(see Auk, VII, 1890, 128, and VIII, 1891, 331). As far as I am aware, after searching the literature on the breeding range, there is no breeding maritime record south of Long Island, New York, which is nearly 600 miles northeast of the region where the birds breed on the South Carolina coast. This is indeed truly remarkable.

Oporornis agilis. Connecticut Warbler.— Misses Louise Petigru Ford and Marion J. Pellew saw at Aiken on May 12, 1915, an adult male on the ground among highland ferns. These ladies watched this bird for a long time through powerful opera glasses and no mistake whatever was made by them, as they are familiar with the resident as well as migratory birds found about Aiken. The Connecticut Warbler is very rare in the spring east of the Alleghenies. Mr. Loomis took one at Chester on May 10, 1889, but I have yet to take one in South Carolina.

LIST OF BIRDS COLLECTED ON THE HARVARD PERUVIAN EXPEDITION OF 1916.

BY OUTRAM BANGS AND G. K. NOBLE.

The birds listed in the following notes were collected by one of us — Noble who accompanied as naturalist the Harvard Peruvian Expedition of 1916.

This was a short summer vacation trip, financed by friends of the Museum of Comparative Zoölogy, into the northwestern corner of Peru. Roughly speaking the expedition covered a triangular course from Payta to Tabaconas and thence out to the coast again at Chiclayo. The regions traveled were mostly desert or semi-desert ones; at a few places only was real sub-tropical forest met with.

A careful itinerary by Noble will be published later with his account of the Reptiles and Batrachians, upon which he was working when he answered the call to the service of his country in war.

For the loan of, often very necessary, specimens we are much indebted to Dr. Chas. W. Richmond of the United States National Museum, Dr. Frank M. Chapman of the American Museum of

Natural History, Mr. W. E. Clyde Todd of the Carnegie Museum, Mr. Chas. B. Cory of the Field Museum of Natural History and Mr. T. E. Penard of Arlington, Mass.

Phalacrocoracidæ.

Phalacrocorax vigua vigua (Vieill.). One Q, Perico, September 14.

Falconidæ.

Polyborus cheriway cheriway (Jacq.). One adult 9, Perico, September 14.

This specimen agrees, with two others — one from Punto Caiman, Santa Marta, Colombia, one from Rio Caura, Venezuela — kindly let us by W. E. Clyde Todd of the Carnegie Museum. The bird of northern South America, as shown by the three skins now before us, two of which are fine adults, is clearly different from the North American Caracara.

The South American form is much more intensely black, less brownish black, is slightly smaller throughout and has a shorter, and more feeble bill.

We would therefore suggest the large, heavy-billed, brownish black North American bird, be known as

Polyborus cheriway auduboni Cassin,

based upon Audubon's Florida specimen, which Audubon presented to the Academy of Natural Sciences of Philadelphia. This form occurs in Cuba, and on the mainland ranges from northern Lower California, Arizona, Texas and Florida south to Panama. Skins from Panama differ but little from those from northern localities, and are decidedly referable to P. $cheriway\ audubonii\ rather\ than\ to\ P.\ cheriway\ cheriway\ (Jacq.).$

The Caracara was observed throughout most of the lowlands. Along the Upper Piura River Valley Caracaras were very abundant. Several were nearly always to be seen in the vicinity of every clearing.

Ibycter megalopterus (Meyen). One adult σ , Lake Warinja, August 18. This bird was seen only at the highest altitudes visited, the single specimen was secured at about 9000 feet.

Accipiter bicolor bicolor (Vieill.). Five specimens, immature of both sexes, and one adult φ , Perico and Bellavista, September.

Chapman, in 'The Distribution of Bird-Life in Colombia,' p. 242, does not recognize a western form of this hawk, A. b. schistochlamys Hellmayr, and the series of twelve skins in the Museum of Comparative Zoölogy wholly supports what he has said.

The present specimens agree in color with skins from Panama and Costa Rica and even with those from so far north as Quintana Roo. There is, however, a gradual increase in size northward and examples from Vera Cruz — practically, the northern limit of the species,— are very large. The one adult female we possess from this State is besides much darker in

color than any from farther south, and for this large dark northern form, we propose the name —

Accipiter bicolor fidens subsp. nov.

Type from Buena Vista, Vera Cruz, Mexico, fully adult 9, No. 2289 Bangs Coll. (in Museum of Comparative Zoölogy). Collected June 14, 1901, by A. E. Colburn and P. W. Shufeldt.

Characters. Larger and darker than A. b. bicolor (Vieill.), upper parts blackish slate, under parts slate gray. Type Q ad., wing, 260; tail, 209, tarsus, 67; culmen from cere, 20.5. Topotype, No. 2290, Q immature, wing, 255; tail, 212; tarsus, 68; culmen from cere, 18.

Only one of the five specimens in the series contained food in its crop. This consisted of five or six large cockroaches.

Heterospizias meridionalis (Lath.). One young (3?) with the under tail coverts still in down, Perico, September 16.

Rupornis magnirostris occidua Bangs. Ten specimens, one immature φ , and adults of both sexes. Bellavista and Perico, September.

These skins are very uniform in character and agree exactly with the type. Compared with a fine series of true *R. magnirostris* from Paramaribo, Surinam, kindly lent us by T. E. Penard, they are very different.

By far the commonest hawk met with throughout the Valley of the Marañon and Chenchipe was this species, but the bird was not seen to the west of the Andean range.

The crops and stomachs of the ten specimens collected contained the following variety of food:

- 4. Burrowing Snakes (Glauconia).
- 1. Burrowing Lizard (Bachia).
- 2. Mice.
- 1. Chilopod.
- Grasshopper.

Herpetotheres cachinnans maestus subsp. nov.

Two females, one immature, one adult Bellavista and Perico, September. *Type* from Bellavista, Peru, adult 9 No. 80152 M. C. Z. Collected September 19, 1916, by G. K. Noble.

Characters. Size small, and under wing coverts heavily spotted as in *H. cachinnans fulvescens* Chapman of western Colombia, but with the under parts very much whiter — buffy white. Similar also to *H. c. cachinnans* (Linn.) of Guiana, but smaller; the under wing coverts more heavily spotted, and the underparts paler — whiter.

Measurements.

No.	Sex.	Locality.	Wing.	Tail.	Tarsus.	Culmen from Cere.
80152	♀ ad.	Bellavista	235.	185.	67.	21.
80151	♀ imm.	Perico	229.	169.	69.	23.

All of the Crying Falcons observed were found in the immediate vicinity of the river beds. They were very fond of remaining perched throughout most of the day upon some tall tree which commanded a wide stretch of the river valley.

One of the specimens collected contained in its crop a large Chilopod, Scolopendra gigantea (Linné) and the legs of a lizard (either Stenocercus or Liocephalus).

Chondrohierax 1 uncinatus megarhynchus (Des Murs). Two adults, σ^1 and \circ , Bellavista, September 24.

Our specimens have larger bills than any in a considerable series of skins from eastern South America, still they fall somewhat short of the maximum measurements given for true megarhynchus and are probably intermediate between that form and uncinatus. They afford the following measurements.

No.	Sex.	Wing.	Tail.	Tarsus.	Culmen from Cere.
80153	♂ ad.	282	188	36.	34.
80154	♀ ad.	303	211	38.5	35.

Probably a breeding pair taken together in a wood near the banks of the Marañon. The gonads were well developed in both.

Falco deiroleucus Temm. One adult Q, Perico, September 7. This bird is one of a pair that had a nest on a high tree upon which she was perched when shot. The tree was near the border of a vast stretch of tropical arid lands.

Cerchneis sparverius caucæ Chapman. One adult on, Sullana, August 1. Only seen in the dry coastal deserts, where it was decidedly uncommon.

Tinamidæ.

Crypturellus tataupa inops subsp. nov. Three adult males, Bellavista and Perico, September.

Type from Perico, northwestern Peru, adult &, No. 80123 M. C. Z. Collected September 10, 1916, by G. K. Noble.

Characters. Similar to true C. tataupa (Temm.) of Brazil, but under parts paler and more whitish, middle of breast and belly pale grayish white (brownish gray in true tataupa); upper parts browner—less vinaceous or reddish brown, but not darker. Similar also to C. t. peruviana Cory of San Ramon, west central Peru, but much paler throughout, the under parts much more whitish and the upper parts much less vinaceous brown (C. peruviana is a darker bird than C. tataupa), and wing shorter.

¹ For change from *Leplodon* to *Chondrohierax* see Chubb, The Birds of British Guiana, Vol. I, p. 267, 1916.

Measurements.

No.	Sex.	Locality.	Wing.	Tarsus.	Culmen.
80123	♂ad.	Perico	117.	32.5	21.5
80124	o ad.	Bellavista	118.	34.	22.
80125	♂ ad.	"	119.	35.	22.

Found only in the grassy uplands.

Rallidæ

Pardirallus rytirhynchus rytirhynchus (Vieill.). One adult &, Huancabamba, August 22.

The only specimen secured was taken near the Plaza of the little village of Sondor, a suburb or outlying town of Huancabamba. A number of rails, probably all referable to this species were observed in the meadows of an affluent of the Huancabamba River, but none of these could be secured. A little later a pair of rails were seen feeding with some of the village chickens in a slough near the plaza. One of these was singled out from the chickens and shot.

Charadriidæ.

Ptiloscelys resplendens (Tschudi). Three adults, one male, two females, Lake Warinja, August 18. At this point the plover was abundant, but was seen at none of the many other high lakes visited.

Scolapacidæ.

Actitis macularia (Linn.). One adult o, Huancabamba, August 27. Seen now and then along the stony bed of the Huancabamba River throughout the month of August.

Columbidæ.

Chlorænas ænops (Salvin). One adult Q, Perico, September 11. Apparently rare in northwestern Peru, as only one or two small flocks were seen. These frequented the banks of a deep river vailey, and were very shy.

Zenaida auriculata pallens subsp. nov.

Four adults, both sexes, Sullana and Huancabamba, August.

Type from Huancabamba, northwestern Peru, adult \mathcal{O} , No. 80019 M. C. Z. Collected August 22, 1916, by G. K. Noble.

Characters, similar to Z. auriculata auriculata (Des Murs) but upper parts slightly paler and grayer; under parts much paler, the vinaceous of neck and chest much lighter and more pinkish; lower breast, belly, sides and under tail coverts pale pinkish buff — almost whitish.

Measurements. Type adult ♂, wing, 148; tail, 98; tarsus, 23; exposed culmen, 19. Topotype adult ♀, No. 80022, wing, 143; tail, 95; tarsus, 20; exposed culmen, 16.

Remarks. This very pale form was a common bird along the streams that cross the coastal deserts. No specimen among the numbers we have examined from various parts of South America approach our birds in the general pallor of the under parts, and the form appears to be a well marked subspecies.

There is some probability that the type of Zenaida hypoleuca Bp. collected by Capt. Kellett and Lieut. Wood, now in the British Museum, did not really come from the Pearl Islands, but we hardly believe even so that it represents the local desert form we have just named.

Eupelia cruziana (Prev. & Knip.). Five adults, both sexes, Huancabamba, August.

A common bird in the cultivated lands about Huancabamba, but not observed elsewhere.

Leptotila decolor Salvin. Eight specimens, one immature Q and adults of both sexes, Bellavista and Huancabamba, August and September.

Frequently met with throughout the whole region traversed, except at the higher altitudes.

Psittacidæ.

Ara militaris militaris (Linn.). Four adults, both sexes, Bellavista, September.

Scattered flocks of these Aras passed each morning and evening up or down the Marañon. The birds chattered to each other as they flew. Their call was deep, and not unpleasant, very different from the raucous crys of most parrots. The flocks generally consisted of three or four individuals. Never more than seven birds were seen in a single flock.

Aratinga rubrolarvatus Massena et Sauancé. One immature φ , Sullana, July 29. This skin has no red whatever on the head or the bend of the wing; the small under wing-coverts are however, mostly red. It resembles immature examples of A. finschi (Salv.), but is darker, less yellowish green, with the under surface of the wing darker, more olive, less yellowish, and has a much larger bill.

This Paroquet is very abundant along the river valleys which cross the coastal deserts. Flocks of several thousand individuals were often seen flying up the Chira River during the early evening.

Aratinga frontatus Cab. Seven adults, both sexes, Perico and Tabaconas, September.

A bird of the subtropical arid lands and the arid valleys of the Chinchipe and Marañon. It entirely replaces A. rubrolarvatus in the hills, and eastern river valleys where it is common in the thickets of acacias and cacti.

Psittacula cœlestis cœlestis (Less.). Fourteen specimens, immature and adults of both sexes, Huancabamba, August.

Although this species was found most abundantly at Huancabamba it was also observed in the humid subtropical region of Tabaconas, and the dry valley of the Marañon.

Pionus corallinus Bp. One adult o, Perico, September 14. This was the only individual seen, it was shot in the dense woods which fill the river valley at this point.

Cuculidæ.

Piaya cayana nigricrissa Scl. Eight adults, both sexes, Perico and Bellavista, September.

Abundant in the humid subtropical region as well as the dry tropical zone of the eastern Andean range. Several specimens were observed at Tabaconas.

Tapera nævia nævia (Linn.). One Q, Perico, September 16.

Bubonidæ.

Otus roboratus sp. nov.

Two adult males, Perico and Bellavista, September.

Type from Bellavista, Peru, adult σ , No. 80073 M. C. Z. Collected September 25, 1916, by G. K. Noble.

Characters. Unlike any south American form; in color somewhat similar to O. cassini (Ridg.) of Vera Cruz, Mexico, but considerably larger; toes perfectly naked; tarsus densely feathered.

Color. Both skins in brown phase. Pileum brownish black, the feathers with small lateral spots of paler brown; a broad whitish nuchal collar, the feathers of which are somewhat banded with dusky; ear-tufts mixed grayish white and warm brown; general color of upper parts grayish brown, somewhat barred or marked with dusky, and with some paler or browner irregular spots; outer webs of outer scapulars chiefly buffy white; outer webs of middle wing coverts also chiefly buffy white; alula notched and spotted with buffy white towards tips on outer webs and with cinnamon basally and on inner webs; primaries with large spots of buffy white on outer webs; inner webs dusky, with broad bands of cinnamon brown; tail gravish brown, with narrow bands of cinnamon brown, and freckled with dusky; face grayish white, browner on ear coverts, narrowly barred with dusky; under surface white, the feathers of breast, chest and sides with mesial streaks and narrow irregular cross bars of black, heaviest on chest and here bordered with warm brown; middle of belly clear white; legs buffy white, slightly vermiculated with brownish; under tail coverts white faintly vermiculated with dusky.

Measurements.

						Culmen
No.		Sex.	Wing.	Tail.	Tarsus	from Cere.
80073	Bellavista	♂	168.	82.	39.	14.
80072	Perico	♂	164.	87.	36.	14.

Remarks. Undoubtedly this is the Scops Owl, recorded by Salvadori and Festa (Boll. Mus. Zool. Torino. XV, p. 33, 1900) from Vinces, western Ecuador, and referred by them with much doubt to Scops guatemalæ Sharpe.

Our specimens are easily told from O. guatemalæ or O. vermiculatus (Ridg.), but strangely enough are very like the more northern and very local O. eassini in color. Their much larger size will, however, at once distinguish them.

Pulsatrix perspicillata perspicillata (Lath.). One adult 9, Perico, September 10.

This skin agrees almost exactly with specimens in the collection of T. E. Penard, from the vicinity of Paramaribo, Surinam. The toes are feathered almost to the claws, and it certainly belongs here and not to P. melanonota (Tschu.).

Glaucidium jardinii (Bp.). Three adults, one male, two females, Perico, September.

All of the Pygmy Owls secured were taken during the daytime in the thick but very dry patches of wood which border the Chinchipe at various points.

Spectyto cunicularia punensis Chapman. Five adults, both sexes, Sullana, August.

This strikingly pale form was lately described from Puna Island; our record slightly extends its range southward.

The five specimens were all collected at one colony. This colony of about two dozen burrows was situated on the gentle slope of a sandy hill which overlooked the green valley of the Chira River near Sullana.

Tytonidæ.

Tyto alba contempta (Hartert). Two adults, ♂ and ♀, Bellavistal and Chongollapi, September and October.

Nyctibiidæ.

Nyctibius griseus cornutus (Vieill.). One adult ♀, Perico, September 10.

Caprimulgidæ.

Nyctidromus albicollis albicollis (Gml.). Five adults, both sexes, Perico, Bellavista, Tabaconas and Huancabamba, August and September.

These skins agree well enough with typical albicollis to be referred to that form. Mr. Cory has kindly compared them with his N. albicollis obscurus from Yurimaguas, Peru, and tells us that our bird has nothing to do with that dark colored subspecies.

Very abundant in all of the zones except the coastal desert. Several of the birds collected were induced to alight in open clearings by imitating their guttural whistle.

Alcedinidæ.

Chloroceryle americana cabanisi (Tschudi). Three adult females, Bellavista and Huancabamba, August and September.

Picidæ.

Hypoxanthus rivolii brevirostris Tacz. One adult ${_{\circlearrowleft}}$, Tabaconas, September 11.

This species was seen on one or two occasions only, always in wooded valleys.

Chrysoptilus atricollis lymani Bangs & Noble. Chrysoptilus atricollis lymani Bangs and Noble, Proceedings of the New England Zoölogical Club, Vol. VI, p. 85–86, June 7, 1918, original description.

Six specimens, two immature (σ and φ) and adults of both sexes, Huancabamba, August.

Veniliornis callonotus major (Berl. & Stolz.). Two adult females, Sullana and Bellavista, July and September.

Veniliornis agilis (Cab. & Hein.). One adult ♂, Bellavista, September 29.

Ceophlœus lineatus lineatus (Linn.). Two adults, σ and φ , Perico, September.

Scapaneus melanoleucus (Gml.). One adult 9, Perico, September 15.

Picumnus lafresnayei Malh. One adult, (\circ), Bellavista, September 24.

Trogonidæ.

Pharomachrus auriceps (Gould). One adult \mathfrak{P} , Tabaconas, August 19. This specimen is in no way smaller than Colombian skins, and we therefore do not refer it to P. auriceps heliactin (Cabs. and Hein.) which on geographical grounds it should represent.

Observed only in the humid subtropical forest of Tabaconas.

Trogonurus collaris (Vieill.). Three specimens, an immature Q and adult of and Q, Perico and Charapi, September.

Frequently noted in the subtropical forests between Tabaconas and the Chinchipe Valley.

Trochilidæ.

Thaumasius taczanowskii fractus subsp. nov.

Four adult males, Huancabamba, August.

Type from Huancabamba, northwestern Peru, adult ♂, No. 80118 M. C. Z. Collected August 9, 1916, by G. K. Noble.

Characters. Similar to true T. taczanowskii (Sclater) but upper parts darker and purer green, less mixed with grayish and less coppery; bill much shorter.

Measurements.

No.	Sex.	Wing.	Tail.	Exposed culmen.
80115	σ ad.	69.	38.	21.5
80116	♂ ad.	69.5	39.	22.
80117	♂ ad.	70.	40.5	21.5
80118	♂ ad.	68.	39.	22.

Remarks. We have made our comparison with skins of true T. taczanowskii collected by O. T. Baron at Malea Cajabamba, 8000 feet altitude, and Otusco, 4000 feet altitude, Peru, received in exchange, some years ago from the late Count Von Berlepsch. These agree almost exactly with the measurements and description of the type series.

By far the commonest hummingbird about Huancabamba was this species. It was observed very often in the shrubbery along the roadsides.

Patagona gigas peruviana Boucard. Three adults, two males and a female, Huancabamba, August.

Ocreatus cissiurus cissiurus Gould. One adult male, Perico, September 9.

Adelomyia melanogenys maculata Gould. One adult male, Tabaconas, September 2. This specimen appears to belong to this form rather than to *chlorospila* Gould of more southern Peru. Compared with skins from Ecuador, our one specimen is paler below and if others should prove to be the same, it represents a pale unnamed race.

Psalidoprymna gouldi chlorura (Gould). One adult male, Tabaconas, August 29.

Conopophagidæ.

Conopophaga peruviana Des Murs. One adult female, Perico, September 12. With but a single female we are not sure this identification is correct, possibly our bird is the female of *C. castaneiceps* Scl.

Formicariidæ.

Taraba melanura debilis Berl. & Stolz. Three specimens, an immature male and adult male and female, Bellavista, September.

Apparently our specimens belong to this form, described from Central Peru, agreeing much better in size and proportions with it than with true *T. melanura* (Gould) of Ecuador.

Thamnophilus radiatus variegaticeps Berl. & Stolz. One adult o, Bellavista, September 29. Our skin agrees fairly well with the description of this form from Central Peru.

Erionotus albiventris (Tacz.). Seven specimens, an immature male and adults of both sexes, Perico, September.

This is apparently a very distinct species; the male has a large white belly patch and a pale gray throat, in the female belly and throat both are whitish.

Dysithamnus semicinereus Sclater. One male (not quite adult, still having a little yellow on lower belly), Perico, September 12.

In spite of Todd's recent review of the group of Ant Thrushes to which this bird belongs, there is still much doubt as to the number of forms that should be recognized. Chapman in his Distribution of Bird Life in Colombia, p. 370, says that the small race from the Pacific Coast of Ecuador and another from the western slope of the Central Andes in Colombia, are both good and as yet unnamed.

Our bird is not large, like Peruvian examples from the general region whence came the type of *D. tambillanus* Tacz. nor is it small as are west Ecuador skins, but affords the following measurements: wing, 66; tail, 41; tarsus, 20; culmen, 15, which are about those of Colombian specimens.

Hapalocercus meloryphus fulviceps (Scl.). One adult 9, Perico, Sentember 11.

Ridgway considers that *Hapalocercus* belongs in the Formicariidæ and we follow him in this disposition of the genus.

Grallaria albiloris Tacz. One adult female, Tabaconas, September 2. The only representative of the genus observed throughout the entire trip was the specimen collected. It was found while scratching among the wet mosses of the forest floor near Tabaconas.

Furnariidæ.

Geositta peruviana paytæ Ménégaux and Hellmayr. Five adults, Paita, July.

These are topotypes. Whether or not this much paler bird should stand as a species, as the original describers considered it, or as a subspecies of *G. peruviana* Lafr., is of course a matter of opinion.

The Miner was the commonest bird about Paita. Flocks of them were

nearly always to be seen on the sandy hills surrounding the town, but the bird was not noted at all a few miles inland.

Furnarius cinnamomeus (Less.). Seven adults, both sexes, Huanca-bamba and Sullana, July and August.

The Oven-bird was often seen about the towns of Huancabamba and Sullana but in the sparsely inhabited interior it was not met with at all.

Synallaxis maranonica Tacz. Four adults, both sexes, Bellavista, September.

Synallaxis stictothorax Scl. Four adults, both sexes, Bellavista and Perico, September.

Siptornis cisandina (Tacz.)? Three specimens, two immature females and one adult male, Huancabamba, August.

We have compared our birds with a series of skins in the American Museum of S. antisiensis Scl. from which they differ in having the superciliary stripe grayish white (quits fulvous in S. antisiensis) and the ear coverts much grayer less fulvous or rusty. We have seen no specimens of S. cisandina and refer our birds to that form with some doubt. If they do represent it, it certainly is only subspecifically to be separated from antisiensis.

Phacellodomus rufifrons (Wied.). Sixteen specimens, both sexes, apparently all adult, Bellavista and Perico, September.

Dendrocolaptidæ.

Picolaptes warscewiczi (Cab. & Heine). Two adults, σ and φ , Tabaconas, August 29 and September 1.

Cotingidæ.

Heliochera rufaxilla (Tschudi). One adult ♂, Tabaconas, September 3.

The single specimen collected was the only one observed. It was found singing on the top of a tall tree in the subtropical forests of the Tabaconas River Valley.

Cephalopterus ornatus Geoff. Two adults, male and female, from the woods northeast of Perico, September 16.

Pipridæ.

Pipra erythrocephala berlepschi Ridg. Three adult males, Perico, September.

Tyrannidæ.

Myiotheretes striaticollis (Scl.). One adult female, Huancabamba, August 22.

Serpophaga cinerea cana Bangs. Three adults, one male, two females, Huancabamba, August.

These specimens may be somewhat intermediate, but are nearer to cana than to the southern form, true S. cinerea (Strick.).

This little Flycatcher was seen only along the torrents of the central Andes. It runs nimbly over the rocks, and on several occasions was seen to pick up tidbits from the surface of the stream.

Tyranniscus uropygialis (Lawr.). One adult female, Tabaconas, September 1.

We have compared this skin with the type of Lawrence's Mecocerculus uropygialis kindly lent us for the purpose by the authorities of the American Museum of Natural History. The two specimens are very similar. Lawrence supposed his type came from Ecuador. It is a little larger than our bird, but if it is a male — ours is a female — sexual difference in size would just about account for the difference exhibited by the two specimens. The only other point of dissimilarity is that the back in the type is dull reddish olive whereas the back in our bird is olive. This difference is in all probability due to actual fading in the older specimen, such as so often occurs with olive in many species of birds.

The species is certainly not a Mecoccrculus, but so far as we can see is a Tyranniscus.

The two skins afford the following measurements:

					Exposed
No.		Wing.	Tail.	Tarsus.	culmen.
42421 1	Type	62	49.	16.5	7.
79910 ²	Q	58	45.	16.5	7.

Camptostoma sclateri (Berl. & Tacz.) Three adults, one male, two females, Huancabamba, August and September.

Phæomyias murina tumbezana (Tacz.). Two adults, male and female, Perico and Bellavista, September.

Elænia leucospodia Tacz. One adult female, Sullana, July 29.

Myiozetetes similis connivens Berl. & Stolzm. Five adults, both sexes, Bellavista and Perico, September.

Our series bears out all characters claimed for the subspecies by its authors, and besides our birds average smaller with slightly smaller bills, than numerous examples from Bahia.

Mionectes striaticollis poliocephalus Tacz. One adult male, Tabaconas, September 1.

Leptopogon superciliaris peliocephalus Cab. & Heine. One adult female, Perico, September 12.

This specimen obviously belongs with the northern race, and is not different from birds from western Colombia.

Hellmayr, P. Z. S. 1911, p. 1132 has pointed out that the Central American bird must be referred to *poliocephalus* unless it represents still

¹ American Museum of Natural History.

² Museum of Comparative Zoölogy.

another race. In this connection we have carefully compared ten adults from Costa Rica with five from Colombia and can find no way in which they differ.

Our Perico female is not at all small, in all measurements being similar to females from Colombia and Costa Rica, and we believe the subspecies transardinus Berl. and Stolz. cannot be maintained. This was Hellmayr's opinion, also.

Pyrocephalus rubineus heterurus Berl. & Stolz. Eight specimens, one immature male and adults of both sexes, Paita, Sullana, Huancabamba, and Bellavista, July, August and September.

A very conspicuous and abundant bird in all of the lowlands.

Myiobius villosus Scl. One adult female, Perico, September 12.

Myiobius cinnamomeus cinnamomeus (d'Orb. & Lafr.). One adult female, Tabaconas, August 29.

Myiochanes fumigatus ardesiacus (Lafr.). Two adult males, Tabaconas, August 29 and September 2.

Myiochanes punensis (Lawr.). Three adults, two males and a female, Huancabamba, August.

Myiophobus fasciatus saturatus Berl. & Stolzm. Three specimens, one immature female, and adult male and female, Huancabamba, August.

Sayornis nigricans angustirostris Berl. & Stolzm. One adult male, Perico, September 13.

Our skin agrees in all color characters with Berlepsch and Stolzmann's description of the central Peruvian form. Its bill, however, is not smaller than is usual in examples of S. n. cineracea (Lafr.) from Venezuela and eastern Colombia. Berlepsch and Stolzmann in one of their papers (Ornis, Vol. XIII, p. 85) speak of a specimen with a larger bill than the type, and in another article refer a bird with a small bill from Ecuador to this form. The size of the bill would therefore seem to be somewhat variable, and we have little hesitation in allotting our specimen to this subspecies.

Myiarchus tyrannulus chlorepiscius Berl. & Leverkühn. Two adult males, Bellavista, September.

Myiarchus ferox phæocephalus Scl. Four adults, both sexes, Bellavista and Perico, September.

Myiarchus cephalotes Tacz. Two adults, male and female, Tabaconas, September.

Myiarchus atriceps Cab. Two adults, male and female, Tabaconas, September.

Myiarchus semirufus Scl. One adult female, Sullana, July 30.

Tyrannus melancholicus melancholicus Vieill. Six adults, both sexes, Tabaconas, Huancabamba, and Bellavista, August and September.

It was a rare exception to find a bird in several life zones. Nevertheless

this species was observed everywhere but in the high mountains and along the coastal deserts.

Mimidæ.

Mimus longicaudatus punensis Hellmayr. Four adults, both sexes, Sullana, July.

Although the Mockingbird was perhaps the most characteristic bird of the coastal deserts it was not seen at all in any of the deserts of the interior. At Sullana it was observed to feed on lizards (Tropidurus).

Turdidæ.

Turdus reevei Lawr. Three adults, one male, two females, Huancabamba, August.

Turdus maculirostris Berl.? One immature female, Huancabamba, August 17.

Apparently our bird belongs here, having but one immature specimen makes our identification not positive.

Turdus gigas gigantodes Cab. Two specimens, male and female, both immature, Huancabamba, August.

A very common species in all the highlands.

Turdus chiguanco conradi Salv. & Festa. Seven specimens, one immature ♂, and adults of both sexes, Huancabamba, August.

The most abundant thrush in the central Andes of northern Peru.

Turdus maranonicus Tacz. Seven adults, both sexes, Tabaconas, Perico, Bellavista, Charapi and Huancabamba, August and September.

Unlike the two above mentioned species this thrush was found only in the trees or bushes. It was never seen in the open, feeding on the ground, like the other species.

Polioptilidæ.

Polioptila anteocularis maior Hellm. Two adult males, Huancabamba, August.

Polioptila bilineata bilineata (Bp.). Two specimens, male and female adult, Sullana, July 29.

These clearly are referable to the typical form and not to $P.\ b.\ andina$ Hellmayr of the Cajabamba region of northern Peru.

Troglodytidæ.

Heleodytes balteatus (Baird). Two adults, male and female, Sullana, July.

The Cactus Wrens were perhaps the noisiest of the small birds found about Sullana. They were always fighting and their scolding note is very unpleasant. This cry is a raucous, gurgling sound emitted at short inter-

vals and with great force. The sound is very rhythmic and often so prolonged that it becomes exceedingly monotonous.

Heleodytes fasciatus (Swainson). Five specimens, one immature male and adults of both sexes, Huancabamba, August.

The young bird differs from the adult in having the whole crown uniform dark brown, and in having a conspicuous superciliary stripe.

This form in spite of its decidedly darker coloration is possibly only subspecifically distinct from the former. The ranges of the two species are adjacent and apparently do not overlap. The light colored form occurs only in the coastal desert, and is replaced by the dark one at the foothills of the Andes. Both species,—or geographical races—were found abundantly, and their harsh scolding note was often heard, but never in the region east of Tabaconas.

Pheugopedius sclateri (Tacz.). Two adults, male and female, Bellavista, September.

Troglodytes musculus albicans Berl. & Tacz. Four specimens, three adult males and an adult female, Huancabamba and Bellavista, August and September.

We have no hesitation in referring the three males taken at Huancabamba to this west Ecuador form, which they very closely resemble. The one adult female from Bellavista is however, slightly larger and darker in color, and though in somewhat well worn plumage, the obsolete dark barring of the back is more evident. It is, we consider, an intermediate approaching *T. musculus tecellatus* (Lafr. and d'Orb.).

Corvidæ.

Cyanocorax mystacalis (Geoffr.). One adult female, Sullana, August 1.

On the western range of the Andes and even along the coast this Jay is fairly abundant, but it is replaced on the other ranges and in the interior by the following species.

Xanthoura yncas yncas (Bodd.). Seven specimens, one immature male and adults of both sexes, Tabaconas, August and September.

An adult male No. 79885 has a queer asymmetrical tail, which made him very conspicuous in life, as he hopped about in the scrub, occasionally spreading it. The three outer rectrices, normally yellow, on the left hand side are pinkish salmon color (varying on the different feathers or parts of the feathers from Orange Pink and Light Salmon Orange to Salmon Color, of Ridgway). A few of the under tail coverts and some feathers on the flank on the left side, are also of this pink color.

Vireonidæ.

Vireosylva chivi griseibarbatus Berl. & Tacz. Four adults, both sexes, Bellavista and Perico, September.

Vireosylva josephæ josephæ (Scl.). Two adult males, Tabaconas, August.

Cyclarhis virenticeps Scl. One adult female, Tabaconas, September 4.

This bird was shot in a heavily wooded region, strongly Ecuadorean in its fauna (especially shown by the reptiles and amphibians), one of the very few really forested areas through which the expedition passed.

Cyclarhis coutrerasi Tacz. Three specimens, one immature and two adult females. Perico and Huancabamba, August and September.

All three were taken in open, sandy country.

The immature bird has the crown mixed ferruginous and green and gray, a ferruginous band surrounding the occiput and passing through the eye on each side to the front, which is also ferruginous.

Both adults are extreme of this form; the bird from Tabaconas is an extreme of C, virenticeps and we are therefore forced to regard these two forms as distinct species.

Hirundinidæ.

Stelgidopteryx ruficollis uropygialis (Lawr.). One adult male, Bellavista, September 24.

Pygochelidon cyanoleuca (Vieill.). Six specimens, three immature, three adult, both sexes, Huancabamba, Perico and Charapi, August and September.

The adults have completed or nearly completed the postnuptual moult, and are greenish steel blue above. In examining a large series from Costa Rica we find autumnal specimens constantly more greenish, steel blue less violaceous than spring killed examples. Peruvian birds agree exactly, so far as we can see, with the Costa Rican ones. On the other hand all skins from eastern Brazil to the Santa Marta region of Colombia, regardless of seasonal differences, are much more truly violaceous above, and while the difference is slight it appears to be constant and it may still be found expedient to use the name *P. cyanoleuca montana* (Baird) for the northern and western form.

Mniotiltidæ.

Myioborus verticalis verticalis (d'Orb. & Lafr.). Six adults, both sexes, Tabaconas and Huancabamba, August.

Cœrebidæ.

Diglossopis cærulescens pallida Berl. & Stolzm. One adult (sex not determined), Tabaconas, September 3.

This example is wholly referable to the southern form, agreeing perfectly with a skin collected by O. T. Baron at Leimabumba, which had been determined by the late Count Von Berlepsch.

Dacnis cayana glaucogularis Berl. & Stolzm. One adult male, Perico, September 12.

Cœreba magnirostris (Tacz.). Six adult males, Huancabamba,

Perico and Bellavista, August and September.

This is a very distinct form, its enormous bill (exposed culmen 16–18 mm.), grayish back and large white speculum at once separating it. Berlepsch and Stolzmann P. Z. S., March 3, 1896, p. 337, have suggested that perhaps C. peruviana (Cab.) is an earlier name for the species. After carefully reading Cabanis's original description we can see no way of ever being certain what his bird, based, he himself says, on an imperfect specimen, really was, and prefer for the present, anyway, to use Taczanowski's appropriate name.

Icteridæ.

Ostinops alfredi alfredi (Des Murs). Ten adults, both sexes, Perico and Bellavista, September.

Molothrus bonariensis occidentalis Berl. & Stolz. Seven adults,

both sexes, Sullana, July and August.

Only seen on the coastal deserts where it occurs in large flocks.

Icterus mesomelas taczanowskii Ridg. Three adult males, Perico and Bellavista, September.

Some of the natives at Sullana kept this Oriole as a cage bird. It is probable that they captured the bird in the immediate vicinity, although the expedition did not meet with it there.

Trupialis bellicosa (De Filippi). Eight adult males, Huancabamba,

August.

Inhabits the grassy interandean valleys, never observed in the lowlands.

Tanagridæ.

Tanagra taczanowskii (Scl.). Nine adults, both sexes, Perico and Bellavista, September.

Tanagra xanthogaster quitensis Nelson. One adult male, woods

west of Perico, September 11.

Compsocoma sumptuosa sumptuosa (Lesson). Two adults, male and female, Charapi, September 6.

Tangara chilensis (Vig.). Four adult males, Charapi, September.

Tangara pulchra pulchra (Tsch.). One adult male, Charapi, September 12.

Tangara gyroloides catharinæ Hellmayr. Two adults, male and female, Charapi, September 11.

Tangara parzudakii florentes subsp. nov.

One adult female, Charapi, September 6.

Type from Charapi, northwestern Peru, adult $\, \circ \,$, No. 79675, M. C. Z. Collected, September 6, 1916, by G. K. Noble.

Characters. Similar to true T. parzudakii (Lafr.) of Bogotá, but larger, and belly and under tail coverts much paler,—the belly Warm Buff, the under tail coverts pale Ochraceous Tawny. Wing, 87; tail, 57; tarsus, 20.5; exposed culmen, 10 mm.

Remarks. We have compared our bird with the two cotypes of the species and with "Bogotá" skins, and believe, in spite of having but a single specimen, that it represents a well marked race. In "Bogotá" skins, the wing runs from 78 to 81 mm.

Tangara cyaneicollis cæruleocephala (Swains.). Two adults, male and female, Perico and Tabaconas, September.

Tangara venusta (Sclater). Three adults, two males and a female, Charapi. September.

Tangara argentea fulvigula Berl. and Stolz. Four adults, three males and a female. Tabaconas and Huancabamba, August and September.

Thraupis cœlestis major (Berl. and Stolz.). Six specimens, one immature female and adults of both sexes, Huancabamba and Tabaconas, August and September.

Thraupis cana quaesita subsp. nov.

Three adults, two males and a female, Sullana, July.

Type from Sullana, northwestern Peru, adult \mathcal{O} , No. 79692, M. C. Z. Collected, July 30, 1916, by G. K. Noble.

Characters. Very similar to true T. cana (Swainson) of Venezuela and northern Colombia, but darker in general coloration, grayish blue of under parts darker and bluer; back slightly darker; lesser and middle wing coverts much darker blue — Dark Diva Blue (Campanula Blue in true T. cana).

Measurements.						
No.	Sex.	Wing.	Tail.	Tarsus.	Exposed culmen.	
79692	♂ ad.	90.	66.	22.	7.5	
79693	♂ ad.	88.	67.	20.	8.	
79694	Q ad.	87.	65.	19.	7.5	

Remarks. Our three skins agree exactly among themselves, and cannot be matched in a very large series of true T. cana. The darker and different blue of the wing coverts is the chief character of the new subspecies which occupies the extreme southwestern corner of the range of the species.

The range of this subspecies apparently does not overlap that of *Thraupis* calestes major. This subspecies was found only in the coastal desert and never in the interior as the latter species.

Thraupis darwini læta Berl. and Stolz. Twenty-one specimens, immature and adults of both sexes, Huancabamba, August.

Sporothraupis cyanocephala cyanocephala (d'Orb. and Lafr.). One adult male, Tabaconas, September 2.

Piranga testacea tschudii Berl. and Stolz. Eight specimens, one immature male, three adult (red) males and four females, Tabaconas and Huancabamba, August and September.

On comparing these skins with the large series, including all the forms of testacca (except Piranga hæmalea Salv. and Godman of Mt. Roraima which Berlepsch considers specifically distinct) in the Museum of Comparative Zoölogy, it was at once apparent that the form occupying western Colombia needs a name. Of this bird we have nine specimens — six fully adult red males and three females, all collected by Mervyn G. Palmer, and received some few years ago from W. F. H. Rosenberg of London. They come from La Maria, Dagua Valley and San Antonio, Rio Cali. This form is nearer to true P. testacea Scl. and Salv. Nicaragua to Veragua and Chiriqui, than to any of the others, and has been referred to true testacea by Chapman in his 'Distribution of Bird-Life in Colombia,' we however, cannot agree to this and propose to call it

Piranga testacea desidiosa subsp. nov.

Type from La Maria, Dagua Valley, west Colombia, No. 23477 Bangs Coll. in M. C. Z., adult ♂. Collected May 23, 1908, by M. G. Palmer. Characters. Adult ♂, similar to same sex in P. testacea testacea Scl. & Salv. but more intense and brilliant red, lacking the dull brownish-red chest of true testacea; underparts scarlet red slightly paler and more scarlet on belly and but little shaded on sides and not at all on chest with brownish red; upper parts slightly richer brownish-red. Adult ♀ similar to same sex in P. t. testacea but yellower, less greenish below.

Hemithraupis guira guira (Linn.). One adult female, Perico, September 11.

Thlypopsis inornata (Tacz.). Six adults, both sexes, Tabaconas, Bellavista and Perico, September.

Ramphocelus carbo connectens Berl. and Stolz. Nine adults, both sexes, Perico and Bellavista, September.

Tachyphonus rufus (Bodd.). Five adults, both sexes, Perico and Bellavista, September.

Fringillidæ.

Spinus ictericus peruanus Berl. Stolz. and Stolzm.

Five specimens, one immature male and adults of both sexes, Bellavista and Huancabamba, August and September. Our specimens are not quite typical of true S. i. peruanus of Central Peru, though probably nearer that form than any of the others. Compared with one or two specimens of peruanus they are brighter yellow below with brighter yellow rumps, thus closely approaching S. i. alleni Ridg. of Matto Grosso, but our birds have grayish not olive-yellow edges of tertials. They differ at once from

S. i. capitalis (Cab.) in being smaller and in having yellow not white femoral region. On the whole we feel content to call them, for the present, peruanus somewhat approaching alleni.

Astragalinus psaltria croceus (Jouy). Four adults, one male, three

females, Bellavista, September.

The male and one of the females are extreme of this form, with the maximum amount of white in the tail; the male with the characteristic light yellow underparts. Of the two remaining females, one has very little white, this whitish not pure white, in the tail; the other none. We cannot however, bring ourselves to refer these two to another form — $A.\ p.\ columbianus$ (Lafr.).

This was written before the appearance of Chapman's 'Distribution of Bird-Life in Colombia' and we refer to his remarks, p. 564, where the equally puzzling examples from Colombia are discussed at length.

Myiospiza aurifrons (Spix). Three adults, one male, two females,

Bellavista, September.

Brachyspiza capensis peruviana (Less.). Eight adults, both sexes, Huancabamba, August.

Phrygilus alaudinus (Kittl.). One adult female, Huancabamba, September 3.

Phrygilus ocularis Scl. Six specimens, two immature males and adults of both sexes. Huancabamba and Sullana, August.

Coryphospingus cucullatus (Müll.). Two adult males, Bellavista and Perico, September.

Sicalis flaveola (Linn.). Three adult males, Huancabamba, Sullana, and Bellavista, August and September.

Volatinia jacarini splendens (Vieill.). Four specimens, one immature male, and three adult males, Bellavista, September.

These do not appear to differ from Central American examples. One adult male has the under wing coverts and axillars wholly black; the others have some slight admixture of white, but only to the same extent often shown by specimens from the very northern part of the range of the subspecies.

Piezorhina cinerea Lafr. Two adults, male and female, Sullana, July.

Sporophila simplex (Tacz.). One adult male, Bellavista, September 25.

Sporophila gutturalis inconspicua Berl. and Stolzm. One female, Bellavista, September 25.

It is doubtful if the subspecies can with certainty, be told by a single female, and we refer our bird to *inconspicua*, only because the chances seem to favor its being that form.

Catamenia homochroa Scl. Two immature males, Tabaconas, September.

Pheucticus chrysogaster (Less.). Six adults, both sexes, Huan-cabamba, August.

Saltator striatipectus peruvianus Cory. Six adults, both sexes, Huancabamba, August.

Cory's seven specimens, upon which he based this subspecies were from Hda. Limon, 10 miles west of Balsas, northern Peru, and agree almost perfectly with ours. Possibly ours are not quite so dark.

NOTES ON NORTH AMERICAN BIRDS.

VI.

BY HARRY C. OBERHOLSER.

The present paper continues the writer's notes on North American birds.¹ In the following pages there are discussed six species and subspecies, belonging to the families Alcedinida, Tytonida, Certhiida, Parida, Mniotiltida, and Fringillida.

Streptoceryle alcyon caurina (Grinnell).

The western form of Streptoceryle alcyon was originally described by Dr. Joseph Grinnell,² from a specimen taken on Montague Island, Prince William Sound, Alaska. Its geographic distribution has been considered to extend in western North America from Alaska to western Mexico. Recently, however, its validity as a race has been questioned,³ because of the occurrence in British Columbia of specimens similar to eastern birds. A good series of eastern examples, however, compared with Pacific Coast birds, shows that Streptoceryle alcyon caurina is a readily recognizable race. That specimens occur difficult to distinguish does not of course invalidate a subspecies which is based, and properly so, on

¹ For previous papers in this series, cf. 'The Auk,' XXXIV, April, 1917, pp. 191-196; XXXIV, July, 1917, pp. 321-329; XXXIV, October, 1917, pp. 465-470; XXXV, January, 1918, pp. 62-65; and XXXV, April, 1918, pp. 185-187.

² Univ. Calif. Publ. Zool., V, No. 12, March 5, 1910, p. 388, fig. 4.

³ Taverner, Summary Rep. Geol. Surv. Dept. Mines Canada, for 1916 (1917), p. 361.