

Department of the Interior:

U. S. NATIONAL MUSEUM.

— 4 —

BULLETIN

OF THE

UNITED STATES NATIONAL MUSEUM.

No. 4.

PUBLISHED UNDER THE DIRECTION OF THE SMITHSONIAN INSTITUTION.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1876.

ADVERTISEMENT.

This work is the fourth of a series of papers intended to illustrate the collections of Natural History and Ethnology belonging to the United States, and constituting the National Museum, of which the Smithsonian Institution was placed in charge by the act of Congress of August 10, 1846.

It has been prepared at the request of the Institution, and printed by authority of the honorable Secretary of the Interior.

JOSEPH HENRY,
Secretary Smithsonian Institution.

SMITHSONIAN INSTITUTION,
Washington, February, 1876.

BIRDS

OF

SOUTHWESTERN MEXICO.

COLLECTED BY

FRANCIS E. SUMICHRAST

FOR THE

UNITED STATES NATIONAL MUSEUM.

PREPARED BY

GEORGE N. LAWRENCE.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1875.

CATALOGUE OF BIRDS COLLECTED BY PROF. FRANCIS SUMICHRAST, IN SOUTHWESTERN MEXICO, AND NOW IN THE NATIONAL MUSEUM AT WASHINGTON, D. C.

BY GEORGE N. LAWRENCE.

A few years since, an arrangement was made by Prof. Joseph Henry, Secretary of the Smithsonian Institution, with Prof. Francis Sumichrast, for an extended exploration of the Pacific side of the Isthmus of Tehuantepec, Southwestern Mexico, for the purpose of procuring specimens of its natural history

At the request of Professor Henry, I undertook the examination of the birds contained in these collections; and they have been forwarded to me from the Smithsonian Institution, from time to time, when received.

During the past four years, four instalments have been sent me, containing 321 species, represented by more than 1,700 specimens.

Circumstances occurred which prevented quite so full an exploration of the isthmus as was at first intended; however, the specimens sent (which are of a remarkably fine character) bear testimony to Professor Sumichrast's efficiency as an industrious and energetic collector, and the many valuable notes manifest his accuracy and intelligence as an observer.

In answer to a remark in one of my earlier letters to him, expressing my surprise that so few new species had been obtained, he says: "I am not astonished at the small number of new species that my first two collections contain. The region of the Pacific is comparatively much poorer than that of the Atlantic. This must be attributed to the extreme dryness of the soil; to the scarcity of vegetation and of insect life; and to the duration of the winds from the northeast and southwest, which there prevail with great violence."

Professor Sumichrast sent me some valuable notes on geographical distribution, which are given below.

He has sent also biographies of many species, which are in their proper places in the catalogue. Finding that these biographies did not

extend through all the families, I wrote him for an explanation, and got the following reply: "I regret to be unable to tell you certainly which are the biographies and notes that I forwarded to the Institution. Almost all my books and papers were carried off in 1871 during the pillage of my house in Juchitan, and I cannot verify the dates of my invoices to the Institution."

In December, 1871, Professor Sumichrast was obliged to leave Juchitan on account of the revolutionary state of the country, and made his residence at Santa Efigenia, which he writes me is "a *hacienda* thirty leagues or so south of Tehuantepec, at the foot of the Cerro de la Gineta, and on the border of the State of Chiapas." Tapaná, a locality often given, he says is "a village in the neighborhood of Santa Efigenia."

All communications from him are designated by quotation-marks.

"NOTES ON THE GEOGRAPHICAL DIVISION OF THE BIRDS IN THE ISTHMUS OF TEHUANTEPEC.

"The contraction of the American continent between the ninety-fourth and ninety-fifth degrees of longitude west from Greenwich forms what is called, quite improperly perhaps, the Isthmus of Tehuantepec, whose width between the mouth of the Rio Coatzacoalcos and the Bay of Ventosa is about one hundred and eighty miles.

"In a physical point of view, the isthmus may be considered as divided into three parts, first, an eastern, extending from the Gulf of Mexico to the Puerta; secondly, a central, from the Puerta to the Chivela; and, thirdly, a western, from the Chivela to the Pacific. The eastern part, formed principally of alluvial land and watered by the Coatzacoalcos and its affluents, has its largest portion covered with thick and damp forests, whose vegetation rivals the greatest beauties of tropical nature. The central region presents an undulating surface, embossed with innumerable *lomas*, or hills, which, rising gradually, unite on the western side with the mountains of the Sierra de los Mijes, and, toward the east, with those of the Sierra de Chimalapa. Although watered by numerous streams, it presents, nevertheless, but a scanty vegetation, essentially characterized by oaks on the side of Sarabbia, and palm-trees on the plateau of Chinela. The western division, or plains of the Pacific, is very dry, and its vegetable physiognomy presents a striking contrast to the rich plains on the Atlantic slope. Of the few rivers which flow through it, the most important are the Tehuantepec, Juchitan, Chicapa, and the Ostula. These are so low during part of the dry season that the inhabitants of the villages and *ranchos* situated on their banks have

no drinking-water but that which they draw out of holes dug in the sand.

“From that it can be easily explained how the number of animal forms, as well as the vegetable, decreases perceptibly in proportion as you advance from the Atlantic to the Pacific.

“In a zoölogical point of view, the preceding division into three regions is modified in this sense, that the central part or mean does not present any distinguishing forms which can characterize it.

“A line drawn on the map through the villages of Santa Maria, Chimalapa, and San Juan Guichicovi would indicate quite correctly enough the boundary-lines between the two zoölogical provinces or regions which divide the isthmus, and almost that of a division of the waters which flow to the Atlantic and the Pacific. Several places situated on the crest of this line present, as might be expected, a mixture of forms belonging to each littoral; thus, in the neighborhood of Barrio, *Conurus aztec* and *petzi*, *Chrysolis autumnalis* and *albifrons*, *Psilorhinus morio*, and *Calocitta formosa*, &c., are found together.

“It is to be noticed that, while the species belonging to the western province seldom or never leave it to spread in the opposite direction, several of those in the eastern province advance, on the contrary, to within a short distance of the shores of the Pacific. To quote as examples: *Turdus grayi*, *Attila citreopygia*, *Muscivora mexicana*, *Rhynchocyclus cinereiceps*, *Oncostoma cinereigulare*, *Chiroxiphia linearis*, *Chrysolis levaillanti*, *Pteroglossus torquatus*, *Penelope purpurascens*, *Crax globicera*, *Tinamus sallæi*, &c.; all of them species whose place of development is without contradiction in the limits of the Atlantic region, but which are found in the immediate neighborhood of the Pacific, (Santa Efigenia).

“The difference in the level of the ground, which exerts elsewhere in Mexico such a great influence over the geographical distribution of animal species, only exists in a slight degree in the Isthmus of Tehuantepec; one of the culminating points of this territory, the Cerro de Mazahua, is not elevated probably more than from 500 to 2,800 feet above the level of the sea. We must not, therefore, expect to find in the isthmus properly so called any of the indigenous species which elsewhere characterize alpine regions. The few species of that region which are found in my collections have been gathered out of the isthmus; some in the Sierra of Oaxaca, others in the mountains of Gineta and of Zapotitlan.

“If, in order to establish a sort of parallel between the two ornitho-

logical *horizons* of the isthmus, we seek what especially distinguishes the western province from that of the Gulf, we will find—

“I. That it is less remarkable for the number of forms that belong to it than for the absence of others which predominate in the eastern part, to which they give their own physiognomy, and, if I may so express it, one more essentially neotropical.

“II. That it presents, in relation to the preceding, a marked numerical inferiority in the following families: *Turdidæ*, *Tanagridæ*, *Fringillidæ*, *Momotidæ*, *Trogonidæ*, *Ramphastidæ*, *Picidæ*, *Columbidæ*, *Perdicidæ*, and *Tinamidæ*.

“III. That it is remarkable for the almost entire absence of the families *Dendrocolaptidæ*, *Formicaridæ*, and *Pipridæ*.

“Up to this time, I have only found two native species of Thrushes in the plains of the Pacific. The first, *Turdus flavirostris*, does not go southeast of the city of Tehuantepec, where it appears at distant intervals, at a period when certain fruits are ripe (*Achras*, *Spondias*, &c.) It is probable, as Professor Baird indicates (Review of North American Birds, p. 31), that its center of propagation is in the neighborhood of Colima. The second, *Mimus gracilis*, is very abundant on the dry plains which extend from Tehuantepec to Tonalá. We can give an account, it appears to me, of the numerical inferiority of the *Turdidæ* in the west of the isthmus by considering that Thrushes in general are more especially attached to cold and mountainous countries, and, as it has been seen, the same characteristics do not exist in the isthmus properly so called. Besides, the plains of the Pacific have but a scanty vegetation, formed for the greatest part of leguminous plants, which birds whose natural diet is berries (as for example *Planesticus*) seek for but little. This latter circumstance explains also the absence of several genera of *Tanagridæ*, such as *Rhamphocelus*, *Phanicothraupis*, *Lanio*, &c.

“*Trogon citreolus* is the most common Trogon in the west of the isthmus. It is less sylvicoline than its congeners; and the yellow color of its iris is not found, to my knowledge, in any other Trogon of Mexico.

“*Ramphastos carinatus* belongs to the eastern part of the isthmus, in the *terres chaudes*. *Aulacorhamphus prasinus* is not found, from what I am called upon to believe, in the isthmus proper, but only in the mountainous and temperate parts, which border it on the northwest and southeast. As to *Pteroglossus torquatus*, I have not found it elsewhere than at Santa Efigenia.

“*Momotus mexicanus* is the only species of the family that is resident

in the province of the Pacific. *M. lessoni* and *Eumomota superciliaris* occasionally appear; but they are considered to be wanderers from the province of the Gulf, where *Hylomanes momotula* also occurs.

“The resident species of *Picidæ*, on the plains of the Pacific, are *Campephilus guatemalensis*, *Dryotomus scapularis*, and *Centurus aurifrons*.

“The genera *Geotrygon*, *Lepidænas*, and *Talpacotia*, of the eastern coast, are not found on the western shore of the isthmus.

“A species of *Ortyx* (*O. coyolcos*) represents the family of the *Perdiciidæ* on the plains of the Pacific, which, in the eastern province, on the contrary numbers several representatives.

“The specimen of *Tinamus sallæi* in my collection comes from Santa Efigenia, a spot which may be considered as extra-isthmique.

“Notwithstanding my assiduous researches, I have been unable to meet with but a single representative of *Dendrocolaptidæ*, *Dendroornis eburneirostris*.

“*Chiroxiphia linearis* in my collection comes from Santa Efigenia.

“In exchange for the numerical inferiority in regard to the above-mentioned families, we observe a greater development in those of the *Sylviidæ*, and perhaps also of the *Tyrannidæ*, particularly the genera *Polioptila* and *Myiarchus*. The eastern coast of Mexico has furnished, up to this time, but a single species of *Polioptila* (*P. cærulea*), and, moreover, it probably only resides there in winter; on that of the Pacific we find, besides the preceding, two species with a black head, *P. nigriceps* and *P. albiloris*, both indigenous. *Myiarchus laurencii* is the only species of the genus which can be called common on the coast of the Gulf of Mexico. On the opposite shore, the *Myiarchi* are abundant, and are dispersed almost everywhere in the forests and on the plains.

“The following table, although very incomplete, will give a sort of parallelism of the most characteristic species of each of the two ornithological regions of the isthmus.

“CÔTE ORIENTALE.

- “*Turdus grayi*.
- “*Campylorhynchus zonatus*.
- “*Thryothorus maculipectus*.
- “*Granatellus sallæi*.
- “*Hæmophila rufescens*.
- “*Cyanospiza parellina*.
- “*Cassiculus prevosti*.

“CÔTE OCCIDENTALE.

- “*Turdus flavirostris*,
- “*Campylorhynchus humilis*.
- “*Thryothorus pleurostictus*.
- “*Granatellus venustus*.
- “*Hæmophila ruficauda*.
- “*Cyanospiza leclancheri*.
- “*Cassiculus melanicterus*.

" <i>Icterus mesomelas</i> .	" <i>Icterus pectoralis</i> .
" <i>Psilorhinus morio</i> .	" <i>Calocitta formosa</i> .
" <i>Momotus lessoni</i> .	" <i>Momotus mexicanus</i> .
" <i>Trogon caligatus</i> .	" <i>Trogon citreolus</i> .
" <i>Piaya cayana</i> .	" <i>Piaya mexicana</i> .
" <i>Conurus aztec</i> .	" <i>Conurus petzi</i> .
" <i>Chrysotis autumnalis</i> .	" <i>Chrysotis finschi</i> .
" <i>Ortalia vetula</i> .	" <i>Ortalia poliocephala</i> .
" <i>Ortyx pectoralis</i> .	" <i>Ortyx coyolcos</i> .

"The preceding remarks apply exclusively to indigenous species. It would be interesting if I could record here some facts relative to the distribution of the species which reside in the isthmus in the winter-season, or only during their flight; but this study would require several years of continued observations which were made simultaneously on both coasts. This part of Mexico is, moreover, less favorable than any other for observations of this kind. The shrinking of the continent, the absence of natural barriers, there make the dispersion of traveling-birds, from east to west and *vice versa*, very easy. Another cause, which must bring several migratory species on the shores of the Gulf of Tehuantepec in winter, is the prevalence of northeast winds in the isthmus. These winds, which blow there with extreme violence from the month of October, undoubtedly force a large number of birds that are traveling along the Atlantic shore toward Central America to swerve from this line, and push them toward the opposite coast. An analogous cause, the prevalence of southeast winds from the month of March, that is to say, that the time that the emigrant species return to the north, operates with an inverse action, by bringing the species coming from the south along the eastern shore toward the coasts of the Gulf of Mexico. I will limit myself to state here the presence in winter of *Dendræca gracia* in the mountains of Tehuantepec, and the extraordinary abundance at the same time of *Chondestes grammaca* and *Euspiza americana* on the plains of the Pacific.

"The shores of the Gulf of Tehuantepec, or, to speak more properly, those of the salt-lakes communicating with the ocean, which extend from Ventosa nearly to Tonalá, are inhabited by a great number of aquatic birds. Although belonging, for the most part, to northern species, it is probable that a large number of them make their nests there. I have found there in August, a time when the migratory birds have not

yet made their appearance in Mexico, examples of *Numenius*, *Limosa*, *Calidris*, *Ereunetes*, &c.

“An interesting fact to be observed is that the greater part of the *Laridæ* which I have gathered on the shores of the Gulf of Tehuantepec are identical with those of the Atlantic. I will give as examples *Chroicocephalus atricilla*, *Sterna anglica*, *Sterna antillarum*, *Hydrochelidon fissipes*, and *Rhynchops nigra*.

“Professor Baird (Review of North American Birds, p. 267, and Distribution and Migration of North American Birds) has already mentioned, as a fact worthy of notice, the presence of the first three of these species at Mazatlan. He speaks of the *S. antillarum* as a winter resident at Mazatlan, Colima, and Manzanillo. It is curious that on the shores of the Gulf of Tehuantepec the opposite appears to take place. At San Mateo del Mar, a village eight leagues from Tehuantepec, I have not seen, in the months of February and December, 1869, and February, 1870, a single bird of this species (*S. antillarum*); while in August, 1869, they appeared there in considerable numbers. The natives have assured me that in the month of June this *Sterna* makes its nest on the sand-banks which intersect the lakes in the neighborhood.”

Fam. TURDIDÆ.

1. *Catharus occidentalis*, ScL.

“Sierra Madre, près Zapotitlan; January, 1870.”

2. *Turdus mustelinus*, Gm.

“Tehuantepec City.”

3. *Turdus swainsoni*, Cab.

“Tehuantepec (Tapana); April 14, 1869.

“Iris brown; bill black; base of lower mandible whitish; feet pale brownish.”

4. *Turdus grayi*, Bp.

“Tehuantepec (Santa Efigenia); December, 1868.

“Iris brown; bill greenish-olive; feet livid fleshy.

“I have only observed this species at Santa Efigenia, where it is not very abundant, and where its presence is explained probably by the neighborhood of the Sierra de Chimalapa.”

5. *Turdus flavirostris*, Sw.

“Tehuantepec City; November, 1869.

“Iris cinnamon; bill yellowish, tip dusky; feet dull flesh-color.”

This is an abundant species in Western Mexico, to which section it seems to be restricted; common at Mazatlan, and also obtained on the Tres Marias Islands by Colonel Grayson.

6. *Melanotis cærulescens* (Sw.).

“Sierra Madre, près Zapotitlan; January, 1870.”

7. *Harpornhynchus curvirostris* (Sw.).

“Tehuacan (Puebla); August, 1868.

“Iris orange; bill black; feet livid blue; vulgar name Cuitlacochoi.”

8. *Mimus polyglottus* var. *caudatus*, Baird.

“Tehuantepec City; October, 1869.

“Iris orange-yellow; bill and feet black.”

9. *Mimus gracilis*, Cab.

“Tehuantepec City; October, 1869.

“Iris orange-yellow; bill and feet black.”

There are six specimens which I consider to be this species. They differ from examples from Yucatan in being rather smaller and more slender; in having the wings and tail brownish black, and the color of the upper plumage of a brownish ash. In Yucatan specimens, the wings and tail are deep black, and the upper parts bluish ash. These last agree closely with Cabanis's description of *M. gracilis*. The specimens under examination were collected in October. The differences in color may be seasonal.

Fam. SYLVIIDÆ.

10. *Polioptila cærulea*, Linn.

“Tehuantepec (Santa Efigenia), Juchitan; August and December, 1868.

“Iris brown; upper mandible brownish, lower whitish; feet black.

“This species, which is not uncommon in the neighborhood of Santa Efigenia, only resides there perhaps in winter, or during the flight. I have not seen it there since the month of March.”

11. *Polioptila albiloris*, ScL.

“Tehuantepec (Santa Efigenia), Tehuantepec City; May and December.

“Iris dark brown; bill black, except two-thirds of basal portion of lower mandible, which is light plumbeous; feet plumbeous.”

12. *Polioptila nigriceps*, Baird.

“Tehuantepec (Tapana, Santa Efigenia); Quiotepec (Oaxaca); April.

"Iris brown; basal half of lower mandible plumbeous, upper mandible and tip black; feet plumbeous.

"Common almost everywhere in the west of the isthmus and in the dry and warm districts of the State of Oaxaca; frequents the ravines and the thin woods; goes almost always in pairs."

Fam. TROGLODYTIDÆ.

13. *Campylorhynchus zonatus*, Less.

"Tehuantepec (Guichicovi); September.

"Iris cinnamon-red; upper mandible black; lower horny; feet yellowish olive."

14. *Campylorhynchus jocosus*, ScL.

"Dondominguello (Oaxaca); August, 1868.

"Iris red brown; bill blackish; feet dusky ash."

15. *Campylorhynchus humilis*, ScL.

"Tehuantepec (Santa Efigenia); Tehuantepec City.

"Iris bright brick-red; bill blackish; basal half of lower mandible and feet light plumbeous.

"This is the most common species of the genus that I have met with on the shores of the Gulf of Tehuantepec. It advances toward the northeast to San Carlos, on the route from Tehuantepec to Oaxaca. It is a very lively bird, whose song at the time of mating is agreeable and varied; except at this time, when it lives in pairs, it is almost always seen in small flocks."

16. *Salpinctes obsoletus* (Say).

"Tehuantepec (Cacoprieto); June, 1872."

17. *Cyphorinus leucostictus*, Cab.

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; bill black; feet dark plumbeous."

18. *Thryothorus maculipectus*, Lafr.

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; upper mandible black, lower horn-color; feet dark ashy-blue."

19. *Thryothorus pleurostictus*, ScL.

"Tehuantepec (Santa Efigenia), Guichicovi, Tapana; March to October.

"Iris brown; upper mandible brownish-black, lower light bluish-fleshy; feet light-brown."

"One of the indigenous birds, the most dispersed in the woody localities on the west of the isthmus, and the only sylvicoline wren that I have there met with up to this time. Endowed with extreme vivacity, it is continually in motion, running along the ground and climbing the shrubs and creepers, in search of insects; and this occupation is always enlivened by the cries of pleasure or the animated trills of the male bird, which reveal his distant position in the interior of the wood. Besides, it is quite tame, and may be easily approached; the report of a gun, even, does not appear to frighten it much. In very woody spots, several couples of them are often seen devoting themselves with ardor to the chase, or busy carrying materials destined for the construction of their nests. This nest, made with skill, is woven with dry grasses, whose stems are fine and elastic. It has the form of a retort, and is fixed horizontally around the stem of a bush, often at the fork of two branches. From the beginning of May to the middle of July, I have found these nests, containing from 3 to 5 eggs of a beautiful greenish-blue color, clear, and of a diameter of about 22 millimeters. The bottom of the nest, where the eggs rest, is lined with hairs, mingled with the fine down of certain seeds of *Bombacées*."

20. *Thryothorus bewickii* var. *leucogaster*, Baird.

"Puente Colorado; August, 1868.

"Iris brown; bill and feet dusky."

Fam. MOTACILLIDÆ.

21. *Anthus ludovicianus* (Gm.).

"Tehuantepec City; November, 1869.

"Bill blackish; base of lower mandible dull yellowish; feet brownish."

Fam. MNIOTILTIDÆ.

22. *Sciurus auricapillus* (Linn.).

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; upper mandible blackish-brown, lower and feet light-fleshy."

23. *Sciurus noveboracensis* (Gm.).

"Tehuantepec (Tapana); April, 1869.

"Iris brown; bill black; base of lower mandible paler; feet light-brown."

24. *Sciurus ludovicianus* (Aud.).

"Tehuantepec (Barrio, Santa Efigenia); September and January.

"Iris brown; bill blackish; lower mandible paler; feet pale-fleshy."

25. *Mniotilta varia* (Linn.).

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; upper mandible black, lower fleshy; tarsi dark olivaceous; toes olivaceous yellow."

26. *Parula americana* (Linn.).

"Tehuantepec (Santa Efigenia), Tehuantepec City; October and January.

"Iris brown; upper mandible brown, lower whitish-brown at tip; feet brownish."

27. *Helminthophaga ruficapilla* (Wils.).

"Tehuantepec (Santa Efigenia); December and January.

"Iris brown; bill bluish-ash, culmen dusky; feet olive-brown."

28. *Helminthophaga peregrina* (Wils.).

"Tehuantepec (Santa Efigenia); December and January.

"Iris brown; bill ashy, culmen and tip dusky; feet dull olive."

29. *Dendræca æstiva* (Gm.).

"Tehuantepec (Barrio, Chihuitan, Guichicovi, Santa Efigenia), Don-dominguillo (Oaxaca); August to December, January and February.

"Iris brown; upper mandible black, lower light plumbeous; feet light brownish-yellow."

30. *Dendræca virens* (Gm.).

"Tehuantepec (Santa Efigenia); December and January.

"Iris brown; bill and feet brownish."

31. *Dendræca coronata* (Linn.).

"Tehuantepec (Santa Efigenia); December and January.

"Iris brown; bill and feet black."

32. *Dendræca blackburniæ* (Gm.).

"Tehuantepec City."

33. *Dendræca castanea* (Wils.).

"Tehuantepec City; October, 1869.

"Iris brown; upper mandible brownish, lower yellowish; feet brownish-yellow."

34. *Dendroeca maculosa* (Gm.).

“Tehuantepec (Santa Efigenia); December and March.

“Iris brown; bill ashy; culmen and a line along the lower mandible dusky; feet brownish, toes tinged with yellow.”

35. *Dendroeca dominica* var. ***albilora***, Baird, Am. Nat., 1873, p. 606.

“Chiapas (Gineta Mountains); January, 1869.”

36. *Dendroeca graciae*, Coues.

“Sierra Madre, près Zapotitlan; January, 1870.”

37. *Oporornis formosus* (Wils.).

“Tehuantepec (Guichicovi); September, 1869.

“Iris brown; upper mandible brownish-black, lower brownish-black, except at base, which, with the feet, are light fleshy.”

38. *Myiodiodes carulescens* (Gm.).

“Tehuantepec (Barrio, Guichicovi); September, 1869.

“Iris brown; upper mandible brownish, lower paler; feet light brownish-yellow.”

39. *Myiodiodes pusillus* var. ***pileolatus*** (Pallas.). See Ridgway, Am. Nat., 1873, p. 808.

“Tehuantepec (Guichicovi); September, 1869.

“Iris brown; bill brownish, lower mandible yellowish; feet light-brown.”

40. *Basileuterus rufifrons* (Sw.).

“Tehuantepec (Guichicovi); September, 1869.

“Iris brown; bill black; feet fleshy.”

41. *Setophaga ruticilla* (Linn.).

“Tehuantepec (Santa Efigenia); April, 1871.”

42. *Setophaga picta*, Sw.

“Chiapas (Gineta Mountains); January, 1869.”

43. *Setophaga miniata*, Sw.

“Sierra Madre, près Zapotitlan; January, 1870.”

44. *Granatellus venustus*, Dubus.

“Tehuantepec (Santa Efigenia); January, 1869.

“Iris brown; upper mandible brownish-black, lower plumbeous ash; feet dull ashy-brown.”

45. *Geothlypis philadelphia* var. *macgillivrayi* (Aud.).

"Tehuantepec (Chihuitan); Tehuantepec City; November, 1868.

"Iris brown; bill blackish, most of lower mandible pale; feet light flesh."

46. *Icteria virens* (Linn.).

"Tehuantepec (Chihuitan, Santa Efigenia); November and January.

"Iris brown; upper mandible blackish, lower whitish; feet dull ashy."

Fam. HIRUNDINIDÆ.**47. *Progne leucogaster*, Baird.**

"Tehuantepec (Barrio); October, 1868.

"Iris dark-brown; bill black; feet brownish."

48. *Hirundo horreorum*, Barton.

"Tehuantepec City; October. Tehuacan (Puebla); August.

"Iris brown; bill brownish-black; feet brown."

49. *Petrochelidon swainsoni*, Sel.

"Tehuantepec City; October, 1869.

"Iris and bill dark-brown; feet grayish-brown."

50. *Cotyle riparia* (Linn.).

"Tehuantepec City; October, 1869."

Fam. VIREONIDÆ.**51. *Vireosylva flavoviridis*, Cass.**

"Tehuantepec (Tapaná, Santa Efigenia); April and May.

"Iris red; bill dusky above, light ash beneath; feet light brownish-ash."

52. *Vireosylva gilva* var. *swainsoni*, Baird.

"Tehuantepec (Santa Efigenia); January, 1869, April, 1871."

53. *Vireo noveboracensis* (Gm.).

"Tehuantepec (Santa Efigenia); December, 1868."

54. *Vireo flavifrons*, Vieill.

"Tehuantepec (Santa Efigenia); Chiapas (Gineta Mountains); December and January.

"Iris brown; bill bluish-ash, culmen and tip of both mandibles dusky; feet bluish-ash."

55. *Lanivireo solitarius* (Wils.).

"Tehuantepec (Santa Efigenia); Tehuantepec City; Chiapas (Gineta Mountains); October and January.

"Iris brown; bill plumbeous, culmen and tip dusky; feet plumbeous."

56. *Vireo belli*, Aud.

"Tehuantepec (Santa Efigenia); Tehuantepec City; October and December.

"Iris brown; upper mandible brownish, lower and feet light plumbeous."

57. *Vireo hypochryseus*, ScL.

"Quiotepec (Oaxaca); August, 1868."

58. *Hylophilus decurtatus* (Bonap.).

"Tehuantepec (Chimalapa); March, 1869.

"Iris brown; feet light-brown."

59. *Cyclorhis flaviventris*, Lafr.

"Tehuantepec (Guichicovi, Petapa); September, 1869.

"Iris cinnamon; upper mandible light-brownish fleshy, lower bluish; feet fleshy."

Fam. LANIIDÆ.**60. *Collurio ludovicianus* var. *excubitoroides*** (Sw.).

"Tehuantepec City; October, 1869.

"Iris brown; bill black; base of lower mandible paler; feet dull grayish-ash."

Fam. AMPELIDÆ.**61. *Ampelis cedrorum*** (Vieill.).

"Tehuantepec."

Fam. TANAGRIDÆ.**62. *Euphonia affinis*** (Less.).

"Tehuantepec (Barrio); Tehuantepec City; October, 1868.

"Iris brown; bill black, bases of both mandibles light-bluish; feet dark lead-color."

63. *Euphonia hirundinacca*, Bp.

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; upper mandible and tip of lower black, rest of lower bluish; feet ashy-plumbeous."

64. *Chlorophonia occipitalis* (Du Bus.).

"Chiapas (Gineta Mountains); January, 1869."

65. *Tanagra abbas*, Licht.

“Tehuantepec (Guichicovi); September, 1869.

“Iris brown; bill black; feet dark-plumbeous.”

66. *Pyrranga æstiva* (Gm.).

“Tehuantepec (Cibhuitan, Santa Efigenia); November and January.

“Iris brown; bill light fleshy-brown; culmen dusky; feet brownish.”

There are four specimens (two of each sex), which do not differ from specimens of *P. æstiva* from the Atlantic States. The variety named *P. cooperi* by Mr. Ridgway thus appears to range farther to the north.

67. *Pyrranga hepatica*, Sw.

“Tehuantepec (Guichicovi); Chiapas (Gineta Mountains); September and January.

“Iris brown; bill bluish, culmen and tip of lower mandible dusky; feet light brownish-ash.”

68. *Pyrranga ludoviciana* (Wils.).

“Tehuantepec (Ishuatlan, Santa Efigenia); December and January.

“Iris brown; bill yellowish, culmen dusky; feet dark ashy.”

69. *Phænicothraupis rubicoides* (Lafr.).

“Tehuantepec (Guichicovi); September, 1869.

“Iris brown; bill and feet hazel-brown.”

70. *Phænicothraupis fuscicauda*, Cab.

“Tehuantepec (Guichicovi); September, 1869.

“Iris brown; bill black, tip yellow; feet light-brown.”

71. *Lanio aurantius*, Lafr.

“Tehuantepec (Guichicovi); September, 1869.

“Iris brown; bill black; feet grayish.”

72. *Saltator grandis* (Licht.).

“Tehuantepec (Santa Efigenia); January, 1869.”

73. *Saltator atriceps*, Less.

“Tehuantepec (Guichicovi, Santa Efigenia); September, December, and February.

“Iris brown; bill black; feet brownish.”

Fam. FRINGILLIDÆ.**74. *Hedymeles ludovicianus* (Linn.).**

“Tehuantepec (Santa Efigenia); January, 1869.”

75. *Cardinalis virginianus* var. *carneus*, Less.,

"Huamelula."

76. *Guiraca caerulea* (Linn.).

"Tehuantepec (Chihuitan); Huitzo, near Oaxaca; August and November.

"Iris brown; bill and feet dusky."

77. *Guiraca parellina* (Licht.).

"Tehuantepec City, Huallago; October and December.

"Iris brown; bill and feet grayish-brown."

78. *Volatinia jacarina* (Linn.).

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; bill black, most of lower mandible bluish; feet blackish."

79. *Phonipara pusilla* (Sw.).

"Dondominguillo (Oaxaca); August, 1868.

"Iris brown; bill black; feet light-brown."

80. *Cyanospiza cyanea* (Linn.).

"Tehuantepec (Santa Efigenia); December, 1868.

"Iris brown; bill dull fleshy; feet brownish."

81. *Cyanospiza ciris* (Linn.).

"Tehuantepec (Santa Efigenia); Tehuantepec City; November and December.

"Iris brown; bill and feet brownish."

82. *Cyanospiza leclancheri* (Lafr.).

"Tehuantepec (Tapana); Tehuantepec City; April and October.

"Iris brown; upper mandible brown, lower fleshy; feet brownish."

83. *Cyanospiza rositæ*, Lawr. Ann. Lyc. N. Y., vol. x, p. 397.

"Tehuantepec (Cacoprieto); January, 1872.

"Iris brown; upper mandible blackish; lower pale-bluish; feet livid-plumbeous. Total length, 14 centimeters; wing, 72 millimeters; tail, 55 millimeters."

Since my description of the male of this species, the missing specimens, fortunately, have been received. An examination of the male shows no point of difference from my description worthy of comment.

There is but a single specimen of the female (the only one as yet obtained), of which a description is now given.

Plumage above of a dull ochreous-brown, tinged with blue on the

head and lower back; rump and upper tail coverts dull light-blue; middle tail-feathers dull blue, the outer webs of the other tail-feathers similar in color, the inner webs blackish-brown; quill-feathers dark-brown; the smaller wing-coverts and the outer edges of the larger quills pale-blue; the other wing-coverts and the tertiaries have margins the color of the back; chin grayish; under plumage of a dull brownish rose-color, paler and clearer on the abdomen and under tail-coverts; bill and feet similar in color to those of the male. Types in National Museum, Washington, D. C.

84. *Euspiza americana* (Gm.).

"Tehuantepec (Juchitan, Guichicovi); Tehuantepec City; September and October.

"Iris brown; bill brownish, tinged with yellow; feet hazel-brown."

85. *Passerculus savanna* var. *alaudinus*, Bp.

"Tehuantepec City; November, 1869.

"Iris brown; upper mandible brownish, lower mandible and feet fleshy."

86. *Zonotrichia mystacalis*, Hartl.

"Tehuacan (Puebla); August, 1868.

"Iris reddish-brown; upper mandible black, lower light-blue; feet fleshy."

87. *Spizella socialis* (Wils.).

"Chiapas (Gineta Mountains); January, 1869.

88. *Spizella socialis* var. *arizonæ*, Coues.

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; upper mandible brown, lower mandible lighter; feet brownish flesh."

89. *Spizella atrigularis*, Cab.

"Chapuleo (Puebla); January, 1868.

"Iris brown; bill brownish-orange; feet brownish."

90. *Peucæa ruficeps* var. *boucardi*, ScL.

"Puente Colorado (Puebla); August, 1868.

"Iris brown; upper mandible horny-brown, lower bluish; feet fleshy."

91. *Coturniculus passerinus* (Wils.).

"Tehuantepec City; November, 1869.

"Iris brown; upper mandible dusky, lower light-bluish; feet fleshy."

92. *Embernagra rufivirgata*, Lawr.

“Huamelula.”

93. *Hæmophila rufescens*, Sw.

“Tehuantepec (Guichicovi); September, 1869.

“Iris brown; upper mandible black, lower bluish; feet dark flesh-color.”

94. *Hæmophila ruficauda* (Bonap.).

“Tehuantepec (Juchitan, Santa Efigenia); Tehuantepec City.

“Iris light reddish-brown; upper mandible black, lower bluish-fleshy; feet fleshy-brown.”

95. *Hæmophila sumichrasti*, Lawr., Ann. N. Y. Lyc., vol. x; p. 6.

“Tehuantepec (Juchitan); September, 1868.

“Iris brownish-red; upper mandible blackish, lower mandible and feet fleshy.”

96. *Pipilo maculatus*, Sw.

“Cieneguilla (Oaxaca, alpine region).”

97. *Pipilo albicollis*, Sel.

“Huitzo, near Oaxaca; August, 1868.

“Iris brown; upper mandible brownish, lower bluish-ash; feet grayish-brown.”

98. *Chondestes grammaca* (Say).

“Tehuantepec (Chihuitan, Santa Efigenia); November, December, and January.

“Iris brown; bill bluish; culmen and tip dusky; feet fleshy.”

99. *Chrysomitris notata* (Du Bus).

“Chiapas (Gineta Mountains); January, 1869.

“Iris brown; upper mandible blackish-brown, lower dull-ashy; feet brownish.”

Fam. ALAUDIDÆ.**100. *Eremophila alpestris* var. *chrysolæma* (Wagl.).**

“Tehuantepec (San Mateo); August, 1869.

“Probably resident on the Pacific plains, where it seems to be abundant in July and August.

Fam. ICTERIDÆ.**101. Cassiculus melanicterus** (Bp.).

"Tehuantepec (Barrio, Chihuitan); Tehuantepec City; October, November, and December.

"Iris brown; bill greenish-white; feet blackish-brown.

"This bird (called by the Creoles *Tordo de fierro* (Iron Thrush), and by the Zapotèques *bigoseguiba*, which has the same meaning), although proper to Western Mexico, often wanders from the coast. A few years ago I found it near Tehuacan (State of Puebla). In the isthmus it is especially abundant near Chihuitan and Huallaga. Like *Cassicus prevosti*, it has a disagreeable smell, and is generally infested with vermin."

102. Cassicus prevosti (Less.).

"Tehuantepec (Guichicovi, Santa Efigenia); May and September.

"Iris light-yellow; bill yellowish-white; feet bluish-ash."

103. Icterus prothemelas (Strickland).

"Tehuantepec (Chihuitan); December, 1868."

104. Icterus melanocephalus (Wagl.).

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; bill black; base of lower mandible and feet bluish-ash."

105. Icterus mesomelas (Wagl.).

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; bill black; base of lower mandible and feet bluish-ash."

106. Icterus gularis (Wagl.).

"Tehuantepec (Barrio, Chihuitan, Juchitan, Santa Efigenia).

"Iris brown; bill black, with the base of the lower mandible and feet bluish-ash."

107. Icterus pectoralis (Wagl.).

"Tehuantepec (Juchitan, Santa Efigenia); June and September.

"Iris dark-brown; bill black; base of lower mandible bluish; feet bluish-ash."

108. Icterus formosus, Lawr., Ann. N. Y. Lyc., vol. x, p. 184.

"Tehuantepec (Santa Efigenia, Juchitan); June, September, and December.

"Iris brown; bill black; base of lower mandible and feet light-plumbeous."

109. *Icterus spurius* var. *affinis*, Lawr.

"Tehuantepec (Chihuitan, Santa Efigenia); Tehuantepec City.

"Iris brown; upper mandible black, lower ashy-blue; feet dark ashy-blue."

110. *Molothrus æneus* (Wagl.).

"Tehuantepec (Tapana); April, 1869.

"Iris red; bill and feet black."

111. *Molothrus pecoris* var. *obscurus* (Gm.).

"Tehuantepec City; October, 1869.

"Iris brown; feet black."

112. *Sturnella magna* var. *mexicana*, Scl.

"Tehuantepec (Barrio, Santa Efigenia); September and February.

"Iris hazel-brown; feet light fleshy-brown."

113. *Quiscalus macrurus*, Sw.

"Tehuantepec (Barrio, Juchitan); September and October.

"Iris pale-yellow; bill and feet black."

114. *Quiscalus mexicanus*, Cass.

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; bill and feet black; inside of bill yellow."

Fam. CORVIDÆ.**115. *Cyanocitta coronata* (Sw.).**

"Cieneguilla (Oaxaca, alpine region); August, 1868.

"Iris brown; bill and feet black."

116. *Cyanocitta californica* var. *sumichrasti*, Ridg.

"Nacaltepec (Oaxaca); August, 1868.

"Iris brown; bill and feet black."

117. *Calocitta formosa* (Sw.).

"Tehuantepec (Juchitan); Tehuantepec City; August, September, and November.

"Iris brown; bill and feet black.

"This is the most widely scattered and the greatest busybody of all the birds of the isthmus. You cannot take a step out of inhabited localities without being assailed by the vexatious scoldings of these *Chavis* (that is the name which is given to them). Not content with

hooting at you as you pass, they torment you, follow you, cross the road in front of you, and accompany these gymnastic performances by clapping their bills, by whistling, by scolding in every tone and on every key. Excessively bold, it does not fear to approach farms and feed upon the meat which is put out to dry in the sun (*tasajo*), in company with species of *Cathartes* and *Quiscalus*. If an animal, a horse or an ox, for example, should fall exhausted from the effects of a wound, the *Chavis* make no scruple of attacking the wounded spot, either to carry off the pieces of flesh which are loose, or perhaps to obtain the larvæ of carnivorous flies which are developed there."

118. *Xanthura guatemalensis* (Bp.).

"Tehuantepec (Santa Efigenia); December and January.

"Iris yellow; bill black; feet ashy-blue."

119. *Psilorhinus morio* (Licht.).

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; bill yellow; feet black, mixed with yellow."

120. *Corvus corax* var. *carnivorus*, Bartram.

"Tehuantepec (Barrio, Tapana); April, 1869.

"Iris brown; bill and feet black."

Fam. DENDROCOLAPTIDÆ.

121. *Dendroornis eburneirostris* (Sw.).

"Tehuantepec (Guichicovi, Ishuatlan, Tapana, Santa Efigenia).

"Iris brown; bill whitish horn-color; sides of upper mandible brownish; feet dull-olive."

Fam. TYRANNIDÆ.

122. *Attila citreopygius* (Bp.).

"Tehuantepec (Santa Efigenia); May, 1871.

"Iris cinnamon; bill horny; feet plumbeous."

123. *Sayornis sayus* (Bp.).

"Chapulco (Puebla); August, 1868.

"Iris brown; bill and feet black."

124. *Sayornis nigricans* (Sw.).

"Tanatepec."

125. *Todirostrum schistaceiceps*, ScL.

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; bill black, extreme tip whitish; feet light-bluish."

126. *Oncostoma cinereigulare*, ScL.

"Tehuantepec (Guichicovi, Cacoprieto, Tapana, Santa Efigenia); April to September.

"Iris grayish-white; bill black; medial face of lower mandible whitish; feet fleshy."

127. *Ornithion incanescens* (Max.); (*Camptostoma imberbe*, ScL., see P. Z. S., 1873, p. 577).

"Tehuantepec (Santa Efigenia); December and January.

"Iris brown; bill black; base of lower mandible yellowish; feet blackish-ash; commissure and mouth orange."

128. *Myiozetetes texensis* (Giraud).

"Tehuantepec (Juchitan, Barrio, Chihuitan, Santa Efigenia).

"Iris brown; bill and feet black."

129. *Rhynchocyclus cinereiceps* (ScL.).

"Tehuantepec (Tapana, Santa Efigenia); January to May.

"Iris pearl-gray; upper mandible blackish; lower mandible and feet dull flesh-color; interior of mouth black."

130. *Pitangus derbianus* (Kaup).

"Tehuantepec (Chihuitan, Tapana, Santa Efigenia).

"Iris brown; bill and feet black."

131. *Myiodynastes luteiventris*, Bp.

"Tehuantepec (Tapana); April, 1869.

"Iris brown; bill black; extreme base of lower mandible dull-fleshy; feet dark brownish-ash."

132. *Megarhynchus mexicanus* (Lafr.).

"Tehuantepec (Guichicovi, Chihuitan, Santa Efigenia).

"Iris brown; bill and feet black."

133. *Muscivora mexicana*, ScL.

"Tehuantepec (Tapana, Santa Efigenia); June and December.

"Iris brown; bill black; central part of lower mandible yellowish; feet fleshy-yellow."

134. *Pyrocephalus rubineus* var. *mexicanus*, *Scl.*

"Tehuantepec (Santa Efigenia); Tehuantepec City.

"Iris brown; bill and feet black."

135. *Empidonax minimus* (*Baird*).

"Tehuantepec (Chihuitan, Santa Efigenia, Tapana, Guichicovi); Tehuantepec City; Chiapas (Gineta Mountains).

"Iris brown; upper mandible brownish-black, lower dull-fleshy; feet black."

136. *Empidonax flaviventris* (*Baird*).

"Tehuantepec (Guichicovi, Santa Efigenia); December and January.

"Iris brown; upper mandible brownish-black, lower yellowish; feet blackish."

137. *Empidonax traillii* var. *pusillus* (*Sw. et Rich.*).

"Tehuantepec City; October, 1869.

"Iris brown; upper mandible black, lower light-brownish; feet black."

138. *Empidonax hammondi* (*De Vesey*).

"Chiapas (Gineta Mountains); January, 1869.

"Iris brown; upper mandible blackish, lower light-brownish; feet black."

139. *Contopus borealis* (*Sw.*).

"Tehuantepec (Icacoprieto); September, 1872."

140. *Contopus pertinax*, *Cab. et Heine.*

"Chiapas (Gineta Mountains); January, 1869."

141. *Contopus virens* (*Linn.*).

"Tehuantepec (Tapana); April and May.

"Iris brown; upper mandible black, lower dull-yellow; feet black."

142. *Contopus virens* var. *richardsonii* (*Sw.*).

"Tehuantepec (Tapana); Tehuantepec City; April, May, and October.

"Iris brown; upper mandible black, basal half of lower brownish-yellow; feet black."

143. *Myiarchus crinitus* (*Linn.*).

"Tehuantepec City; October, 1869.

"Iris brown; bill black, lighter at the base of lower mandible; feet blackish."

144. Myiarchus crinitus var. **cooperi** (Kaup).

“Tehuantepec (Tapana, Santa Efigenia); April and December.

“Iris brown; bill black; feet dark ashy-brown.”

145. Myiarchus cinerascens (Lawr.).

“Tehuantepec (Tapana, Santa Efigenia); Tehuantepec City; Chiapas (Gineta Mountains); April, October, November, and January.

“Iris brown; bill black; extreme base of lower mandible dull-fleshy; feet blackish.”

146. Myiarchus lawrencei (Giraud).

“Tehuantepec (Santa Efigenia); Dondominguillo (Oaxaca).”

147. Myiarchus flammulatus, Lawr., Ann. Lyc. N. Y., vol. xi, p. 71.

“Tehuantepec (Cacoprieto); June, 1872.”

148. Tyrannus melancholicus var. **satrapa** (Licht.).

“Tehuantepec (Chihuitan, Tapana, Barrio); Dondominguillo (Oaxaca).

“Iris dark-brown; bill black; feet brownish.”

149. Tyrannus crassirostris, Sw.

“Tehuantepec (Chihuitan); Los Cues (Oaxaca).

“Iris dark-brown; bill and feet blackish.”

150. Tyrannus carolinensis (Gm.).

“Tehuantepec (Tapana); May, 1869.

“Iris brown; bill black; feet dark-plumbeous.”

151. Milvulus forficatus (Gm.).

“Tehuantepec (Chihuitan); Tehuantepec City.

“Iris brown; upper mandible blackish, lower paler; feet brown.”

Fam. COTINGIDÆ.**152. Tityra personata**, Jard. and Selb.

“Tehuantepec (Tapana, Santa Efigenia); March, April, and January.

“Iris dull cinnamon-red; bill black at end for half its length; basal half of bill, lores, and orbits pale-carmine; feet ashy-brown.”

153. Hadrostomus aglaia (Lafr.).

“Dondominguillo (Oaxaca); August, 1868.

“Iris brown; upper mandible blackish, lower bluish horn-color; feet ashy-blue.”

Fam. PIPRIDÆ.**154. *Chiroxiphia linearis* (Bonap.).**

“Tehuantepec (Tapana); June, 1869.

“Iris dark-brown; bill black; feet orange.

“This Manakin, the only one that I have found in the western part of the isthmus, dwells only in certain localities, thickly wooded, at the foot of the Cordilleras, on the banks of streams, and still it is only in the solitary ravines and the most shady nooks that they need be looked for. Very difficult to discover at any other time in the midst of the thick forests that they choose for their dwelling, their retreat is easily discovered in the breeding-season by the loud and continuous cries made by the males during the greater part of the day. Two males are almost always found together, perched side by side on the same branch; a curious fact which I have a long time wondered at, but the following observation enlightened me. A female, pluming herself, is perched a few steps away from these two gallants, who, anxious to please her, begin a loving joust the most diverting, ascending and descending with their wings half-closed, their feathers disheveled, and their throats inflated with pleasure and the effort of singing. This continues sometimes for more than a quarter of an hour, and recommences after a few minutes' rest, during which the female shows her pleasure by the trembling of her body and the fluttering of her wings. Nothing can be more graceful than this picture when a ray of sunlight, piercing the dark vault of the forest, enlivens the scene and brings out the bright tints of black velvet, of azure and purple that adorn the coats of these little feathered actors. With an excessive natural confidence, the *Chiroxiphia* allow themselves to be approached very near without showing any fear, and the sound of a gun hardly frightens them.”

Fam. MOMOTIDÆ.**155. *Momotus lessoni*, Less.**

“Tehuantepec (Guichicovi, Chimalapa); March and September.

“Iris red; bill black; feet blackish.”

156. *Momotus mexicanus* (Sw.).

“Tehuantepec (Chihuitan, Barrio, Santa Efigenia); Los Cues (Oaxaca); August to December.

“Iris red; bill black; base of lower mandible whitish horn-color; feet dull-cinereous.

"This is very common in all the western regions of the isthmus from Barrio to the Pacific. It comes from there through the State of Oaxaca to Tehuacan (Puebla), where it is not rare. It is almost universally called *guarda-barranca* or *garde ravin*, because it generally lives in ravines, and digs its nest along the sides."

157. *Eumomota superciliaris* (Sandb.).

"Tehuantepec (Tapana, Cacoprieto); April and May.

"Iris dark-brown; bill black; feet grayish-black."

Fam. ALCEDINIDÆ.

158. *Ceryle torquata* (Linn.).

"Tehuantepec (Chihuitan, Santa Efigenia); November and December.

"Iris dark-brown; bill black; base of both mandibles grayish; feet light olive-green."

159. *Ceryle alcyon* (Linn.).

"Tehuantepec (Santa Efigenia); December, 1868.

"Iris dark-brown; bill black, basal half of lower mandible whitish horn-color; feet dusky."

160. *Ceryle amazona* (Lath.).

"Tehuantepec (Chihuitan, Santa Efigenia); November, December, and January.

"Iris dark-brown; bill and feet black."

161. *Ceryle americana* var. *cabanisi*, Tsch.

Tehuantepec (Chihuitan, Santa Efigenia); November, December, and January."

162. *Ceryle superciliosa* (Linn.).

"Tehuantepec (Santa Efigenia); April, 1871.

"Iris brownish-black; bill black; base of lower mandible fleshy; feet dark-brown."

Fam. BUCCONIDÆ.

163. *Bucco dysoni*, Gray.

"Tehuantepec (Santa Efigenia); May, 1871.

"Iris dark purplish-red; feet dull-plumbeous; bill black."

Fam. TROGONIDÆ.**164. Trogon puella**, Gould.

“Tehuantepec (Guichicovi, Chimalapa); March and September.

“Iris brown; bill yellow; feet yellowish.”

165. Trogon braccatus, Cab. et Heine.

“Tehuantepec (Guichicovi); September, 1869.

“Iris dark-brown; bill ashy-blue; orbits yellow; feet plumbeous.”

166. Trogon citreolus, Gould.

“Tehuantepec (Chihuitan, Ventosa, Tapaná, Santa Efigenia).

“Iris yellow; eyelids violet-blue; bill bluish-ash; feet cinereous.”

Fam. CAPRIMULGIDÆ.**167. Chordeiles texensis**, Lawr.

“Tehuantepec (San Mateo, Santa Efigenia); August and January, 1869.

“Iris dark-brown; bill brownish; feet dull-brown.

“At Santa Efigenia, where I killed most of the specimens of this Night-hawk, they live during the day hidden at the foot of mountain in woods and thickets. They come out a short time after sunset, and then appear in great numbers above inundated places and savannas. Their flight is easy and graceful; but it is quite difficult to shoot them, because they easily escape from sight on account of their dark color and the feeble light of the twilight.”

168. Antrostomus vociferus (Wils.).

“Tehuantepec City; November, 1869.”

169. Nyctidromus albicollis (Gm.).

“Tehuantepec (Chihuitan, Santa Efigenia); November, December, and January.

“Iris dark-brown; bill pale-brown, tip dusky; feet dull-fleshy.

“This species is very common in all the warm and temperate lands of Southern Mexico, where it is known under the name of *Tapas camina* (*conore chemin*) or *Ataja camina* (*qui embarrasse le chemin*), derived from the custom it has of lying flat on the roads. Its cry, which is of two kinds, may be expressed by the syllable *piou - piou - piou - piou - pu - e - i - ou*. The latter part, uttered with force, is probably a cry of appeal (or challenge). The second, which it repeats from time to time, is shorter, *ou - i - iou*.”

170. *Nyctibius jamaicensis* (Gm.).

"Tehuantepec (Santa Efigenia)."

Fam. CYPSELIDÆ.**171. *Chætura vauxii* (Townsend).**

"Tehuantepec (Guichicovi); September, 1869.

"Iris dark brown; bill black; feet blackish."

Fam. TROCHILIDÆ.**172. *Campylopterus hemileucurus* (Licht.).**

"Chiapas (Gineta Mountains); January, 1869."

173. *Lampornis prevosti* (Less.).

"Tehuantepec (Santa Efigenia); December, January, and February.

"Iris dark brown; bill and feet black."

174. *Trochilus colubris*, Linn.

"Tehuantepec (Santa Efigenia); Tehuantepec City; October, November, and December.

"Iris brown; bill and feet black."

175. *Helimaster pallidiceps*, Gould.

"Tehuantepec (Santa Efigenia); December and January."

176. *Helimaster leocadia* (Bourc.).

"Tehuantepec City; October and November, 1869.

"Iris, bill, and feet black."

177. *Helimaster constanti* (Delatt.).

"Chiapas (Gineta Mountains); January, 1869."

178. *Cyanomia cyanocephala* (Less.).

"Tehuantepec (Guichicovi); September and January.

"Iris black; upper mandible black, lower bright carmine, with the tip black; feet black."

179. *Cyanomia violiceps* (Gould).

"Tehuantepec (Tapana, Santa Efigenia); May, December, and January.

"Iris brown; bill rosy-red, tip black; feet plumbeous."

180. *Pyrrhophæna cinnamomea* (Less.).

"Tehuantepec (Santa Efigenia); December and January.

"Iris black; bill bright carmine-red, tip black."

181. *Pyrrhophæna devillei* (Bourc.).

"Chiapas (Gineta Mountains); January, 1869."

182. *Pyrrhophæna riefferi* (Bourc.).

"Tehuantepec (Guichicovi); September, 1869."

183. *Thaumatias candidus* (Bourc. et Muls.).

"Tehuantepec (Guichicovi); September, 1869.

"Iris black; upper mandible black, lower light carmine, with the tip black; feet black."

184. *Circe doubledayi* (Bourc.).

"Tehuantepec (Chihuitan); November, 1868."

A single specimen of this rare species is in the collection, and the only one I have ever seen. Mr. Gould, in his monograph of *Trochilidæ*, says but two specimens were known. Since that time, however, others may have been obtained. I wrote two years since to Professor Sumichrast to endeavor to procure more examples, but he has not as yet been able to do so. Its locality is now determined, which, at the time it was described by Mr. Bourcier, was thought to be the "Rio Negro," though Mr. Gould states that his specimen was marked as from "Chimantla, Mexico," which he thought was correct, as its allies, "with obscure tippings to their tails, such as *latirostris*, *caniveti*, *auriceps*, &c., were denizens of that country."

185. *Chlorolampis canaveti* (Less.).

"Tehuantepec (Guichicovi); September, 1869.

"Iris and feet black; basal two-thirds of bill carmine-red, terminal third black."

Fam. CUCULIDÆ.**186. *Crotophaga sulcirostris*, Sw.**

"Tehuantepec (Juchitan); September, 1868.

"Iris dark brown; bill and feet black."

187. *Diplopterus nævius* (Linn.).

"Tehuantepec (Santa Efigenia)."

188. *Piaya cayana* (Linn.).

"Tehuantepec (Chihuitan, Barrio); September and November.

"Iris red; bill, lores, and orbits light olive-green; feet bluish-ash."

189. *Piaya ridibundus* (Gm.).

"Tehuantepec City."

190. *Morococcyx erythropygia* (Less.).

“Tehuantepec (Chihuitan), Tehuantepec City; October and December.

“Iris brown; bill orange-brown; culmen blackish; orbital skin greenish-yellow before the eye and azure-blue behind the eye; feet dull fleshy.

“Similar to *Geococcyx mexicanus* in its terrestrial habits. Indeed, it never alights except on the lowest bushes; woody places, *les bejucales* (places full of entangled creepers), and hedges are its favorite spots. It runs very quickly, and easily escapes from sight. Its flesh, like that of the *Geococcyx*, has an unsavory and disagreeable odor.”

191. *Geococcyx mexicanus* (Gm.).

“Tehuantepec (Juchitan); August and September.

“Iris brown, separated from the pupil by a narrow golden ring; orbital skin blue and red; bill bluish-gray, culmen dusky; feet livid-bluish.

“This bird, quite common in the west of the isthmus, there bears the name of *Corre-camino* (Spanish) or *Céré-quadja* (Zapotique).”

Fam. RAMPHASTIDÆ.**192. *Pteroglossus torquatus* (Gm.).**

“Tehuantepec (Santa Efigenia); January and March.

“Iris yellow; orbital skin red; feet greenish-olive.

“Common in the woods at the foot of the Cordilleras at Santa Efigenia, at Tapaná, at Tanatepec, &c. I have been told that *Ramphastos carinatus* is found at times in the same localities. I have not there met with it.”

193. *Campephilus guatemalensis* (Hartl.).

“Tehuantepec (Chihuitan), Tehuantepec City; November and December.

“Iris light yellow; bill horny-white; feet ashy.”

194. *Dryocopus scapularis* (Vig.)

“Tehuantepec (Chihuitan, Santa Efigenia); November and December.

“Iris white; bill white; feet dark ashy-blue.”

195. *Picus scalaris*, Wagl.

“Puente, Colorado (Puebla); August, 1868.

“Iris brown; bill blackish; feet greenish.”

196. *Sphyrapicus varius* (Linn.).

“Tehuantepec (Santa Efigenia), Chiapas (Gineta Mountains); January, 1869.

“Bill horny; feet dull greenish.”

197. *Chloronerpes æruginosus* (Licht.).

“Tehuantepec (Tapana, Guichicovi); Chiapas (Gineta Mountains); April, September, and January.

“Iris brown; bill black; feet bluish-ash.”

198. *Melanerpes formicivorus* (Sw.).

“Tehuantepec (Guichicovi); Chiapas (Gineta Mountains); September and January.”

199. *Centurus aurifrons* (Wagl.).

“Tehuantepec (Chihuitan, Juchitan, Santa Efigenia); September, November, and January.

“Iris red; bill blackish; feet dull greenish-ash.”

200. *Centurus hypopolius* (Wagl.).

“Chapulco (Puebla); August, 1868.

“Iris brown; bill blackish; feet ashy-blue.”

This seems to be a rare species, as there is but a single specimen in the collection, and I have not met with it in collections from other parts of Mexico or from Guatemala.

Fam. PSITTACIDÆ.**201. *Ara macao* (Linn.).**

“Tehuantepec (Santa Efigenia); Tehuantepec City, December.

“Iris yellow; upper mandible whitish, lower black; skin of cheeks rosy-white; feet black.

“Excessively common in all the western part of the isthmus, especially between Niltépec and Tapana. It ascends very high on the sides of the Cordillera, where it is even seen in the pine-forests.”

202. *Ara militaris* (Linn.).

“Mountains north of Tehuantepec.”

203. *Conurus aztec*, Souancé.

“Tehuantepec (Guichicovi); September, 1869.

“Iris reddish-yellow; bill whitish; feet black.”

204. *Conurus petzii* (Leibl.).

"Tehuantepec (Juchitan, Chihuitan, Santa Efigenia); September, November, and December.

"Iris and orbital skin yellow; bill yellowish-white; feet yellowish, marbled with brownish.

"Everywhere abundant; this species lives indifferently in the woods, on plains, and in the neighborhood of inhabited places. It is the same with *Chrysotis albifrons*."

205. *Brotoperys tovi* (Gm.).

"Tehuantepec (Tapana); June, 1869.

"Iris brown; cere whitish; bill light brown; feet fleshy.

"This little paroquet appears confined in the west of the isthmus to the neighborhood of the villages of Zanatepec and Tapana, where it is called *Catarina* or *Gachupina*. It never leaves the thick woods, where it keeps on the largest and highest trees, which makes its capture quite difficult, because it is confounded with the foliage. It is sought as a pleasure bird on account of its small size and the ease with which it may be tamed. The Indians of the valley of Oaxaca, who come to trade in the State of Chiapas, bring a great number to sell in the interior."

206. *Chrysotis farinosa* (Bodd.).

"Santa Maria (Chimalapa).

"Another species of *Chrysotis*, although it may be rare, lives in the neighborhood of Tapana (its body is entirely green, the nape of the neck and at times the forehead are spotted with yellow, its beak is blackish, its size that of *C. ochroptera*). I regret that I have been unable as yet to procure specimens of it. I have only seen it in captivity."

207. *Chrysotis auropalliata* (Less.).

"Tehuantepec (Santa Efigenia); May, 1871.

"Iris orange-red; bill blackish; cere black; feet grayish."

208. *Chrysotis levaillantii*, Gray.

"Tehuantepec (Barrio, Petapa); October, 1868.

"Iris orange; bill and feet dirty white."

209. *Chrysotis autumnalis* (Linn.).

"Tehuantepec (Barrio); September, 1868.

"Iris orange-yellow; bill dull yellowish, blackish along the cutting-edges; feet light greenish-ash."

210. *Chrysotis albifrons*, Sparrm.

"Tehuantepec (Chihuitan, Juchitan); Tehuantepec City; October and November.

"Iris yellowish-white; bill light yellow; cere and feet dull white."

211. *Chrysotis finschi*, Sel.

"Tehuantepec City; October, 1869.

"Iris orange; bill dirty-white; feet light gray."

Fam. STRIGIDÆ.**212. *Glaucidium ferruginium* (Max.).**

"Tehuantepec (Santa Efigenia); Tehuantepec City; Chiapas (Gineta Mountains); October, January, and March.

"Iris yellow; bill, cere, and feet greenish-yellow."

213. *Glaucidium gnoma* (Wagl.).

"Tehuantepec (Tapana); Tehuantepec City; May and October.

"Iris yellow; bill, cere, and feet greenish-yellow."

214. *Speotyto cunicularia* var. *hypogæa* (Bp.).

"Tehuantepec (Juchitan); January, 1870."

215. *Bubo virginianus* (Gm.).

"Tehuantepec City; October, 1869.

"Iris yellow; bill blackish; feet dull grayish; nails blackish."

216. *Ciccaba nigrolineata*, Sel.

"Tehuantepec City."

217. *Ciccaba squamulata* (Licht.).

"Tehuantepec City; November, 1869."

Upper plumage dark brown, mottled with pale rufous; head, neck, and upper part of back rather sparsely marked with small fulvous-white spots; tail blackish-brown, crossed with six white bars, which are more or less clouded with light brown, ends of tail-feathers white; quills blackish-brown, with faint lighter bars on the inner webs and pale fulvous bars on the outer; inner webs of secondaries clear, very pale fulvous; under lining of wings dark reddish-fulvous; larger wing-coverts ending with reddish-fulvous; under surface white, tinged with fulvous, the feathers marked with conspicuous shaft-stripes of clear dark brown; sides and thighs of a light clear fulvous; bill dusky horn color, the end light yellow; toes brownish-yellow.

Length (skin), $14\frac{1}{2}$ inches; wing, $9\frac{1}{2}$; tail, $6\frac{1}{2}$; tarsi, $2\frac{1}{4}$.

I feel confident of being correct in referring the bird before me to *Syrnium squamulatum*, and thereby establishing its validity. By late writers, it has been considered identical with *S. virgatum*, Cass. This specimen is clearly distinct from Mr. Cassin's species, in which the coloring is much darker throughout, having the throat and breast of a dark brown, which in *S. squamulatum* are white; the light markings on the upper plumage of *S. virgatum* are rufous and in wavy lines, not, as in the other, in distinct whitish spots; the sides are dull fulvous; the thighs dark reddish-fulvous, with irregular narrow brownish bars; in *S. squamulatum* the thighs are of a very pale clear fulvous and immaculate. There are but five bars on the tail of *S. virgatum*, the other having six. The two species do not differ materially in measurements, except that the tarsi of *S. squamulatum* are much longer.

The only description I have found of this species is by Bonaparte (Cons. Av. i, p. 53), with which the specimen under examination agrees closely. Bonaparte was not acquainted with *S. virgatum*, but probably noticed in Mr. Cassin's description some similarity to that of *S. squamulatum*, as he has, *l. c.*, "Quid *Syrnium virgatum*, Cass."

218. Pulsatrix torquata (Daud.).

"Tehuantepec (Santa Efigenia); January, 1869.

"Iris brownish-orange; bill light greenish-horny; last scutellæ of toes ashy."

219. Strix flammea var. **pratinctola**, Bp.

"Tehuantepec City."

Fam. FALCONIDÆ.

220. Spizaëtus manduyti (Daud.).

"Tehuantepec (Santa Efigenia); January, 1869.

"Iris orange-yellow; cere and lorum greenish-yellow; toes yellow.

"Quite common in the large forests of the eastern coast of Mexico; it appears very rarely in the plains of the Pacific, where probably isolated individuals alone are found. This bird has the habits of the buzzards; it never leaves the woods, awaits its prey perched, and lives principally upon rats and other small quadrupeds."

221. Spizaëtus melanoleucus (Vieill.).

"Tehuantepec (Santa Efigenia)."

222. Pandion haliaëtus var. **carolinensis** (Linn.).

"Tehuantepec (Chihuitan); Ventosa Bay; January, 1871.

"Iris yellow; feet bluish-ash."

223. *Thrasaetus harpyia* (Linn.).

"Tehuantepec (Almoloja); October, 1868.

"Iris dark brown; cere and bill black; feet yellowish-white.

"The Harpy Eagle is exceedingly rare in Mexico, of which there is probably not a native bird; and its capture is truly a work of chance. The isolated birds which have been found there up to this time have probably been brought by some atmospheric disturbance, which has driven them beyond the natural limits of the zone in which they live."

224. *Hypotriorchis albigularis* (Daud.).

"Tehuantepec (Tapana); Oaxaca; June and August.

"Iris dark brown; bill blackish-blue; cere, lores, and orbits yellow; feet orange-yellow.

"Quite universally dispersed in the warm and temperate districts of Mexico; this falcon mounts at times up to the cold regions. It is quite rare in the dry plains which border upon the Gulf of Tehuantepec, and becomes more common as you approach the mountains. It is a resident. It mainly attacks other birds, and vigorously hunts pigeons."

225. *Hypotriorchis femoralis* (Temm.).

"Tehuantepec City." *

226. *Tinnunculus sparverius* (Linn.).

"Tehuantepec City; October, 1869.

"Iris dark brown; cere, orbits, and feet yellowish."

227. *Asturina plagiata* (Licht.).

"Tehuantepec (Chihuitan, Santa Efigenia); Tehuantepec City; October to January.

"Quite common on the two coasts. It frequents thin woods, shores of rivers, and lives upon rats, birds, and insects."

228. *Rupornis magnirostris* var. *griseocauda*, Ridg., Proc. Bost. Soc. of Nat. Hist., xvi, 87.

"Tehuantepec (Chihuitan, Almoloja near Barrio, Santa Efigenia); May, October, November, and December.

"Iris bright orange-red; cere and feet yellow; bill bluish-ash; base of lower mandible greenish-yellow; feet yellow."

229. *Geranospiza nigra* (Du Bus).

"Tehuantepec (Santa Efigenia); June, 1871.

"Iris bright red; upper mandible black, plumbeous at base, lower mandible light plumbeous; cere black; feet orange.

"Common enough on both sides of Mexico. This beautiful hawk resembles in its colors the *Urobitingas*, and by the lightness of its shape the *Micrasturs*, whose characteristics for the most part it possesses. It never leaves the woods, where, gliding with rapidity among the thickets of vines, it gives chase to the small lizards, tree-frogs, insects, &c. It is bold enough, and will allow itself to be approached carefully, but if slightly wounded it takes to flight on the ground with the greatest rapidity."

230. *Micrastur semitorquatus* (Vieill.).

"Tehuantepec (Santa Efigenia); Tehuantepec City; April, July, and November.

"Iris dark brown; bill black; cere, lores, and orbits, olive-green; feet yellow.

"This species, as one might judge at first sight from the shortness of its wings and the length of its tarsi and tail, is a very bad navigator. It is found almost always in the midst of thickets in the interior of great woods, never in exposed places. The only use he makes of his wings is to fly from one tree to another. Different from most birds of prey, who seek for their victims sometimes wheeling, sometimes perched on the top of dead trees, this one rarely leaves the shelter of the thickest foliage. It has sometimes the habit of squatting along the branches like the *Caprimulgidae*. In this position, it is easily seen by the hunter. Its voice is strong and its cry analogous to that of *Herpetotheres cachinnans*; resounding for a long distance, it sounds like the syllables *kā - hǎ - ā*, *kā - hǎ - hā*, given with the full strength of its voice. A popular prejudice makes the repetition of this cry an indication of a change of weather, whence the common name of *Llama-norte* is given to *M. brachypterus*, the name which it shares on the Pacific coast with *Herp. cachinnans*. The name which they bear in common on the Atlantic coast is that of *Vaquero*.

"The food of *M. brachypterus* is composed principally of reptiles and above all of saurians. Hidden in the foliage, he waits for the young iguanas, lizards, &c. The *Cyclures* with the pointed tail (*Ctenosaura acanthura et quinquecarinata*) seem to be favorite game for him; his gizzard and his stomach almost always contain the remains. He attacks, also, young birds and insects.

"Notwithstanding the delicacy of his appearance, he is endowed with remarkable tenacity of life. It is rare that the first shot kills him outright. If, wounded in the wing, he falls to the ground, he flutters away

at so rapid a rate that a dog can scarcely follow him; and if he finds in his way a mass of dead branches, a hole, or a thicket of vines, he hides himself so well that it is difficult to find him.

"The young (of the first year?) are distinguished from the adults, not only by the plumage barred with black underneath, but also by the color of the bill. With the adults, this latter is black; with the young, it is of a greenish-olive, darker on the culmen; the cere and the lores are of a yellowish-green, and the feet of the young are of a more lively yellow. At all ages, the iris is of a reddish-brown."

231. *Herpetotheres cachinnans* (Linn.).

"Tehuantepec (Tapana); Tehuantepec City; October and December.

"Iris dark brown; bill blackish; cere yellowish; feet dull white.

"Dispersed on the two coasts of Mexico, this bird is known under the name of *Vaquero* at Vera Cruz and *Llama-norte* at Tehuantepec. It frequents with preference savannas, clearings, or the border of woods. Its large head, the custom that it has of ruffling its plumage when some object attracts its attention, and the grotesque gestures that it sometimes makes, give it a certain likeness in physiognomy to the owls. Its cry, which is very loud, is heard from a distance, and in the opinion of the natives forebodes the approach of rain or the north wind. Its food is principally composed of snakes, lizards, and grasshoppers."

232. *Accipiter fuscus* (Gm.).

"Tehuantepec (Santa Efigenia); Tehuantepec City; November and January.

"Iris reddish-orange; cere greenish-yellow; feet yellow."

233. *Accipiter cooperi*, Bp.

"Tehuantepec (Santa Efigenia)."

234. *Buteo borealis* (Gm.).

"Tehuantepec City; Cacoprieto; January, 1872.

"Iris clear yellowish-brown; cere olivaceous; bill plumbeous; tarsi clear yellowish-green."

235. *Buteo pennsylvanicus* (Wils.).

"Tehuantepec (Santa Efigenia); December, 1868.

"Iris hazel-brown; cere yellowish-green; feet yellow."

236. *Buteo pterocles* (Temm.).

"Tehuantepec (Tapana); July, 1869.

"Iris hazel-brown; cere greenish; feet yellow."

237. *Buteo minutus*, Pelz.

"Tehuantepec City; October, 1869.

"Iris brown; bill black, extreme base of both mandibles bluish; cere greenish-yellow; lores greenish; feet yellow."

238. *Antenor unicinctus* var. *harrisi* (Aud.)

"Tehuantepec City; October, 1869.

"Iris hazel-brown; cere, lores, and orbits yellow; bill light bluish-ash, tip dusky; feet orange-yellow."

239. *Urubitinga zonura* (Shaw).

"Tehuantepec (Santa Efigenia, Barrio); Tehuantepec City; Chiapas (Gineta Mountains); October to February.

"Iris brown; cere greenish-yellow; feet yellow."

240. *Urubitinga anthracina* (Licht.).

"Tehuantepec (Tapana, Santa Efigenia); December, January, February, and May.

"Iris brown; cere and lores greenish-yellow; feet yellow.

"These two species of *Urubitinga*, of habits almost analogous, are essentially river-birds, like the species of *Cymindis*; that is to say, they prefer the borders of rivers and of streams and wooded localities to all other places. In Mexico, they never leave warm and temperate latitudes, and even in the latter they are always rare. The kind of food is varied; being naturally voracious, they despise no living prey, and I have taken out of their stomachs small quadrupeds, young birds, reptiles, crustacea, and insects. They are fond of fish, and on the borders of shallow brooks they easily catch the smaller kinds. When they are at rest, their appearance is heavy and resembles that of the buzzards, but on the wing their flight is easy and graceful. On fine days, they can be seen wheeling at a great height, sometimes together, describing large circles and giving out sharp cries from time to time. On the ground, they are not wild and are easily approached. They make their nest, coarsely formed of small sticks, at the forks of the branches of the highest trees. Toward the 15th of April I have found the young, recently fledged and covered with a white down."

241. *Cymindis cayenensis* (Gm.).

"Tehuantepec (Santa Efigenia); April, 1871.

"Iris brown; upper mandible black, the lower, cere, lores, eyelids, and feet bluish-ash, the cere spotted with black.

"This bird prefers the forest for its dwelling above all other places, but it goes almost always near seas and rivers. It is evidently a resident of Central Mexico, for toward the middle of May of this year 1871) I killed a female, whose ovary contained eggs developed enough to lead one to believe that they were just ready to be laid. It gives preference to trees of the thickest foliage; it is rarely seen on naked branches. Very fond of mollusks, like others of his tribe, he hunts often on the ground and on the damp soil of forests bordering the sea, or the sides of brooks, searching for gastropods, either of land or water. From this habit, his bill, his feet, and his feathers are often much soiled."

242. *Cymindis uncinatus* (Ill.).

"Tehuantepec (Chihuitan, Santa Efigenia); January and May.

"Iris white; cere and lores green; spot below nostril and the eye yellow; feet orange-yellow.

"Notwithstanding the great difference of plumage between the old and young of this species, their identity is easily recognized, in a fresh state, by the beautiful yellow appearance of the naked skin between the eye and the bill. The habits of this species are almost identical with those of *C. cayenensis*; that is to say, that they prefer the woods in the vicinity of water. Its food is composed principally of mollusks, and I have found their stomachs almost always full of the remains of a large species of *Orthaticus*, a land gastropod very abundant in the woods of Western Mexico."

243. *Ictinia plumbea* (Gm.).

"Tehuantepec (Chimalapa); March, 1869.

"Iris brown; bill horny; feet brownish.

"It comes from Chimalapa, where, as on the coast of Vera Cruz, it is only a bird of passage. I observed a few years ago, near San Andres, Ticatla, several bands or companies of these birds traveling toward the north."

244. *Circus Cyaneus* var. *hudsonius* (Linn.).

"Tehuantepec City; winter."

245. *Polyborus tharus* var. *audubonii*, Cass.

"Partout universel."

Fam. CATHARTIDÆ.

246. *Cathartes papa* (Linn.).

"Partout universel."

247. *Rhynogryphus aura* (Linn.).

"Partout universel."

248. *Catharista atrata* (Bartr.).

"Partout universel."

Fam. COLUMBIDÆ.**249. *Columba flavirostris*, Wagl.**

"Tehuantepec (Tapana); December, 1868.

"Iris reddish-orange; orbits and feet carmine; bill whitish, base rosy-red.

"Common at the foot of the Gineta Mountains, Santa Efigenia, Tapana, &c. Perches always on the highest trees."

250. *Zenaidura carolinensis* (Linn.).

"Chiapas (Gineta Mountains); January, 1869."

251. *Chamepelia passerina* (Linn.).

"Tehuantepec City; November, 1869.

"Iris light brown; bill dull carmine, tip dusky; feet light fleshy."

252. *Scardafella inca* (Less.).

"Tehuantepec City; October, 1869.

"Iris bright red; bill black; feet carmine."

253. *Melopelia leucoptera* (Linn.).

"Tehuantepec City; October, 1869.

"Iris orange; orbital skin bluish; bill black; feet dark carmine."

254. *Leptoptila albifrons*, Bp.

"Tehuantepec (Santa Efigenia); Tehuantepec City; October and January.

"Iris orange; bill black; orbital naked skin bluish; feet carmine.

"Quite common in the west of the isthmus; frequents the woods with preference; perches little, and goes almost always in pairs."

Fam. CRACIDÆ.**255. *Crax globicera* (Linn.).**

"Tehuantepec (Tapana); June, 1869.

"Iris brown; feet ashy; cere yellow.

"Known throughout Mexico under the name of pheasant. It only frequents the forests, and is seen only alone and in pairs."

256. *Penelope purpurascens*, Wagl.

"Tehuantepec (Santa Efigenia); December, 1868.

"Iris, lower part of gular skin, and acrotarsus carmine-red; upper part of gular skin, orbital, and loral skin violaceous-black; bill black.

"Common name *Pava* at Tehuantepec, *Faison griton* or *Cajolite* at Vera Cruz. Abundant in all the thick woods of the isthmus. It goes generally in small flocks. It is good game, and the flesh is less dry and more savory than that of the Hocco. Its bones, it is said, give attacks of epilepsy to the dogs who have eaten them, and even kill them. Like the Hocco, the Pava is easily tamed."

257. *Ortalida poliocephala*, Wagl.)

"Tehuantepec (Tapana, Barrio); Tehuantepec City; April, September, and November.

"Iris hazel-brown; orbits and gular skin carmine; bill light plumbeous; feet ashy.

"This species belongs properly to the coast of the Pacific, where it bears, as elsewhere, the name of *Chachalaca*. Is abundant everywhere."

258. *Ortalida vetula*, Wagl.

"Tehuantepec (Guichicovi); September, 1869.

"Iris brown; gular naked skin carmine; bill and feet bluish-ash.

"This species is more abundant on the eastern coast of the isthmus."

Fam. PERDICIDÆ.**259. *Ortyx coyolcos*, Gm.**

"Tehuantepec (Tapana, Santa Efigenia); May, June, and December.

"Iris brown; upper mandible brownish, lower lighter; feet light brownish-gray.

"Common in all the plains on the west of the isthmus, where it is called *Codorniz*. It alights sometimes in trees when pursued."

Fam. CRYPTURIDÆ.**260. *Nothocercus sallæi*, Bp.**

"Tehuantepec (Santa Efigenia); December, 1868.

"Iris hazel-brown; upper mandible brownish, lower pale; feet red.

"Killed near Santa Efigenia. It never appears in the plains."

Fam. CHARADRIIDÆ.**261. *Edicnemus bistriatus*, Wagl.**

"Tehuantepec (Tapana); December, 1868.

"Iris greenish-yellow; bill black, base of lower mandible yellowish-green; feet pale-greenish."

262. *Sqatarola helvetica* (Linn.).

"Tehuantepec (San Mateo); February, 1869.

"Iris dark brown; bill black; feet dark ashy."

263. *Ægialitis vocifera* (Linn.).

"Tehuantepec (Santa Efigenia); January, 1869."

264. *Ægialitis semipalmata* (Bp.).

"Tehuantepec (San Mateo); August and February.

"Iris dark brown; bill black, extreme base orange; feet dull yellowish."

265. *Ægialitis collaris* (Vieill.).

"Tehuantepec City; October and November.

"Iris dark brown; bill black, extreme base of lower mandible fleshy; feet light flesh-color."

Fam. HÆMATOPIDÆ.**266. *Hæmatopus palliatus*, Temm.**

"Tehuantepec (San Mateo, San Francisco); February and April.

"Iris chrome-yellow; bill and orbits bright coral-red; feet pale flesh-color."

267. *Strepsilas interpres* (Linn.).

"Tehuantepec (San Mateo); August, 1869.

"Iris brown; bill black; feet orange-red."

Fam. RECURVIROSTRIDÆ.**268. *Himantopus nigricollis*, Vieill.**

"Tehuantepec (San Mateo); August, 1869.

"Iris carmine-red; bill black; feet light carmine."

Fam. PHALAROPIDÆ.**269. *Lobipes hyperboreus* (Linn.).**

"Tehuantepec (Ventosa); October, 1869.

"Iris dark brown; bill black; feet dark plumbeous."

Fam. SCOLOPACIDÆ.**270. *Macrorhamphus griseus* var. *scolopaceus* (Say.).**

"Tehuantepec (San Mateo); August and February, 1869.

"Iris dark brown; bill dull olivaceous, greenish at the base; feet greenish."

271. *Micropalama himantopus*, Bp.

"Tehuantepec (San Mateo); February, 1869.

"Iris brown; bill black; feet yellowish-olive."

272. *Ereunetes pusillus* var. *occidentalis*, Lawr.

"Tehuantepec (San Mateo); Tehuantepec City; August, October, and February.

"Iris dark brown; bill black; feet dark olivaceous (nearly black)."

273. *Actodromas minutilla* (Vieill.).

"Tehuantepec City; October, 1869.

"Iris dark brown; bill black, its extreme base and feet greenish."

274. *Actodromas maculata* (Vieill.).

"Tehuantepec City; October, 1869.

"Iris brown; bill blackish, dirty yellowish-green at base; feet dull yellowish-green."

275. *Calidris arenaria* (Linn.).

"Tehuantepec (San Mateo); August and February.

"Iris brown; bill black; feet dark olivaceous (nearly black)."

276. *Limosa fedoa* (Linn.).

"Tehuantepec (San Mateo); August and February.

"Iris brown; basal half of bill flesh-colored, apical half dusky; feet dark ashy."

277. *Symphemia semipalmata* (Gm.).

"Tehuantepec (San Mateo).

"Iris brown; bill blackish, at the base grayish; feet ashy."

278. *Gambetta melanoleuca* (Gm.).

"Tehuantepec (San Mateo); February, 1869.

"Iris brown; basal half of bill grayish, terminal half dusky; feet yellow."

279. *Gambetta flavipes* (Gm.).

"Tehuantepec (San Mateo); February, 1869.

"Iris brown; bill black; feet yellow."

280. *Rhyacophilus solitarius* (Wils.).

"Tehuantepec (Tapana); Tehuantepec City; October and April.

"Iris dark brown; terminal half of bill black, basal half greenish; feet light olivaceous-green."

281. *Tringoides macularius* (Linn.).

“Tehuantepec (San Mateo, Santa Efigenia); Tehuantepec City; August, October, and December.”

282. *Numenius longirostris*, Wils.

“Tehuantepec (Juchitan); December, 1868.

“Iris brown; upper mandible blackish-brown, lower mandible lighter; feet ashy.”

283. *Numenius hudsonicus*, Latham.

“Tehuantepec (Ventosa Bay); December, 1869.

“Iris brown; bill black, basal half of under mandible fleshy; feet ashy.”

Fam. TANTALIDÆ.**284. *Tantalus loculator*, Linn.**

“Tehuantepec (Santa Efigenia); December, 1868.”

285. *Ibis alba*, Linn.

“Tehuantepec (San Mateo); August, 1869.

“Iris light-blue; naked skin of face fleshy-red; bill and feet fleshy.”

Fam. CANCROMIDÆ.**286. *Cancroma cochlearia*, Linn.**

“Tehuantepec (Santa Efigenia); December and January.”

Fam. PLATALEIDÆ.**287. *Platalea ajaja*, Linn.**

“Tehuantepec (Santa Efigenia); February, 1869.

“Iris and feet carmine-red.”

Fam. ARDEIDÆ.**288. *Ardea herodias*, Linn.**

“Tehuantepec City.”

289. *Garzetta candidissima* (Gm.).

“Tehuantepec (Santa Efigenia); Oaxaca; August and December.

“Iris yellow; bill black; basal half of lower mandible light-bluish; extreme base of upper mandible and lores orange-yellow; tarsi black; toes yellow.”

290. *Demiegretta leucogastra* var. *leucoprymna* (Licht.).

“Tehuantepec City; October, 1869.

“Iris straw-yellow; lores yellow; upper mandible black, lower clay-yellow; feet green.”

291. *Demiegretta rufa* (Bodd.).

"Tehuantepec (San Mateo); August, 1869.

"Iris yellow; bill blackish, grayish at the base; feet black."

292. *Demiegretta pealei*, Bp.

"Tehuantepec City; October, 1869.

"Iris yellowish-white; lores light-yellow; bill fleshy, along culmen and at tip black; feet black."

293. *Florida cærulea* (Linn.).

"Tehuantepec (Santa Efigenia)."

294. *Butorides virescens* (Linn.).

"Tehuantepec (Barrio, Santa Efigenia); Tehuantepec City; October and December.

"Iris yellow; lores, orbits, and nearly all the lower mandible yellow; upper mandible brownish-black; feet olive-green."

295. *Nyctiardea grisea* var. *nævia* (Bodd.).

"Tehuantepec City; November, 1869.

"Iris red; upper mandible and tip of lower black; lores, most of lower mandible, and feet greenish."

296. *Ardetta exilis* (Gm.).

"Tehuantepec City; October, 1869.

"Iris light straw-yellow; bill yellowish, except upper surface of upper mandible, which is blackish; upper surface of tarsus and toes greenish, under surface yellow."

297. *Tigrisoma cabinisi*, Heine.

"Tehuantepec (Tapana, Chihuitan, Santa Efigenia); Tehuantepec City; Venta Salada (Puebla); April, August, October, and February.

"Iris yellow; orbits, lores, gular sac, and feet greenish; upper mandible black, lower greenish-yellow."

Fam. RALLIDÆ.**298. *Aramus scolopaceus* var. *giganteus*, Bp.**

"Tehuantepec (Santa Efigenia); February, 1869."

299. *Aramides albiventris*, Lawr.

"Tehuantepec (San Francisco); April, 1869.

"Iris reddish; basal half of bill reddish, terminal half greenish; feet carmine."

300. Gallinula galeata, Licht.

“ Tehuantepec City ; November, 1869.

“ Iris brown ; frontal plate and bill dark brownish-olive ; apical third of bill olive-green ; feet greenish.”

301. Fulica americana, Gm.

“ San Mateo.”

Fam. PARRIDÆ.**302. Parra gymnostoma**, Wagl.

“ Tehuantepec (Santa Efigenia, Zonatepec) ; March and April.

“ Iris dark-brown ; bill, alar spurs, and frontal leaf bright-yellow ; upper base of bill bluish-white, the space between it and the nasal leaf dark-carmine ; feet greenish.”

Fam. ANATIDÆ.**303. Dendrocygna autumnalis** (Linn.).

“ Tehuantepec (Tapana) ; June, 1869.

“ Iris brown ; bill bright-fleshy, tinged with yellow near the nostrils ; feet light-fleshy.”

304. Cairina moschata (Linn.).

“ Tehuantepec (Tapana, Santa Efigenia) ; March, May, and December.

“ Iris clear chestnut-brown ; bill bluish-white, with transverse black spots ; nasal caruncle and sides of head black ; caruncles carmine-red ; feet black.”

Fam. PELECANIDÆ.**305. Pelecanus fuscus**, Linn.

“ Ventosa Bay.”

306. Pelecanus erythrorhynchus, Gm.

“ Tehuantepec (San Mateo).”

Fam. GRACULIDÆ.**307. Graculus mexicanus**, Brandt.

“ Tehuantepec (Santa Efigenia) ; December, 1868.

“ Iris green ; bill dark-fleshy ; culmen and tomia dusky ; gular sac brownish ; feet deep-black.”

Fam. PLOTIDÆ.**308. Plotus aninga**, Linn.

“ Tehuantepec (Santa Efigenia) ; December, 1868.”

Fam. TACHYPETIDÆ.**309. *Tachypetes aquilus* (Linn.).**

"Tehuantepec (Ventosa Bay); November, 1869.

"Iris dark-brown; orbits and gular skin dark-plumbeous, with a tinge of violaceous; feet carmine."

Fam. LARIDÆ.**310. *Larus delawarensis*, Ord.**

"Tehuantepec; February and March."

311. *Larus californicus*, Lawr.

"Tehuantepec (San Mateo); February, 1869.

"Iris hazel-brown; bill grayish-white, behind the yellowish-white tip a black vitta; feet dull greenish-white."

312. *Chroicocephalus atricilla* (Linn.).

"Tehuantepec (Juchitan, Ventosa, San Mateo); February, August, November, and December.

"Iris dark-brown; bill and feet reddish, tip of bill bright-red, preceded by a dusky spot or vitta; inside of mouth light-sanguine."

313. *Gelochelidon anglica* (Montagu).

"Tehuantepec (San Mateo); August and February.

"Iris dark-brown; bill black; feet brownish-black."

314. *Thalasseus maximus* (Bodd.).

"Tehuantepec (San Mateo); August and February.

"Iris dark-brown; bill bright orange-red; feet dark-brown; under surface of toes brownish-yellow."

315. *Thalasseus cantiacus* (Gm.).

"Tehuantepec (San Mateo); August and February.

"Iris dark-brown; bill black, with the tip yellow; feet dark-brown; under surface of toes yellowish."

316. *Sterna forsteri*, Nutt.

"Tehuantepec (San Mateo, Ventosa Bay); December and February.

"Iris dark-brown; bill black, its extreme tip whitish; feet dark-orange."

317. *Sterna dougalli*, Mont.

"Tehuantepec (Ventosa Bay)."

318. *Sterna antillarum*, Less.

"Tehuantepec (San Mateo); August, 1869.

"Iris dark-brown; bill yellow, tip dusky; feet dull orange-yellow."

319. *Hydrochelidon fissipes* (Linn.).

"Tehuantepec (San Mateo); August, 1869.

"Iris dark-brown; bill black; feet dark-brown."

320. *Rhynchops nigra*, Linn.

"Tehuantepec (San Mateo); August, 1869.

"Iris brown; basal half of bill coral-red, terminal half black; feet coral-red."

Fam. PODICIPIDÆ.**321. *Sylbeocyclus dominicus* (Linn.).**

"Tehuantepec (Juchitan); September, 1868.

"Iris orange; bill black, tip whitish; feet black, tinged with grayish."

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Department of the Interior:

U. S. NATIONAL MUSEUM.

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BULLETIN

OF THE

UNITED STATES NATIONAL MUSEUM.

No. 10.

PUBLISHED UNDER THE DIRECTION OF THE SMITHSONIAN INSTITUTION.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1877.

ADVERTISEMENT.

This work is the tenth of a series of papers intended to illustrate the collections of natural history and ethnology belonging to the United States and constituting the National Museum, of which the Smithsonian Institution was placed in charge by the act of Congress of August 10, 1846.

It has been prepared at the request of the Institution, and printed by authority of the honorable Secretary of the Interior.

JOSEPH HENRY,

Secretary of the Smithsonian Institution.

SMITHSONIAN INSTITUTION,

Washington, May, 1877.