

Lilac Nape-band on Female Bower-Birds (*Chlamydodera*).

BY H. L. WHITE, R.A.O.U., BELLTREES, N.S.W.

WITH the single exception in Mr. F. L. Whitlock's notes upon *Chlamydodera guttata* (*Emu*, vol. ix., pp. 212-219), I have noticed no reference to the fact that the female Bower-Bird is sometimes found bearing the lilac neck-band. Gould ("Birds of Australia," vol. i., p. 452) appeared to be in doubt upon the subject, but was near the mark when he suggested that the band may possibly be acquired by old birds.

Hall, in his "Key to the Birds of Australia," states (page 22) that the female of *C. maculata* has no lilac band.

North ("Nests and Eggs of Birds Found Breeding in Australia and Tasmania") describes the females of *C. maculata* (vol. i., p. 41), *C. guttata* (p. 48), and *C. orientalis* (p. 55) as having no lilac bands.

From various parts of Eastern Australia I have lately received skins of *Chlamydodera maculata* on which the lilac band shows plainly on some adult females. One of my collectors took the trouble to preserve in spirits a female body showing the lilac band and take same to Sydney, where it was dissected in the presence of a well-known member of the R.A.O.U. The collector in question states that about 40 per cent. of the females he skinned carried the lilac band. Mr. H. G. Barnard recently forwarded three skins of this species from the Dawson River, Queensland, two of which (females) show the coloured band, one being indistinct, the other almost as brightly coloured as on a male. Mr. F. L. Whitlock, in his article referred to above, clearly proves that old females of *C. guttata* are to be found with a distinct band; I have one such skin in my collection.

Mr. H. G. Barnard, while collecting for me at Cape York, in 1910, forwarded a skin of a female *C. orientalis* which shows a single pink feather at the back of the neck. In view of the experiences of these collectors, and after examining the skins forwarded by them, all of which were secured during the breeding season, I am of opinion that females of *C. maculata*, *C. guttata*, and *C. orientalis*, when fully matured and breeding, sometimes assume the lilac neck-band.

Metallic Starlings (*Calornis*).

BY E. J. BANFIELD, R.A.O.U., DUNK ISLAND (N.Q.)

SINCE the Metallic Starlings "are making them ready to fly," it is meet that one to whom their presence during seven months has given pleasure and food for reflection should speed them on their equatorial journey, and assure them of cordial greetings when they return next August as heralds and emblems of the reinvigoration of the sun. These lively, cheerful, self-important, squealingly

industrious birds perform such essential functions in the scheme of nature that others need not scoff when a mere observer of their habits expresses the opinion that, lacking them, North Queensland would be distinctly the poorer. Apart from æsthetics—and the birds are exceedingly handsome—they are desirable, because they transport hither and thither the seeds of plants, securing the distribution of species which otherwise have no special means of finding untainted soil in which to germinate. To study the habits of the birds irrespective of the “season’s difference” would be unsatisfactory, for their migratory flights are regulated by the weather. It is not for one moment argued that the Metallic Starling is a weather oracle or prophet. Rather the reverse, for it is obviously misled and rendered uncomfortable by changes upon which even dull-witted humans may reasonably rely. The soaking rains of the wet are to him a vexatious interference. The birds are averse to the inevitable soaking and disarray of their sheeny, black, close-fitting feathers, and exclaim against the saturation of their bulky nests. Come the rains early or late, one detects a variation in the tone of the Starling’s impatient exclamations. It is not quite so sharp as when the air is dry and the sun flashes on burnished plumage. The tone is somewhat subdued. There is a strain of remonstrance and melancholiness foreign to the birds in happy moments. Perhaps it is that the discipline of the rains is too rigid for them. They fly from the wet against inclination.

Whether they come early and depart late, whether the several colonies have hatched out three or only two broods, whether the sly, calculating Grey Falcon has systematically harried the colonies or left them joyously free, whensoever they make them ready for flight, the Starlings, true to one of the ruling passions of the genus, assemble in flocks for the performance of aerial manœuvres, in which they act as though the separate entities had but a single brain. They cleave through the air with sword-like rigidity and cleanness, shrieking in unison. It may be fanciful to compare the evolutions to forked lightning, but certainly similar acute angles and startling tangents are manifested. Just now the black lightning is often in the air. There is reason to believe that these martial exercises are designed to perfect the ranks—the youngsters of the season—in the art of evading the death-dealing swoop of the Falcon and other predatory birds. Indeed, I have watched the evolution, not merely in times of peace and security, but as an actual and effective movement for the defeat of an easily baffled and exasperated enemy.

Judging from the alacrity with which the birds begin building on their advent in August, and the earnestness with which family duties are maintained during seven months, it is conceivable that but for the positive check of the rains they might maintain the vigorous fulfilment of the law for the propagation of the species all the year round. Though governed by its incidence, they appear to detest the wet. An early wet season sends them off, though with apparent reluctance. When a preliminary downpour

has rendered nests uninhabitable, a fine interval has so far deluded them that they have started to demolish and rebuild, only to be finally driven away by the spiteful recurrence of the rain. Seldom do Metallic Starlings shriek and glitter in North Queensland jungles as late as the end of March. Here their departure has been noted as early as 20th February. They come to this spot during the first week of August. Last year they were first heard and seen on the 5th of that month, while at a spot only 7 miles away, on the mainland, they had made themselves apparent a fortnight earlier.

A colony which has re-established itself in a tall, slim Moreton Bay ash (eucalypt) in the heart of the forest, hatched out three, if not four, distinct broods during the season. At first the colony was 60 nests strong. In six weeks the number had increased by 30. The second hatching took place early in December, the third about the middle of January, and there is some evidence in favour of a fourth hatching late in February. Rain during January and February was not sufficient to seriously annoy the colony, which on 4th February included 125 nests. On that date two over-weighted branches broke down. In several of the nests were fledglings, but all save two had been killed by the shock, or had been slowly done to death by green ants. One of the survivors died shortly after discovery of its forlorn plight. The other lived as a pet for a couple of months. The adult Metallic Starling is remarkable for the colour and lustre of the eyes. They are flame-tinted, and glitter with gem-like brilliancy. During infancy the eyes of the castaway were deep brown, much the shade of its back. Not until a month after it had become one of the household did they begin to change. And the heightened pigment was not permanent. It became intensified or paled with the changeful moods. In quiet moments the eyes were thin, watery red. Excitement or anger deeply tinged them. One could see the tints of the iris vary with almost every pulsation. The emotions of the little bird—its familiarity and bold assurance gave unique opportunity for critical inspection—were expressed in terms of more or less vivid colour.

On 3rd December three or more nests were discovered under the tree. In each there were three eggs, all slightly incubated. Each nest was carpeted with fragments of fresh green Moreton Bay ash leaves, which had been torn and nibbled at the edges. What office do the green leaves perform? Possibly the pungency so agreeable to the human sense of smell may be obnoxious to the insects which fidget the adults, who, by the use of the frayed leaves, contrive peace for their sensitive offspring.

To return to the castaway: It was estimated that when about six weeks old it daily consumed food sufficient for an infant eight times its age. Its *menu* included oatmeal porridge and milk, rice, mango, papaw, bread, cake, large white grubs, grasshoppers, caterpillars, mosquitoes bloated with human blood, March and lesser flies, and samples of every edible unprotected from its

raids. It would feast on the scrag end of the neck of a recently decapitated fowl with as much apparent relish as on a mango. Having acquired a taste for milk, it refused to spoil its thirst with water, and since it was never a captive, and always alert, quick and questioning, it generally made itself understood, and got that which it wanted, if not with good grace then by persistence, or wile, or fraud. In its eagerness for its morning's porridge, it alighted in a plateful all steaming from the pot, and was so sadly scalded that feathers from the thighs indecently disappeared. It even ventured to dance upon the hot stove so that it might inspect the cooking of the porridge, all too slow for its precipitate appetite, but the feat was never indulged in a second time. Baths were taken regularly, for the bird was fond of water for the purpose of cleanliness, though despising it as a drink. It was fond of perching on the edge of the "blue tub," and ducking and sprawling therein, and would also submit to be well soused from the watering-pot. Birds from the same colony were wont to visit a chilli-bush growing within a few feet of the verandah, but the castaway never made friends, though it soon learnt to take chillies. Its first knowledge of that diverting fruit was, however, disastrous, for, instead of being swallowed whole, it was broken and tasted with deliberation. With a shriek of dismay and flooded eyes and gaping mouth, it flew to the kitchen, eloquently imploring the solace of milk. Ever after chillies were bolted. Occasionally the castaway would camp out on a mango tree, and its failure to appear one morning at its accustomed time for porridge and milk was not astonishing, although grievous, for the bush has many arboreal snakes. The life-history of the little bird was entertaining, because it afforded information as to the variety and quantity of food consumed, and, as the digestion was grossly imperfect, one was able to realize more completely the services of such an agent in the distribution of seeds. Millions of seeds must be transported by the several colonies every year, and thus is the vegetable kingdom helped to preserve its types. Moreover, excellent work is done by the species towards the checking of insect pests—grubs, caterpillars, flies, and the larvæ of beetles. They search the glistening fronds of cocoanut palms with ordered haste, and examine the spathes so shrewdly that one is inclined to marvel that any insect should survive to the injury of the palm. Where the soft green caterpillars gather together, there will the Metallic Starlings be joyfully busy.

In times past Metallic Starlings, in innocent youth, were eaten greedily by the aborigines, the associated nests being easily raided two or three times during the season. Nowadays, locally, the entertaining birds are petted in a certain sense and called by the aboriginal name. We do not refer to them as the Metallic Starling, or the Shining Calornis, or *Calornis metallica*, but as "Tealgon," the accent on the first syllable. Across the water, only $2\frac{1}{2}$ miles away, the bird is known as "Dill," a sound which imitates a frequent note. Many of the blacks' names are onomatopoeitic.

A recent contributor to an English review, in an article on the Starling, was inclined to wonder "whether they do not possess some strange occult sense of organization which in the long process of evolution may carry them higher and higher in the scale of creation." That Metallic Starlings do benefit by the laws of community there can be no doubt; but their socialistic habits, on the other hand, appear to invite the raids of snakes and Hawks. It has not been uncommon this season to find a Grey Falcon in possession of the nestful tree, while all the adult birds have crowded into one close by, whence, with whimpering remonstrances, they have watched the enemy of their race, who does not appear to have wit enough to raid such shrewdly-domed nests. The Falcon generally seizes its prey on the wing, though I have heard of one accomplished grey burglar which was wont to tear open nests with its talons.

In addition to being transport agents, these Starlings are among the living jewels of the bush. To watch a dozen simultaneously swoop into a native cabbage (*Scævola koenigii*) and dart out again in a few seconds, each with a fruit in its beak, and slip arrow-like through the forest, is a pretty experience. The slim, jet-black, iridescent bodies, the red and gleaming eyes, the milk-white fruit, and impetuous, level flight, fulfil a scheme of colour and exhibition of speed which are not the least among the wonders of the tropical bush.

Breeding Habits of White Tern (*Gygis alba*) on Kermadec Group.

BY R. S. BELL.

(Communicated by W. R. Oliver, R.A.O.U., Auckland, N.Z.)

WHITE Terns begin to arrive at Sunday Island usually about the first week in September, but they are most irregular in their time of arrival and date of laying. For instance, I may mention that a half-fledged young one was found on 29th November, 1908, while, during the same season, the last new-laid egg found was on 10th January, 1909. The Terns are found in small colonies or in single pairs here and there along the east, south, and south-west coasts of the island. They are not found on any of the outlying rocks, nor, I believe, on any other island of the Kermadec Group.

The birds arrive, generally, in very small numbers at a time, though large flocks, apparently just arrived, have sometimes been seen. They settle almost at once on the trees in which they eventually breed. These trees they apparently occupy during the period of their stay, whether they breed or not. They always perch in them during the heat of the day and camp in them by night. Many fall victims to cats, for it is quite common to find three or four pairs (on one occasion as many as eight) mangled at the roots of a tree. These birds are very active morning and evening, when they may be seen gliding among the