

REFERENCES

- HURLBERT, S. H. 1971. The nonconcept of species diversity: a critique and alternative parameters. *Ecology* 52: 577-586.
- SLATER, P. 1970. A Field Guide to Australian Birds: Non-passerines. Adelaide: Rigby.

- . 1974. A Field Guide to Australian Birds: Passerines. Adelaide: Rigby.
- SPECHT, R. L., E. M. ROE and V. H. BOUGHTON. 1974. Conservation of major plant communities in Australia and Papua New Guinea. *Aust. J. Bot.*, Suppl. Ser. 7.

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FURTHER NOTES ON THE BIRDS OF MAATSUYKER ISLAND, TASMANIA

I visited Maatsuyker Island, off Tasmania's southern coast, from 16 to 30 January 1975 and from 31 December 1977 to 19 January 1978. Observations during these two visits are given in the systematic list. A second list of species recorded only by the lighthouse keepers is included. Detailed information on the breeding of seabirds has been published elsewhere (Milledge and Brothers 1976). Milledge (1972) has provided a description of the Island's vegetation, climate and topography. He described *Eucalyptus simmondsii* as practically extinct, with only six mature trees being found. There are, in fact, many trees scattered over almost two hectares about the Island's summit.

SYSTEMATIC LIST

Species not recorded by Milledge (1972) are marked with an asterisk.

Eudyptula minor Little Penguin

Seen fishing offshore but only along the eastern coast. Only one breeding colony located, at the boat landing, but isolated nests were found along the eastern shore among boulders and in burrows on the steep slopes.

Diomedea cauta Shy Albatross

Present offshore almost daily; most were seen about The Needles and south of the Island, particularly during windy weather.

***Phoebastria fusca** Sooty Albatross

Two birds near Flat Witch Island during 1975 visit.

Pachyptila turtur Fairy Prion

Observations made at lighthouse on most nights between 19:00 and 23:00 during 1975 visit but few individuals seen. Breeding colonies, not confirmed by Milledge (1972), found: on eastern side of North Point; at boat landing; on western shore opposite the lightkeepers' residences; and at south-western end of Island.

Puffinus tenuirostris Short-tailed Shearwater

Milledge and Brothers (1976) subjectively estimated the number of birds in the breeding population to be one million. In 1978 densities of burrows were plotted over the Island. From the average number of burrows in a series of 4m x 4m quadrats in each area of different density, 480,000 burrows were cal-

culated. If all are used by breeding birds, the previous estimate seems quite satisfactory. In 1975 not seen in flocks on the water until 23 January; began arriving each night between 21:05 and 21:25 but numbers in flocks varied considerably between nights. Most came from a south-westerly direction and flew over The Needles toward lighthouse on first approach; usually flew south of lighthouse and from there turned off to all parts of Island. Apparently not attracted to the light but may have been guided by it. Only two birds known to have struck the light during 1975 visit.

Puffinus gavia Fluttering Shearwater

Two birds, thought to be this species, accompanied the first *P. tenuirostris* to arrive on 20 January 1975; one chased towards The Needles by a *P. tenuirostris* and twittered like a Goldfinch *C. carduelis* as it flew away.

***Pelagodroma marina** White-faced Storm-Petrel

Three or four birds observed at lighthouse each night although about twenty were seen once. May breed on Island, though no burrows were found despite intense search. Several birds considered to be this species heard calling from dense cover at 22:00 in the south-western colony of *P. urinatrix* but their burrows not located.

Pelecanoides urinatrix Common Diving-Petrel

Breeds at all Fairy Prion colonies. Three stunned birds found at lighthouse during 1975 visit. *P. urinatrix* arrived over Island from 21:45 to 22:00.

Morus serrator Australasian Gannet

Groups of up to ten birds feeding between Maatsuyker and De Witt Islands.

Leucocarbo fuscescens Black-faced Shag

Common; breeds on Old Man of Sea and Indian Face at The Needles. Colony described by Milledge (1972) on one of the inner Needles appeared to be abandoned.

***Ardea novaehollandiae** White-faced Heron

Two or three birds observed daily feeding on pig-face slopes at boat landing during 1975 visit when as many as five individuals present. None seen during the second visit.

Haliaeetus leucogaster White-bellied Sea-Eagle

Often seen by lightkeepers; suspected of breeding on south-eastern side of Island. One adult seen on 5 and 6 January 1978.

Circus aeruginosus Marsh Harrier

In 1975 usually one but twice two adults flying round

the summit of Island. In 1978 one pair regularly seen over flat area half way down the sloping south-eastern end of Island; may have bred.

***Falco peregrinus** Peregrine Falcon

One female on western side of Island on 17 January 1975.

***Falco berigora** Brown Falcon

A badly decomposed specimen found among *Eucalyptus simmondsii* during first visit. During second visit on 5 and 8 January one bird observed flying over North Point.

Haematopus fuliginosus Sooty Oystercatcher

Twelve pairs live on Island, mainly along rocky eastern shore. One pair, with nest (C/2) at boat landing on 1 January, hatched chicks on 3 January 1978.

Larus novaehollandiae Silver Gull

Three breeding colonies; two on western shore below lightkeepers' houses and one above boat landing.

Larus pacificus Pacific Gull

A few observed regularly on Old Man of Sea, occasionally in groups of up to five birds. Only one immature observed in 1975.

Phaps elegans Brush Bronzewing

Ten or twelve pairs probably on Island; feed frequently along vehicle tracks where grass is mown regularly. Breeding confirmed during second visit.

Calyptorhynchus funereus Yellow-tailed Black-Cockatoo

Often seen by lightkeepers, usually preceding bad weather. Three flying over Island on 8 January 1978.

***Cacatua galerita** Sulphur-crested Cockatoo

One attacked by a Forest Raven on 2 January and seen again on 4 January 1978.

Platycercus caledonicus Green Rosella

Approximately fifty observed during first visit, mostly in small flocks or as pairs feeding on ground or in *Melaleuca* scrub. Only five pairs during the second visit. Trees do not provide suitable hollows as breeding sites. Nevertheless lightkeeper reported three naked chicks with protruding eyes and massive parrot-like beaks found in a cup-shaped nest, fallen from a broken branch of *Melaleuca*. The nest was 120 millimetres in diameter and fifty deep, constructed of fibrous vegetation and sparsely lined with feathers and wool. Nest and occupants replaced and subsequently a pair of Green Rosellas spent some time inspecting it from nearby branches. Finally nest abandoned and chicks found dead. The nest is thought to have been originally made by Blackbirds or Olive Whistlers and later used by Rosellas.

***Hirundo neoxena** Welcome Swallow

Single birds on several occasions at lightkeepers' houses during first visit.

***Cecropis nigricans** Tree Martin

A flock of about thirty along ridge to North Point behind boat landing during first visit. Single birds occasionally seen along the shoreline and in a cliffy gulch on western side of North Point, which may be nesting site. In 1978 about ten birds at the above localities but they also frequented the cliff south of the lighthouse.

***Zoothera dauma** White's Thrush

According to lightkeepers first arrived on the Island in May 1975. Since then, number steadily increased to at least eight pairs by end June 1975. Regularly observed on vehicle track and among ferns *Phymatodes diversifolium* and *Asplenium obtusatum* close to track. Probably irregular winter visitor but some stay throughout summer. On 6 January 1978 one seen below lightkeepers' houses and another on 10

January 1978 in gullies containing manfern *Dicksonia antarctica* on steep eastern slope.

Turdus merula Blackbird

Common but very shy and so difficult to estimate abundance. At least twenty pairs observed during each visit.

Petroica rodinogaster Pink Robin

Observed occasionally on ground but usually in *Melaleuca* scrub, just below the canopy. Two brown birds and seven males seen, mainly in scrub near vehicle track. During second visit only five males seen. Occasionally crouched on vehicle track, apparently sunning themselves.

***Petroica multicolor** Scarlet Robin

Two observed calling at boat landing on western shore on 19 and 23 January 1975.

Pachycephala olivacea Olive Whistler

Very common; fed on ground and in lower branches and trunks of *Melaleuca*; observed carrying food.

Rhipidura fuliginosa Grey Fantail

One very shy bird seen twice during first visit.

Sericornis frontalis White-browed Scrubwren

Most abundant terrestrial bird on Island; feeds mainly on or near the ground and least abundant in exposed coastal areas where vegetation stunted; feeding fledgelings in mid-January in 1975 and 1978.

***Acanthiza ewingii** Tasmanian Thornbill

One recorded several times during second visit; feeding in low scrub by vehicle track.

Phylidonyris pyrrhoptera Crescent Honeyeater

Very common; feeds mainly on flowering *Melaleuca* and *Banksia*; many juveniles present.

Phylidonyris novaehollandiae New Holland Honeyeater

Observed feeding with *P. pyrrhoptera* but not so common.

***Acanthorhynchus tenuirostris** Eastern Spinebill

One very shy male calling on 12 January 1978.

Zosterops lateralis Silvereye

Very common; usually as pairs or small flocks in 1975. In 1978 less common though seen regularly; usually in canopy of higher scrub.

***Carduelis carduelis** European Goldfinch

Pairs and parties of up to four several times in 1975 near lightkeepers' houses and vehicle tracks where introduced grasses, dandelions and thistles are established.

***Passer domesticus** House Sparrow

One with *C. carduelis* feeding below houses and round fowl-pens once in 1975.

***Sturnus vulgaris** Common Starling

One pair reported by lightkeepers to have nested during 1975. One adult on 1 January 1978.

Strepera fuliginosa Black Currawong

Common; usually in pairs feeding in canopy of *Melaleuca*.

Corvus tasmanicus Forest Raven

Common; frequented nesting colonies of seabirds along exposed coast and under *Melaleuca*; ate eggs of shearwaters presumably from accessible burrows or those abandoned on surface. In 1978 one pair feeding chicks on eastern side of North Point ridge.

The following is a list of additional species recorded by lightkeepers and not seen during my visits:

Pterodroma macroptera Great-winged Petrel

One, thought to be this species, caught alive and photographed in August 1977 but identity from photograph not certain.

- Oceanites nereis** Grey-backed Storm-Petrel
One caught alive in November 1976 (Cook 1977).
I observed birds regularly from fishing boats west of Island in late January and early February 1978.
- Egretta alba** Great Egret
One injured bird found in late 1974.
- Accipiter novaehollandiae** Grey Goshawk
One white bird appeared on Island in late February 1977; seen during following three months; once became entangled in fowl-pens but released uninjured.
- Aquila audax** Wedge-tailed Eagle
Observed regularly; thought to nest occasionally on western slopes of Island.
- Rallus pectoralis** Lewin's Rail
Apparently occurs from February to December. Milledge (1972) found it common in February; not observed during my first visit but reported by lightkeeper in the following February and increased during the winter. In 1977 last seen and heard by lightkeeper in late December but not sighted during second visit.
- Lathamus discolor** Swift Parrot
Several flocks flying over Island in November 1974.
- Neophema chrysogaster** Orange-bellied Parrot
Small flocks reported in May 1971.
- Cuculus pyrrhophanus** Fan-tailed Cuckoo
In 1974 two *Sericornis frontalis* observed feeding an almost fully fledged cuckoo.
- Ninox novaeseelandiae** Southern Boobook
One perched on window ledge of lightkeeper's house on 7 May 1978.
- Tyto novaehollandiae** Masked Owl
One observed perched on a shed once in 1973.
- Coracina novaehollandiae** Black-faced Cuckoo-shrike
Two seen once in summer 1974-75.

Of the thirteen species of seabirds and twenty-eight species of landbirds that I recorded on Maatsuyker Island, seven seabirds and six landbirds

breed. Two more seabirds and eight more landbirds probably breed. Seventeen of the twenty-seven species of landbirds visit the Island only for short periods.

Milledge (1972) used the absence of several species from the Island to speculate on the history of the avifauna of Tasmania's older habitats. That some of these species are now known to occur on the Island does not necessarily refute his theory because the species concerned are only occasional or seasonal visitors. He also suggested that Blackbirds had only recently colonized the Island because he saw few. Since 1971 they have increased from several pairs to at least twenty.

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REFERENCES

- COOK, J. 1977. No title. Tasm. Bird Rep. 1976, (6). Hobart: BOAT.
- MILLEDGE, D. R. 1972. The birds of Maatsuyker Island, Tasmania. *Emu* 72: 167-170.
- MILLEDGE, D., and N. P. BROTHERS. 1976. Seabird Islands, Maatsuyker Island, Tasmania. *Aust. Bird-Bander* 14: 32-34.

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2 July 1978.