Forms. By CARL L. HUBBS AND REEVE M. BAILEY. (1940) Pp. 51, 6 plates, 1 figure, 2 maps .....	\$0.75

No. 49. <b>Studies on Neotropical Colubrinae. VIII. A Revision of the Genus <i>Dryadophis</i> Stuart.</b> By L. C. STUART. (1941) Pp. 106, 4 plates, 13 figures, 4 maps .....	\$1.15
No. 50. <b>A Contribution to the Knowledge of Variation in <i>Opheodrys vernalis</i> (Harlan), with the Description of a New Subspecies.</b> By ARNOLD B. GROBMAN. (1941) Pp. 37, 2 figures, 1 map .....	\$0.35
No. 51. <b>Mammals of the Lava Fields and Adjoining Areas in Valencia County, New Mexico.</b> By EMMET T. HOOPER. (1941) Pp. 47, 3 plates, 1 map. ....	\$0.50
No. 52. <b>Type Localities of Pocket Gophers of the Genus <i>Thomomys</i>.</b> By EMMET T. HOOPER. (1941) Pp. 26, 1 map .....	\$0.25
No. 53. <b>The Crane Flies (<i>Tipulidae</i>) of the George Reserve, Michigan.</b> By J. SPEED ROGERS. (1942) Pp. 128, 8 plates, 1 map .....	\$1.25
No. 54. <b>The Ecology of the Orthoptera and Dermaptera of the George Reserve, Michigan.</b> By IRVING J. CANTRALL. (1942) Pp. 182, 10 plates, 2 maps .....	\$1.50
No. 55. <b>Birds from the Gulf Lowlands of Southern Mexico.</b> By PIERCE BRODKORB. (1942) Pp. 88, 1 map .....	\$0.75

Price lists are available for the *Occasional Papers*, *Handbook Series*, and *Circulars* of the Museum of Zoology.







