

which, when uttered in rapid succession, has a most pleasing effect. This note has a marked resemblance to the distant jingling of cow-bells. A fairly good representation may be obtained by striking together two bars of wrought iron, one of which is suspended. Another note frequently used is almost an exact copy of the alarm call of the Noisy Miner (*Myzantha garrula*). Still another note resembles the squeaking of a door with rusty hinges. Sometimes although in the midst of the birds you will not hear a single tinkle, every bird using the note which resembles that of the Noisy Miner. One fine afternoon in June, at about 1 o'clock, I was at Beaconsfield and not a note could be heard, although up to this time the Bell Miners had been making an incessant din. The birds were all perched in the small saplings, seemingly asleep. When disturbed they uttered a note or two perhaps, flew a couple of yards away, then again were silent. The breeding season seems to extend almost through the whole year, as I have seen young birds just out of the nest in May, and others about four weeks old in October, also nests containing eggs and others being built through October and November. November, however, is perhaps the principal breeding month. The nest is usually placed from 3 feet to 12 feet from the ground. The tea-tree scrub (*Callistemon*) is generally the most favoured site, although I have occasionally seen nests in bracken fern (*Pteris aquilina*), peppermint gum saplings (*Eucalyptus amygdalina*), and a species of native aster.

Notes on the Satin Bower-Bird (*Ptilonorhynchus violaceus*).

BY C. F. COLE, MELBOURNE.

(Read before the Bird Observers' Club, 27th January, 1910.)

FOR years many naturalists were puzzled regarding the blue-black plumage of the male Satin Bower-Bird, many being of opinion that it was due to the feeding of selected nestlings. The adult male has been called the king of the flock, owing, no doubt, to the fact that one of these dark-plumed birds is nearly always accompanied by a flock of the "green" birds. But dissection and the close observations of naturalists have now elucidated the problem.

The nest is usually placed in a fork and among the finer twigs of a dogwood, pittosporum, blanket, or wild musk tree, but sometimes in a eucalypt. I have seen a nest as low as 4 feet and as high as 15 feet from the ground. As far as my experience goes, Satin Bower-Birds nearly always choose the slopes to a creek fairly thickly covered with undergrowth, or a tree growing in the bed of a creek containing permanent water,

for their building place, and return year after year to the same locality to nest. The egg of this species is considered to be fairly rare by collectors, but I attribute this to the want of knowledge of the nesting sites. The bird is plentiful enough. I have never known more than two eggs to a clutch. About five months, August to December, cover the breeding season; I have known eggs to be taken in both these months. Last December, in Southern Gippsland, I found ten old nests, about 100 yards apart, along the slopes and bed of a creek. The birds have built annually in this particular spot for some years now, and a good many clutches have been taken by juvenile collectors.

I have kept the "Satin-Bird" in captivity for years, and have had the opportunity of watching its change of plumage from green to purplish-black. This change takes place in the male birds only, and starts about the third or fourth year, the change being extended over a period of three years, when the perfect plumage is attained. The first sign of the coming change in the young male is the darkening of the lunated markings on the breast feathers and the tips of the feathers upon the neck and back. The inner webbing of the spurious wing and tail feathers also becomes darkened. When the change is taking place in earnest, a large number of feathers will show purplish-black upon the breast, abdomen, hind-neck, head, tail coverts, back, median wing coverts, and humeral part of the wing, while other feathers only partly show the change. The majority of feathers upon the chin, throat, lower throat, fore-neck, and forehead turn black in one moult; while many of the under tail coverts and the feathers on other parts of the body gradually turn, taking fully three moults to become black. The flight feathers of the spurious wing are the last to change.

Upon dissecting specimens of the green-plumed birds, I found that the female has the lunated markings of the breast feathers darker than they appear in the immature male, and the eye is of a richer sapphire-blue colour.

Often I have been able to closely observe this bird in its wild state, and find that as soon as the change of plumage takes place in the males they become shy, seldom exposing themselves. The females keep them partly supplied with food. With most birds that possess this "feeding" habit it is generally the males that attend to the females, as in Wrens, Cuckoos, Collared Crow-Shrikes, &c. Some years ago, in Eastern Gippsland, while sitting upon a fallen tree in the bed of a densely wooded creek bordering an orchard, my attention was attracted by hearing a bird make, every now and again, a soft purring noise, besides mimicking other species. Creeping towards the edge of the scrub, I saw a full-plumed male Satin Bower-Bird basking in the sun upon the branch of a blackwood tree. The

rays of the sun played upon the purplish feathers and the beautiful sapphire-blue eyes flashed. The bird kept spreading its tail, drooping its wings, and mimicking all birds common to the district—Lyre-Bird included. Then suddenly it would break into the purring note, and a "green" bird with a strawberry in its bill would join it. Upon the male bird taking the gift the other would fly off. Suddenly several green-plumed birds made their appearance, and one, settling close to me, gave a warning note, when they all disappeared in the scrub.

Satin Bower-Birds are very fond of fruit, early morning and evening being their favourite times for raiding orchards. The owner of the orchard mentioned informed me that the birds were a great nuisance, but it was a very rare thing to see a black-plumed bird out feeding in the open with the "green" ones, and that the "green" birds kept carrying fruit into the scrub. Other orchardists have told me the same thing.

I have heard it stated that the male Satin Bower-Bird does not live long after it attains the dark plumage. I have kept a caged bird five years after the change. It then accidentally gained its liberty, and, after staying about the house for a few weeks, disappeared.

List of Birds Observed on Parry's Creek, North-West Australia.

BY GREGORY M. MATHEWS, F.L.S., &c.

FROM notes supplied to me by Mr. Rogers I make out the following list, showing the birds' movements during February, March, and April, 1909.

It will be noticed that some of the birds mentioned in my two lists* of the birds of that district for 1908 have left the locality.

The numbers are from my "Handlist." Those marked thus * are rare.

No.		..	..	..	Feb.	Mar.	Ap.
-13	<i>Synœcus cervinus</i>	..	..	..
-15	<i>Turnix maculosa</i>	..	..	..	"	"	"
-20	" <i>pyrrhothorax</i>	..	..	..	"	"	"
-21	" <i>velox</i>	..	..	..	"	"	"
✓33	<i>Geopelia humeralis</i>	..	..	..	"	"	"
34	" <i>placida</i>	..	..	..	"	"	"
✓35	" <i>cuneata</i>	..	..	..	"	"	"
✓37	<i>Phaps chalcoptera</i>	..	..	..	"	"	"
40	<i>Petrophassa albipennis</i>	..	..	..			1 bird in Ap.
✓45	<i>Lophophaps plumifera</i>	..	..	..	Feb.	Mar.	Ap.
✓56	<i>Poliolimnas cinereus</i>	..	..	..	"	"	—
59	<i>Microtribonyx ventralis</i>	..	..	..	"	"	Ap.
✓62	<i>Porphyrio melanonotus</i>	..	..	..	"	"	—
✓65	<i>Podiceps novæ-hollandiæ</i>	..	..	..	"	"	"
✓119	<i>Hydrochelidon hybrida</i>	..	..	..	"	"	"

* *Ante*, in vol. ix., p. 1 and p. 53 respectively.