

approach the nests from any direction, but in the water-ribbons, defined, albeit circuitous, passage-ways are formed through the growths and are invariably followed by the birds until the said runways, which are their terminations, are attained. At one nest in particular a sudden twist of such a passage-way brought it to within a few inches of the nest. I opened up the intervening weeds to see what the bird would do, but although it always stopped and apparently pondered at this premature glimpse of its eggs, it always continued to trace the channel another four or five feet, away from and then back to the nest, before coming to the eggs. I might have mentioned earlier that I employed a "hide" in observing and photographing the Moorhens and had many an interesting glimpse of the birds.

I found the birds to be generally extremely wary and suspicious. Usually they worried little about the eggs when the sun was sufficiently warm to supply them with heat, and stayed away for two or three hours at a stretch. On dull days they returned more frequently. The approach was usually slow and calculated. The red bill would slowly emerge from behind weeds. Often it would be withdrawn and not re-appear for some time. Then an exasperating appearance and withdrawal of the bill and head several times repeated, would ensue, until finally the bird would slink on to the nest, hesitating and almost stopping several times *en route*.

Squatting in a "hide" on the damp edges of lagoons is somewhat tedious, but it had its enjoyments when it resulted in detailed observations of the Moorhen.

Stray Feathers

The Fantail-Warbler in Western Australia.—The genus *Cisticola* was exhaustively monographed in 1930¹ by Rear-Admiral Hubert Lynes in a supplement to *The Ibis*. An additional supplement of coloured plates was also issued. An enormous amount of detail is included in the work, and, to produce it, 10,355 skins were examined, and a special collecting expedition made to Africa, where nearly eleven hundred skins were collected. No skins in Australian museums were, however, examined, and thereby an interesting record still remains to be given publicity.

Rear-Admiral Lynes gave the distribution of *Cisticola exilis alexandrae* as "semi-arid parts of northern Australia, viz., Kimberley Division, in the north-west, and the interior of Northern Territory and north-western Queensland—south to about lat. 20 S." It will therefore be observed that the Western Australian Faunal region was not included

1. *Ibis*, 12th ser., vol. 6, August.

in the range of the species, the Kimberley Division being, zoologically, part of the northern Australian region.

Being aware that Lawson Whitlock had collected skins of a *Cisticola* on the Fortescue River in 1922, I looked up his record, in *The Emu*,² of that trip, which he undertook on behalf of the late H. L. White. Whitlock's field notes read:

... the Mile [Mill] Stream spring . . . rises suddenly in the bed of a creek, and has a flow of water estimated at 14,000,000 gal. every twenty-four hours. The water rises at a temperature of 82 deg. Fahr., and is wonderfully clear, and pleasant to drink. The stream divides into four channels near the homestead, and after irrigating the gardens, spreads out into the flats towards the main river. The depressions in these flats comprise large and almost impenetrable reed-beds, the haunt of several interesting species of birds. These comprise Reed Warblers (*Acrocephalus australis longirostris*), various Crakes (*Porzana*), Western Swamp-Hens (*Porphyrio*), Water Hens (*Gallinula*), and a species of Fantail-Warbler (*Cisticola*). These *Cisticolae* were very interesting, and I think their plumage was of a paler tint than that of a typical specimen. I found them very silent, but they had a feeble call-note, which at first I took to be the note of a nestling Crake. It was disappointing to see no signs of their breeding. They had a habit of getting up from the rushes almost at one's feet, and then dropping into the nearest dense cover, from which it was difficult to entice them. Occasionally they would perch in some conspicuous situation, showing but little fear at such times. The plumage of the upper parts was much striped. But in the specimens procured the nape was always greyish buff and unstriped.

As the collections made on that visit to the Fortescue River passed into the H. L. White Collection, I wrote to Mr. George Mack at the National Museum, Melbourne, and he very kindly sent me the following list of skins which were collected on the Fortescue River by Whitlock. They are: 2 adult males; 2 adult females; 1 adult, not sexed; 2 females, ? immature; 1 immature, not sexed.

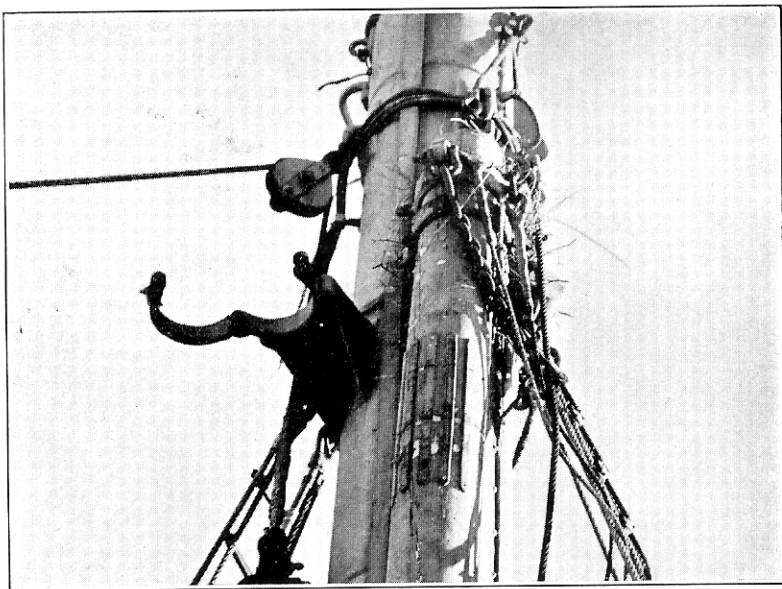
Whitlock collected them between August 25 and September 10, and the following data are the same for all the specimens: "Bill horn, lighter below. Eyes light brown. Feet very pale horn." The range of *Cisticola* is thus well inside the Western Australian faunal region.—H. M. WHITTELL, Bridgetown, W.A., 12/7/39.

2. *The Emu*, vol. XXII, p. 264.

Curious Nesting Sites.—There are many records of Swallows building their nests on small boats. One pair built regularly on a fishing launch, and if the boat put to sea for a night's fishing the birds always met it some distance from home next morning with food for their young. When I went ashore on Fraser Island recently, I left my "city" hat hanging on a peg in the launch. On returning, I noticed a collection of grass and mud on the back of the hat and discovered that a pair of Swallows had deposited



Foundation of Swallow's nest built on a hat left hanging in a launch.



Protruding sticks mark the site of a Raven's nest, on the mast of the wrecked *Maheno*, Fraser Island.

Photos. by N. L. Roberts.

a substantial foundation for a nest. As a member of the party remarked, it had become "an ornithologist's hat." I allowed the material to dry and removed it after photographing it as a memento of the trip. The hat is still being worn and none of my city friends could suspect it was recently the centre of nesting plans. I was sincerely sorry to disturb them, for my sentiments are those of the naturalist Richard Jefferies, who wrote: "The beautiful swallows—be kind to them."

Another curious site for a nest was half way up the mast of the wrecked *Maheno*, where a pair of Ravens had constructed a nest of twigs. Apparently they built on the other mast last year.—N. L. ROBERTS, Beecroft, N.S.W., 3/10/39.

Spring Visitors.—Many of the spring migrants from the mainland did not arrive until late this season. Welcome Swallows were up to time—August 29—and a Pallid Cuckoo was heard calling on September 5, but the majority of the latter did not arrive until October 1, which was sunny, with light north-west breeze, after a slight frost. During that day the Pallid Cuckoos were calling vigorously, and I was pleased to hear them again, after the scarcity of last spring. The "Summer-bird" (*Coracina novæ-hollandiæ*) was not heard until October 4, a month later than usual, and the first Pipit (*Anthus australis*) was seen ten days later, about six weeks behind the usual time. The Dusky Wood-Swallow was noted on October 21, during a trip of the Devonport Field Naturalists Club to Dasher Gorge, near Kimberley; on the same occasion the Bronze-Cuckoo (*Chalcites plagosus*, probably) was heard for the first time. Of non-migrants, the Golden Whistler was calling sweetly from a tree, and the penetrating notes of the Olive Whistler proceeded from a thick patch of scrub. The Striated Field-Wren was uttering his attractive little song, and both the Crescent and Yellow-throated Honeyeaters were calling near the Dasher.

This spring (1939) I have not heard the "pick-it-up" call of the "Tree-Diamond" (*Pardalotus striatus*) which used always to stay a day or two in the gums behind the cottage before proceeding inland. The Satin Flycatcher (*Myiagra cyanoleuca*) used to appear in the same trees in early September before going a few miles inland to nest near Latrobe, but since the male was shot by a boy with one of these wretched pea-rifles, while the pair were nesting, they have been seen no more.—H. STUART DOVE, Devonport, Tas., 4/11/39.

Bird-catching Spiders.—Whilst having no desire to share Mme. Maria Sibilla Merian's reputation for romancing, nevertheless, as information has been asked for, I give the following facts for what they are worth: During the last war my husband and I were walking one day on the outskirts of Liverpool, England, near a small swamp. Suddenly our attention was drawn to the peculiar behaviour of a Thrush which was fluttering a few yards ahead of us. It leapt into the air about four feet, then fell to earth again, repeating the performance several times. We advanced towards it, but, just as we reached it, it fell down dead.

My husband bent forward to pick it up and as he did so a spider dropped from its neck and scuttled away. We were too busy examining the Thrush to take a careful look at the spider, but it would be about two and a half inches in span from one leg to the other across the body. It was very dark in colour, and, although we are not quite sure now, I believe it was furry. Some of the large New Zealand spiders remind me of it. We found that the Thrush had been killed by a bite into the spinal cord behind the neck. We then turned to examine the spider, but it had disappeared into the rushes around the swamp and we failed to find it. At the time I asked a friend to make enquiries from the zoological authorities as to what type of British spider would kill a bird. The reply I was given was to the effect that there existed in Britain no spider large enough to kill a bird. We have, therefore, always believed that the spider was an exotic species brought into Liverpool in a bunch of bananas or other tropical fruit unloaded at the docks.

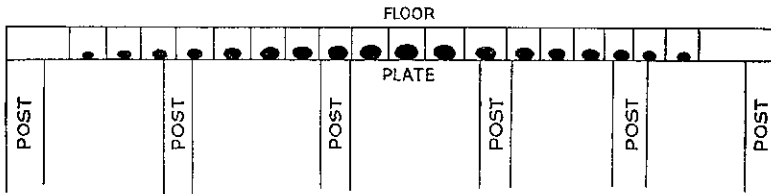
To my mind the question of size is not so important as the virulence of its bite. But the war being on, we had no leisure to enter further into the matter. The position of the wound would seem to point to the spider's having attacked the Thrush, and might be interpreted as being the usual method by which it kills its prey. I prefer, however, merely to record the facts and allow someone who is an authority on spiders to draw the conclusions.—PERRINE MONCRIEFF, "The Cliffs," Nelson, N.Z., 5/11/39.

Variegated Wren.—With regard to J. D. Waterhouse's note on the Variegated Wren, in *The Emu* for October, 1939, I can support his assumption that the second male attached to a nest is a young male of a previous brood—generally one from the last brood of the previous breeding season. My observations have been made in the Bankstown district where the species is common. I have more frequent opportunities of observing the same habit with the Blue Wren (*Malurus cyaneus*). In my garden during August, 1939,

two male Blue Wrens were observed feeding the female on the nest. One, the paired bird, was brilliantly feathered, the other being in a partial moult. Prior to nidification the adult pair was escorting three fully-grown young in brown plumage around my yard daily. I developed their liking for chopped-up cheese in order to keep them about, feeding them three times a day. During July, two of the young, which were females, disappeared, leaving the other brown bird with the parents. It was then that it began to take on the adult plumage, and the parent bird to construct her nest, rearing a brood of four, which the young male helped to feed. A short time after the young male had assumed the complete spring plumage, which took about twenty-one days, it also left its parents. The mother bird is now sitting on the second clutch of eggs, being attended to by her recently-reared brood, as well as her mate.—P. A. GILBERT, Lakemba, N.S.W., 4/11/1939.

Multiple Nest-Building.—I am indebted to Mr. E. J. Missen, Kingstown, N.S.W., for data relating to a remarkable series of nests built by a pair of Willie-Wagtails (*Rhipidura leucophrys*) under his brother's house at Clifton, on the Darling Downs, Queensland. Two years ago the Wagtails constructed eighteen nests in a continuous row of "pigeon holes," and laid eggs in one of the completed nests. They furnish, I think, the first record in Australia of this kind of multiple nest-building, which appears to be due to the inability of some birds to distinguish between exactly similar situations. The only other records I have been able to trace concern American robins, one pair building five successive nests on the steps of a steel fire-escape, another pair twenty-six nests between rafters joined to a long girder, and a third pair twenty-eight nests, also between rafters, but I understand that there are English records also. It is well-known that most Queensland houses are built of wood, on the top of hardwood stumps, which are capped to protect the building from white ants. Mr. Missen's house at Clifton is about forty-eight feet square, and is supported by nine sets of posts, each of which is six feet high. Between the ground-plate and the flooring boards are vertical divisions marking the joists on which the floor is laid, and it was in a line of these "pigeon-holes," fifteen feet under the house, that the Wagtails placed eighteen nests, as indicated in the rough drawing. The nests were built simultaneously, those in the centre being completed and the others tapering off until the end ones were "little more than foundations." Each "pigeon hole" is five inches high, fifteen inches long, and four inches wide. Eggs were laid in one of the centre

nests and abandoned, presumably because they were handled by a boy. Last year two of the nests were removed completely to provide material for a new nest built on a bedstead, the others being left untouched.



Sketch indicating position of multiple nests of Wagtail.

How are we to explain this kind of behaviour? Students of avian psychology believe that the bird, in each case, is confused by the similarity of available positions, and the fact that the situation, in each authentic record, presents identical sites in a continuous sequence, clearly supports that theory. In Nature nesting sites for most birds can be differentiated by various visible objects, and habits of association are quickly formed. Even in species which nest in colonies there is sometimes a variation in the kind and quantity of material selected, as well as directional and other relationships that enable a bird to distinguish its nest. In the case of the Wagtails the selection of the centre of the line of "pigeon holes" as a site for the first nest, would leave a number of exactly similar sites available on each side, and it is interesting to speculate what would happen if it were possible to devise a controlled experiment so that an end position would be selected as the original site. Possibly such a position would discourage multiple-building because its proximity to the exterior of the house might serve, to some extent, as a guide. Number one of the robin's nests built on the steps of a fire-escape was placed on the first step above the platform, and all the nests were fully exposed to view. That the platform helped as a guide is suggested perhaps by the facts that only five nests were started, and the two completed were those nearest the platform. One can imagine the Wagtails depositing the first material in a central site. The quantity of material would be so small that, on arriving with the second instalment, the birds would be unable to distinguish its position and only by chance would they get any visual evidence of their first effort. On the third visit, and for the same reason, they might select another site near the centre, on either side, and in that way, each new position selected would create a further risk of confusion. The fact that the central nests were completed suggests a tendency on the part of the birds to "remember"—and by that is implied only a



Striated Grass-Wren at nest in porcupine-grass.

Photo. by L. G. Chandler.

more frequent association—the original site more clearly than the others, though apparently their mentality was not equal to drawing a clear line of demarcation and concentrating on a particular nest. Instinct, unaided by reason, proved a hard taskmaster, impelling them to do a lot of unnecessary work. Curiously enough, the Wagtails selected only one row of “pigeon holes,” although others were available, possibly because some external factor guided them to the same point of entry each time.

Apart from the theory of confusion, the only alternative explanation of the Wagtails' behaviour is some abnormality in their mental make-up. Against that is the fact that all records reveal only artificial sites, provided by man, with many similar positions for nests. There is the fact, too, that last year the Wagtails' behaviour was normal, for they built only one nest.—N. L. ROBERTS, Beecroft, N.S.W., 3/10/39.

Notes on the Striated Grass-Wren.—I first made the acquaintance of this shy Grass-Wren (*Amaytornis striatus*) in the spring of 1912, in some porcupine-grass country about eight miles to the south of Cowangie railway station, Victoria. Several nests were found in the porcupine-grass, an interesting feature about them being that the entrance in each case faced the south-east. In windy weather the birds were rarely seen or heard, but on calm, sunny days, if the observer stood quietly in these haunts, it was often possible to watch them at a distance of a few feet. The least movement, however, would send them rushing into hiding. The species can run very rapidly and it is difficult to flush them. The nest, which is constructed mainly of soft bark, and the seeding stalks of the porcupine-grass, is well hidden and is usually discovered by flushing the bird.

After my Cowangie observations, nearly a quarter of a century elapsed before I again saw the species in the field. Then I discovered them in porcupine-grass at Hattah, Vic., and close investigation showed that they are well distributed throughout the area. One day I discovered a pair of birds in a restricted patch of porcupine-grass in company with Black-backed and Purple-backed Wrens, a Shy Heath-Wren, and several other species, but a close search failed to discover a nest. A severe drought at the time was restricting the breeding of a number of species.

In habits this Grass-Wren resembles *Calamanthus*. In the nesting season the males often sing from the top of a bush, particularly towards evening. They have a sweet song, and when disturbed or agitated, emit a trill-like call not unlike that of some of the *Malurus* group.

Through the kindness of Mr. C. E. Bryant I was able to visit and photograph the species at a marked nest at Hattah this season. Through lack of time he had been unable to

carry out photography at the nest. I was interested to find that the opening of this nest also faced the south-east. What appeared to be the male bird refused to face the camera, in spite of the fact that a hide had been in position for twenty-four hours. On several occasions he swallowed the food that he had brought for the young. Once he passed the food over to the female, but she ate it herself. The female only fed the young twice during the afternoon, but, after the first two hours, she sat in the nest several times, and I did not disturb her for half an hour at a stretch, as the day was cool. When she was on the nest, I heard the male calling from a distance of about ten yards and she immediately answered, but he did not come nearer.

The day was, unfortunately, one of sunshine and heavy cloud and, as every bird-photographer knows, the cloud usually appears at the same time as the bird when the camera lens is stopped down for sunshine.—L. G. CHANDLER, Red Cliffs, Vic., 9/11/39.

Council Meetings of the R.A.O.U.

Recent matters dealt with by the Council include the following:

Protection for the Bustard.—Protection for this species has now been extended to the Northern Territory as a result of the Council's reviving its application. Protection is now Australia-wide.

G. M. Mathews Library.—A request has been made that inter-library loan of books from this collection, when housed at Canberra, be arranged.

Hattah Lakes, Vic.—A full and detailed report, prepared by Mr. Jack Jones who has sponsored the project, urging the proclamation of a National Park, has now been presented to the Minister for Lands.

Field Ornithology.—Dr. Serventy's proposals were circulated to Council members. A permanent committee, with two sub-committees—one in Australia and one in New Zealand—to be formed, to provide assistance to those undertaking research. Field investigation by means of ringing and trapping to be attempted. Other suggestions include investigations on migration, game bird studies, habitat selection surveys, population censuses. The question of the expending of Union funds on these projects has raised some difficulties and a committee of the Council has been formed to consider the matter.

H. L. White Collection.—It appears impracticable to make arrangements to have skins from this collection sent to other museums for inspection.

Uniform Bird Protection.—The report submitted to Council was found to be inaccurate in some details and the Council refused to further the matter until the position in each State was verified.

Duck Season in Victoria.—As it was considered that the attitude of the Advisory Council for Fauna and Flora in so distinctly allying itself with those advocating earlier opening of the duck season could not be supported, the R.A.O.U. withdrew its representation. A request for reconsideration is now being dealt with.