## Stray Feathers

Mating display of Red-capped Dotterel.—On September 30, 1962, we were privileged to witness, at close range (ca. 100 yds, using 16 x 50 binoculars), the mating display and copulation of the Red-capped Dotterel, Charadrius alexandrinus. The display occurred while we were carrying out a routine bird count for our "Survey Somers" on the sand and mud flats at Sandy Point, Flinders Naval Depot. On the above date we had under observation a lone hen Dotterel when the following sequence of events was noted:—

10.00 hr.—Lone hen under observation on sand spit ca. 10 ft x 3 ft.

10.02 hr.—Cock bird of same species alights on spit, runs quickly towards hen, and stands motionless ca. 1 ft in front and facing her. Cock has neck extended, head held high, bill at angle of ca. 45 degrees with horizontal.

10.03 hr.—Cock runs behind hen and again stands motionless, with head held high, for about 1 minute.

10.04 hr.—Cock moves directly behind hen (head still held high) and commences "high stepping" for 20 seconds. First one leg and then the other in rapid succession. The cock then mounted the hen, standing firmly on her back, and both birds were quite still for a further 30 seconds.

10.05 hr.—Using his bill, cock then grasped hen by nape feathers and pulled her backwards on top of himself (he was almost lying on his back), and copulation took place very quickly—in about 5 seconds. Both birds then stood perfectly still for a further 30 seconds, the cock once again with head held high.

10.06 hr.—Both birds flew away.

The total elapsed time for the actual display and copulation was about 4 minutes. The method of copulation was very similar to that observed by one of us (W.A.D.) for the King-Quail, Excalfactoria chinensis, in captivity.

Neither bird was heard to call during the display, the whole act apparently being performed in silence. The most striking aspect of the display was the consistent attitude of the cock towards the hen—with neck outstretched, head and bill held high.—W. A. DAVIS, Macleod, and A. J. REID, Somers, Vic., 2/11/62.

A note on the distribution of wrens.— The stated ranges of the Blue-and-White Wren, *Malurus leuconotus*, and the Redbacked Wren, *M. melanocephalus*, in north-west Queensland are usually far too restrictive. Probably the clearest indication of the respective ranges of the two species is given by the map of Cayley (1949: 62). The mapped range of the Blue-and-White Wren in Queensland is more or less followed by several other publications.

Thus Whittell and Serventy (1948: 84) give its range as "From south-west Queensland, the interior of New South Wales and north-west Victoria, west to the coast of Western Australia", and Cayley (1958: 200) "From the interior of central Queensland to north-western Victoria and northern South Australia (south to near Adelaide), also in southern Northern Territory and Western Australia (north to Pilbara and south to Perth)". However, its range in north-west Queensland is rather more extensive than the map and these stated ranges indicate. The northern limit of its range apparently extends through Mount Isa (personal observation), Sedan, some 50 miles north-east of Cloncurry (MacGillivray 1914: 171) and Richmond (Berney 1905: 73). M'Lennan (for MacGillivray) and Berney both collected specimens. At Mount Isa I saw plumaged males on four occasions only, each time in the same general area between the cemetery and the Leichhardt River. as follows:—November 9, 1954; February 3, 1955; July 14, 1955 and November 26, 1955. It is possible that the species is a little more plentiful than recorded, as I could not distinguish between females and juvenile males of this species and those of the more common M. melanocephalus. Mount Isa is about 100 miles north of, and Sedan and Richmond are each approximately 200 miles north of, the indicated range of the Blue-and-White Wren as shown on Cayley's map.

The Red-backed Wren basically inhabits a coastal strip across northern and eastern Australia, and its typical habitat is "mainly in damp places" (Cayley 1958; 203). The country around Mount Is a is semi-arid to arid with an annual rainfall of about 15 inches. mostly due to the monsoonal influence. The Red-backed Wren is not common, but is widely although patchily distributed around Mount Isa, along the Mount Isa-Camooweal road to about 50 miles west of Mount Isa and around Cloneurry. These localities are rather more than 200 miles from the Gulf of Carpentaria, and are possibly near the southern limit of the range of the species in the area. Cayley (1949: 62) maps the range of the species along the Gulf of Carpentaria as a coastal strip some 70-80 miles wide. Cayley's map also shows the ranges of M, leuconotus and M. melanocephalus separated by about 200 miles in north-west Queensland. At Mount Isa they at least meet, and in the Sedan-Cloncurry district they overlap by at least 50 miles. The usual habitat of M. melanocephalus around Mount Isa is flats bisected by small, dry watercourses and supporting a variety of acacias.

The commonest wren of the interior of north-west Queensland is the Purple-backed Wren, M. assimilis, of the Official Checklist (Second Edition), and which is considered by some workers to be a subspecies of M. lamberti. This wren is not uncommon and is well distributed in suitable habitat.

The fourth wren of the district is the Purple-crowned Wren,

M. coronatus. This species was seen by me only on the Gregory and O'Shanassy Rivers near Riversleigh. Here it is comparatively common in the *Pandanus* along the banks of these rivers. The first time I saw this species flitting through the *Pandanus*, I logged it as "Sericornis sp.?". Later I was interested to read that M'Lennan had likened its call to that of Sericornis frontalis (MacGillivray 1914: 172).—JOHN LIDDY, North Kingscliff, N.S.W., 30/11/62.

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Tree-Martins on burnt rubbish.—Recently, in an article by B. C. Mollison and R. H. Green: "Mist netting Tree-Martins on Charcoal Patches", (*Emu*, 61: 4), the authors requested further information regarding the congregation of Tree-Martins, *Hylochelidon nigricans*, on burnt areas of ground.

On November 7, 1962, and on two subsequent occasions approximately two and three weeks later (exact dates not kept), flocks of between 30 and 60 Tree-Martins were seen hawking over "Gungahlin", headquarters of the C.S.I.R.O. Division of Wildlife Research, Canberra, A.C.T. Up to 20 birds at a time were landing on an area where rubbish is frequently burnt in a back paddock of the research station. Other martins were hawking or swooping low over the patch or were feeding at heights estimated at up to 200 feet. The surface of the area is far from level, being littered with charred garbage of various kinds and surrounded by tall grass. Two pairs of Welcome Swallows, *Hirundo neoxena*, that nest in the area were hawking with the martins but were not seen to join them on the ground.

The observations were made from a distance of about 80 yards, and no behaviour on the ground was noted. The first record was made from 0830 to 1000 hrs, and both the others in the afternoon from 1400 to 1630 hrs approximately. On each occasion the weather was fine and warm, with light west to northwest winds varying between forces 0-4.—KEN G. SIMPSON, Canberra, A.C.T., 8/1/63.

Strange nest of Heron Island Silvereye.—On a recent trip to the Swain Reefs with the Australian Museum Expedition we had a short stay at Heron Island, off Gladstone, Queensland. During the few hours we spent on the island I found a most unusual nest

of the Heron Island Silvereye, Zosterops lateralis (tephropleura?).

The nest was built in a small flowering Cassia bush alongside one of the tracks near the huts. It was just four feet from the ground and was quite unusual in appearance, being beautifully covered on the outside with what at first appeared to be the fluffy seed of the native cotton bush.

However, I could not find any of this plant on any part of the nearby island. A closer examination showed it was in fact some type of fur. At first I thought the birds had taken the material from a blanket or some other household article. It was then that one of my friends started petting a small gray wallaby near one of the huts. A piece from the silvereye's nest matched the wallaby fur and the mystery was solved. I did not have time to find if the birds took it direct from the animal, or got it from a possible rubbing spot.

The external dimensions of the nest were 3 in. across by  $2\frac{1}{2}$  in. deep. Inside dimensions were 2 in. by  $1\frac{1}{2}$  in.

On our return to Heron Island on October 24 the nest contained three eggs. Apart from the outside covering of thick fur, the rest of the nest was similar to that of southern Z. lateralis, but much bulkier. The larger eye-ring, thick-set beak, and the generally heavier appearance of this species were most noticeable at close quarters.—A. F. D'OMBRAIN, Maitland, N.S.W., 14/1/63.

Fairy Tern near Sydney, N.S.W.—The two species of small coastal and estuarine terns, the Little, Sterna albifrons, and the Fairy, S. nereis, occurring in Australia have been discussed in detail by W. B. Hitchcock (S. Aust. Orn. 22: 86-106, 1959), who was unable to locate an authentic record of the Fairy Tern for New South Wales. We believe we saw such a bird resting on the mud flats at Quibray Bay, on the southern shores of Botany Bay, on December 12, 1962.

The presumed Fairy Tern was with two Little Terns, also in full breeding plumage, and allowed a close approach and comparison between the two species. In the same gathering were several small terns in either eclipse or in sub-adult plumage, the latter having dark shoulders to their wings.

Perhaps the most constant and certain field character distinguishing the two species is to be found in the loral region: in albifrons this space between the eye and the bill is black (or almost entirely so), whereas in nereis there is only a small black patch in front of the eye, the rest of the lores being white. The bill colour is brighter (orange-yellow) in nereis than in albifrons (chrome-yellow), as also are the legs. The bill of the Fairy Tern is generally uniform in colour, although in some cases the tip may be black; the reverse is the case with the Little Tern.

One of the two adult Little Terns seen at Quibray Bay was without a black tip to the bill.

It seemed to us that the bill of the Fairy Tern was proportionately deeper, and the bird a little dumpier, than the Little Terns nearby.

The characters outlined apply only to birds in breeding plumage. There does not appear to be any reliable way in which the two species can be identified in the field when they are either in eclipse or immature plumage, although distribution could serve as a pointer.

### Our field notes read:-

Quibray Bay, near Sydney, 29.12.1962, 3.30 p.m. Several small terns resting on mud flat. Most of the birds were in either eclipse or immature plumage, i.e. black bills, white foreheads and mottled crowns, but three were in breeding plumage; two of these birds were Little Terns, having completely black lores, though one bird was without a black tip to its bill: the third bird had the appearance of a Fairy Tern, the lores, except for a small black patch in front of the eyes, were white, and the bill a bright orange-yellow, and legs much the same colour, in contrast to the chrome-yellow of those parts in the Little Terns. The pearl-grey of the back in the Fairy Tern appeared just a little paler than in the Little Terns. Comparisons were made from a distance of some thirty feet with binoculars. Observers: A. C. Cameron, C. Cameron, E. S. Hoskin, and K. A. Hindwood.—E. S. HOSKIN and K. A. HINDWOOD, Sydney, N.S.W., 20/1/63.

**Bird encased in ice?**—In the *Sydney Morning Herald* of January 5, 1963, there appeared the following news item:—

Bird encased in hailstone. A dead bird, encased in a hailstone weighing about 2 lb fell on the front lawn of a home in Lismore during a hailstorm yesterday. The bird, a swift, was found by Mr Michael Day, the owner of the house, in Wilson Street, Lismore. Mr Day said the bird's head was still in a piece of the hailstone. Its body was still warm when he picked it up. The stone had been broken into about six pieces, apparently on impact. Each piece was about as big as a teacup, Mr Day said. He said the hailstone left a mark on the lawn about seven inches long.

I wrote to Mr Day for further particulars and he replied: "The bird that fell on my lawn was a Spine-tailed Swift. Its head and neck were completely encased in ice and by putting the pieces together as best I could I would say that the casing was about seven inches long and about five inches in circumference. When I first picked up the bird its head and neck were frozen stiff but its body and feet were still quite warm and limp."

Mr Day's account does not tally with the newspaper report, which seems to have been somewhat exaggerated. In the first place the bird was not encased in ice. Secondly, Mr Day's figures

for the piece of ice that enclosed the head and neck of the bird (a piece some seven inches long and about  $1\frac{1}{2}$  inches in diameter, i.e. five inches in circumference) bear little relation to a reported mass weighing about 2 lb and which broke into some six pieces "each about as big as a teacup".

The possibility of a fast-flying bird like a swift becoming encased, or even partly encased, in ice seemed so remote that I wrote to the Bureau of Meteorology, Sydney, for an explanation of the incident. In reply Mr B. W. Newman, the Deputy Director, suggested that the bird was probably killed on impact with a large hailstone. It then fell to the ground with many other hailstones. As a number of hailstones reached the ground they coalesced into conglomerates of ice and so embedded, or partly embedded, the bird. It would be fantastic, he says, to think that a bird would become attached to a hailstone in an upward journey and then be encased by another frozen layer.

The most reasonable explanation, therefore, seems to be that the Swift was killed by a hailstone and then fell to the ground where its head became embedded in hailstones which had then joined together, forming a casing. Such an interpretation seems more in keeping with the known facts than the distorted newspaper account.—K. A. HINDWOOD, Sydney, N.S.W., 20/1/63.

Hawks of history.—Like most of the records kept by some of the first white residents of Australia, the *Journal* of James Scott. a Sergeant of Marines in the First Fleet, contains various references to fauna and flora. Scott's quaint jottings (which have recently been reproduced in book form by the Public Library of New South Wales) do not include many references to birds, but there is at least one note that merits a trifle of ornithological attention.

Under date December 6, 1788, the sergeant records having "Receved the Disagreeabel News" that Captain James Campbell had been lost in the bush near Rosehill (Parramatta) since 3 p.m. the previous day, and that several parties were "Contineus in Serch" for him. After being missing for two nights Campbell found his way back to the camp on the Sunday morning (7th) in a very hungry condition. He had carried, it appears, only two charges of powder and shot, and while he was dressing half of a pigeon he had killed, a hawk swooped down and snatched the other half. (Campbell's comment on the occurrence is not recorded.)

This bold theft tallies with a happening noted by John Gilbert in his diary for June 27, 1845, the day before the Leichhardt expedition was attacked by Carpentaria natives and he was killed. While engaged in skinning, he had a small tin case between his knees open to air specimens, the topmost one being the only

example he had obtained of a new honeyeater. Then, to his "surprise and vexation", a remarkably enterprising Square-tailed Kite, Lophoictinia isura, descended smartly and snatched the prized specimen, which it tore to shreds in a neighboring tree. "I imagine", Gilbert commented hopefully, "that the arsenic will not at all agree with its stomach",

In 1845, too, the explorer Charles Sturt remarked on the boldness of Black Kites, *Milvus migrans*, in Central Australia. When he and Harris-Browne, the surgeon, were riding back to the Depot, in searing heat, on February 5, large numbers of these birds swooped to within a few feet of them before turning away.

It is, of course, the food-impulse that causes raptorial birds to approach humanity at times. Otherwise, they usually keep at a safe distance and may even stay well away when nests are being examined. There appears to be a common belief that it is very risky to investigate an occupied nest of a Wedge-tailed Eagle, but in fact, whereas any one of these great birds can be dangerous when trapped or wounded, we are assured by D. W. Gaukrodger (*Emu*, vol. 24, p. 5) that 'there is more home-protection fight in a little Wagtail's toe than in an Eagle's whole body".—A. H. CHISHOLM, Sydney, 12/2/63.

Southern Figbird as "usurper" and mimic.—A. H. Chisholm's notes in *The Emu* (62: 197-8) remind me that I have seen a Southern Figbird, *Sphecotheres vieilloti*, adding lining, and rearranging lining already there, to the nest of a Magpie-Lark, *Grallina cyanoleuca*, on a high branch of a bloodwood tree; meanwhile, the male drove away other Figbirds from the vicinity. The female then left the nest with a feather in her bill to assist him. Shortly afterwards, the feathers of a female Figbird were found close by and the nest under observation was deserted. so I presume the cat's victim was the female concerned, which was disappointing because the nest was in a position favourable for constant surveillance.

I have not known a Southern Figbird to keep on building if conscious of observation, but I have watched them building from a verandah while the birds kept coming to the garden to break off the fine twigs from a Geraldton waxflower for nest-building some 50 yards distant. There were thousands of other twigs available in the area but they preferred this tree. A Grafton friend has also noticed the Figbird's fondness for the fine twigs of this tree and birds regularly visit her garden to procure them.

I agree with L. M. Holland (*Emu*, 62: 205) on the vocal mimery of the Southern Figbird. I have often noticed the song imitations of this bird, especially that of the King Parrot, *Aprosmictus scapularis*, which has frequently deceived me.—D. O'GRADY, Grafton, N.S.W., 27/2/63.

—On May 27, 1960, when collecting on behalf of the Western Australian Museum, my assistant, Mr A. M. Douglas, and I obtained two specimens of the Stubble Quail, Coturnix pectoralis, at La Grange in the south-western Kimberley Division, Western Australia. The two birds were taken in one shot, a few miles north of the La Grange Telegraph Office, along the road to Thangoo, on the coastal plain which is covered with a vegetation of grasses and low salt bush. Both are females in fresh plumage, weights 114 and 118 grams, wing length 101, 102 mm; they have been registered under nos. A 8782 and A 8783.

The Stubble Quail, as far as hitherto known, has a southern distribution—from south-east Queensland right across the southern half of Australia to the neighbourhood of Northampton and perhaps the mouth of the Murchison River (*Emu* 48, 1949, p. 219) in Western Australia. Moreover there is a single record from Point Cloates, where Carter shot an individual on November 9, 1901 (*Emu* 3, 1904, p. 173). La Grange is over eight hundred miles in a straight line from the accepted normal northern limit of distribution in Western Australia, and nearly six hundred miles from Point Cloates. Future investigation must show if the occurrence so far north is normal or should be regarded as accidental.—G. F. MEES, W.A. Museum, Perth, 10/4/63.

Southern Figbird near Bass Strait.—From January 10 to February 1, 1963, inclusive, a pair of Southern Figbirds, Sphecotheres vieilloti, appeared at Quarry Hills, Berwick, Victoria, which is 12.5 miles from the southern coast of Australia. The birds, feasting on ripening mulberries, were tame enough to be viewed at a distance of five feet and so there seemed no point in killing one of them in order unequivocally to verify the sight record of this essentially tropical and sub-tropical species. On March 3, a couple of weeks after the fruit was finished, a pair of Figbirds made another appearance. They were not subsequently seen.—A. J. MARSHALL, Monash University, Clayton, Vic., 1/5/63.

**Pardalote hybrids.**—While bird-watching in open forestland about ten miles north-east of Grafton on April 28, 1963, I observed three species of pardalotes feeding in a small sapling. The three species were the Black-headed, *Pardalotus melanocephalus*, the Yellow-tipped, *P. striatus*, and the Spotted, *P. punctatus*.

On examination through binoculars from a distance of about 18 ft, I noticed that the Black-headed Pardalote had a limited amount of striation on the back of the crown. It appeared to me that this bird, and a similarly marked specimen collected by the British Museum Expedition in the same locality earlier in the

month, were hybrids between melanocephalus and a species of striped-crown pardalote.

After having P. striatus and P. melanocephalus under observation for a period of about eight minutes, they flew off together, suggesting that they may have been a mated pair.

In this locality the Black-headed Pardalote is common, and the Spotted Pardalote fairly common, but it is the first record I have of the Yellow-tipped Pardalote.—DENNIS G. GOSPER, Grafton, N.S.W., 2/5/63.

Unusual nesting sites of the White-browed Scrub-Wren.—During the 1960 breeding season birds of the above species were noted nesting in a fern basket in the fern house of Mr W. Tomlins of Lake Burrill, south coast of New South Wales. At the same time, Mr Fred Chessell, also of Lake Burrill, reported the species nesting in an old crash helmet on a bicycle that was hanging on the wall of a shed.

A more recent record of interest is from Lower Boro, near Braidwood, on the property of Mr G. B. Snow. This gentleman had occasion to enter his woolshed for some twine, but found it had gone. While he was trying to clear up the mystery, a Scrub-Wren flew from the vicinity of the opposite wall where there were three coils of rope, in one of which was his twine, and the strands of the latter had been formed into a comfortable nest complete with eggs. When I visited there on December 19, 1962, the birds were feeding young.

Adjacent to the area are large clumps of boxthorn and other vegetation in abundance.—C. P. HUMPHRIES, Ulladulla, N.S.W., 12/5/63.

Adaptability of Purple-crowned Wren to loss of habitat.—Experience throughout the world tends to show that those species of birds which are confined to a highly specialised habitat face extinction should their habitat be destroyed, or drastically altered. The Ivory-billed Woodpecker, Campephilus principalis, of the Florida swamps is one example, and the Australian Paradise Parrot, Psephotus pulcherrimus, another, although in the latter case ruthless trapping was probably a contributory cause. The only hope of survival for such species is an ability to adapt themselves to the changed environment—or to a different environment altogether.

Reference to *The Emu* reveals the following statements on the habitat of the Purple-crowned Wren, *Malurus coronatus*: "... found in the densest thickets and tail grass near the rivers and large creeks." (Hill 1913); "... inhabited the cane grass growing near the water's edge." (Macgillivray 1914); "... very plentiful in the cane grass along the river." (Barnard 1914); "... in brush by the river bank." (White 1917); "... seems to

favour pandanus palm (*P. aquaticus*)" (Whitlock 1925), and ". . . common in the cane grass and pandanus." (Macgillivray 1914).

During a visit to the Kimberleys in 1959, with Drs Brown and Wettenhall and C. N. Austin, we found that along the Fitzroy River the cattle had reduced the cane grass to a few small patches, and that these were too small to support a population of Purple-crowned Wrens was confirmed by our failure to find a single bird in them.

In 1962, in company with Dr Graham Brown and M. McGarvie, I visited north-west Queensland, the adjoining parts of the Northern Territory, and later the Kimberleys. Along the Leichhardt River, and the creeks feeding it, our experience was that cattle had left but little of the cane grass. We also failed to find any Purple-crowned Wrens in the few patches left.

On the Gregory River the story was the same and we despaired of the wren still existing; but we finally succeded in locating the bird in *Pandanus* palms, which were luxuriant along the river. When we reached Batten Creek, some 50 miles west of Borooloola, we found similar conditions prevailing, and the wren once again well established in *Pandanus*. Finally, on the McArthur River itself, at Borroloola, the wren was again located in *Pandanus*. On no occasion did we sight the species in any other habitat.

It would therefore seem that, although in the past coronatus was found in association with cane-grass areas near water, it has been able to survive the loss of that habitat through its adaptation to a different one—Pandanus palm (?P. aquaticus only). From the numbers seen there would appear to be little danger of the species becoming extinct through loss of its original (cane-grass) habitat.

That the Purple-crowned Wren still favours cane grass, where available within its geographical range, is suggested by the presence of the species in a large area of cane grass near the banks of the Victoria River, within a few miles of Timber Creek (Sharland 1962; Rothwell 1962).

The present status of *M. coronatus* in the Kimberleys is uncertain. On neither the 1959 nor 1962 visits were any Purple-crowned Wrens seen or heard along the Fitzroy or Ord Rivers, or on any of the creeks feeding them, although *Pandanus* is plentiful. Moreover, I have not heard of anyone recording the bird for some time.—H. R. OFFICER, Olinda, Vic., 16/5/63.

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Occurrence of the Mangrove Heron in southern New South Wales.—A single Mangrove Heron, Butorides striata, was seen on the edge of a sandy lagoon near Narooma, N.S.W., by Simpson on November 15, 1962. At Nelligen on December 15, 1962, on three occasions, we saw a Mangrove Heron flying up and down the Clyde River. The river bank at this locality is thinly lined with a species of mangrove. McKean, on March 21, 1963, kept a Mangrove Heron under observation for ten minutes. The bird was feeding among mangroves at Narooma Bay.

A. R. McGill (A Handlist of the Birds of New South Wales, 1960, p. 12) states that the range of the Mangrove Heron extends "south to Sydney with scattered records further south to Jervis Bay". Narooma is some eighty miles south of Jervis Bay and our observations suggest that a small population of Mangrove Herons may be resident on the southern coast of New South Wales. —JOHN L. McKEAN and K. G. SIMPSON, Canberra, A.C.T., 24/5/63.

Flock Pigeon in north-western Queensland.—The following observations on the Flock Pigeon, *Histriophaps histrionica*, were made during a quick trip through the interior of Queensland in late May 1963.

The first Flock Pigeons were noted 50 miles east of Richmond, and over the next 100 miles, towards Cloncurry, about 100 birds were seen flying over the open plains. Again, within a 20-mile radius of Kynuna, another 50 birds were seen. These observations were made, respectively, during the morning and late afternoon. The birds were in small flocks or pairs, plus a few singles.

The north-west of the State is at present (June) experiencing one of its best seasons, and the plains are covered in a sea of seeding grasses.

Possibly this bird is not quite so rare as is thought. It probably follows the good seasons, moving great distances (perhaps transcontinentally), not in the enormous flocks for which it is noted, but in much smaller numbers. This would account for its sudden appearances and just as sudden disappearances. Flocking of enormous size seem to occur at fairly long intervals, which may be due to abnormal conditions. The Flock Pigeon is equipped with powerful wings and is doubtless capable of flying long distances when necessary.

Only when one travels the inland plains can the vastness of the outback be visualized. Birds could live on those plains for years before coming under the notice of ornithologists. Observers number little more than nil over the range of the Flock Pigeon.

It has been suggested that cattle and sheep may be responsible for the "disappearance" of the Flock Pigeon, but the carrying capacity of the plains is held at a low level, and not many stock owners are guilty of overstocking. Much of the grass must be left to stand for long periods to ensure stock feed in times of drought that follow the seasons of plenty—and the grass grows very quickly after the big rains, after which the seed falls to the ground. Cattle, in my opinion, have little effect, if any, on the birds' food supply.—LLOYD NIELSEN, Jandowae, Old., 8/6/63.

# **Obituary**

Mr. George Mack

The death occurred, on October 24, 1963, of Mr George Mack, the Director of the Queensland Museum, at the age of 64 years.

Mr Mack was born in Scotland in 1899. He came to Australia after having served in France in the first World War with the Argyll and Sutherland Highlanders, and the Black Watch. He joined the staff of the National Museum at Melbourne, and, while there, attended the University, and took the degree of B.Sc. In 1946 he was appointed Director of the Queensland Museum, a position he held until his death.

George Mack was a professional ornithologist and collector, and belonged to the "skin" school of thought when it came to solving problems of bird identification. It was not surprising that he came into conflict, on occasions, with the "bird-lover" or "humanitarian" school of thought; or the observer who relied solely on field identification to solve such problems. He was quite emphatic, and possibly dogmatic, in stating his views on such a contentious subject; but, at times, there was quite a lot of logic in what he said. However, one of his first actions in taking over the position of Director, was to re-organise and modernise the ancient collection of skins in the Museum. The well-ordered cases, now in the gallery of that establishment, will stand for years as a monument to the genius of George Mack and the skill of his assistants.

It was a tragedy that routine work as Director robbed Queensland of the services of a skilled ornithologist and taxonomist. Nevertheless, he found time to write his "Birds from Cape York Peninsula, Queensland", an intelligent and well-produced work, printed in the Memoirs of the Queensland Museum, 1953.

Many of his articles, generally on taxonomy, were printed in *The Emu* and other journals from 1930 to 1945. One has to be a courageous person to tackle taxonomic problems in Australian ornithology, and Mack proved that he did not lack this quality.

Ideological differences with the "bird lover" school of thought did not prevent him putting at the disposal of the Queensland Branch the bird room at the Museum, where we have been meeting for about 15 years. He also spent a good deal of time in arranging lectures, and other entertainments, for the younger generation, and one admired his geniality and patience with children on these occasions. No doubt, many a potential ornithologist has been set on the right track because of these activities.

He was also quite outspoken in making, as Museum Director, statements