THE IBIS.

ELEVENTH SERIES.

Vol. II. No. 1. JANUARY 1920.

I. — Further Ornithological Notes from the Neighbourhood of Cape San Antonio, Province of Buenos Ayres. Part III. PHENICOPTERIDE — RHEIDE. By ERNEST GIBSON, M.B.O.U., F.Z.S.*

333. Phœnicopterus ignipalliatus Geoffr. et d'Orb. Argentine Flamingo.

Supplementing my former meagre notes on the Argentine Flamingo, I can only confirm the fact that the bird is resident in our district, and stationary, so far as I can judge. For the probable reason of this, Hudson's suggestion may be accepted, namely, the milder climatic conditions of a region bordering on the sea-coast. Be that as it may, I find this species as frequently noted in my diary during the winter season as the summer, and vice versa, whilst young birds in the grey plumage are equally general. Our salt water or brackish lagunas of the Palenque, Milan, Pasaje, etc., are its usual haunts; and I have actually ridden past (at a distance of twenty yards) three young Flamingos which were feeding in a wide cangrejal in an open part of the town of Ajó. Occasionally, but very rarely, I have seen from one to three or five birds at some freshwater laguna or pond of our inland marshes; but these are most exceptional cases. Though they are never persecuted here, I have found flocks on the whole to be very wary, remaining well out of gun-shot.

* Concluded from 'Ibis,' 1919, p. 537. SER. XI.---VOL. II. I am still ignorant of the nesting-habits of the species. The Palenque laguna might serve the purpose of breeding, but I would surely have heard of the event if such had been the case. The "Saladas"—some large brackish lagunas fifteen leagues to the south—would, I imagine, be a suitable locality; and I have been actually told that it nests at the Chascomus laguna, a considerable distance to the south of Buenos Ayres, but I cannot vouch for the truth of the rumour.

More than once I have partaken of roast Flamingo. A fat bird is as excellent eating as a good domestic goose, and is even richer in flavour. One peculiarity it presents when cooked is the extraordinary colour of the flesh-a bright orange-red; and this, for some curious reason, caused me a decided repugnance at the time. I say "curious" advisedly, for, from necessity or choice, I have repeatedly partaken of such unusual viands as horse-flesh (not the broken down hack be it said, but the unhandled mare or colt), Rhea or South American Ostrich, Patagonian Hare, Biscacho, Nutria, and various Armadillos, to say nothing of such small deer as frogs and snails, all without any of the shrinking which the gaudily-hued Flamingo dish produced. It smelt good, and tasted better; but it looked as if red-hot from the Devil's kitchen !

334. Chauna chavaria Linn. Crested Screamer.

Adult. Iris dark brown ; orbits and cere dull magenta ; bill slate-colour ; legs and feet bright magenta.

The "Chajá" (phonetically "Chahá") has been so fully described by Hudson and myself ('Argentine Ornithology,' and 'The Ibis,' 1880, p. 165) that there only remains to cull certain excerpts from the voluminous entries in my diary, or amplify former observations.

This "majestic bird," to quote Hudson's designation, is not only my familiar friend of the wild and wide Pampas, but has recalled itself to my attention in the most unexpected situations. One bright spring morning I was lounging with a friend in the grounds of the Agricultural Show at Buenos Ayres, awaiting the resumption by the judges of their task.

We were presently joined by young B., who casually remarked, "Look at the height of these Chajás up in the sky " (Chajás over a city of a million and a half inhabitants!). E, and I looked at each other and up to the zenith at the indicated specks, and then the former commented, sadly, "B., my friend, certain unjust and corrupt judges have awarded you and your worthy father, in the course of the last two days (and utterly regardless of my superior claims), many and great silver cups. It is to be feared that you have hallowed these last night to more than the orthodox extent. The birds you see are not Chajás, but the first of the spring swallows." At that moment there came faintly down to our ears the well-known notes, "Chajá, Chajá-lí," of the birds in question ! E. pulled himself up, angrily, and turned to me, "What is the meaning of that, Gibson? We are not in the Camp." "No," I replied, laughingly, "but now I come to think of it, the Zoological Gardens are just across the way, and I remember having seen various Chajás amongst the birds in a state of freedom about the lawns: nevertheless, it had not occurred to me that they were unpinioned and might soar at their own sweet will." Similarly, one hot July day in the London Zoo, I was startled from a reverie, my thoughts far away in the Camp, by the sonorous cry from a neighbouring enclosure. Again, going through the Cambridge Museum recently, my attention was called to a case of birds in connection with which my name figured; and I was amused to find they were a series of two Chajás with their young, which I had furnished "by request" of a mutual friend many years ago, and quite forgotten.

The tameness of the Chajá has been alluded to by Mr. Hudson, and I can readily credit his statement that in former years he "had often ridden through large scattered flocks without making the birds take wing." The same thing has occurred to me when travelling by the "galera," or stage-coach, between Ajó and Dolores; only those birds more directly in our way taking reluctantly to flight for a short distance, though sometimes there would be an undignified scurry and beating of great wings if the leading postilion suddenly swerved owing to the exigencies of the track. Flocks of birds are very local in their habits when resting at certain periods of the day, and one such, composed of some forty individuals, near the Yngleses headstation, used barely to keep clear of the general traffic, and would be found about the same place every day for months at a time. Of a pair which I passed one day at a pond in the woods, and which saw me approaching, one rose at a normal distance of perhaps a hundred vards ; the other not until I was within five yards of it, when it leisurely took to flight on my left, the volume of air from its powerful wings being strongly perceptible and causing my otherwiseunconcerned horse to prick its ears interrogatively. On another occasion, riding sharply round a bend in a swamp, I came across a pair standing in a shallow pool; taken by surprise they rose, wheeled suddenly towards each other, and came into collision at a height of about twenty feet, the shock causing one to land in the water again, where it remained for a moment or two looking decidedly bewildered. An unusual incident was that of a single Chajá ponderously flying after an evil-looking Carancho (Polyborus tharus Mol.), which it drove off and then returned to the starting-place, where I surmise its young were.

These birds are easily domesticated (again as mentioned by Hudson), and I used to see them occasionally at the puestos or substations, where I was told they served the double purpose of protecting the poultry from birds of prey (?), and that of watch-dogs, raising an alarm on the approach of strangers. In the summer of 1901-2, I again brought three young birds to the Yngleses head-station, where they became very tame. On attaining the power of flight their habit was to absent themselves during the day, returning at sundown, their favourite roosting-place being the flat tops of sundry orange-trees in my garden, which I had ultimately to protect by various bamboos with sharpened points. One evening I hurried out of the office to welcome some visitors arriving by special "galera" from Dolores; and as the ponderous vehicle with its eight horses swung into position in the patio, I was just in time to see the leading postilion nearly swept from his saddle by a low-flying Chajá entering from the southern approach—man and bird were equally startled by the encounter, only avoided by the latter swerving upwards and the former ducking to his horse's neck; whilst the alert stage-conductor (perched high on his driving-seat) shouted, laughingly, "Don't be alarmed, man, it's only some of Don Ernesto's jokes!" The birds alluded to suddenly developed their full cry at the beginning of February without my having heard any preliminary attempts; they also occasionally at night gave utterance to a muffied bark-like note. The trio emancipated themselves for good in the spring of 1903.

The rare habit of perching, which I mentioned in my former paper, has seldom been observed during these forty years. The roosting-place of the above tame birds is one instance; and to the presence of these in the garden I attribute the fact that on one occasion five others alighted on the top of an adjacent lofty eucalyptus tree, where they maintained their position with considerable difficulty. I also saw one balanced on an iron landmark, whilst its mate sat close by on the post of a fence. Lastly, on putting up a flock of some forty from the mainland in 1913, one-half of them arrested their flight across the waste of waters to perch on the posts of a nearly submerged fence.

The four years' drought of 1908-11 had necessarily a very serious effect upon this species and very few remained in the district, whilst they became so emaciated and weak that I was told it had been possible by riding up rapidly and dismounting to seize them before they could get under weigh. I am glad to say that with the occurrence of the subsequent flood and normal seasons they reappeared again in their former numbers. So late as 25 October, 1915, I chronicled two fine flocks of about one hundred and fifty respectively, "on localities characterised by an abundance of young grass, white clover, and another trefoil."

There are two reasons why the Chajá is not persecuted as

an article of food (for the flesh is excellent). "Tiene mucha espuma," "it has much froth," is the Gaucho's disgusted comment. This is in reference to the innumerable air-cells existent between the skin and the flesh. Secondly, the Argentines are essentially meat-eaters, *i.e.*, beef or mutton (preferably the former, and I have heard the expression used "Él que come carnero, piensa carnero," "He who cats mutton thinks like a sheep"), game of any kind being regarded with indifference. Long may these prejudices continue to the benefit and preservation of the Chajá !

The nesting-habits have been fully described in my former paper, so I will confine myself to the following digression : "Hacer nido de Chajá," "to make a Chajá's nest," is the expression used when a deep pass in a swamp has to be negotiated, and signifies the preparatory precaution of folding or doubling-up the component rugs, etc., of the Argentine "recado," or saddle, in such a way as to gain an additional height of six or eight inches. Perched up on this, with his knees raised nearly to his chin, the rider pushes forward, steering between the clumps of rushes and watching the water gradually rise till it meets over the horse's withers and streams along just below his seat, anxiously calculating the while if the pass is only to prove "bola á pie," or if it is to be a swimming matter, when the water will rush up to his waist, and in front there will only be visible the snorting head of his horse and a span of its neck.

As regards the number of eggs, I must differ from both Hudson and Claude Grant. The full clutch is as often six as five, and I have known two of seven each. By the way, the eggs are excellent eating. Average measurements 87×58 mm.

Chloëphaga rubidiceps Scl. P. Z. S. 1860, p. 415, pl. clxxiii.

This, and the following species—*Chloëphaga poliocephala* Gray—are chronicled by Claude Grant from Ajó ('The Ibis,' 1911, p. 343). Neither have come under my particular notice (nor have I known by hearsay of any such

previous occurrence during all my residence in the district), and I therefore take the opportunity of transcribing Claude Grant's remarks : "This Goose (C. rubidiceps) had not been seen in the Ajó district for many years until the winter of 1909. A good many made their appearance in the middle of May, and several hundreds had arrived before I left in the middle of June. I was afterwards informed by Miss Runnacles 'that in company with Chloëphaga poliocephala they came in their thousands and literally covered the camp, being most unwelcome visitors, as the drought had caused a scarcity of grass and these flocks of Geese had helped to eat what was left; they began to thin out towards the end of July and by the middle of August hardly one remained." It was my misfortune to be absent from the locality in this interesting year.

337. Bernicla poliocephala Gray. Ashy-headed Goose.

See former notes under the name of Chloëphaga poliocephala.

338. Cygnus nigricollis Gm. Black-necked Swan.

The habits of the Black-necked Swan were very fully dealt with in my former paper, and consequently I have but few remarks to offer at present.

From my diary I gather one instance where a peon rode down and secured an individual in shallow water as illustrative of the difficulty these heavy birds have in rising flapping along the surface for a considerable distance.

Another entry refers to a shooting incident at the Laguna Milan: Standing in the laguna near some rushes a pair of Swans came over me from behind, one of which I shot. Immediately following the report of the gun and the resounding splash of the great bird, the shallow water all round me was broken by innumerable furrows running in every direction. Recovering from my surprise, I emptied the second barrel at one of these and killed a large "Liza," or Grey Mullet! It would appear that a shoal of these fish had come up one of the cangrejales (as they frequently do with the tide) and were basking in the brackish shallows of the laguna. I subsequently shot one other, after many failures, but without the satisfaction attached to the first. Indeed, a wild Swan with the right-hand barrel and a Grey Mullet with the choke, as a "right-and-left," reads somewhat like a shooting and fishing yarn combined.

The species continues to be as abundant as ever in this district and its vicinity; on the 19th of March, 1914, I saw a flock of some hundreds on the Saladas laguna, fifteen leagues to the south. It is little persecuted, the local value of the skin (my date is of 1899) being only 25 cents., or 5d. Thirty or forty years ago I used frequently to hear the familiar whistling note as pairs or flocks passed over the city of Buenos Ayres at night; now they evidently give that great capital, so glaring and full of light, a very wide berth.

The breeding-habits have been described at length ('Ibis,' 1880, p. 35). I may add, since then, that two nests taken on the 1st of July, 1899, are dated practically in the middle of winter; while one of the 24th of March, 1914 (with four incubated eggs), is very late in the autumn. I also record another clutch of six eggs, the second instance, the usual number being five or four. On the same date (21 November, 1913) on which I took this nest of six fresh eggs my diary has the following entry: "As the raft (horse-drawn pontoon) emerged from a deep belt of juncos we came across a pair of Swans with three half-grown cygnets. The two old birds swam rapidly away from the open water where we had surprised them with the young in line between them, the female (as I take it) leading. When about to gain the shelter of the rushes in the deep cañadon, the male returned alone and proceeded to lead in front of the raft for a considerable distance; then it rose and flew forward, finally settling on the water a long way ahead." From the foregoing it will be seen that the nesting-season is very irregular.

Average measurement of eggs 106×66 mm.

339. Coscoroba candida Vieill. Coscoroba Swan.

(As will be seen further on, I am led to modify and amplify my former notes on the nesting-habits of this species, vide 'The Ibis,' 1880, p. 36.)

Mr. Hudson, in dealing with the beauty and other characteristics of the Coscoroba Swan, places it second to its Black-necked congener, Cygnus nigricollis; whilst I still adhere to my expressed opinion that Coscoroba candida is the handsomer, and in many respects more interesting, bird. The superior size and greater numerical predominance of the one necessarily establish a certain priority; on the other hand, the latter is the more graceful (in spite of a shorter neck) and shows a certain bold defiance as it swims backwards and forwards, challenging the intruder and answering its mate, before taking to flight, whilst C. nigricollis flaps heavily away over the water or remains timidly and in silence in the offing. As Hudson admits, the flight is also freer, and I have often noticed that it detects the hidden gunner and deflects its course in accordance much more readily than the heavier black-necked species. I would note that in 'Argentine Ornithology' the beautiful illustration pertaining to C. nigricollis errs in depicting the individual (on the water) with a curved neck and raised back and wings. The correct portraiture of a stiff neck and straight back would obviously deprive it of these fictitious advantages; and it is C. candida which actually possesses and displays these attributes, accentuating them by a further graceful movement of the neck as the warning trumpet-call is uttered.

I would hesitate to say that it occasionally feeds away from the water, *i. e.*, on the grass-land. Though it may frequently be found on very shallow open marshes, its congener, *C. nigricollis*, almost entirely affects the lagunas or such deeper portions of the swamps where the use of its natatory powers is incumbent.

Only twice have I seen flocks which reached the number of fifty or sixty. But at all periods of the year pairs may

be numerous, and some occasional flocks of a dozen to twenty. I am quite unable to deduce from my diary any rules regarding the migration of the species, or the motives which regulate its abundance or scarcity in the district in varying years.

The expression "Wild Swan" generally evokes the image of a bird utterly foreign to the haunts of men, essentially fearful of human beings and their dwelling-places. Accordingly any variation of this rule produces rather a startling effect upon the observer, if we take into consideration the size and striking appearance of these magnificent birds. It is for this reason that I find myself noting, one summer's morning in 1914, the following : "Was much struck by seeing from my dressing-room window on the upper floor, at early dawn, a fine flock of seven Coscoroba Swans, which came from the direction of the polo-ground, flying so low and straight that they seemed to be coming straight for me, only rising over the eucalyptus trees at the last moment and swerving behind the house." Occasionally a pair of the Black-necked Swans will pass directly over the head-station (the species being much less easily diverted from its course), and I was told of one case when, as luck would have it, a first-class shot (Mr. M. A. Runnacles, manager of Linconia) was walking up after a big day's shoot from the general dwelling-house to my private one, and had time to throw in a cartridge and bring a Swan thudding down on to the garden path.

I now come to the matter of the nesting-habits of C. candida, which, from my extended notes, present it under three different manifestations. The first is when the nest is in a deep swamp, and similar in position and structure to that of C. nigricollis, sometimes without any lining at all (when the eggs are few), otherwise with enough down and feathers to partially or wholly cover the clutch. Of five such cases the most characteristic are the two following: "4 October, 1885. Clutch of six. Nest situated in a low and sparse belt of carices, on a wide and lonely cangrejal below the Laguna del Passage. Built of dry or decayed carices to the height of twelve to eighteen inches above the water. Eggs completely covered over and hidden by small fragments of said carices, with down and feathers of the parent-birds, arranged with one in the centre surrounded by the other five. Both birds in vicinity swimming uneasily about, but not giving vent to the usual alarm note." "21 November, 1913. Clutch of seven. Nest at edge of open water in centre of deep juncal. Built of dry junco stems with some lining of down. Eight inches high, thirty across at base, and sixteen at top; quite a slight structure on the whole. Parent birds seen near; silent."

The next type is that described in my former paper ('The Ibis,' 1880, p. 37) as placed on marshy land in the vicinity of lagunas or swamps. To which may be added analogous sites hereafter detailed. Since the year 1880 my personal records of these are seven : from which I quote the following examples :--- "29 June, 1889. Clutch of seven. Nest situated on a low muddy island at the Laguna Milan, where it was invisible from the mainland on account of a fringe of tall juncos. Composed of a large solid heap of dry grasses; with a hollow on the top, partially lined with white down. Birds seen. A second similar nest, also with seven eggs, and situated about a hundred yards away, had the owners in attendance. A third (unfinished) nest lay between these two." "15 October, 1913. Clutch of eight. Nest situated on dry ground amidst a dense covert of juncillo negro, in a most lonely locality close up against the Cañada Built of dry junco stems, gathered from the Cisñeros. swamp; lined with fine dry grasses. Note, this nest was not taken by myself, but by a trustworthy informant." The next narrative is dated 3 November, as follows :---" Locality, a grassy island, some two hundred by one hundred yards, situated in great expanse of comparatively shallow open water (the result of the flood), and surrounded by great The adjoining shoals and mud-flats were alive cañadas. with myriads of Waders of many species, Coots, and Waterhens, as we passed along with the raft and canoes to shear a flock in situ-the great flood being at its acme. The leading

horsemen would diverge every now and then to enable our crews to lean over and scoop out the eggs from the many nests of water-fowl: and altogether the voyage had more the aspect of a picturesque picnic in the brilliant early morning, than a matter-of-fact business undertaking. Indeed, I myself mentally dismissed the latter part, whilst I contemplated the wonderful scene of bird-life extending as far as one could see on the water and in the air. It was on hearing one of the men exclaim 'There goes a Swan from its nest,' that I looked in the direction indicated and saw first one bird, then a second and then a third-for there were no less than three nests-rise and walk slowly away until they took to the water, their snowy plumage contrasting admirably with the rich green of the grass and the deep blue of the sky-reflecting water. Accordingly, after seeing all the men and impedimenta disembarked at our destination, and the work organised, I left the manager to his arduous and monotonous task; and annexing a canoe and the services of the trusty Pedro Almeira (best of Gauchos and now converted into a gondolier), poled back to inspect matters on this interesting island. The first nest was situated amidst grass of about six inches growth; built of dry junco, and having the rather cup-shaped cavity lined with down and a little dry grass; the height was about six inches. diameter at base some two feet, and of the cavity or hollow ten inches. It contained seven much-incubated eggs. The middle nest, forty yards from the preceding, was in a stronger clump of green grass a foot high, which hid it from view until I was almost on it. Consisted only of a flattened hollow in the said grass, forming a shallow cup about twenty inches in diameter, lined with down and dry grass. It was beaten down on one side, where—on the grass outside of nest-were huddled up four young, newly out of the shell. These, of a delicate pale grey colour and exceedingly dainty in appearance, took no notice of me, but continued to play with each other, or affected to nibble at the grass when I touched or stroked them, and were mute. Third nest ten yards from last, but in open space and with

shorter grass again. Unlike the first nest, no junco entered into its composition; only very fine small dry grass and rootlets, forming a mound thirty inches in diameter at the base, the cup-shaped cavity being about a foot across and lined with much down. The fine and maximum clutch of *nine* eggs was much incubated. With the exception of the down-lining, it will be noticed that these three nests differ in materials and structure, though the choice and conditions were identical for all the birds. From each nest two or three paths led through the grass to the water fifty yards away, the nests being in the centre, and highest part, of the island. The parent birds kept at a distance of three or four hundred yards, swimming about and occasionally uttering their alarm-cry."

Lastly comes the class of nest which I may designate as the "truncated cone" formation; which is exemplified in the following account of a colony of no less than seventeen pairs of Swans :- The winter of 1913 had been one of heavy rains, culminating in the flood which reached its highest level at the end of September, when two-thirds of my land was submerged. All the low ground between the Yngleses and the woods of the Real Viejo had disappeared below the sea of water, and only the tops of the higher rushes showing above the surface indicated the position of the great cañadons. In consequence, all sheep had been rafted-out in August, and the cattle withdrew themselves to the mainland; whilst, naturally, there remained no incentive for the stockmen to make their usual rounds of inspection. At the end of November the gradual subsidence of the flood had left in one particular locality an extensive flat of mud, shallow water, and a small island or two. With a clear survey of half-a-mile or a mile on each side, and surrounded by our biggest and deepest cañadons, it would be difficult to imagine a more secluded and suitable situation for a breeding-haunt of the Coscoroba Swan. The actual date (21 November) is a late one; but I take it that the magnitude of the flood, submerging all other possible breeding-sites, retarded the usual nesting-period.

When word was brought me of a "Pueblo" (colony) of Swans, I proceeded to the scene under comfortable circumstances; placed deck-chairs and a table in the raft and ensconced my family therein with a luncheon-basket ; harnessed a couple of horses in front and tied on a canoe behind; and so "drove off" in state, the only trouble being in the deeper water, when the raft threatened to surge on to the backs of the swimming horses. Seen at a distance of half-a-mile as we approached from the Estancia direction and cleared the last rush-belt, the clearly visible nests appeared as dark mounds, with the birds beside or sitting on them—in the latter case doubly conspicuous. These very shortly retreated in the direction of the Real Vieio cañadon, and remained in evidence as scattered pairs fully a quarter of a mile off. On the raft reaching shoalwater, I left it and waded about. Eleven nests I actually examined (ten with eggs and one with young); three were too awkwardly situated to reach; and two had apparently hatched out-total sixteen (to the group may be added one more, about half-a-mile off, which I had taken the previous day). The last-named I noted in detail as a curiously well-built, solid, and most tidy truncated cone, constructed of small dry water-weeds and roots, representing an extraordinary labour in collecting and fastidiousness in arranging. Twenty inches high, three feet wide at base and two feet at top; the hollow eighteen inches wide and no less than ten inches deep. Lined with small dry grasses, rootlets, and some down; part of this drawn over the six eggs, completely covering them from sight, even when I stood beside the nest. The other sixteen nests were scattered over an area of say four hundred by four hundred yards, sometimes far apart, sometimes close together : for example, those built where there was still some shallow water, were generally upon what was evidently a drowned-out ants' hill; whilst the single grassy islet which had escaped submersion had along one side (and quite on the edge of the water) no less than three nests, some twenty yards from each other. They were all more or less similar to that already

described, no uncouth structures, but substantially and tidily built and finished, with no stray or superfluous material lying around. Only in one case (where the situation chosen was in rather deeper water amongst some durasnillos and water-weeds, and the nest in consequence particularly high and well-shaped) was there at one side a pile of dry waterweeds. Generally speaking, they were from twelve to twenty inches high (according to site); from two to three feet across at base, and twenty to twenty-four inches at top; cavity at top from ten to eighteen inches across, and four to six inches deep. One nest alone had the eggs totally covered and hidden by the lining being drawn over them; in all the others the clutch was fully exposed. Of the ten nests visited, one contained five eggs, two had six, while six had (the general clutch of) seven. The one brood of six young, of same age as those previously described, were similarly huddled-up together outside the nest in the shelter of a tuft of emerald-green grass, mute and sleepily indifferent to the group of human beings around them. A large nesting-colony of Brazilian Stilts (Himantopus brasiliensis Brehm) lent more than sufficient noise and animation to the scene-flying, fluttering, running, or crouching whilst they clamorously protested against the intrusion. One of their nests, containing four eggs, was only five feet distant from the base of that of a Swan, forming a pretty contrast and picture, for both were isolated on a little dry knoll formed by an old ants' nest. One could imagine the two sitting birds: the graceful neck of the Swan bending down to listen to the gossip of the Stilt-"Yes, some people say unkind things about the length of limb I display, and my Parisian scarlet hose that reach to my waist. But I could tell you some stories about Lady Candida over there, she who insisted upon her husband taking that out-of-the-way mud-flat at the beginning of the Season; and her goingson, for all she looks so white and stately! Why, only last week . . . ! ! "

This Swannery was perhaps the most interesting birdcolony that I have ever seen, not forgetting that of the

Dominican Gulls on the samphire-clad mud-flats by lonely Cape San Antonio on the melancholy Atlantic, nor those of the smaller Gulls and Terns, where the wild graceful birds circle and cry over a wide expanse of blue water and green water-grasses. Or even where, amidst a wilderness of dark green rushes in the heart of an immense swamp, there are myriads of nests all round; and the air is filled with thousands of the parent birds, Snowy Egrets, Roseate Spoonbills, Glossy Ibises, Blue Herons, and Grey Night-Herons. Doubtless the surroundings of the Swan's sanctuary rendered it the more impressive: ringed round with great swamps, backed by the limitless Pampas, broken along the horizon by Tala woods or the groups of trees that mark a puesto; no cattle to be seen, nor signs of human life as far as the eye ran reach, only the white buildings of the Yngleses head-station standing boldly out against its woods, a couple of miles away. Given the modern conditions of Argentina, I much fear similar occurrences will soon become a thing of the past, even in our remote district; and it is well to put them on record.

In coming to the Ducks proper, I would draw attention to the difficulty attending their full identification and frequency of occurrence, with other observations pertaining thereto. Particularly this is the case with the Teals (five species), and the two Pintails, the Brown and the Bahama (Dafila spinicauda Vieill. and D. bahamensis Linn.). The trouble arises from the enormous number of the birds in this district, particularly when the swamps are normally or abnormally full of water, and more especially in the spring season when the immigration is at its height. At other times of the year, or if a partial drought has reduced the water-area, the observer readily identifies and makes a mental note of the recurrent individuals and flocks. But it will easily be understood that on those occasions when countless myriads of birds rise with a roar like thunder on being disturbed, or the air is filled with a flighting snowstorm spread over thousands of acres of marshes, the result

·1920.]

is most bewildering, and recalls the aphorism of "the wood being so thick that one could not distinguish the trees." Any well-known or characteristic species presents no difficulty; and even their relative proportion to each other may be correctly or approximately determined. But those I have alluded to blend with each other and become so mixed-up in the general kaleidoscopic throng as to impede a satisfactory individualisation and estimate. I am sure that my diary is frequently blank due to the natural hesitation produced by this cause alone.

340. Dendrocygna fulva Gm. Fulvous Tree-Duck.

In the Ajó district the migration and abundance of this species is subject to much variation. Regarding the former point I have observed flocks so early as 8 August, and also coming in as late as 4 May. Why it should have appeared in force in the early spring of one famous floodyear (1877), and in the still greater inundation of 1913 been actually scarce until midsummer, is a problem beyond solution, the conditions being similar.

In 1877 the number was almost incredible. Huge masses covered the grass-land immediately bordering the swamps for hundreds of yards in length with a depth of from five to twenty yards. These rose reluctantly, not in flocks but solid blocks, and the sound of the wings and clamour of voices was overpowering. What the impression produced upon me at the time was, may be gathered from my diary thirty-seven years subsequently, when (on 4 March, 1914) after chronicling in my diary a flock of some five hundred which had passed closely over my head, "their confused cries resembling the crackling of rain upon a hot iron plate," I find myself sadly adding "but where are the birds of 1877, which lined the shores of the cañadas in serried brown phalanxes, or broke and rose with a noise like thunder, and permeated the whole atmosphere to the horizon with brown sun-motes?"

Fulvous Tree-Ducks are stupid birds, by no means shy or wary. I have drifted past them in a canoe, between the SER. XI.-VOL 11. c rushes and the bank where they were assembled, and done great execution shooting "into the brown" as they rose; or similarly stalked a flock, most of which were asleep. But no longer do they pass at night over that modern Babylon, the town of Buenos Ayres, where, like Hudson, I have heard "the shrill confused clangour of their many voices from the darkness over the Argentine capital."

Undoubtedly a handsome bird when at rest "in its rich chestnut and fulvous plumage, and its pale blue bill and legs," to again quote Hudson, the charm is gone on the wing. The head and neck seem to droop and the tail and feet are similarly deflected below the level of the back, producing the effect of a ponderous and laboured flight, totally distinct from that of all the Anatidæ I am familiar with.

I cannot claim Hudson's knowledge regarding the breeding-habits of the species. In our district it is not given to nesting, notwithstanding its abundance. Indeed, incredible as it may seem, I can only chronicle half-a-dozen cases, of which three occurred in marshes and as many on dry land. The first-named were situated in dense flag-beds, and built of dry material of the same; the others amidst grass, with no lining. The marsh-birds endeavoured to entice the intruder from the vicinity; the plain-birds rose immediately at the horse's feet and flew away. The corresponding dates vary from 14 November to 9 February, showing that this species is a late breeder. Thirteen was the largest clutch (much incubated), followed by one of ten (also incubated); the remainder were incomplete.

Like Hudson, my characterisation of the colour of the eggs is white; but a clutch in my possession certain'y tends towards buff (this, though not taken by myself, was procured by a collector in whom I have every confidence). The shape is roundish, and the average measurement is 57×45 mm.

344. Heteronetta melanocephala Vieill. Black-headed Duck.

Claude Grant writes: "This is by no means a common

Duck in the Ajó district: it frequents, singly or in pairs, open sheets of water in the larger reed-beds; it swims rather low in the water and reluctantly takes to flight." I may add that it is very shy and wary, quietly disappearing amongst the reeds so soon as cance or horseman appear on the scene. On one occasion, however (28 February, 1899), I succeeded in obtaining two males and a female out of a flock of about twenty, which were in company with a large number of the Yellow-billed Coot (*Fulica leucoptera* Vieill.) in the middle of a deep cafiadon. Neither before nor since that time can I recollect having seen more than a single pair.

I can furnish no information as to the breeding-habits.

345. Querquedula cyanoptera Vieill. Blue-winged Teal.

I have little to add to Hudson's brief account of this handsome Teal, so generally distributed and abundant.

A curious incident occurred on 31 October, 1915, when, in the early morning, a pair alighted on the brick chimney of one of the peones' quarters in the patio of the headstation. They remained there for a quarter of an hour, allowing me to approach the base of the building (to within a few yards of them indeed) and contemplate their beauty at my leisure.

My diary only chronicles three nests. The first, taken on 30 November, 1898, was situated on an island amidst swamps, where it had for neighbours three nests of the Brown Pintail (*Dafila spinicauda* Vieill.). That of the Blue-winged Teal consisted of a hollow amongst the grass, thickly lined with down. The bird sat close, on a clutch of nine fresh eggs. The second, taken with the bird, on 7 December of the same year, was placed amongst some thistles at the edge of a swamp, and consisted of a little dry grass, with some down (the clutch being only five). These two nests were procured by myself in person. The third and last, collected for me on 17 October, 1909, had ten eggs, but is wanting in data as to situation and materials.

The second of the above clutches averaged 50×35 mm.

The third, 48×34 mm. The eggs, of a warm cream-colour, are somewhat elongated in shape, with a distinct butt or blunter end.

346. Querquedula flavirostris Vieill. Yellow-billed Teal.

Hudson gives a description of the habits of this, our commonest Teal. And Claude Grant enlarges upon the same in application to our district.

Whether it is migratory or not I do not know; but a fresh fall of rain in the winter or spring invariably brings. it into evidence; and the familiarity and tameness of the species constitute it a pleasing visitor. Strangers to the Yngleses are surprised and interested to find these Teal frequenting the garden of the head-station, where they roost at night and not infrequently nest. Curiously enough, the trees adjacent to, or overhanging the principal paths (or those in the immediate vicinity of the dwelling-house), seem generally to be the favourite situations; and it is at their own convenience, and not from any movement of passers by, that the birds leave their perch in the morning, sometimes considerably after sunrise, and go off to their feedinggrounds. I have recorded more than one instance when, on their return in the evening, a pair or more have passed low down over the heads of the tennis-players, or through the patio itself, quite members of the community.

Claude Grant correctly describes this Teal as being also entirely a tree-nester in our locality, whereas Hudson's experience is that it breeds on the ground. My own record is both long and voluminous, and I have never known the former rule departed from. The nests which formerly came under my observation were invariably situated in one of the chambers of the pendent communities of the Green Parrakeet (*Bolborhynchus monachus* Bodd.), not on the *top* of them, as stated by Claude Grant. Only so late as 1913 did I first chronicle an exception to my dictum, when no less than three nests were placed in eucalyptus trees in the garden, on the top of the accumulation of bark and leaves which had formed where the great trunk bifurcated, about twelve or fifteen feet from the ground. That this situation was of an abnormally hazardous nature is proved by the fact that, in the course of my investigations, I found the denizens to be a pair of truculent opossums, with the result that I was nearly startled into falling off my ladder. Away back in the 'seventies, when the Parrakeet nested solely in the tala trees, I have frequently been able to take a Teal's eggs by simply drawing down the pendent nest of the former with a walking-stick, guided in my quest either by the Teal flying out, or the presence of its down at the entrance. But these simple days passed away when I drove the Parrakeet to take refuge in the loftiest eucalyptus trees (as described elsewhere) and the Teal followed it.

The Yellow-billed Teal nests early in the season. On the 26th of August I have taken the first eggs, and during all the month of September and until the end of October it is still laying. The first eggs laid are merely placed on the rough twig floor of the Parrakeet's chamber; but as they increase in number a lining is formed of down, ultimately to such an extent as to appear in the entrance to the nest and thereby betray the occupant. The clutch varies in number; I have found the bird incubating five eggs, and taken nests of eight and even nine.

Hudson describes the eggs as of a "reddish cream-colour"; Claude Grant as "pale cream-colour and slightly glossed." The latter is the more correct definition. The shape is of the Teal type, but individual specimens vary, from the elongated with a large and small end, to the more strictly oval or rounder form.

Two clutches of six and seven average respectively 52×38 mm. and 51×39 mm. Amongst the former are such extremes as 49×37 mm. and 54×38 mm.

347. Querquedula versicolor Vieill. Grey Teal.

I regret being unable to add any further notes to Hudson's short account of this species. Beyond the fact that it is fairly abundant, the Grey Teal would seem to have presented no salient features for my observation. Of its breeding-habits I have only one solitary record (of forty years ago) when, on 10 October, 1877, I trapped a sitting-bird in a lucerne patch at the head-station, in the garden. The nest itself, amongst weeds, etc., was composed entirely of down, and contained a fine clutch of nine eggs, somewhat incubated. Unfortunately, I have no note of the said eggs and their ultimate destination, nor does the British Museum seem to possess any specimens. From the foregoing exceptional case, it is to be judged that the Grey Teal is not in the habit of nesting in our district.

348. Querquedula torquata Vieill. Ring-necked Teal.

Male and female. Iris dark brown; bill slate-blue; legs and feet pale pink or flesh-colour. (Note—Hudson describes the bill as "reddish" and feet "brown," which is obviously at variance with my own notes.)

The pretty Ring-necked Teal is not a frequent visitor to our district, generally appearing in September in the shape of an occasional pair. During that month in the big flood year of 1913, I noted various pairs and one small flock; after the beginning of October and until my departure at the end of March, absolutely none were seen; and in the following spring (flood-conditions still prevailing), I failed entirely to chronicle its appearance. It is not therefore surprising that Claude Grant makes no allusion to the species, his visits to the Yngleses taking place when the great drought was in its inception.

On arrival any individual pair shows a preference for an isolated pond or pool, even though in the vicinity of traffic or close to human dwellings, and it is therefore more likely to come under observation and be recorded than various of its congeners—say, *Q. brasiliensis*.

Like Hudson, I am ignorant of the breeding-habits of the species. No information on the subject has come my way, nor, it would appear, are there any eggs in the British Museum.

349. Querquedula brasiliensis Gm. Brazilian Teal.

This beautifully-coloured Teal is only a visitor to our

district; and that only in flood-years. Hence it is known as such, under the name of "Patite de creciente"—little duck of the flood. In normal seasons it is not to be looked for, but should one of our periodic inundations lay the country under water, the advent of the Brazilian Teal may be confidently expected.

The spring and summer of 1913-14 specially bore out the previous dictum, when various pairs were observed by myself. and others, from the middle of October to early in March. One one occasion I saw two pairs together on some marshy ground; and on another date no less than three pairs at a pond in the Yngleses garden. Only in rare cases have 1 seen the species associating with any other Teal. The open water it is to be found upon is always in the vicinity of woods or trees, and it is still more partial to a pond situated in a woodor even a garden, as mentioned above. It is surprisingly tame, and may be passed at close quarters in its favourite haunts near the head-station-quiescent on a pond, where I frequently passed within ten yards of a pair-or perched on a tree or the shears of a cattle-well. Again, when on the wing, no member of its family-not even excepting the other Tree-Teal (Q. flavirostris)-will show such disregard for the gunner, as it threads its way through the trees, or glides down into the water close in front of him.

During my brief visit to the Yngleses in the spring of 1914, with a still heavy flood, I only noted one pair—in the garden.

Both Hudson and Claude Grant particularise the flight with depressed wings, by which the spectator is gratified with a full view of their beautiful colouring. Otherwise, **I** agree with the latter's pronouncement that the flight is "low and swift," not "slow" as judged by Hudson.

Our people do not call it the "Pate Portugues" as quoted by the last-named writer—"to signify that it comes from Brazil"—but, as previously stated, "Pate de creciente," which means in the vernacular, "Duck of the rise in water," *i.e.*, flood.

It was on the 4th of November, 1913, that a gang of

peones were lassooing a steer for the butcher-department amongst the scattered trees on the verge of the head-station woods, when the noise of the fray drove a Brazilian Teal off her nest; and one of the boys advised me of the unique incident. On examination I found that the site adopted was a previous year's nest of apparently the Yellow-breasted Marsh-bird (*Pseudoleistes virescens* Vieill.), situated in the top of a stunted tala tree about eight feet from the ground, flattened down somewhat by the weight of the sitting bird and eggs, but without lining of any kind.

The clutch of seven eggs (slightly incubated) is most interesting. Pure white in colour, glossy, and inclined to be spherical in form, they might much more easily be attributed to an Owl than a Teal. The shell is not thick, but of a china-like hardness—the worst I ever employed drill upon. Average measurements 48×35 mm.

350. Dafila spinicauda Vieill. Brown Pintail.

Iris dark-brown; bill varies from yellow or greenishyellow to orange-yellow, with black culmen and tip; legs and feet olive-grey.

The Brown Pintail is our commonest Duck, and is found all the year round; but it is in the autumn that it is most abundant, when there frequently occur flocks rivalling the enormous masses of the Fulvous Tree-Duck (Dendrocygna fulva Gm.), which I have already described. The thistlebeds are a favourite resort when the seed is ripe; also the maize-fields at the time the crop is being gathered and the cobs collected in heaps. The consumption of the grain on these occasions is of serious import, considering the size of the flocks and their individual capacity. I cannot at the moment recollect the amount counted from a shot bird the crop of which burst on striking the ground, but it certainly exceeded a large handful. It does not necessarily follow that the above localities are solely favoured, for on the 15th of August (end of winter), 1902, I find myself writing "Extraordinary number-many thousands--of Brown Pintails in cañada extending from Monte del Tigre into the

Rincones." These were entirely Pintails, without the admixture of any other species; and the curious thing is that only a fortnight previously I had been remarking on their scarcity. As Hudson says: "In favourable seasons the Pintail is a resident; but like the marsh-gulls, pigeons, the American golden ployer, and all birds that live and move in immense bodies, it travels often and far in search of food or water. A season of scarcity will quickly cause the flocks to disappear from the pampas; and sometimes, after an absence of several months, a day's rain will end with the familiar sound of their cry and the sight of their long trains winging their way across the darkening heavens." Nevertheless, in the spring of the two flood-years 1913-14, the bird was only fairly abundant, in small or moderate numbers. Later on, in January and February, when it made its appearance in great force (many flocks running into perhaps a thousand each), it was associated with the Fulvous Tree-Duck in equal numbers, and to a considerable extent with the Rosy-billed Duck; but again, by the beginning of March, the last two had left it in almost sole possession of the scene.

Don Clemente Onelli, Director of the Buenos Ayres Zoological Gardens, informed me that during the year 1916 (which was one of extreme drought all over the Province), he had trapped in the grounds and pinioned—with the loss by deaths of only five—no less than 518 wild-duck. These, nearly all Brown Pintail, had been attracted by the ponds in the Gardens, and the domesticated wildfowl thereon. Yet certainly no one would pronounce the said Gardens to be situated in a suburban, much less rural, locality.

However plain in appearance, the Brown Pintail ranks high in the sportsman's appreciation. Most palatable on the table, always to be found for a spare hour's shooting or a big day's battue, and neither stupidly confiding nor wildly shy, the gunner's motto may well be "shoot and spare not." Many years ago one of the members of our Yngleses staff was leaving for England, and in anticipation had sent off his heavy luggage and gun by sea to Buenos Ayres. Like all Devonshire men, he was a keen shot and somewhat of a collector, and it having occurred to him in the interval that he would like a pair of Chilian Eagles (Geranoaëtus melanoleucus Vieill.) for the hall at home, he borrowed my gun and cartridge-belt, and went in their quest. At sundown he duly returned with a fine pair of the birds in question (there were then known to be two or more pairs in the lonely fastnesses of the Rincones), and forty Brown Pintails "for the larder." "How did you do it?" I inquired, referring to the latter item, and was rather taken aback on observing that there were only four cartridges missing from the belt he returned to me. "Well," he replied, "I had got the two Eagles all right, and was riding home when I observed a large flock of Pintails at a pool of water in the open camp, so I managed to stalk within range somehow, and gave them the first barrel 'sitting' and the second as they rose. Two dozen of the spoil I left with Pedro Gomez, the cattle capataz, who had accompanied me through the Rincones, and the remainder you see." The total result was therefore sixty-four Duck for two shots. On another occasion a guest at the Yngleses-also a good shot and one who knew of old the "lay of the land "-went off for a day's shooting, accompanied by a peon. About midday the boy returned, with a request for another hundred cartridges, and the message that "Don Jorge said it would be advisable to send one of the small 'lamb-carts' to a certain point later in the afternoon, as he already had more birds than the two horses could conveniently carry." I have no record of what the bag aggregated in this case, but it was duly obtained by legitimate wing-shots (not firing into the brown) and by one gun.

In parenthesis I would remark that our "big shoots" were always a worry to me in connection with the disposal of the game. The Gaucho, as I have stated before, is contemptuous of everything but beef or mutton—fish and birds are beneath his notice. The shepherds of foreign nationalities—Spaniards, Basques, Italians, French or Scandinavians—do not altogether share this prejudice, but dislike the cooking-trouble involved. And at the back of all is an inherent idea that the employer is trying to save his cattle and sheep by the offer of a substitute—is defrauding them in short. Accordingly, whilst I could make use of a large quantity of fish or game at the head-station, where the cooks were under my orders and there was a large staff and still greater peonada, my appeals to the shepherds when they came for their meat—to "take all the birds they liked, in addition to their *free* meat-rations"—were of little or no effect.

To return from this digression :---

It might have been expected that the Brown Pintail would be a regular breeder in the locality, and that to a considerable extent. But such is by no means the case. I had passed twenty-five years at the Yngleses without recording an authentic occurrence; and if, since then, I have been more fortunate, I am utterly at a loss to account for the previous hiatus. In 1898 I took my first nests, noting (in November) that the species was "very abundant. and nesting generally." The following year only produced for me three clutches. There is then a gap until 1904, when During subsequent springs I nests were very numerous. was much away from Ajó, but 1913 found me again beginning to record "various nests." Most of the seasons above alluded to were of much water and correspondingly rank herbage suitable for nesting-covert ; but there had been similar springs previously, notably that of 1877; while two nests taken in 1909 (drought) were situated in the bare open camp with no shelter or protection. The parent bird, as mentioned by Claude Grant, sits very close, and consequently is rather startling to one's horse when it rises. My earliest date is the 3rd of October, the latest 30th of November; most of the nests occurring in the lastnamed month. With the exception of three taken in the Rincones and situated amongst esparto, all my notes refer to "a hollow amongst grass, preferably upon an island in the swamps." In one such place there may be various nests, placed within a few yards of each other. The hollow

is lined with only a little dry grass at first, but the quantity of down continues quickly to increase until it envelopes the eggs.

The clutch frequently exceeds the limit attributed to it by Hudson and Claude Grant. In 1904 I note that it "generally consisted of eight or nine, but sometimes ran up to ten, eleven, or even twelve."

The eggs are cream-coloured and vary in shape, sometimes lengthy but more often roundish. Individual specimens also differ in some clutches. The average measurement of half-a-dozen clutches is 52×40 mm.

351. Dafila bahamensis Linn. Bahama Pintail.

Never abundant in our locality at any time, the Bahama Pintail would seem to be an autumn or winter visitor, at epochs varying from early in February to the middle of August. "A pair, two or three, or a few" are the meagre entries in my diary; sometimes seen alone, at other times in company with *Dafila spinicauda*. It has occasionally fallen to my gun, but in habits and flight evidently does not differ much from its above-mentioned congener, for it has furnished me with no material for any specific notes.

Neither Mr. Hudson nor I are cognisant of the breeding-habits, and it is to the courtesy of Mr. James Wells, of the British Museum, that I am indebted for the following description of the eggs :—" In form of a long oval. The shell has but little or no gloss. They are of a uniform cream-colour, and measure from 55-59 mm. in length and from 37-39 mm. in breadth." They are therefore both longer and narrower than those of *D. spinicauda*.

352. Mareca sibilatrix Poepp. Chiloe Wigeon.

The Chiloe Wigeon is a most handsome bird, wary and strong on the wing to correspond; hence the sportsman shows a justifiable pride on turning out one or more specimens from his game-bag. "Chirivi" it is called from its cry, and never in our district "Pate picase" (as stated

28

1920.]

by Hudson), the latter name being reserved for Metopiana peposaca Vieill.

It is resident, but most abundant in wet seasons, and particularly in the autumn and winter—for example, in the spring of two great flood-years (1913 and 1914) it was conspicuous by its rarity or total absence, whereas it was very numerous in the autumn. A heavy fall of rain at the latter season is generally responded to by a prompt advent of this species, when it rarely associates with other Ducks, and prefers open camp ponds or even pools on the roadway to the rushy fastnesses of the cañadas. It generally occurs in pairs or small flocks of ten or twelve, but on suitable occasions (*i.e.*, after a heavy rainfall)—and always in the autumn—I have known these to consist of thirty or forty each, the flocks being numerous and closely associated still in the open.

I am totally ignorant of its breeding-habits, and for a description of the eggs am again indebted to Mr. Wells, who says:—" Eggs in the Museum collection vary from cream-colour to whitish-brown and measure respectively 61×40 mm., 60×40 , 59×41 , $58 \cdot 5 \times 41$, 56×40 , 54×41 ." He further continues:—" Holland, Ibis, 1892, p. 208, says the eggs of *M. sibilatrix* are white in colour and very round; Nehrkorn, Kat. Eiersammlung, p. 244, says his eggs are rothlichgrau and measure 57×42 mm.; and Hudson, Argentine Orn. ii. p. 135, says the eggs are pure white. Rather conflicting evidence !"

353. Spatula platalea Vieill. Red Shoveler.

The Red Shoveler is resident all the year round, and not uncommon, particularly on the brackish lagunas and cangrejales of the Rincones. It is generally found in pairs, of which there may be several, or quite a number, on a large laguna; whilst in the autumn I have frequently seen small flocks, never exceeding six or eight birds. It is not shy, nor is it called upon to be so, for it is the least popular of the Duck family from an edible point of view, being spare in flesh and rank in flavour. Hence I have often observed its immune tameness on the cangrejales adjacent to the large cattle-killing Saladero in the neighbouring township of Ajó, where the workmen slightingly alluded to it as the "Pate de cangrajal." The colouring of the male is undoubtedly rich, but lacks the all-round brilliancy of, say, the Chiloe Wigeon; solely when rising close to the observer, and with the additional aid of a strong sunlight, does it show to advantage.

Hudson makes no allusion to its nesting-habits, and I have no information myself on the subject. The British Museum however, through Mr. Wells, furnishes me with a following description of the eggs:—"These are elliptical or long oval in shape. The shell somewhat glossy and of a uniform rich cream-colour. Measurements from 49–57 mm. in length and from 35–36 mm. in breadth."

354. Metopiana peposaca Vieill. Rosy-billed Duck.

This Duck, known in our district as the "Pate picaso," is undoubtedly the king of all the Duck family of my acquaintance, pre-eminent in size, weight, and handsome appearance. It is generally distributed and found in pairs; in the autumn large flocks occur, associated with the Brown Pintail (*Dafila spinicauda*). In the former case it would seem to prefer the deeper and central pools in the cañadones, but the larger congregations (in which males predominate) assemble about shallow ponds or marshy hollows in the open camp. Wary in its habits, as becomes a bird so much sought after by the pot-hunter, it is certainly not so wild as the Chiloe Wigeon (*Mareca sibilatrix*). The flight, after **a** heavy rise, is bold and powerful. The note a loud and harsh "quack."

If the sportsman shows a justifiable pride in producing from his bag of Duck a specimen of the beautiful and wily Chiloe Wigeon, as I have previously remarked, he also exhibits much satifaction in turning out a couple of Rosybilled Ducks. A pleasure accompanied with a sigh of relief, for the latter is a portentously heavy bird; and, it may be added, a very finely-flavoured table acquisition. 1920.]

The breeding or nesting-habits of the species are somewhat peculiar. Hudson's dictum simply pronounces for "a nest made on swampy ground near the water, of dry rushes, and is, for a duck, a deep well-made structure; the eggs are oval in form, cream-coloured, and twelve in number." Claude Grant (in a drought season) "only took two sets of eggs, and both of these were in the nests of *Fulica*, which contained the eggs of that bird also. The natives say that this is the usual custom of the bird, and assert that the Coot brings off the young."

My own experience is similar to that of the last-quoted observer-showing the parasitical habit of the species. I have taken from one to several eggs in such nests as those of the Southern Courlan (Aramus scolopaceus Gm.), both Swans (Cygnus nigricollis Gm., and Coscoroba candida Vieill.), the Spot-winged Gull (Larus maculipennis Licht.), and even, strange to relate, the Maguari Stork (Euxenura maguari Gm.). It is in the nests of all three Fulicæ however (F. armillata Vieill., F. leucopyga Hartl., and F. leucoptera Vieill.) that it is generally and abundantly found, though I doubt very much if it is a welcome visitor there, or if the Coots actually bring off the young; for I have often found the mixed assortment covered over with water-weeds, and a fresh lot of Coot eggs laid. On one such occasion I removed sixty-four Coot and Duck eggs (some fresh and others more or less incubated) from one nest in successive layers; possibly there were more, but, leaning from my horse, with my arm plunged into the water up to the shoulder, whilst my full pockets and shirt-bosom threatened my equilibrium, I could not be quite satisfied that I had reached the foundation of the original structure-doubtless resting by this time on the mud at the bottom of the water.

Per contra (*i. e.* as a nesting-bird on its own account) my diary contains the following instances:—On the 3rd of November, 1913, I observed on the bank of a cañada a pair accompanied by a large brood of young in down. In December of the same year, a trustworthy informant saw on one of the large drainage canals in this vicinity a female Rosy-billed Duck, in front and at the sides of which there swam no less than fifty-two young, all small, no other duck being in the vicinity. On 20 November and 9 December, 1915, one of my collectors took two nests, each containing ten slightly incubated eggs; these nests were constructed of dry flags in a covert of the same.

I should describe the eggs as the roundest of all the duck tribe, though closely approached by those of the Fulvous Tree-Duck (*Dendrocygna fulva* Gm.). They are of a buff-colour, and average 59×45 mm.

355. Erismatura ferruginea Eyton. Rusty Lake-Duck.

Of the Rusty Lake-Duck it may be said that its occurrence in our district is less uncommon than elusive. Claude Grant correctly summarises the situation when he states that "this Duck is not commonly observed in the Ajó district, where it frequents the open water surrounded by reeds. On being alarmed it dives after the manner of a Grebe, and I have never scen it take to the wing. When swimming, the tail is held upright and the body lies very low in the water, which almost closes over the shoulders" ('Ibis,' April 1911, p. 350).

I have frequently come across a pair of these Ducks, either when noisily forcing my way through the rushes on horseback, or moving quietly along an open channel in a canoe, on emerging into an open lagoon in the deeper and more solitary swamps. Watchful, sombre, silent, and shy, they are observant for a moment or two, then seem to settle lower down in the water in an almost imperceptible manner, and finally vanish below the surface and gain the shelter of the reeds. Their dive to the flash of a gun is generally successful; and, in a word, their habits are evasive in the extreme. Mr. Hudson's brief notes are also corroborative of these peculiarities.

Under such circumstances it is natural to assume that the possible discovery of a nest is due only to mere chance or a most diligent search. I herewith put upon record such few instances as have come under my notice. In 1875 I was

32

shown some eggs undoubtedly of this species, but no details were furnished me. At the beginning of December, ten years later (1885), occurred a fully-authenticated case, the bird heing trapped on the nest, after previous attempts to shoot it had failed, owing to the quickness with which it dived on being disturbed. The nest was placed amidst reeds in a deep canada and built of dry stems of the same; it was somewhat similar to a Waterhen's, but larger and with a deeper hollow; it contained six much-incubated eggs, covered with down. Two other nests, identical in position, materials, and number of eggs, were chronicled about the same time. My last and only remaining find was on the 5th of December, 1891, when I note the taking of a fine clutch of twelve (now in the British Museum). These "were nearly all quite fresh. The nest was situated in a deep swamp, amongst the 'juncos'; was built of the same, and resembled that of a Waterhen, though somewhat larger, deeper, neater, and cup-shaped." Only a few days previously I had seen a similar nest, containing two eggs, about a hundred yards away; and the doubt arises as to a possible connection between the two: whether the larger clutch had not been supplemented by the second pair of birds, the three preceding nests having furnished only six eggs each.

The eggs are of a broad oval shape, the shell granulated in texture, without gloss, and of a uniform whitish-cream colour. They measure from 68 to 73 mm. in length, and from 48 to 54 mm. in breadth.

357. Columba picazuro Temm. Picazuro Pigeon.

Iris orange; bill pale blue; feet magenta.

It is fortunate that in my previous paper ('Ibis,'1880, p. 6) I dealt at some length with the habits and customs of this handsome pigeon in our locality; for, to judge from my diary, it is undoubtedly becoming a scarcer visitor. Formerly, I never actually considered the species as resident on the Yngleses in spite of a few nesting-pairs. I had always reason to believe that the temporary occurrences originated from the Montes Grandes—the large woods SEB, XI.—VOL. II. situated some fifty miles to the south of us-where I was given to understand it was a numerous and permanent resident. Single birds, pairs, or flocks, always came from that direction and returned the same way, possibly the same day.

Until about the year 1900 the winters were characterised by the regular appearances of visitors in search of food. In 1899 I chronicled various flocks, generally consisting of eight or ten birds, but including one of thirty, and a still larger lot of about a hundred. These appeared very early in the morning, coming over the neighbouring Real Viejo, and returning similarly at sundown. It may be recalled that another winter visitor, the Patagonian Parrot (Conurus patagonus Vieill.), presented identical habits; but whilst the Parrots penetrated as far as the Riucones and found their special food in that district, the Pigeons halted midway (I have only once seen a bird in the Rincones), to exploit any maize-fields, though I shot one individual which had its crop solely distended with nine "durasnillo" berries, as large as marbles. Since the last-mentioned year, however, the occurrences have been so few as to make the species almost a rarity. I note a flock of seven or eight in 1902, and the remainder of my entries refer to a single bird or at most a pair, at long and increasing intervals.

Whilst I am unable to explain the curious local decrease, it is a solace to read that Claude Grant (who had collected five specimens at the Yngleses in 1908–10) saw "vast flocks settling on the sand-banks in the Alto Paraguay, so very wary that it was impossible to approach within shot" ('Ibis,' July 1911, p. 459).

As formerly chronicled, I took two nests in 1873, and four in 1875. I was told that two or three pairs nested in the Yngleses head-station woods in 1904, but without further particulars. In 1909, one egg was brought from the adjacent Real Viejo woods, bearing the early date of 10 October. This specimen, of an elongated shape, measured 38×27 mm. It is to be noted that my record still establishes the Picazuro Pigeon as laying only one egg, whilst Hudson gives the number as two. 1920.]

359. Zenaida maculata Vieill. Spotted Dove.

I find nothing to add to my former notes and those of Hudson upon this exceedingly common Dove. My experience confirms the impression that it is the most dominant factor of bird-life in our woods and gardens, where its presence is as charming as it is harmless. I have a distinct impression that, away back in the 'sixties, as a child, I used to find the nests within my reach in the woods, so general and confiding was it.

There is much variation in the size and shape of the eggs. A large clutch may average 34×23 mm.; a small one 29×22 mm., the general average being 31×22 mm.

362. Columbula picui Temm. Picui Dove.

Iris white; eyes mauve-coloured; bill black; feet dull mauve, or magenta, or pink.

In my former paper ('Ibis,' 1880, p. 7) I chronicled this species as a winter visitor, and apparently of rare occurrence—"two or three small flocks of from two to half-adozen frequenting the garden and lucerne-field in 1874." And again, in 1876, "I caught a glimpse of one in the garden." Such were my sole records.

From about 1898, however, the situation had entirely changed. The summer of 1898-9 saw the species abundant about the Yngleses head-station, and evidently nesting (a pair of full-fledged young were observed in February); and from that time onward it became resident, with a general distribution. My diary maintains a steady record of pairs and small flocks-the latter principally in the autumn and winterof adults and young, sometimes aggregating twenty in number. The woods, lucerne-fields, and gardens are the favourite haunts, the last-named particularly; for this dainty little Pigeon is exceedingly tame and confiding. A pair of young would let me pass within a yard of them in front of the dwelling-house; and a compact group of ten on the garden-path suggested the idea that I should try and throw my handkerchief over them. Another, but more unusual locality, has been a dry swamp not far from the woods.

I have not yet observed it on the open plains, as frequently occurs with Zenaida maculata.

Only half-a-dozen nests have actually come under my notice, but some of them present special points of interest. For example, the period ranges from 23 August, when, in bitter cold weather, I was amazed to find a bird sitting on two eggs, up to the end of December. Further, I have observed fully-fledged young, not long from their nursery, on such far-apart dates as 21 November and 8 February. My first nest was not obtained until 1895, or twenty-one years after I took up residence at the Yngleses; and the remainder at long intervals up to 1916, when I myself was only a visitor. These nests divide themselves into two distinct forms-either a few feathers are placed upon an old nest of, say, the Mocking-bird (Mimus modulator Gould), or the Guira Cuckoo (Guira piririgua Vieill.) in a thick "Quebrachillo" or "Coronillo" tree, six or eight feet from the ground; or, a special structure in a small "Tala" or other tree with no attempt at concealment, and at a similar height. I transcribe the following notes regarding one of Tala tree on the confines of a wood. So like in appearance to that of the Black-headed Siskin (Chrysomitris icterica Licht.) and so unlike a Pigeon's, that, in spite of the bird flying off, I could hardly believe in the fact until I saw the eggs. The nest was small, rather deep, built of rootlets and fine dry grass, and copiously lined with feathers of the parent birds. By an odd coincidence, its discovery was due to my firing at the moment at a fine specimen of its big congener, Columba picazuro, 'the first seen for a long time.'" The preceding incident took place in 1901, and the concluding remark in my journal would seem to be a prophetic anticipation of the transposition of the two species to which I have drawn attention in the present paper, the spread of Columbula picui and the decrease in Columba picazuro.

The pure white and oval eggs show very little variation in size and shape, averaging 24×17 mm.

1920.]

364. Engyptila chalcauchenia Scl. & Salv. Solitary Pigeon. Iris yellow; bill black; feet pink, inclining to magenta.

Claude Grant's statement regarding the occurrence of this species ('Ibis,' July 1911, p. 466), in which he says:---"I have an adult female from Ajó collected by Miss Runnacles in September 1909; this is the only example recorded from the locality," caught my attention, and led me to watch for any recurrence during my following visits to the Yngleses. Accordingly, on the 14th of March, 1914, I recorded a pair observed on one of the garden-paths. And the following day, a most stormy one, on crossing the patio to the office, I found lying in front of the door a very fine specimen, quite dead, but still warm. It seemed to me a rather comical if sad instance of self-assertion.

It has been borne in upon me that the species is not so uncommon with us as might be supposed. As a woodinhabitant—our woods being dense and with much undergrowth—it might easily be confounded with the innumerable individuals of the Spotted Dove (Zenaida maculata Vieill.), in spite of its larger size. And I have little doubt that in my former ignorance I had assumed it to be the latter, possibly in immature plumage. Abundant, I think, it cannot be, or Claude Grant would not have failed to gather it in himself.

369. Rallus maculatus Bodd. Spotted Rail.

With the exception of the Black Rail (*Rallus rhytir hynchus* Vieill.) my knowledge of the Rails and Crakes in our district is of the most limited description; nor is it likely to be otherwise, in view of the topical conditions. Mr. Hudson alludes to their "abundant supply, for which Nature has provided the more swampy districts of the pampas"; but I have never found them here in proportion to the vast areas of swamp and grass-coverts, esparto, pampa-grass, and "junqu'ille negro," which I have described in the preface to this paper. 1 make all allowance for their semi-nocturnal and rat-like habits, by which they evade the notice of the horseman, or the gunner on foot unless accompanied by a dog; but I continue to maintain my thesis of their general rarity. Perhaps the most striking example is that of the Ypecaha Rail (Aramides ypecaha Vieill.), that large and handsome species, which Mr. Hudson refers to as "ranging as far south as the thirty-fifth parallel of latitude, and abundant along the marshy borders of the Plata, where it frequents the vast reed-beds and forests of water-loving Erythrina cristagalli"; and which he follows up with one of his characteristically descriptive accounts of the bird and its eurious ways. Well, to judge from my experience, it would seem to be entirely unknown in our locality. I have never seen or heard it, nor have the natives ever mentioned it to me.

After this digression, it will not be a matter of surprise that I only record two occurrences of the present species (*Rallus maculatus*). On 20 December, 1898, I shot a specimen—now in the Dresden Museum. In connection with this individual, of which I note the feet as "red," it is to be observed that Sclater and Hudson's plate correctly reproduces the colour, whilst by a clerical error the letterpress makes use of the expression "pale brown." The other bird was brought to me on 8 November, 1913, too much mangled by a dog for preservation.

370. Rallus antarcticus King. Antarctic Rail.

Iris reddish; bill dark crimson, darker above; feet yellowish.

The only entry in my diary refers to an occasion when, on 24 July, 1899, I observed two specimens, separately, of this species. I was riding in the Rincones at the time, which, that winter, were flooded by rain-water coming from the interior. On the Ysla de Gonzalez in a flooded "espartillar," we put up a Rail, naturally unable to adopt its usual tactics of skulking away amongst the covert. Twice it flew a short distance; then, hotly pursued, dodged about on the surface of the water, but without attempting to dive until disabled by a lucky whip-cut. The specimen, a very fine one, now reposes in the Buenos Ayres Museum. The other bird, seen that day under similar circumstances, made good its escape. 1920.]

371. Rallus rhytirhynchus Vieill. Black Rail.

Adult male and female. Iris vermilion or blood-red. Bill bright green, varying to strong dark green, with bright scarlet spot at base, and pale or bright blue forehead. Feet ranging from pink or salmon-colour to red and dark crimsonbrown. These colours are all paler or duller in young birds.

This species is resident and common, more so in some years than others. In 1899 I collected half-a-score specimens between 27 February and 30 October, showing that they are seldom migratory in our district.

Though generally shy and difficult to flush, the Black Rail can, as Claude Grant says, "be easily procured by waiting" (he might have added "at dusk, by the edge of the swamps"). When the observer is quiescent, or the birds have been accustomed to his watching them, they become remarkably tame. This species walks in a quick jerky manner, with head and tail very erect, stopping at intervals and keenly alert; when alarmed or surprised on these occasions, it generally rises, and after a short flight drops into the deeper part of the cañada. Hudson has fully described its vocal In the flesh it is a beautiful bird (I do accomplishments. not allude to its ungainly flight); but when the brilliant hues of the eyes, bill, and legs have departed, and the lifegloss gone out of the deep slate plumage, the cabinetspecimen presents a poor and dull appearance.

A drought is more suitable to the Black Rail than a superfluity of water. I noted it as "very abundant in the summer of 1903-4, though little water in swamps." The converse is borne out by the following memoranda from my diary :---"27 October, 1913. On railway journey from Buenos Ayres, when between Guido and Segurola stations, three Black Rails seen at close intervals: flew out of the densely-weeded railway embankment as the train passed, the country being flooded to the horizon on each side.---20 March, 1914. The preceding seem to have been the only individuals observed during the six months' visit. Great flood." On 30 August, 1915 (having been in England in the interval), I write: "Flood still in evidence. Curiously enough, on same railway journey and as nearly possible the same locality, two pairs of Black Rails were flushed, as I half-expected.—31 October. None others seen during my two months' visit to the Yngleses."

Hudson finishes his descriptive account without any allusion to the nesting-habits of the species, and Claude Grant is equally silent on the subject. I, fortunately, am able to fill up the omission, various nests having come under my observation. The season would seem to be the first half of November. Only one nest was situated in a cañada, where it was placed in the middle of a clump of "juncos"; it consisted merely of a bed of dry rushes lined with finer stems of same. The favourite locality would seem to be where, on certain sandy districts of the Yngleses and Tuyu estancias, there occur clumps and jungles of the "junquillo negro," bordering swampy hollows and cañadas of more or less extent ; and in such situations I have taken as many as three nests in one day. My first find (which only took place after eleven years' residence at the Yngleses) is sufficiently applicable to all the other cases :--- "Placed in an isolated and thick clump of junquillo negro about two feet from the ground. Only a bed of dry grass (with a mouse's old nest for foundation !). The bird (male) sat so close that I endeavoured to take it with my hand; then it reluctantly slipped down through the bush, and I shot it as it emerged at the base and took to flight."

Four is the general clutch, five the exception. The eggs are of a pointed oval form. The shell slightly glossy; of a whitish cream-colour with small well-defined spots of reddish brown scattered sparingly over the surface, but more frequent at the larger end. They measure from 41 to 45 mm. in length, and from 32 to 32 mm. in breadth.

375. Porzana salinasi Philippi. Spot-winged Crake.

Iris bright red ; bill black ; feet grey.

My only record of the occurrence of this species consists of two skins collected for me on 17 September, 1899. They were reported to be both females (which seems doubtful, if they were procured on the same date). My informant had further noted that their food consisted of insects, seeds, and marsh-weeds. These specimens went to the Buenos Ayres Museum, where the late Dr. Berg told me the species was "rare."

377. Porphyriops melanops Vieill. Little Waterhen.

Iris red; bill bright pea-green; feet olive-grey, slightly inclined to green on front of tarsus.

The Little Waterhen is a summer visitor, appearing about the middle of September, and leaving towards the end of March. Generally speaking, I would call it decidedly uncommon, to judge from the paucity of entries in my diary. The one exception, dated 16 September, 1913, reads as follows : "A few seen, whilst on railway journey from Buenos Ayres to Dolores. Great flood." Then, a week later, on repetition of the same journey : "An extraordinary number of Little Waterhens observed, swimming or flying away from the vicinity of the line as the train crawled along the almost submerged embankment. Quite the most abundant of all the aquatic family." Yet I found none of these at Ajó, indeed I only chronicled one individual on the Yngleses during my ensuing six months' stay there.

I have not many instances of its nesting with us (only some three all told), but they will serve the purpose. The nests were placed in cañadas amidst water-grasses, not rushes, and were built of dry grass, or the rootlets of water-weeds; rather small and very neat. Two were taken on the 15th and 16th of November, with two and four eggs respectively. A later one, on the 4th of December, contained a clutch (much-incubated) of four.

The eggs are of a blunt oval form; the ground-colour brownish-buff, marked and blotched with purple, and covered with spots and specks of a rich chocolate-brown, most numerous at the broader end; some specimens show twisted lines of dark brown. They measure from 38 to 43 mm. in length, and from 28 to 31 mm. in breadth.

378. Gallinula galeata Licht. American Waterhen.

Adult male. Bill and frontal shield bright scarlet, like nothing so much as sealing-wax, tip of bill yellow. Legs and feet bright pale green, at base of tarsus a scarlet band nearly half-an-inch wide; claws horn-colour.

Adult female. Similar to male, but the scarlet band at the tarsus becomes only a scarlet spot or mark, situated behind, and not more than an eighth of an inch deep. The preceding notes are from a pair in full nesting plumage (2nd December).

The American Waterhen may be, or may not be, common in our locality. I confess, honestly, that among the multitude of individuals it is difficult to differentiate it from the Redgartered Coot (Fulica armillata Vieill.) and the Red-fronted Coot (Fulica leucopyga Hartl.). If it is borne in mind also, that all three are possibly mixed up with myriads of the Yellow-billed Coot (Fulica leucoptera Vieill.), which is a confident and easy-going species, whilst the others promptly disappear amidst the rushes on being disturbed, it will be more readily understood how the observer is liable to be at fault as he strains his eyes for the points of identification.

I was fortunate enough to procure the nest along with the parent birds referred to at the beginning of this notice. It so happens that amidst the sandhills and scattered woods of the Yngleses head-station, there lies a deep pool and a marsh (two or three hundred yards square, according to the season); one-third open water, the remainder a jungle of rushes, flags, "durasnillos," and water-plants, intersected by two or three waterways. Ten years ago I formed this into a sanctuary by enclosing it with a strong post-and-wire fence, leaving only as much of the clear water as was necessary to water some of the cattle. Within the enclosure I kept a small canoe, available for exploration of the reedbeds or as a vantage-point for observation. The locality. though only ten minutes' walk from my house, was removed from the frequented approaches to the head-station; and my people were given to understand that it was immune from disturbance or any gunning except my own. It will be readily imagined how, under these circumstances, the natural covert attained an unusually favoured and luxurious growth; where the feathered denizens or visitors became of a singularly interesting nature — an aquatic aviary in short on a large scale, open to the sky, and visited by constantly recurring novelties or rarities. Also, the isolation of the said "Charco" or pond (for it is situated about a mile from our swamp-land proper), and its limited area constituted it a world by itself, where observations could be taken with some degree of accuracy.

Here, early in November of 1913, I located a pair of the American Waterhen. Previously, on 11 October, I had taken a nest of the Red-gartered Coot (Fulica armillata Vieill.) with a fine clutch of ten eggs, and shot one of the birds ; after which the other abandoned the locality. Subsequently, when I took the Waterhen's nest, there were also nesting two pairs of the Yellow-fronted Coot (Fulica leucoptera Vieill.), but these were productive of no confusion. A pair of the Thick-billed Grebe (Podilymbus podiceps Linn.) furnished me with the welcome and novel discovery of their breeding-habits in the shape of my first nest. Nesting also was that curious bird, the Southern Courlan (Aramus scolopaceus Gm.); and I was enabled to watch its interesting and grotesque habits at first-hand. Of all the other numerous species of waterfowl and reed-birds I need say nothing. beyond mentioning a pair of the beautiful black and flamecoloured Marsh-birds (Amblyramphus holosericeus Scop.) which were haunting the tops of the rushes, their flute-like notes indicative of a nest which never materialised.

For the moment, however, the Waterhens had the first place in my regard; and on the 9th of November I located their first nest. This was situated at the edge of a small bed of juncos near the fence, in rather deep water, and about twenty-five yards from the Courlan's. It was built of green water-weeds, circularly intertwined, not an untidy structure like that of the Yellow-fronted Coot, and consequently the eggs were comparatively dry. It measured about a foot in diameter, and the slight depression for the eggs half as much across; it rested on the surface of the water, above which it rose some three inches, and was held in place by the surrounding juncos. On the said date there were two eggs, which I left. Both birds were observed at the time, remaining away on the far edge of the shallow swamp outside the fence, and on the whole very silent and indifferent to my presence; one indeed approached to within forty yards of the canoe, where, resting amidst the water-weeds, it preened its feathers unconcernedly, until a Courlan flew along and perched in an ungainly fashion on a post of the fence just over its head, when the Waterhen scuttled away with a musical little cackle of protest.

On the 16th of November, I was chagrined to find the eggs gone, though the birds were still about. On the 27th, however, I found a new nest (the birds themselves not being visible) with three eggs. These, again, I left until the 2nd of December, when, the clutch numbering seven, I took possession of them, and they proved to be slightly incubated. On this occasion I had given up all hope of getting even a glimpse of the parent birds, when, on once more standing up in the canoe, I espied the male on a little adjacent island in company with a Yellow-billed Coot. I shot it, and subsequently secured the female, on the opposite side of the charco in clear water beyond the fence. This nest was situated in the larger, but opener, rush-bed. It was built of dry junco stems and lined with green water-weeds ; not at all an untidy structure ; it was about five inches high, thirteen across the base and ten at the top; with a neat hollow for the eggs, six inches across and two deep.

The eggs were of a warm greyish brown ground-colour, speckled with red-brown, and with larger and stronger mottlings of same, the latter increasing towards the blunt end. Two of the specimens had a very few brown streaks; and equally scarce were some faint sub-surface pale lilac spots.

The eggs vary in measurement from 49×32 mm. to 46×32 mm.; general average 47×32 mm.

If I have been over-diffuse regarding the nesting-habits of the American Waterhen, my excuse must be that it and

1920.] Cape San Antonio, Buenos Ayres.

the three Coots have caused me endless trouble for many years, before arriving at what I take to be their proper identification, an annoyance which I would wish to spare other observers and collectors.

379. Fulica armillata Vieill. Red-gartered Coot.

It may be assumed that the Red-gartered Coot is fairly abundant in our district. The difficulty is to separate it from the next species, the Red-fronted Coot (Fulica leucopyga Hartl.) in its usual haunts; and still more so the differentiation of its general and nesting-habits as distinguished from the latter. At a distance, both present a bill of strong scarlet and yellow; whilst, on the other hand, the markedly distinct colour of the feet is hidden under the water. Except when nesting in some particularly isolated situation, the Red-gartered species is shy of observation, and promptly disappears amongst the rushes; and it haunts the deeper swamps in preference to the more open waters. The only cry with which I associate it is a sharp note or whistle of alarm when the observer is in the vicinity of its nest, but even then the birds may put in no appearance at all : indeed the latter is almost invariably the rule.

Some half-dozen authentic nests, of which no less than five were taken in 1913 (three in the one day), vary in date from 11 October to 2 December; the bulk being towards the end of November. A couple of these were secured with the parent birds; in the other cases the occupants were not seen, and only occasionally heard amongst the surrounding rushes. The preferable situation would seem to be just within the junco covert, adjacent to open water, and in the deeper cañadas or cañadones; two, however, were outside the rushes proper, amidst the water-weeds. The materials used are either dry junco stems, lined with finer fragments of the same; or various water-grasses, also lined with their broader leaves and other green stuff; but all fairly dry. A slovenly structure is exceptional; it is generally well built with a depression varying from saucer- to cup-shape. Height above the water some four to six inches; generally twenty

inches across the base, and ten to fourteen at the top; the diameter of the cavity seven to ten inches. Two of these nests contained eggs (two each) of the Rosy-billed Duck (*Metopiana peposaca* Vieill.); one was also infested with a colony of the pugnacious red ant. The clutch is most irregular; one of five was much incubated; another of ten slightly so; whilst a third of nine had a mixed assortment, some being much incubated and others nearly fresh.

The eggs are of a greyish-brown ground-colour, spotted with violaceous (sub-surface) and dark red-brown marks, the latter rarely of a large size. They present much variation in shape and measurements, even in an individual clutch. The average of some fifty specimens gives us 55×38 mm.

380. Fulica leucopyga Hartl. Red-fronted Coot.

Male. Bill bright yellow with scarlet spot at base and scarlet frontal shield; feet olivaceous.

Female. Bill and frontal shield scarlet, tip yellow; feet olivaceous.

In both sexes the scarlet occasionally becomes deeper red or dark crimson.

My general remarks on the Red-gartered Coot apply equally to this species. The Red-fronted Coot also, as compared with the ubiquitous Yellow-billed Coot, is a minor quantity. It is of similar habits to the first-named bird, a frequenter of the shelter afforded by thick belts of rushes in the deep water. During the first part of our last great flood, from the middle of September to the end of March, 1913-14, I only chronicled a few individuals. In September of the following spring (1914), under similar conditions, I occasionally detected one amongst the Yellow-billed flocks, "perhaps one in thousands." Later on, at the beginning of November, having occasion to leave the Yngleses, and land travelling being impossible, I went down by boat to the neighbouring town of Ajó (sailing in places over my wire-fences!), and there hired an available nafta-launch for the purpose of proceeding up one of the large drainage-canals to the nearest railhead. The said canal (of great width) had its capacity increased by the excavated earth being embanked fifty yards back from the edge on each side; and in abnormally wet seasons, not only was the canal itself full, but this no man's land also, or at least a jungle of water, mud, and rushes. It can be imagined, therefore, what an ornithological panorama unfolded itself to my eyes during the long journey of fifty or sixty miles, surely as lonely as one of our great cañadones. An occasional shanty at the greater side-sluices, and perhaps once or twice a horseman silhouetted against the sky as he picked his way along the outer embankment which shut in my view, were the only indications of human life from early morning to nearly sundown. Beyond on either hand, but hidden from me, was, as I knew, the flooded pampas; in front and behind stretched the lane of water and rushes to the very horizon. The number and variety of Waterfowl was extraordinary; and these, taken by surprise as the smooth-running and noiseless launch slipped through them, either gave way or dived (it was comical to see such birds as the Cormorant and Great Grebe, busy with their avocations, dive hurriedly at almost arm's length, to re-appear astern in an utterly demoralised condition); or hurriedly flew and scuttled into the adjacent covert-few passed over the embankment. Amidst many notes I took, was the census of the Coots. The Yellow-billed kind was uncountable ("in myriads"), and of course unmistakable. The other two species, under the above circumstances, could not escape identification, and I jotted down twelve of the Red-fronted birds. The largest of the family, the Red-gartered Coot, did not furnish a single individual.

The one note I have heard produced by the Red-fronted Coot, when one happened to souse into the water near me, consisted of a cackling laugh.

Seven authentic nests (all taken in the year 1898), date between the 2nd and 20th of December. These were generally of slight structure, but cup-shaped; and placed in the shelter of the rushes. The material used was almost invariably dry water-grasses. The clutch ranges from four to seven, the majority being of six. The ground-colour of the eggs varies from a light cinnamon or pale buff to a warm or rich buff. It is speckled and spotted with red-brown and mauve, partly underlying; super-imposed again are larger red-brown spots or blotches, heaviest towards the blunt end. They are very uniform in size and shape, and average 53×38 mm.

381. Fulica leucoptera Vieill. Yellow-billed Coot.

Iris red, or dark-red.

There is apparently some confusion in Claude Grant's notes on the three *Fulicæ* ('Ibis,' July 1911, p. 462). Under *Fulica armillata*, he says: "All three species of Coot (*F. armillata*, *F. rufifrons*, and *F. leucopyga*) are found in the Ajó district, though no specimens of the last species were obtained. On all the swamps Coots simply swarm." But he actually follows *F. armillata* with *F. leucopyga* itself (of which there are four specimens), and the statement that "it is the commonest of the three Coots".

In the claim to abundance, the Yellow-billed Coot (F. leucoptera) admits of no rivalry. But it is when feeding on the low shores, and at a considerable distance from the water, as described by Hudson, that it frequently amazes the beholder by the magnitude of its flocks. In the vicinity of the Laguna Milan I have seen the plain black and absolutely hidden by such an assemblage, extended over many acres; while in the wild rush and flight back to the water, on being disturbed, the birds seemed actually to be touching each other. (In parenthesis :- A few years ago, during the great flood, I knew the manager of a neighbouring English estancia, who wrote to his town-agents in great distress bewailing that the enormous number of Coots were depleting of grass such area of grazing-ground as still remained above "the face of the waters." I am afraid that on my advice being asked as "a man who knew something about birds," I was credited with levity and altogether deprived of my high estate, when I suggested that the only saving measure was to "round-up" and pluck the Coots in lieu of shearing the harassed sheep !) On the water, if alarmed or surprised by the sudden appearance of an intruder, they scurry along the surface as mentioned by Hudson, until removed from danger. Given a large laguna on one of these occasions, with its customary quota of Coots, the water is broken into a sheet of foam, and the noise produced becomes a startling roar, where previously had reigned the most peaceful quiet.

I agree with Mr. Hudson that it is when the bird is swimming about concealed among the rushes that the notes are most heard. The listener, if quiescent in a canoe, is surrounded by the weird and sometimes sepulchral chorus of cries and laughter in varying tones, with an occasional rattle of the juncos or dash of water as the birds pursue each other; he knows that probably watchful eyes are upon him, but he himself never catches a glimpse of his cerie neighbours, though fully aware of their immediate proximity.

From the middle of September to the middle of December is the extent of the nesting-season. When floods are out and the lower lands adjacent to the cañadas covered with shoal-water and water-weeds, the Yellow-billed Coot makes no attempt at concealment but builds freely in the open, entirely disdaining the shelter of rush and reed-beds. Often the nests are close together, four or five within a short radius, but in any case they are so numerously dotted over the large suitable expanses that an hour or two in a canoe will produce a fishing-basket full of eggs. These nests at first are only floating platforms of wet water-weeds, slovenly put together, and so low that (except for its immobility) the sitting-bird is hardly to be distinguished from those swimming in the vicinity; but as time goes on the nests are added to, and become drier and more shapely. On being disturbed the parent birds remain at a considerable distance, and only give utterance to an occasional croak. In normal seasons the nest is situated at the edge of a rush-bed, either on the confines of the swamp or a pool of the same; the structure is then composed of rushes or water-grasses, with more pretensions to design and solidity, and with a little dry lining.

Hudson gives the number of eggs as ten or twelve. But I SER. XI.—VOL. II. E have only twice taken even as many as eight. Clutches of five or six were generally considerably incubated. The ground-colour is of a greyish brown, with specks and small spots of very dark (almost black) reddish brown, which are evenly distributed over the whole surface. There is much and considerable variation in the size and shape, particularly as regards eggs of the same clutch. The average measurement of a large number is 48×33 mm.

I have alluded to the confusion produced by the great similarity (in the flesh) of the American Waterhen and the three species of Coot; and have in the preceding notes detailed, to a wearisome extent, the description of their respective nests and eggs. But there seems to be no infallible standard for the situation and structure of the former; and the latter vary so much in size and coloration as to run all the species into each other. Were all my specimens mixed together, I should be unable to identify them except by their reference-numbers; and it is only by laying the component clutches of the four species in juxtaposition that I am able to deduce general considerations as follows :---

- Those of FULICA ARMILLATA (av. 55×38 mm.) are the largest. Warm in colour and boldly marked.
- Those of FULICA LEUCOPYGA (av. 53×38 mm.) are so similar to the preceding as only to be distinguished by their smaller size.
- Those of FULICA LEUCOPTERA (av. 48×33 mm.) are cold in the ground-colour and darkly speckled. Typically Coot-like, and much smaller than the other two.
- Those of GALLINULA GALEATA (av. 47×32 mm.) closely resemble the first two, but are more richly warm in the ground-colour; the markings are of a more vivid red-brown, with a greater tendency towards the blunt end.

382. Aramus scolopaceus Gm. Southern Courlan.

The "Viuda loca" or "Mad Widow" I described in my former paper ('Ibis,' 1880, p. 161).

1920]

Hudson, in 'Argentine Ornithology,' when dealing with the mollusk which forms its subsistence, evidently refers to a bivalve which is unknown to me. The exclusive food of the Courlan in our district is the abundant and large watersnail (*Ampullaria canaliculata* Lamarck), already mentioned by me as similarly constituting the sole sustenance of a bird of a very different family, namely, the Sociable Marsh-Hawk (*Rostrhamus sociabilis* Vieill.).

From the beginning of the great flood in the middle of 1913, and during all its continuance, the Courlan was extraordinarily abundant. Though not gregarious in the strict sense of the word, certain situations in which the food-supply was evidently particularly favourable seemed to draw large numbers together in groups up to half a score. In a small submerged "durasnillal" between the headstation woods and the cañada proper, I put up some fifty or sixty one day in March of 1913. These "rose like a flock of Ibises, but sombre and uncouth in appearance; about twenty of them perched on the very tops of adjacent Tala trees, where they looked if possible even more ungainly and weird than when on the wing." Only a week previously, when riding out at sunrise near the above locality, I found about thirty Courlans still roosting in a clump of willow trees at a bridge, in company with a large number of the Dark Night-Heron (Nycticorax obscurus Bp.) and the Sociable Marsh-Hawk (Rostrhamus sociabilis Vieill.); the first-named slowly abandoned their perches and flew down the cañada, whilst their associates scattered generally in a similar leisurely manner. The same afternoon, returning home lower down, I put my horse through the so-called "Estancia pass" (myself atop the "Chaja's" nest), and found a Courlan's nest amongst the rushes at the very edge of the pass, midway. The young, jet black, were hatching out, and as I endeavoured to steady my horse for a moment they proceeded at once to scramble over the edge of the nest, which was low down in the water. The date, 24 February, seemed very late; corresponding to the end of summer. The perching-habit of the Courlan is, so far as our district is

concerned, a very unusual trait ; previous to the introduction of wire fences I had never seen an instance; and of tree-perching the above two are the only cases chronicled. In its composite character this bird only looks its best when it is itself, i.e. as a Rail; when it poses as a Crane it is a failure. It walks and runs not ungracefully in the former part; but as an aviator it must either have forgotten or never learned the latter's vocation (see Hudson's and my own description of the flight), whilst it looks quite out of place in a tree. The wild shricks which give rise to its vernacular name of "Mad" or "Crazy Widow," are generally produced at any hour of the night, as the Evil Spirit moves it; but occasionally may be heard late in the afternoon. Should the observer be in the vicinity of the nest the disturbed bird frequently utters a short grating double-note; whilst, if visible, it will be seen to move about on the ground, with jerkings of the head, body, and tail, or crouch down and raise itself repeatedly.

The nesting-period is more extended than I previously stated, ranging from the middle of August into January and to the end of February, but mostly falling in the first A total of a dozen nests in the course of half of December. forty years is not much to boast of, but it is all the number my diary records. One explanation is furnished by the almost invariable situation in the deepest of a cañadon, and where the junco is thickest; consequently, the horsemanfighting his way anxiously and painfully through the dense covert-is very apt to overlook the none too obvious structure, the materials of which, along with the eggs, harmonise most completely with the surroundings in colour. Only in the "Charco," or small laguna I have previously described. has it been in my power to conveniently examine a couple of nests from the comfort and ease of a canoe. These, thoroughly typical of the usual construction, were placed amongst the reeds or rushes (by which they were supported and sustained) in the shape of a platform resting on the surface of the water. Built of the same materials in a dryform, and rarely with any finer lining, the height is only a few inches above the water, and the shallow receptacle fourteen to twenty inches across. Needless to say, the bird always leaves or approaches the nest by flight, not by swimming or wading. The Courlan is much victimised by the Rosy-billed Duck (*Metopiana peposaca* Vieill.); one of my entries mentions a nest containing six eggs of each species; another refers to there being two only of the rightful owner, and no less than twelve of the Duck.

Mr. Hudson puts the clutch as high as ten or twelve. Ι have never known it to exceed seven ; and even five may be incubated. The large eggs are rather round or elliptical in shape. Two typical sets of six and seven respectively vary as follows in appearance :- First clutch of a dull white groundcolour, marked with spots, blotches, and streaks of pale brown and purple, becoming confluent at the blunt end; all the eggs having also a general floury appearance. Second clutch pale brown or buff in ground-colour, with strongly marked large brown and violaceous blotches, and some bold brown streaks, all increasing and becoming larger towards the blunt end; none presented the floury or powdered covering. (N.B. The latter curious effect, though not uncommon in some clutches, is by no means universal.)

There is little variation on the whole in the size of the eggs, the average measurement of which is 59×45 mm.

385. Parra jacana Linn. Common Jacana.

The Jacana—which I have seen in conjunction with the Victoria Regia water-lily in the backwaters of the Parana river at Asuncion in Paraguay—is not only a rare visitor to the Ajó district, but, like the Brazilian Teal, is entirely confined to years of exceptional floods.

Mr. Hudson gives a full description of the species and its habits in words worthy of his dainty and charming subject. For its pictorial delineation, I think only a Japanese or Chinese artist could render the necessary justice.

The flood of 1877 (subsiding in the early summer) did not

bring the Jacana to my notice, nor did the equally brief one of 1884. It required the two-years' inundation of 1899-1900 to furnish me with my first record, i.e. after 28 years' residence. My attention was then drawn by one of my observers to an "unknown bird" which had made its appearance at the end of August 1899, on the open flooded land at the north side of the estancia. By the description given me of the stranger, and the way in which it ran about over the aquatic vegetation, I had no hesitation in judging it to be a Jacana; a surmise which was confirmed when the said observer and myself saw the bird again in the same locality two months later, and we then came to the conclusion that it also had a mate and nest in the vicinity. The ensuing winter (of 1900) a roughly prepared skin was brought to me from a locality on the coast, somewhat to the south of the Yngleses.

Ajó and the Yngleses knew the species no more for over a dozen years; when, as was to be expected, the three years' record flood of 1913-15 brought it to the fore once more, to my great gratification. From the end of August to the end of March seemed to be the duration of its stay each year, and there is little doubt of its nesting. It was also observed ("various individuals") on the neighbouring estancia of Las Violetas. On the Yngleses it was much localised, preferring the great open expanses free of rushes but covered with shallow water and surface vegetation of the "camalote" and duckweed nature. It could not by any means be called abundant; generally one was seen at a time, and on a certain red-letter day two pairs and an odd bird were observed on the western side of the estancia, not far from the Coscoroba Swans' nesting sanctuary. On the occasion when I navigated the great canal between Ajó and Santo Domingo, 3 November, 1915, the number counted was nine, consisting of two pairs and five single birds; but the conditions were exceptionally favourable.

The flight is low, swift, and straight, but not prolonged. Then, as also when they raise and stretch their wings, preparatory to flight—or for apparently the mere exhibition of 1920.] Cape San Antonio, Buenos Ayres.

their loveliness—I could imagine them to be fairy waternymphs, assuming the appearance of birds for the nonce, to deceive and mock the mere human observer.

I have never heard them give utterance to any note or cry.

On 1 September, 1915, I found that a pair had taken up their abode in the small "charco" or pond close to the horse-corral, between which and the garden of my private house ran the road to the head-station (as public and frequented a position as could well be imagined). They undoubtedly nested; though, from want of time, or because I could not bring my heart to disturb them, I never verified the fact. They did not seem to mind the traffic on the adjacent roadway, only flying a short distance to the other side of the pond when directly approached by myself or another horseman. The pair presented much discrepancy in size; the larger, and which I took to be the female, was rarely seen after the presumed incubation had set in; previous to the end of October the pair had gone, and doubtless taken their brood (which I never saw) with them. Regarding the above-mentioned difference in size, I find it noted that of the five single birds observed on the canal on 3 November, four were small (males?) and one large (female?). This point again supports the previous assumption that the missing individuals were females, engaged in the act of incubation. I should much like to have this matter determined, as the facts were strongly impressed upon my mind.

386. Vanellus cayennensis Gm. Cayenne Lapwing. Vanellus grisescens Prazak.

Though I have retained the former nomenclature, the correct placing of our Argentine species is undoubtedly the latter, as pointed out by Claude Grant ('Ibis,' April 1912, p. 274).

Besides my former notes ('Ibis,' April 1880, p. 161), there is now on record Mr. Hudson's far more complete account of the habits of this species. And it is with a mixed feeling of admiration and humiliation that I draw attention to his interesting and accurate description of its sociable interchange of visits for the purpose of amusement or play a wonderfully systematical performance, as punctilious in the details as any set of quadrilles. Truly, to one human being is given the gift of distinguishing and co-ordinating what his visual sense observes ; whilst another only sees a meaningless coming-and-going of the actors in the scene, conveying no signification to his dull mind !

A winnowing-out of my diary affords material for a few more remarks regarding this most familiar bird and the Pampas, of which it might be said that to one acquainted with them both, they are the natural concomitant of each other, and that it would be almost as impossible to mentally recall the "Terú-terú" without the Pampas, as these plains deserted by the "Terú-terú."

Moisture is one of its desiderata, and an open outlook another; hence it does not like the giant-grass coverts of the original pampa. But, to take a case within my own cognisance, when General Roca's expedition of forty years ago incorporated in the State an area of 15,000 square leagues of Indian territory known as the Pampa Central, and this vast and lonely country came under the development of the settler; then—wherever a rancho was built and a well dug, with the natural treading-out and grazing-down of the giant grasses and the formation of an open patch of sward—came from out of nowhere, a pair of the "Terúterú," to be the companion and watchful associate of man, as much a creature of the new creation as the half-dozen poultry or the house-dogs.

Drought has naturally a bad effect on these birds, which, as Hudson states, are little given to migration or the shifting of their life-quarters. But when to this is added a winter of, say, great and continuous frosts, the mortality is distressing; under the double scourge of no water and a frost-bound soil, the unhappy Lapwings get thinner from day to day, and ultimately die of inanition. I have also known our severe hail-storms to be productive of many casualties; the closely grazed pastoral plains affording no shelter against missiles the size of hazel-nuts and upwards. On the other hand. flood-seasons favour the Terú-terú's scheme of life, and it flourishes accordingly. For example, I was amszed in the last great flood to find several pairs standing about on masses of floating vegetation in the very heart of our deepest swamps on the western side of the estancia, in default of terra firma. They did not nest there of course; but elsewhere every tiny islet-if only a ruined and deserted ant's nest-had its occupants with their "scrape" or mound of vegetation, and their mud-stained eggs; whilst they also occupied small openings amongst the woods, or nested within a few yards of the busy shearing or dipping corrals, their abundance being so great that after the spring of 1914 I find myself writing how "I do not pine to see Lapwing eggs on the table again for many a long day !" As an instance also of their tameness or familiarity with man at that time, is the following example dated 5 February, 1914: "Was much surprised to see a pair in the head-station patio in the middle of a hot day. It is true that, being the siesta-hour, everything was profoundly quiet, but nevertheless the occurrence is unique."

The eggs have been described by Hudson and myself. They are so similar in size and appearance to those of the Brazilian Stilt (*Himantopus brasiliensis* Brehm) as to be inseparable. Taken as a whole, and studying a very large series of both species in juxtaposition, I find that the Lapwing's are lighter in ground-colour, and the Stilt's has the markings much larger and stronger.

Those of the Lapwing average 46×33 mm., the largest clutch being 47×34 mm., and the smallest 45×32 mm. The Stilt's general average is 45×33 mm.; the largest clutch 47×33 mm., the smallest 44×32 mm.

387. Charadrius dominicus Müller. American Golden Plover.

The earliest appearance in our district of this migrant is the 10th of September, and it remains until the end of February or the first week in March. It is most abundant with us in dry seasons, and prefers the open plains, though it also may be found on marshy ground or in the vicinity of lagunas. I have never seen the vast numbers alluded to by Mr. Hudson, flocks of perhaps one to two hundred being the limit of my experience. These are as a rule shy, at least to the man on foot. But on horseback I have approached closely to one such large flock, which, on being disturbed, only flew a short distance and settled down again close together, allowing me to walk my horse past at a very few yards' distance; and on looking back, I was interested to note that their similarity to the ground had made them practically invisible.

In former years I used to find the Esquimo Whimbrel (Numenius borealis Forst.) associated with this species.

The wild clear cry of the American Golden Plover is another of the familiar bird-notes connected with the pampas, and is equally dear to the naturalist and the sportsman.

388. Eudromias modesta Licht. Winter Plover.

The Winter Plover comes to us about the middle of April and would seem occasionally to stay so late as the end of September. Whilst Claude Grant speaks of it as common throughout the winter months, he adds: "usually singly." My own experience, like that of Hudson, is of a collective nature—in flocks varying from a dozen up to a very large number. With it is frequently associated the much larger and richly-plumaged Slender-billed Plover (*Oreophilus ruficollis* Wagl.). Both these species are very shy, scatter much in feeding, and run most rapidly, the latter bird particularly.

The sober garb and wild cry of the Winter Plover are in harmony with the season when it visits us, and together productive of a certain melancholy—the dull-coloured birds seen often under a heavy sky and the cry or note which speaks of the far-off and lonely Patagonian home. 389. Ægialitis falklandica Lath. Patagonian Sand-Plover.

Though this species is, properly speaking, also a winter visitor—arriving from the south about the end of April and leaving towards the end of August—yet a few pairs occasionally remain with us to breed, as I mentioned formerly in 'The Ibis,' April 1880, p. 163; hence the annotation in my diary during the summer months of various individuals, adults or young. These nesting cases are, however, exceptional: up to 1880 I chronicled four nests taken, since then only one, with the usual quota of three eggs; and two or three instances were noted, when the action of the adult birds undoubtedly indicated the vicinity of a nest.

In spite of Claude Grant's testimony to the abundance of the species, I have a feeling that the Patagonian Sand-Plover is not so abundant with us as formerly, and the surmise is borne out by my diary for many years past, the entries being often far apart and relating to individuals or pairs, with occasionally a small flock. Whilst generally affecting low marshy ground or the borders of lagunas and ponds, it is also to be found plentifully along the sea-coast (hence doubtless Claude Grant's conclusion, formed when he was collecting at Cape San Antonio and its vicinity); further inland a pond amongst sandhills is a favourite situation for a pair.

The last nest of my taking (28 October, 1885) was similar to those formerly described, a "scrape" with a few straws gathered into it, situated on a great mud-flat adjoining a swamp. The bird ran a few yards on leaving it and then crouched down.

The full description of the eggs, the full clutch of which does not seem to exceed three, is as follows: In shape a pointed oval. The ground-colour (devoid of gloss) varies from greenish grey to brownish buff, and is spotted all over with black, more pronounced towards the larger end. The measurements are from 36 to 39 mm. in length and from 25 to 27 mm. in breadth. 391. Oreophilus ruficollis Wagl. Slender-billed Plover. Bill black; legs pink or pale magenta; feet blackish.

This very handsome and interesting Plover comes to us from the south about the beginning of April and leaves towards the middle of August. It is a shy bird, equally swift afoot and on the wing, and is generally found associated with the Winter Plover (*Eudromias modesta* Licht.) in more or less considerable numbers. From the large size and extraordinary fatness of the species it is much sought after by the gunner. Fortunately, the visual power of the enormously developed eyes and the constant activity and unceasing wariness stand the bird in good stead. The scattered flock runs rapidly over the open plain, and on the slightest alarm takes to flight and removes itself to safety.

Only in the act of taking wing is the note heard—a rich clear "churr," dying down and out.

I would put upon record that the skin of the Slenderbilled Plover is one of the worst to deal with that I know. Apart from the great amount of fat, the skin itself—wet or dry—is as thin and delicate as tissue paper.

The species undoubtedly is King of our Plovers in size, carriage, and bold richly-coloured plumage.

392. Hæmatopus palliatus Temm. American Oystercatcher.

This Oyster-catcher is a most striking bird and not likely to be overlooked, either on the lonely Atlantic sea-coast (of which it is a permanent resident and the principal one) or on the cangrejales and salt-water lagunas of the Rincones. The Laguna del Palenque on one side of the Yngleses and that of Milan on the other limit its range inland so far as we are concerned; and when, in the flood of 1913-15, these —and indeed all the adjacent cangrejales—ran to fresh water, the species totally abandoued the latter haunts and confined itself to the sea-shore.

It is always found in pairs, is not particularly shy, and the call is a loud clear note, frequently uttered whilst the bird is on the wing. 1920.] Cape San Antonio, Buenos Ayres.

I have no knowledge of how and where the inland birds nest. But those of the coast are certainly late breeders from the beginning of December to the middle of January (though I have taken a chick, several days old, so unusually early as 8 December). The nest, or "scrape," is a mere hollow situated amidst shells and sea-drift some distance above high-water mark, from which the birds can dominate all sides except the sand-dunes in the rear. Hence it is more easily found when the observer appears suddenly over these and marks the sitting-bird as it takes to flight.

Like Claude Grant, I have never known the clutch to exceed two, and I would go further and mention instances of a single chick or one much-incubated egg.

These eggs are very handsome, and if from their protective coloration not particularly distinguishable *in situ*, show up prominently in a cabinet. The ground-colour is either of a pale yellow or warm buff, marked with purplish spots and large bold dark brown or black blotches with some streaks of the same; below the surface there are occasionally a few smaller pale mauve spots and markings. They are of an oval-pointed shape, and average 55×37 mm.

393. Thinocorus rumicivorus Eschsch. Common Seed-Snipe.

This Patagonian bird visits us in the winter, arriving about 20 March and leaving early in September. The flocks vary in size from half-a-dozen to fifteen or twenty; occasionally even separate pairs may be found.

A curious combination of the characteristics of, say, a miniature Grouse and a small Plover, the Common Seed-Suipe is most interesting in many ways; and accordingly Mr. Hudson details its habits and manners of life at length and with much accuracy. I would emphasise, moreover, his account of how a flock will crouch motionless on the ground and submit to the presence amongst them of an intruder, if supposed to be harmless. I particularly recall, on one occasion, how I had drawn bridle at a piece of rough ground and walked by chance into the midst of one lot. On stopping altogether and glancing down, I caught sight of one bird nestling a little closer into its shelter or the black eye of another regarding me sideways; while strange little notes of warning and suppressed excitement seemed to emanate from nowhere and pervade the air around me; otherwise the flock was quite indistinguishable from its surroundings. The contrast between the confident quiescence of one moment and the sharp alarm-cry and wild flight when the birds elected suddenly to take their departure was most striking.

395. Himantopus brasiliensis Brehm. Brazilian Stilt.

In his description of this species Mr. Hudson commits the clerical error of attributing an orange colour to the legs, though further on he alludes to them as red. The latter is the correct shade.

To my former notes and Hudson's fuller account I find but little to add, and that solely in connection with the nesting-habits.

At the time I wrote in 1880 I had taken but one or two individual nests (by which I mean isolated or solitary cases); indeed, since then I have not chronicled more than two other similar instances. Finally, but for the fact that I took all four personally, I would have questioned their identity: firstly, because of their similarity to the Lapwing (Vanellus grisescens Prazak); and secondly, because the Stilt nests in communities—a fact of which Hudson is either unaware or has forgotten to put on record. I saw the sitting-birds leave the four nests alluded to, and the latter were so situated amidst mud and water that the eggs had to be placed upon a bed of roots, samphire-stems, and decayed water-vegetation, which is a resource rarely adopted by the Lapwing.

Given the abundance and general distribution of the Stilt in our locality, and the suitability of the terrain for the formation of nesting-colonies, it is surprising that those that have come under my notice should be so singularly few. As the nest is in the open, and not of necessity in very retired localities, whilst the birds themselves are particularly conspicuous, it is not a question of overlooking them, either on my own part or on that of the numerous shepherds and peones, who are all aware of my interest in such matters.

The season ranges from the 12th of October to the end of November, during which time the eggs found may be either totally fresh or mostly incubated. In 1881 I found my first colony; eleven years elapsed before my next (1892); the season of 1899 revealed two separate communities; that of 1904 one; whilst the great flood-year of 1913 had no less than four to boast of.

As has been said, there is no particular attempt to select a specially sequestered situation for the colony, though on the whole the birds prefer a locality where there are few intruders and little traffic. Open marshy ground and a wide outlook form the principal desiderata, and on the islands thereof, or the small extinct ants' nests amidst the shallow water-or anywhere that gives an opportunity to establish themselves-the birds form their homes. These, if the ground is at all sufficiently dry, may be a mere "scrape," with but little lining; but, as a rule, the nature of the site necessitates the construction of a regular bed or nest of vegetable matter, sometimes two or three inches high, and even then the eggs may not be quite dry. The nine colonies previously enumerated contained some ten to thirty breeding-pairs each (the general average being seventeen pairs). There is no definite rule as to the distribution of the nests in a colony; they may be closely situated or wide apart, according to the nature and facilities of the situation. In conclusion, of one point the oologist may rest assured, *i.e.*, the reality of his discovery of a nesting-colony of the Brazilian Stilt-the vociferous noise and extraordinary gestures of the parent birds will leave him in no doubt upon that point !

In 1880 I alluded to the similarity between the eggs of the Stilt and the Lapwing as follows: "The four eggs of *Himantopus brasiliensis* are very like those of *Vanellus* cayennensis (read grisescens), so like as to be almost indistinguishable. The ground-colour is somewhat richer and

darker, and the black blotches larger, in my specimens; but it would be necessary to have a large series in order to be sure that this difference is really always existent." The large series is now forthcoming, and I find that, taken as a whole, the conclusion above arrived at is correct; whilst, curiously enough, individual clutches of both species occasionally present the opposite characteristics. Even in shape I have found the well-known though abnormal pearform of the Lapwing repeated in a very beautiful clutch belonging to the Stilt. Size also is no criterion, the general average presenting but an infinitesimal difference. The Stilt's eggs average 45×33 mm., the largest clutch being 47×33 mm., and the smallest 44×32 mm. The Lapwing's average is 46×33 mm., the largest clutch being 47×34 mm., and the smallest 45×32 mm.

397. Gallinago paraguaiæ Vieill. Paraguay Snipe.

The Paraguay Snipe is certainly rare with us. In bygone years I have occasionally seen a small wisp or flock on perhaps three occasions, if I recollect rightly; and my skin-book records four individual specimens collected, whilst the last entry in my diary goes back to 1899, when I saw a single bird. These occurrences took place in winter, in the months of May and June. Mr. Claude Grant got one specimen here in May of 1909, and I have a couple of eggs which were collected for me on 21 October of the same year. These latter are pear-shaped, spotted and blotched with dark brown on an olive-coloured ground, the markings increasing and becoming heavier towards the blunt end. They each measure 41×30 mm.

The adult bid has the iris dark brown; bill greyish yellow at base, deepening into black at tip; legs and feet greenish yellow.

It is with envy and regret that I compare the above meagre notes—the outcome of so many years—with Mr. Hudson's full and interesting account of the species and its habits. 1920.]

398. Rhynchæa semicollaris Vieill. Painted Snipe.

This very pretty Snipe is as common in our district as the previous species is scarce. A note in my diary, for example, says (under date 15 February, 1899): "On one narrow strip of wet sedgy ground, about 150 × 30 yards. situated amidst cañadas, I walked-up some twenty-five birds; these did not rise in a wisp but individually, and looked like so many large butterflies from their bright colouring It so happened that I wanted one and erratic flight." or two specimens at the time, and it is illustrative of the feeble and short nature of the said flight that I never had a satisfactory opportunity of firing a single shot-notwithstanding a collecting-gun and No. 10 cartridges. A bird would rise at my very feet, flicker aimlessly for a few yards whilst I gave it some "law," and then drop like a stone again into the covert. I felt exasperated to the point of throwing the fire-arm itself at such a ridiculously unsporting member of a real game-bird family, or going home for a pocketful of brickbats in order to carry on the chase (as a matter of fact, it is not unfrequently knocked down with a riding-whip). However, it is not often seen collectively in such large numbers as the preceding; pairs are general, single birds occasional; a wisp of three or four may be a family party. My own observations of its habits are similar to those of Mr. Hudson and lead me to the same conclusion-that they are of a nocturnal or crepuscular nature.

The nesting-period is extensive, ranging from the 15th of September to the 15th of January, but the bulk of seventeen nests noted between 1874 and 1916 are embraced in the period—middle of October to middle of December. The nest is a mere "scrape" or hollow, occasionally lined with a few bits of dry grass, sheltered by a samphire plant or tufts of grass, and situated in marshy ground contiguous to a swamp. The parent bird sits close, and sometimes will hardly move from the vicinity of the nest.

The two eggs are oval-shaped, some being more elongated than others, but all are bluntly pointed at the smaller end.

SER. XI.-VOL. II.

The ground-colour is generally pale yellow or buff (on rare occasions bluish white), and this is densely spotted and blotched with black. As a rule these markings are evenly distributed, but sometimes they increase towards the blunt end or occasionally girdle the middle of the egg. Hudson mentions how, in many cases, the markings are so dominant as to submerge the ground-colour and give the egg a totally black colour.

The average general measurement is 35×24 mm., the largest clutch being 37×24 mm., and the smallest 33×24 mm.

399. Tringa maculata Vieill. Pectoral Sandpiper.

We now come to the Sandpiper family, regarding which I have the same complaint to make as in connection with the Teals and the Coots, the difficulty of separating and identifying similar species, amidst very large numbers. Who that has formed any conception of the extent of our enormous mud-flats at certain seasons of the year, and the variety of salt laguna and freshwater shores, can have failed to realise the mental confusion and bewilderment produced by the contemplation of myriads of the small and restless They are all coming and going, flying and Scolopacidæ? feeding, in continual movement and change, like the endless variations of a kaleidoscope. And should the observer endeavour to close-in somewhat in the hope of individualising any of the more uncommon species, the result is only to put up the whole gathering, still more indistinguishable on the wing. The fact that all these species are but visitors from the Arctic tends to increase the difficulty, there is none of the familiar acquaintance produced by resident or breedingbirds. The observer has but painfully grasped the advent of a certain species before it is gone again, and he is inclined to doubt his own notes and deductions. It is a consolation to me that even Hudson does not find much to say in certain cases, and is curt in consequence.

Both Claude Grant and I chronicle the Pectoral Sandpiper in the Ajó district between the dates of 11 September

66

and 19 March. I have no record of large gatherings, only small flocks up to half-a-dozen, or single birds. It has a swift Plover-like run on the ground. The flight is quick, with very rapid movements of the wings, and erratic, similar to that of a Snipe. The note when rising or on the wing is soft and oft-repeated.

The iris I have sometimes noted as light yellow, at other times dark brown; bill yellow at base, merging into dark brown or black; feet varying from pale or greenish yellow to dark olive, with black claws.

400. Tringa bairdi Coues. Baird's Sandpiper.

Hudson dismisses this species in three brief lines. Claude Grant procured but two specimens in the Ajó district, on 22 November, 1908 and 19 December, 1909, respectively; and adds that it is "not nearly so common as the following species (*Tringa canutus*), with which it usually consorts." In view of what he states regarding the latter species when he comes to deal with it, it is not surprising that my own record, so far as Baird's Sandpiper is concerned, should be an utter blank.

Tringa canutus Sharpe, Cat. B. xxiv. p. 593.

Hudson is altogether silent on the subject of this species; but Claude Grant obtained various specimens at Cape San Antonio on 19 December, 1908, and writes as follows: "These specimens are in moult and have almost assumed the adult winter dress, but have not yet lost the wing-coverts of the young plumage." And he adds "Two or three parties of Knots, comprising eight or ten individuals, were observed on the sea-shore at Cape San Antonio. This appears to be a new record for Argentina, but is not unexpected, perhaps, as the bird has been traced as far south as Brazil."

401. Tringa fuscicollis Vieill. Bonaparte's Sandpiper.

The bill is olive-coloured with a black tip, or sometimes entirely black; legs and feet equally variable, greenish yellow, very dark grey or dark olive (almost black); claws black.

This is certainly our commonest Wader, and is found

everywhere in flocks, from say the end of October to the middle or end of March. The number in these gatherings is only restricted by the area of the feeding-ground; hence, when large mud-flats are available in the vicinity of our fresh- or salt-water lagunas and cangrejales, or at the subsidence of a flood, the flocks are sometimes of enormous size. The observer may see many acres of ground which look to be in continuous movement, the surface being alive with the restless throng of Sandpipers running about and chasing each other, feeding, or taking constant short flights. And it is then that he is tempted to exclaim "Oh, that the crowd would only be still for five minutes, and allow me to resolve so much Sandpiper into their relative species!"

402. Calidris arenaria Linn. Sanderling.

As regards the connection of the Sanderling with our locality I am utterly dissatisfied with my own notes on the species; and prefer to quote solely Claude Grant, who states that "it was commonly observed during the summer months along the coast in the Ajó district in flocks of from six to twelve individuals."

403. Totanus melanoleucus Gm. Greater Yellowshank.

Iris dark brown; bill dark brown at base, merging into black; feet yellow or bright yellow, claws black.

This and the Lesser Yellowshank so closely resemble each other in every point except that of size, that, unless the two species happen to be feeding in juxtaposition, the observer has considerable difficulty in determining which of them he has in view.

The Greater Yellowshank is to be found all the year round; singly, or more often in pairs. Only once does my diary refer to larger numbers, when (at the end of September 1913) I observed numerous large flocks towards the mouth of one of the great drainage cauals where it debouched into the Bay of Sanborombon. It is generally distributed and equally at home on the freshwater marshes or the salt lagunas and cangrejales; not so abundant as its smaller congener, it is frequently found in association with the latter. An exception to the said custom was when on 3 November, 1915, I navigated the canal between Ajó and Santo Domingo and found only *melanoleucus* on the first half of the day's journey, to be replaced entirely by *flavipes* later on. The most of the former were in ones and twos, the latter in numerous large flocks.

Mr. Hudson's remarks on a double migration are doubtless correct, as it is always in evidence with us, and yet is not known to breed. Those individuals I have shot in February and March were exceedingly fat, and were presumably prepared for their northern journey.

The Greater Yellowshank is a handsome and interesting Wader, familiar to all denizens of the pampas. Its bold and alert attitude catches the observer's eye as he approaches the pool or marsh where it is feeding; and the strong and musical alarm cry is repeated in warning until the intruder forces it to take refuge in flight with a last parting note or two.

404. Totanus flavipes Gm. Lesser Yellowshank.

Iris dark brown; bill at times dark olive at base, with black tip, in others entirely black; claws black.

My own notes correspond with those of Mr. Hudson to the effect that whilst not entirely absent throughout the year, it is much scarcer during the winter months. Speaking generally, it is more abundant than *Totanus melanoleucus*; and if often seen singly or in pairs occasionally increases to small flocks, which is very unusual with the larger species. At the beginning of the great flood in 1913, I particularly note (on 30 October) that I have seen absolutely none on all my previous journeys between Ajó and Buenos Ayres, etc., and three days later it makes its appearance "in great numbers, large flocks, on mud-flats near Yngleses headstation," after which it becomes generally distributed.

In flight, habits, and note, *Totanus flavipes* resembles *Totanus melanoleucus*—all on a similar scale, be it understood.

[Ibis,

Micropalama himantopus Sharpe, Cat. B. xxiv. p. 401.

Iris dark brown ; bill black ; feet olive-colour, claws black.

Claude Grant collected this species at the Yngleses on the 24th of February, 1909, and adds the following note: "This little Wader has much the same actions as the Curlew Sandpiper (*Tringa subarquata*), for which species I at first mistook it. Like that bird it wades deep into the water in fact, until the water flows over the back of its neck."

The following is my one and only entry of a reliable nature and is taken from my Skin-book, under date 27 December, 1913: "Shot out of a flock of over 100, might easily have been 200, so closely were they massed. Were feeding on marshy ground near head-station; and as the flock rose at my approach, circled and passed away, the white under surfaces were quite dazzling in the sunlight."

408. Limosa hæmastica Linn. Hudsonian Godwit.

Iris dark brown; bill a faint mauve or lilac-brown at base, tip black : feet very dark grey, or black.

The Hudsonian Godwit occurs with us all the year round, the months of January and February practically excepted, when my journal is a blank. In midwinter (2nd July) at the Laguna Palenque I have found it "Very abundant, in numerous flocks, some of apparently over 1000, no less." And in the same locality at the beginning of summer (6 December) in a subsequent year, I note : "A large flock of from 150 to 200." Claude Grant collected young on 1 November (Los Yngleses) and an adult on 20 December (Cape San Antonio). The preceding may tend to confirm Mr. Hudson's theory that it is both an Arctic and Antarctic species, breeding towards each of the Polar circles, but meeting to winter in the temperate zone of the southern hemisphere (vide 'Argentine Ornithology,' vol. ii. p. 191). Personally, I do not venture to give an opinion ; but, whilst in some years it has been of general occurrence (with the exception of the two months I have mentioned), many others furnish no entries for my diary whatever; and I am led to wonder at

1920.]

Cape San Antonio, Buenos Ayres.

the cause of the irregularity, and why both north and south should fail us completely throughout these seasons.

I have alluded to the very large flocks which are sometimes to be found at the Lagunas Palenque and Milan ; and on more than one of these occasions several birds have dropped to my gun. The flock would then again and again sweep round and hover over the individuals in the water, uttering loud cries of distress, quite regardless of my presence in the open and the renewed gunfire. Though the Godwit is such an excellent table bird, I found myself unable to continue the slaughter under these circumstances. I might select my birds, but so closely were they packed together that the shots went practically "into the brown," and caused innumerable cripples.

409. Numenius borealis Forst. Esquimo Whimbrel.

Mr. Hudson writes of this species as if he had no personal knowledge of it, and accordingly only quotes other observers. Claude Grant makes no allusion to it at all in connection with his two visits to the Ajó district. Formerly, I used to observe it occasionally and irregularly as a brief visitor at the height of summer or the beginning of autumn. Rarely seen alone, it was generally associated with the American Golden or other Plovers, frequenting certain localities where the plains were most open, bare, and dry; and exceedingly wild, even where horsemen were concerned. The last few entries in my diary are as follows : "13th February, 1899. Must have seen some twenty or thirty Whimbrel in vicinity of Linconia, associated with Golden and other Plovers (all these had disappeared from the locality by the 20th of the same month)." "8th April, 1901. Mr. M. A. Runnacles reported a small flock, seen only for one day, in vicinity of Linconia. And on the 16th of that month, a few were observed in the Palenque district."

I am prolix to the above extent, but advisedly so; for, even making allowance for my own frequent absences from the Yngleses since the year 1901, I was beginning to be exercised as to the non-recurrence of the species, as judged

by the long silence in my diary. And my growing fear that I have witnessed the passing of the Esquimo Whimbrel (so far at least as this locality is concerned) has been confirmed by the following article on the subject ('The Ibis,' Tenth Series, vol. v. No. 4, p. 630, October 1917), which I crave the Editor's indulgence for quoting at length :---

"SWENK ON THE ESKIMO CURLEW.

"[The Eskimo Curlew and its disappearance. By Myron H. Swenk. Smithsonian Report for 1915, 1916, pp. 325-340; 1 pl.].

"It appears likely that the Eskimo Curlew (Numenius borealis) will shortly share the fate of the Passenger Pigeon and the Great Auk and disappear entirely from our living avifauna. First described by Forster from Hudson's Bay in 1772, the Eskimo Curlew breeds in the Barren Grounds of Mackenzie in the arctic regions of North America, and has a very remarkable migration route to and from Argentina its winter home.

"In the spring migration these birds pass north through the Mississippi valley, rarely if ever occurring on the Atlantic coasts. After the breeding-season is finished, late in July or early in August, they move south-eastwards to Labrador, Newfoundland, and Nova Scotia, whence they pass across 2000 miles of ocean, direct to the Lesser Antilles and thence down the Brazilian coasts to their winter home. It is only occasionally after a heavy gale that some birds reach the New England coasts, while a few have rarely been driven by westerly gales as far as the coasts of the British Isles.

"During the past few years, however, the Eskimo Curlew, formerly arriving in immense flocks in the middle prairie States in the spring, has become rarer and rarer. The last record for Kansas is 1902 and for Wisconsin 1899, while in Nebraska, of which Mr. Swenk writes at great length, a flock of six or seven were seen in 1913 and a single bird was killed on 17 April, 1915. The bird is probably not yet extinct, but is on the high road to extinction, and will doubtless become so in a few years' time." It will be seen from the preceding how closely Mr. Swenk's notes and my own data in the far south approximate, and the fatal deduction they lead to.

410. Rhynchops melanura Sw. Black-tailed Skimmer.

Iris dark brown; bill either red or orange at base, remainder black; feet bright red or a light brick-red.

The Black-tailed Skimmer may perhaps not breed in our locality, as judged by Claude Grant, who considers it only a winter visitor. And I myself have no knowledge of its doing so. But the mud-flats and sand-banks of our Rincones are numerous : whilst that district is a No Man's Land, and of great extent. And I am moved to further entertain the possibility by the fact that I have observed the species in nearly every month of the year, particularly at such a time as the middle of September in two different seasons (a pair and a small flock of eight respectively), when on a similar date Claude Grant found various colonies nesting on the River Paraguay. Again, Hudson gives its chief breedingground as being the mud-banks and islets at Bahia Blanca, far south of here, and on the Atlantic seaboard. Am I to suppose, then, that these September birds of mine had not yet made their way to the above-mentioned far-away localities. or that they had found a suitable site with us? The same query attaches itself to a flock of over two hundred, seen resting on a mud-flat on the Ajó river (above the little town) when I travelled that route by launch on the 3rd of November, 1915.

Darwin's account of the Skimmer or Scissor-bill (as quoted in 'Argentine Ornithology') shows the impression this extraordinary bird made on him at first acquaintance. Similarly, I recollect my own astonishment when on the 30th of August, 1875 (not having then read 'The Voyage of the Beagle'), I met a solitary specimen towards the evening, at what we designated the "Estancia cañada pass." It was quartering a large stretch of open water, and was being persecuted at the time by various Lapwings, which its swiftness of flight and agility in turning set utterly at naught. Whenever a moment's respite was gained it skimmed along the surface of the water for about twenty yards with a third of its bill immersed; then rose, circled onee or twice, and repeated the surface-glide. For a long time, fascinated, I watched the dexterous and imperceptible use of wings and tail, the reflection of the bird in the calm sunset-tinted pool, and the tiny furrow ploughed by its bill. And it was almost dark when I rode away and left the Skimmer and its shadow still coming and going in the dusk.

I have taken a fish, two and a half inches long, out of the crop of one of these birds; but I have never actually been close enough to detect any movement or closing of the mandibles, nothing but the lower one cutting its "lonely furrow."

The note is loud and harsh, but not uttered whilst fishing, only when rising from the surface of the water, or if a flock is disturbed whilst resting on the bank of a laguna.

412. Sterna maxima Bodd. Great Tern.

Iris very dark brown; bill orange; legs and feet black.

Hudson evidently never met with the Great Tern. And if (as he states) it occurs on the Rio Parana, according to Azara, it so happens that Claude Grant did not meet with it there, along with other species of Terns. The last-named, however, places it to the credit of Ajó as follows :—" During the week including the 1st of March (1910) several of these Terns were scen, sometimes singly and sometimes in pairs, passing along the Atlantic coast, but generally very far out at sea. I had not met with this species in the Ajó district before. It has a very clear, shrill cry, which cannot be mistaken."

It is curious that my one and only encounter with this species should have taken place about the same date (13th March) of 1905, and under similar circumstances. Happening to be down at Cape San Antonio, I noticed a flock of between ten and twenty resting on a sandbank in company with some Gulls and Trudeau's Terns; and had just time to disengage my gun and cartridges from

74

the carriage following me, and get into a favourable position, when the flock rose and came towards me, fortunately inland. I secured three specimens (females all), and these are now in the British Museum. The cry, though not loud, was sharp and short, and, as Claude Grant says, unmistakeable. When a wounded bird fell into the water, however, it (and those hovering over it) uttered a louder and completely different note. The food in the crop consisted of small fish, which Agustin Bisso, a local fisherman of twenty years' standing, who professed to know the species well, told me it procured by diving from a considerable height.

It has often been my custom to visit the sea-coast, and at various periods I have stayed at Cape San Antonio, but the above is the only occasion when the Great Tern has come within my ken.

413. Sterna trudeauii Aud. Trudeau's Tern.

I am surprised that Mr. Hudson has so little to say about this beautiful and common Tern; for, as Claude Grant remarks, it is to be met with on every large lagoon and open sheet of water inland, as well as the coast. It is true the last-named writer is referring especially to the Ajó district, where the species is resident; but I myself know it familiarly, on my journeys between Ajó and Buenos Ayres, on rivers, lagoons, and swamps.

There is little of particular interest to extract from the many perfunctory entries in my diary, extending over so many years. Except when congregated in nesting-colonies, Trudeau's Tern is generally seen singly or in pairs. The larger lagunas, such as those of Milan and Palenque, are naturally more frequented, but by nothing in the nature of the large flocks which Claude Grant mentions as a daily feature of the sea-coast.

The note is a strident cry, most in evidence when the nest is in danger. On these occasions the parent birds become very bold and threatening; indeed I was once struck on the head three times in rapid succession by the same individual, the last blow being distinctly unpleasant. That this Tern should *perch*, as Gulls frequently do, is so unusual that I took special note of the fact when I saw three on a wire-fence in a sea of water.

Eighteen years had passed before I found my first breeding-colony (in 1890), since which time I have noted only other five. The periods vary from 26 October to 5 January. As a rule, the Terns were associated with the Spot-winged Gull (Larus maculipennis Licht.); two exceptions consisted of small groups of three and ten pairs respectively. In the other four cases the number of pairs ranged from half-adozen up to perhaps forty, and the nests were interspersed with those of the Gulls, sometimes closely situated, at others widely scattered. The localities seemed capriciously selected, being either of a lonely nature or one liable to be molested by passers-by: a matter of caprice, in short. As the situation was always of an open nature (a large expanse of water covered by weeds and generally at the side of a swamp) it was open to detection from a long way off. The nest seemed to differ in construction according to circumstances, but the material was always soaking-wet water-weeds, and floating in a bed of the same. Occasionally it would be a slovenly platform; other colonies presented a small, round, and neat type, with a more or less pronounced hollow, and measuring two inches high by nine across at base and four or five at top.

The usual full clutch consists of three, but four is not uncommon. The eggs are generally oval in shape, often elongated, and sometimes pear-shaped; in fact they are rather irregular. In some cases the ground-colour is olivaceous, in others brown or yellowish brown, and is spotted and blotched with dark ash-grey, dark brown and black, or strong dark red-brown markings and (under the surface) dull lilac spots and blotches. Each clutch presents its own characteristics, whilst leaning towards one of the half-dozen general types into which it is found that a large series divides itself.

The average measurement is 43×31 mm. That of the largest clutch 44×31 mm., and the smallest 41×29 mm.

76

1920.]

415. Sterna superciliaris Vieill. Eyebrowed Tern.

Iris dark brown ; bill bright yellow ; legs and feet oliveyellow, claws black.

Claude Grant found this species abundant on the Rio Paraguay, and breeding, but makes no mention of it in connection with Ajó and Cape San Antonio.

I have only once seen it in our locality, when, on 4 May, 1902, I secured a specimen (now in the Dresden Museum) at the Laguna Milan. The flight was of the usual Tern description; and the bird (a female) showed the family indifference to the presence of human beings by returning immediately to the spot after being fired at once. It uttered no note or cry, either when on the wing or when it fell wounded in the water. A curious incident was the subsequent appearance on the scene, an hour or two later, of another individual of the same species. The second bird seemed wilder, and decamped after an ineffective shot. Without doubt they must have been a pair, though they were not seen together.

Gelochelidon anglica Saunders, Cat. B. xxv. p. 25.

This species does not seem to have been known to Hudson, and I myself am totally ignorant of it. Claude Grant's remarks, therefore, regarding its connection with the Ajó district, are doubly interesting to me ('Ibis,' July 1911, p. 474), and I have promised myself to devote further attention to its winter visits should the opportunity arise. That he should have seen various individuals about the same date on two successive seasons proves that its presence was not entirely fortuitous, whilst its restriction to certain tidal waters on the northern part of the Yngleses, helps to explain my failure to notice what he alludes to as a "Tern distinguishable from every other by the black bill, which is very striking."

416. Larus dominicanus Licht. Dominican Gull.

This handsome bird is resident in our locality, where it also breeds. Perhaps owing to our close proximity to the coast, I have found it wandering inland during the summer months, as well as in the cold season. On these occasions the number was small; so much so that when the attraction of carrion drew together as many as a dozen, I was much impressed by the fact. Even in the old days, when our private "Graseria" (sheep boiling-down establishment) was in operation for two or three months at a time, "perfuming the circumambient atmosphere," and the corresponding amount of offal drew together immense numbers of the Cayenne Ibis, the Carancho and Chimango, and both the smaller Laridæ (cirrhocephalus and maculipennis), the Dominican Gull never exceeded perhaps a score. The most attractive bait in the shape of carrion for this species is a dead horse or mare, after the hide has been taken off. Α cow or sheep may possibly draw one or two individuals, along with the other birds mentioned above : but the carcass of the equine quadruped, especially if very fat, is a certain rendezvous for a pair or even a dozen of the Dominican Gull. These remain in possession for various days (possibly a week), keeping at a respectful distance all other wouldbe partakers of the feast (though I have known them held off in their turn by the Chilian Sea-Eagle), and only withdraw at dusk to some open pool in the vicinity, where they would seem to pass the night. The proximity of the carcass to a human habitation seems a matter of indifference. and has no deterrent effect, though at other times I do not think I would call it a confiding bird; it might best be described as both bold and wild, not afraid of man, but contemptuous of him and all his works-a creature of the stormy and lonely seas, and of the solitary plains.

The cries also are typical of the species, clamour of long hoarse calls to each other, loud chorus of inhuman laughter as they wrangle over their feast, and a high and sad double-note recalling great oceans and wandering sea-fowl. Sui generis! Who does not recall similarly the Curlew's note by shore or moor, and the memory of the environs it always brings back to him?

I once reared and kept a young bird for a couple of years

at the head-station-in the patio. And I think "Pio-pio," as he was called, was possessed of seven devils. Pet lambs he scarified till they had to be removed from his unholy vicinity; cats and dogs went in terror of their lives; human beings he ignored, if left to himself, but it needed only the challenging call of "Pio-pio" to him, wherever he happened to be-standing about one of the kitchen-doors, on the verandah, or elsewhere in the patio-and down-and-out (snake-like) would go his head, as with an answering cry of "Pio-pio," and at a swift run, he would make straight for the foe. It was well then to be in riding-boots; the strength of his bill was only equalised by the ferocity of his assaults, each cut or thrust being accompanied by the high shrill "Pio-pio." And when he remained alone, in victorious possession of the battle-field, the head was directed straight upwards, the bill opened to its full extent, and a great and prolonged metallic note expressed his triumph.

Mr. M. A. Runnacles informed me that in 1912 a large colony of this species had nested in the vicinity of the Laguna Milan; but I believe the circumstances had been favourable for the one season alone, and that the birds did not return in after-years. The colony with which I am familiar (near Cape San Antonio), and of which I first made the acquaintance in 1885, had then been in existence for an indefinite period, and may still be so for aught I know. It was situated on a great mud-flat, in the heart of the Tuyu Rincones (for that Estancia has also its share of these delectable waste-lands); no quadruped could approach the site, guarded as it was on each side by an impassable cangrejal or tidal creek, only to be negotiated on foot or by boat; and even the low flat itself, honeycombed by crabs and with some patches of Salicornia growing upon it, was of the kind only capable of bearing my weight on the crust with difficulty. Altogether a most lonely locality, amidst jungles of pampa and other giant grasses; a few copses and strips of stunted tala trees some miles inland, and the Tuyu head-station woods a blue line on the far horizon (those of the Yngleses over the edge of the world

altogether); sandy dunes of the Atlantic on the one hand and the equally unfrequented La Plata estuary on the other, and not a living thing in sight, except the wild, clamouring Gulls and the myriads of those uncanny crabs. I remember it was a dull, windy day, cold and grey, as I surveyed the situation preparatory to dismounting; and my peon emphatically declined the suggestion that he should hobble both the horses and accompany me. "Not if you were to pay me, Don Ernesto! And also, who is to throw the lasso if you happen to get stuck in that cangrejal?" Then, as he saw me stripping : "For the love of God, patrón, take care you do not step upon a Vivora de la Cruz amongst the pampa grass." The last reminder did not fail to make me somewhat uncomfortable, for that very nasty pit-viper has its home in the Rincones (though I have never known it to be met with on our inland camp). Such another experience was in my mind, the occasion when I poached (as a boy) a Black-headed Gulls' colony in Stirlingshire: a bitterly cold day, and the dismal pools and treacherous bog set in a bleak moor, whilst a possible gamekeeper might have taken the place of the snake.

On this date (20 October) there were about fifty pairs of nesting-birds. Many of the eggs were much incubated, and some young hatched out. The nests were placed at varying distances apart: sometimes being mere hollows in the clay; at others, placed amongst the tufts of Salicornia, a rough bedding of the same or of dry weeds. All the eggs, whether fresh or otherwise, were quite unrecognisable from the coating of grey cangrejal clay. The general clutch was two, rarely three (no nest contained more than two young).

The eggs are rather round in shape. Ground-colour yellowish brown, spotted and blotched with ash-grey, dull lilac, and a dark red-brown tending towards black. As a rule, these markings are more pronounced and more numerous towards the blunt end; but I have a specimen in which the smaller end is so favoured. Taken as a whole, they are rather dull-looking, as if they responded rather to their surroundings than the parent-birds' bold coloration.

The average measurement is 73×51 mm.

1920.]

417. Larus maculipennis Licht. Spot-winged Gull.

Iris brown or dark brown, as distinguished from the vellow or pale straw-colour of Larus cirrhocephalus.

Mr. Hudson has given such a full and detailed account of the habits of this dark-hooded Gull as to leave me little to add. Sometimes the species is found alone, but more generally it is associated with the Grey-capped Gull (*L. cirrhocephalus* Vieill.). From the numerous entries in my journal I can deduct no general principle which would seem to explain these circumstances.

Once I saw an individual seize and carry off from its nest a young waterhen, a procedure which struck me as out of place and highly reprehensible, as I supposed the species to be non-predatory. The other extreme is conveyed in the following curious note, dated 9th November, 1899 :-"Observed a flock of about fifty Gulls (all of which were *L. maculipennis*) assembled in the open camp around an ants'-nest (of the large black kind), the denizens of which were in the winged state. The Gulls either alighted on the ground in their pursuit, or hawked them in the air."

The Spot-winged Gull nests with us between the end of October and the beginning of January, in company with Trudeau's Tern. As mentioned when writing of the latter species, eighteen years had passed before I discovered my first colony of Terns (in 1890), and consequently that of the Since then only some four or five others have come Gulls. under my notice, and these at long intervals. I have never known the birds revert to a former site. The situation has been described in the notice of the Tern; not necessarily in an out-of-the-way place or fastness, but often in a noticeable locality. Open, and comparatively shallow, water is preferred, sometimes on the verge of a rush-bed. None of the colonies exceeded a hundred pairs, some being only half that number. The nests might be closely placed or widely scattered, according to the nature of the site. As a rule they are mere floating piles of wet water-weeds, in beds of the same ; but I have known them built of dry junco-stems, slight and shallow, and lined with a little dry water-grass.

SER. XI,-VOL, II.

G

Possibly Hudson has made an involuntary error when he places the number of eggs at four; I have never known the clutch to exceed three. They are large for the size of the bird and obtusely pointed. The ground-colour varies, passing from clay to yellowish and olive, and then The markings are just as to various shades of brown. different in individual clutches, ranging through violaceous and reddish-brown freckles and streaks to spots and blotches of dark ash-colour, brown and dark brown, and finally merging into black. As a rule these markings are fairly well distributed over all the surface, though there is a tendency for them to increase in number and heaviness towards the blunt end. A large series presents a great variety of colouring, but readily falls into a general classification of five or six types.

The average measurement is 52×37 mm., the largest clutch being 52×38 mm., and the smallest 50×36 mm.

418. Larus cirrhocephalus Vieill. Grey-capped Gull.

Iris yellow or pale straw-colour, as distinguished from the brown or dark brown of L. maculipennis.

When the mystery of the Grey-capped Gull's breedinglocality is cleared up, its previous and subsequent movements throughout the year may be more readily followed. At present it would seem as if that secret is locked up in some of the Patagonian lakes, similarly to the description given of the same species in British East Africa (vide 'The Ibis,' vol. iv. p. 194, April 1916). I should much like to see the mystery solved, and the home of this beautiful and interesting Gull fully established.

In the meantime I am satisfied to accept Claude Grant's dictum as follows:—" The Grey-headed Gull makes its appearance in the Ajó district after the breeding-season and remains throughout the winter, consorting with *L. maculipennis* in flocks of thousands and feeding largely on the carcases of dead stock. It can be picked out from *L. maculipennis* by its larger size and darker colouring, and the call is also louder and harsher."

1920.]

Stercorarius crepidatus Saunders, Cat. B. xxv. p. 327.

Claude Grant has not only established this Skua as a visitor to our district, but possibly adds a record for Argentina. He secured a specimen on the coast on 21 February, 1909; and exactly a year subsequently saw two other individuals close to the same spot ('Ibis,' July 1911, p. 476).

419. Æchmophorus major Bodd. Great Grebe.

Adult. Iris dark brown (occasionally yellow); bill dark horn-colour, almost black; feet grey, mottled with black.

Immature. Eye black; bill pale yellow, dark on culmen; front of feet yellow, back of same, and the soles, black.

Nestling. Eye black; bill grey, tip black; feet grey, mottled with black. On the top and centre of head is a hare yellow patch of soft skin.

Though, as Mr. Hudson remarks, "there is little diversity in the habits of Grebes," yet, as it is a long time since I wrote about this particular species, there is nothing lost in speaking of its general life-history.

I am aware of the fact he makes special allusion to, "that it is now much sought after on account of the beauty of its plumage." And I should imagine that on the Parana delta, for example, it is becoming rarer. Here, however, there has arisen no demand for its skin, the plume-hunter having confined himself to the pursuit of the two species of Egrets, and accordingly no diminution in its numbers has Single birds, or more generally pairs, may be taken place. found in every locality; the swamps, lagunas, and tidal creeks, and even the salt-water at Cape San Antonio seem congenial to its everyday life. So late as 3 November, 1915, on the large drainage-canal between Ajó and Santo Domingo, I observed a large number, particularly near the former town. This and the Cormorant were the two species which afforded me most amusement as my nafta-launch hustled them all that day.

On the 13th of December, 1898, I happened to shoot a female, and with it secured a young one, which it was carrying on its back or hidden below the wing (there being a kind of natural pouch or hollow for that purpose, situated below each wing); when the parent-bird dived the young one separated itself and remained afloat. The cry of the adult resembled that of the Peacock, though naturally not so powerful, whilst the young had but a feeble note. Under the title of "nestling," I have described the bare parts of the chick. When placed upon the ground (while it bit me savagely), it sat with its head and neck erect, the body resting on the ground, and the feet stretched out behind; these it used for progression, propelling itself along with them in a succession of frog-like jumps.

In my former paper I described three nests, all taken very early in the season, namely, the last week of August (1877); these, I recollect, were all situated in the same locality, in the deep and central part of a swamp; were built of wet water-weeds (which the sitting-bird hurriedly drew over the eggs on leaving the nest at my approach), and contained two clutches of three and one of two eggs respectively. There is no further entry in my diary until 1898, when I chronicled four nests between 14th and 20th of December: these in position and materials were very similar to the previous lot; were again in two groups of two each, while the sitting-birds (one of which was a male) showed the same solicitude in covering-up the eggs. Of the clutches, all much-incubated, two this time were of four eggs, the other two of three respectively. Since the last-named year, I have met with no further nests ; but I would premise that they are difficult of approach in a canoe, owing to the density of "durasnillos" and "juncos," and equally awkward on horseback for the same reason, in addition to the deep and muddy nature of the position selected.

The eggs average 56×37 mm.

420. Podiceps caliparæus Less. Bright-cheeked Grebe.

Adult male and female (3 March, 1899). Iris scarlet; bill entirely plumbeous; feet olive-grey, those of female somewhat yellower.

Young (brood of above), male and two females. Bill also

1920.] Cape Sun Antonio, Buenos Ayres.

plumbeous, slightly darker in the male; feet similarly olive-grey.

Hudson rightly alludes to this species as a beautiful Grebe, and had he known it personally, and been in a position to add to his description the brilliant scarlet eyes and plumbeous bill in juxtaposition with the golden earcoverts and strong coloration of the head and neck, his praise would have been further justified.

The Bright-cheeked Grebe is, I think, resident all the year round in our district, but not common. Until I revised my diary I was under a different impression, and this conclusion must have been arrived at from two reasons—the striking individuality of the species and the fact that it is peculiarly local. Year after year, at one season or another, I was sure to see a pair or a small flock (parents and brood?) at certain lagunas or open water-spaces of our largest cañadones; these particular localities not being more than two or three in number.

I have no reference in my journal to any note or cry.

Of its breeding-habits I am in ignorance. The nearest approach is that of the brood referred to at the beginning of this notice. I had shot the two adults in the open part of a deep cañada, and, the spot being a good one, was again on the watch in a canoe a couple of days subsequently, when, to my surprise, the three young birds came out of the rushes singly and at long intervals, and were duly secured.

Podiceps americanus Garn.

Iris crimson or claret-colour, pupil black; bill dark brown or horn-colour above, lighter below; feet olive-grey or dark grey. Both sexes the same.

This is the species which I erroneously described in my former paper as *Podiceps rollandi* Quoy et Gaim. (Rolland's Grebe). The latter would seem to be totally unconnected with this district.

My former notes hold good otherwise and require little amplification. Abundant and generally distributed, it is a familiar and interesting member of the Grebe family, especially on the larger lagunas, where one may frequently see the family-group of six or seven individuals. A most unusual gathering was that described to me by my collector, F. Roldan, who, on 8 March, 1899, killed six with one shot out of a flock of about a hundred (adults and immature), on a stretch of open water about half-a-mile long and seventy yards wide, situated in the neighbouring Tuyu estancia. The following summer my diary quotes the species as being "incredibly abundant."

Further breeding-notes extend the nesting-period largely, through October and November. Three dates are still later—14 December, 10 January, and 8 February. The species may possibly have two broods in the course of the season, or it may be that my collector in each case had despoiled the first nest earlier in the spring. The full clutch of eggs is six or seven, the latter being frequent; but I do not recollect having seen more than five young accompanying the parent birds.

Fresh measurements of the eggs corroborate those given previously—an average, say, of 44×31 mm., with considerable variation in different clutches and individual cases.

422. Tachybaptes dominicus Linn. American Dabchick.

Male and female. Iris dark brown, pupil black; bill, upper mandible dark brown, base and lower mandible yellowish; feet olive; those of the male more yellow in tinge.

The above pair, shot on 13 December, 1898, were identified by Dr. Berg as being of this species, and they now repose in the Buenos Ayres Museum.

I have only one other record of its occurrence when, on 25 February, 1900, a pair with young came under my observation.

423. Podilymbus podiceps Linn. Thick-billed Grebe.

Adult male and female. It is dark brown, in some cases with a white ring round the eye; bill generally plumbeous, at other times pale grey or nearly white, with grey culmen, and crossed with a black band; the feet vary from grey to dark olive-grey, and grey mottled with black, or a slatecolour, almost bluish grey.

Young. Iris dark brown; gape and nasal spot magenta; bill blackish, with a few white markings; feet dark grey, with white markings.

Mr. Hudson does not seem to have made the personal acquaintance of this rather sturdy-looking Grebe, and evidently considers it a rarity in the Argentine Republic. I myself did not observe the species until after twelve years' residence, when, on 16 November, 1884, I secured a pair with their four young. I was much struck at the time with the loud clear call of the parents, to which the young responded from amidst the rushes, with a similar but weaker note. No less than fourteen years passed again before the species came under my observation, when, in 1898 and 1899, I secured various individuals, adult and In 1902 and 1904 I was similarly fortunate. young. Subsequently, until 1913, I was often absent from the locality, except for winter visits. In the last-named year I took my first and only nest with eggs. The last entry in my journal is dated 3 November, 1915, when, on the great drainage-canal between Ajó and Santo Domingo, I noted no less than ten individuals, all singly.

It would appear that the Thick-billed Grebe is a summer visitant, all my notes being entered between the middle of September and the first week in March; also that it favours exceptionally wet seasons. Generally shy in its habits, it is to be found in the deeper and more secluded rush-beds, and hence it is difficult to observe and secure. Nevertheless I have known of a pair in quite open water in company with the large gathering of *Podiceps americanus* alluded to in my notes on that species. In a similar case, when I surprised an individual in an open rushless channel, it first dived, then rose and flew a hundred yards, and dived again into the security of a laguna. Those I saw on the canal, at the approach of my launch at once took shelter in the dense bordering rush-coverts. Finally, there is an entry in my journal, where I refer, in a tone of exasperation, to a male bird which kept in such close proximity to my canoe, motionless amidst the "juncos," that it was some time before I could shoot it in cold blood without blowing it to pieces. Moved doubtless by curiosity, it would rise to the surface, survey me silently for a moment, then dive and reappear similarly in another quarter.

The call-note, of both adults and young, I have already described.

That the species bred here, I was of course aware, from having seen or secured young birds along with their parents; but its general scarcity, combined with the nature of its haunts, rendered the discovery of an authentic nest rather a hopeless prospect. It was therefore with great interest that, in the spring of 1913, I observed an individual in such a favourable and isolated locality as the large "Charco" or pond with its rush-beds, situated in the head-station woods. Only the female was observed at any time (no other Grebes were present), and she was very shy, keeping at some distance and diving at the slightest alarm. I shot her on the 16th of November when I took the nest with seven slightly-incubated eggs. (Said bird had the iris very dark brown, with a white ring round the eye; bill whitish, with a tendency to bluish grey; crossed over nostrils and both mandibles with a strong black band; feet very dark grey, or a slate-colour which was almost bluish black.)

The nest was not hidden in the rushes, but in rather an open space amidst water-weeds; a floating, mucky, black pile of water-weeds of different kinds, some 3 inches high and about 14 inches across at base, whilst the hollow on the top was 5 inches across. The eggs were completely covered with wet weeds.

seven eggs." Señor Roberto Dabbene puts the number at four or five (Anales del Museo Nacional de Historia Natural de Buenos Aires, tomo xxviii., p. 192). Curiously enough, the measurements he gives are $42-44 \times 30-32$ mm., which approximately are those of *Podiceps americanus*, whilst mine are $45-48 \times 32-33$ mm., or an average of 47×32 mm. We are both agreed as to the shape :---"Elliptic, with the two poles almost equal."

Catarrhactes chrysocome (Cat. B. xxvi. p. 365).

As Hudson remarks, Penguins are well known to the Gauchos along the coast; but more, I take it, from dead than living examples. I myself have never seen one in the flesh, defunct or otherwise.

A very interesting dead specimen (an immature individual) of this species was found by Mr. M. A. Runnacles on our sea-coast in July of 1914. He was good enough to carefully skin it and give it to me. In my turn I presented it to the British Museum, where Mr. Charles Chubb duly identified and welcomed the specimen, remarking that its occurrence was of great interest.

427. Rhynchotus rufescens Temm. Great Tinamou.

Ever since I came to this locality I have known of the "Perdiz Grande" as a species entirely confined to the Rincones, and, in a lesser degree, to the Atlantic coast-belt. Formerly, on these occasions when I penetrated into our Rincon Grande, I was always prepared for the sudden and very startling flight of this handsome Tinamou, and might count upon seeing two or three individuals. On the rough and lonely sand-dunes of the coast it was much scarcer, except perhaps in the immediate vicinity of Cape San Antonio, where the Rincon and coast formations come into juxtaposition. As a denizen of the "camp" proper it had long ceased to be, with the replacement of the pampa and other giant grasses by finer pastures (indigenous, not imported from Europe, as has been stated). From all I can learn the local situation remains unchanged at the present date-a few pairs maintaining their little-disturbed existence

in the localities referred to. The largest number I have encountered in the Bincones in one day in the old times (1876) has been five—two pairs and a single bird. The next entry in my journal refers to how a cousin of mine, shooting in the Tapalque district (not far from Azul), had to his own gun in one forenoon, "the day being misty and the scent lying well for his very good dog," no less than thirty-seven birds.

I have occasionally seen nests with broken shells, but have never taken a clutch of eggs. A single (and much incubated) egg was once brought to me on the 25th of January.

430. Nothura maculosa Temm. Spotted Tinamou.

Iris hazel or reddish; bill, tip and culmen dark brown, almost black; gape and under mandible whitish; feet greyish yellow or yellowish brown, with occasionally a pink tinge, which disappears after death.

To my former notes, and Hudson's more full account, I have but little to add. The species is still less abundant locally than when I wrote of it in 1880. And even then I was in a position to judge of its diminishing numbers; for I have always retained a vivid recollection of an incident about the year 1860, when I was a mere child, of a large travful of Partridges being sent into our house from the patio, as an attention from one of the Gaucho peones. These had been taken by the method then in vogue, in which the horseman, armed with a long slender bamboo at the extremity of which there was a horsehair noose, rode in an evernarrowing circle round the crouching bird until he was able to drop the noose over its neck. That ingenious---if non-sporting-art has long disappeared in the limbo of the past. Elsewhere, I have known of a piece of fencing-wire being used as a missile by the horseman, and a most large and unrighteous bag made thereby.

The passing of the giant grasses was bound to affect the status of the Common Partridge all over the pampa. But such episodes as a four-years' drought, which left the plains as bare as a billiard-table, was a supplementary catastrophe.

So was a three-years' flood, spoiling the nests and diminishing the area of the birds. Add the gunner's toll all the year round (for the close-season is practically a dead letter so far as local protection is concerned), and it will be found that the Fates have been cruelly against this wellknown denizen of the Province of Buenos Avres. To one peril. however, an adjunct of civilisation, it managed to adapt itself. I allude to the wire fence. At the outset, the Partridge failed to take into consideration the new obstacle, with fatal results; this was especially the case on the railways, where the sudden rattle and roar of the oncoming train had an utterly demoralising effect. But for a long time past this has ceased to be the case; and the disturbed bird, feeding inside the double line which guards the railway, goes up against the wind and passes just over the fence, instead of blundering blindly into it.

The nesting-period I now put back to the beginning of October, and its duration to early in April. I suspect that there must be two broods in the season, to judge from the late nests. Similarly, I have never again met with a clutch of nine eggs, or even eight; from four to seven has been the general number, the latter not unfrequent. Mr. Hudson is quite right in stating that "the wine-purple coloured eggs vary somewhat in hue, having a reddish tinge; others are of a deep liver-colour."

The eggs average 44×32 mm.

433. Rhea americana Lath. Common Rhea.

When I wrote of the Rhea in 1880, it was still truly a wild bird. As I then stated, it had been nearly extirpated in the district, at that time open and unfenced, and where the hunter of all *ferce nature* such as the Rhea and the Nutria (feather and fur) took toll at his own free will. My father's efforts to save the Rhea and our two Tinamous from extinction, were, as I then anticipated, difficult to carry into effect; and by 1884 it was a doubtful question if there still existed a pair of the former in the Rincones. However, I was then in position to improve the state of things myself. The Rincones and the northern part of the estancia had been fenced-off against intruders; and when the baffled poachers of the little town of Ajó took to boats and went down the river and so into the Rincones, I succeeded in getting the Customs Authorities to prevent them. Our own people were equally bad (the temptation of "Bolearing" a "Nandu" is irresistible to the Gaucho-man); and to them I gave the warning that the first individual found running the Rhea or the Camp Deer (Cervus campestris) would be incontinently discharged. The result was that, in a few years, we had come to have quite a fair number of Deer and an abundance of Rheas. Indeed, after a while, the pendulum had swung to the other extreme-not as regards the former, always a shy animal and never seen out of the Rincon fastnesses, but in connection with the bird. In the open camp it was an awkward enough customer in the nesting-season, owing to the tactics of the male birds towards any intruding horseman; but when we took to encouraging them in a semi-domesticated state about the woods and paddocks of the head-station, they became a nuisance. One's horse might be the most equable steed conceivable, but when suddenly subjected to the surprise-attack of an old cock in charge of his "charras" the result was either a frantic bolt through the scattered trees, or, if checked, a rearing and bucking incident. The stately slow-pacing bird was unrecognisable in this attack--as it swept forward, half-crouching, the neck incurved, the wings extended to their utmost limit and sweeping the ground, and the beak clattering like castanets-not in a direct line even, but in bending curves. On foot the peril was even greater, the object of the assailant being to come to close quarters and strike downwards with powerful leg and claws. In the end the shotgun had to be resorted to, and the number reduced to an odd pair or two in the least-frequented paddocks. I much doubt whether, at the present moment. any of my men are the happy possessors of a pair or two of "bolas de avestruz." The "boleada" is a most picturesque sport, but it is not compatible with the peaceful welfare of 1920.] Cape San Antonio, Buenos Ayres.

well-bred herds and stud-flocks. So now the Rhea is only tolerated on sufferance and preserved from extinction as an "interesting bird."

Hudson mentions how the Rhea used to conceal itself amidst the great grasses. But he does not add that it adopts the same trick when closely pursued and exhausted. It then doubles to one side and, as the horseman shoots beyond it, throws itself flat, with wings closely folded to the body and the neck outstretched flat along the ground. So closely does the plumage of the bird then harmonise with the surroundings that I have been unable on these occasions to detect it, even whilst my horse was almost moving over it ; and it has been the large black unwinking eyes which have first caught my own and guided my glance along the neck to the crouched and immovable body. The whole attitude affords a correct explanation of the erroneous expression which alludes to the Ostrich "hiding its head in the sand and thinking itself concealed from the hunter." Did the Rhea always succeed in keeping its head out of view the hunter would have much difficulty in placing the bird.

ADDENDA.

342. Sarcidiornis carunculata Licht. Crested Duck.

Adult female. Iris dark blue; pupil black; feet slateblue.

I have omitted to chronicle in its proper place the solitary occurrence of the Crested Duck; particularly interesting as its habitat is given by Sclater and Hudson as "Brazil, Paraguay, and northern confines of Argentina." And they add, "Dr. Burmeister met with this Duck in the province of Tucuman, and it probably occurs also in other places on the northern frontiers of the Republic."

The wandering individual in question was shot near Linconia, on 15 September, 1898. My collector informed me that it was in the company of other ducks and very difficult of approach. 38. Tanagra bonariensis Gm. Blue-and-Yellow Tanager.

Claude Grant's strong belief in the local nidification of this species has been justified. This season (1918-1919) has afforded me the opportunity of examining four nests, one of which contained a clutch of three eggs.

Two circumstances may have militated against any previous discovery: the position of the site chosen and the late period of incubation. It will probably be found that the summit of the practically inaccessibly dense and thorny Coronillo tree is a favourite situation, as I have found it to be with the equally conspicuous Guira Cuckoo (Guira piririgua Vieill.), and that the season is when the summer is at its full.

All four nests were at a height of from ten to thirty feet from the ground ; those from Linconia garden being situated respectively in an Australian wattle, a quince, and an orange tree; the Yngleses type in the top of a Coronillo The structure is irregular and untidy, yet gives the tree. impression of a vast amount of laboured design and execution, secure whilst in situ, but incohesive on removal. The outside measurements are about $6 \times 4\frac{1}{2}$ inches, and the cavity may be either shallow as in the Linconia nests, or cupshaped as in mine. The materials vary according to circumstances, the principle adopted being that of twigs on the outside, then a very large quantity of the dry wire-like leaves of the Casuarina (failing which, horsehair) woven circularly with infinite and meticulous care; and finally, in the first cases, the lining completed with horsehair. On the whole, it is a nest sui generis; and, once seen, not likely to fail of subsequent recognition.

The nesting-season may be taken to range from 20 December to 16 February, to judge from this series. The nest with eggs was taken on 8 February.

Unfortunately the eggs in my nest were destroyed by the Cow-bird. Two of the Linconia nests contained only eggs of this parasite. But the third had the clutch alluded to; and I am indebted to the kindness of the lucky collector (and discoverer of all four nests), Mr. L. J. Runnacles, for an opportunity of furnishing the exact description. At the first glance they show a considerable resemblance to those of the European Sparrow (though larger), the groundcolour being of a bluish white, thickly speckled and spotted with light and dark brown. These markings increase, however, towards the blunt end, where they form a circle of stronger and darker blotches combined with a few streaks of the same colour.

260. Colaptes agricola Malh. Pampas Woodpecker.

To the neighbouring establishment of Linconia is also due the first and only record of the Pampas Woodpecker, a pair having appeared about the garden there early in the present year, 1919; one of which was shot on 1 February by Mr. L. J. Runnacles, who kindly gave me an opportunity of examining the skin.

Mr. Hudson writes in 1889 of the growing rarity of this species. He had known it well as a small boy, but had come to regard it as "nearly extinct, and one may spend years on the plains without meeting with a single example." But in this locality, the conditions of which have undergone none of the changes he alludes to, I have never known it at all since the time I took up residence in 1872. After reading Hudson's account of the species, as related in 'Argentine Ornithology,' I had kept a particular watch for the occurrence of any chance individual. And it is therefore curious that only now, and so late in the day, it should come to be included in my local list, either as visitor or resident.

263. Ceryle americana Gm. Little Kingfisher.

To show that this Kingfisher only requires a little encouragement in the nature of its environments in order to extend its range, I would mention that Mr. M. A. Runnacles recently informed me of how an individual of this species, in the great flood of 1913–15, took up its abode at Linconia, frequenting an artificial duck-pond in a secluded spot amidst the willow-trees of the garden. It resided there for about a year, but never paired, and hence had no occasion to avail itself of any suitable nesting-site in the banks of the deeply-excavated pond.

287. Asio brachyotus Forst. Short-eared Owl.

At last I have had the good fortune to be shown and take a clutch of eggs *in situ* of this Owl. The date, 8 March, 1919, is very late, the end of summer in fact; but the three eggs were much incubated.

The locality was a lonely part of the Camp, far from traffic, in a hollow or depression in the plain, filled by a dense growth of green weeds, knee-deep. Nest proper there was none, only a hollow in the bare earth. My companion and I had approached it very quietly, and the bird sat so close that we actually looked down upon it from our horses for a moment before it silently took to flight. A similar nest, a few hundred yards away, contained some broken egg-shells; and Docherty, my collector, told me the mischief had been done by Caranchos.

The said collector had also secured for me another clutch of four incubated eggs, taken on 15 November of last year (1918). I should judge these to belong to the same pair of birds, in all probability from the earlier nest. In this case the nest was in a tuft of grass.

The first-mentioned clutch averages 42×43 mm.; the second 42×34 mm., ranging from 41 to 44 mm. in length and 33 to 35 mm. in breadth. White, of course, in colour; and, as seen from the measurements, nearly spherical in shape.

300. Geranoaëtus melanoleucus Vieill. Chilian Eagle.

Mr. M. A. Runnacles confirms my impression that this fine bird had abandoned its old haunts in the Rincones some twenty years ago (*i. e.* 1900). He himself had never seen a single bird since he went into residence at Linconia at that date; and indeed was totally unacquainted with the species.

The odd thing is, that only a fortnight after I had jotted down the preceding note in my journal—or, on 15 February, 1919—one of my shepherds told me that he had just seen an Eagle near the Yngleses head-station woods being followed and mobbed by half-a-dozen Caranchos in the usual fashion. A stray individual presumably. 339. Coscoroba candida Vieill. Coscoroba Swan.

In looking over a collection of eggs made for me by **D**. Docherty, I find that in 1915 he took two fine clutches of eight incubated eggs on 18 August and 15 October respectively. Both these nests were in juncales and built of dry juncos. They are, therefore, further examples of the curious recurrences to swamp-nesting—*i. e.*, in deep waters (as is the custom of the Black-necked Swan), instead of on an island or at least marshy ground.

II.—List of the Birds of the Canary Islands, with detailed reference to the Migratory Species and the Accidental Visitors. Part V. Alcidæ—Phasianidæ. By David A. BANNERMAN, M.B.E., B.A., M.B.O.U., F.R.G.S.

Family ALCIDÆ.

Alca torda. Razorbill.

Alca torda Linn. Syst. Nat. 10th ed. 1758, p. 130-Type locality: Sweden.

The Razorbill is a Rare Visitor.

It has only been recorded on a few occasions and is first mentioned by Webb and Berthelot*, who say it is found on the shores of almost the entire Archipelago, but is more numerous in the eastern group (Orn. Canarienne, p. 41).

About fourteen years later Bolle * published his notes to

* Godman in his paper (Ibis, 1872, p. 224) transferred Webb and Berthelot's and also Bolle's remarks on the Razorbill to the Little Auk, and gives their notes on the Razorbill under the latter species (*Alle alle*) in his own paper—an unfortunate error which later led Cabrera to think that Godman saw the Little Auk in the Canaries and to quote this in his list (Catálogo, p. 70). Even more unfortunate is the inclusion of the Little Auk as a visitor to the Canaries in the B. O. U. List of British Birds, 1915, p. 280. A glance at the references given by Godman will confirm this: he gives *Alca minor* [of Brisson], which is the Razorbill (and which name both Webb & Berthelot and Bolle employed in their writings), as a synonym of *Mergulus alle* (Linn.). The Little Auk has *never* occurred in the Canary Archipelago. This question will be fully dealt with in Appendix B under *Alle alle*.

SER. XI.-VOL. II.