in the water my feet and limbs were painfully cold. Colorado lies farther south, and the elevation is not so great, but the waters are made largely from the melting snows, and must be cold so early in the season. I am inclined to think rather that at the time the birds were first discovered the males, and hen birds not mated or laying, were near their nesting grounds, and that those on their nests, after covering their eggs, dove off, came up in the flock and swam away with it, returning one by one when the cause for alarm was removed. By swimming under water, with only the bill out at times to breathe (a well known habit of the birds), they could easily reach their nests unnoticed. Or it may be, as Mr. Henshaw only found three eggs in a nest—four to five being a full set—that none of the birds were sitting. In this case there would be no necessity for a hurried return, as absence during the day would do no harm.

BIRDS OF THE LOWER URUGUAY.

BY WALTER B. BARROWS.

(Continued from Bull. Nutt. Orn. Club, Vol. VIII, p. 212.)

94. Drymornis bridgesi Eyton. CARPINTERO (CARPENTER, WOODPECKER,—from its similarity in some respects to these birds).—Resident and abundant at Concepcion, where it undoubtedly breeds, though I was not fortunate enough to find the nest.

The birds are somewhat gregarious, being oftenest seen in small parties of six to ten. They sometimes cling against the bark of a tree in the manner of Woodpeckers, but also spend much of their time on the ground. Though extremely similar in general structure to the following species, I think they use the curved bill (3 or 4 inches in length) much oftener for probing in the ground than for searching the bark of trees, as many of those shot had the base of the bill and the frontal feathers plastered with mud. In the stomach of the first one killed I



found the silken sac, three-fourths of an inch in diameter, of the eggs of a large spider, which makes holes ten or twelve inches deep in the hard soil everywhere. In January and February the birds were moulting.

- 95. Lepidocolaptes atripes Burm.—A common resident, and doubtless breeds in all the larger tracts of forest. Although nearly ten inches in length, it has the general form and habits of a Certhia, hitching restlessly up old tree trunks, and having finished one, beginning at the foot of another, probing everywhere for insects, but never alighting on the ground. Of its nesting habits I know nothing, but was told by natives that both this and the preceding species nested in holes in trees.
- 96. Thamnophilus cærulescens Vieill.—Much less common than the following species yet quite frequently seen, especially in winter. I do not think the birds are really any more abundant in cold weather, but as many of the shrubs are then leafless, the thickets are more easily examined and so the birds are more often seen. Both species prefer the densest clumps and most tangled masses of swampy shrubs and vines, where each bird shot was paid for with many a scratch and tear, and often only recovered after a free use of the bush-knife.

A nest taken November 24 was almost precisely like that of our Red-eyed Vireo (*V. olivaccus*), being pensile in the fork of a horizontal spray, only four feet from the ground. It contained three fresh eggs, white, with spots and dashes of light brown. This has been considered one of the rare species of the province, and I found no specimen of it in the museum at Buenos Aires.

- 97. Thamnophilus argentinus Cab.—Abundant, summer and winter, and in the same localities as the preceding. The nests are very similar, but that of the present species is rather larger, as are also the eggs, which in other respects are quite similar. The first nest was found February 8, 1880, that is in autumn, and when only one or two other birds were nesting at all. I think this is unusual, however, since no more nests were found until the following spring, when, during November, they were not uncommon. On November 16, I saw young following the parent, and within half an hour found a nest with three fresh eggs, the usual number.
- 98. Heliomaster furcifer (Shaw). PICAFLOR MAYOR (LARGER HUMMINGBIRD).— Early in September, at Concep-

cion, when the orange trees are just whitening with blossoms, these magnificent Hummingbirds arrive from the north, and may occasionally be seen about the orange trees in any garden, as well as about blossoming trees elsewhere. The males seemed for some reason to be much less abundant than the females. hardly more than a dozen being seen in an entire season. probably nest in November and December, and leave for the north again in February or March. A nearly finished nest found November 17, was very similar to that of our own Ruby-throat (Trochilus colubris) but larger, and was built in the compound fork of a large limb at a height of over 25 feet from the ground. It was deserted soon after, perhaps as a result of my exami-Ten days later another nest was found saddled on the topmost horizontal limb of a dead and moss-grown stub, only about seven feet from the ground, and exposed to the full force of the sun. This nest contained two eggs nearly ready to hatch. Both nests were beautifully covered with lichens, and the last was lined with the finest of vegetable down. The female made several angry rushes at me before the nest was touched, but as soon as she saw that it was discovered became so shy that it was difficult to secure her. The male was not seen at all. once saw a bird of this species attack and put to rout a wild Dove which passed near it while feeding, and though the Dove made every effort to escape, the Hummer not only kept up with it easily but darted above and below it as well, and finally both went out of sight in the distance together.

- 99. **Hylocharis sapphirina** (*Gm*.).—A single specimen of this pretty little Hummer was brought me October 13, 1880, having just been caught in a garden at Concepcion. I did not meet with a second specimen, but from its similarity to the young of the following species it may often have passed unnoticed. At this time I had no fine shot, and was compelled to depend on a blowgun for the taking of Hummingbirds.
- TOO. Chlorostilbon splendidus (Vieill.). PICAFLOR (literally Flower-Pecker).—Very abundant at Concepcion in summer, arriving from the north early in September and departing again in April. Though found everywhere among flowers, they are particularly partial to open ground, flowery fields, gardens, etc., and in October it was not uncommon to have six or eight in sight at once.

On October 26, 1879, while watching a number of them as they passed from flower to flower in a field fairly purple with blossoms, I was startled by the peculiar hiss of a falling bird, and a Sparrow Hawk (Falco sparverius), swept the grass a few yards in front of me, having either struck at one of the Hummers or, more probably, at a mouse among the grass. From the velocity of his plunge he shot upward to a height of 20 or 30 feet, empty handed, but soon had his hands full, as three male Hummers devoted themselves to him most unreservedly, and continued their attentions—as was evident from the Hawk's motions—long after their own tiny forms were lost to my sight.

Most of the birds have nests by the middle of November, but, from their being placed very near the ground, many are doubtless destroyed by various enemies, so that nests with eggs are not uncommon late in December.

I feel quite sure, however, that but one brood is reared each Nearly every garden has its nest, and often more than one, almost invariably built at the tip of one of the lowest, drooping twigs of an orange tree, rarely more than three or four feet from the ground. When built away from human habitations I found at least three-fourths of the nests under a kind of bushy tree known as the Coronilla. I say under this tree because the lower branches usually start out from the main stem a foot or two above the ground, while their tips sweep the earth, thus leaving a dome-shaped open space beneath, where there is always a shadowy half-light, and where on some slender, dependent twig the nest is commonly placed. Among a score of nests found in such situations only two or three were more than two feet from the ground, and many were within twelve or fifteen inches of it. The nests are exceedingly various in composition but always consist largely of soft cottony substances, with a lining of fine vegetable down, or fur from various small mammals. The outside is made to "harmonize with its environment," sometimes by leaving it unornamented, but oftener by the addition of moss, leaves, cobwebs, papery bark, etc., all attached very loosely and giving a most picturesque effect.

The eggs in most cases were two in number, rarely of the same size, and not always deposited on successive days. A set before me measure .51 in. by .33 in., and .48 in. by .32 in. I usually found the female on the nest, or close by, and do not remember ever to

have seen a male betray an interest in any particular nest. On removing the eggs (or even one of them) a nest was promptly deserted, but in several cases where the twig was cut off with the nest a new one was soon built on the same tree.

IOI. Podager nacunda (Vieill.). Dormilon (Sleepy-Head).— An abundant summer resident, arriving and departing at about the same time as the preceding.

It is strictly crepuscular or nocturnal, never voluntarily taking wing by daylight. In November it lays a pair of spotted eggs in a hollow scooped in the soil of the open plain. These in shape and markings resemble eggs of the Nighthawk (*Chordiles virginianus*) somewhat, but are of course much larger and have a distinct reddish tinge. We found the birds not uncommon near Bahia Blanca, February 17, 1881, but elsewhere on the Pampas we did not observe them.

- taken at Concepcion January 28, 1880, and eleven months later (Dec. 20, 1880) another was taken on almost the same spot as the first. The first one when started from the ground in a recent clearing tried to alight on the tip of a broken sapling near by and was shot in the act.
- 103. Antrostomus parvulus (Gould).— Not uncommon in summer and doubtless breeds. At dusk I frequently saw it about the margins of low woods and thickets where it made only short flights, soon settling on the ground.
- 104. Hydropsalis furcifera (Vieill.): Tijerita-Dormilon (Scissor-tailed Sleepy-head).—Rather common summer resident, arriving in August and leaving in May. While hunting capybaras and armadillos by moonlight I frequently had good opportunities for watching its movements. Its flight is nearly as irregular and as noiseless as that of a butterfly, while its beautiful tail is opened and shut in the same manner as with the Scissortailed Flycatcher. Alighting frequently on the ground or on stones or roots, it keeps up a continual but very soft clucking, which is the only note uttered. It was most often seen in open grassy or sandy spots in the woods, especially along the margins of the streams. By day it sits close on the ground, and if disturbed only flies a few yards, though it evidently sees well. Of its nesting habits and eggs I am ignorant.
 - 105. ? Hemiprocne zonaris (Shaw). Swift.—October 5,

1879, a pair of Swifts was seen at Concepcion having the general appearance and motions of *Chætura pelagica*. No specimen was secured, and no others were afterward seen.

- 106. Campephilus boiæi (Wagl.).—A part of the last week in April, 1880, was spent in a considerable tract of forest bordering a stream known as the "Arroyo Gualeguaychú" at a point about twenty miles west of Concepcion. The wood borders the stream to a depth of a mile or more on each side and stretches up and down stream indefinitely. It had suffered comparatively little from the axe of the charcoal burner, and many birds, not elsewhere seen, were met with here. Among these was the present beautiful Woodpecker, of which, however, only a single pair was observed, and the male alone taken. It is said to occur sparingly in all the large forests.
- 107. Picus mixtus *Bodd*. Resident; not common; seen only about a dozen times, usually in low and swampy growths, where its tapping was the only sound heard from it. It was always solitary.
- 108. Picus cactorum Lafr. et d'Orb. CARPINTERITO (LITTLE CARPENTER).—Resident. More commonly met with than the preceding, but abundant only on the Gualeguaychú at the place mentioned above.
- 109. Chrysoptilus cristatus (Vieill.).—Resident. Abundant in woods everywhere, and conspicious for its activity, bright colors and large size. It is strictly arboreal, but hops about among twigs and small branches more freely than most Woodpeckers of my acquaintance. September 29, two pairs of these birds were seen near holes in inaccessible dead stubs overhanging a stream. The specific name implies a crest, which the bird has not.
- TIO. Leuconerpes candidus (Otto). CARPINTERO BLANCO (WHITE CARPENTER).—Sparingly resident and doubtless breeds. Its snow-white body, black wings, and noisy habits, prevent its being often overlooked, but it is nevertheless seldom seen about Concepcion, and then only in the heavy timber.
- THE Colaptes agricola Malh. CARPINTERO (CARPENTER).—Abundant and breeding at all points visited. At Concepcion, where it is resident, it is by far the commonest Woodpecker. The ordinary note very much resembles the reiterated alarm note of the Greater Yellow-legs (Totanus melanoleucus), but so loud as to be almost painful when close at hand, and easily heard a

mile or more away. They spend much time on the ground, and I often found the bills of those shot quite muddy. They are very tough and hard to kill, and a wounded one shows about as many sharp points as a Hawk. A nest found near Concepcion, November 6, 1880, was in the hollow trunk of a tree, the entrance being through an enlarged crack at a height of some three feet from the ground. The five white eggs were laid on the rubbish at the bottom of the cavity—perhaps a foot above the ground. In the treeless region about the Sierra de la Ventana we saw this bird about holes in the banks of the streams, where it doubtless had nests.

- 112. Ceryle torquata (Linn.). Martin Pescador (Kingfisher).—Only observed half a dozen times, always in summer. A winged one which fell in the water and was carelessly picked up as the boat passed, closed his powerful bill on my fingers and allowed his lower jaw to be broken before he released his hold.
- 113. Ceryle amazona (Lath.).—Not uncommon along the main river throughout the year, and sometimes ascends the smaller streams a short distance. Much more easily approached than the last species, it is not so familiar as the following, with which it fraternizes commonly—the two being often seen fishing side by side.
- 114. Ceryle americana (Gm.).—Resident through the year at Concepcion, but especially abundant in winter when it haunts the main river, the island shores, and all the streams, big and little. It is not in the least shy, and one once perched in some willows directly over my boat and not ten feet away, while he swallowed a tiny fish he had just captured; after which he twittered such a hearty little song that I really felt as if his proper place must be among the Oscines in spite of all anatomical defects. On the Pampas we found this a rather common bird on the small streams, and its presence on some streams whose waters are entirely absorbed by the desert before they can reach either sea or lake, first called my attention to the presence, even in these streams, of numbers of a small fish which is found in many of the pools as well all over the Pampas. Although both this and the preceding species must nest about Concepcion I did not succeed in learning anything of the nest or eggs.
- 115. Guira piririgua (Vieill.). Рішисно от Редійсно (meaning not known).—An abundant resident at Concepcion,

Buenos Aires, and somewhat further south. Its proper home is much further northward but in the last few decades, according to Hudson, it has gradually descended along the great river valleys and spread over the adjacent plains wherever there are trees. At Concepcion these long-tailed and long-legged Cuckoos are usually seen in flocks, which rise with harsh screams when disturbed, and flap slowly off with frequent intervals of sailing.

On the ground they run with much ease and it is a very pretty sight to see a flock of them glide down a few at a time from a hedge to the ground, each one closing his wings as he nears it and, without checking himself at all in the air, gliding forward on his feet so smoothly and swiftly that it is almost impossible to tell when he ceased flying and began running. At such a time many of them carry the long tail almost vertically over the back. They are said to nest in communities, but they certainly sometimes nest singly, though the natives assured me that even then two or more females dropped their eggs in the same nest.

The eggs themselves are very peculiar. The ground color is a clear bluish-green, over which is a net-work of dots, lines and blotches in pure white, the material of which is chalky and not difficult to wash off when the eggs are fresh. Sometimes the ground-color is almost obscured by these white markings, but when—as is often the case—the blue and white are in about equal proportions the eggs are among the prettiest I have ever seen.

December 6, 1879, I took a perfect egg from a female which I shot, but I saw no other eggs until the following year when, during December, about a dozen specimens were brought to me—all taken from "large nests made of sticks up in trees."

116. **Diplopterus galeritus** *Burm*. Crispin (imitation of note?).—Not noticed at all the first season, but not rare late in December, 1880. Several were taken in open, bushy places and many others were heard. It is a plain but attractive Cuckoo, with a few-feathered crest and long, soft, flowing upper tail-coverts.

The note is very clear and penetrating, sounding much like the word *cris-pin*, slowly uttered and with the accent on the last syllable. The birds are very shy and I followed one for nearly an hour before I saw it at all, and nearly twice as long before any chance for a shot was offered. There is some peculiarity in the note which frequently makes it impossible to tell whether the bird is in front of or behind you—even when the note itself is distinctly heard. I know nothing of nest or eggs.

- 117. Coccyzus pumilus *Strickl*.—This small Cuckoo with red eyelids was twice taken at Concepcion, once on December 11, and again December 30.
- 118. Coccyzus melanocoryphus Vieill. Cuclillo (Cuckoo).—Abundant from early in November until late in February, after which it was not observed. The first nest was found February 16, 1880, and contained three eggs. This must have been a second nest, as others were found the next season during November. In nest, eggs, and general habits this bird seemed to me precisely like Coccyzus americanus.
- 119. Coccyzus cinereus Vieill.—A single specimen of this species was taken January 22, 1880. It was not again noticed.
- Only met with near Bahia Blanca, February 14, 1881, and again at Carhué the first week in April. We found it in noisy flocks of twenty or thirty individuals feeding mostly on the ground.
- 121. Bolborhynchus monachus (Bodd.). Lorito (Paro-QUET).—An abundant and familiar bird in the neighborhood of Concepcion through the entire year. It is commonly seen in flocks of twenty and upwards, visiting grain fields, gardens, etc., and sometimes, if I was correctly informed, it has appeared in flocks of tens of thousands, completely stripping the grain fields. They nest in communities, many pairs uniting in the building of a large common nest or mass of nests. I only saw these nests on two occasions and had no opportunity of examining their structure. They were placed on high trees, and appeared from below to be simply irregular masses, six or eight feet in diameter, formed of small sticks and twigs. Where the nests are abundant the natives destroy the young by hundreds, and the "squabs" when nearly grown are said to be very fine eating. The young are easily tamed and may be taught to articulate a few simple words.

Several other birds of this family undoubtedly occur in small numbers, and with more or less regularity at Concepcion. I heard much about certain "Loros barranqueros" (Bank Parrots), which were said to be common in some localities near the town a few years before, but had been made to desert their breeding places by the continued robbing of their nests, the young, it is said, making very good talkers.

November 6, 1880, I found a nest of three or four very young

Parrots or Paroquets in a sort of pocket in a sand bank some ten miles south of the town. Although I waited patiently for some time in hopes of securing the parents, I saw nothing of them, and on returning a few days later the nest was empty.

The last week in May, 1880, about a hundred Paroquets flew over the town one morning, and although I noticed nothing unusual in their appearance I was told during the day, by two different persons, that these belonged to still another species, well known, but of late years not so common as formerly.

- 122. Aluco flammeus (Linn.). Lechuzon (Big Owl.).—Resident; abundant; breeds in lofts of old buildings, etc. A pair had a nest in the belfry of the "Cathedral," and another pair in an old tower formerly used as a mill. Their harsh screeches rang through the deserted corridors of the college every night, that being one of their favorite hunting grounds for bats.
- 123. Asio accipitrinus (Pall.). Lechuzon (apparently not distinguished from the preceding by the natives).—Not uncommon in winter, sitting among the long grass during most of the day but beginning to hunt at sunset, or sometimes earlier. I started four or five in a field back of a farm house, May 21, 1880, and on June 18, saw half a dozen or more just before sunset, sweeping about like Harriers over the fields near town. I saw none after August 18.
- *124. Bubo virginianus (Gm.). Builo (Owl.) and Nakoo-Roo-Too (the Indian name, referring, of course, to the hoot of the Owl).—Said to be not uncommon in the deeper swamps along the river as well as in the drier forests further back.

I met with it only once.—at the camp on the Arroyo de Gualeguaychú. Here a pair or two were within hearing every night and I dropped one just at dusk, but it unfortunately fell on the other side of the stream in a jungle which I was not prepared to search by moonlight. Mounted specimens in the museum at Buenos Aires, labelled *Bubo crassirostris* were undoubtedly the same thing.

125. Scops brasilianus (Gm.). Caburé. (Name unexplained; it is also applied to a much smaller Owl, probably Glaucidium, which I did not see.)—A common resident along all the wooded water-courses, and of course breeds, but I did not find the nest. It has a soft, tremulous cry not unlike that of asio, and, as in that species, there are two varieties of color, red and gray.

- Extremely abundant at Concepcion, living with the viscachas (Lagostomus trichodactylus), though usually, I think, not in the same holes, but in deserted burrows. At night they were quite common in the town, and I have often seen them perched along the roof-tops and parapets in the gray of early morning. The fixed stare with which they follow a person's motions, in broad day, is illustrated by the following concise directions commonly given to young foreigners who come out to make money at farming. "Walk slowly around the bird until you see his head twist off; then pick him up."
- met with on the Pampas, and especially in the neighborhood of the Sierras and the streams to which they give rise. It was not uncommon near Bahia Blanca in February, and was easily distinguished from the following species, both by its lighter color and smaller size. In habits, also, there was quite a difference, the present species being rarely seen at any considerable distance from water, and sitting for hours on the sandy or muddy bank of a stream, whence it would rise only when closely approached. We saw it frequently at the Ventana, on the Piqué and at Carhué.
- 128. Circus maculosus Vieill. Gavilan (Hawk).—We met with this Hawk quite frequently on the Pampas throughout the whole of January, February, and March. It does not appear at Concepcion in any numbers until cool weather begins in March.

During April and May it was very abundant there, scores of them being frequently seen during a day's shooting. It was very familiar, and frequently flew around me within a few yards as if out of simple curiosity. In habits it did not seem to differ very much from our own Marsh Harrier (*Circus cyaneus* var. hudsonius). Of its breeding habits, however, I learned nothing.

129. Asturina pucherani Scl. et Salv. Alcon (Falcon). — Rather common in winter; almost always found close to the shore of some stream. During April, May and June, it was a rare thing to spend an hour in a boat anywhere and not see one or two of these Hawks. It feeds largely, if not exclusively, on fish, nearly every specimen opened having their remains (and nothing else) in its stomach.

(To be continued.)