

No. 11.— *Birds of the Cayo District, British Honduras*

BY OLIVER L. AUSTIN, JR.

A SUBSTANTIAL contribution toward the expenses of the Mason-Blodgett Expedition from the William and Adelaide Barbour Fund made it possible for me to accompany Mr. Gregory Mason to Central America during the spring of 1928. The main purposes of the expedition were archaeology and ethnology, but it was considered that, in as much as the route lay through a region so interesting and so little worked ornithologically, the opportunity for research in this field should not be neglected.

On March 15, 1928, Mason and I left Belize, British Honduras, for El Cayo, which we reached March 18, traveling up the Belize River by motor launch. I spent the next three days collecting there, while Mason observed and studied a Maya religious fiesta at the neighboring villages of Succotz and Benque Viejo. The fiesta finished, Mason intended to spend most of his time moving about from village to village by pack train, studying the native Indian tribes.

It is nearly impossible to study birds, when one must needs spend one's whole day in the saddle on a short-gaited mule, so it behooved me to find some more permanent base from which to work. The Mengel Mahogany Company was more than hospitable, and made me very comfortable for two weeks at their headquarters at Camp 6, about twelve miles south of El Cayo. For their many kindnesses to me, I shall always feel indebted to the manager and his wife, Mr. and Mrs. S. Williams.

Mr. John Eric Sydney Thompson, of the Captain Marshall Field First Archaeological Expedition to British Honduras, was at that time excavating a site he had discovered near Mountain Cow Water Hole, an abandoned mahogany camp some eight miles farther south from Camp 6. Eight miles and back again in that country is a full day's journey, and as Thompson's sole human company until then had consisted of seven stoical Indian workmen, he asked me to join him. This I gladly did, and spent the next two weeks collecting deep in the rain forest, while Thompson excavated his tombs and temples.

Gregory Mason visited us April 20, with the news that he had discovered some interesting limestone caves in the Great Southern Pine Ridge which he intended exploring more thoroughly. I packed up again and journeyed with him to a place near Augustine, where we camped

in a small oak grove on the icy little Rio Frio. A week's work saw Mason finished, and as our allotted time was rapidly drawing to a close, we ruefully headed back on April 28 for Cayo, Belize and home.

ECOLOGY OF THE REGION

British Honduras has two distinct seasons yearly, a rainy and a dry, and is considered to be entirely within the tropical zone. As my visit was during the dry period, there were but three light showers during the entire time I was there. That part of the Cayo district in which I worked, from Cayo south, has never been mapped or scaled with any remarkable degree of accuracy, so my figures for distances and heights are only estimates. I judged the directions and distances, besides from native hearsay, by my pocket compass and the length of time it took to traverse them. The altitudes I estimated as well as I could with a pocket aneroid barometer.

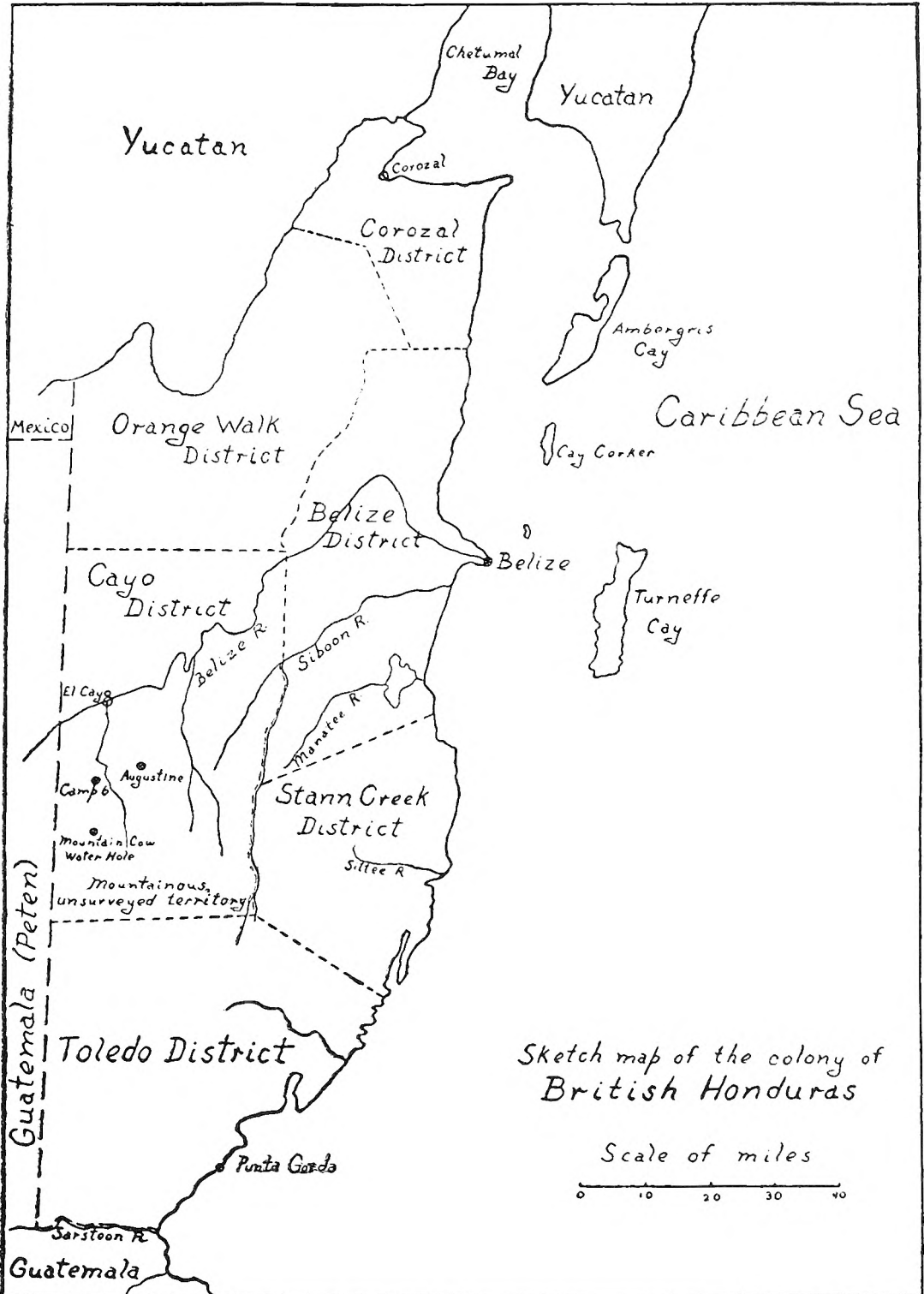
El Cayo is supposedly 500 feet above sea level. It consists mainly of man-made clearings with most of the heavy forest cut away, though there are a few patches of bush left in places.

As one goes southward the country rises rapidly, and I estimated Camp 6 to be about 1,800 feet in altitude. Here is plenty of forest, but the camp itself sits in the middle of an extensive clearing, somewhat wilder than the corresponding areas at Cayo. The east branch of the Belize River is two miles distant at its nearest point, and just on the other side of it, to the eastward, starts the Great Southern Pine Ridge.

Mountain Cow Water Hole (Mountain Cow = Tapir) lies still deeper in the forest, and its altitude is about 2,000 feet. At the time of my visit it had been abandoned by the loggers for over two years, and the rank vegetation had already claimed most of its own land back again. The lumbering operations had cut away most of the mahogany, but the rest of the jungle was left unimpaired, the trees averaging upwards of 150 feet in height. There is no stream near Mountain Cow, and the tiny, slimy, green *aguada* from which we took our drinking water threatened daily to dry up completely and force us to evacuate the site.

Augustine, about twelve miles southeast of El Cayo, rises about 2,200 feet above the level of the sea. It is in the open pine ridge country, but borders closely on the smaller rain forest areas which project in irregular peninsulas, capes and promontories through the pines.

If we neglect the immediate banks of the larger rivers, which boast several species not found elsewhere such as Herons and Kingfishers,



the district may be divided naturally into the three life areas which I term (a) the rain forest, (b) the transition, and (c) the pine ridge.

The rain forest area is typical of that found all through Central America, mahogany and the various species of chicle trees forming the bulk of it, the mass tied together by a thick, tangled network of palm underbrush and lianas that almost defies penetration.

List of birds typical of the rain forest area: —

Tinamus m. robustus	Sittasomus s. silvioides
Crypturus b. boucardi	Xiphocolaptes e. emigrans
Crax globicera	Lepidocolaptes souleyetii pallescens
Odontophorus g. guttatus	Xiphorhynchus f. flavigaster
Sarcorhamphus papa	Dendrocolaptes certhia sancti-thomae
Clamosocircus g. guerilla	Platyrinchus cancrominus
Aratinga a. astec	Oncostoma cinereigulare
Amazona farinosa guatemalae	Onychorhynchus m. mexicanus
Pionus senilis	Pipra m. mentalis
Hylomanes momotula	Manacus candei
Momotus l. lessonii	Scotothorus v. verae-pacis
Phaethornis l. longirostris	Tityra semifasciata personata
Agyrtria candida	Heleodytes zonatus restrictus
Trogon puella	Pheugopedius m. maculipectus
Trogon c. caligatus	Henicorhina p. prosthaleuca
Trogon m. melanocephalus	Turdus g. grayi
Trogon m. massena	Turdus assimilis parcolor
Rhamphastos p. piscivorus	Polioptila s. superciliaris
Pteroglossus t. torquatus	Pachysylvia decurtata
Aulacorhynchus p. prasinus	Pachysylvia o. ochraceiceps
Chloronerpes rubiginosus yucatanensis	Cyanocompsa c. concreta
Tripsurus pucherani perileucus	Arremonops striaticeps chloronotus
Veniliornis oleaginus sanguinolentus	Arremon aurantiirostris saturatus
Scapanus g. guatemalensis	Cyanerpes c. cyaneus
Microrhopias quixensis boucardi	Chlorophanes spiza guatemalensis
Thamnistes a. anabatinus	Tanagra gouldi
Rhamphocaenus r. rufiventris	Habia rubica rubicoides
Formicarius analis intermedius	Habia s. salvini
Automolus ochrolaemus cervinigularis	Lanio aurantius
Xenops minutus mexicanus	Zarhynchus wagleri mexicanus
Dendrocincla a. anabatina	Gymnostinops montezuma
Dendrocincla h. homochroa	Icterus prothemelas
	Psilorhinus mexicanus cyanogenys

The transition area usually covers a narrow strip between the rain-forest and the pine ridge areas. It is fairly open country with trees,

CLARAVIS PRETIOSA PRETIOSA (Ferrari-Perez)

This pretty little Blue Ground Dove is seen in small flocks in the roads and clearings all through the rain forest.

OREOPELIA MONTANA (Linn.)

Male, Augustine, April 22.

RALLIDAE

ARAMIDES ALBIVENTRIS ALBIVENTRIS Lawrence.

Male and female, Belize River, March 16; female, Mountain Cow, April 18.

This large, handsome Rail is very common along the banks of the Belize River. In the course of a day's travel upstream in a motor boat we saw 35, in ones and twos. They feed on the open banks of the river, sometimes wading in the shallow water, and when disturbed by a passing boat retire quietly and unhurriedly into the bush. The single individual at Mountain Cow was taken in a small swamp deep in the rain forest, and was very shy, much more so than the birds along the main river.

CHARADRIIDAE

CHARADRIUS SEMIPALMATUS Bonap.

I saw one lone bird on the Belize River, March 17.

AEGIALITIS VOCIFERUS (Linn.)

Flock of 20 seen on the Belize River, March 20.

PISOBIA FUSCICOLLIS (Vieill.)

Flock of 40 seen on the Belize River, March 20.

ACTITIS MACULARIA (Linn.)

Two seen on the Belize River, March 17, and 2 more, March 20.

ARDEIDAE

ARDEA HERODIAS HERODIAS Linn.

One seen on the Belize River, March 17.

FLORIDA CAERULEA (Linn.)

Common all along the Belize River, in both blue and white plumages.

BUTORIDES VIRESCENS subsp.

Four seen on the Belize River, March 20.

CATHARTIDAE

SARCORHAMPHUS PAPA (Linn)

One killed at Mountain Cow, and several seen at Camp 6. They keep more to the heavy bush and are much shyer than the other vultures.

CORAGYPS ATRATUS ATRATUS (Meyer)

Common everywhere near the settlements and clearings.

CATHARTES AURA AURA (Linn.)

Not uncommon anywhere *C. atratus* was found in numbers.

FALCONIDAE

CLAMOSOCIRCUS GUERILLA GUERILLA (Cassin)

Immature male, Augustine, April 24.

This bird was taken in the rain forest bordering the pine ridge. I saw and positively identified three others in the jungle. The species acts much like our northern Sharp-shinned Hawk, darting through the bush and striking quick and hard. I saw none in the open at all.

FALCO SPARVERIUS SPARVERIUS Linn.

Common at Camp 6 in the clearings. One shot.

ELANOIDES FORFICATUS subsp.

A single Swallow-tailed Kite high in the air over Cayo on March 17 was the only one seen.

ASTURINA PLAGIATA PLAGIATA Schlegel

One seen on the banks of the Belize River, March 16, perched on and tearing up an iguana lizard it had just killed.

ICTINEA PLUMBEA (Gmelin)

Male and female, Mountain Cow, April 14, Augustine, April 21.

This is the common Kite of the region. It loiters about the wilder clearings, but its favorite haunt is the open pine ridge. In that area there are always from two to twenty in sight. They like to perch on dead limbs at the summits of the tall pines, and are remarkably unsuspecting and unafraid of man. One can walk under a tree on which they are perched at any time without their taking flight.

BUBONIDAE

GLAUCIDIUM BRASILIANUM RIDGWAYI Sharpe

Male, Augustine, April 24.

PSITTACIDAE

ARATINGA ASTEC ASTEC (Souancé)

1 male and 1 female, Camp 6, March 24; 1 male, Mountain Cow, April 13.

Very common everywhere in the rain forest, usually staying in the tops of trees of medium height, though I surprised one band feeding in low bushes in a clearing.

AMAZONA FARINOSA GUATEMALAE (Schlegel)

Not uncommon in the tall jungle, usually occurring in pairs of small flocks. I saw one flock of twenty near Mountain Cow. It is highly prized by the natives as food because of its size, but was promptly rejected by ourselves for that purpose, because of its toughness.

AMAZONA AUTUMNALIS AUTUMNALIS (Linn.)

1 male, Pine Ridge, March 29.

Several others seen, always in the pine ridge close to the forest.

PIONUS SENILIS (Spix)

1 male, Camp 6, March 23.

This Parrot was one of the commonest and most noticeable birds at Mountain Cow, screaming continually from the tops of the tallest trees, and usually going in large flocks. Because of its extreme abundance, it is one of the main food birds of the natives.

ALCEDINIDAE

MEGACERYLE TORQUATA TORQUATA (Linn.)

Common on the Belize River.

MEGACERYLE ALCYON subsp.

Four seen on the Belize River, March 17.

CHLOROCERYLE AMAZONA (Lath.)

Common on the Belize River.

CHLOROCERYLE AMERICANA ISTHMICA Goldman

1 male, Camp 6, March 26.

Very common on the Belize River. There is a perfect intergradation between *isthmica* and *americana* all the way from Panama to Texas, so that it is difficult to assign birds of certain areas to either race with certainty. My specimen and several others I have seen from British Honduras are not typical of either race, but seem nearer *isthmica* than *americana*.

MOMOTIDAE

HYLOMANES MOMOTULA Licht.

Rare. One blown apart at close range at Mountain Cow, April 18.

MOMOTUS LESSONII LESSONII Less.

1 male, Mountain Cow, April 17.

The races of *Momotus lessonii* are difficult to differentiate unless one has a large series at hand, so that extremes may be chosen for comparison. There is a perfect intergradation from *lessonii* of Panama to

caeruleiceps of northern Mexico. As Chapman suggests (Bull. Am. mus. nat. hist., 1923, p. 34) the form *aequatorialis* of Colombia is a race of *lessonii*, but the strange thing is its apparent affinity for the southern Mexican bird rather than its nearest neighbor in Panama. Elevation above sea-level may explain this, the birds following the mountain ranges, and going higher the farther south the species goes. The Colombian bird is an extreme highland form, while the southern Mexican bird is one of lowlands and mid-altitudes.

My specimen from Mountain Cow, and two I have examined from the Toledo District, approach *goldmani* in having less violet and more black in the posterior part of the nuchal crest than typical *lessonii* of western Nicaragua, but the birds have to be in large series to show it at all. In this race, as in many others, the Cayo district seems to be an intermediate zone between Mexican and Honduranian subspecies, sometimes approaching one, sometimes the other, but nearly always of too little distinctive value to warrant separation.

CAPRIMULGIDAE

CHORDEILES MINOR HENRYI Cassin

1 female, Augustine, April 26.

NYCTIDROMUS ALBICOLLIS SUMICHRASTI Ridgway

2 males, Camp 6, March 31, Augustine, April 21.

The Cueijo sang loud and long everywhere every damp, foggy night. My two birds belong apparently to the Mexican race.

TROCHILIDAE

PHOETHORNIS LONGIROSTRIS LONGIROSTRIS (Delattre)

1 female, 2 males, Mountain Cow, April 14.

My birds seem to belong to the Guatemalan race, having buffy in the margins of the lateral rectrices, but they are closer to *veraecrucis* than are southern Guatemalan birds, as they show the buffy less strongly, and have a slight margin of white on the extreme tips of the lateral rectrices, outside the buffy.

AGYRTRIA CANDIDA (Bour. & Muls.)

2 males, Mountain Cow, April 14.

AMAZILIS TZACATL TZACATL (De la Llave)

1 male, Monkey Run, Belize River, March 16; female, Cayo, March 17.

AMAZILIS CYANOCEPHALA GUATEMALENSIS (Gould)

1 male and 1 female, Augustine, April 23.

TROGONIDAE

TROGON PUELLA Gould

1 female, Mountain Cow, April 7.

TROGON CALIGATUS CALIGATUS Gould

1 male and 1 female, Camp 6, March 26–30.

TROGON MELANOCEPHALUS MELANOCEPHALUS Gould

1 male, Mountain Cow, April 18.

TROGON MASSENA MASSENA Gould

1 male, Augustine, April 23.

This is the commonest Trogon in the region.

CUCULIDAE

PIAYA CAYANA THERMOPHILA Sclater

3 males, Cayo, Camp 6, Mountain Cow.

Very common everywhere in the rain forest area.

CROTOPHAGA S. SULCIROSTRIS Swains.

1 female, Cayo, March 19.

Very common in the bushes along the roads and in the clearings. Called by the natives the "blacksmith," probably because of its color, and because it is always making a noise.

RHAMPHASTIDAE

RHAMPHASTOS PISCIVORUS PISCIVORUS Linn.

1 male and 1 female, Camp 6, March 23.

This Toucan is very common in the high forest. Its croaking is not loud, but carries an astonishing distance. Called by the natives "De Beel Burd."

PTEROGLOSSUS TORQUATUS TORQUATUS (Gmelin)

1 female, Camp 6, March 26.

Not uncommon, though always seen in lone high trees in the clearings and never in the forest proper.

AULACORHYNCHUS PRASINUS PRASINUS (Gould)

2 males, Mountain Cow, April 15.

Several others seen the same day and on the two following days, but none at any other time. It is a bird one cannot help noticing, if in the vicinity, so these may have been migrating.

BUCCONIDAE

MALACOPTILA PANAMENSIS INORNATA (Du Bus)

1 female, Augustine, April 25.

This bird with two other females and two males from the Toledo District in the collections of the Museum of Comparative Zoölogy are much lighter than a series of *inornata* from Costa Rica. The type locality of the race is Guatemala, and my birds can scarcely be told from a small series of old trade skins from somewhere in that republic, except that the white spots in the back seem a little lighter in my birds, a difference which may be due to the age of the skins. Without good Guatemalan material, nothing can be done, but there is surely a sub-specific difference between the races of this species found respectively in Costa Rica and in Guatemala and British Honduras.

PICIDAE

PICULUS RUBIGINOSUS YUCATANENSIS (Cabot)

1 male and 1 female, Cayo, March 18 and 19.

BALANOSPHYRA FORMICIVORA ALBEOLA (Todd)

2 males and 3 females, all in the pine ridge, 3 near Camp 6, March 29, and 2 at Augustine, April 24-25.

These birds are identical with Todd's well-marked race from the Manatee Lagoon. He supposed that the race was coastal, and these

are the first to be taken since. It is very common in the pine ridges, and is one of the most typical species of that area. It keeps to the tops of the tall pines, but is conspicuously colored and very noticeable.

TRIPSURUS PUCHERANI PERILEUCUS (Todd)

2 males and 1 female, Mountain Cow, April.

In Todd's description of this form he gives as characters, broader white markings on the back, more white on the secondary coverts coming farther forward, and less restricted red on the belly. Of these the only one that seems to hold is the white on the secondary coverts. The others vary greatly and are apparently not diagnostic.

CENTURUS DUBIUS DUBIUS (Cabot)

1 unsexed, Camp 6, March 21.

VENILIORNIS OLEAGINUS SANGUINOLENTUS (Sclater)

1 female, Mountain Cow, April 12.

CELEUS CASTANEUS (Wagler)

1 male, Mountain Cow, April 15.

This specimen shows the lighter colored head of the spring bird.

SCAPANEUS GUATEMALENSIS GUATEMALENSIS (Hartlaub)

1 male, Mountain Cow, April 12.

Very common, in the large forest, usually seen on the lower trunks of big trees. It is very tame, and can be approached closely with ease.

FORMICARIIDAE

THAMNOPHILUS DOLIATUS MEXICANUS Allen

1 female, Cayo, March 18.

A fully adult bird, with almost none of the black barring that typifies the juvenal, but very small and very ruddy, both on the back and the breast. The wing measures 66 mm., the culmen 20 mm. More specimens from the Cayo district, especially a series of adult males, would undoubtedly prove of interest.

THAMNISTES ANABATINUS ANABATINUS Scl. & Salv.

1 male, Mountain Cow, April 4.

MICRORHOPIAS QUIXENSIS BOUCARDI (Sclater)

4 males, one female, Camp 6, March 25, Mountain Cow, April 6-15, Augustine, April 23.

Rather common, inhabiting the bushes by the trails.

RHAMPHOCAENUS RUFIVENTRIS RUFIVENTRIS (Bonap.)

1 male, Mountain Cow, April 10.

FORMICARIUS ANALIS INTERMEDIUS (Ridgway)

1 male, Mountain Cow, April 7.

This bird is very shy. The only one I collected I heard calling, stalked very carefully, and shot, thinking it a rail.

DENDROCOLAPTIDAE

AUTOMOLUS OCHROLAEMUS CERVINIGULARIS (Sclater)

2 females, Camp 6, March 27-31; 1 male Mountain Cow, April 5; 2 males, Augustine, April 23.

XENOPS MINUTUS MEXICANUS Sclater

Male, male, female, Mountain Cow, April 4-6-10; male, male, Augustine, April 23-25.

As he could not separate birds from the Manatee Lagoon from *mexicanus*, Hellmayr (Cat. Birds of America, pt. 4, 1925, p. 238) does not recognize *cayoensis* described by Chubb from Cayo (Bull. B. O. C., 39, 1919, p. 52). Chubb's description was based on old, faded skins taken thirty-one years before his examination, and he neglected to take the age of his specimens into consideration. The large series in the Museum of Comparative Zoölogy shows a great variation in color, caused solely by fading with time. Using nothing but comparatively fresh skins, there is a gradual transition from *mexicanus* on the north in Vera Cruz, through British Honduras, Guatemala and northern Honduras, to *ridgwayi* in Panama on the south, the latter ranging

north to Costa Rica, Nicaragua and southern Honduras. Perfect intergrades may be found all along the way, and birds taken a hundred miles apart cannot be differentiated with certainty. My birds seem very slightly darker and less rufous than the Vera Cruz form, and much lighter than Costa Rican specimens. This is only what one would expect under the circumstances, and there is certainly no reason for recognizing a very poor race as close to the type locality of another as my birds are to *mexicanus*.

DENDROCINCLA ANABATINA ANABATINA Sclater

1 female, Mountain Cow, April 11.

DENDROCINCLA HOMOCHROA HOMOCHROA (Sclater)

4 males, Augustine, April 23.

Taken in small rain forest at the edge of the pine ridge. I saw two others the same day, and no more at any other time.

SITTASOMUS GRISEICAPILLUS SYLVIODES Lafresnaye

2 males, Mountain Cow, April 5-12; female, Augustine, April 22.

My specimens are somewhat intermediate between this race and Bangs and Peters' new subspecies from Yucatan and the seacoast of British Honduras, though far nearer the former, differing only in being slightly paler rufous on the back and tail.

XIPHOCOLAPTES EMIGRANS EMIGRANS Scl. & Salv.

1 male and 1 female, Mountain Cow, April.

LEPIDOCOLAPTES SOULEYETHI DECOLORIS new subspecies

Type.— Adult female, No. 140010 M. C. Z., British Honduras, Cayo district, El Cayo, March 18, 1928, O. L. Austin, Jr.

Specimens examined.— *L. s. decoloris*, 2 females, Cayo, male, Siboon River, British Honduras; *L. s. insignis* (Nelson), Vera Cruz 2, Toledo district, B. H. 2, Honduras 7, Guatemala 2; *L. s. compressus* (Cabanis), Costa Rica 44, Panama 8.

Subspecific characters.— Like *L. s. insignis*, but the buff of the throat

and the centers of the feathers of the head, nape, shoulders and breast much lighter, almost white; much as in *L. s. compressus*, but differing in having no black tips to the throat feathers; light centers to the feathers of the head, nape and shoulders, wider, and more developed on the back.

<i>Measurements.</i> — Type	female	Wing 97	Culmen 31
	female	Wing 89	Culmen 30
	male	Wing 96	Culmen 30

Range.— Highlands of British Honduras, Cayo district, western end of the Belize district, probably the northwest corner of the Toledo district and the eastern parts of Peten.

Remarks.— This little Thin-billed Woodhewer shows marked affinities with the race from Panama, Costa Rica and Nicaragua (*compressus*) rather than with the subspecies which surrounds it on at least three sides (*insignis*). Measurements are of little value, as they overlap, but with fresh skins for comparison the color differences seem reliable. This is presumably a mid-altitude form, but the new form may well prove to occur in northern British Honduras, Quintana Roo, and Peten.

XIPHORHYNCHUS FLAVIGASTER FLAVIGASTER Swainson

3 males, 1 female, Mountain Cow, April 10-16-18-11.

This is the commonest Woodhewer of the district, occupying the ecological niche of and acting much like our northern Brown Creeper, though the two are, of course, in no way related.

DENDROCOLAPTES CERTHIA SANCTI-THOMAE (Lafresnaye)

1 female, Mountain Cow, April 10; 1 male, Augustine, April 25.

TYRANNIDAE

PLATYRINCHUS C. CANCROMINUS Sclater and Salvin

1 male, Camp 6, March 31.

TODIROSTRUM CINEREUM FINITIMUM Bangs

1 unsexed, Belize River, Monkey Run, March 16.

ONCOSTOMA CINEREIGULARE (Sclater)

Female, male, male, male, Mountain Cow, April 8-11-17, Augustine, April 25.

This seems, when in the field, to be the smallest bird in the bush. The only adjective that describes its call and manner adequately is "explosive." The eye is whitish.

PIPROMORPHA OLEAGINEA ASSIMILIS (Sclater)

3 males, Mountain Cow, April 5-8-17; male, Augustine, April 25.

A Flycatcher of the medium-sized rain forest, haunting the tops of the smaller trees.

ELAENIA FLAVOGASTER SUBPAGANA Scl. & Salv.

Male, Augustine, April 24.

MYIOZETETES SIMILIS TEXENSIS (Giraud)

1 male, Camp 6, March 27.

Shot in a bush overhanging the Belize River.

MYIODYNASTES LUTEIVENTRIS LUTEIVENTRIS Sclater

Male and female, Camp 6, March 30; 3 males, Mountain Cow, April 5-13-17.

This is the common Flycatcher in the tops of the lower trees along the trails in the rain forest and at the edges of the clearings. It is a noisy, obtrusive bird, and makes itself very noticeable.

MEGARYNCHUS PITANGUA MEXICANUS (Lafresnaye)

1 male, Pine Ridge, March 27; 1 male and 1 female, Augustine, April 22.

This is the common large Flycatcher of the pine ridge area. It perches on the lower branches of the large pines, watching for insects.

ONYCHORHYNCHUS MEXICANUS MEXICANUS (Sclater)

1 male, Camp 6, March 30; 1 female and 1 male, Mountain Cow, April 7-10.

The two taken at Mountain Cow were just starting to build a nest in a bush about ten feet off the ground, overhanging a trail through the forest.

MYIOBIUS SULPHUREIPYGIUS SULPHUREIPYGIUS (Sclater)

1 male and 1 female, Mountain Cow, April 11.

As Bangs points out (Proc. New Eng. zool. club, 4, 1908, p. 27) the bird of British Honduras is slightly intermediate between this form from Vera Cruz and *M. s. aureatus* Bangs of southern Honduras and south. My two specimens are almost identical with the former.

MYIOCHANES VIRENS (Linn.)

1 male and 1 female, Mountain Cow, April 10-16.

MYIOCHANES PERTINAX MINOR Miller & Griscom

1 female, Augustine, April 26.

This skin has such a small wing and short, wide bill that it cannot well be referred to *M. p. pertinax* (Cabanis & Heine) of Jalapa and Vera Cruz, though Salvin and Goldman (Aves, 2, 1889, p. 81) list a specimen as such from Blancaneaux, Great Southern Pine Ridge, not ten miles from Augustine. I have not been able to compare it with other skins of the same species from British Honduras, or with any *M. p. minor* material from Nicaragua, but its measurements justify its reference to this race, despite the geographical incongruity. Adequate material may show a recognizable race from British Honduras, but as yet there are little or no grounds for attempting to establish one.

MYIOCHANES CINEREUS BRACHYTARSUS (Sclater)

1 male and 1 female, Belize River, March 16; 1 female, Cayo, March 19.

This Wood Pewee was not seen at all in the higher country.

MYIARCHUS TYRANNULUS NELSONI Ridgway

1 male, Camp 6, March 21.

MYIARCHUS TUBERCULIFER CONNECTENS Miller & Griscom

1 female, Mountain Cow, April 9.

PIPRIDAE

PIPRA MENTALIS MENTALIS Sclater

8, both sexes, Mountain Cow and Augustine, April 5 through 25.

MANACUS CANDEI (Parzudaki)

1 male, Camp 6, March 25.

SCOTOOTHORUS VERAЕ-PACIS VERAЕ-PACIS (Sclater)

1 female, Camp 6, March 24; 2 males, Mountain Cow, April 6-7.

COTINGIDAE

TITYRA SEMIFASCIATA PERSONATA (Jardine & Selby)

1 male, Camp 6, March 24.

Several seen at Mountain Cow.

PACHYRAMPHUS CINNAMOMEUS Lawr.

4 females, 1 male, Camp 6, March 30, Mountain Cow, April 4-5-6 (2).

They act like flycatchers, sitting on the tops of smaller trees.

LATHRIA UNIRUFA UNIRUFA (Sclater)

1 male, Mountain Cow, April 18.

COTINGA AMABILIS Gould

1 female, Camp 6, March 29.

Taken in the extreme top of a very tall tree at the edge of the pine ridge.

HIRUNDINIDAE

STELGIDOPTERYX RUFICOLLIS RIDGWAYI Nelson

1 female and 1 male, Augustine, April 23-25.

There was a small colony of Rough-winged Swallows nesting in holes in the ceiling of the huge limestone cavern through which the Rio Frio flows. It was impossible to reach the holes in the top of the cave into which the birds were disappearing to verify their breeding, though they were undoubtedly doing so. They are typical *ridgwayi*, large and very dark. My two specimens show the unreliability of the under tail-coverts as a determining factor, for the female possesses the dusky spots, while the male lacks them. (Cf. Bangs and Peters, Bull. mus. comp. zoöl., 67, no. 15, January, 1925, p. 479).

IRIDOPROCNE BICOLOR (Vieillot)

Common all along the Belize River and at El Cayo, March 17-18-19.

IRIDOPROCNE ALBILINEA (Lawrence)

Common all along the Belize River and at El Cayo.

TROGLODYTIDAE

HELEODYTES ZONATUS RESTRICTUS Nelson

1 female, Camp 6, March 25; 1 male and 1 sex undetermined, Mountain Cow, April 16.

These birds, when compared with specimens from the Toledo district and from Guatemala show slightly paler bellies and less fuscous backs. However, they are in worn spring plumage, while the latter are all fall specimens, which may account for the difference.

The vociferous Cactus Wren is very common and very tame in the rain forest at Mountain Cow. I saw them daily playing about the low bushes around the camp, sometimes tearing thrasher-like through the thickets, at other times imitating Woodhewers on the tree-trunks, and never still for a moment.

NANNORCHILUS LEUCOGASTER MUSICUS (Nelson)

1 male, Mountain Cow, April 4.

My single specimen shows gray rather than the fuscous flanks of the Vera Cruz race, and its under tail-coverts are white, sharply barred with black and dark brown, a condition found in none of the other nine specimens I have examined. In size, color of the back and banding of the tail my specimen agrees with the Vera Cruz bird rather than *brachyurus* of Yucatan, which the Quintana Roo birds approach. It is possible that more material from British Honduras and Guatemala may show a valid race from the highland region.

PHEUGOPEDIUS MACULIPECTUS MACULIPECTUS (Lafresnaye)

2 males, Mountain Cow, April 9-15.

The British Honduras specimens of the Spotted-breasted Wren show intergradation with each of the three surrounding races, with all of which I have compared them. However, as they are nearest to the

Vera Cruz form, I have referred them there, rather than proposing a weak race on somewhat variable characters. The breasts of my two birds, and of two others from the Toledo district are slightly more heavily barred than *maculipectus*, but the shades of brown on the flanks, belly and back are decidedly less russet than in *umbrinus*. The pale Yucatan race, *canobrunneus*, is approached by four birds from southern Quintana Roo on the British Honduras boundary. My birds average midway in size between *maculipectus* and *umbrinus*, while those from southern Quintana Roo go on size to *canobrunneus*. All these characters are of such a nature that a series is necessary to show the difference.

HENICORHINA PROSTHELEUCA PROSTHELEUCA (Sclater)

8, both sexes, all localities, March 31 to April 25.

This is the common Wren of the rain forest area, singing continually in the underbrush. It is found especially in heaps of old cut brush cleared from the trails beside these forest paths.

TURDIDAE

TURDUS GRAYI GRAYI Bonaparte

1 male, Mountain Cow, April 17.

Two others seen April 22 on the road to Camp 6.

TURDUS ASSIMILIS PARCOLOR new subspecies

Type.—No. 140066 M. C. Z., adult male, British Honduras, Cayo district, Camp 6, March 26, 1928, O. L. Austin, Jr.

Range.—Highlands of British Honduras in the rain forest areas near the pine ridges of the Cayo and Toledo districts.

Subspecific characters.—Nearest to *T. a. oblitus* Miller and Griscom, but averaging slightly smaller; the male lighter gray on the back with a trace of olive; the female not distinguishable from the male; throats of both sexes containing less white and more black.

Specimens examined.—*T. a. parcolor*, male and female, Cayo district, male, Toledo district; *T. a. oblitus* Miller and Griscom, 6 males, 4 females, Costa Rica; *T. a. assimilis* Cabanis, 6 males, 5 females, eastern Mexico; *T. a. renominatus* Miller and Griscom, 5 males, 2 females, 1 sex undetermined, western Mexico; *T. a. leucauchen* Sclater, 1 imma-

ture, Guatemala (old trade skin); *T. a. cnephosa* (Bangs), large series, both sexes, Panama and Costa Rica.

<i>Measurements.</i> — Male (type)	wing 113	culmen 21
Male	wing 116	culmen 21
Female	wing 113	culmen 20.5

Remarks.—Miller and Griscom (Am. mus. nov., no. 184, Sept. 24, 1925, p. 13) point out the possibility of the existence of an undescribed race of *Turdus assimilis* in British Honduras, but were unable to describe it themselves, through lack of material. They had at hand at the time all the available material in this country, and were able to give a very good revision of the races of this species. They point out that the geographically adjacent *leucauchen* is different from the British Honduras bird, but were unable to separate satisfactorily the four old skins they had of the latter from *oblitus*. My two fresh skins from the Cayo district and the male from the Toledo district, in the collections of the Museum of Comparative Zoölogy, all show the same color characters listed above, when compared with *oblitus*. Miller and Griscom, however, state that there seemed to be a sex difference in these birds from the specimens they saw. My pair show hardly any noticeable difference whatsoever, thus eliminating them as a synonym of either *leucauchen* or *oblitus*. My two fresh birds show a decidedly darker and more olive breast than *oblitus* or the Toledo district male, but this character may be variable.

On geographical grounds *parcolor* should be nearest either *leucauchen* or *assimilis*, so it is strange to find it approaching *oblitus*, especially as the much darker race *atrocinctus* of Nicaragua intervenes. The similar development of these two races must be a case of parallelism.

It is an unobtrusive little thrush, appearing in the field like a small, gray Robin. It prefers the rain forest, where it sings a song much like that of our northern Robin, though weaker and not as colorful.

HYLOCICHLA USTULATA SWAINSONI (Cabanis)

1 female, Augustine, April 26.

SYLVIIDAE

POLIOPTILA SUPERCILIARIS SUPERCILIARIS Lawrence

1 male, Mountain Cow, April 14.

VIREONIDAE

VIREOSYLVA OLIVACEA (Linn.)

1 male, Camp 6, March 23; 1 female, Mountain Cow, April 17.

LANIVIREO FLAVIFRONS (Vieillot)

1 female, Mountain Cow, April 14.

PACHYSYLVA DECURTATA (Bonap.)

1 male and 1 female, Mountain Cow, April 6-13.

PACHYSYLVA OCHRACEICEPS OCHRACEICEPS (Sclater)

1 male, 2 females, Mountain Cow, April 4-5-23; 1 male, Augustine, April 25.

MNIOTILTIDAE

DENDROICA AESTIVA AESTIVA (Gmelin)

1 female, Belize River, Monkey Run, March 16.

DENDROICA MAGNOLIA (Wils.)

Seen commonly in the clearings at Camp 6.

DENDROICA PENNSYLVANICA (Linn.)

Migrating in large numbers on the pine ridge, April 27.

DENDROICA FUSCA (Müller)

One male, Augustine, April 21.

Migrating in large numbers.

OPORORNIS PHILADELPHIA (Wils.)

Mountain Cow, April 14.

Common everywhere.

OPORORNIS FORMOSUS (Wils.)

1 male, Mountain Cow, April 13.

GEOTHLYPIS TRICHAS TRICHAS (Linn.)

Very common at the Camp 6 clearings and in the transition area.

ICTERIA VIRENS VIRENS (Linn.)

1 female, Mountain Cow, April 7.

CHAMAETHLYPIS POLIOCEPHALA PALPEBRALIS Ridgway

1 female, Augustine, April 24.

WILSONIA MITRATA (Gmel.)

1 unsexed and 1 male, Mountain Cow, April 9-13.

SETOPHAGA RUTICILLA (Linn.)

1 male, Mountain Cow, April 14. Very common in the rain forest.

MNIOTILTA VARIA (Linn.)

Common, migrating on the pine ridge.

BASILEUTERUS CULICIVORUS CULICIVORUS (Lichtenstein)

1 female, Mountain Cow, April 11.

BASILEUTERUS RUFICOLLIS SALVINI Cherrie

4, both sexes, Augustine, April 22-24-27.

FRINGILLIDAE

CYANOCOMPSA CONCRETA CONCRETA (Du Bus)

1 male, Camp 6, March 30.

VOLATINIA JACARINI ATRONITENS Todd.

1 male, Augustine, April 24.

SALTATOR ATRICEPS ATRICEPS Lesson

1 male, Cayo, March 16; 1 male, Mountain Cow, April 12.

CARYOTHAUSTES POLIOGASTER POLIOGASTER (Du Bus)

2 males, Augustine, April 25.

SPIZA AMERICANA (Gmelin)

1 male and 1 female, Augustine, April 27.

The Dickcissel was common, migrating in small flocks on the pine ridge.

AIMOPHILA RUFESCENS RUFESCENS Swainson

7, both sexes, Augustine, April 22-27.

SPIZELLA SOCIALIS PINETORUM (Salvin)

1 male and 1 female, Camp 6, March 27 to April 19; 11, both sexes, Augustine, April 19 through 27.

I saw this sparrow several times in the dry, dusty roads through the clearings, where it is not very common. Its favorite haunt is the pine ridge area, where it occurs commonly in large flocks.

PASSERINA CYANEA (Linn.)

Very common in flocks in the clearings and the transition area.

ARREMENOPS STRIATICEPS CHLORONOTUS (Salvin)

1 female, Cayo, March 18.

This specimen is slightly larger than five other individuals of *chloronotus* from Quintana Roo and Guatemala, and the black crown stripes show no brown tinge whatsoever. The bird is subspecifically different from *A. s. centratus* Bangs, but hardly so from the race to which I refer it. The specimen shows beyond a doubt the relationship suspected by Todd (Proc. biol. soc. Wash., 36, p. 41, March 28, 1923) between the so-called species *chloronotus* and the various races of *striaticeps*.

ARREMON AURANTHROSTRIS SATURATUS Cherrie

1 female, Camp 6, March 26.

COEREBIDAE

CYANERPES CYANEUS CYANEUS (Linn.)

1 male, Mountain Cow, April 18.

CHLOROPHANES SPIZA GUATEMALENSIS (Sclater)

1 male, 3 females, Mountain Cow, April 12.

TANGARIDAE

TANAGRA ELEGANTISSIMA (Bonap.)

1 male, Mountain Cow, April 12.

TANAGRA OLIVACEA HUMILIS (Cabanis)

1 male, Mountain Cow, April 17.

TANAGRA HIRUNDINACEA (Bonap.)

8, both sexes, Camp 6 and Mountain Cow, March 24 to April 17.

TANAGRA GOULDI (Sclater)

1 male and 1 female, Mountain Cow, April 8.

TANGARA LARVATA LARVATA (Du Bus)

2 males and 2 females, Mountain Cow, April 9-11 (2)-14.

A bird of the clearings and trail-edges, keeping in low, open trees.

THRAUPIS ABBAS (Lichtenstein)

9, both sexes, Mountain Cow and Camp 6.

Very common everywhere in the wilder parts of the clearings.

RAMPHOCELUS PASSERINII Bonap.

1 male, Cayo, March 19.

PIRANGA RUBRA RUBRA (Linn.)

2 males, 2 females, Mountain Cow, April 5-11-11-18.

PIRANGA TESTACEA FIGLINA (Salvin & Godman)

1 male and 1 female, Augustine, April 22-26.

Topotypical material, found only at the edges of the pine ridge.

PIRANGA LEUCOPTERA LEUCOPTERA Trudeau

3 males, 2 females, Mountain Cow, April 5-17; male, Augustine, April 24.

My specimens show intergrading characters between this form and *P. l. latifasciata* Ridgway, the southern race, though they are much nearer to the former. The bands on the wing are a little wider than in

typical *leucoptera*, and the posterior wing band spreads over to the tips of the greater coverts, but at the same time they are not wide or extensive enough to be the southern form. Thus the northern and southern races are connected by an intergrade which I believe had best be left unnamed.

HABIA RUBICA RUBICOIDES (Lafresnaye)

1 male and 1 female, Mountain Cow, April 15-17.

HABIA SALVINI SALVINI (Berlepsch)

2 females and 2 males, Camp 6, March 23-26-26-30.

Found only in the rain forest, but common there. A noisy bird, acting like a large finch, tearing through the underbrush in small bands and making various and sundry queer noises.

LANIO AURANTIUS Lafresnaye

8, both sexes, Mountain Cow, April 4 through 16.

A bush inhabitant, rather quiet, preferring small trees and high bushes in the forest.

ICTERIDAE

ZARHYNCHUS WAGLERI MEXICANUS Ridgway

1 male, Camp 6, March 25.

GYMNOSTINOPS MONTEZUMA (Lesson)

1 male, Mountain Cow, April 15.

A colony of these birds had their pendulous nest 100 feet high in a huge tree over our hut at the water hole.

ICTERUS GALBULA (Linn.)

1 male, Mountain Cow, April 13.

ICTERUS PROSTHEMELAS (Strickland)

1 male, Mountain Cow, April 17.

ICTERUS MESOMELAS MESOMELAS (Wagler)

3 males, 1 female, Camp 6, March 21 (2), April 29 (2).

The low bushes in the open clearing around Camp 6 were the only places where this bird was seen. It avoids the heavy forest.

ICTERUS GIRAUDII Cassin

2 males, 2 females, Camp 6, March 27, 29 (2), Augustine, April 22.

Taken only in clumps of palmettos at the edge of the pine ridge near the rain forest.

DIVES DIVES (Lichtenstein)

1 male, Mountain Cow, April 7.

Very common in all the clearings.

CORVIDAE

XANTHOURA LUXUOSA GUATIMALENSIS (Bonaparte)

1 male, pine ridge near Camp 6, March 29.

Not common. Only two others seen, and these in the small dry forest at the edge of the pine ridge.

PSILORHINUS MEXICANUS CYANOGENYS (Sharpe)

1 female, Camp 6, March 23.

The Brown Jay is very common throughout the rain forest highlands, and is distinctly the southern rather than the Vera Cruz race. The bird is a nuisance while one is collecting, as it shows the same curiosity and verbosity concerning man that our New England Blue Jay does. It is very tame, and will come within six feet of one, until its curiosity is satisfied. The negro natives call it the "Pium-pium" from its raucous call.

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