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Front Cover -

A Silver Gull (Larus novaehollandiae) proudly displays its bands.

Photo: M. D. Murray

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The Australian Bird Bander

Selected recoveries of Short-tailed Shearwaters banded at Cape Woolamai

Table 2

	Date				
Band No.	banded	Age	Place of recovery	Date	Movement
160-39914	8.4.61	P	Cape Bridgewater, Vic.	15.1.66	216W
-31634	8.4.61	Р	Port Fairy, Vic.	23.1.66	170W
-42606	10.12.61	А	Lady Bay, nr Warrnambool, Vic.	2.1.64	154NW
-52369	15.4.63	Р	nr Evans Head, N.S.W.	12.5.63	820NE
-51701	31.3.63	Р	Burleigh Heads, Qld.	5.12.63	870NE
-52714	6.4.63	Α	Port Haiden, Alaska	28.7.65	7,900NE
-68534	4.4.65	Р	Bering Sea	15.7.65	7,100NE
-04058	30.3.61	Р	nr Mikura Is., Japan	27.5.61	5,150N
-03971	30.3.61	Р	50 miles NE of Hachijo, Japan	20.5.61	5,000N

Movement in miles;

P = pullus; A = adult.

area. Clearly, many birds are taken through the season and preliminary figures, after one year's observation, give 1.6 per cent. mortality. The rookeries on the Cape were surveyed in 1961, when it was estimated that some 284,000 burrows had been used, and the present status is under review.

Banding recoveries have assisted in confirming the migration route of the mutton-bird, first suggested by Serventy (1953). An adult, 160-52714, banded at Woolamai on April 6, 1963, was recovered in Alaska on July 28, 1965, being the first long-distance recovery of a breeding adult (immature birds would have left the area by late March—see Serventy, 1961). Other notable recoveries have been of three birds in western Victoria. These could indicate feeding movements away from the natal rookery or a dispersal into new breeding grounds, though, since two of the birds were banded as chicks and recovered less than five years later, this would seem less likely.

Future work

In an attempt to increase the number of adults banded in the area, a new technique has been devised. A small meshed fish net is put across one of the numerous take-off paths during the night and birds are captured as they come up to the net. On the first trial a halfinch meshed net (30 ft. by 5 ft.) was used, and 40 birds were banded, though the same number or possibly even more escaped since the net did not cover the take-off completely. The initial success of this type of trapping has led to the design of a larger net fitted with baffles and a catch-up zone to facilitate removal of the bird. Pre-preparation of the bands, i.e., bending to stage one of Serventy's (1956) method, is planned to enable a more rapid processing of birds caught during the morning exodus which lasts less than an hour.

Plans to increase the banding totals and widen the scope of the station include the construction of Heligoland-style traps and the extensive use of mist-nets in the tea-tree scrub along the coast of the Cape, where migratory species congregate before and after their crossing of the Bass Strait. At the same time, visual observations on movement and species may give additional information on the birds involved in trans-Bass Strait migration.

Acknowledgments

We would like to express our thanks to members of the Victorian Ornithological Research Group for their unfailing assistance and to Mrs. E. Higgins, CSIRO Wildlife Research, for compilation of yearly totals. こうになるいというでないというないのであるのであるのであるのであるのです。

References:

- Serventy, D. L. (1953), "Movements of pelagic sea-birds in the Indo-Pacific region", *Proc. 7th Pacif. Sci. Cong.*, 4:394-407.
- Serventy, D. L. (1956), "A Banding Technique for Burrowing Petrels", Emu, 56:215-18.
 Serventy, D. L. (1961), "The Banding Programme of
- Serventy, D. L. (1961), "The Banding Programme of *Puffinus tenuirostris* (Temminck): Second Report, 1956-60", CSIRO Wildl. Res., 6:42-55.

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March, 1967

March, 1967

Sexing Juvenile Spinebills

S. G. LANE

It is important that banders are able to sex accurately as many birds as possible. With adults of some species, the plumage provides a simple means of sex determination. This is not always so with the juveniles or even with adults of many other species.

H. J. de S. Disney (1966) has shown that the sex of New Holland Honeyeaters (*Meliornis novaehollandiae*), unable to be determined by plumage, in most cases can be determined by wing span measurement. There is some overlap and other factors must be applied in these instances or the overlap cases ignored.

Adult Eastern Spinebills (Acanthorhynchus tenuirostris) can be sexed by plumage (Disney, 1963). As soon as the first "adult" crown feathers are visible, immatures can be sexed likewise (Wilson, 1964) but, until these crown feathers show through, juveniles cannot be sexed by plumage alone.

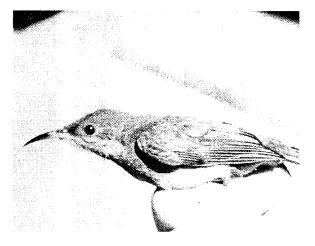
Wing span measurements (stretched) will permit accurate sexing of Spinebills in most instances. The measurement is taken stretched as shown by Disney (1966). The length measurement (stretched) will provide confirmation in doubtful cases. With juveniles however, the total length is not a satisfactory criterion because the bill and tail vary too much according to age.

The following measurements (excluding bill lengths) were taken from Spinebills sexed by plumage (all measurements are in millimetres).

Ta	ble	1.

	Range	Av.	Number Measured
Males			
Wing span	200-225	213.2	115
Length (stretched)	162-178	170.8	30
. , , ,		170.8	
Bill*	25-30		45
Females Wing open	184-208	192.3	159
Wing span	184-208	192.5	139
Length			
(stretched)	146-161	153.4	46
Bill*	21-25		22
*Bird in the Har	nd, Vol. 1,	No. 6, p	p. 137

The wing span of only two males was less than 203 mm. while that of only two females exceeded this measurement.



• Juvenile Eastern Spinebill.

Thirteen juveniles have been measured and in the following tables these have been grouped using 203 mm. as the division between sexes.

Measurements of juveniles unable to be sexed by plumage:

	Table	e 2.				
Gi	roup A	Grou	Group B			
Bill	Wing Span	Bill	Wing Span			
19	193	24	214			
19	195	22.6	220			
20	195		212			
19	190	18	207			
20	189	23	217			
	185					
20	197					
17	191					

One bird (Group B) with a bill length of only 18 mm. had a wing span of 207 mm. which is only one millimetre shorter than the largest female wing span. The bill, tail and plumage of this bird indicated that it would have been out of the nest probably no more

March, 1967

Number Of Species Mist Netted In An Area

Preston (1960) showed that the number of breeding species added to a list in each observation period remained constant for successive doublings of observational time. Caughley (1965) expanded this relationship, and indicated that the rule applied irrespective of the breeding status of the species concerned. He also noted that the number of species added to the list in successive doublings of time tends to increase after a certain period of time, due to the greater chance of inclusion of "accidental" visitors. Both of these concepts appear to be valid for numbers of species mist netted in similar habitats in an area.

Between October, 1963, and February, 1966, mist netting was carried out in the coastal heaths of north-eastern New South Wales on 141 occasions, giving data for seven successive doublings. In all some 70 species were netted, with an average of 8.8 species per day.

Slightly better "fits" are possible by the judicious choice of the starting day, but the table (below) starts at the first mist netting day and follows straight through. No allowance has been made for variation in netting hours on different days, nor for variation in weather conditions; these variants tend to cancel out over longer periods, but can have a marked influence upon the number of new species taken for the first few netting days.

The increased number of "new" species netted during the last two doublings is due to two factors:

(1) the long calendar period over which the netting took place allowed increased numbers of migrants and "accidental" visitors to be netted. Examples of these accidental visitors would include Swift Parrots (*Lathamus discolor*) and a Shining Bronze Cuckoo (*Chalcites lucidus*), species which may not be re-netted in the area for many years.

(2) the number of nets was increased from seven to ten at about mist netting day 34, and simultaneously all nets were tethered on both top and bottom shelf strings, making them far more efficient than the former untethered nets.

Mist netting days	1	2	3-4	5-8
New species netted	4	7	4	7

A speculative extension of the table indicates that regular netting once per week over a lifetime, say to the end of the present century, would yield about 130 species, or an additional 60 species above those netted in the initial two and a half years. This appears quite reasonable, as about 20 additional species have been noted in or just over the heaths, and the area is well within the range of an additional 20 or so regular migrants or nomads which one would expect to net sooner or later.

From a mist netting point of view, I find the whole concept of interest, as it shows in numerical form the inevitability of a decrease in the rate of netting "new" species in an area.

References:

- Caughley, G. (1965), "A Method of Comparing the Numbers of Species in Areas Covered by Different Periods of Observation". *Emu*, 65:115-118.
- Preston, F. W. (1960), "Time and Space and the variation of Species". *Ecology*, 41: 785-790.

John Liddy, 5 Ben Street, Chermside, Qld.

New Secretary Of The ABBS

Mr David Purchase succeeded Mr Warren Hitchcock as Secretary of the Australian Birdbanding Scheme as from January 1, 1967. Mr Purchase joined the CSIRO Division of Wildlife Research in 1957 and soon became closely associated with bat-banding, then in its infancy in Australia. In 1962 he resigned from Wildlife on appointment as a Biologist with ANARE, and spent a total of 29 months, between December, 1962 and March, 1966, on Macquarie Island, where he worked on the Royal Penguin-a long-term population study involving a large-scale banding programme. He also took the opportunity to study certain aspects of population regulation in the Southern Skua, a highly territorial species that lends itself to a study of this nature.

9-16	17-32	33-64	65-128	(129-141)
8	7	15	17	(1)

•

The Australian Bird Bander

Secretary's Report

The year just completed has again been a good one for the Association. Our journal has found a place in the ornithological world, and an analysis of the contents of Vol. 4 which comprised four parts totalling 84 pages shows the following information:

Twenty-seven contributors submitted 17 articles, 16 short articles, 5 reviews and numerous notes and photographs. Recovery Round-up recorded 236 recoveries and re-traps of 74 species, while five species were covered in "Bird in the Hand".

Membership at 31st December, 1966, is compared with the 1965 figures.

	31.12.65	31.12.66	Increase
Full members	178	195	17
Associate members	131	171	40
Junior members	67	55	—12
TOTALS	376	421	45

The membership lists recorded 11 changes in status to Full membership during the year.

On behalf of the committee I would like to thank those members and friends who assisted during the year in the production of *The Australian Bird Bander*.

B. S. Carter, Hon. Secretary.

Income And Expenditure Account For Year Ended 31st December 1966

EXPENDITURE	EXP	EN	DI	ΤI	JF	₹E
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1965			1966
\$		\$	\$
	Cost of "The Australian Bird		
	Bander":		
717	Publication	890	
136	Distribution	60	
			950
4	"Bird in the Hand"		6
38	Miscellaneous Expenditure		10
5	Depreciation—Addressograph		
	Plates		5
	Excess of Income over Ex-		
	penditure		303
	1.		
900			1,274

	INCOME	
1965		1966
\$	\$	\$
650	Subscriptions	805
28	Sales of—	
	"The Australian Bird Bander"	48
	"Bird in the Hand"	27
87	Donations	190
	Advance from Mist Net Service	160
16	Bank Interest	15
1	Miscellaneous Income	29
112	Excess of Expenditure over Income	

1.274

Balance Sheet As At 31st December 1966

900

	LIABILITIES		
1965			1966
\$		\$	\$
132	Subscriptions paid in advance		115
	Accumulation Account:		
572	Balance as at 1st January	460	
112	Excess of Income over		
	Expenditure	303	
	-	<u> </u>	763

592	878

	ASSETS	
1965		1966
\$	\$	\$
191	Cash at Bank	443
	Stock on Hand:—	
10	Stationery 11	
209	"The Australian Bird	
	Bander" 300	
52	"Bird in the Hand" 79	
		390
40	Loan to Mist Net Service	
54	Sundry Debtors	
36	Addressograph Plates	45
592	P. C. Lonnon, Hon. Traveuror	878

R. G. Lonnon, Hon. Treasurer.

March, 1967

EXTRACTS FROM LETTERS

While visiting Australia last year, Lord Medway (University of Malaya) who is the leader of the banding scheme in Malaysia (conducted under the Migratory Animal Pathological Survey Programme), was the guest of some of the Sydney banders on field operations. The following is an extract from his letter to Bill Lane dated 25.8.66. The swallow referred to in the letter is the Barn Swallow (*Hirundo rustica*):—

"... That day at Shaw's Creek was a memorable one. I had never seen birds coming to the nets in such steady numbers, and the surroundings were wonderful. It was one of the highlights of what really was the best holiday I have ever had.

"Out of 25,000 swallows ringed, we have at last got our first recoveries—two only—both from eastern Russia—one from just south of Lake Baikal (almost exactly due north of us), the other well to the east, on the bit of Russia running down beside Japan. There must be some at least being caught in China, and I'm afraid not reported."

A letter dated 23.9.66, from Evan Cleland, Port Moresby, states:

"Gradually, our skill improves as bird finders. We are slowly getting bigger lists for outings and by altering locations of nets with experience, we are getting (sometimes) better catches.

"Our drought has not made banding easierbut the other day when Jack Wheeler was here, a banding outing was drowned in a thunder-storm! However, the next weekend I set up alongside puddles along a forest track with the best and most interesting results to date-netted were Saw-billed Kingfisher (male and female), Honeyeater, Yellow-bellied Allied Warbler. Black Flower-Pecker, Large-billed Flycatcher, Pied Frilled Flycatcher, a Whistler (?) and good sightings of Giant Fairy Wrens (male, female and juvenile), Black-throated Fantail, Blackthroated Monarch and a Large-billed Flycatcher giving a rendition of every call in its album trying to distract me from its mate in the netit did too for about five minutes".

On 28 September 1966, in reply to a letter from Doug. Gibson, Jean Prevost (Muséum national d'histoire naturelle, Paris) wrote:

"I hope you will excuse me for not replying sooner to your letter but I was waiting for the return to France of the expedition which ringed the albatrosses at Kerguelen in order to give you all the facts.

"Diomedea exulans No. CF4984 was ringed on 7 January, 1966, on Kerguelen (Courbet Peninsula, Pointe Scott) 49° 7' S, 70° 6' E. It was one of a mated pair. . . .

"Since 1 January, 1966, at both Kerguelen and Possession Island several species of antarctic birds have been ringed including albatrosses and Giant Petrels. More than 300 albatrosses were ringed on Kerguelen in January and February, 1966, and operations will continue at Possession Island."

(See Recovery Round-up P. 15.)

ANOTHER REQUEST FOR ASSISTANCE

In a letter dated 23 Aug., 66, Mr I. J. Lewis, Research Officer, Cattle Tick Research Station, Wollongbar, N.S.W., wrote:

"We are particularly interested in the Queensland border area which has a history of recurrent outbreaks of tick fever. The cattle tick is well controlled by dipping in New South Wales and it is thought that infected Queensland ticks might find their way across the border. They would be blown over or carried by man, his domestic animals, wild animals or birds. It is most unlikely that the cattle tick (*Boophilus microplus*) would attach to birds and engorge, but it is possible that the larvae could "hitch a ride", as it were, by clinging on to the feathers and dropping off while the bird is in flight or at the end of its flight.

"If anyone sent us ticks we would be very pleased to identify them or send them to the appropriate expert.

"Specimens should be preserved in 70-80% alcohol. This can best be made up by mixing 4 parts of methylated spirits with 1 part of water. Small tubes with water tight stoppers are suitable containers for transport."

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Full Membership (Restricted to licensed CSIRO Banders)	\$2.00 per annum
Associate Membership	\$2.00 per annum
Junior Membership (Under 18 years of age)	\$1.00 per annum

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