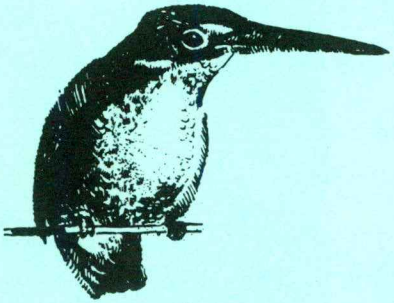
AUSTRALIAN BIRDS



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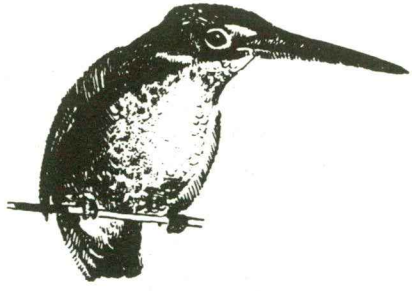
AUSTRALIAN BIRDS



Vol. 17, No. 2 *January, 1983*

A TRIBUTE TO ALAN MORRIS AS EDITOR OF "AUSTRALIAN BIRDS"

ARNOLD McGILL

I am sure that all of our members were sorry to learn recently that Alan Morris has been compelled through ill-health to tender his resignation as Editor of Australian Birds. At the risk of being regarded as "chief contributor of tributes" (I wrote a similar tribute (Birds 7(1): 1-2) when Laurie Haines handed over the editorial reins to Alan Morris in 1972), it is still a privilege to write a testimony to Alan, not only because of his sterling contribution as editor for the past ten years, but also because he has long been a very close friend.

The name of Alan Morris as editor of Birds (our journal's name at the time) first appeared on Volume 6, number 6, which was published in May 1972. At that time Alan lived at Old Toongabbie, but early in 1975 the Director of National Parks and Wildlife Service transferred him to high office at Coonabarabran, where he now lives. It is praiseworthy that he was able to continue as Editor for over seven years while the journal was printed in Sydney. However, recent ill health required hospitalization for some weeks, and on medical advice, Alan has been reluctantly compelled to relinquish his position as Editor after ten years. I am sure all members will regret the circumstances that have necessitated this change, and we all wish Alan a speedy and full recovery to good health. We also pay tribute to Anne for the tremendous support she has given Alan over the years.

For a few years before and after taking office, Alan Morris contributed an annual record of sea-birds that had succumbed to the elements and been washed up along the New South Wales coastline. At that time I used to not infrequently mention that if I had only two claims to fame as an ornithologist, they would be that I showed Bill Lane how to put his first band on the leg of a bird and that I assisted in identification when Alan Morris made his first sea-bird beachcombing trek! But Coonabarabran is a difficult place to live and to continue picking up and writing about stranded pelagic wanderers!

Apart from his tremendous assistance to the NSW Field Ornithologists Club as Editor for ten years, one must also pay tribute to his untiring research of published and unpublished data when the original draft of the Handlist of Birds in New South Wales was put together, culminating in its publication in 1981. This work should be in the hands of every member of the NSWFOC, and is a valuable reference for all students of Australian Birds.

During Alan's term as editor our journal has improved noticeably both in contents and compilation. It is now accepted as the equal of ornithological journals of other states (eg. South Australian Ornithologist, Australian Bird Watcher, Sunbird). This can be attributed mainly to Alan's untiring interest and dedicated work over this period. Moreover, its regularity in appearance was never questioned, and this while he was actively engaged in time-consuming work as an officer of the National Parks and Wildlife Service. It is also noteworthy that during his lengthy period of editorship he regularly contributed wild life notes to the local press in Coonabarabran.

Alan is still comparatively young, and we trust he will be associated with our club for many years to come. His knowledge of ornithology and of the birds of New South Wales has come a long way since he first came with me on that beachcombing walk along Bate Bay back in November 1970. I feel sure that his services and detailed knowledge will remain a benefit to us all.

Arnold McGill, 95 Nuwarra Road, Moorebank, NSW 2170.

NESTING OF THE SQUARE-TAILED KITE IN THE BARADINE AREA

DAVID JOHNSTON

INTRODUCTION

Evidence suggests that Square-tailed Kites *Lophoictinia isura* have been nesting in the Baradine area (30° 55'S 149° 05'E) for some years. My first definite local record of the species was given to me by Arnold McGill, who wrote (in litt): "On 14 November 1974 I was driving on the Baradine-Kenebri Road, about seven kilometres from Baradine when two interesting birds of prey flew directly over the road. They were flying lazily at no great height (about 50m) and tumbled a lot when nearing each other. I realised that they were doing some sort of courtship and only when a Little Eagle *Hieraaetus morphnoides* appeared nearby did they change their lovely display over the road and close by to drive the Eagle away. I had them clearly under observation for about a full minute". Identification was confirmed by size comparison with the Little Eagle as well as by appearance and behaviour.

FIRST RECORDS

My own first sighting was in December 1979, when I saw a single bird flying low over the Baradine-Kenebri Road; the location must have been very close to that of McGill's record.

In January 1980 my wife and I followed two birds in a car for about ten minutes, as they glided slowly over the Baradine township at a height of about 50m. We were impressed by their unperturbed and meandering flight. The white area on the crown was at times conspicuous, and there was a diffuse white area near the end of each deeply fingered wing. The tails were slightly forked. In November of the same year a pair was seen within five kilometres of Baradine, near the forest area where the active nest described below was later found.

A farmer adjoining this forestland showed me an old nest 300m from his house, where he said the kites had nested in 1979 and 1980. On one occasion two birds were shot at the nest site because the farmer believed that they were taking young sucking pigs from his piggery, although he later concluded that only dead pigs were removed. It would seem probable that he and his family had seen a Little Eagle or perhaps a Whistling Kite *Haliastur sphenurus* removing the pigs, as there appears to be no evidence of the Square-tailed Kite taking carrion.

NEST LOCATED

On 9 August 1981 the presence of a Little Eagle led to the discovery of the Square-tailed Kite's nest. It is interesting to note that the Little Eagle also played a role, as in A. McGill's account. The Little Eagle's nest was situated some 30m up in a Rough-barked Apple *Angophora floribunda,* and clearly visible from the road. As I approached, the eagle at once left the nest, and was immediately attacked by a pair of Square-tailed Kites. The kites were later found found perched beside a half-constructed nest in another Rough-barked Apple, about 300m further into the forest from the eagle's nest. It was built on a fairly large horizontal limb 24m from the ground. The site appeared sufficiently solid to effectively prevent any interference from wind, while foliage and a heavy limb above the nest provided some shade. Observation of the birds was made easy by their extreme quietness. They appeared very similar to the photograph in Reader's Digest (1976, Complete Book of Australian Birds, Reader's Digest Services Pty Ltd, Sydney). The feathers on the crown presented an almost crest-like appearance, and the black-tipped wings extended well beyond the tail.

On 22 August, the site was visited again and the following notes taken: "nest somewhat larger than on previous visit — probably nearing completion, although it does not appear to be as extensive as would be expected for birds of this size. Some green twigs with leaves attached appear to have been included in the structure. Both birds were soaring overhead at first, one bird only having an evident white patch at the end of each wing. They presently landed beside the nest".

INCUBATION

On 27 August one bird was seen sitting on the nest. From 5 September to 4 October the site was visited six times, generally in the middle or late afternoon. At no time was food seen taken to the brooding bird. On one occasion four sticks were added to the nest in a period of 15 to 20 minutes observation, this being done while the other bird was sitting. On another occasion (at 17:30 hrs) neither bird was present at the site. On two occasions one bird was sitting and one perched beside the nest, while on the remaining two occasions one bird was sitting and the other absent.

On 5 October at 15:00 hrs I climbed the tree. Both birds were present, but flew from the nest when I was about five metres from it. The nest was about 750cm across, and rather scant in structure, although some of the sticks used were surprisingly large. A small depression for the eggs was neatly lined with green eucalypt and angophora leaves. The three eggs were tapered oval in shape. Generally white in colour, two were sparsely blotched brown over the entire surface, while the third was heavily blotched at the larger end.

After photographing the nest, I retreated to a limb some four metres away. Within a few minutes, both birds returned, one settling onto the nest. The other again left the area, returning some 30 minutes later with a green twig in its talons. It approached the tree several times, but did not land. The sitting bird remained apparently unconcerned while I climbed out of the tree.

FLEDGLING ACTIVITY

On 7 November the sound of young birds was heard from the nest. I was unable to visit the site again until 7 December, when two fully-feathered young were seen sitting on the side of the nest. The only obvious difference between the immature and adult birds was a darker reddish colour about the head of the former.

On 13 December both young were still present at the nest, and again on 20 December. On this occasion however, both birds flew from the nest encouraged by one of the adult birds. They returned to the tree after a short flight. From their proficiency, I concluded that they had been flying for some time. The last sighting of the two young birds was on 22 February 1982, when they were seen eight kilometres west of the nesting area on the Gulargambone Road.

The inaccessibility of the nest and the irregularity of visits prevented any accurate assessment of the incubation and fledgling periods.

A careful examination of the area beneath the nest revealed no evidence of discarded waste from food eaten by the young birds, and only one small pellet was found. I therefore concluded that only small game such as fledgling birds were being fed to the young, and that the farmer was mistaken in his opinion that dead suckling pigs were included in their diet.

DESCRIPTION OF THE NESTING AREA

The area around the nest consists of 25 ha of native forest bordering the Pilliga Scrub State Forest. Cleared farming land lies on both sides of the forest, and the nearby Baradine Creek contains several permanent waterholes. For obvious reasons the exact location of the nest has been withheld.

The upper canopy is dominated by scattered Rough-barked Apple and a few Blakeley's Red Gum *Eucalyptus blakeleyi*. Apple and White Cypress *Callitris columellaris* predominate in the lower canopy, while young cypress and Black Wattle *Acacia polybotria* provide good cover for small birds at the lower level. A few Narrow-leaved Ironbarks *Eucalyptus crebra,* and Bull Oaks *Casuarina leuhmannii* are also present.

It is interesting to note that in the immediate area of the Square-tailed Kite and the Little Eagle nests were many nesting passerines. The following species were proved nesting in the vicinity (during the period September to November): Speckled Warbler *Chthonicola sagittata,* Western Warbler *Gerygone fusca,* White-throated Warbler *G. olivacea* (2 pairs), Grey Fantail *Rhipidura fuliginosa,* Southern Yellow Robin *Eopsaltria australis,* Brown-headed Honeyeater *Melithreptus brevirostris,* Yellow-rumped Thornbill *Acanthiza chrysorrhoa,* Double-barred Finch *Poephila bichenovii,* Rufous Whistler *Pachycephala rufiventris,* Jacky Winter *Microeca leucophaea,* Grey Shrike-thrush *Colluricincla harmonica,* and White-winged Chough *Corcorax melanorhamphus.* The following additional species were present and suspected of breeding: Sacred Kingfisher *Halcyon sancta,* Kookaburra *Dacelo novaeguineae,* Galah *Cacatua roseicapilla,* Red-capped Robin *Petroica goodenovii* and Mistletoebird *Dicaeum hirundinaceum.*

ACKNOWLEDGEMENTS

I am grateful to Arnold McGill who made his notes available to me, to Mrs June Chappell who typed the manuscript, and to Alan Morris who assisted with the preparation of this article.

David Johnston, Lachlan Street, Baradine, NSW 2396.

A BRIEF SURVEY OF THE WATER BIRDS IN THE SHOALHAVEN-CROOKHAVEN ESTUARY

JOY M. PEGLER

INTRODUCTION

On 12-13 December 1981, a census of all water birds (see Appendix) was carried out in the estuary of the Shoalhaven and Crookhaven rivers approximately 120 km south of Sydney, New South Wales. The aim was to estimate total numbers present, to locate important roosting or loafing sites, and to identify major feeding areas.

The portion of the estuary surveyed (Fig. 1) consists of the confluence of two rivers, the Shoalhaven and the Crookhaven. The former rises to the west in the Great Dividing Range, while the latter, quite a small stream, drains the floodplain slightly inland. The ocean entrances of these rivers are often separated by sandy Comerong Island; on the survey dates however, that of the Shoalhaven was closed by a large barrier sandbar, and the river flowed down the navigation channel on the western side of the island.

METHODS

Between high and low tides on 12 December, 16 observers divided into three teams simultaneously surveyed three areas: (a) the ocean beach of Comerong Island, (b) the shallow bay formed in the Shoalhaven River behind the barrier dune, and (c) the navigation channel between the island and the floodplain. These areas correspond broadly to Zones 2, 3 and 5, and 6 in Table 1, respectively. The navigation channel was covered by boat, upstream on the two rivers to the points indicated on the map (Fig. 1). No attempt was made to enter either the muddy bay on the south-western side of the island or Curleys Bay. The observers noted the feeding and roosting times of each species. On the following day, roost counts were made at Greenwell Point and Crookhaven Heads (Zone 1). The onset of heavy rain prevented an attempt to observe the feeding dispersal of birds from these points.

DISCUSSION

The survey area was divided into six separate zones characterized mainly by differences in substrate type, water depth, and wave action:

(1) A large rock shelf at the river entrance, below the lighthouse at Crookhaven Heads.

(2) Ocean beach on the eastern side of Comerong Island. The survey area ran between Shoalhaven Heads and the breakwater at the southern tip of the island.

(3) Riverine sand zone in the bay formed behind the barrier sand dune linking Shoalhaven Heads with Comerong Island. Alluvial sand, freshly deposited behind the dune, has caused the formation of a large, unvegetated intertidal zone.

(4) Estuarine bays, consisting of two muddy coves, one on the south-western side of Comerong Island, the other forming Curleys Bay.

(5) Brackish swamp on Comerong Island has been produced by the seepage of both saline and fresh waters. The water is shallow, with little apparent tidal movement. Some sedges grow in and around the edges, whilst other halophytic vegetation, eg. samphire, is also present.

(6) River banks. The banks of the deep water navigable channel are dissected by gutters

FIG. 1 Shoalhaven and Crookhaven Rivers Estuary

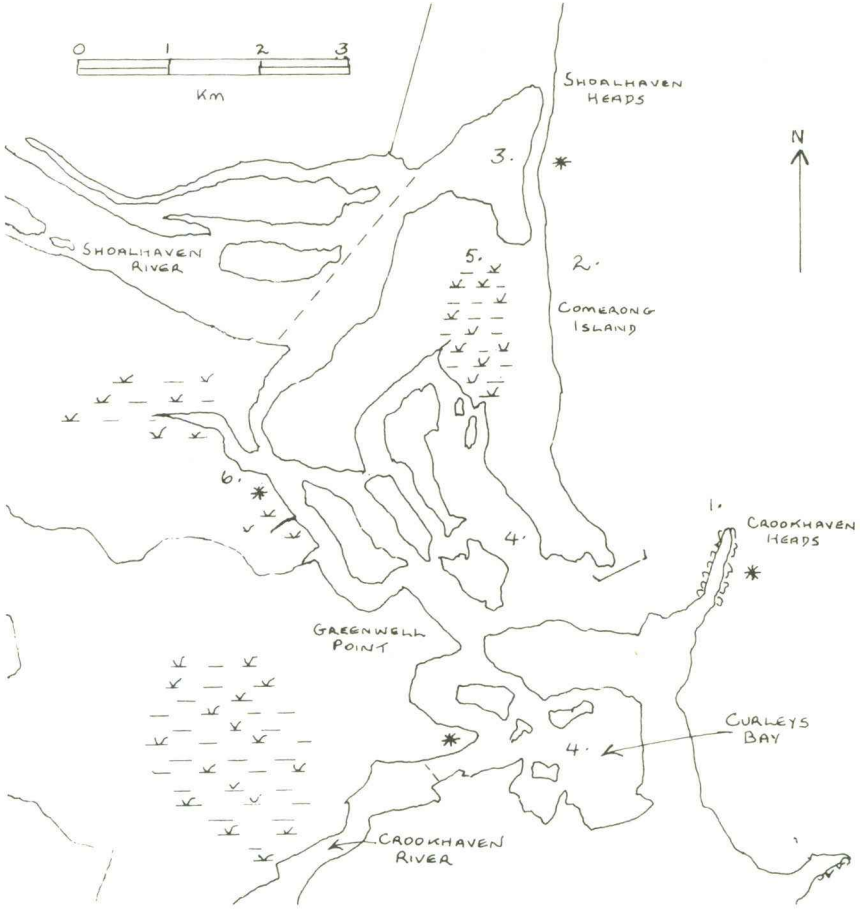


Fig. 1. *Map of the Shoalhaven-Crookhaven estuary showing places mentioned in the text. Dashed lines indicate upstream limits of the survey. Numbers refer to survey zones (see text). Asterisks indicate roosting sites.*

TABLE I. DISTRIBUTION OF SPECIES

Figures in brackets indicate numbers of birds either feeding (F) or roosting (R) in that habitat.

SPECIES	ESTIMATED ESTUARY POPULATION	1 ROCK SHELF	2 BEACH	3 RIVERINE SAND	4 ESTUARY BAYS	5 BRACKISH SWAMP	6 RIVER BANKS
Australian Pelican	25			F,R (7)			F,R (18)
Great Cormorant	4	R (2)					R (4)
Pied Cormorant	4						F,R (4)
Little Black Cormorant	20			R (2)			F,R (18)
Little Pied Cormorant	11			R (6)			F,R (5)
White-faced Heron	5			R (2)	F (2)		R (1)
Great Egret	5				F (5)		
Black Swan	4			R (4)			
Australian Shelduck	1					F (1)	
Pacific Black Duck	12					F (7)	F (5)
Grey Teal	16					F (16)	
Chestnut Teal	19					F (19)	
White-bellied Sea-Eagle	1						F (1)
Pied Oystercatcher	5		R (2)	F,R (3)			F,R (2)
Sooty Oystercatcher	3	R (3)					
Masked Lapwing	11			F,R (7)	F,R (4)		
Grey Plover	5			F,R (5)			
Lesser Golden Plover	71		R (54)	F,R (17)			
Mongolian Plover	38		R (35)	F,R (38)			
Large Sand Plover	4		R (1)	F,R (4)			
Red-capped Plover	45		R (17)	F,R (27)	F (1)		
Ruddy Turnstone	14	R (14)	F (2)				
Eastern Curlew	210			F,R (60)	F,R (50)		R (150)
Whimbrel	1			F,R (1)			
Greenshank	42					F,R (35)	R (7)
Japanese Snipe	1					F (1)	
Black-tailed Godwit	2			F,R (2)			
Bar-tailed Godwit	300+		F,R (180)	F,R (300+)	R (4)		
Red Knot	14		F (9)		R (5)		
Great Knot	1		F (1)				
Sharp-tailed Sandpiper	35					F (35)	
Red-necked Stint	282		F,R (106)	F,R (176)			
Curlew Sandpiper	1			F,R (1)			
Sanderling	1		F (1)				
Silver Gull	200+	R (-)	R (100)	R (86)	R (-)		R (-)
Caspian Tern	4			R (4)			
Common Tern	2			R (2)			
Little Tern	2		R (2)				
Crested Tern	160+	R (-)	F,R (-)	F,R (143)	R (-)		F,R (14)

which drain the immediate floodplain. The resulting shallow water provided both feeding and roosting sites for wading birds.

Table 1 summarizes data on the roosting and feeding behaviour of each species recorded in each of the above zones; also listed is the estimated population of each species recorded. "Feeding" indicates that foraging was recorded in or on the substrate, or in the nearby water.

Local tidal data is available only for the M.S.B. Jetty at Crookhaven Heads and for Greenwell Point. Tides at the latter follow the high tide at Fort Denison (Sydney) by 45 minutes, and the low by one hour. However, the observers estimated that the tides in the riverine bay lagged behind those at Fort Denison by approximately three hours. The barrier sandbar thus narrowly separates widely differing tidal regimens. There was little indication that waders made use of this possible extension of feeding time to forage on the open beach (Table 2).

Roosting sites are marked by asterisks in Fig. 1. Waders generally roosted near their feeding grounds, with the distance covered from loafing to foraging areas often being less than one kilometre. Examples can be seen in the discrete flocks of Mongolian Plovers, Lesser Golden Plovers and Bar-tailed Godwits whose activities were centred on the sandbar between Shoalhaven Heads and Comerong Island. The Eastern Curlew was the most mobile of the waders. For example, of a flock of 150 roosting at a gutter on the river bank at 11:40 hrs, 50+ were seen flying towards Curley Bay, more than three kilometres away, an hour later. The remainder of this flock moved to an emerging sandspit at the entrance to the island's southwestern bay, presumably as a prelude to feeding nearby.

Table 2. Species feeding on ocean beach (Zone 2) on ebb tide.

Ruddy Turnstone	2	(14)*
Bar-tailed Godwit	100	(300+)
Red Knot	9	(14)
Great Knot	1	(1)
Red-necked Stint	51	(300+)
Sanderling	1	(1)
Crested Tern	numerous beyond breakers	

* numbers in parentheses are estimates of the total population of the species in the estuary.

CONCLUSION

Our census was an attempt to assess the population of waterbirds in the Shoalhaven-Crookhaven estuary over a brief time span in early summer, when most migratory waders have arrived at their "wintering" grounds. Our results suggest that the most important roost sites in the estuary are: (a) the rock shelf at Crookhaven Heads (Zone 1); (b) the sandbar area at Shoalhaven Heads (Zone 3); (c) the samphire flat and the nearby mangroves at the end of Greens Road, Greenwell Point (Zone 4), and (d) the gutters along the river bank (Zone 6). The most important feeding area, in both number of species and number of individuals, appeared to be Zone 3 (riverine sand).

ACKNOWLEDGEMENTS

This survey would not have been possible without the enthusiastic co-operation of those members of the NSW Field Ornithologists Club who took part: C. Carey, J. Carey, M. Carey, P. Field, C. Gibson, J. Gibson, D. Hobcroft, K. Lisser, I. McAllen, B. Mannes, H. Mannes, N. Maxwell, J. Miller, J. Scrivens and L. Smith.

Joy M. Pegler, 90 Picnic Point Road, Picnic Point, NSW 2213.

APPENDIX

Systematic list of bird species censused in the Shoalhaven-Crookhaven estuary.

Pelecanus conspicillatus	Australian Pelican
Phalacrocorax carbo	Great Cormorant
Phalacrocorax varius	Pied Cormorant
Phalacrocorax sulcirostris	Little Black Cormorant
Phalacrocorax melanoleucos	Little Pied Cormorant
Ardea novaehollandiae	White-faced Heron
Egretta alba	Great Egret
Cygnus atratus	Black Swan
Tadorna tadornoides	Australian Shelduck
Anas superciliosa	Pacific Black Duck
Anas gibberifrons	Grey Teal
Anas castanea	Chestnut Teal
Haliaeetus leucogaster	White-bellied Sea-eagle
Haematopus longirostris	Pied Oystercatcher
Haematopus fuliginosus	Sooty Oystercatcher
Vanellus miles	Masked Lapwing
Pluvialis squatarola	Grey Plover
Pluvialis dominica	Lesser Golden Plover
Charadrius mongolus	Mongolian Plover
Charadrius leschenaultii	Large Sand Plover
Charadrius ruficapillus	Red-capped Plover
Arenaria interpres	Ruddy Turnstone
Numenius madagascariensis	Eastern Curlew
Numenius phaeopus	Whimbrel
Tringa nebularia	Greenshank
Gallinago hardwickii	Japanese Snipe
Limosa limosa	Black-tailed Godwit
Limosa lapponica	Bar-tailed Godwit
Calidris canutus	Red Knot
Calidris tenuirostris	Great Knot
Calidris acuminata	Sharp-tailed Sandpiper
Calidris ruficollis	Red-necked Stint
Calidris ferruginea	Curlew Sandpiper
Calidris alba	Sanderling
Larus novaehollandiae	Silver Gull
Hydroprogne caspia	Caspian Tern
Sterna hirundo	Common Tern
Sterna albifrons	Little Tern
Sterna bergii	Crested Tern

FIRST BREEDING OF THE SACRED IBIS IN THE COUNTY OF CUMBERLAND

ALAN K. MORRIS

A.R. McGill began his meticulous documentation of birds of the Sydney area in 1940. Living at Arncliffe, he was in easy reach of the tidal areas of Botany Bay and (to a lesser extent) the Hawkesbury marshes, two localities that Sacred Ibis *Threskiornis aethiopica* regularly frequent today. Botany Bay was visited often as regularly as six or eight visits per month, although the Hawkesbury far less frequently. However, Sacred Ibis rarely featured in his early records, and in recent addresses to both the NSW Field Ornithologists Club and the Cumberland Bird Observers' Club, McGill drew attention to this fact. Subsequently (CBOC Newsletter 1982, 3(6):3), he stated that in his first 20 trips to the Hawkesbury marshes (1940-1952), the species was recorded on only four occasions. Nowadays the bird can be seen there on every visit and in good numbers.

By 1958, the Sacred Ibis was occurring more regularly and Hindwood and McGill (1958, The Birds of Sydney, Royal Zool. Soc. NSW, Sydney) stated that the species "has occurred in numbers up to several hundred; at other times only a few, or none at all, are recorded". There were no breeding records. Morris, McGill & Holmes, 1981 (Handlist of birds in New South Wales. NSW Field Ornith. Club, Sydney) say that breeding within the state is confined to the wetlands of the Murray-Darling Basin.

Since 1978, Sacred Ibis have continued to increase in the Sydney region. In illustration, Table 1 lists results for this species from regular organized counts conducted by the NSW Field Ornith. Club. These data further suggest that, although the species is present all year, numbers are highest during the winter months.

On 11 August 1982 I was lunching in a small park near the seal ponds at Taronga Zoological Park on the northern foreshores of Sydney Harbour. Numbers of free-flying Sacred Ibis were competing for lunch scraps with House Sparrows *Passer domesticus,* Silver Gulls *Larus novaehollandiae,* and Common Mynahs *Acridotheres tristis.* The ibis were particularly adept at perching on garbage bins and, with their long bills, probing refuse for food scraps. Some were in breeding plumage, displaying the characteristic bright scarlet bare patches under the wings and on the breast, and the pinkish-scarlet patches on the back of the neck.

Table 1

Totals of Sacred Ibis recorded on the Annual Spring and Annual Autumn Sydney Bird Counts, 1978 to date

	Spring	Autumn
1978	45	*
1979	111	*
1980	136	*
1981	76	728
1982	495	692

* Indicates organized counts not conducted.

I was sitting beneath a Date Palm *Phoenix canariensis* and became aware of considerable commotion in the tree above. Sacred Ibis were seen arriving with twigs which they presented to their mates, and courtship displays using twigs were noted. Copulation also took place. It was soon apparent that a number of birds were actually nesting amongst the old palm leaves and masses of spent date seed branchlets. These latter are strong and wiry and thus very similar to the lignum branches that the Sacred Ibis uses for nesting out in the western marshes.

From a higher advantage point, I was able to count 12 nests in this single Date Palm. One nest contained two half-grown young, which were fed by the parents while the nest was under observation. Other nests held sitting birds, some of which appeared to feed small young. Nearby, two other Date Palms and two Cabbage Palms *Livistona australis* also contained nests, although the Date Palms appeared most favoured and most suitable for nesting. I estimated between 30-40 nests in this colony. The Zoo contains numerous palms, and it is possible that other trees held nests, but I had no time to search further.

The following day I was at Neilson Park and Rose Bay on the southern shores of the harbour. From here Sacred Ibis were seen flying over in a northerly direction towards Taronga Zoo. Others were heading south away from the zoo. Presumably, these birds were feeding away from the colony at such places as East Lakes, Centennial Park and Botany Bay.

This colony was apparently established when 6-10 pairs of captive Sacred Ibis were released from the Taronga Zoo aviaries about ten years ago (John de Hose, *pers. comm.*), and seems to have prospered ever since. However, in view of the dramatic population increase throughout the Sydney region in the past few decades, it seems probable that significant recruitment from wild birds has also taken place. I am not aware of any published record of the existence of this colony. These observations thus represent the first breeding records of the Sacred Ibis in the County of Cumberland, and for eastern New South Wales. As this bird is becoming more frequent at rubbish tips and picnic spots, it may well be that its future as a coastal breeding species is assured.

Alan K. Morris, PO Box 39, Coonabarabran, NSW 2357.

AN ARCTIC TERN IN SUMMER PLUMMAGE AT LONG REEF, SYDNEY

ALAN McBRIDE

At around midday on Sunday, 18 July 1982 I was watching some first-year White-fronted Terns *Sterna striata* roosting on the southern edge of Long Reef about 10 km north of Sydney, NSW, when my attention was drawn to a different tern flying over the reef. The bird landed on a rock about 100 metres away, and at first its identity eluded me. After moving to within 15 metres and setting up a 30x telescope, I identified the bird as an Arctic Tern *Sterna paradisaea* in full summer plumage.

The bird was studied closely over a 90-minute period, during which time it changed loafing sites twice, giving flight views totalling approximately five minutes. It was also seen to advantage by A. Foster for a short time. Throughout the period, field notes were taken, from which the following description is summarized.

DESCRIPTION

Size and jizz: when standing next to White-fronted Terns, the bird appeared more dainty and hunched in body, and smaller in body size.

Bill: blood red in colour, with a minute dark tip to lower mandible. Estimated about 6mm shorter than bills of accompanying White-fronted Terns, and more wedge-shaped with a more pronounced gonys.

Legs: blood red as bill; very short, less than half the length of legs of White-fronted Terns, belly almost touching the rock, nearby *S. striata* almost "towering above" by contrast.

Eye: black.

Head: full black cap from base of upper mandible, back over head to upper mantle. Lower edge of cap straight but for slight extension of black onto ear coverts. Below this a white line extended from lower mandible and upper chin back around head to fade at nape sides. Cheeks pale grey as throat.

Upperparts: mantle and back pale grey.

Wing: at rest pale grey on all coverts, the scapulars and tertials with white tips suggesting fresh plumage. A narrow white line was occasionally visible about the shoulder region. Primaries pale grey as coverts, with a black line along the entire edge of the outermost; tips of other primaries blackish.

Tail: upper tail coverts brilliant white, tail similar but with outer streamers edged blackish. Streamers very long, extending some 40mm beyond the primary tips. The left streamer appeared damaged, so that it hung down vertically on occasions.

Underparts: lower chin to belly pale grey, vent white. In bright sunlight, the underparts appeared much paler than the upperparts although of a similar shade under more even light conditions.

In flight: upperwing wholly pale grey with secondaries narrowly tipped white; primary tips dark, showing as a narrow dark trailing edge of even width on all but inner few primaries. Viewed from the underside, the primaries and secondaries appeared transluscent with dark trailing edge of primaries on upperwing repeated below. Extreme leading edge of inner wing showed white. Tail white, with conspicuous dark outer edges to streamers.

When loafing, it perched often with up to five White-fronted Terns and one Crested Tern *Sterna bergii,* but no interactions with these species took place. Remarkably tame, it allowed an approach to within four metres, and was viewed from little more than one metre by D. Hobcroft later in the afternoon.

I saw the bird again at Long Reef on 23 July, but it was not seen on subsequent visits.

The Arctic Tern is apparently a rare visitor to NSW, with records spanning September to May; its status is uncertain because of the difficulty of distinguishing it from other similar terns (Morris, McGill and Holmes, 1981. Handlist of birds in New South Wales. NSW Field Ornith. Club, Sydney). The individual reported above represents an unusual record in that (a) it was in breeding plumage (and hence relatively easy to identify), and (b) it is apparently the first winter record for NSW.

I thank D. Eades and T.R. Lindsey for their assistance with earlier drafts of this note.

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BOOK REVIEWS

HANDLIST OF BIRDS IN NEW SOUTH WALES by Alan K. Morris, A. R. McGill and Glenn Holmes, 1981. N.S.W. Field Ornithologists Club, Sydney. 79pp. 178 x 235mm.

For each of the 529 species authoritatively recorded from New South Wales, the authors give an estimate of relative abundance (in six orders of magnitude), ecological status (nomad, resident, visitor etc.), months in which eggs are laid, distribution (broadly in terms of the State's 17 natural regions, more finely with reference to towns and natural features) and habit preferences. Using telegraphic English and plenty of one-word sentences, the authors have compressed an enormous amount of information into a small book. Indices are provided for generic and English names.

The principal source of data was the periodic literature, especially that of the last decade or two: the **Emu**, however, was searched back to 1925. A considerable amount of unpublished data was also available. The picture that emerges on bird distribution and abundance in New South Wales is essentially one of recent times. The reader will find here little hint of the great changes in distribution and numbers of certain species following the clearing or thinning of much of the State's forests, woodlands and scrubs.

It is one thing to gather data and another to detect and to correct or reject errors in identification. In both of these respects the authors have done well. On the whole they have also done well in the use they have made of their data. If there is any weakness in their work it is the occasional failure to deal adequately with migration. For example, the Rufous and Grey Fantails are almost identical in their movements in eastern Australia, northward in autumn and southward in spring; yet the first is classified as a migrant and the second as a partial nomad. Many populations of the Willie Wagtail share in these movements, but the species is classified as a resident.

This failure is probably due in part to the authors' methods. I suspect that their basic unit of information is the regional or local list. Now it is not always easy for the compilers of such lists to detect migration, especially its direction; or if they observe movements they are apt to misinterpret them. For example, a South Queensland observer once concluded that a certain species in his district moved in winter from the woodlands to the surrounding open country including towns and around farmhouses. Without a synoptic view of the whole State, he was not to know that his breeding birds left for the north at about the same time as passage migrants and winter visitors arrived from southern Australia.

This book is a very worthy successor to A. R. McGill's **A Hand List of the Birds of New South Wales** (1960). There is a place for it in the library of everyone interested in the distribution and ecology of Australian birds. It can be obtained from the Secretary, N.S.W. Field Ornithologists Club, P.O. Box C436, Clarence Street, Sydney, N.S.W. 2000 for $7.50 plus $0.70 postage ($5.00 to members of the N.S.W. Field Ornithologists Club).

G.M. STORR

BIRDS OF FIJI, TONGA AND SAMOA by Dick Watling, illustrated by Chloe Talbot-Kelly, 1982. Wellington Millwood Press. Pp 176, col. pl. 15.

For many years students of ornithology in the South Pacific have relied on Ernst Mayr's "Birds of the Southwest Pacific" as a main point of reference. One of the few shortcomings of this work was its lack of coloured plates and the brevity of the species accounts. With the advent of Dick Watlings work these problems have been overcome in fine style, at least for the regions in question. It is a hard book to classify; too large for a pocket guide, too detailed for a field guide and yet not quite a handbook. It does however provide a comprehensive summary of known information spiced with new data from the author's own researches. The presentation is thorough, attractive and very readable.

The book is divided into five parts. The first contains an introduction to the geography and vegetation of the region along with chapters on a variety of general ornithological subjects. These contain a wealth of information; for example on Ornithological History we learn of the contributions made by such well known names as Titian Peale, Theodore Kleinschmidt and Edgar Layard and of the achievements of the South Sea Expeditions sponsored by Harry Payne Whitney and his family. Others discuss the composition and origins of the avifauna, ecological isolation of closely related indigenous land birds, breeding seasons, moult, conservation and endangered species. The part concludes with an excellent series of coloured plates illustrating land forms, habitats and vegetation throughout the area.

144 species have been listed for the region, 85 land birds and 59 seabirds and waders. The second part comprising 15 coloured plates illustrates all the land birds with the exception of 4 vagrants (all common in Australia) and most of the seabirds. The land bird plates are very pleasing with the species well figured in lifelike postures. Presentation is spacious and colour reproduction good. A few of the seabirds are a little disappointing and the waders suffer from rather too much attention to feather detail. However information on these groups can be supplemented readily from other sources.

Parts three and four contain the individual species accounts for land and sea birds respectively under headings of Identification, Flight, Voice, Food, Breeding, Habitat and Range. Remarks and Allied Species and Subspecies. They range up to a page in length and are accompanied by distribution maps and numerous line drawings. The information and illustrations of the land birds are undoubtedly the most valuable part of the book since many of the species are endemic and little studied. The author makes no apologies for his lack of enthusiasm for seabirds and the fact that much of the information given is based on the observations of others.

The final part comprising appendicies again demonstrates the comprehensive nature of the work. It includes a glossary, checklist for the region, a bibliography of 245 titles and three indicies of names, Scientific, English and Local.

In short, I believe this volume will establish itself as the standard work for the region. It provides a concise summary of present knowledge and will serve as an invaluable reference point for future research. Although it carries a fairly high price tag the content and quality of production make it reasonable value for money.

A.E.F. ROGERS

NOTICE TO CONTRIBUTORS

Contributors are requested to observe the following points when submitting articles and notes for publication.

1. Species, names, and the order in which they occur are to be in accordance with "Handlist of Birds in New South Wales". A.K. Morris, A.R. McGill and G. Holmes 1981 Dubbo: NSWFOC.

2. Articles or notes should be typewritten if possible and submitted in duplicate. Double spacing is required.

3. Margins of not less than 25 mm width at the left hand side and top, with similar or slightly smaller at the right hand side of pages.

4. No underlinings and no abbreviations except as shown in the examples.

5. Photographs should be glossy finish and not too small.

6. The *Style Manual,* Commonwealth Government Printing Office, Canberra (1966) and subsequent editions will be the guide for this Journal.

7. Diagrams should be on plain white paper drawn with india ink. Any lettering is to be 'professional style' or lightly pencilled.

8. Dates must be written "1 January 1975" except in tables and figures where they may be abbreviated.

9. The 24–hour clock will be used, times being written 06:30, 18:30 for 6.30 a.m. and 6.30 p.m. respectively.

10. Mr, Mrs, Dr are not followed by a full stop.

11. In text, numbers one to ten are spelt; numbers of five figures or more should be grouped in threes and spaced by a thin gap. Commas should not be used as thousands markers.

12. References to other articles should be shown in the text—'...B.W. Finch and M.D. Bruce (1974) stated...' and under heading

REFERENCES

Finch, B.W. and M.D. Bruce 1974 The Status of the Blue Petrel in Australian Waters Aust. Birds **9**, 32–35

13. Acknowledgements to other individuals should include Christian names or initials.

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