

Notes on Central Australian Birds—Alice Springs to Cockatoo Creek.

By J. Burton Cleland, M.D.

In August, 1931, a fifth Anthropological Expedition to Central Australia was undertaken by the Board of Anthropological Research of the University of Adelaide. A considerable part of the expenses of the Expedition were defrayed from a fund generously placed at the disposal of the Australian National Research Council by the Rockefeller Foundation for the purpose of studying the Australian native. As was the case last year, the South Australian Museum co-operated with the University, paying their portion of the expense, and obtaining a valuable collection of ethnological and zoological specimens. On this occasion the Assistant Taxidermist, Mr. A. L. Rau, accompanied the party and secured 30 bird skins to add to the ornithological collection of the institution. To him I am indebted for most of the notes on the soft parts of the birds secured, and for various measurements in the flesh and weights. Mr. A. M. Lea, F.E.S., Entomologist of the Museum, has kindly worked out the contents of the stomachs brought back.

Cockatoo Creek is situated about 200 miles by road northwest of Alice Springs. The route followed was for 100 miles "up the road," i.e. along the Darwin track and then for about the same distance a little north of west. The camp-site on Cockatoo Creek was situated a little west of the usual route to Tanami, though the latter can also be reached *via* Cockatoo Creek. Cockatoo Creek has not yet been occupied, though horses came in to drink at Brooks' Soak, some 20 miles to the east. Consequently, the country was undisturbed from the point of view of stock and the effects of encroaching civilization.

As on previous occasions, a record was kept of the numbers of each species of bird seen on the journey there and back. A brief description of the main features of the country traversed is desirable. After leaving Alice Springs, the road winds through the rocky hills of the MacDonnell Ranges for some 12 miles. It then emerges on to extensive mulga plains which form the main feature for the rest of the way. In places the mulga is dense, so that a motor-car would have difficulty in passing through it without the frequent use of the axe, but for the most part the trees are more widely spaced and sometimes only a few to the acre. Grasses grow beneath and between the mulga, and sometimes there are open grassy patches. Occasionally

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a variety of other shrubs with grass take the place of the mulga. Such shrubs and small trees, which may be sometimes mixed with mulga, include Bloodwood (*Eucalyptus pyrophora*), Corkwood (*Hakea lorea* and *H. intermedia*), Needlewood (*H. leucoptera*), Native Orange or Pomegranate (*Capparis Mitchellii*), a prickly acacia (*A. Victoriae*), Ironwood (*A. estrophiolata*), *A. ligulata*, a bushy acacia (often abundant), Beefwood (*Grevillea striata*), Cassias and Eremophilas. Tall termite nests are striking features in places.

On the 100-miles we journeyed up the Darwin track we passed through low gaps in three rocky ranges and sighted mountain masses on either side in the latter part of this route. Thus Hann's Range was crossed at 75 miles, low hills at 89½ miles, and Prowse's Gap at 93 miles. The vegetation on these rocky hills strikingly differed from that on the plains, including Porcupine Grass (*Triodia*), Native Bean (*Erythrina vespertilio*), *Ficus platypoda*, a handsome *Grevillea* (*G. juncifolia*), with beautiful orange flowers, *Atalaya hemiglauca*, other Acacias, etc.

After leaving the Darwin track, we still followed in the main mulga plains, but these often lay close to bold mountain masses and bluffs or rocky hills or even ran between two ranges. Running more or less parallel with much of our course was the wide, dry, sandy bed of the Lander, lined by Red Gums (*E. rostrata*) and with beautiful white-stemmed Cabbage Gums (*E. papuana*), and bloodwoods on the higher land adjacent. The Papuan Gums also grew near the base of some of the stony hills. We had to cross a number of sandy tributaries of the main watercourse.

Cockatoo Creek itself was situated in similar country, the dry watercourse with its sandy bed being lined by Red Gums, and its banks covered with tall dry grasses and various shrubs. Mulga plains or plains scattered with other shrubs and covered with dry grass extended around, being broken by bold and picturesque peaks or rocky granite hills.

Very little water was seen anywhere on the journey. There were wells at wide intervals and one natural spring (Brooks' Soak). There were no open sheets of water, and consequently no water-birds were seen. On the open plains Chestnut-eared Finches, Diamond Doves, *Pomatostomus*, *Artamus melanops*, Willie Wagtails, Hooded Robins, Singing Honeyeaters, *Anthus*, Bell-birds, and Magpies were to be found. In the trees along the dry watercourses were found Major Mitchells, Port Lincoln Parrots, *Meliphaga penicillata*, *Myzantha*, Jacky Winters, and Weebills.

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No Emus were seen.

A small Quail, not identified, was flushed on several occasions. A nest handed to me near Connor's Well was cup-shaped and suspended from a branch of a mulga. It was constructed of grasses and herbage, lined with feathers, amongst which the ornithologists at the S.A. Museum identified a few belonging to the Little Quail (*Turnix velox*). The owner of the nest, however, could not be placed.

Diamond Doves (*Geopelia cuneata*) were common. At certain parts of the day, as in the late afternoon, they were abundant on the mulga plains. Thus on the return journey, just after leaving Cockatoo Creek, 125 were counted in 25 miles. 13/8/1931, Cockatoo Creek; ♀; iris orange; bill dark horn; legs and feet flesh color; total length, 20.7 cm.; spread of wings, 25.9 cm.; weight, 27 grammes; stomach contents: fragments of seeds and fine grit. ♀, similar soft parts; total length, 19.9 cm.; spread, 24.9 cm.; weight, 32 grammes; stomach contents: numerous saltbush seeds and some crushed brown vegetable matter.

Plumed Pigeons (*Lophophaps plumifera*). A pair were seen in the creek-bed at Brooks' Soak. 15/8/1931, Brooks' Soak; ♀; iris golden; bare skin around eye orange; bare skin of lores red; bill black; legs and feet dull purple; total length, 22.5 cm; spread, 33 cm.; weight, 98 grammes; stomach contents: crammed with numerous seeds and with vegetable matter and some sandgrit. ♀; similar soft parts, but bare skin of lores scarlet; stomach contents: four large hard seeds, numerous saltbush seeds, ground up vegetable matter. ♂; total length, 23 cm.; spread, 33.5 cm.; weight, 108 grammes; stomach contents: vegetable matter and numerous seeds of four sorts.

Crested Pigeons (*Ocyphaps lophotes*). These were abundant in the neighbourhood of water. They came in to drink at the well at Cockatoo Creek, and at Brooks' Soak. At the latter, in the early morning, but well after sunrise, about 200 alighted near the soak and walked up to the water to drink. 12/8/1931, Cockatoo Creek; ♂; iris red; bill horn color; legs and feet reddish pink; total length, 33.6 cm.; spread, 49 cm.; weight, 213 grammes; stomach contents: seeds of three kinds, some fine vegetable matter, some sand grit.

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Birds of Prey, including Kites, were not numerous. Only 31 were counted in the journey there and back. The Peregrine Falcon (*Falco peregrinus*), Brooks' Soak, 15/8/1931; ♀; iris dark brown; eyelids glaucous grey; bill bluish-horn, blacker towards the tip; cere, and the legs, pale greenish-yellow, nails black. ♀; soft parts similar; total length, 36 cm.; spread, 78 cm.; weight, 420 grammes.

Brown Hawk (*Falco berigora*); 15/8/1931; Brooks' Soak; ♀; iris golden brown; bare skin around eye yellowish; bill bluish white, tip slaty; legs and feet bluish white; total length, 47 cm.; spread, 96 cm.; weight, 609 grammes. Boobook Owl (*Ninox boobook*); 13/8/1931; Cockatoo Creek; ♀; iris brown; bill, legs, and feet grey; total length, 33.8 cm.; spread, 68.5 cm.; weight, 282 grammes; stomach contents: bits of longicorn beetle (*Phoracantha recurva*); fur and lower incisor of a native rat (*Pseudomys* sp.)

The Southern Stone Plover (*Burhinus magnirostris*) was heard at Brooks' Soak. No Red-tailed Black Cockatoos (*Calyptorhynchus banksi*) were seen on this expedition, in contrast to the numbers present near Macdonald Downs in the previous year. This was probably due to an absence of suitable grass-seeds. Though there was plenty of dry grass, due to the summer rains, the seed had mostly been shed and lost, and the species of *Panicum* (probably *P. distachyum*) that seemed chiefly responsible for the larger seeds on the plains at Macdonald Downs was not recognized at Cockatoo Creek. Pairs of Major Mitchells (*Kakatoe leadbeateri*) were present at Cockatoo Creek and along other gum creeks. 15/8/1931, Brooks' Soak; ♀; iris orange scarlet, bare skin around eye white; bill cream color; legs and feet grey; total length, 40 cm.; spread, 75 cm.; weight, 400 grammes; stomach contents: crammed with vegetable matter and numerous seeds of at least three kinds. Budgerygahs (*Melopsittacus undulatus*) and Galahs (*Kakatoe roseicapilla*) were remarkably few on the journey, probably finding better feeding-grounds elsewhere; none were seen at Cockatoo Creek. Cockatoo Parrots (*Leptolophus hollandicus*) were possibly heard on one occasion. Port Lincoln Parrots (*Barnardius zonarius*) were common in the gum creeks. 15/8/1931; Brooks' Soak; ♂; iris brown; bill slaty white; legs and feet dark bluish grey; total length, 39 cm.; spread, 47 cm.; weight 139 grammes; stomach contents: crammed with whitish vegetable matter and some coarse white sand. ♀; soft parts similar, but bill white tinged with blue at base; total length, 37.5 cm.; spread, 44 cm.; weight,

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129 grammes; stomach contents: crammed with whitish vegetable matter and many fragments of a minute black laminated substance. 13/8/1931, Cockatoo Creek; ♀; total length, 38.5 cm.; spread, 48.4 cm.; weight, 145 grammes; stomach contents: crammed with vegetable matter and fine grit. The Red-backed Kingfisher (*Halcyon pyrrhopygius*) was seen at Cockatoo Creek. The only Swallows were occasional White-backed Swallows (*Cheramoeca leucosterna*). Willie Wagtails (*Rhipidura leucophrys*) and Hooded Robins (*Melanodryas cucullata*) were not numerous, though widely distributed on the mulga plains. The former, at Cockatoo Creek, as at Macdonald Downs, was killed by the natives at every opportunity on account of its nagging and chattering propensities, listening to camp conversations and noising abroad ill-natured gossip.

Several Jacky Winters (*Microeca fascinans subpallida*) were round the camp at Cockatoo Creek. The note was perhaps slightly different from the southern form. Brooks' Soak, sex ?; iris dark brown; bill and legs black; pharynx brownish. 13/8/1931; Cockatoo Creek; ♀; total length, 13.5 cm.; spread, 24.5 cm.; weight, 12 grammes; stomach contents: small caterpillar, head of small bee (*Nomius* ?), bits of small spider, numerous bits of small ants (*Iridomyrmex*, *Camponotus*, and other genera), numerous white ants (evidently this bird was feeding at a newly-opened nest of white ants), many other minute fragments of insects. 14/8/1931; ♀; total length, 14.5 cm.; spread, 24.5 cm.; weight, 13 grammes; stomach contents: heads, etc., of several kinds of ants (*Odontomachus*, *Camponotus*, *Iridomyrmex*), many other fragments, mostly of ants, a gall weevil (*Haplonyx*).¹

Crested Bellbirds (*Oreoica gutturalis*) were widely distributed. On the return journey, coming down the Darwin track, 100 miles north of Alice Springs just before dusk quite a number (11) were seen over a distance of some 20 miles hopping from the roadside in amongst the bushes. A bird with a striped breast and without obvious crest, seen at Cockatoo Creek in company with several Bellbirds was probably an immature one of this species and not, as was at first thought, a female Whistler (*Pachycephala*).

A small flock of Ground Cuckoo-Shrikes (*Pteropodocys maxima*) flew over the camp at Cockatoo Creek.

Little companies of Red-breasted Babblers (*Pomatostomus rubeculus*) were seen from time to time. Cockatoo Creek, 12/8/1931; ♂; iris reddish brown; bill, legs, and feet horn color;

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total length, 23.7 cm.; spread, 50 cm.; weight, 64 grammes; stomach contents: petals of flowers, large hard seed, part of another kind of large hard seed, numerous fragments of homopterous bugs; many unidentified fragments of insects. 13/8/1931, ♀, soft parts similar; stomach contents: bits of plant weevil, small caterpillar, some whitish vegetable matter with many small brown seeds, bits of several spiders, fine grit.

Crimson Chat (*Epthianura tricolor*). A small bird at Cockatoo Creek, showing red when it flew, was probably this species.

Yellow Weebills (*Smicromis flavescens*) frequented the red gums at Cockatoo Creek. Their cheery little notes were pleasant to hear. 11/8/1931; ♀; iris yellowish; bill, legs, and feet light horn; total length, 8.6 cm.; spread, 13 cm.; weight, 5 grammes; stomach contents: numerous heads and other fragments of minute Hymenoptera (probably chalcid wasps), bits of very minute plant bugs, dust-like fragments of many insects. Chestnut-tailed Thornbill (*Acanthiza uropygialis*) was met with at Cockatoo Creek. 21/8/1931; ♂; bill, legs, and feet dark horn; total length, 10.3 cm.; spread, 15 cm.; weight, 5 grammes; stomach contents: minute clavicorn beetle (*Trogoderma*), bits of several jassid bugs, bits of two minute beetles, bits of minute spider, many minute fragments of insects. Yellow-tailed Thornbills (*A. chrysorrhoa*) were noted at Cockatoo Creek.

A feeble wren-like note heard once amongst some "spinifex" (*Triodia*) at the base of a stony quartzite hill opposite Mount Gairdner suggested an Emu Wren (*Stipiturus*), a Wren (*Malurus*), or a Grass Wren (*Amytornis*).

The Black-faced Wood-Swallow (*Artamus melanops*) was obtained at Brooks' Soak; 15/8/1931; ♂; iris bluish, bill bluish with black tip, legs and feet grey-black; total length, 18.5 cm.; spread, 32.5 cm.; weight, 30 grammes; stomach contents: bits of two large wasps (*Scoliidae*); five heads and other fragments of bees; many other fragments, apparently all of Hymenoptera.

Red-browed Pardalotes (*Pardalotus rubricatus*) frequented the red gums on Cockatoo Creek. 11/8/1931; ♀; iris yellow; bill horn color; legs and feet light horn; total length, 10.6 cm.; spread, 18.4 cm.; weight, 9 grammes; stomach contents: extremely minute fragments of insects, some homopterous. 12/8/1931; ♂; stomach contents: bits of several jassid bugs, bits of small plant bug (*Pentatomidae*), many minute fragments of homopterous bugs.

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Singing Honeyeaters (*Meliphaga virescens*) were met with amongst the mulga and bushes on the plains at Cockatoo Creek and elsewhere. Cockatoo Creek; 11/8/1931; ♂; total length, 19.2 cm.; spread, 26.7 cm.; weight, 24 grammes; stomach contents: bits of bush-fly (*Musca vetutissima*), small sugar ant (*Camponotus*), small ants (2) (*Iridomyrmex*), and bits of others, bits of two small spiders, head of plant bug, elytra of small lady-bird (*Rhizobius*), several minute caterpillars, many minute fragments of insects, numerous berries, each containing one circular flat seed, small black seed, some fibrous vegetable matter. ♂; total length, 18.9 cm.; spread, 27.4 cm.; weight, 24 grammes; stomach contents: many angular red seeds and some reddish pulp, numerous small black seeds, sugar ant, small *Camponotus*, bits of small spider, a few fragments of ants.

White-plumed Honeyeaters (*Meliphaga penicillata leilavensis*) were numerous in the red gums on the various creeks. Cockatoo Creek; 17/8/1931; ♂ probably immature; iris dark brown; gape and base of bill maize-yellow; distal half dark brown, pharynx yellow, legs pallid brown; total length, 6½ inches; spread, 9½ inches. 13/8/1931; ♀; weight, 15 grammes; stomach contents: bits of several small ants (*Iridomyrmex*), bits of minute spiders, head of small heteromerous beetle, bits of minute plant bugs, many other minute fragments of insects.

Yellow-throated Miners (*Myzantha flavigula*). These birds were seen at Cockatoo Creek and elsewhere. An examination of the skins shows that these birds, though clearly a variety of *M. flavigula*, approach *M. obscura* (Dusky Miner) in the duski-ness of the plumage, especially of the breast, and in the tendency for the black tint to extend from the neighbourhood of the eye towards the base of the bill and even across the forehead. The white rump is, however, distinct, but in specimens of *M. obscura* from Moora, W.A., in Mr. Ashby's collection, the rump is very obviously approaching white. These Western Australian birds, then, seem a variety of *M. obscura* approaching *M. flavigula*, just as the Cockatoo Creek birds are *M. flavigula* approaching *M. obscura*. 11/8/1931; ♂; iris hazel; bill, legs, and feet yellow; total length, 25.2 cm.; spread, 35.9 cm.; weight, 53 grammes; stomach contents: small weevil (*Emplesis*), bits of stink beetle (*Tenebrionidae*), bits of several stinging ants (*Ectatomma*), bits of small ants (*Iridomyrmex*), many other unidentified fragments of insects. 12/8/1931, ♂, soft parts similar; total length, 23.5 cm.; spread, 34.4 cm.; weight, 53 grammes;

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stomach contents: crammed with small ants (*Iridomyrmex*), three small caterpillars; two small flea beetles (*Plectroscelis*), two small weevils (*Emplexis*), bits of eucalyptus weevil (*Polyphides*), bits (8 heads, etc.) of small pentatomid bugs, many very minute fragments of insects. 21/8/1931, ♂, soft parts similar, but legs and feet greenish yellow; total length, 25.4 cm.; spread, 37.6 cm.; weight, 49 grammes.

Chestnut-eared Finches (*Taeniopygia castanotis*) were numerous in many places, especially in the vicinity of water. Many were seen on the mulga plains in situations where they must surely have been a long way from any rock-holes with water. These birds have been said by explorers to be a sure indication that water is near. Brooks' Soak, 15/8/1931; ♂; iris and bill orange-red; legs and feet pale salmon; total length, 10 cm.; spread, 16.5 cm.; weight, 9.5 grammes; stomach contents: pupa of minute fly; seven small reddish seeds and bits of others; some whitish vegetable matter. ♀; iris and bill pale orange-red; legs and feet salmon; total length, 11 cm.; spread, 17 cm.; weight, 9.5 grammes.

Crows (*Corvus*) were remarkably few. Only six were noted on the journey out and back. Some were heard at Cockatoo Creek. Their relative absence and that of blowflies, though bush-flies (probably *Musca vetustissima*) were exceedingly abundant, is probably to be attributed to the absence of stock (Cockatoo Creek being as yet unoccupied) and the long years of drought. These two factors made carrion scarce. The small number of rabbits seen must also be attributed to their decimation during the drought. Foxes seem not yet to have reached this part. Dingoes occur, though none were heard during our stay.

Pied Butcher Bird or Jackaroo (*Cracticus nigrogularis*). The beautiful notes of this bird were heard occasionally in the early morning at Cockatoo Creek, though not quite so early (with the first streak of dawn) as last year at Macdonald Downs. Thereafter during the day, as was the case last year, the birds kept quiet, and were only occasionally disturbed and seen for a few moments amongst the branches of the red gums.

Probably all the Magpies seen were White-backed ones (*Gymnorhina hypoleuca*), this species being definitely identified on several occasions. Twenty-six were seen on the return journey.

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Other species of birds seen will be found in the list of those noted on the journey. Altogether only about 40 species were recorded.

The journey there and back has been divided into five stages, two on the outward part and three on the return, corresponding with the days occupied in travelling. It will be noted that, though the route was the same, the totals seen vary considerably on the outward and inward journeys. This is partly due to differences in the time of day. The five stages comprise—

- (1) Alice Springs to 100 miles up the Darwin track, August 9.
- (2) Woodforde Creek to Cockatoo Creek, 94 miles, August 10.
- (3) Return. Cockatoo Creek 25 miles eastwards, August 22.
- (4) Coniston, on Warburton Creek, to Ryan's Well, 86 miles, August 23.
- (5) Connor's Well to Alice Springs, 61.5 miles, August 24.

Total, 194 miles of observation in the outward journey, 172½ miles on the return. Grand total, 366½ miles.

Unless the totals of birds seen are given in sequence, the number of the stage is placed in parentheses before the number of the birds.

- Small Quail.—(2) 2. Total 2.
Geopelia cuneata.—5, 25, 125, 107, 14. Total 276.
Ocyphaps lophotes.—(2) 4; (4) 25. Total 29.
Uroaetus audax.—(1) 1; (2) 4. Total 5.
Haliastur sphenurus.—(4) 2. Total 2.
Kites (?).—(1) 2. Total 2.
Falco sp.—(1) 1. Total 1.
F. berigora.—0, 1, 1, 3, 1. Total 6.
Hawks and Kites (unidentified).—2, 3, 2, 1, 5. Total 13.
Hawks (black tip under wing, thin white patch).—(4) 1;
(5) 1. Total 2.
Kakatoe leadbeateri.—(3) 1. Total 1.
K. roseicapilla.—(1) 22; (4) 3. Total 25.
Barnardius zonarius.—0, 4, 4, 5, 7. Total 20.
Melopsittacus undulatus.—(5) 2. Total 2.
Cheramoeca leucosterna.—0, 2, 0, 5, 1. Total 8.
Rhipidura leucophrys.—0, 1, 2, 3, 0. Total 6.
Microeca fascians.—(2) 1. Total 1.
Melanodryas cucullata.—0, 4, 3, 9, 0. Total 16.
Grallina cyanoleuca.—(2) 3. Total 3.
Oreoica gutturalis.—0, 2, 3, 11, 3. Total 19.
Coracina novae-hollandiae.—(1) 1. Total 1.

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- Pomatostomus rubeculus*.—(2) 2. (5) 6. Total 8.
Aphelocephala (?).—(5) 3. Total 3.
Artamus, probably all *A. melanops*.—60, 15, 6, 40, 32. Total
 153.
Climacteris sp.—(3) 1. Total 1.
Meliphaga virescens.—(2) 1; (4) 4. Total 5.
M. probably mostly *M. penicillata leilavalensis*.—1, 11, 0, 5,
 2. Total 19.
Myzantha flavigula.—0, 1, 0, 4, 4. Total 9.
Anthus australis.—0, 4, 0, 3, 2. Total 9.
Taeniopygia castanotis.—33, 83, 173, 207, 0. Total, 496.
 Crows.—2, 0, 1, 2, 1. Total 6.
Cracticus nigrogularis.—(3) 2. Total 2.
Gymnorhina hypoleuca.—(4) 26. Total 26.
 Unidentified.—3, 15, 10, 28, 16. Total 72.
 Kangaroos (*Macropus robustus*).—(3) 3. Total 3.
 Total 1,249 individual birds of approximately 31 species over
 a distance of 366½ miles.
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