For twenty-eight days in March, 1900, Mr. W. W. Brown, Jr., collected birds and mammals, for my brother and me, at Loma del Leon (Lion Hill Station), Panama,—preparing in this time 752 skins.

Loma del Leon lies in the rain-soaked, swampy country of the eastern side of the Isthmus (the western coast being much drier, with a scrubby growth). It is a station from which many birds have been sent to the larger collections of both England and America, and a number of specimens obtained there by Mr. Brown are practically topotypes—in some cases actual topotypes—of species of Lawrence, Salvin and Godman, and others.

The collection of birds is a very fine one; but the birds of the region are so well known that the present paper takes much the form of a list, in most cases merely the name and the number of specimens taken by Mr. Brown being given, comment being unnecessary; and but three forms receive new names.

I am under the greatest obligation to Drs. Ridgway and Richmond for allowing me the unrestricted use of the collection of birds in the National Museum and for helping me identify specimens.
Crypturus soui modestus (Cab.).

Three specimens, a pair of adults taken March 25, and a young bird about two thirds grown. This form is readily distinguished from true C. soui by the dark color of the under side of the neck.

Helodromas solitarius (Wils.).

One male, taken March 11.

Jacana nigra (Gmel.).

One male, March 30. "Frontal plate, loral flaps, and basal part of bell, poppy red."  

Aramides cayanae chirico (Hartl.).

One male, March 16.

Porzana carolina (Linn.).

One male, March 18.

Porzana albigularis (Lawr.).

One male, March 26.

Lonornis martinica (Linn.).

One male, March 23.

Ortalis cinereiceps (Gray).

One female, March 21.

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1 Note made by Mr. Brown from fresh specimen.
Leptoptila cassini Lawr.
Five specimens, all males.

Claravis pretiosa (Ferrari-Perez).
Seven specimens, both sexes.

Columbigallina rufipennis (Bp.).
Two males.

Cochlearius zeledoni Ridg.
One female.

Tigrisoma lineatum (Bodd.).
One male.

Buteo latissimus (Wils.).
One immature male.

Asturina nitida (Lath.).
One adult male.

Busarellus nigricollis (Lath.).
One adult male.

Spizaëtus tyrannus (Max.).
One adult male.

Micrastur melanoleucus (Vieill.).
One immature male.
Strix guatemalæ Ridg.
One adult male.

Pulsatrix torquata (Daud.).
Two adults — male and female.

Brotogerys jugularis (Müll.).
Three specimens.

Pionus menstruus rubrigularis (Cabanis).
One adult male. In this northern form of the blue-headed parrot the rose-colored spot on the throat is larger, and the blue of the head and neck is duller.

Crotophaga ani Linn.
One male.

Diplopterus naevius (Linn.).
Four males. Panama birds seem to average a little smaller than Mexican, but larger than South American, specimens.

Piaya cayana thermophila (Scl.).
Three specimens, all males.

Piaya minuta (Vieill.).
Four specimens, both sexes.
Nyctidromus albicollis (Gmel.).
Three specimens,—one male, two females. One of these is in the usual reddish brown plumage, the other two are extremely dark-colored individuals.

Urospatha martii (Spix).
Three fine males.

Ceryle inda (Linn.).
Three males.

Ceryle superciliosa (Linn.).
Five specimens, both sexes.
The Panama form is true C. superciliosa, showing no approach to C. superciliosa stictoptera Ridg. of Yucatan, and differing in no way from specimens from Surinam. One Panama skin, no. 7102, has green spots on the upper sides of the white belly patch, but no green spots on under tail-coverts. One adult male from Surinam, no. 9932, Bangs collection, has the under tail-coverts spotted with green, but no green breast spots. A combination of these two specimens would make an exact counterpart of the plate of Ceryle aequatorialis Sharp, of Ecuador.

Bucco dysoni Scl.
Two specimens, male and female.

Rhamphastos brevicarinatus Gould.
Two females.
Pteroglossus torquatus (Gmel.).

One male.

Capito maculicoronatus Lawr.

Two adult males.

Picumnus olivaceus Lafr.

Two adult males. These are true _P. olivaceus_.

Celeus squamatus Lawr.

Three males. _Celeus squamatus_ Lawr. of Panama is a very well-marked form, differing in many ways from _C. loricatus_ that surrounds it.¹ _C. squamatus_ differs from _C. loricatus_ (Costa Rica specimens, and the type of _C. mentalis_ from Turbo, Colombia) in being smaller, the wing averaging 118.5 mm. as against 123.5 mm., in having the upper parts a paler shade of rufous, the under parts much paler, pale buff instead of dull ochraceous rufous, and very much more conspicuously marked with scale-like black markings, which are quite as heavy on belly and sides as on breast. In _C. loricatus_ the black markings become much smaller and less noticeable posteriorly.

Melanerpes wagleri Salv. and Godm.

Eight specimens, both sexes. These are topotypes.

The form I described from Santa Marta as _M. wagleri sancta-\_marte_ is a miniature of true _wagleri_, but differs, besides, slightly in color, the frontal band in the Santa Marta bird being whiter, and the inner rectrices more heavily marked with white.

¹ _Celeus loricatus_ Reich. was described from a specimen from northwestern Peru. I have seen no specimens from nearer the type locality than Turbo, Colombia,—this one the type of _C. mentalis_ Cassin. Birds from Costa Rica are much the same; and while more material may show several geographical races, none of them are much like _C. squamatus_ of Panama.
Melanerpes pucherani (Malh.).
Two males.

Ceophleus lineatus (Linn.).
One male.

Trogon caligatus Gould.
Eleven specimens, both sexes.

Trogon atricollis tenuellus (Cab.).
Three specimens, two males and a female.

Trogon chionurus Scl. and Salv.
Four specimens, both sexes.

Trogon melanurus macrurus (Gould).
Two males.

Trogon massena Gould.
Two specimens, male and female.

Phaëthornis longirostris (Less. and Delatt).
Four specimens, all males.

Aphantochroa cirrhochloris (Vieill.).
Nine specimens, both sexes.

Lampornis violicauda (Bodd.).
Six specimens, both sexes.
Amizillis fuscicaudata (Fraser).
Three specimens, one male and two females.

Damophila panamensis Berl.
Two specimens, male and female.

Copurus leuconotus Lafr.
Four specimens, one male and three females.

Todirostrum cinereum (Linn.).
Two specimens, male and female.

Todirostrum schistaceiceps Scl.
One female.

Oncostoma olivacea Lawr.
One male.

Mionectes oleaginex parcus subsp. nov.
Two males.

*Type*, from Loma del Leon, Panama, ♀ adult, no. 7187, coll. of E. A. and O. Bangs, collected March 30, 1900, by W. W. Brown, Jr.

*Subspecific characters.*—Similar in general to true *M. oleaginex* of South America, but smaller; bill rather smaller and with more black on lower mandible; darker in color throughout, back and pileum much darker green, and throat much darker, more grayish, less olivaceous.

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<th>Measurements (in millimeters).</th>
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<td>7187</td>
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<td>7188</td>
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</table>

*Parsus*—small, slight.
Remarks.—In my opinion *Mionectes assimilis* Scl. of Central America is a very distinct species. It is larger than true *M. oleagineus*, and is very different in color, having a much paler belly, gray throat, and dusky grayish olive head, and the under side of the tail much darker, less reddish brown. In the series in the National Museum I find no sign of intergradation.

*M. oleagineus parcus*, however, probably intergrades with true *M. oleagineus*, of which it is a small, dark, northern race.

*Capsiempis flaveola* (Licht.).

Two specimens, a pair, taken March 10.

*Elanea pagana subpagana* Scl. and Salv.

Six specimens, both sexes.

*Legatus albicollis* (Vieill.).

One male.

*Myiozetetes cayennensis* (Linn.).

Eight specimens, both sexes.

*Myiozetetes similis superciliosus* (Bp.).

Four specimens, both sexes.

*Myiozetetes granadensis* Lawr.

Nine specimens, both sexes.

*Pitangus lictor* (Licht.).

Three specimens, a male and two females.
Myiodynastes audax nobilis (Scl.).
Eleven specimens, both sexes.

Muscivora mexicana (Scl.).
One adult female.

Myiobius atricaudus Lawr.
One adult female.

Empidonax traillii (Aud.).
One adult male, taken March 17.

Blacicus brachytarsus (Scl.).
Two males.

Myiarchus panamensis Lawr.
Five specimens, both sexes.

Tyrannus melancholicus satrapa (Licht.).
Sixteen specimens, both sexes.

Tyrannus tyrannus (Linn.).
Three specimens, two males, and a female, taken March 20, 26, and 30.

Manacus vitellina Gould.
Fifteen specimens, both sexes.
Tityra semifasciata personata (Jard. and Selb.).
Four specimens, three males and a female.

Pachyrhamphus cinereus (Bodd.).
Four specimens, both sexes.

Pachyrhamphus cinnamomeus Lawr.
Four specimens, both sexes.

Pachyrhamphus sp.?
One female, clearly not either of the preceding, and belonging to a species I have not been able to identify.

Laniocera rufescens (Scl.).
One adult male.

Attila sclateri Lawr.
Two adult males.

Querula cruenta (Bodd.).
Four specimens, both sexes.

Myrmotherula surinamensis (Gmel.).
Three specimens, a female and two males.

Cercomacra tyrannina (Scl.).
Four specimens, three males and one female.
Cercomacra maculicaudis (Scl.).
Three specimens, two males and a female.

Gymnocichla nudiceps (Cassin).
Seven specimens, five males and two females.

Hypocnemis nævioides (Lafr.).
Two specimens, male and female.

Phlogopsis macleannani Lawr.
Two specimens, male and female.

Formicarius hoffmanni Cab.
One adult female.

Cymbilanius lineatus fasciatus Ridg.
Two specimens, male and female.

Thamnophilus tranandeanus Scl.
Eight specimens, both sexes.

Thamnophilus nævius (Gmel.).
Four females.

Thamnophilus doliatus (Linn.).
Eight specimens, both sexes.
Myrmelastes intermedius (Cherrie).

Four specimens, both sexes.

Myrmelastes ceterus\(^1\) sp. nov.

*Type* (and only specimen in the collection) from Loma del Leon, Panama, \(\delta\) adult, no. 7323, coll. of E. A. and O. Bangs, collected March 30, 1900, by W. W. Brown, Jr.

*Specific characters.*—Similar to *M. lawrencii* Salv. and Godm. of Nicaragua and Chiriqui, except that the Panama form has white-tipped greater wing-coverts and rectrices, and much larger and more prominent concealed white patch on back.

*Color.*—Adult male (type): black all over; wings rather brownish black; a large, concealed, white patch on back; wing-coverts broadly tipped with white and rectrices narrowly tipped with white; lining of wing mostly whitish.

*Measurements.*—Adult male (type): wing, 73.; tail, 55.; tarsus, 30.4; exposed culmen, 18.2 mm.

*Remarks.*—*M. ceterus* is the bird Lawrence described as *Myrmelastes corvinus* from an immature male from Panama. Salvin and Godman, finding that the name *corvinus* had already been used in connection with *Myrmelastes*, renamed the species *lawrencii* and described one of the Chiriqui examples from their collection. Now it appears that two species enter into the question—one inhabiting Nicaragua and Chiriqui, the other Panama, the Panama form (*corvinus* Lawr. = *ceterus*) distinguished by having white tips to the rectrices and greater wing-coverts and a prominent concealed white patch on back, the Nicaragua and Chiriqui form (*lawrencii* Salv. and Godm.) by having no white on wings or tail and the concealed dorsal patch almost obsolete.

Dendronis nana Lawr.

Twelve specimens, both sexes.

Picolaptes lineaticeps Lafr.

One adult male.

\(^1\) *Ceterus* — the other, that which exists besides.
Xiphorhynchus trochilirostris (Licht.).
Two specimens, male and female.

Sclerurus mexicanus Scl.
Two specimens, males.

Sclerurus guatemalensis (Hartl.).
Two specimens, male and female.

Automolus pallidigularis Lawr.
One adult female.

Xenops genibarbis Ill.
Three males.

Synallaxis pudica Scl.
Five specimens, both sexes.

Stelgidopteryx uropygialis (Lawr.).
One adult male.

Progne chalybea (Gmel.).
Three males.

Troglodytes inquietus Baird.
Two males.
Thryothorus fasciatoventris albigularis (Scl).
Four specimens, all males.

Thryophilus modestus (Cab.).
Two specimens, male and female.

Thryophilus galbraithi Lawr.
Seven specimens, both sexes.

Thryophilus castaneus (Lawr.).
One adult male.

Cyphorhinus lawrencii Scl.
Three specimens, two males, one female.

Rhodinocichla rosea (Less.).
Two females.

Galeoscoptes carolinensis (Linn.).
One female, taken March 6.

Merula grayii casius (Bp.).
Ten specimens, both sexes.

Hylocichla ustulata swainsonii (Cab.).
One female, taken March 25.
**Geothlypis formosa** (Wils.).
One male, taken March 29.

**Seiurus noveboracensis** (Gmel.).
One male, taken March 27.

**Dendroica pensylvanica** (Linn.).
One male, taken March 21.

**Dendroica aestiva** (Gmel.).
One male, taken March 8.

**Coereba mexicana** (Scl.).
One adult female.

**Cyanerpes cyaneus** (Linn.).
Eight specimens, seven males, one female.

**Dacnis ultramarina** Lawr.
One adult female.

**Euphonia crassirostris** Scl.
Seventeen specimens, both sexes.
As there seemed to be some difference of opinion as to the distinctness of *E. laniirostris* Lafr. and Daub. from the Colombian bird (*E. crassirostris* Scl.), I examined the cotypes of the former, now in the collection of the Boston Society of Natural History.
The cotypes are two adults, both males, in fine condition, nos. 2848 and 2849, from Yuracares, Bolivia.

Without doubt they represent a different form from the common species of Colombia and Central America. *E. crassirostris* is glossed on head and hind neck with purple, which gradually becomes steel blue on lower back and rump. The cotypes of *E. laniirostris* are wholly glossed with purple above; below they are deeper yellow—more orange. *E. laniirostris* is also larger (no. 2848, adult ♂, cotype: wing, 65.; no. 2849, adult ♂, cotype: wing, 66.5), and has a heavier, stouter bill. In *E. crassirostris* the wing, in the adult male, measures about 62 mm., a large number of examples that I measured varying but little from this, either one way or the other.

**Eucometis cristata** (Du Bus).

Five specimens, both sexes. A female taken March 25 had an egg in the oviduct.

**Mitrospingus cassini** (Lawk.).

Two specimens, a pair, taken March 27.

**Heterospingus rubrifrons** Lawr.

One male.

**Tachyphonus rufus** Bodd.

Twenty-seven specimens, both sexes.

**Tachyphonus luctuosus** Lafr.

One male.
Phoenicothraupis fuscicauda erythrolæma (Scl.).

Ten specimens, both sexes.

This, the southern form of \( P. fuscicauda \), extending from Santa Marta to Panama, differs from true \( fuscicauda \) of Costa Rica in its generally paler and redder coloring. The back, in \( erythrolæma \), is redder, and the belly and sides are much paler and decidedly redder.

Piranga rubra (Linn.).

Two males, both taken March 29.

Rhamphocelus dimidiatus Lafr.

Ten specimens, both sexes.

Rhamphocelus icteronotus Bp.

Twenty-five specimens, both sexes.

Tanagra cana diaconus (Less.).

Twenty-four specimens, both sexes.

Tanagra palmarum melanoptera (Scl.).

Thirty specimens, both sexes.

Calospiza larvata fanny (Lafr.).

Fifteen specimens, both sexes.

Calospiza inornata (Gould).

Nine specimens, both sexes.
Saltator lacertosus¹ sp. nov.

Six specimens, both sexes.

_Type_, from Loma del Leon, Panama, ♀ adult, no. 7524, coll. of E. A. and O. Bangs, collected March 10, 1900, by W. W. Brown, Jr.

*Specific characters.*—Nearest to _S. atriceps_ Less. of Mexico and Central America, differing from that species in being smaller; tail shorter; bill much larger and stouter; white superciliary stripe much more pronounced; no black band across lower throat; under tail-coverts much darker—more rusty; sides and flanks browner; sides of face gray (blackish in _S. atriceps_); sexes similar in color.

*Color.*—Pileum black; back, wings and tail, bright, yellowish, olive green; inner webs of primaries and secondaries dusky; a white superciliary stripe reaching some distance behind eye; cheeks slate gray; chin black; throat pure white, bordered at lower sides by black, and sometimes a few black spots on the feathers of breast just behind white throat patch, but _never_ a black band separating throat patch and breast (as in _S. atriceps_); breast and belly gray (no. 6 of Ridgway); sides and flanks dull olive brown; under tail-coverts dull ferruginous; bend of wing yellow.

**Measurements (in millimeters).**

<table>
<thead>
<tr>
<th>No.</th>
<th>Sex and age</th>
<th>Wing</th>
<th>Tail</th>
<th>Tarsus</th>
<th>Exposed culmen</th>
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<td>7526</td>
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<td>♂ ad.</td>
<td>107.²</td>
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<td>—</td>
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<td>118.5</td>
<td>121.</td>
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<td>♂ ad.</td>
<td>117.</td>
<td>121.</td>
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*Remarks.*—In Washington I examined a splendid series of Saltators. The National Museum contains specimens of _S. atriceps_ from a great many different places in southern Mexico and Central America, and also a few skins of the new form from Panama. I could not find the slightest indication that the two forms intergrade and must therefore regard the Panama bird as a distinct species. It is, in truth, such a very different bird in so many ways that I cannot understand how the two have for so long been confused and run together under one specific name.

¹ _Lacertosus_—powerful.

² Primaries growing, after moult, and not of full length.
Saltator intermedius Lawr.

Nineteen specimens, both sexes.
This is another very well-marked form, occurring in Chiriqui and Panama, that has lately not been recognized as distinct. In the very large series I have just examined I find no intergrades between it and S. magnoides of southern Mexico, Nicaragua and Costa Rica; in fact, specimens from the last-named country are quite as extreme magnoides as are Mexican examples. The chief differences between the two forms are as follows. In S. magnoides the black band behind the throat patch is very broad, often extending back over the breast; the under parts are dark gray. In S. intermedius the black band behind the throat patch is very narrow, often reduced to a series of black spots, and sometimes wholly wanting; the under parts are dull brownish (not gray).
S. intermedius may or may not intergrade with S. magnus of northern South America. I have seen no specimens, however, that show any tendency to such an intergradation. S. magnus is so much smaller and has such a weak bill (in comparison to the bill of S. intermedius), besides differing much in color, that, even if intergradation does take place, all three must stand as strongly characterized forms.

Saltator albicollis isthmicus (Scl.).
Fifteen specimens, both sexes.

Arremon aurantiirostris Lafr.
Nine specimens, both sexes.

Arremonops conirostris (Bp.).
Twenty-three specimens, both sexes.
Eutheia pusilla (Swains.).
One male.

Sporophila minuta (Linn.).
Three males.

Sporophila aurita (Bp.).
Seven specimens, six males, one female. The males are, as usual, very variable in the amount of black and white below.

Pitylus grossus (Linn.).
Four specimens, three males, one female.

Cyanocompsa concreta cyanescens Ridg.
Six skins, two adult females, three adult males, and a young male in mottled blue and brown plumage.

Spiza americana (Gmel.).
One male, taken March 17.

Amblycercus holosericeus (Licht.).
Fourteen specimens, both sexes.

Icterus galbula (Linn.).
Two specimens, a male, taken March 17, and a female, taken March 18.
Icterus mesomelas salvini (Cassin).
Thirteen specimens, both sexes.

Cacicus microrhynchos Scl. and Salv.
Four specimens, both sexes.

Zarhynchos wagleri (Gray).
Six skins, both sexes.