

a dark red zone at the larger end. Outside dimensions (in millimeters), 17.8 x 12.6 to 17 x 13.2.

Type in the Queensland Museum, collected and presented by Mr. W. E. Weatherill.

This bird is a denizen of the coast, and lives among the mangrove bushes on the islands of Moreton Bay, and along the banks of the rivers and creeks in South-East Queensland.—It may often be observed in the parks and gardens close to the coast, busily engaged in quest of insects. At intervals of every few minutes it bursts forth into song; this is so sweet and well sustained that the residents of the Brisbane district call it the "Queensland Canary." Its pre-eminence as a song-bird above its congeners induces me to propose the above name for the species.

### Stray Feathers.

BLACK-TAILED GODWIT.—I find, on comparing *Limosa limosa* from Europe with the Black-tailed Godwit from Australia, that for the latter the name of *Limosa melanuroides*, Gould, must stand.—GREGORY M. MATHEWS. Herts., England.

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CURLEWS (*NUMENIUS CYANOPUS*) MIGRATING.—Passing through Cranbourne on the evening of Friday, 12th March, 1909, a few minutes before 7 o'clock, I heard numerous cries of Curlews (*Numenius cyanopus*), and, knowing they must be migrating (as there is no coast line near), I reined in my horse and listened. A large flock was evidently flying overhead at a great height. After listening for a while it became evident that their route was as nearly as possible from south-east to north-west by west, and their "direction" would bring them over, I should say, North Brighton. It was too dark for observation.—GEO. E. SHEPHERD. Somerville (Vic.)

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RED-BROWED TREE-CREEPER AT OLINDA.—I secured a single specimen of the Red-browed Tree-creeper (*Climacteris erythrope*) at Olinda (Vic.) on the 30th January, 1909. Although a good look-out was kept, no others were noticed in the locality. I shot the bird while its back was to me, thinking it was *C. leucophaea*, and was delighted on picking it up to find I had been mistaken. I find by my note-book I have it sexed as a male, but this bird, having the rusty markings on the breast, should, according to John Gould, be the female. I can only admit, before such an authority, that I must have made an error in dissection. I think this is the farthest point south this species has been recorded from.—L. G. CHANDLER. Melbourne.

THE RETURN OF THE BIRDS.—The following table will show the dates of some birds' return to this district in 1907, with their relative arrivals of 1908 :—

	1907.	1908.
Pallid Cuckoo ( <i>Cuculus pallidus</i> ) .. ..	Sept. 4 ..	Aug. 7
Rufous-breasted Thickhead ( <i>Pachycephala rufiventris</i> ) .. ..	Sept. 12 ..	Sept. 3
White-shouldered Caterpillar-eater ( <i>Lalage tricolor</i> ) .. ..	Aug. 18 ..	Sept. 27
Rufous Song-Lark ( <i>Cinclorhamphus rufescens</i> )	Sept. 8 ..	Sept. 25
White-browed Wood-Swallow ( <i>Artamus superciliosus</i> ) .. ..	Oct. 11 ..	Oct. 13
Masked Wood-Swallow ( <i>Artamus personatus</i> )	Oct. 24 ..	Oct. 13
—A. H. CHISHOLM. Maryborough (Vic.), 17/10/08.		

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FLAME-BREADED ROBIN.—I have just read the very interesting monograph on the Flame-breasted Robin (*Petræca phænicea*) in *The Emu* (viii., p. 122) by Mr. A. G. Campbell. It may be of interest to the writer to know that I saw numbers of Flame-breasted Robins in the spring of 1882 on spurs of Mount Useful, Gippsland, and two pairs were nest-building in crevices of stringybark trees, about 12 to 15 feet from the ground. The mountain spur was about 4,000 feet above sea level. I also saw at same place and time a pair of Hooded Robins building. Though I was in Cape Otway district from 1849 to 1868, I never saw nests of Flame-breasted Robins, but I have no doubt that they nested in the forest-ranges.—H. W. FORD. Fitzroy (Vic.), 21/3/09.

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FALCON AND BAT.—Some little time ago the noise of the dray I was driving startled a common bat from his hiding-place in the hollow spout of a tree. A Little Falcon (*Falco lunulatus*), perched on the top of a high tree, instantly noticed the bat, and dashed down to secure (as he thought) an easy prey. But as he swooped the bat ducked, and, apparently diving between the Falcon's legs, fluttered away. The Falcon turned like a flash and quickly overtook the little fugitive, with the same result. Time and again did the Falcon swoop, his claws outspread to grip, and time after time did the bat, by his fluttering, dodgy flight, evade his pursuer. At length, the bat, seeing a hollow spout near, dashed into it, and next second the Falcon settled, but—too late.—ERNEST D. BARNARD. Gladstone (Q.), 11/5/09.

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OWLS RETAINING THEIR PREY.—I have another note to add to my previous one (*Emu*, vii., p. 187) *re* Owls retaining their night catch during the day. A few weeks ago, sitting by the side of a spring in the range, eating my lunch, I got to

thinking of a pair of Owls that formerly used to inhabit a thick fig-tree on the opposite side of the gully, and, looking across, I noticed the tail of an opossum sticking out from a leaning branch. Raising my eyes a little I saw the barred breast of a Powerful Owl (*Ninox strenua*). On walking nearer the Owl flew away, and dropped what remained of the 'possum, the hind legs and tail, which part was quite cold and stiff, evidently having been killed the night before. I may mention that it was only a young 'possum, about half-grown. The other Owl was in the fig-tree, and allowed me to walk up to within a few yards, and returned my stare with interest. A few years ago I shot a full-grown young one at the same place, showing that they must have nested about August.—CHAS. A. BARNARD. Coomooboolaroo (Q.), 3/6/09.

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WOOD-SWALLOWS CLUSTERING.—My friend, Mr. J. G. Tepper, F.L.S., member of the Royal Society of South Australia, has sent me the following observation made by him in the bush forty years ago :—"While public teacher at Monarto, Murray Valley, I went sometimes into the Mallee bush, then in its dense original state, to get a wallaby for the larder. Returning in the evening I had twice the pleasure—a rare one—of witnessing at close quarters the arrival of the Wood-Swallows (*Artamus tenebrosus*) at their roosting-place. Gliding noiselessly through the open timber—peppermint gums (*Eucalyptus odorata*)—a flock of about fifty or more arrived in straight, low flight at a rather thick overhanging branch some 10 or 12 feet from the ground, and in less than one minute were settled in a single cluster, looking only like a natural swelling of the branch, and apparently motionless. Viewed against a bright star just on the margin of the group, the slightest heaving only could be detected, but no sound was audible. It was to me entirely new, and almost incredible. Many times I watched that tree when time permitted, but only on one other occasion, weeks later, had my observation confirmed."—H. STUART DOVE. W. Devonport (Tas.), 15/5/09.

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AN ABNORMAL ROBIN.—After the Easter holidays, Mr. Reg. Slater, of Launceston, brought me a bird shot at Lake Leake. Unfortunately, the bird was somewhat knocked about, and a good skin was impossible. Before critically examining the specimen to endeavour to determine the species, I forwarded it to Mr. Robert Hall, C.M.Z.S., for his examination. In a letter accompanying the skin he replied :—"The specimen of bird you sent me for identification puzzles me as well as you. It looks like a fine female specimen of *Petræca phœnicea*. You will need to compare the primaries, secondaries, rectrices, and bill

with your collection, and then I question if you will get it with certainty. It is quite abnormal in the plumage, lacking the pigment of all except desert forms." I have now carefully and critically examined the bird, as suggested by Mr. Hall, and cannot arrive at any other conclusion than that it is in all probability an extremely abnormal form of *P. phænicea*. A brief description of the bird is as follows:—Upper surface, including head, sandy-buff; throat and chest a shade darker; abdomen and under tail coverts paler; tail same colour as abdomen; wings sandy-buff, edged with dirty white; major wing coverts dirty white; bill, legs, and feet pale sandy-buff. Dimensions in mm.—length 135, culmen 9, wing 76, tail 48, tarsus 19. From the evidence of the plumage the bird was not a young one.—FRANK M. LITTLER. Launceston, 26/4/09.

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AN INTERESTING CENSUS.—The following birds I noticed here yesterday in the trees along the banks of the Upper Hunter River, and within an area of 20 acres of the estate, viz.:—Warty-faced Honey-eater (*Meliphaga phrygia*), White-naped Honey-eater (*Melithreptus atricapillus*), White-plumed Honey-eater (*Ptilotis penicillata*), Blue-faced Honey-eater (*Entomyza cyanotus*), Miner (*Myzantha garrula*), Friar-Bird (*Tropidorhynchus corniculatus*), Restless Flycatcher (*Sisura inquieta*), Brown Flycatcher (*Microeca fascians*), Black-and-White Fantail (*Rhipidura tricolor*), Black-backed Magpie (*Gymnorhina tibicen*), Butcher-Bird (*Cracticus destructor*), Swallow (*Hirundo neoxena*), Brown Tree-creeper (*Climacteris scandens*), Wood-Swallow (*Artamus tenebrosus*), Magpie-Lark (*Grallina picata*), Great Brown Kingfisher (*Dacelo gigas*), Sacred Kingfisher (*Halcyon sanctus*), Ground-Lark (*Anthus australis*), Crow (*Corvus coronoides*), Wedge-tailed Eagle (*Uroaetus audax*), Ground-Dove (*Geopelia tranquilla*), White-shouldered Caterpillar-eater (*Lalage tricolor*), Yellow-rumped Tit (*Acanthiza chrysorrhoa*), White Cockatoo (*Cacatua galerita*), Red-rumped Parrakeet (*Psephotus haematonotus*), Little Lorikeet (*Glossopsittacus pusillus*), Musk Lorikeet (*Glossopsittacus concinnus*), Whiteface (*Xerophila leucopsis*), White-fronted Heron (*Notophoxyx novæ-hollandiæ*), Spotted Pardalote (*Pardalotus punctatus*), Babbler (*Pomatorhinus frivolus*), Grey Shrike-Thrush (*Collyriocichla harmonica*), Hooded Robin (*Petræca bicolor*), Scarlet-breasted Robin (*Petræca leggii*), Spotted-sided Finch (*Steganopleura guttata*).—SID. WM. JACKSON. Belltrees, Scone (N.S.W.), 15/6/09.

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ABORIGINAL NAMES.—In connection with Mr. S. W. Jackson's interesting article, "In the Barron River Valley, N.Q." (*Emu*, viii., pp. 233–283), the following additional names, as given to the various birds, &c., by the aborigines of the Tinaroo scrub, have been kindly supplied by the author, viz.:—White-fronted Heron ("Balla-birra"), Snake-necked Darter ("Tar-curra")

White-breasted Cormorant ("Bur-oga"), Rose-crowned Fruit-Pigeon ("Men-in-gee"), Drongo ("Pie-gin-gin"), White-shafted Fantail ("Beran-gin"), Rufous Fantail ("Gin-gin-bulga"), Large-tailed Nightjar ("Dar-go"), *Acanthiza squamata* ("Mingimingi"), Barred (Swainson) Cuckoo-Shrike ("Cher-am"), Shining Starling ("War-ee-bidja"); Native Nutmeg Tree ("Coorum-bah"), large edible scrub Fig ("Bun-bah"), Giant Lawyer Vine ("Yah-bul-um"); Small Lawyer Vine, *Calamus australis* ("Boo-gul"); Large-leaved Stinging Tree ("Doong-un"), Red Cedar Tree ("Wong-garra-gar"), Kauri Pine Tree\* ("Tork-oi"), Fire ("Bur-rea"), Water ("Bonna"), Large Snails ("Cad-doo-gal"), Small Snails ("Caro-gen"), Cicada ("Core-men"), Grasshopper ("Bun-ting"), Crocodile ("Cun-yara"), Black Snake ("Cun-doi"), Carpet Snake ("Tun-gul"), Tree-climbing Kangaroo ("Map-pey," also known as "Boon-garra" at Cardwell); Bush Kangaroo ("Eur-æ"), Goanna ("Co-karra"), Porcupine ("Yar-goin"), Platypus ("Un-bah"), Large White-tailed Scrub-Rat ("Tur-gen").

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WOOD-SWALLOWS AS HONEY-EATERS.—In the last issue of *The Emu* (viii., p. 219) I contributed some observations on these birds in what was to me a new rôle—that of honey-eaters. Since then I have taken other notes on this subject, and these are appended.

Owing probably to the luxuriant flowering of the eucalypts this autumn, there has been an unusual influx of Honey-eaters about here during the past few weeks—in fact, I hardly remember a year when they have been as numerous. Lorikeets—Musk, Little, and Purple-crowned (*Glossopsittacus concinnus*, *G. pusillus*, and *G. porphyrocephalus*)—are here in abundance, and their loud screams ring out in sharp contrast to the pleasant liquid three-note call of the pretty Warty-faced Honey-eaters (*Meliphaga phrygia*), in convention assembled. All these numerous Honey-eaters proper had not been in possession of the blossoms long when I was somewhat surprised to note that their numbers had been reinforced by the arrival of a goodly number of Wood-Swallows. As stated in my last note, these birds proved but the advance guard of what were to follow, for in a few days' time the trees were swarming with Wood-Swallows, until they bade fair to outrival the Lorikeets in numbers. On the last occasion I noted members of the *Artamus* family eating honey it was the Masked and White-browed species (*A. personatus* and *A. superciliosus*) that were represented, feeding on the honey of the silky oak blossom. This time the

\* This pine is shown in *The Emu*, viii., pl. xxvi., and is known to botanists as *Agathis robusta*. The Queensland kauri is found mainly in the Cairns district.—Eds

White-browed species—which in May of other years had practically all migrated northward—was again to be noted, but not one of the Masked species was present, its place being taken by the stationary species, *A. sordidus* (Wood-Swallow). I have never known them to stay like this before, and it cannot be that the usual supply of insect food has failed, for they have not been to their winter quarters to see. The White-brows were, if anything, more plentiful than the Sordid species, and I notice, too, that their bright summer colouring has sobered considerably.—A. H. CHISHOLM. Maryborough (Vic.), 14/5/09.

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AN AUSTRALIAN AVIARY.—In the flight aviary, 60 feet long by 25 feet wide by 30 feet high, in Melbourne Zoo, the following birds are thriving well, namely:—Black-and-White Fantail (*Rhipidura tricolor*), Warty-faced Honey-eater (*Meliphaga phrygia*), Yellow-faced Honey-eater (*Ptilotis chrysops*), Yellow-tufted Honey-eater (*P. auricomis*), Fuscous Honey-eater (*P. fusca*), White-plumed Honey-eater (*P. penicillata*), White-eared Honey-eater (*P. leucotis*), Brush Wattle-Bird (*Acanthochæra mellivora*), White-bearded Honey-eater (*Meliornis novæ-hollandiæ*), White-browed Wood-Swallow (*Artamus superciliosus*), Masked Wood-Swallow (*A. personatus*), Wood-Swallow (*A. sordidus*), Sacred Kingfisher (*Halcyon sanctus*), Black-breasted Plover (*Zonifer tricolor*), Black-fronted Dottrel (*Ægialitis melanops*), Magpie-Lark (*Grallina picata*), and Yellow-breasted Shrike-Robin (*Eopsaltria australis*). This aviary is by far the most extensive of its kind in Australia, or, indeed, elsewhere, and the birds enumerated do well and are exceedingly tame. There are a good many of each kind mentioned. The beautiful Yellow-tufted and Warty-faced Honey-eaters are perhaps the most showy occupants. In the centre of the aviary is a fine red gum (eucalypt), which will soon be bursting into flower, thus affording natural food for a time to all the honey-loving kinds. Mention should also be made of the pair each of Black-breasted Plovers and Black-fronted Dottrels, perfect in feather as in their graceful movements beside the miniature lagoon. The migratory members of Wood-Swallows are apparently healthy and happy, notwithstanding their enforced detention in a more southern home, particularly at this time of the year (midwinter). A Grey Shrike-Thrush (*Collyriocincla harmonica*) keeps within the darker shades of the aviary. When food is plentiful he may be all right; otherwise, as in the open he has been guilty of killing small prey, what might he do in the enclosure?—A. J. CAMPBELL.

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NIGHT-BIRDS IN COMBAT.—In the January number of *Nature Notes* (London), 1908, I described a desperate duel

witnessed between Tasmanian Butcher-Birds (*Cracticus cinereus*, Gld.), which was commented upon in the February issue by Dr. Dudley Buxton, who gave similar instances of pugnacity among British birds. My friend, Mr. Foster Leek, of Mersey Bluff, was fortunate enough to witness the termination of an encounter between nocturnal fliers, such an incident being, I think, previously unrecorded. One morning last summer Mr. Leek left his cottage about 5.30, and on passing through the garden gate noticed what looked like a heap of feathers outside the fence. On examining the object, he found that two night-birds—a Spotted Owl (*Ninox maculata*, V. and H.) and a Frogmouth (*Podargus strigoides*)—had been apparently engaged in a fierce duel, and had become entangled and unable to separate. Curiously enough, one foot of the Frogmouth was caught in the Owl's mouth. Both were much exhausted, the plumage was dirty and bedraggled, the eyes blinded with *débris*. The Podargus, although the larger, appeared to have suffered more than the Owl, which is compactly built, and I should say would give a good account of himself in battle. On being separated, the Owl flew to a fence, where it rested for a time, afterwards flying off to some more secluded spot; my friend placed the Frogmouth on the low branch of a tree in a sequestered nook, where it remained all day, but disappeared before nightfall. The Spotted Owl is the author of the very familiar "Mopoke" call in our bush during the nights of winter and spring, a sound which the bush-dwellers invariably attribute to the Podargus, which is frequently called the Mopoke. I am aware that some observers believe the Podargus also calls "Mopoke," but the only sound which I can personally attribute to the latter is a curious moaning noise, uttered when sitting upon a stump or fence. The true Boobook Owl (*N. boobook*) we have not in Tasmania, or, at any rate, I have not so far seen a specimen, during a long residence in the bush, nor are there any in our museums.—H. STUART DOVE. W. Devonport (Tas.), 2/6/09.

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BLUE WRENS NESTING IN IVY.—The pair of Wrens (*Malurus cyaneus*) mentioned in the October issue of *The Emu* (viii., p. 95) started to build in an ivy shrub (*Hedera Australiana*) on 5th October. The nest was placed 5 feet 6 inches from the ground, and, as far as I observed, the female carried the material for construction and built the nest entirely herself, the male bird, always on the alert, watching operations from a pepper-tree (*Schinus molle*) close by, where he could warn his mate of intruders. One morning while thus occupied a male Sparrow (*Passer domesticus*) challenged and viciously attacked him, when the female Wren instantly came to the rescue and drove the Sparrow off. The Wrens naturally were jealous of the situation,



Blue Wrens (*Malurus cyaneus*), male and female, near entrance of Nest.

FROM PHOTOS. BY HARRY BURRELL, MANILLA, N.S.W.



as they had made it their quarters and slept in the ivy all through the previous winter. As I wished to photograph the parents (see Plate II.), I did not pry into the nest, for fear of disturbing them, until the young were hatched, therefore I am at a loss as to dates of egg-laying and time spent in incubation. Thirty-seven days elapsed between that of laying the foundation and desertion by young of the nest. On 7th November, at 7 a.m., I sat by the nest and timed the parents feeding the four young birds. Within 15 minutes the male bird brought twelve insects, and cleaned the nest out three times, carrying the droppings away in his bill. The female brought one insect only, but visited the nest three times during the male's absence, and stayed with the young till his majesty returned. I have watched them on several occasions, with similar results, the male always doing the greater share of cleaning the nest and supplying the wants of the fledglings; these operations were apparently continuous from daylight till dark, as I am about the garden often during the day, and on my approaching the nest at all times they seemed to be as busy as ever with their task. The enormous quantity of insects these birds must destroy, feeding their brood and satisfying their own voracious appetites, is certainly food for reflection. As far as I could detect, they fed their young principally on moths, spiders, caterpillars, small grasshoppers, and some white pulpy substance. On 10th November the young birds left their nest, but stayed about the garden, in the trees, for three days. By that time they became fairly strong fliers, and, led by their parents, flew off to the river-banks, where thistles of various kinds grow in abundance. On 19th November the happy family returned again, perhaps to rear a second brood, but, alas! the nest, a pretty, dome-shaped structure, during their absence had been torn to shreds by some disappointed person intent on egg-collecting, thus ending my observations.—HARRY BURRELL. Manilla (N.S.W.), 2/3/09.

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SOME QUEENSLAND NOTES.—The following notes, which I cull from a letter from a bird-lover living in Central Queensland, will be read with interest—the picturesque account of the Galahs' movements especially. My friend writes:—

“Bird-life of late has not been very plentiful here, beyond the everyday visitors, owing probably to the great amount of rain over Central Queensland this summer. Every creek and waterhole is full, and the growth of grass so luxuriant that it is difficult often to get near the birds, which you know are there.

“Finches of several species have returned lately, after an absence (except in small, isolated flocks) of years, and some Large-tailed Grass-Wrens (*Amytis macrura*)\*—rare visitors here

\* This bird is not a Queensland species.—EDS.

—have been seen. Betcherygahs (*Melopsittacus undulatus*) are fairly numerous, but uneasy, as if in strange country. Years sometimes pass without our seeing these most lovely little birds, then, suddenly, the bush is alive with them. My brother, on a trip in from the Northern Territory, when about Boulia, saw them in thousands. He said he saw a flock alight in a dead tree, covering every twig, until the tree appeared to be coated with fresh green leaves. I have never seen so many as that, but a few days ago I noticed a small flock on a dead branch which had a similar effect—made more beautiful by the pretty colouring of a few Galahs (*Cacatua roseicapilla*) amongst them, like pink flowers among green leaves.

"A large flock of Galahs on a partially dead myall tree has a most wonderful effect at a distance of about a quarter of a mile. The grey and pink clothe the bare branches, and give them the appearance of bursting into blossom, almost the shade of some double peach blossom. The Galah is perhaps the most common bird about here, rarely being altogether absent, and frequently being noticed out on the Downs in flocks of hundreds, their numbers generally being strengthened with a plentiful sprinkling of White and Black Cockatoos. The whole flock feeds amicably together, always keeping a sentinel stationed on some near-by tree or fence, which warns its congeners of the approach of danger, not visible to them in the long grass. At the warning cry, in one moment the air is full of a clamouring, shrieking mass, which, as the danger passes, soon settles on the feeding ground again. Have you ever seen a proper flight of Galahs? Most likely not, unless you have been in the interior, on the well-grassed Downs. It is a most wonderful sight, and, once seen, never to be forgotten. I will endeavour to describe such a scene, but, with the best description, there must be much left to the imagination which words fail to supply. Usually when the weather is broken or unsettled, though often on a windy winter morning, or in thundery weather in March or April, against the grey masses of cloud which bank up, forming a sombre background, it would seem that all the Galahs in the vicinity had gathered into one flock, shrieking and screaming as they circle high in the air, all beating their wings in perfect unison. So, as it were at a given signal, instantaneously the delicate rose-coloured breasts are all turned the one way, making a beautiful glow of colour as the birds veer round; then, with one beat, the flock seems to have almost disappeared, just a glimpse of silvery-grey flashing as they turn their backs; \* then a mere speck where each bird is flying, so small that one would hardly believe it to be a bird, so almost invisible does the grey become; then a flash of silvery light before the

\* A similar scene is mentioned in "Nests and Eggs" (Campbell), p. 617.—EDS.

glow of their breasts flashes into view again. The whole time there is an incessant screaming as they beat backwards and forwards in the same place for perhaps half an hour; then, swooping with a rush of wings cleaving the air, re-forming into flocks—all at a tremendous pace, and flying so closely together that one constantly expects to see a collision, but never does one bird make a mistake; simultaneously every bird turns and twists in mid-air, until, wearied out, the flock disperses into small groups, which drift away to settle in the grass or trees around. Sometimes the Galahs keep this up off and on all day, and for days at a time.

"Another such flock I saw on the Warrego a few years ago. Judging by measurements, it must have been over a quarter of a mile long and one hundred yards wide, inside which space were crowded fluttering, flashing forms, alternating in their rose and silver splashes of splendour as they beat backwards and forwards."—A. H. CHISHOLM. Maryborough (Vic.), 14/5/09.

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WEST DEVONPORT (TAS.) NOTES.—An interesting gathering of the feathered tribes was witnessed during the last week of March in a paddock near the beach at Devonport. The clans consisted of Wood-Swallows in numbers, "Summer-Birds" (a pair, with two young), one pair of Tree-Martins (*Petrochelidon nigricans*), one of Scarlet-breasted Robins (*Petræca leggii*), and a single Shrike-Thrush.

The Summer-Birds or Small-billed Cuckoo-Shrikes (*Coracina parvirostris*) fly with what Gilbert White calls "*volatû undoso*"—the wavy flight—flapping; then dipping on straight wings, flapping again on the upward curve. This species is tinted with delicate greys, whitish on the under side, black patch on throat and cheeks, dark ends to wings, tail dark with white border. The young appeared not to have the black on throat.

The Wood-Swallow (*Artamus tenebrosus*) takes a sailing flight, then flaps, then sails again without dipping. It hops when on *terra firma*, but those seen at this season did not move much when on the ground, generally dropping straight on their prey from a branch or post, sometimes remaining sitting on the ground, but often returning to the perch. Their food consisted largely of grasshoppers, which were numerous. The *Coracina* always flicks its long, pointed wings alternately up and down after alighting; the *Artamus* under the same circumstances oscillates its tail sideways, often up and down as well. The head, back, and under side of the latter appear of a greyish-brown, wings and beak of a dark blue-grey, tail dark with a white edge, and the young had a more speckled look than the parents. The pair of Tree-Martins (*Petrochelidon nigricans*) was sailing

about capturing insects, while the Robins (*Petræca leggii*) made short flights about the ground and fences.

A young Fan-tailed Cuckoo (*Cacomantis rufulus*) was noticed the previous day near the same place, catching larvæ in the grass, and attended by a pair of Scarlet-breasted Robins—perhaps the foster-parents, but they did not attempt to take it food. A large Hawk passed overhead, and the Cuckoo, which was sitting on the fence at the time, merely glanced up, but did not attempt to move, although the Robins chattered loudly.

During this gathering the Wood-Swallows uttered very frequently their reedy chirpings, but there was no note from the "Summer-Birds."

Spine-tailed Swift (*Chætura caudacuta*).—The movements of this lightning-speeded migrant seem shrouded in mystery. Those noticed by my friend, Mr. H. C. Thompson, of Launceston, Tasmania, both last season and this, took a southerly course when leaving. In a recent note he says :—"The Swifts seen over this city on the afternoon of Easter Thursday, 8th April, went away towards the south-west, as did the others previously seen, and they did not circle about as usual." While returning from a boating trip with a party of friends on the River Mersey here at Devonport, I happened to notice on looking skyward a small body of Swifts moving across the river towards the south, at a high altitude. This was at sunset on 31st March, the wind being south-west, with a stormy sky. They were going straight, at a good speed, as if making for some definite goal, and were the only ones seen here this season—i.e., since the beginning of February, when I came over from Victoria. It seems highly probable that both the party seen over Launceston by Mr. Thompson and those noted by myself near Devonport were on migration, as the summer was at an end, and they were making a straight course as if with some well-defined purpose; but why they should make to the southward with such persistence is the puzzling point. Is it possible this fine Swift goes on the principle of "great circle sailing," and sweeps round in a grand aerial curve until it strikes the favouring current which will bear it to the north? The movements of the Spine-tail would make an interesting subject for discussion in the columns of *The Emu*.

Summer-Bird or Short-billed Cuckoo-Shrike (*Coracina parvirostris*).—While walking down to the ferry with a couple of friends on the afternoon of 8th May to cross the Mersey River, I was surprised to see a company of about thirty Summer-Birds at some height over the houses, heading to the north-west at a good rate; the wind was south-easterly, light, sky somewhat overcast. It is very unusual to see such a large number of this species together in May, although two or three often stay the winter on the coast. From their mode of flight I should judge this party to have been on migration, but to

what goal? In September I have seen parties of the same bird coming from the north-west, and, as our species is said to be unknown on the mainland, I can only think of King Island, or some other similar spot in the Strait, as their "camping-ground." At the same moment that the Summer-Birds crossed our town a large flight of Ducks passed at a much greater altitude, making about north-north-east. I do not know whether there is any interchange of communication between our Ducks and those of the mainland; possibly those noted were making to the Furneaux Group of islands, which would not be a great journey.

The Wood-Swallows (*Artamus tenebrosus*) left us about the middle of April, after first mustering for two or three weeks in some paddocks by the sea-front; but on 2nd May I noted a pair of Tree-Martins (*Petrochelidon nigricans*) over Devonport, and on 10th May a Swallow (*Hirundo neoxena*) was flying low about the streets.

[The scientific names given above are those adopted by Mr. G. M. Mathews in his recent "Handlist" (Supplement *Emu*, vii.)]—H. STUART DOVE.

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AN OOLOGIST'S PARADISE.—Shortly previous to the last A.O.U. Congress (November, 1908), I took a trip to the lower reaches of the Murray River and out back into the adjacent Mallee scrub.

Accompanied by my wife, I left Adelaide one afternoon by the Melbourne express, reached Murray Bridge that evening, made arrangements for a boat, and left early in the morning, going down stream. The first halt was made at Monteith's Flat, and, after landing our kit and forming camp, we struck in over some pine-clad sand-hills. Birds were fairly numerous. The Varied Parrakeet (*Psephotus multicolor*) was observed nesting in a hollow branch of a box-tree (eucalypt), and near by a little Brown Flycatcher (*Microeca fascians*) had her frail nest, perched high up on the horizontal fork of a pine bough, and almost in the next tree was a nest of the White-shouldered Caterpillar-eater (*Lalage tricolor*). Again within a stone's throw was the pretty pendent nest of the Spiny-cheeked Honey-eater (*Acanthochaera ruficularis*), while almost every other tree contained a nest in this warm and sheltered corner between two sand-hills. Red-capped Robins (*Petroeca goodenovi*) were nesting very plentifully this season, and their beautifully constructed nests were difficult to discover in the forks of the pine-trees, owing to particles of the bark and lichens being fastened on to the outside of the nest to deceive their enemies. Great Brown Kingfishers (*Dacelo gigas*) were brooding in the hollows of the old gum-trees (eucalypts) on the edge of the

swamp, and the mud nests of the Magpie-Lark (*Grallina picata*) were seen everywhere. The fine Goshawk (*Astur approximans*) had eggs in a nest in the top of a high pine. We were not in camp that night till after dark, and then had to prepare our evening meal and see to our bunks, after which I blew some eggs collected during the day for museum purposes.

Early next morning we made a move down the river, but before starting saw some Black-and-White Swallows (*Cheramæca leucosternum*), which were tunnelling into a sand-bank. One nest we excavated was composed of dry grass, roots, and leaves, and contained four eggs. As we proceeded, the little Grass-Warblers (*Cisticola exilis*) were found nesting in the high grass and dock on the edge of the swamp. Their nests, being most beautiful and delicately constructed, are perfect works of art. The dock-leaves are marvellously sewn round on both sides, and looking in through the small aperture one sees the three pretty green-mottled eggs. Not far from here the Little Grass-Birds (*Megalurus gramineus*) were nesting in the cutting-grass; their nests were covered in on the top with Bald-Coots' (*Porphyrio melanonotus*) feathers, completely hiding the red-speckled eggs. Reed-Warblers (*Acrocephalus australis*) were nesting freely amongst the reeds on the river bank, and, strange to say, I observed one nest lined with feathers—a feature which has never come under my notice before. Whistling Eagles (*Haliastur sphenurus*) were brooding in the tops of high gums, hundreds of feet from the ground or water, as the case may be, and after a hard climb I procured a fine clutch of two eggs. Bald-Coots had their nests in the flags, and I observed one clutch of ten eggs. Musk-Ducks (*Biziura lobata*) were numerous, and I noted a clutch of six eggs—the largest I have known. These shy birds build a beautiful dome-shaped nest of plaited reeds and flags, lined inside with down plucked from the Ducks' own bodies. Back from the swamps a stick was thrown at a likely hollow limb, and out flew a Boobook Owl (*Ninox boobook*). Climbing up, I saw a clutch of eggs lying on the decayed wood, and, strange to say, one egg was prominently marked—even more so than the one in Mr. Le Souëf's collection. After entering the scrub, a Hooded Robin's (*Petræca bicolor*) nest was discovered, and in a bunch of cutting-grass the nest of the White-fronted Bush-Chat (*Ephthianura albifrons*), containing three speckled eggs, was discovered. On our way back to camp that night, an aquatic bird left a clump of rushes very hastily, and dived off. On hunting the rushes, a nest was found which resembled a Musk-Duck's in every way with the exception of its being but half the size, and inside six eggs lay in a bed of down, the same shape and colour as those of the Musk-Duck but only half their size. Here was a mystery, so the eggs were left, in order that the bird might be seen for identification. Next morning a visit was

paid to the locality, and on approaching the place stealthily a rustle was heard and a "plomp," the rings on the water telling that the bird had again dived out of sight, but on reappearing it proved, as I had supposed, to be a female Blue-billed Duck (*Erismatura australis*), a rare species, and thus cleared up the identity of the nest and eggs. This is the first clutch of the Blue-billed Duck's eggs I have taken. From here a long tramp was commenced into the thick Mallee scrub, and it was late in the day before my wife and self reached the home of the Mallee-Hen (*Lipoa*). After some time we discovered an egg-mound lately covered up. An examination of the ground for some distance in every direction revealed the numerous tracks of foxes, and there is no doubt that these animals not only dig out the eggs but lie in wait for the unfortunate birds, as the feathers in the vicinity only too plainly showed. There is not a shadow of doubt that the extermination of these quaint birds will take place within a few years. After a very hard journey (the latter part in the dark), we reached our camp exceedingly tired. The following day found me rowing up stream on the return journey to Murray Bridge—a tough job, for our boat was heavy and well laden, while the stream ran strongly against us. But what cared we for that; we had had a very profitable trip both as regards specimens collected and observations made.—(CAPT.) S. A. WHITE. Fulham, S.A.

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THE PILOT-BIRD (*PYCNOPTILUS FLOCCOSUS*).<sup>\*</sup>—The township of Ferntree Gully (about 22 miles due east of Melbourne) is situated at the foot of the Dandenong Ranges, and the gully itself is reached after a few minutes' walk. The creek is confined between rather low and heavily timbered ranges, and is fringed with a scrub of wire-grass (*Ehrhata*), sword-grass (*Lepidosperma*), and native hop (*Goodenia ovata*). A second growth of sassafras, hazel, and musk is surmounted by very tall timber, so that one can readily imagine its density. Here in the shadowed obscurity is the home of this terrestrial and silver-throated form. As I mentioned elsewhere, the bird is very plentiful, but one needs patience to obtain sight of it. During the seasons of 1907-8 a good deal of time was spent with this bird, and I have been enabled to correct many wrong impressions and to add new facts of its domestic economy. For instance, the call note, "Guinea-a-week," is only used by the male, and the female responds quickly (like the female of *Psophodes*), "Qui-wit-tui-wit-tee," and a perceptible pause is noticed between the second and third syllables, the last note being considerably higher. We have observed, too, that the birds are local to an extraordinary degree, and after marking down a pair one can

<sup>\*</sup> Supplementary to "Observations" in *The Emu*, vi., p. 183.

always rely on finding them again within a radius of a few hundred yards, and apparently they never go beyond that limit. This applies also to their nesting. When a nest was found in a new locality we generally found old ones, some lately used and others so old that they were just held together. The task of making the nest falls to the female alone, the male accompanying her the while and uttering his sweet call of "Guinea-a-week"; both utter a soft and sweet "Qui-wit," and occasionally a piping "Tui." The alarm note is a piping "Tow" (sounded as in cow). The nest is first started with a few long eucalyptus leaves, then bark is used, and finally it is lined with soft, fine grasses or feathers. It is rapidly put together, taking from  $1\frac{1}{2}$  to 2 days, one being apparently finished after eight hours' work. On 24th November, 1907, at 9 a.m., I was attracted to a spot by the call of a female. She was on the ground and facing a tussock of fine grass. Creeping closely up to the spot (the bed of a dry creek), I was enabled to see her start the nest. Suddenly the bird would dart into the tussock and use both wings and feet, turning round and round. This was repeated some five or six times before the opening made was satisfactory, after which she quickly commenced to lay in the leaves, and I quietly withdrew. Passing the place at 5.30 p.m. I and a companion were astonished to find it apparently finished. Two eggs were taken, slightly incubated, on Saturday, 6th December. The nests are placed in a variety of positions, sometimes quite on the ground and never more than 2 feet from it. Many have been found in *débris*, but the general site is in sword-grass, grass tussocks, and wire-grass. Now and then a nest will be found embedded in these coverings, but we have observed that as a rule the opening commands a fairly open space, generally facing down hill, and if a creek or gully be close by it faces that way. The eggs are two only, and, although we have noticed a great number of their nests, we have never seen more. The colour varies considerably. The typical egg is of a dark chocolate with a darker zone round the larger end, measuring slightly more than an inch in length by about three-quarters of an inch in width. We have noticed some that were almost white, others of a light buff with minute dark spots; some, again, are olive and dark green, and through various shades of chocolate. One female lays an odd set, one being of a drab hue and the other greenish-white. Sometimes hairlike markings appear on the surface, the colour of these being black; others, again, are zoned from top to bottom, but they all have the appearance of being cracked all over when first taken from the nest. The egg is deposited in the nest about 11 a.m., and, I believe, on alternate days, the clutch being completed in about eight days after finishing the nest. On three occasions the egg of *Cacomantis*



*flabelliformis* (Fan-tailed Cuckoo) was noticed, accompanied by one egg only of the *Pycnoptilus*. In the third case, at Ferny Creek (Dandenong Ranges), on 27th December, 1908, an egg of each was in the nest, and, as I had often wondered what had become of the other, I retraced my steps and found it on the ground, in front of and about a foot away from the nest, and intact. This nest was placed in wire-grass on a sloping hillside about 60 yards away from the creek, the opening, as usual, facing down hill and skilfully hidden. No doubt had there been a fall instead of a slope the egg would have been broken. Incubation was about 5 days old in the nest eggs, but the one outside was perfectly fresh. The young are born blind and naked, and after a day or so a dark brown down appears. The eyes open in about five days, and the irides are black or very dark brown. At a week old the feathers are well developed and those along the abdomen are white and well defined, the primaries are half unfurled, the gape creamy-white, and the mouth yellow; general colour above dark brown. On 15th November of last year we disturbed a pair and their young from a dense patch of sword and wire grasses, and, after an exciting chase, managed to capture one of the young ones. It was apparently about six weeks old; the gape was still of a whitish colour, and the general plumage was practically identical with that of the parent. When about three months old the gape assumes a greyish hue, and adult plumage is doubtless attained after the first moult. Both birds feed the young in the nest, and for a considerable time after. At this time the young follow the parents, uttering a soft, wheezing call for food, which is taken from the side of the parent's bill. When in the nest it is dropped into the open mouth. I have noticed, too, that the young would often remain stationary and sheltered under a piece of scrub while the parents were feeding, and now and then they (the parents) would rapidly make their way towards the young with food. When about two months old they shift for themselves, and are then very easy to approach, and if one remains perfectly still will feed about without fear. Often as I have been intently watching them I have heard them give utterance to the "Guinea-a-week" and other notes, but so low as not to be heard more than a few paces away. The breeding season extends over seven months. Eggs have been taken as early as 22nd August (1907) and as late as 10th February (same year). Two broods are reared, and possibly three. On 12th January, 1908, I flushed a female from a pair of dark grey eggs while the male was attending to the wants of a pair of young about two or three months old close by.—F. E. HOWE. Melbourne.