

water-fowl enclosures, and hunt round for scraps of meat that may be left; they are very tame. In the Cairo Zoological Gardens I noticed the same thing; there the Nankcen Herons (*N. griseus*) roost all day on the trees in the Gardens, and at night go to the Nile swamps to feed. Our birds usually go to the low-lying grounds and shallow water near West Melbourne; they leave the Zoo just at dusk.

The graceful Pied Grallinas, which assemble in flocks during the winter, come from the districts around Melbourne into the Zoological Gardens in the evening to roost, about an hour before the Herons leave. Two pairs of wild Grallinas have for years nested in the Zoo, but each pair has its own restricted area. The same applies to two pairs of White-backed Magpies (*Gymnorhina leuconota*), except that these birds have a battle royal should one pair seek to poach on the other's ground. On several occasions pinioned Magpies were liberated in the Gardens, but they were all attacked by wild birds sooner or later, as they unwittingly trespassed on their area. They seemed to be frequently getting on the prohibited ground of one pair or the other, and found it a difficult matter when they were attacked by the wild birds. As they could not fly away, they simply lay on their backs and fought with beak and claws, often effectively.

Three pairs of Black-and-White Fantails (*Rhipidura molacilloides*) nest in the Gardens, also many pairs of White-plumed Honey-eaters, and these, also, each have their separate parts. All these birds drive away their young as soon as they are able to look after themselves; therefore our wild breeding stock never increases.

In the Gardens there is a Queensland Cassowary (*Casuarius australis*), which, when about seven years old, laid two eggs. Before that it had always been regarded as a male bird, but the male and female are practically identical in appearance. The same applies to the Emu, but the male Emu drums and the female makes a grunting noise, whereas Cassowaries are very silent birds, and one cannot, therefore, easily identify the sexes by the sounds uttered.

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### Camera Craft Notes.

**Pardalotes Before the Camera.**—We have obtained a large number of photographs of the Red-tipped Pardalote (*Pardalotus striatus*). There must be very few families of these birds from Greensborough to Eltham and back to Preston, Victoria, which do not remember some annoying experiences of bird-photography. We have often found a pair nesting in the same place year after year, and some of them must now associate cameras with nest-building.

Usually, when we have met with scant success elsewhere, we use the latter part of the day at one of the Pardalotes' nests we



Cuvier's Frogmouth.

have located. Here, at any rate, we are always fairly sure of a satisfactory reception, and are able to continue our homeward journey with the comfortable feeling that we are not carrying a batch of blank plates. One pair of Pardalotes has been a favourite for several seasons. The nesting hole is in a very favourable position, both as regards sunlight and convenience. Usually, the time chosen for camera work is when the young are in the nest, for we are confident of being able to focus on the parent birds.



Red-tipped Pardalote.

FROM A PHOTO. BY S. A. LAWRENCE, R.A.O.U.

Our first step on arriving at the nest is to make sure that the adults are not inside, and then to close up the entrance to the burrow with a piece of stone. The tripod is then placed in position, and generally, before the camera is fairly trained on some point near by, one of the birds (often both do so) is hopping on to it, and from it to the nest entrance. A long thread to release the shutter is unnecessary; the operator sits by, and waits for a favourable position. Our faith in this particular family was almost shattered on one occasion, when, after we had proudly described the birds to another nature photographer, and

asked him to accompany us to the nesting haunt, they refused, for the whole of one scorching afternoon, to have anything to do with the enterprise. Their reputation, however, was fully redeemed at the following week-end, by which time the eggs had hatched.

The Spotted Pardalote (*Pardalotus punctatus*) is also much harassed by us in our desire for pictures, but in this case the result



Spotted Pardalote.

FROM A PHOTO, BY R. T. LITTLEJOHNS, R.A.O.U.

is not such a foregone conclusion. Some attempts have proved as unsatisfactory as if the subjects were very shy birds. A favourite pair nests annually in the same burrow at Eltham. Our methods of obtaining photographs are similar to those adopted in the case of the Red-tipped species, except that we frequently find it necessary to use a few feet of thread to release the shutter. —S. A. LAWRENCE and R. T. LITTLEJOHNS. Melbourne, 3/6/16.

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**The White-faced Ternlet.** — Mud Island, Port Phillip Bay, Victoria, is noted chiefly for its rookeries of the White-faced Storm-Petrel (*Pelagodroma marina*); but of equal interest, I



Nest and Eggs of White-faced Ternlet.



Young White-faced Ternlet.

think, are the White-faced Ternlets (*Sternula nereis*), which nest on the sun-warmed beach. Among soft sand, and a mosaic of shells, mostly broken, and pebbles, the Ternlets rear their broods. Two eggs form the clutch, but rarely a set of three is found. The ground colour of the eggs is stone-grey, with blotches of umber and dark grey, and they harmonize with their environment so well that it is difficult to find them. The nest is a slight hollow in the sand, such as one might form by a few scoops with a teaspoon.

The young Ternlets, like the eggs of the species, are protectively coloured, the down being yellowish-white. When only a few days old they are easily captured, often enough crouching quietly in the nest, and making no attempt to escape. When the feathers are sprouting, however, the little Ternlets are more active, and my patience was tried in obtaining the accompanying photograph. Time after time the chick darted away, and ran swiftly over the beach, generally towards the sea.

In November, 1914, with other members of the Bird Observers' Club, I visited Mud Island, and obtained some glimpses of the home life of *Sternula nereis*. Walking round the islet in the early afternoon, we rounded a little headland, to see scores of the Ternlets flying excitedly above a long strip of beach, between high tide mark and the scrub. There lay the rookery, right before us, without a doubt. But six pairs of keen eyes searched the beach in vain for some minutes. Then a nest was found, with the footprint of a blundering boot within a few inches of the two eggs. Somebody had walked over the nest without seeing it. However, the rookery was fairly compact, and nearly a score of nests, containing either eggs or chicks, was discovered in less than half an hour. Most of the eggs were heavily incubated, and one nest held a day-old chick and an added egg. In another was a dead nestling and a living one; the former had evidently been crushed—I fear, by a man's foot.

The rookery itself was sufficiently interesting, but, after exposing a number of plates, I packed up the camera and devoted my eyes to the birds in the air. There was no hope of obtaining a photograph of an adult Ternlet, for none of the birds alighted on the beach for even a second. Over our heads they hovered and flew, like a flock of big white butterflies. Sunlight gleamed on their plumage, and the lucent blue of the sky seemed to flow around their forms. It was a marvellous picture of wild beauty; one could not soon tire of watching the evolutions of that flock of agitated birds. Their cries came faintly to our ears—little quivering shafts of sound, in which were blended the tones of anger and solicitude. Some of the Ternlets carried food—minute fishes, whose silvery bodies also gleamed in the sun. At times a bird would dive down, with the same motion as if it were entering the sea, but curve upward again within a yard of the beach, and rejoin the company in the sky.

It is a pleasure to reflect that Mud Island is sanctuary for the

Storm-Petrels, and is so rarely visited that the Ternlets, too, are fairly safe in their lonely nesting haunt.—CHARLES BARRETT, C.M.Z.S., R.A.O.U. Melbourne, 31/5/16.

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**Satin Bower-Bird at Play.**—On a day toward the end of last year, a friend and I walked quietly along a scrub-hemmed coach-road near the summit of Tambourine Mountain, about 30 miles from Brisbane. Suddenly we heard, amid the medley of bird-calls, a curious rasping note, suggestive of nothing so much as a circular saw at work in the distance. I knew the note well.



Satin Bower-Bird Working at Bower.

FROM A PHOTO. BY A. H. CHISHOLM, R.A.O.U.

It was the ecstatic, half-crazy "wheeze" of the full-plumaged male Satin Bower-Bird (*Ptilonorhynchus holosericeus*) as he pirouetted about the bower.

Creeping stealthily through the tangle, we approached the spot whence the sounds seemed to come. So engrossed was the bird in the dancing that it was continued till we were within 12 yards of the performer. Then one of us trod on a stick. Instantly there was a startled "Chuck, chuck," a flutter of wings, and a flash of blue-black feathers; there would be no more dancing for

that day. The bower was a neat, dainty little structure, much akin to those that I have photographed in Victoria. It was built between two tussocks of grass, and, as usual, was set off with a liberal sprinkling of blue feathers, small bones, and leaves. The dense nature of the surrounding scrub rendered photography practically an impossibility, nor did I get much opportunity of adding to my knowledge of the Bower-Bird's habits "at home."

It was in Victoria that the accompanying photograph was taken. Some idea as to how the bird works is conveyed by it. Bower-Birds are not "jerry builders." The foundation of the bower is strongly laid, the walls are matted closely and with infinite care, and the bird never seems happy if one piece of "timber" is out of alignment. In fact, the work seems a case of "more is it worth to have striven than in the end to attain." for the walls are frequently pulled down and rebuilt as though for the pleasure of the labour. Often, too, the builder will pull a few sticks from near the "front" entrance and hop round to the "back" with them. After suspiciously eyeing the camera for a time, the bird shown in the photograph half-viciously pulled a strand from one end of the bower, hopped around to the opposite end, and rammed it in with three quick little wriggles of the head. This is typical. The bird seems to discover more pushing power when its strong feet are planted well apart.

The curious effect created by the eyes protruding is also customary. The male Satin Bower-Bird's eyes are the most remarkable I have seen in any bird. Seen from different angles, they glint and gleam with myriads of bright colours. At times they are of the same hue as the owner's lustrous feathers; and, again, they present the same brilliant red as do the eyes of the Crested Bell-Bird (*Oreocica cristata*).

But there is nothing more fascinating, when the Bower-Bird is at play, than its crazy dancing. A spirit seems to take possession of the bird at irregular intervals. Then, without any preparatory exercise, its wings go up almost straight above its back, the primaries sometimes touching. Holding them thus, it bows gracefully, emits the saw-like "wheeze," and hops about in a most fantastic fashion, occasionally in the bower, but more often round and about it. Better still is the performance in which the bird minces about the bower *on the tips of its toes*. Sometimes this is done while the wings are raised, but the bird does not appear to be capable of sustaining itself in such position for more than half a minute or so.

A fact of passing interest is that the female appears uninterested. This, of course, is not unusual; most female birds, I believe, are adepts at the art of disdain; but in this case the male seems to be equally haughty. So far as I have seen, he takes very little notice (except of a hostile character) of his mate. Seemingly, life for him is worth while chiefly for the interest and satisfaction he gets out of dancing and bower-dressing.—A. H. CHISHOLM, R.A.O.U. Brisbane, 15/5/16.