

BADGERUP LAKE

BALANNUP LAKE

CRANBROOK

BALICUP LK

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SUSPENSION FILING

SPECIALLY MANUFACTURED BY  
 TWINLOCK CRYSTALFILE

**CASTLE**  
OFFICE EQUIPMENT

CASTLE  
OFFICE EQUIPMENT  
SUSPENSION FILING  
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## In the Stirling Ranges, Western Australia.

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THE Stirling Ranges lie a little over 50 miles to the north of Albany, and may be conveniently reached from Cranbrook railway station, on the Great Southern railway.

The first hills rise abruptly from the surrounding plains about 8 miles to the east of Cranbrook, the latter township, according to the railway survey, having a height of 835 feet above sea level. The ranges run almost due east for about 40 miles, when they cease just as suddenly as they appear at their western extremity. A little to the north a series of undulating downs run parallel to the main ranges, but their height is much dwarfed by the latter. I had no time to examine these lower ranges, but I have no doubt they would prove very interesting from a scientific point of view, owing to the proximity of numerous salt lakes to the foot of their northern slopes. From Donnelly Peak, on a rather unfavourable day, I counted upwards of 60 of these salt lakes. I was only able to work Lake Balicup, a sheet of water of about 3 square miles in area and nowhere deeper than 3 feet. Lake Balicup lies at the eastern extremity of the lower ranges which themselves merge into the undulating sand-plain about 20 miles east of Cranbrook.

The main Stirling Ranges are by no means a *terra incognita* from a scientific point of view. In September of 1902 Mr. A. W. Milligan, then a resident of this State, organized an expedition to the ranges. He was accompanied by Mr. C. P. Conigrave and Dr. Alex. Morrison, the latter gentleman then holding the position of Government Botanist to this State. The party did excellent work in a limited period (see *Emu*, vol. iii., p. 9). Other scientists have visited the ranges since that date, but, as far as I know, they had other researches in view, and did little or no ornithological work.

At the request of Mr. H. L. White, of Belltrees, New South Wales, I undertook this trip. My special quest was certain rare and little-known birds believed to still exist in the extreme south-west of our State. Mr. White approved of my suggestion that my search might as well commence on the northern slopes of the Stirling Ranges, and, after spending as much time there as I

could reasonably spare, I should work my way back to the coast. I followed this plan as well as circumstances allowed.

Before giving an account of the results of my trip, I must refer to the remarkable season recently experienced, from a meteorological point of view. After an unusually dry and hot summer, the weather broke early in April, and the amount of rain falling gradually increased in volume, until over 7 inches were recorded for May, followed by over 10 inches in June, and nearly 11 inches for July. Our mean annual rainfall is but 36 inches, so the reader will get a good idea of the weather experienced previous to my starting.

I left home 22nd August, and, until I reached the main Albany-Perth road, nearly 30 miles away, I had a hard struggle to get my turn-out through. Despite a driving accident experienced between Albany and Mount Barker, I had my camp erected at the foot of Donnelly Peak by 31st of the same month. I may as well state that this accident resulted in rather severe injuries to both my legs, and that for several weeks I got over the rough ground with pain and difficulty.

I do not propose to give a complete list of the birds I observed, as this would only entail a recapitulation of Mr. A. W. Milligan's list already published. I shall, therefore, merely enumerate additions to his list, and give an account of my observations on the more interesting species encountered during the trip. I must add that I did not penetrate so far east as Mr. Milligan and his party, neither did I climb any peaks other than Mount Donnelly. On the other hand, I put in some time around Lake Balicup, and what other country I explored I subjected to a more detailed examination than was possible on their part, owing to the limited time at their disposal. I regret also to add that much of the country on the north side of the ranges has recently been ravaged by fires. Miles of country have been swept, and the land is only now showing signs of recovery. In an area set aside as a public park this is much to be regretted. It can hardly fail to have an adverse effect on the abundance of the feebler birds; but, to look at it from a selfish point of view, I may have been aided in my researches by the enforced concentration of the more robust species in the tracts of scrub which escaped the general destruction.

There are two species mentioned by Mr. Milligan of which I saw nothing whatever—viz., *Meliornis sericea* and *Malurus elegans*. With regard to the latter, Mr. Milligan records that he "shot a beautiful male when a fourth of the way up Mount Toolbrunup." I did not reach so far east as this, but I consider it much to be regretted that this specimen, and also other equally interesting ones, were lost, owing to an accident to a pickle-tank. I think it very probable that a careful examination and comparison with the south coast form would have revealed differences in plumage due to climate, as I have never found the coastal bird in other than low, wet situations. It breeds on my own ground, but so closely does it hug the swamps that I have never seen it on the

adjacent jarrah hills, despite the fact that the latter are clothed with plenty of low-growing scrub.

There are three species for the discovery of which Mr. Milligan may claim special credit—viz., *Calamanthus montanellus*, *Meliphreptus leucogenys* (both new to science), and what may be termed the re-discovery of the *Malurus pulcherrimus* of Gould—the Wren with the "intense indigo breast." I met with all three, and propose to add a few notes to what Mr. Milligan has already written. I was fortunate enough to obtain nests of two out of the three.

Regarding the Blue-breasted Wren (*Malurus pulcherrimus*), one wants a calm, sunny day to find it, for it is by no means vociferous, and I regard it as one of the most secretive of the whole family. The favourite haunt appeared to be some low, rounded hill littered with ironstone, and clothed with a not too dense and rather low growth of marlock, or mallee, and other smaller shrubs. Naturally, at the foot of the slopes of such a hill one finds a shallow creek. I found it a good plan to follow up the creek, keeping a sharp look-out and having both ears open for the feeble but high-pitched alarm note. With the aid of a little artifice in the imitation of the call-note, or, failing that, with a representation of the cry of a wounded bird, the female may generally be induced to show herself, and, after a time, in most cases, the male; but the latter, perhaps being devoid of what is termed "feminine" curiosity, soon retires again. I was very anxious to obtain an authentic nest and eggs. Though the latter were described as long as over 70 years ago, no other nests have been recorded since; and, despite the respect all Gilbert's observations are entitled to, I have always thought that the position of the nest he describes, which he found in the Wongan Hills, was somewhat exceptional.

In the light of Mr. Milligan's re-discovery of the present species, Mr. A. J. Campbell has retracted, in part, his account of the nest and eggs in his well-known work, the specimens from Pine Creek, Northern Territory, to which he alludes being referable to some other species—very probably, I think, to *Malurus dulcis* (Mathews). *M. pulcherrimus* is, I believe, strictly confined to the south-west of this State; but I hardly think it touches the coastal districts anywhere, its place being taken by *M. elegans*, also a dark blue breasted bird, but easily distinguished by the very pale blue (or bluish-white) of the back. I may also state that in the brown plumage both sexes of these species are readily separable. In the adult male the beak, once it becomes black, remains black; but in females and young males the beak of *M. elegans* is of a light cinnamon-brown, in contrast with dark hazel-brown in the case of *M. pulcherrimus*. Also, the loreal stripe differs in the same degree, being deep chocolate in *M. pulcherrimus* and warm brown in *M. elegans*. I may add that these features in another species found also in localities frequented by both the former—viz., *M. splendens*—are still lighter, the beak being cinnamon and the

loral stripe of quite a pale ferruginous tint. But in the cases of *M. pulcherrimus* and *M. elegans* a surer guide exists in the colour of the upper parts. *M. pulcherrimus* has these more like *M. splendens*, being rather ashy in tint, whereas in *M. elegans* the whole of the wing is of a dull snuff colour. I also find that the throat and breast of *M. elegans* are much paler than in the case of *M. pulcherrimus*, the same tendency towards "ashiness" being observable in the latter.

I had one curious experience in searching for this Wren. It was rather late in the afternoon when I first arrived at my camping ground at Mount Donnelly, and I had no time to put up a tent. Next morning I was having breakfast under the lee of a clump of mallee, when four *Maluri* approached quite closely. Though the male was not in full nuptial dress, I was able to identify him as of the present species. It was about a month after this encounter before I saw another party.

On 23rd September I was at the foot of a low hill, such as I have before described, when I encountered a party of four. There were two males and two birds in brown plumage, presumably females. One male was obviously a more mature bird than the other. The latter showed considerable brown on the head, and the deep blue of the breast was streaked with greyish-brown. The older bird, on the other hand, had the crown wholly blue and the breast of a deep velvety indigo-blue. I followed them quietly up the hill. Presently one of the brown birds appeared with a piece of grass in her bill. I watched the direction she took, and cautiously moved towards it. She soon appeared with her bill empty. I waited again, and after a brief time she passed me as before, with another piece of grass, and I was able to locate the clump of mallee to which she was making. Waiting until she reappeared, I walked to the spot, and at a distance of a few feet could discern a half-finished nest, placed very low down, and just on the outside of a clump of scrub. Carefully marking the place, I at once retired. Hardly had I reached the foot of the hill before I encountered another party. This comprised two old males, two younger males in half-nuptial plumage, and only two brown females (?). The whole party appeared to be labouring under great excitement, the males chasing one another to and fro to the accompaniment of much shrill chirruping. Even the females were equally active. But I saw no actual conflict take place. I watched this party for a quarter of an hour, and that was the last I saw of it. Despite frequent visits to the same spot, and close searches of the neighbouring hill, I could not afterwards find a single bird.

I took the nest before mentioned on 3rd October, with a full clutch of three fresh eggs. The female sat closely, and the fully adult male was in attendance too, but I saw nothing of the younger male or of the second female. On 8th October I found a second nest. This, too, was very low down, and not very carefully hidden. The situation was in low, dead scrub, on a sand-

bank overlooking Lake Balicup. Only one male was comprised in this family. Unfortunately, these eggs were heavily incubated; but the chick in one egg had died, and this was the only one out of the three I managed to save.

On 2nd November I found my third and last nest some distance from the foot of the main ranges, and not far from the township of Tenterden. My attention was attracted by a beautiful old male. It was early in the morning, and I presently enticed a second male and two females from low scrub in which they were feeding. The locality looked promising, and I soon found an empty, and possibly last year's, nest. Further search revealed a second. This was low down, as before, and contained three nearly fresh eggs. Nests of this *Malurus* do not differ essentially from those of other members of the family, though individually they differ a little in the skill or otherwise with which they are woven. This last nest was the most substantial and neatly made of the three, and was warmly lined with Parrot and other feathers.

The eggs of the three clutches were much alike; in all, the ground colour pure white after blowing. The markings were distinctly blotched, and distributed irregularly over the whole shell. In colour they were of a dull ferruginous brown. The shape of the eggs showed a tendency, in all cases, to the elongated ellipse type.

Not far from this nest was that of a "Gnou" (*Lipoa ocellata*). The mound was of the usual type. Occasionally I saw one or other parent. They frequented the nest for about a month before an egg was laid.

Another interesting species not mentioned by Mr. Milligan was *Hylacola pyrrhopygia* (Chestnut-rumped Ground-Wren). This species was local, and inhabited similar country to *Malurus pulcherrimus*. It is interesting to note that wherever I found the present species I found *M. pulcherrimus*; but, on the other hand, the haunts of the latter were more varied than those of the former, which seemed restricted to low-growing scrub on stony hillsides. The Chestnut-rumped Ground-Wren is an early breeder. Fully-fledged young (they call to one another with a plaintive cry) were on the move early in October. Possibly the species is double-brooded. In our State it has a wide range, for I met with it in the Wongan Hills, 400 miles to the north, and again some 300 miles to the east, in the Lake Dundas country.

I found a kindred species—viz., *Scricornis maculata* (Spotted Scrub-Wren)—present at Yetermirrup, but very local. The young were on the wing at the end of September.

Of the *Acanthiza* I saw but little. *A. chrysorrhoa* (Yellow-rumped Tit) was much the commonest, whilst *A. mastersi* (or *A. inornata*) and *A. apicalis* were far from numerous.

I found two species of Thickheads—viz., *Pachycephala occidentalis* and *P. rufiventris*. The latter was breeding near Lake Balicup, the males being in fully adult plumage. *P. occidentalis* was less common. I did not find a nest, and it was not until I

was much nearer the coast that I saw the handsome fully-plumaged male.

Only one species of Tree-creeper was present—*Climacteris rufa*. I found four or five nests, all rather low down in hollow trunks: but in every case the nests contained young.

Rock Field-Wren (*Calamanthus montanellus*).—This is a cheerful and fearless little bird, which seems to prefer rather than shun the presence of man or other animate being. It has a simple but pleasing song, the cadences, though brief, being uttered in a very musical tone. When singing it usually perches on some point of vantage, and will continue its song despite the presence of an intruder within only a few feet of its perch. It inhabits the stony foothills of the ranges or the sparsely-clothed sand-plains, showing a preference for those tracts either devoid of vegetation or where the scrub is of the most stunted character. I never saw it amongst timber, but it was not uncommon on the sand-banks on the eastern side of Lake Balicup, where there was a sparse growth of salt-bush and samphires, and a more luxuriant crop of tussocky grasses. I did not see a single specimen west of the sand-plain which terminates with the belt of timber at Solomon's Well. It was present as far east as I penetrated, but did not seem to ascend very far up the slopes of the various peaks. On 4th September I found my first nest, quite by accident. My horses had strayed, but I could hear their bells in the distance. In following them up I walked right over a nest, the female fluttering off her eggs within a few inches of my foot. The locality was a stony spur of the main peak, and just within the area recently swept by a fire. Cover for the nest there was none, but a short, thick piece of half-burnt timber formed a little shelter, though I could look down right on the exposed dome of the nest. On closer examination the latter proved to be oval in shape, very well woven of dried grasses on the outside, with a lining of finer grasses, a few feathers, and kangaroo hair. The entrance was flush with the surface of the ground, and I found a deep cavity had been excavated in the sand to contain the structure of the nest. There were three eggs, blunt ovals in shape, of a creamy ground colour, very warmly washed with reddish-brown. They reminded me somewhat of certain varieties of the eggs of the English Redbreast, but still more of those of our Red-throat (*Pyrrholaemus brunnea*), but the cloudy markings were much lighter in tone than in eggs of the latter. I obtained a similar nest on the shores of Lake Balicup on 12th September. This nest was also amongst very sparse vegetation, and within a yard or two of the water's edge. The female sat close, as before. The nest was similar, and contained four fresh eggs. A third nest was almost on the main track to the Salt River, and had been disturbed by a dog or some other marauder. The parents were near, but the nest was partly torn from its site, and only contained a newly-hatched young bird. The latter had a sparse covering of neutral-coloured down.

Another pair were, I knew, building a nest near my Mt. Donnelly camp; but the female was very cunning, and threw me off the scent by conveying her materials to the nest in a roundabout way. I had to shift camp before clearing the matter up, but on returning to the locality ten days later I at once found the site, which I had passed and repassed every time I went to fetch water to the camp. The nest, however, was deserted, and appeared to have been trodden upon by a horse.

This *Calamanthus* must be an early breeder, as young were on the wing when I arrived in the ranges. Young in nestling plumage hardly differ from adults. Probably the species is double-brooded.

Western Brown-headed Honey-eater (*Meliphreptus leucogenys*).—This Honey-eater seems to prefer the open country rather than the forests of gums. I did not find it common anywhere. Where it occurred it was usually flitting about in little parties of less than half a dozen. It is a fussy, animated bird, and is constantly uttering its rather unmusical and rattling notes. Its favourite haunts appeared to be the sand-plain which had escaped the general destruction and where there was a growth of stunted jarrahs. Certain creeks whose banks were well clothed with scrub of the mallee type were also much favoured, and it was in such localities this bird seemed to find its food. I cannot recollect ever having observed it extracting the nectar from flowers. Its quest seemed to be more insectivorous, and the sprays of foliage were assiduously searched in pursuit of its prey. It must be a late breeder, as I saw the sexes more than once in the act of pairing. This was in the beginning of October, when many species had eggs. Unfortunately, I had to leave the locality a few days later, otherwise I feel sure I should have obtained the nest and eggs.

Wattle-cheeked Honey-eater (*Ptilotis cratitia*).—Mr. Milligan, describes this bird "as local in a pronounced degree." I, on the other hand, found it not uncommon. This may have been due either to concentration brought about by the recent bush-fires or to my having made a closer examination of the country than was possible in his case. Wherever any extensive patches of marlock or mallee had escaped the general destruction, there I found this beautiful Honey-eater.

It is hardly a bird likely to escape observation. If it may not be described as inquisitive, like *Ptilotis sonora*, it is equally determined to make its presence known. In its general habits it reminded me of *Ptilotis leucotis*, or rather *P. nova-norcia*, as our interior form is called. It was equally noisy and active, and its notes are heard here, there, and everywhere when an intruder invades its haunts. Sometimes a single bird, or even a pair, would approach closely and peer through the intervening branches at the stranger, but more often they flew from point to point in a circular course, continually calling to one another with their unmusical notes.

I found eight or nine nests in all, but their discovery was by

no means an easy task. The first I obtained was situated in a very small dwarf *Banksia*. The nest was suspended from the foliage of the bush in a little recess, and I considered myself lucky not to pass it by unobserved. It contained two fresh eggs. All the other nests I found—some with eggs, others with newly-hatched young—were very low down; none higher than 3 feet. All were very neatly made of green grasses, held together by spiders' webs and lined with the same soft material. I marked the situation of one I found building by fixing a piece of cotton wool to a dry twig. This was promptly seized by the female and used as lining for her nest.

The eggs have been accurately described in Mr. A. J. Campbell's work (see p. 401), but both eggs and nest appear to be remarkably small for the size of the parent bird. Generally, I think, however, the female is the smaller of the two sexes in this species.\* I was not able to obtain a full-grown nestling. I watched a pair I found when newly hatched for more than a week, but their growth was slow, and at that period they showed no signs of a wattle. When I returned to the nest still later both were gone, and only a few shreds of the nest remained.

Of the other species of *Ptilotis* mentioned in Mr. Milligan's list—viz., *P. sonora* and *P. ornatus*—I only encountered the latter. I can thus confirm his note that *P. sonora* is absent from the north side of the ranges.

Graceful Honey-eater (*Ptilotis ornatus*).—This bird first appeared in the white gums a few miles to the north of Mt. Barker. In the Stirling Ranges it frequented the white gums, and, despite the fact of some thousands of acres having been ringbarked around Solomon's Well, the species still clings to the locality. It is a late breeder, and it was not until I had found half a dozen nests of the previous year that I got one with eggs. This was suspended from the foliage of a *McLaleuca* at a height of about 10 feet. All the nests I found were very neatly woven of green grass-stems, but little else being used in their construction. The eggs are very dark coloured—the shell of a brownish tint, sparsely dotted with chocolate or purplish spots. A second nest of the present season overhung the main road near Tenterden, but it was empty. I observed individuals pairing as late as the beginning of November.

Referring to other Honey-eaters, I found the *Meliornis* group represented by *M. longirostris* and *M. mystacalis*. In the ranges proper the former was rare, and I only obtained one nest. As usual, this was near water. In the swamps of the lower lands, I, however, found the species more plentiful.

*M. mystacalis* (Moustached Honey-eater) was by no means uncommon around Donnelly Peak. It was one of the first birds to attract my attention on arrival in the ranges. A favourite haunt was a very steep hillside thickly clothed with dwarf *Banksia*

\* This is usually the case in the genus *Ptilotis*.—EDS.

and other shrubs. Here I found nests with young, and also young on the wing, early in September. This hill was in a sheltered situation and faced the north. On the sand-plain below I obtained several nests with eggs a little later. All the nests were low down. They were rather loosely constructed of dried grass-stems and lined with vegetable down. The eggs varied even in the same nest. Some were pure white in ground colour, and others had a distinct warm tint about them so pronounced in tone that it might be called very light brown, and resembling, in this respect, eggs of *M. longirostris*. This tint was very apparent in a nest containing a pure white egg and one of the present type. The markings on the eggs were rather small and sparse and in the form of dark brown spots. Some eggs closely resembled those of *Glycyphila fulvifrons*, but eggs of the latter were always white in ground colour, and generally distinctly larger. I did not find the Moustached Honey-eater a close sitter.

The Tawny-crowned Honey-eater (*Glycyphila fulvifrons*) was the commonest bird of the sand-plains. I found many nests. All were within a few inches of the ground, and could hardly be called concealed. The only variation in the eggs was in the character of the markings. In the majority they partook of the form of cloudy, rust-coloured dots and dashes, but in some the place of the latter was taken by very fine points of deep chocolate. This species seems to be able to protect its nests from the visits of the various species of Cuckoo inhabiting the ranges, as, despite the number of nests I found, none contained a Cuckoo's egg.

Referring to other Honey-eaters, I met with all mentioned by Mr. Milligan, but only saw one pair of *Manorhina obscura* east of Solomon's Well. I obtained a nest with one egg of *Acanthochara lunulata* near Mt. Donnelly, but I saw nothing more of this species.

Of the *Falconidae* I saw few, and only noted one clutch of eggs. These were referable to the common Brown Hawk (*Hieracidea berigora*), and were laid in the hollow of a truncated white gum. There was no attempt at a nest. Of the other Hawks, an occasional Sparrow-Hawk (*Accipiter cirrhocephalus*) or Kestrel (*Cerchneis cenchroides*) was seen, and in one instance I saw a White-fronted Falcon (*Falco lunulatus*) flying at great speed towards the ranges. There were untenanted nests of the Wedge-tailed Eagle at Lake Balicup and also at Yetermirrup, but I saw none of these Eagles on the wing. Like Mr. Milligan, not a single Crow or Raven did I see during the whole trip.

Parrots were not common, but an interesting addition to Mr. Milligan's list is the Grass-Parrakeet (*Neophema elegans*). I saw a single pair at Lake Balicup. *Barnardius semitorquatus*—the common "Ring-neck" of settlers—was distinctly rare. The Red-capped Parrakeet (*Porphyrocephalus spurius*) was more in evidence, and I was fortunate enough to locate a nest. I frequently met with pairs, or even small parties, of this species away from the timber on the sand-plains, and think it quite possible they were last year's progeny, and not breeding. The nest I

obtained was found near Lake Balicup, and gave me a lot of trouble. Every morning the parent birds fed near my camp. The difficulty was to follow their flight with the eye through the intervening timber to the nesting tree. After exercising great patience I gradually tracked them down to the point where I usually lost one bird and saw the other fly off to a distance. At length, by hiding in some bushes, I located the tree, which was a large dead white gum, containing more than one likely-looking hole. Next morning I waited till the birds appeared, as usual, to feed, and then hurried down to my lair near the tree. I waited what seemed an interminable time till the birds appeared, and the female immediately popped into a hole in the main stem of the tree. I beat on the trunk with my tomahawk, but she refused to budge. I soon had my rope-ladder at work, and the sight of the dangling fishing line, which must have been visible to her as she sat, caused her to leave her eggs at once. After half an hour's hard chopping I secured five fine eggs. They were somewhat nest-stained and heavily incubated, but I am glad to say were eventually blown. They were a little larger than typical eggs of *Barnardius*. This is a very handsome Parrot, and I think I never saw a finer pair than the proprietors of this nest. The native name is "Chelyup," which is, no doubt, a rendering of the call-note.

I met with a single pair of the Many-coloured Parrakeet (*Psephotus multicolor*). This species is another interesting addition to Mr. Milligan's list. I also secured a clutch of four eggs of *Platyercus icterotis*—the local "Rosella." The entrance to the nest was on the top of a thick horizontal limb of a white gum, at a height of about 40 feet.

The Stirling Range birds differ somewhat from our coastal birds in having the feathers of the mantle edged with red. In the latter, even in old birds, the colour of the mantle is a combination of black and green, with very slight or no trace of red; but further east, in the Lake Dundas district, I secured a fine old male with the edges of the feathers red and with no trace of green at all in the mantle. In our coastal birds the latter colour predominates. Perhaps the extreme eastern form would be Salvadori's *P. xanthogenys*.

Leaving the Parrots, another addition to Mr. Milligan's list is *Pteropodocys phasianella* (Ground Cuckoo-Shrike). A pair were nesting in a white gum near Yetermirrup. The Black-faced Cuckoo-Shrike (*Graucalus melanops*) was not uncommon, but I could detect no difference in habits or general appearance from birds found farther north. The Lesser Brown Flycatcher (*Micræca assimilis*) was rather local, but I saw several nests. These were at heights varying from 3 to 15 feet from the ground. They are miniature nests of the *Graucalus*. I was rather surprised to meet with a pair or two of the White-shouldered Caterpillar-eater (*Lalage tricolor*) breeding at Lake Balicup.

On the latter lake were a good many Ducks, of three species—

viz., Black Duck (*Anas superciliosus*), Teal (*Nellion castaneum*), and Mountain-Duck (*Casarca ladornoides*). Of the two former I found several nests, photographing a Teal's nest with thirteen eggs *in situ*. There were three nests of this species on a very small islet in the lake. I also captured two young, in down, of the Mountain-Duck. In England the Common Sheldrake (*Tadorna casarca*) breeds in rabbit burrows in the coastal sand-hills. There were a good many burrows of the dulgete (*Peregale lagotis*) around Lake Balicup, and I think it probable that a pair or two of the local Mountain-Ducks may have been breeding in them.

The only Waders on the lake were a few Red-fronted Dotterels (*Ægialitis ruficapilla*) and a flock of about 150 Banded Stilts (*Cladorhynchus australis*). The latter seemed to consist of adult birds only. A few pairs of Black Swans (*Chenopsis atrata*) were also present. At Lake Matilda, a sheet of fresh water near Tenderden and some 8 miles from the foot of the ranges, were some pairs of Musk-Ducks (*Biziura lobata*).

I found Wood-Swallows (*Artamus*) fairly plentiful, especially around Lake Balicup, but only of one species—viz., *A. sordidus*. Amongst other situations, I saw a nest on the top of a broken stump. Other pairs, again, were breeding at a considerable height.

The Restless Flycatcher (*Sisura inquieta*) was not uncommon in the same locality, and it was an agreeable experience to be able to examine nests almost within reach, and without any climbing at all. One nest I examined was at a height of not more than 8 feet, and contained mummified young birds. Possibly the parents had fallen victims to their curiosity, for I saw a pair flitting about the head of a large monitor lizard, who was plainly only watching his opportunity to make a capture.

Another bird mentioned by Mr. Milligan is the White-bellied Shrike-Tit (*Falcunculus leucogaster*). The nest of this species was one of the special objects of my quest. I found the species distinctly rare; but it is a difficult bird to find, and, moreover, from its very quiet and unobtrusive manners, liable to be overlooked. In all, I do not think I saw more than four pairs. I spent hours in watching them. Generally, they were in the tops of white gums, but once or twice I saw a female in small acacia scrub. I often, at first glance, mistook *Melithreptus whillocki* for this species. Both birds have the same habit of hanging from the slender twigs of eucalypts, which they search for food. With its powerful beak the Shrike-Tit strips off any loose bark it may find, and under which spiders spin their cocoons. When I observed this habit first I was in hopes the birds were collecting building material; but in all cases the strip of bark was carried to a convenient perch, and there the spider or its eggs was devoured. The call-note is a single "ko," or "kōō," very softly uttered. Once or twice I was successful in calling the birds up, but more often than not I brought pairs of the Hooded Robin (*Petræca bicolor*). Of the latter I found nests with eggs, and also observed young on the

wing. Its congener, the Western Scarlet-breasted Robin (*P. campbelli*) was by no means common, but one pair built a pretty nest in a tea-tree near my camp at Yetermirrup.

I am able to confirm Mr. Conigrave's note as to the presence of the Chestnut-backed Ground-Bird (*Cinelosoma castanonotus*) in the ranges. I saw individuals more than once near Solomon's Well, and on one occasion a male was calling from the limb of a dead white gum at a height of 25 feet.

Amongst other nests observed at that locality I must mention three of the Grey-breasted Shrike-Robin (*Eopsaltria gularis*). One of these was low down, but the others, on the contrary, were at heights varying from 15 to 25 feet. All the nests were somewhat loosely constructed, but were cleverly disguised on the outside by longitudinal strips of grey bark. An easy way to find these nests when the female is brooding is to watch the male. He feeds his mate assiduously as she sits on the nest. At Solomon's Well, Lake Balicup, and almost as far south as Mt. Barker, I saw some beautiful Bee-eaters (*Merops ornatus*). The native name is "Berrin-berrin"—an adaptation of the call-note. Though our coastal sand-hills would seem to present an attractive haunt to this species, I have only once met with it there. I refer, of course, to our south coast, east and west of Albany.

When camped near Lake Matilda my attention was attracted by the harsh and guttural notes of a local Reed-Warbler (*Acrocephalus*). I had hitherto regarded the notes of this bird as amongst the sweetest uttered by our native songsters, but these Lake Matilda birds could hardly be called songsters when their efforts were contrasted with those of Swan River or other Reed-Warblers heard further north. Lake Matilda, however, was exceptionally high, and things were not improved by a further fall of 5 inches of rain in 48 hours whilst I was camped there. Though it was the first week in November, building operations were hardly in full swing. I found three nests, which were only reached by swimming out to the circle of reeds encompassing the lake. I failed to get a bird to make identification certain. The nest and eggs seemed typical of *Acrocephalus longirostris*. Possibly the harsh notes had been learned from the swarms of frogs inhabiting the lake; but the matter is worthy of the attention of any other ornithologist who may visit the locality.

Among other birds on Lake Matilda were a few pairs of Blue Bald-Coots (*Porphyrio bellus*). I caught a pair of newly-hatched young. I also noticed nests on the branches of half-submerged trees that looked like those of the pied Little Cormorant (*Pyrrhocorax melanoleucus*). Wading and swimming in these lakes are not altogether a pleasant pastime. I came out after one attempt with my legs streaming with blood and with repulsive-looking leeches clinging to my skin.

The heavy rains made the exploration of the various pools and swamps between Mt. Barker and the coast a matter of great difficulty, and I have no doubt the sudden rise of water brought

about by the storm of 31st October and 1st November drowned out nests of some of the aquatic species. I was anxious to obtain eggs of the Spotless Crake, but it was too late in the season before I got tangible proof of this bird's existence in a series of large swamps to the west of Albany. A cat brought in a freshly-killed specimen, and the owner of the cat told me it was quite a common occurrence. Far too many cats are running wild in our scrubs, and the local disappearance of more than one exceptionally interesting species may be safely set down to their depredations.

My researches near the south coast did not result in anything of special interest, but I paid some attention to a newly-described species of White-eye (*Zosterops shortridgei*), Grant. The types were procured on Rabbit Island, King George's Sound. The latter island is only a huge mass of granite, whose area is limited to a couple of hundred acres or thereabouts, and only separated from the mainland by a very narrow channel. It was out of the question, therefore, that such conditions, with the absence of isolation, could produce a local species. *Z. shortridgei* is said to differ from *Z. gouldi* in having the middle of the breast, as well as the belly, thighs, and under tail coverts, pale yellow, the sides and flanks greyer and only slightly washed with cinnamon. In *Z. gouldi* the thighs are always white (*Ibis*, ninth series, vol. iii., p. 650). I found birds answering to this description both to the north and to the west of Albany, and it may be noted that the cinnamon wash on the flanks in one or two I procured was absent. Again, I shot others with the latter characteristic very pronounced. I can only say at present, with certainty, that the birds with the grey flanks and yellow thighs were breeding birds. Possibly the other type may have been breeding too; but I am rather inclined to think the differences are due to age, and are not of specific value.

### Alterations in the Nomenclature of "Handlist of the Birds of Australia."

BY GREGORY M. MATHEWS, F.R.S.E., &c.

Now that the Royal Australasian Ornithologists' Union is to bring out a "Checklist" of the birds of Australia, and is to use my "Handlist"\* as a base, I have thought it necessary to bring this work up to date.

I have looked up the original description of every bird and genus to see if the spelling, &c., is correct. My object in doing this was that the "Checklist" may be as correct and up-to-date as possible. That other changes will be necessary is a foregone conclusion; the ones here pointed out are the most obvious.

I have recognized that the only means of attaining finality in

\* *Emu*, vol. vii., Supp.

LAKE BALICUP

RIGGERT

DATE: 13.11.68

GENERAL COMMENT: Aerial Survey

WATERLEVEL: Full of salty water.

RIGGERT

DATE: 11.9.69

GENERAL COMMENT: Aerial Survey

WATERLEVEL:  $\frac{1}{2}$  Full.

RIGGERT

DATE: 14.10.70

GENERAL COMMENT: Aerial survey

WATERLEVEL:  $\frac{1}{2}$  Full of very salty water.

MUNRO, COOKE

DATE: 14.10.71

WATERLEVEL: Approx.  $\frac{1}{2}$  Full

WATERFOWL: Mountain duck in small flocks.

RIGGERT

DATE: 25.10.71

GENERAL COMMENTS: Aerial Survey

WATERLEVEL: Down approx. 4 ft (120 cm) nearly dry and very salty.

LAKE BALICUP Cont'd...

MUNRO

DATE: 19.9.72.

WATERLEVEL: Low to very low

WATERFOWL: Only a few Mountain duck (2 broods). Several Black Swans, few pairs of Black Duck and Grey teal.

RIGGERT

DATE: 14.11.72

GENERAL COMMENT: Aerial Survey

WATERLEVEL: Dry

MUNRO

DATE: 14.8.73

WATERLEVEL: 3/4 Full

WATERFOWL: Pairs of Mountain duck, Wood duck, Black duck and Grey teal present in the area.

RIGGERT

DATE: 18.10.73

GENERAL COMMENT: Aerial survey

WATERLEVEL: 1/4 to Normal.

MUNRO, RIGGERT

DATE: 4.11.74

GENERAL COMMENT: Aerial Survey

WATERLEVEL: High

WATERFOWL: Numerous Black Swan, Mountain duck and Grey teal.

LAKE BALICUP Cont'd...

MUNRO

DATE: 24.9.75

WATERLEVEL: High

WATERFOWL: Only a few Grey teal and Mountain duck observed.

MUNRO

DATE: 7.11.77

GENERAL COMMENT: Aerial Survey

WATERLEVEL: Low - 60% covered - Approx  $\frac{1}{4}$  capacity.

WATERFOWL: All species present in small numbers.

MUNRO

BALICUP LK

DATE : 25/10/78

GEN. COMMENT : aerial survey

WATERLEVEL : all large salt lakes in this area shallow to half full. Fresh water lakes half full to high

WATERFOWL : few Grey Teal + Mountain Duck

To: Jim Lane

From: Julie Raines?  
306 1642

Table 1.

WATERBIRDS RECORDED IN THE BALICUP LAKE WETLAND SYSTEM

b = breeding; J = JAMBA. C = CAMBA

(includes Sepang & Camel Lakes  
+ Salt Lake NR)

|                        |   |   |
|------------------------|---|---|
| White-faced Heron      |   |   |
| Black Swan             |   |   |
| Australian Shelduck    |   |   |
| Grey Teal              |   |   |
| Black-fronted Plover   |   |   |
| Hooded Plover          |   | * |
| Red-capped Plover      |   | * |
| Banded Stilt           |   |   |
| Red-necked Avocet      |   |   |
| Bar-tailed Godwit      | J | C |
| Sharp-tailed Sandpiper | J | C |
| Red-necked Stint       | J | C |
| Curlew Sandpiper       | J | C |

Done 24/6/94

Dear Jim, I am wondering if you are able to add any more records to this list of waterbirds (+breeding) for Balicup Lake. The above records are from The RAOU/CAIUM waterbird Usage Survey 1981-88. I would be most grateful for any extras you may have. Julie