

Western Australian Bird Notes

Quarterly Newsletter of the WA Group
Royal Australasian Ornithologists Union

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50th Anniversary of Western Australian Group RAOU

Historic events are determined by later assessments of them. Those who survive the dangers, fear and stress of battle, with images forever fixed in the mind, must be disconcerted to find "their battle" barely mentioned in the official history and with perhaps no more than a brief paragraph in the regimental/squadron account.

Those ten persons who gathered at the WA Museum on 22 May 1943 were (it is to be hoped) free of stress and fear: in any event their boldness and resolution still shows in the report of the first meeting. While it is likely that the memory of that evening has largely faded from the minds of those remaining, it is highly unlikely that they thought their meeting would be seen for what it was — the foundation of the WA Group of the RAOU and an historic event.

In the early years members were few, though reaching 50 by 1948. Meetings were held and outings organised. Significant effort was put into the creation and fostering of the Gould League, seen (among other things) as a valuable source of future ornithologists and RAOU members.

From 1950 to 1953 the branch was inactive, although the members were far from so being, much of their work appearing in the pages of *Emu*. Meetings were again held in 1954 and throughout the 50's work in support of the Gould League was undertaken.

1959, besides an irruption of Cattle Egret, saw the commencement of wader banding at Pelican Point, an activity which continued in 1960 and 1961. This work was the genesis of the later WA Wader Study Group.

The branch had 67 members in 1963. Vincent Serventy was Chairman and regular meetings were recommenced.

In 1964 the first Ruff and Dominican Gull were sighted in WA.

A period of quiescence followed both for the branch and the RAOU as a whole, altered by the election of Stephen Davies as National President in the middle 70's. Significant developments commenced towards the establishment of observatories and the start of the Atlas project, among others.

The Atlas encouraged greater participation in WA group activities, but in 1980, a year before the end of the Field Atlas, the WA Group had only 72 members.

However the start of another RAOU project in WA, the South-west Waterbird Survey, led to the appointment of a full-time field Officer, Roger Jaensch (in April 1981) and the establishment of an office. An office, in the bedroom of the Field Officer in the early days, enabled the WA group to have a "permanent" focus. The nature of the project, dealing with waterbirds, readily identifiable and accessible (compared to bush birds), together with the recruitment of volunteers, their training, organisation and support and the particular talents of the Field Officer, saw a dramatic rise in WA Group members. By July 1984 there were 440 members and by March 1985 over 500.

Today membership approaches 700: there is a fine headquarters and a vibrant organisation.

On the 50th anniversary we should recognise the contribution of the pioneers of 1943 and the efforts of those who kept the WA RAOU alive through some difficult years.

Page 2 of this Western Australian Bird Notes is a facsimile copy of the first page of the first WABN.

Western Australian Bird Notes

No. 1.

PERTH, W.A.

June, 1944

NEXT MEETING

The next meeting of the Western Australian Branch of the Royal Australasian Ornithologists' Union will be held at the Museum, Perth, on Saturday, July 1, 1944, at 2.15 p.m. Major Whittell will preside.

AGENDA: 1. The study of Silver-eyes by Trapping and Banding, by Messrs. V. N. Serventy and L. J. McHugh. (Preliminary reading: *The Emu*, vol 42, April, 1943, p. 194).

2. Albatrosses: Discussion on problems of identification, led by Mr. L. Glauert and Dr. D. L. Serventy.

REPORTS OF PROCEEDINGS

INAUGURAL MEETING, MAY 22, 1943

The following persons attended the meeting at the Museum on May 22, 1943, convened by the President (Major H. M. Whittell): Major Whittell, Misses O. Seymour and N. Fletcher (Victoria); Dr. D. L. Serventy and Messrs. G. Doepel C. Eakins, E. Edmondson, L. Glauert, C. F. H. Jenkins and V. N. Serventy (State Secretary).

Major Whittell briefly described the aims and organisation of the R.A.O.U. and indicated the reasons for the calling of the meeting, the first of its kind in the State. He hoped that in future regular meetings would be held, and so develop a strong group of ornithologists in Western Australia. He then called on members present and visitors to outline their activities in bird work and offered suggestions for local activities. Miss Fletcher described the Bird Observers Club in Victoria. Mr. Edmondson traced the development of the W.A. Gould League, and Mr. Eakins described how Correspondence Classes were furthering bird study.

Dr. Serventy, at the instance of the chairman, outlined a plan for the future conduct of the meetings. He wished to avoid the profitless type of meeting so often found in natural history organisations. The meetings should have the serious aim of making us better ornithologists as well as providing an evening of entertainment. Bird people in Australia do not read enough about their subject, therefore they lack the theoretical background which is needed to get the best out of their observing. A great deal of effort is collectively expended in field-work, involving time, money, etc., and we should capitalise all this to the fullest extent. It was proposed to organise the future meetings of the R.A.O.U. in Perth so as to include discussions under direction, or tutorials, in the various subjects needed for a fuller understanding of birds in the field or of specimens in the study. We shall find our hobby much more interesting the more we know about it. It was hoped to include a theoretical and practical topic at each meeting.

The proposal was discussed with approval and Dr. Serventy and Messrs. Glauert and V. Serventy were appointed a committee to handle the organisation of future meetings.

SECOND MEETING, JULY 24, 1943

At the second meeting of the branch, held at the Museum on July 24, 1943, at 2.30 p.m. Dr. D. L. Serventy presided and led discussions on territory and the genus *Acanthiza*.

TERRITORY IN BIRDLIFE

The following is a summary of Dr. Serventy's remarks: That birds have parcels of ground or territories which they jealously guard for themselves while nesting, may seem quite an obvious fact. Actually, however, the idea of territory as a factor in the life cycle of birds is quite a new one, at least as far as the average birdlover is concerned and it means much more than merely keeping enemies away from the nest. The idea of territory may be very effectively introduced by an incident which happened in one of the local Museum classes. A boy mentioned that Robins fight other birds at nesting time. Which other birds he was asked, Hawks, Magpies? Instead of giving the conventional answer, the keen young observer replied, other Robins. That was the essence of territory. A plot of ground, centred around the site of the nest, is defended by the male, sometimes the female also, against other males of the same species.

The best introduction to the study of territory for the average birdlover is given in James Fisher's "Watching Birds" obtainable in the Pelican series. It should be in the hands

of everybody at all interested in the field study of birds. A typical life cycle for an average territory bird was as follows:

First the individual was a member of a co-operative food-seeking flock, in which the birds did not sing. In the Spring the flocks began to break up and the males would leave and begin to pay visits to suitable small areas of their summer habitat. Finally the males left the flock altogether and stayed permanently in their territories, singing vigorously from various points of vantage in it. Thus the area became parcelled among the males. When any one intruded into the sphere of influence of another, aggressive reactions followed. There was a good deal of chasing about, but frequently no real combats. The intruding birds seemed conscious of the fact they were trespassers and put up no resistance until they got back past their frontier line; then the roles were reversed.

It was now the female's turn to leave the flock. She was attracted by the singing male and eventually she attached herself to one particular partner. When a male thus acquired a mate he usually ceased to sing. Those males possessing gaudy colours and special ornaments also stopped displaying them when the female became a resident. Generally the only occasions when the male would sing henceforth were when other males approached, and song and display were then a signal to aggressive intentions. The purpose of song was essentially to advertise the possession of territory, and the reaction of birds hearing it depended on their sex. A male bird hearing the song is made aware that a male is in possession and is challenging his approach; a female, on the other hand, is made aware that here is an unmated male with a territory and she is attracted to the spot. This theory now superseded the old idea that bright colours and display played a part in sexual selection and that females chose as their mates, the best singers and most gaudy males.

In the northern hemisphere, where the subject had been most studied, birds usually held territories only in the spring and summer nesting period, after which the territories were dissolved and the birds joined up again into nomadic or migratory flocks. However, there were many birds which were sedentary and did not form flocks. Study of some of these species revealed that they defended territories for the whole of the year. A consequence of this was that the males would sing all the year round. In the case of the American Mocking-bird males and females has separate territories in the winter, when both sang. In the spring when the female joined the male but did not share in the defence of the nesting territory she did not sing.

Very little work had been done in Australia, Mr. C. A. Flemming's work on the Silver-eye in New Zealand being practically a pioneer effort on an Australian bird. His work showed that the territory cycle in the Silver-eye compared fairly closely to a typical northern hemisphere bird maintaining only spring and early summer territories. Generally Australian ornithologists have not accepted the territory theory too enthusiastically for the interpretation of their bird observations. In particular they are averse to accepting the fact that song is purely utilitarian and serves merely to advertise the possession of territory. Here in Australia birds sing for a greater part of the year than in Europe and visiting ornithologists are impressed by the number of birds to be heard singing in our autumn and winter months. To my mind this suggests one of two things: Some of our honeyeaters, for example, have very prolonged breeding seasons. The Tawny-crowned and New Holland Honeyeaters may have individuals nesting almost at any month of the year; therefore, these particular birds would be singing. Secondly, territories may be defended permanently, all the year round. Therefore song as "a distance threat" to rival males would continue all the year. We have, as a matter of fact, few birds that are migratory; those that are strictly sedentary might well hold permanent territories.

The field ahead of us is a big one. We should organize our observations with the territory theory at the back of our minds as a working hypothesis, without clinging to every feature of overseas interpretation as indisputable dogma. Note the facts according to whether or not they are consistent

Observations

Compiled by the Observations Committee. Shires shown in brackets.

SOUTH-WEST (Shark Bay to Cape Arid)

Red-tailed Tropicbird - 1, being attacked by a Peregrine Falcon, 7/3/93, Sugarloaf Rock (Busselton) - GL

Glossy Ibis - 5, 5/3/93, Lake Kogolup (Cockburn) - JH

Royal Spoonbill - several, 1/5/93, Lake Mealup (Murray) - RAOU excursion per PW

Yellow-billed Spoonbill - 11, 12/4/93, Perry Lakes (Perth) - AF, SF * 90, 1/5/93, Lake Mealup (Murray) - RAOU excursion per PW

Pink-eared Duck - 20, 6/3/93, flying over Edward Island (Lancelin) and then SW, ie out to sea (Gingin) - AC

Bush Thick-knee - 1, 27/2/93, in small wooded patch on road verge, 45 km W of Brookton on Brookton Hwy (Brookton) - GM

Hooded Plover - 26 including 2 immatures, 18/3/93, Bremer Bay on bar to Wellstead estuary (Jerramungup) (good number for a coastal site) - BB

Red-necked Avocet - 1000, 8/3/93, Amarillo Pool, Serpentine River (Murray) - JH, CD

Wood Sandpiper - 17, 10/3/93, Perry Lakes (Perth) - PP

Pectoral Sandpiper - 1, 8/3/93, Baldivis Water Ski Park (Rockingham) - JH, CD *

9/3/93, a swamp about 15 km NNE of Manypeaks townsite (Albany) - LB

Long-toed Stint - 32, 8/3/93, Amarillo Pool, Serpentine River (Murray) - JH, CD * 6, 9/3/93, a swamp about 15 km NNE of Manypeaks townsite (Albany) - LB

Fan-tailed Cuckoo - 1, 8/3/93, Buntine NR (Dalwallinu) - BB * 1, 13/4/93, Wannamal (Gingin) - BB (these are both early records for this area)

Crested Shrike-tit - 3 on 8/3/93 and 2 adults feeding an immature, 26/3/93, near Denmark (on a reserve 500 m E of Denmark River and S of South Coast Hwy) (Denmark) - LB, TS

White-plumed Honeyeater - 2, 20/4/93, in Salmon Gum, Karroun Hill NR (Mt Marshall) (unusual this far south) - BB

White-fronted Honeyeater - 200+, travelling west, 20/4/93, Karroun Hill NR (Mt Marshall) - BB

Black Honeyeater - 2 males and 1 female, 11/4/93, near Dumbleyung (Dumbleyung) (unusual this far south-west) - BM, BBa, MC

Common Starling - 70, March 1993, 8 km S of Condingup (65 km east of Esperance) (Esperance) - per P. Coyle, APB

KIMBERLEY

Wandering Whistling Duck - 3 groups of up to eight ducklings, 10/4/93, pond near Argyle mine (Wyndham-East Kimberley) - FO

Green Pygmy Goose - 2, 10/4/93, pond near Argyle mine (near margin of range) (Wyndham-East Kimberley) - FO

Baillon's Crake - 4, 10/4/93, pond near Argyle mine (Wyndham-East Kimberley) - FO

Common Redshank - 3, 27/4/93, Crab Creek, near Broome (Broome) - DW

Asian Dowitcher - 2, 27/4/93, Crab Creek, near Broome (Broome) - DW

Singing Bushlark - 100s, 20/3/93, near Ord River, south end of Lake Argyle (Wyndham-East Kimberley) - FO

Bar-breasted Honeyeater - 1 (possible nest), 20/3/93, Smoke Creek, 30 km from Argyle Diamond Mine (Wyndham-East Kimberley) - FO

Observer Codes

AC = Alan Clarke	GM = Greg Marston
AF = Austin Fincham	JH = Jack Hunt
EB = Bruce Buchanan	LB = Lola Broadhurst
BBa = Bryan Barrett	MC = Margery Clegg
BM = Bill McRoberts	PP = Peter Pickford
CD = Colin Davis	PW = Peter Wilmot
DW = Doug Watkins	SF = Sandra Fincham
FO = Frank O'Connor	TK = Tony Kirkby
GL = Graham Little	TS = Tina Smith

The INDEX to WABN

How often have you searched unsuccessfully through WABN for a reference to a bird or place? Or simply baulked at the difficulty of the task and not commenced.

This is past, for we now have an Index of the contents of Western Australian Bird Notes from the first issue, which commenced with the first meeting in May 1943 until May 1993. There will be future addenda annually which will keep your searches short and your frustration at bay.

The Index, which can help take us back to the early days of WA ornithology, covers species, locations (with shire, latitude and longitude co-ordinates) and these locations listed by Shires for all the bird species and their locations in WABN. In addition, there are indexes to the bird identification hints that have appeared over the years, the various bird topics which have been covered, publications considered, major bird projects and more.

The idea, its execution and the labour of working through the past copies of WABN has been that of Bruce Buchanan, current Editor of WABN.

We owe him a debt of gratitude not only for producing the Index but also for editing WABN such that it is of professional standard. The Index is in keeping with this standard.

Members now have a new and welcome tool to assist in pursuing their interest in birds.

Do not search your memory. Get Indexed!

B. Wilson

The Index to WABN is available from the RAOU Office for \$7.50.

Committee 1993

Chairman: John Blyth

Vice-Chairman: Chris Wilder

Secretary: Michael Craig

Treasurer: Peter Anson

Members: Allan Burbidge, Brenda Newbey,

Bill McRoberts, Rod Smith, Tom Spalding, Brian Wilson

Members Contributions

LAKE NAMMING

Lake Namming is an attractive lake to visit. Not only does the Lake usually have a good range of waterbird species but it is visually agreeable. The greater part of the shoreline is comprised of living paperbark trees, some of considerable size, with Flooded Gum further from the waterline. It is the only wetland so vegetated in the area.

There are other wetlands nearby, Fred, Ibis and Crackers Swamps, (1.2 km to the South-east) which comprise the Namming Nature Reserve: despite the similarity of name this Reserve does not include Lake Namming. The overflow of the three Namming Nature Reserve swamps runs into the south of Lake Namming and in turn the overflow of Lake Namming departs at the northern end for Guraga Lake, only 1.5 km to the north. Hurstview Lake is 4 km to the North-east. Caren-Caren Brook flows into Lake Namming from time to time, as do other small creeks, all from the East.

The usual approach to Lake Namming is by farm track from the east through a paddock grazed by sheep. The other three sides have natural vegetation for at least 10 km, a factor which appears to be of importance in determining the waterbird usage of wetlands. (It is possible to walk over the ridge between Guraga and Lake Namming, there being a fire break for much of the distance.)

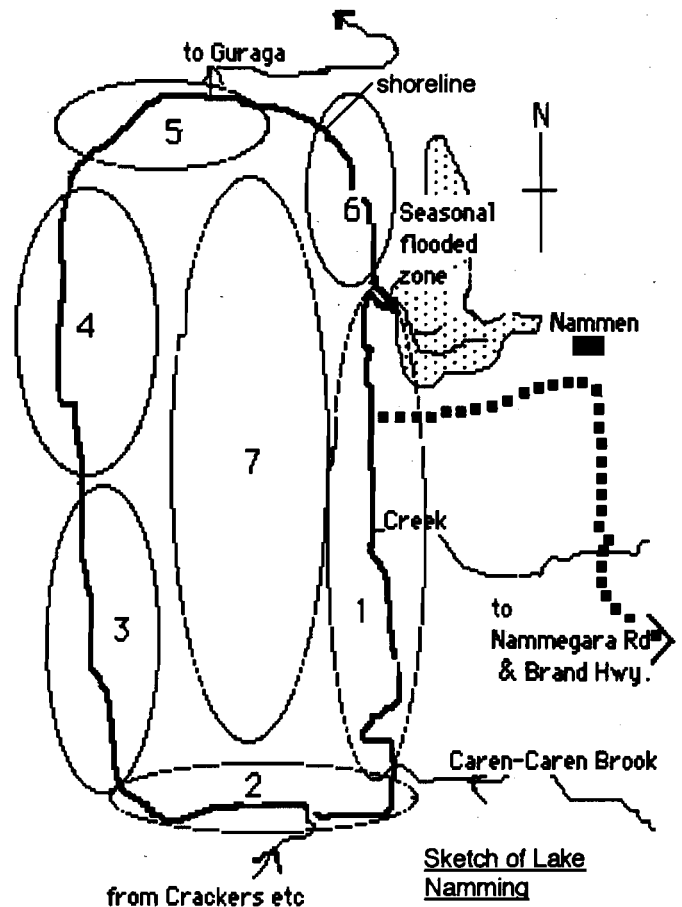
The Lake is reached via Nammegara Road, a left turn on the Brand Highway 12 km North of Regans Ford. Five kilometres along the road is the gate to Nammen, the property which contains Lake Namming. The gate is not usually locked. The Lake, being used for water skiing, means there is a track to the shore of the Lake. In the wet months however, four wheel drive is advisable, for the final 250 metres of the track becomes covered by water to a depth of some 250 mm and is soft when drying out.

The Namming Nature Reserve group was reported upon in Jaensch et al (1988). Guraga was also reported therein and in WABN No 51 September 1989. Hurstview was covered briefly in WABN No 60 December 1991.

The following is based on visiting Lake Namming every month for four years, commencing July 1988 and finishing August 1992, with the exception of a survey in December 1992 to "compensate" for a survey missed in December 1991. The Lake was visited as close as practicable to the middle of each month. This report now completes waterbird information on all the swamps/lakes in the area.

Lake Namming has 1000 metres of clear water north to south and 450 — 550 metres of clear water east to west. At high water the south has nearly 150 metres of flooded paperbark trees between the water's edge and the open water, the east has a similar zone of about 80 metres. The north shelves more steeply and has no high water tree flooded zone, the East has two such flooded areas of 50 metres at high water, with steeper shelving ground between.

The sketch does not show the surrounding high water flood zones except for that behind area 6., This is largely flooded paddock which attracts ducks and egret/heron species. This zone was counted as part of the Lake. The Lake proper did not



dry during the survey period and appears not to have done so "within living memory".

Having little sandy/muddy shore line for most of the year, Lake Namming is not attractive to migratory waders. Most of the shoreline which is attractive to waders is within Area 1. Although 9 migratory wader species were recorded, numbers were consistently low.

The depth and permanency of the Lake makes it important for diving species.

The flooded tree areas result in eight species of waterbird breeding (at least.)

The minimum number of individual waterbirds that used Lake Namming during the survey period was 11,680 — the sum of the maxima of all the species. The total species recorded was 43, the highest number observed at one visit being a splendid 32 in February 1991. The lowest number of species seen was 7, in August 1991. Twenty species or more were seen on 19 occasions out 48, or 40% of visits.

The calendar year with the highest bird numbers was 1991, the total for the 12 months being 20404, well ahead of 1989 with 13372 and 1990 with 11501 despite the fact that nearby Guraga was dry for much of 1990.

The following lists the species seen at Lake Namming during the period of the survey, with some comments. Listed for each species is the maximum number recorded, the number of times seen and the percentage this represents of the maximum of 48 possible, the months of the year in which the species was seen, the 3 months with the highest numbers and the average number in these months, the 3 lowest months and the average number in these months, breeding status and the Area of the Lake most usually used.

The average figures for the highest and lowest three months are the sum of the 12 months, ie 3 months x 4 years,

divided by 12. For the lowest average figures, 0 means no birds were seen in the 3 months, <1, means birds were seen, but with an average less than 1.

The Areas to which reference is made refer to those on the sketch of the lake and show those parts where the birds were most often seen when undisturbed. When disturbed, most birds used all parts of the lake as well as the central area, 7.

Great Crested Grebe — Max. no. 7 in Mar 1989, seen 10 times (21% of visits), on six months of the year (Feb, Mar, Apr, Jul, Sep, Dec), highest 3 months Feb-Apr, average 1, lowest Aug-Oct., average <1. No breeding. Using area 7.

Hoary-headed Grebe — Max. no. 835 in Apr 1990, seen 44 times (92%), seen all 12 months, highest 3 months Feb-Apr, average 245, lowest Jul-Sep average 40. No breeding. Using all areas.

Australasian Grebe — Max. no. 4 in Mar 1991. Seen 12 times (25%) on 7 months of the year, highest 3 months Feb-Apr, average 1, lowest Sep-Nov, average <1. No breeding. Using areas 4 & 5 & northerly 7.

Australian Pelican — Max. no. 154 in Feb 1990, seen 28 times (58%) seen 10 months (not Jul or Oct) highest 3 months Feb-Apr, average 52, lowest Sep-Nov average <1. No breeding. Using areas 1 & 4.

Darter — Max. no. 19 in Mar 1990, seen 44 times (92%), on all months of the year, highest 3 months Feb-Apr, average 9, lowest Oct-Dec, average 2. No breeding. Using area 4.

Great Cormorant — Max. no. 12 in Jan 1990, seen 28 times (58%) on 11 months of the year (not Dec), highest 3 months Aug-Oct, average 3, lowest Mar-May, average 1. No breeding. Using areas 2 & 4.

Little Black Cormorant — Max. no. 117 in Feb 1990, seen 33 times (69%) seen all months, highest 3 months Jan-Mar, average 21, lowest Apr-Jun, average 1. No breeding. Using areas 4 & 6.

Little Pied Cormorant — Max. no. 14, seen 24 times (50%) on 11 months (not April), highest 3 months Sep-Nov, average 3, lowest Apr-Jun, average <1. No breeding. Using area 4.

Pacific Heron — Max. no. 1 on 6 occasions (12%) only in Aug-Nov, average 1, low average 0. No breeding. Using area 4.

White-faced Heron — Max. no. 21 in Dec 1990, seen 38 times (79%), on all 12 months, 3 highest Dec-Feb, average 7, lowest Jul-Sep, average 1. Breeding in 1988 & 1989. Using area 2.

Great Egret — Max. no. 20 in Mar 1988, seen 18 times (37%) on 10 months (not Jun or Jul), 3 highest Oct-Dec, average 2, with peaks in Mar 1988 & 1990 of average 10, lowest Jul-Sep, average <1. No breeding. Using areas 2 & 5.

Rufous Night Heron — Max. no. 1 on 5 occasions (10%) in Aug, Nov, Dec, Feb. No breeding. Using area 3.

Sacred Ibis — Max. no. 7 on Jan 1990, seen 17 times (35%) on 9 months (not Jul, Aug or Oct), 3 highest months Jan-Mar, average 3, lowest Jul-Sep, average <1. No breeding. Using area 3.

Straw-necked Ibis — Max. no. 23 in Aug 1990, seen 27 times (56%) on 11 months (not July), 3 highest Aug-Oct, average 5, lowest May-Jul, average <1. No breeding. Using areas 4 & 5.

Yellow-billed Spoonbill — Max. no. 22 in Mar 1990, seen 41 times (85%) on all 12 months, 3 highest Mar-May, average

9, lowest Jul-Sep, average 3. Breeding in 1988, 1989 & 1992 with maximum 8 nests. Using areas 2 & 4.

Black Swan — Max. no. 664 in Jan 1989, seen 34 times (71%) on all 12 months, 3 highest Jan-Mar, average 158, lowest Jun-Aug, average 2. No breeding. Using areas 2 & 4.

Freckled Duck — Max. no. 52 in Jun 1989, seen 7 times (15%) on 4 months, Dec, Mar, May & June with the highest no's. in May-June, average 18. Low average 0. No breeding. Using areas 1 & 6.

Australian Shelduck — Max. no. 3600 in Oct 1989, seen 44 times (92%) on all 12 months, 3 highest Oct-Dec, average 1253, lowest Jun-Aug, average 6. Breeding 1989. Using all areas. The high months coincide with the moulting periods.

Pacific Black Duck — Max. no. 414 in Feb 1989, seen 46 times (96%) on all 12 months: 3 highest Jan-Mar, average 111, lowest Aug-Oct, average 6. Breeding 1991. Using areas 2, 3 & 4.

Grey Teal — Max. no. 2500 in Jan 1991, seen 46 times (96%) on all 12 months, 3 highest Dec-Feb, average 835, lowest Jun-Aug, average 22. Breeding 1989 & 1992. Using areas 2, 3 & 6.

Chestnut Teal — Max. no. 2 in Dec 1990, seen also in Feb 1990, 1 only on second occasion. No breeding. Using area 2. Chestnut Teal were seen in Jul 1991, Aug 1990 & Sep 1989 (one only each time) at Hurstview. Presumably all "vagrants".

Australasian Shoveler — Max. no. 238 in May 1990, seen 32 times (67%) on all twelve months, 3 highest Mar-May, average 40, lowest Sep-Nov, average 2. No breeding. Using areas 2 & 3.

Pink-eared Duck — Max. no. 1250 in Apr 1990, seen 29 times (60%) on 11 months (not Aug), 3 highest Mar-May, average 270, lowest Aug-Oct, average <1. No breeding. Using all areas.

Hardhead — Max. no. 387 in May 1988, seen 29 times (60%) on 11 months, not Aug, 3 highest Mar-May, average 86, lowest Aug-Oct, average 11. No breeding. Using areas 4 & 5.

Maned Duck — Max. no. 30 in Nov 1991, seen 16 times (33%) on 7 months, not Jan-Apr inclusive or Jun, 3 highest Sep-Nov, average 7, lowest Jan-Apr, average 0. Breeding 1989 & 1991. Using areas 1 & 2.

Blue-billed Duck — Max. no. 498 in Jun 1990, seen 42 times (88%) on all 12 months, 3 highest May-Jul, average 157, lowest Nov-Jan, average 4. No breeding. Using areas 4, 5, & 6.

Musk Duck — Max. no. 195 in Apr 1991, seen 47 times (96%) on all 12 months, 3 highest Mar-May, average 71, lowest Oct-Dec, average 4. Breeding 1991. Using areas 5 & 6.

White-bellied Sea-Eagle — seen once (2%) in Apr 1992 when it swooped on an Australian Pelican in the middle of the Lake. The pelican put its bill vertical and snapped at the attacker. After several circles of the Lake close to the water, the eagle settled in a tree in area 4 where it appeared to "survey the scene". After some 15 minutes the eagle took off and flew in the direction of Crackers Swamp.

Marsh Harrier — Max. no. 2 in Jan 1989, seen 5 times (10%) in Jan, Feb and Apr only. No breeding. Using all areas.

Black-tailed Native-hen — Max. no. 12 in Dec 1992. Seen 5 times (10%) in 5 months, Sep and Dec-Mar inclusive. No breeding. Using areas 2 & 3.

Eurasian Coot — Max. no. 228 in Feb 1991, seen 41 times (85%) on all 12 months, 3 highest Jan-Mar, average 90, lowest Aug-Oct, average 7. Breeding 1988, 1989, 1991 & 1992. Using all areas.

Black-fronted Plover — Max. no. 32 in Feb 1990, seen 18 times (38%) on 7 months, Feb -Aug inclusive, with the highest 3 Feb-Apr, average 9. No breeding. Using areas 1 & 2.

Black-winged Stilt — Max. no. 49 in Feb 1989, seen 18 times (38%) on 8 months, Jan to Jul inclusive and a single bird in Oct. Highest 3 months Jan-Mar, average 29, lowest average <1. No breeding. Using areas 1 & 2.

Banded Stilt — Max. no. 19 in Dec 1990, seen 5 times (10%) on 5 months, Dec-Apr inclusive. No breeding. Using area 1.

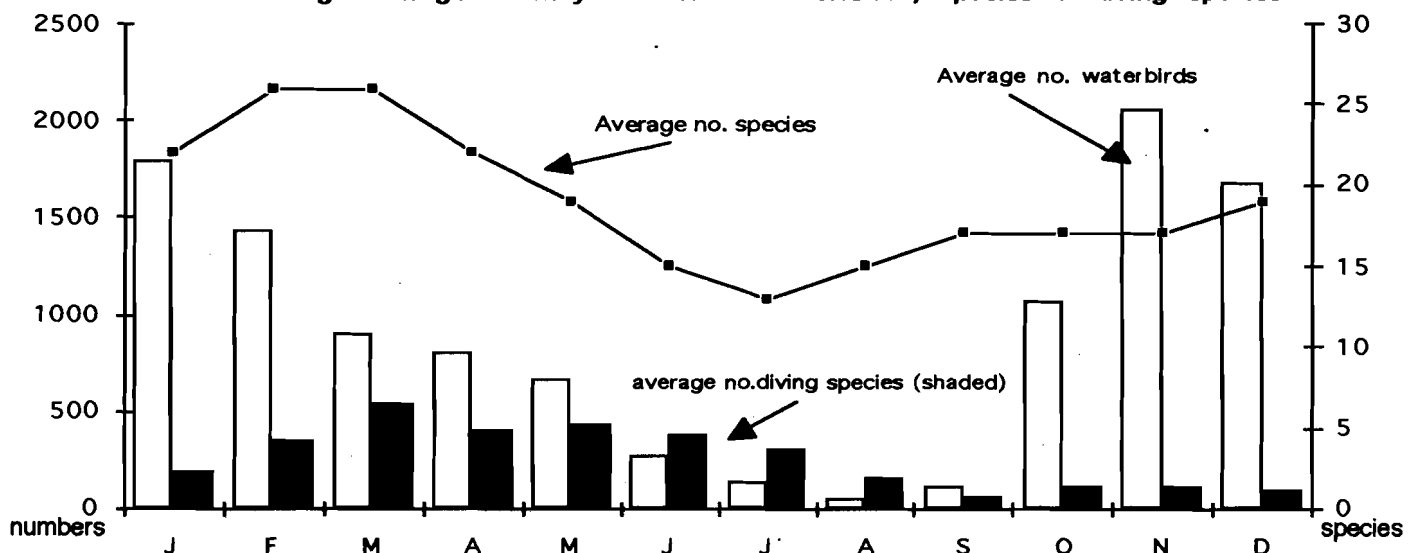
Red-necked Avocet — Max. no. 154 in Jan 1989, seen 13 times (27%) on six months Jan to May inclusive and once a single bird in July. Highest 3 months Jan-Mar, average 34, lowest average 0. No breeding. Using area 1

In the next fifteen minutes the engine was loudly turned over and the boat launched and driven round the Lake twice, on both occasions outside the designated area and into that clearly sign-posted for bathers only.

The count of birds for the month was 1551 with 26 species. Within fifteen minutes of the arrival/launching of the ski boat, only 4 species were to be seen — Red-necked Avocet (90), Black-winged Stilt (49), Black-fronted Plover (5) and Silver Gull (58). The first three of these species are shore line feeders and they were and remained on the shore line in Area 1, which being more shelving, was the most distant from the circling boat.

All three species (avocet, stilt and plover) seemed to gain from the wave action of the boat, presumably as more food was

L. Namming: Average monthly numbers of waterbirds, species & diving species



Common Sandpiper — Max. no. 2 in Jan 1990, seen 16 times (33%) on 6 months, Jan-May inclusive and once in July. Highest 3 months Dec-Feb. Using area 1.

Greenshank — Max. no. seen 13 in Mar 1988, seen 7 times (15%) on 3 months Jan-Mar only, average 3. Using area 1.

Sharp-tailed Sandpiper — one bird seen once in Feb 1990 (2%) in area 1.

Red-necked Stint — 3 birds seen once in May 1990 (2%) in area 1.

Curlew Sandpiper — seen twice, (4%), 5 in Mar 1988 and 4 in May 1990 in area 1.

Ruff — one bird seen once (2%) in Feb 1989 in area 1.

Silver Gull — Max. no. 58 in Feb 1989, seen 15 times (31%) on 6 months, Dec - May inclusive. 3 highest months Jan-Mar, average 22, lowest average 0. Using areas 3 & 4.

Whiskered Tern — seen on 4 occasions, 3 of which were a single bird, the other, 13 birds in Nov 1990. The other sighting months were Feb-Apr inclusive.

cast ashore and washed to the shallows. None flew from the Lake. The Silver Gull, mainly in area 4 scattered but quickly settled round the edges of the Lake in all areas, presumably to also seek food disturbed by the boat.

All the other 1349 birds of 22 species departed, as far as could be ascertained in 25 minutes of subsequent observation. The majority appeared to fly towards Guraga and Hurstview. This was the one survey at which a Ruff was seen: my hope of longer viewing was curtailed by the skiers.

Lake Namming once had a depth gauge in the lower water but this has been removed, presumably to advantage the skiers, for it would have been in their way. Consequently the actual depths were not known. However the Lake, like most on the coastal plain is at its lowest in March-April and highest in August-September, following the rains of winter. The water level usually declines fairly steadily from the high point to the low.

The chart (above) shows the average number of species present throughout the year, the average numbers of species other than diving species and the average number of the divers. (Diving species at Namming are Little Black, Little Pied and Great Cormorant, Blue-billed Duck, Hardhead, Musk Duck, Great Crested, Hoary-headed and Australasian Grebe and Darter.)

It is evident that from January the non-divers/waders/shoreline birds etc decline steadily as the water level first falls and then rises, while over the same period the number of diving birds steadily increases, until at the time of the highest water

Unfortunately Lake Namming is open for water skiing. Judging from tyre marks and litter, skiing is mainly a warm months pursuit (when the water is at its lowest and the activity the most dangerous) Consequently surveys when at week-ends (the main skiing time) were carried out early (before 0830 hrs.) to avoid the possibility of disturbance.

It transpired however in February 1989, not having commenced survey until 0930 hrs, that the survey was virtually complete when a single water-ski boat was brought and launched.

