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THE SUNBIRD

Volume 23 No. 4

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THE UNDESCRIBED OOM-OOM-OOM CALL OF THE MARBLED FROGMOUTH

G.R. BERULDSEN

Much has been written on the calls of the Marbled Frogmouth Podargus ocellatus. Hollands (1991) describes four calls, including one as a "low, prolonged, pulsating call, very similar to the call of a Cane Toad [Bufo marinus] and audible only at a very close range". That call, which I have heard on many occasions, is not the call I am now describing. Rather, this is best described as oom-oom-oom, being very similar to the typical calls of both Tawny Frogmouth P. strigoides and Papuan Frogmouth P. papuensis. Although Schodde & Mason (1980) do not seem to mention the Cane Toad call, they note that "at least four calls have been identified so far in Australian birds, and all are different from those given by other Frogmouths". Surprisingly, they make no mention of the 'bill clap' at the end of the 'laughing' call, and their description of a call "equivalent of the drumming 'coms' of other Frogmouths" presumably refers to the ker-loo or kooloo call.

I have spent many hours over a period of some six years in the habitat of the Marbled Frogmouth, both observing the birds and listening to their calls. Lengthy segments of these calls have been tape-recorded. It was not until January 1993 that I heard this species call oom-oom. On this occasion, I took a small group of people to a familiar area of typical habitat close to Pajinka Wilderness Lodge, Cape York (10° 41'S, 142° 32'E). I had observed Marbled Frogmouths in this patch of thick monsoon forest on several occasions over the previous five years or so. When a short distance into the patch, more than an hour after sunset, I played a tape of the laughing/clap' call, to which there was an immediate response from an unknown distance. As we stood waiting I became conscious, after a few minutes, of a soft oom-oom-oom call that appeared to be close by. After a short period of concentrated listening, I moved around the

source on a roughly circular path, attempting to pin-point the location. The very soft call was audible throughout, being noticeably slower and of a slightly higher pitch (to my ear) than the oom-oom-oom call of the Papuan Frogmouth.

Eventually a Marbled Frogmouth was located on a horizontal limb well clear of any foliage, little more than 5 metres directly above us. Despite our torch beams, the bird remained in this position, undisturbed, so that good views were obtained from all angles. The pale orange eyes, marbled underside, deeply forked tail, and large bristles projecting upwards and forwards from the bill were clearly seen. After torches were turned off the bird gave a soft 'laughing/clap' call which to me put its identity beyond doubt. A similar procedure was repeated the next evening, and we again noted the soft continuous oom-oom-oom calls. Both nights were dark, still and unusually quiet, for little rain had fallen in recent days to stimulate any insect life. Unfortunately, I had to fly out the following day so I was unable to carry out further observations.

It may be that I had heard the call previously and attributed it to a Papuan Frogmouth straying into thicker than usual habitat. It is likely, however, that this unusually soft call, inaudible from a distance of more than 10 or 20 metres, would be overlooked when part of a general cacophony involving the usual insect chorus, or when the listener is more distant.

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THE BIRDS OF THREE ISLES, NORTH QUEENSLAND

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ABSTRACT

From July 1983 to February 1993, fifty-seven species of birds were recorded during seven visits to Three Isles, including nine confirmed breeding species. Data are compared with those from several other islands.

INTRODUCTION

Three Isles, at 15° 07'S, 145° 21'E, is located 43 km NNE of Cooktown, North Queensland. The closest part of the adjacent mainland is Cape Bedford, 16 km to the south-west, while the closest island is Low Wooded Island, 4 km to the north-west. Three Isles is a National Park and one of the few mangrove inhabited low coral cays found north from latitude 16° 23'S on the Great Barrier Reef (Lucas 1976).

CLIMATE

While no actual records are available for Three Isles, it is likely that the mean annual rainfall is approximately 2000 mm, being similar to that of Lizard Island only 45 km to the north (Smith 1987). The majority is deposited between November and April. The prevailing wind is a south-east trade of moderate strength from May to October, while lighter and more variable winds prevail during summer monsoon months. Air temperatures, again based on Lizard Island data, range from 19°C during winter to 33°C during summer (Smith 1987).

STUDY AREA

The island consists of several small islets, with the most northerly and easterly measuring approximately 800 m in length by 400 m in width. The remaining islets to the south-west are considerably smaller (Fig. 1). All have a base of calciferous beach rock and most have extensive coral rubble bank deposits. The northern islet has a 23 m high skeletal lighthouse at its western end and a sandy beach to its south. An extensive shallow lagoon, which partly dries at low tide,

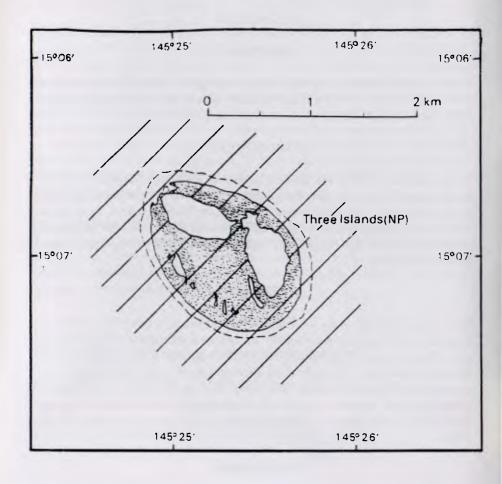


Fig. 1. Map of Three Isles.

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is located within the centre of the island complex. An elliptical coral reef encompasses the entire island, in places dropping away abruptly to depths of 20 m (Gruning 1973). Parts of this reef are also somewhat exposed at low tide. The island affords a mediocre anchorage with no basic facilities or fresh water for recreational use.

VEGETATION

The northern islet is heavily grassed with mainly rank Panicum maximum var. coloratum to 1.8 m in height, interspersed with numerous small trees. Macaranga tanarius, Morinda citrifolia and Vitex sp. are dominant, with low thickets of Caesalpina bonduc and Colubrina asiatica. At the perimeter of this islet, shrubby Pemphis acidula and trees of Terminalia sp. and Casuarina equisetifolia var. incana prevail. A few small Rhizophora stylosa mangroves are found near the southern shoreline. In contrast, the eastern islet consists mainly of mangroves. At least twelve species are present, with stands of R. stylosa, Osbornia octodonta and Ceriops tagal var. targal predominating. Some Planchonella sp., Terminalia sp. and Manilkara kauki trees are also present. A mixture of shrubs, climbers and runners is found on this eastern islet, particularly in the south-eastern sector, including Capparis sp., Vitex sp. and Canavalia maritima associated with Ipomoea spp.. The remaining small islets support little vegetation other than tenacious mangroves growing in coral rubble or beach rock.

BRIEF ORNITHOLOGICAL HISTORY

There is very little published information on the birds of Three Isles. Warham (1962) visited the island for three hours on 5 October 1958, as part of a comprehensive investigation of numerous islands between Townsville and Torres Strait. He recorded Australian Pelican, Eastern Reef Heron, Striated Heron, Osprey (breeding), Marsh Harrier, Beach Thick-knee, Grey Plover, Lesser Golden Plover, Tringa sp., Silver Gull, Torresian Imperial-Pigeon, Varied Honeyeater and White-breasted Woodswallow. Kikkawa (1976) mentions Three Isles but provides no details. For scientific names of these twelve species and those referred to below, see Appendix 1.

RESULTS AND DISCUSSION

The seven visits to the islands documented here were on 12-13 July 1983, 16-21 September 1985, 13-17 January 1991, 24-27 August 1991, 4-10 May 1992, 14-16

November 1992 and 7-10 February 1993. All fifty-seven species recorded over this ten-year period are detailed in Appendix 1, including nine species for which there are breeding records. Residents such as Varied Honeyeater and Barshouldered Dove presumably breed on the islets, but there are no actual breeding records.

It is instructive to compare published data from Eagle Island (Smith 1987) and Rocky Islets (Smith & Ogilvie 1989), less than 50 km to the north, and unpublished personal observations from Hope Island (72 km south), Lizard Island and Low Wooded Island. With fifty-two species and fifty-six species respectively, Eagle Island and Hope Island are somewhat comparable with Three Isles, and all three sites can claim either six or seven recorded passerine species. Data from other islands suggest that they are less important for birds, although variety is a misleading index when some species occur abundantly at these sites. The widespread dominance of non-passerines is hardly surprising when migrant Palaearctic waders and various terns and herons contribute significantly to all totals. There are no records of Marsh Harrier, Wandering Tattler or Sanderling from these other sites, the Marsh Harrier (in both 1958 and 1991) being especially noteworthy.

Laying dates are similar to those available from Rocky Islets (Smith & Ogilvie 1989), Eagle Island (Smith 1987) and Lizard Island (Domm 1977), being generally later than those from more southerly sites on the Great Barrier Reef (Kikkawa 1976, Serventy et al. 1971). The ground-nesting Bridled Tern and the predominantly mangrove-nesting Torresian Imperial-Pigeon are by far the most prolific breeding species. While it was difficult to assess the total Bridled Tern population, a February 1993 estimate of visible birds engaged in late afternoon flights involved 1000 to 1500 adults. The Torresian Imperial-Pigeon population probably numbers many thousands, if the large number of birds returning to the islands from mainland feeding grounds in the late afternoon is considered. Unpublished January counts from Hope Island, and November data detailed in Appendix 1, show that the peak influx of returning birds was at approximately 1800 h. Sunset was about 40 minutes later. The refuge significance of the Three Isles area for this impressive pigeon is heightened by the similar situation on nearby Low Wooded Island, which also supports a high number.

ACKNOWLEDGEMENTS

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APPENDIX 1

ANNOTATED SPECIES LIST FOR THREE ISLES

- * Indicates breeding record(s).
- **Australian Pelican** *Pelecanus conspicillatus*. Usually 1-3 seen but occasionally up to 16 feeding in the lagoon or resting on coral rubble banks; Warham recorded six.
- Brown Booby Sula leucogaster. 1-5 seen flying offshore during all winter visits.
- **Darter** Anhinga melanogaster. A solitary male resting on the beach by the lighthouse, and later on a nearby exposed coral head, 15 November 1992.
- **Pied Cormorant** *Phalacrocorax varius*. 1-4 seen in July 1983 and September 1985, usually perched on rocks or seen on the wing.
- Little Black Cormorant *Phalacrocorax sulcirostris*. 1-3 seen in July 1983, September 1985 and November 1992.
- **Great Frigatebird** *Fregata minor*. A solitary male recorded in July 1983 with a few of the following species.
- **Least Frigatebird** Fregata ariel. 2-3 seen overhead on most visits, usually appearing in the late afternoon.
- White-faced Heron Ardea novaehollandiae. A pair noted in August 1991 and a single individual in May 1992 and February 1993.
- **Great Egret** Egretta alba. Sightings of a single bird in July 1983, September 1985 and November 1992.

- * Eastern Reef Egret Egretta sacra. Counts of this breeding species involved up to 31 birds (21 light and 10 dark morph). Nests with eggs and chicks were found in mangroves Osbornea octodonta at the small western islet in February 1993. Warham recorded 10 birds of the dark morph and 14 of the light morph.
- **Striated Heron** *Butorides striatus*. Singles and pairs noted in mangroves on each visit, and Warham recorded a single bird. Two in nuptial dress in February 1993.
- * Osprey Pandion haliaetus. During 1983-85 a pair was nesting on a platform near the top of the lighthouse. The nest site was then relocated to the top of a mangrove Rhizophora stylosa on the eastern islet. Four birds were present in November 1992, whereas there were typically only one or two. Warham, who recorded breeding, likewise noted two birds.
- White-bellied Sea-Eagle Haliaeetus leucogaster. Usually a single individual noted, occasionally a pair.
- Marsh Harrier Circus aeruginosus. A single individual flushed on the eastern islet on 15 January and 16 January 1991. Warham's only sighting away from the mainland involved a single bird at this site.
- Buff-banded Rail Rallus philippensis. Northern islet records involve two bathing at the water's edge in May 1992 and two near the lighthouse on 9 February 1993. Sometimes solitary birds were seen running over short grassy areas of Sporobolus virginicus at the eastern islet on other visits.
- **Beach Thick-knee** *Burhinus neglectus*. A pair was frequently seen and heard on all visits, and three were noted in February 1993.
- **Pied Oystercatcher** *Haematopus longirostris*. Recorded on all visits, at northern islet sandspits and at all reef areas.

- * Sooty Oystercatcher Haematopus fuliginosus. 2-5 seen on all visits except September 1985. One runner on the eastern islet on 25 August 1991 and one juvenile present in February 1993.
- Grey Plover Pluvialis squatarola. Single birds recorded on 8 May 1992, 7 February 1993, and by Warham.
- Lesser Golden Plover Pluvialis dominica. 1-3 feeding at tidal zones on all visits excepting July 1983 and August 1991.
- Mongolian Plover Charadrius mongolus. Flocks of up to 50 feeding at sandy and rubble areas.
- Large Sand Plover Charadrius leschenaultii. Regular counts of 1-3, sometimes feeding with the preceding species.
- Ruddy Turnstone Arenaria interpres. Counts of up to 30 in a single flock, typically at rubble areas. Winter counts of this conspicuous species involved up to 15 birds.
- Eastern Curlew Numenius madagascariensis. A single bird at a sandy area of the lagoon on 6 May 1992.
- Whimbrel Numenius phaeopus. Always present in the summer months, when 1-8 were noted at sandy and rubble areas; winter records of up to three.
- **Grey-tailed Tattler** *Tringa brevipes*. Seen singly or in small flocks in summer and often seen in winter; typically in intertidal areas.
- Wandering Tattler Tringa incana. A single individual in post-breeding plumage in company with three Grey-tailed Tattlers on a northern islet sandflat on 26 August 1991.
- Bar-tailed Godwit Limosa lapponica. 1-10 noted on summer visits, and occasionally recorded in winter.

- Red Knot Calidris canutus. 4-9 in January 1991, November 1992 and February 1993, feeding and resting in sandy and exposed rubble areas.
- Great Knot Calidris tenuirostris. Single birds on 26 August 1991 and in July 1983.
- Sanderling Calidris alba. A single individual feeding actively near the light house on 8 May 1992.
- * Silver Gull Larus novaehollandiae. At least six nests with eggs on the ground amongst rank Panicum grass near the lighthouse in August 1991.

 Recorded on all visits, with maximum counts of 72 (winter) and 57 (summer).
- *Caspian Tern Hydroprogne caspia. A scrape found in pumice on a rubble bank at the eastern islet on 7 May 1992 contained one egg, 60 mm in length. A second slightly smaller and darker egg appeared the following morning. Present on all visits excepting January 1991 and November 1992, although only one or two birds were ever involved.
- Roseate Tern Sterna dougallii. Eleven at the eastern islet in January 1991, and two were present in February 1993.
- *Black-naped Tern Sterna sumatrana. This summer visitor was first recorded in September 1985. A few eggs and chicks were found at a rubble bank on the eastern islet in January 1991, when up to 60 birds were noted. Though recorded in November 1992 (10 birds) and February 1993 (14 birds), no further nests were found.
- * Bridled Tern Sterna anaethetus. This common summer visitor breeds in hundreds, and seven late birds were noted in May 1992. In January 1991 and February 1992, they were nesting on both major islets, primarily under low shrubs amongst grass, but also in the open. Eggs, chicks and runners were involved.

- Little Tern Sterna albifrons. 2-3 in non-breeding plumage in November 1992 and February 1993.
- Crested Tern Sterna bergii. Up to 120 birds were noted on all visits, typically feeding at the lagoon area and resting at sandy and rubble areas.
- * Lesser Crested Tern Sterna bengalensis. Fourteen birds were observed in January 1991, when two nests were found on a rubble bank on the eastern islet, each containing a single egg. Four birds were present in February 1993.
- **Common Noddy** Anous stolidus. A solitary individual at the eastern islet in July 1983 and January 1991.
- Black Noddy Anous minutus. A single individual in January 1991 and a flock of 120 flying close offshore in May 1992.
- Superb Fruit Dove Ptilinopus superbus. 1-2 recorded on all visits excepting May 1992, from thick vegetation and occasionally from open trees and shrubs, mainly on the eastern islet. Occasionally seen flying between the two major islets at dusk.
- * Torresian Imperial-Pigeon Ducula spilorrhoa. Thousands of this summer migrant were nesting in January 1991 and November 1992. Nests were widespread in mangroves and other trees, being especially concentrated in eastern islet mangroves. On 15 November 1992, counts were made of birds returning to the eastern islet: 71 birds per minute (bpm) at 1730 h; 123 bpm at 1745 h; 190 bpm at 1800 h; 146 bpm at 1815 h; and 70 bpm at 1830 h. Many thousands were evidently involved.
- **Bar-shouldered Dove** *Geopelia humeralis*. This resident is always recorded from mangroves or other shrubbery, occasionally involving a group of up to ten birds.

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Horsfield's Bronze-Cuckoo Chrysococcyx basalis. A bird on a 0.5 m high Capparis shrub in open country on the eastern islet on 14 November 1992 was feeding on a few old butterfly chrysalides (probably Pieridae).

- Channel-billed Cuckoo Scythrops novaehollandiae. Asolitary flying individual at 1500 h on 9 February 1993 was harassed by four BridledTerns.
- Large-tailed Nightjar Caprimulgus macrurus. A single individual flushed during the day from a small grass/scrubland patch on the eastern islet on 18 September 1985. That night a single bird was heard 'chopping' from the same area. On 15 January 1991 a bird was again flushed from this same general area, a pair was flushed there on 7 May 1992, and 'chopping' was heard at dusk on the last date.
- Sacred Kingfisher Halcyon sancta. Up to three recorded on all visits, from mangroves, other suitable vegetation, or perched on exposed rubble/ rocks.
- Collared Kingfisher Haleyon chloris. Typically in mangroves on the eastern islet, but occasionally recorded from the northern and western islets; singly or in pairs.
- Rainbow Bee-eater Merops ornatus. Two birds noted at both major islets in September 1985.
- **Dollarbird** Eurystomus orientalis. A solitary individual at the eastern islet on 18 September 1985.
- Black-faced Cuckoo-shrike Coracina novaehollandiae, 1-3 recorded on all winter visits, generally in stands of Casuarina equisetifolia at both major islets. A flock of ten in May 1992 was exceptional.
- Leaden Flycatcher Myiagra rubecula. Single records in September 1985 and May 1992 involved females at both major islets.

- Varied Honeyeater Lichenostomus versicolor. Small, noisy groups occur throughout the islets' vegetation, particularly mangroves; Warham likewise recorded many.
- **Spangled Drongo** *Dicrurus hottentottus*. Single birds in July 1983 and May 1992 were recorded from both the northern and eastern islets.
- Australian Magpie-Lark Grallina cyanoleuca. Single birds in July 1983, September 1985 and August 1991, mostly at the northern islet.
- White-breasted Woodswallow Artamus leucorhynchus. Seen hawking and perched in trees in small groups of up to six on all visits, mainly frequenting the northern and eastern islets; Warham recorded three.

AUSTRALIAN KING-PARROT FEEDING ON THE CLIMBING VINE POTHOS LONGIPES

PETER F. WOODALL

The Australian King-Parrot Alisterus scapularis has been recorded as feeding on the fruits, berries, nuts and seeds of a large variety of native and introduced plants (Forshaw & Cooper 1981), but not those of the climbing vine Pothos longipes (Barker & Vestjens 1989).

On 10 December 1992, in very tall, notophyll, closed forest in Maiala National Park (27° 20'S, 152° 46'E, 650 m asl), Brisbane Forest Park, a male Australian King-Parrot was watched for several minutes feeding on the climbing vine Pothos longipes. Sitting on the vertical trunk of the tree, it would reach out to pull a fruiting spike of the vine closer and then hold it underfoot. The fruits were taken off one at a time and manoeuvred in its bill, so that the fleshy pericarp was removed and allowed to fall to the ground and the seed was swallowed. These red, fleshy parts of the fruit, without the seed, are often seen under the vine.

On 3 February 1993, in very tall, notophyll, closed forest in Boombana National Park (27°24' S, 152°47' E, 425 m asl), Brisbane Forest Park, two pairs of Australian King-Parrots were watched feeding on the young growing shoots of *Pothos longipes*. The birds nipped off about 6 cm of the pale green tips, contrasting with the dark green mature foliage, and then masticated the tips by running them through the bill from side to side before swallowing the resulting pulp. When I repeated this action, the plant tissue was soft and not fibrous, but not sweet as are some growing shoots.

Pothos longipes is a common climbing vine on the trunks of rainforest trees and is characterised by shiny green leaves with a flattened petiole and the red fruits which can be present throughout the year (Jones & Gray 1977). The Southern Cassowary Casuarius casuarius and several species of fruit pigeons feed on the fruits of Pothos spp. (Barker & Vestjens 1989). Frith (1982) states that most frugivorous pigeons in Australia, apart from the White-headed Pigeon Columba leucomela and Brown Cuckoo-Dove Macropygia amboinensis, digest only the pericarp of fruit and excrete the seeds. The Australian King-Parrot was doing the reverse of this, which is surprising since the flesh of Pothos longipes is fairly palatable and was eaten by Aborigines (Cribb & Cribb 1975). Presumably the seed has a higher nutritive value.

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NOTES ON THE PIED OYSTERCATCHER HAEMATOPUS LONGIROSTRIS IN THE COOLOOLA - FRASER ISLAND AREA

DAVID McFARLAND

SUMMARY

This paper presents information on the winter dispersion and behaviour of Pied Oystercatchers in the Great Sandy Region, in particular Fraser Island. Further research is needed to determine if populations of this species and other beachdwelling fauna are under threat due to increasing recreational use of the region.

INTRODUCTION

Pied Oystercatchers Haematopus longirostris are found on sandy beaches, with sedentary adults occurring alone, or as pairs, while immatures and other non-breeding birds are more mobile and form groups outside permanent pair territories (Blakers et al. 1984, Schodde & Tidemann 1986). Breeding occurs on coastal beaches, dunes and shallow bays between August and November. In Queensland, the main breeding sites are islands such as Fraser Island (Storr 1984). Blakers et al. (1984) report the species as endangered in New South Wales and of reduced abundance in Queensland's Moreton Bay. The declines are attributed to the rising recreational use of beaches, particularly by owners of four-wheel-drive vehicles. In this paper baseline data are presented on the dispersion and behaviour of Pied Oystercatchers during the winter non-breeding season in the Great Sandy Region (Cooloola and Fraser Island).

STUDY AREA AND METHODS

Fraser Island (25°22'S, 153°07'E) in south-east Queensland was visited during the period 16 to 22 July 1988. While travelling along beaches, e.g. Seventy Five Mile Beach (Fig. 1), notes were kept on the number of oystercatchers seen, distances between individuals, or those considered to be pairs (<100m apart in non-aggressive association), bird activity, e.g. resting or feeding, and the state of the tide. Several sections of the beach between Ocean Lake and Hook Point were traversed twice at different times during the visit, and for the analysis are considered independent samples. Between January 1986 and November 1988 other incidental information on oystercatchers was obtained at other sites in the region - Tin Can Bay (25°54'S, 153°01'E) and along Teewah and Rainbow Beaches in Cooloola National Park (Fig.1).



Fig. 1. The dispersion of Pied Oystercatchers on the beaches visited on Fraser Island and in the Cooloola · Tin Can Bay area (s = single bird, p = pair, g = group).

RESULTS

A total of 256 km of beach was travelled in the region. Between Hook Point and Ocean Lake, 19 Pied Oystercatchers (8 pairs, 3 single birds) were counted, with a further two birds (a pair) on the mainland between Inskip Point and Rainbow Beach township. This equates to 0.19 birds/km, 0.08 pairs/km and 12.5 km per pair for the Fraser Island coastline. However, the oystercatchers were not evenly distributed along the beach, but tended to concentrate around Indian Head and Eurong (Fig. 1). The gap between the two areas was conspicuous and consistent.

One pair was recorded at Woralie Creek, while groups of 5-13 birds were seen on estuarine beaches at Wathumba and Tin Can Bay (Fig. 1). The large groups at Tin Can Bay were noted in July 1986 (13 birds) and October 1987 (11 birds). During a trip between the north shore of the Noosa River and Rainbow Beach, only three Pied Oystercatchers (one pair, one single bird) were recorded (= 0.05 birds/km). One dead oystercatcher was found in the traffic zone on Rainbow Beach and a bird with an injured leg was observed near Eurong. The activity of the birds seen was as follows: pre-low tide to low tide - 9% resting and 91% feeding (n = 21 observations); halfway to high tide - 79% resting and 21% feeding (n = 14); and high tide - 100% resting (n = 34).

DISCUSSION

The results presented in this paper only deal with oystercatchers in one locality at one time of year. Consequently, I do not intend to draw any specific conclusions from the limited data, but simply make comparisons and discuss factors that may be affecting the status of the species. Alonger term comparative and experimental study involving several sites, and the quantitative assessment of bird density, prey abundance and impacts is needed before any real judgements can be made.

Few data are available concerning the density of Pied Oystercatchers on Australian beaches. On a southern beach, a density of 7.7 birds/km was recorded (Blakers et al. 1984), which is considerably greater than that found in the Great Sandy Region. This value is also nearly five times higher than the 1.6 birds/km recorded for another ocean beach in south-east Queensland (on North Stradbroke Island) that also experiences considerable vehicular traffic (Gynther & Driscoll unpubl. data). Whether these disparate results are due to differences in seasonal use of ocean beaches, beach structure, beach productivity (prey density), or human influence cannot be determined without a more detailed study.

One impact that needs to be addressed is that of increasing beach traffic. Offroad vehicles have been implicated in the decline of the African Black
Oystercatcher H. moquini (Hockey 1983), with a fall in breeding success over a
seven year period being correlated with an increase in four-wheel-drive activity
in the area (Jeffery 1987). Buick & Paton (1989) also consider vehicles a major
threat to the nests of the Hooded Plover Charadrius rubricollis. Historically,
many pairs of Pied Oystercatchers occurred on Teewah Beach, but these have
been drastically reduced in recent times (Fearnley 1990). From 1979 to 1982,
Sutton (1990) noted that, while oystercatchers were seen regularly along the
northern beaches of Fraser Island, their numbers had declined as vehicle
numbers increased.

Vehicles have obvious direct impacts through adult and chick mortality and injury, but the effects may also be indirect through reduced food availability and foraging time. In coastal areas where there is vehicular traffic, the population density and species diversity of invertebrates is lower than in non-affected areas (Greenslade & Greenslade 1977). Besides reducing supplies of food, e.g. bivalve and coned shellfish, cars may also interfere with an oystercatcher's feeding activity. Most foraging occurs at or around low tide, corresponding to the period recommended for the safe traversing of beaches, especially those sections with rocks.

While Pied Oystercatchers are unlikely to become endangered on a national scale, local extinctions are possible in high use coastal areas. In such areas there is an urgent need for research to assess the impact of off-road vehicles, not only on threatened species, e.g. Little Tern Sterna albifrons sinensis and Beach Thick-knee Burhinus neglectus, but also the wide range of intertidal invertebrates.

ACKNOWLEDGEMENTS

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CORRESPONDENCE: FIGBIRDS EATING INSECTS

It was with interest that I read the contribution "Insectivory in the Figbird Sphecotheres viridis" by R.W. Johnson in the September 1993 issue of Sunbird, 23:90-92. In view of the few documented observations of insectivory by the Figbird, as indicated by Johnson's review, I thought the following observations might be worth recording. As a bird photographer, I have only once taken pictures of Figbirds at the nest, feeding their near-fledged young. During this photography session, from a hide over a single day, I saw only fruits being fed to the nestlings.

I have photographed the species only twice away from the nest, but on both occasions I recorded them eating insects. In Townsville city in May 1984 Figbirds were feeding on a fruiting fig tree Ficus sp. in a garden. Between foraging bouts, the birds perched on adjacent telephone wires, where I photographed a male that proved to be holding a beetle, half its bill length, between the tips of its mandibles. In January 1986, I watched a male Figbird chase a cicada in a long flight pursuit before catching it in its bill and taking it to a perch. I was able to obtain the accompanying photograph before the bird beat the cicada, removed its wings, and flew off with it. The taking of this large insect would suggest that the Figbird is able to include the vast majority of suitable Australian insect species in its diet.



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BOOK REVIEW

BIRDS OF PREY & GROUND BIRDS OF AUSTRALIA. P. Olsen, F. Crome and J. Olsen. Angus & Robertson, Sydney, 1993, 207 pages, numerous colour photographs, \$95.00.

This book covers diurnal birds of prey, megapodes, quails and exotic allies, button-quails, Australian Bustard, Plains-wanderer and ratites. As the eighth of ten volumes describing and illustrating Australian birds, using photographs from the National Photographic Index of Australian Wildlife, it achieves its purpose admirably. It is by no means just a picture-book. For each species there is a page with summaries of measurements, plumage and identification, habits, voice, food, habitat, breeding, distribution, status and variation. There is also a general text of one to four pages which describes behaviour and ecology, while family introductions draw attention to common features of the species involved. The readable style, more scientific than anecdotal, provides an excellent vehicle for the amateur to proceed beyond the fieldguide.

Fascinating 'nuggets' abound in this thoroughly researched book: Grey Goshawks often share a nest tree with a colony of Shining Starlings; a Black-breasted Buzzard, thought to have recently failed in her own breeding attempt, filled her nest with Kestrel chicks of various ages and tenderly fed them the remains of a less fortunate Kestrel; an incubating Emu neither eats nor drinks for 8 weeks; Collared Sparrowhawk and the European Sparrowhawk have a possible affinity based on a lengthy incubation period; the Pacific Baza and its African congener seem to prefer green prey items; the germination rate of Nitrebush increased from 17% to 67% when eaten by Emus; and the nefarious 12 500 Wedge-tailed Eagle bounties claimed in a single year in Queensland seem to eclipse the 39 367 Emu beaks claimed in Western Australia as recently as 1960.

One of the very small number of typographical errors is on the attractive jacket, and there are editorial discrepancies from one section to another, such as careful use of sample size and sexual separation of mensural data for raptors, but not for ground birds. The two or three colours used on maps are not defined. Pacific Baza seems to range continuously along the southern shore of the Gulf of Carpentaria, yet the only documented records from this region are sightings at Lawn Hill National Park (Sunbird 1990, 20:6), which is south of the pale area shown. Taxonomic treatment is conventional on the whole, although our Bustard Ardeotis australis is regarded as conspecific with "the bustard of

southern Africa". In fact, A. kori ranges widely in eastern Africa as well as southern Africa, and it is curious that the Ostrich description covers "most subspecies except S.c.australis the subspecies in Australia is supposedly S.c. australis". The Black-breasted Buzzard is referred to as Black-breasted Kite throughout, except on the plate showing eggs, where it is given its 'official' name alongside Crested Hawk, which is correctly called Pacific Baza elsewhere!

Some of the button-quail (here buttonquail) data require comment: Turnix olivei, the only species in the book which lacks a photograph other than an egg, has a distribution to "Cooktown and perhaps the Mareeba region", yet there are well documented records from the Kuranda-Mareeba area (Aust. Bird Watcher 1990, 13:149-152); an old record of T. castanota prompts the statement "once at Boorooloola (sic)", whereas there are recent Borroloola records, including two from the McArthur Range in 1986 (Bird Observer 1988, 673:26); T. velox does not range to the eastern seaboard (The Atlas of Australian Birds, 1984:123); and, like the Emu, the identification of T. melanogaster is condensed into the single word "unmistakable", yet we are told that records from the Atherton Tableland "which are obviously incorrect, probably arise from misidentification of Brown Quail".

Despite the foregoing, this book is an excellent addition to a valuable series. In the Foreword we learn that "the publisher has been able to do little more than cover costs", so it is pleasing to note that the 1989 Robins & Flycatchers, admittedly with many more pages, was similarly priced. This beautiful book is an obvious gift item which would grace any library or coffee table.

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INSTRUCTIONS TO AUTHORS

The Sunbird is published quarterly by the Queensland Ornithological Society to further the knowledge of birds in Queensland and adjacent northern regions of Australia.

Papers are invited from non-members as well as members on all aspects of ornithology, e.g. life history, taxonomy, distribution, behaviour and ecology. Articles may take the form of major articles on specific birds, birds in specific areas or habitats, or short notes on either birds themselves or the literature on birds, such as reviews of books or comments on published articles.

Submission of a paper implies that the results reported have not been published and are not being considered for publication elsewhere. The editor reserves the right to submit records of rare birds to the Records Appraisal Committee of the Royal Australasian Ornithologists Union.

Manuscripts can be supplied on floppy disk (IBM or MACINTOSH systems in Wordperfect or ASCII format) or in typed form on paper. When typed, the manuscript should be double-spaced and two copies sent. Papers longer than four typed A4 pages should have a summary. If needed, help may be given to authors to find relevant literature. Common names, scientific names and order of names should follow 'Recommended English Names for Australian Birds', in The Emu Volume 77, Supplement, 1978. Intending authors should consult recent issues of The Sunbird to see acceptable forms of contributions.

References should be listed in alphabetical order at the end of papers in the following styles; titles of journals will be abbreviated as in the World List of Scientific Periodicals:

 FLEAY, D.H. 1937. Nesting habits of the brush turkey. Emu 36: 153-163.
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SERVENTY, D., SERVENTY, V.N. & WARHAM, J. 1971. The Handbook of Australian Sea-birds. Sydney: Reed.

SLATER, P. 1970. A Field Guide to Australian Birds. Non-Passerines.

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