VICTORIAN WADER STUDY GROUP

STUDY GROUP

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BULLETIN No. 10 JUNE 1986

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BULLETIN SUPPLEMENT

EDITORIAL

Lack of material and not a change in policy accounts for the Bulletin in recent times being issued once rather than twice a year. Bi-annual issues will reappear once there are enough contributions.

The V.W.S.G. is considering incorporation under the Associations Incorporation Act. Incorporation might bring a loss of easy-going informality but this need not be so. It would mean extra work for some members of the Committee and extra expense for the V.W.S.G. The alternative is to allow committee members to continue to run the risk of being held personally liable for any defaults of the unincorporated group. Protection of committee members is important but is not the only advantage of incorporation. The proposal will probably be discussed at this year's annual general meeting.

Clive Minton's reports on 1985 Wader-Banding Highlights and Wader-Banding for the first half of 1986 show a very satisfactory maintenance of standards and results in the V.W.S.G. fieldwork. Fieldwork can involve hard work and at times a degree of discomfort but on the whole it is thoroughly enjoyable, being stimulating, interesting, educational and satisfying. It also provides an unequalled opportunity for meeting and working as a team with a wide range of people in an informal way. The regular members are regular because they are aware of these things and no field work has had to be abandoned for lack of a team. Members who have not ventured into the field should be encouraged to do so. And visitors, friends and relations will always receive a warm welcome and a reasonably gentle introduction to the skills of wader-banding. Clive Minton spends a tremendous amount of time on the telephone assembling teams for fieldwork. He deserves a better response to his request (at the foot of each Fieldwork Programme) that members should ring him and not wait to be rung.

1985 WADER-BANDING HIGHLIGHTS

1985 was another successful year for both the quantity and quality of birds caught. The total of 5124 was similar to the previous year as was the number of retraps (1051 - 20% of birds caught). This brings the total of waders handled by the V.W.S.G. in the last ten years to 41,654 (35,515 new birds and 6139 retraps) - some 60% of the total for the whole of Australia since banding commenced in 1953. In addition V.W.S.G. members have been the main participants in the banding of a further 15,671 waders in other states - mainly associated with the Australasian Wader Study Group Expeditions to North West Australia.

The year started particularly well with 3800 birds caught in the period January to March (in fact 6300 were caught in a real 'purple patch' between late November 1984 and the end of March 1985 - added to which 4127 were caught on the North West Australia Expedition in March to April 1985). The largest catches were 931 at Queenscliff on 26 January (with another 553 next day), 804 at Werribee S.F. on 12 January (with another 337 the next day), and 777 at Queenscliff on 23 March. Unfortunately the largest catch we could make at Yallock Creek was only 348.

The main objective of these particular catches was to obtain an estimate of the breeding success of species in the 1984 Arctic summer (poor) and to obtain recaptures of birds banded in previous years (for annual survival estimates). The birds were also colour dyed (yellow on underparts) to make them visible to observers elsewhere in Australia and S.E.Asia on their northward migration in March/May. No sightings resulted and this suggests (among other things) that they were not migrating via N.W. Australia (where a month-long expedition searched avidly).

Throughout the year fieldwork is planned with particular objectives in mind on each occasion. Often these relate to catching a worthwhile sample of a species at a time of year where there is currently a gap in our data. Noteworthy achievements in this area in 1985 were:

398 Sharptailed Sandpipers at Queenscliff on 27 January

15 Eastern Curlew)
1 Whimbrel (our first ever)) at Queenscliff on 2 June

79 Doublebanded Plover at Pt.Smythe, Inverloch on 6 July
(the second largest catch ever of this species)

194 Red Knot at Queenscliff on 19 October

8 Lesser Golden Plover)
15 Redkneed Dotterell) at Werribee S.F. on 2 November

We also significantly increased our previous small August samples of the common waders (89→188 Rednecked Stint, 22→48 Curlew Sandpiper, 1→9 Sharptailed Sandpiper). Overall in the year we caught 265 Doublebanded Plover - a reflection of the major effort put into the joint project with New Zealand (and our second best annual total - the best was 280 in 1981).

We visited all the usual banding locations to sample waders during the year. Although we have a well diversified field-work programme which is now less dependant on Werribee S.F. than in our early years, some 30% of the birds caught in 1985 still came from there (and 50% of all birds caught in the last ten years were at Werribee). As is apparent from the figures already quoted we had some particularly productive visits to Queenscliff (2760 birds - an addition of 50% to the previous total). We did not have the same good fortune at Yallock Creek - the waders 'flew off to the south' at the critical moments! - with our catches there being only 577 (compared with 2149 the previous year). We resumed catching at Corner Inlet - albeit on the mainland at Barry Beach - and had our first ever catch on Pt.Smythe at Inverloch (discovered to be a major Doublebanded Plover roosting area). Pt.Cook, Altona, continued to be disappointing - the area has deteriorated drastically in its suitability for Doublebanded Plovers and Lesser Golden Plovers (its specialties) since it became a reserve three years ago and all grazing around the salt lakes was terminated. There is a commonly held view that grazing is 'bad' for a habitat - in fact just the opposite is true for wading birds. Many species (especially plovers) will only use an area if the vegetation is close cropped; and the trampled muddy margins to lakes/dams/rivers are an added improvement to the habitat as far as waders are concerned.

A nice crop of recoveries of banded birds has come in during the last year. Overseas reports included our first Rednecked Stints and Curlew Sandpipers from Indonesia our first wader (a Sharptailed Sandpiper) from Taiwan and another Red Knot from New Zealand. But pride of place goes to the large number of Doublebanded Plover recoveries exchanged with New Zealand. In addition there were approximately 50 sightings of colour banded birds moving between the two countries. The productiveness of this joint study has exceeded all expectations and a major report on the results will be incorporated into the next V.W.S.G.Bulletin.

Clive Minton

WADER BANDING TOTALS - VICTORIA - 1985

	JANUARY TO JUNE			JULY TO DECEMBER		
	NEW	RETRAP	TOTAL	NEW	RETRAP	TOTAL
Pied Oystercatcher	5	17	22	1	-	1
Lesser Golden Plover	-	-	-	5	3	8
Redkneed Dotterell	-	-	-	17	-	17
Mongolian Plover	3	-	3	-	-	-
Doublebanded Plover	49	11	60	195	10	205
Large Sand Plover	1	-	1	1	-	1
Redcapped Plover	5	1	6	11	4	15
Blackfronted Plover	3	2	5	-	-	-
Blackwinged Stilt	-	-	-	1	-	1
Rednecked Avocet	-	-	-	11	-	11
Ruddy Turnstone	-	-	-	5	1	6
Eastern Curlew	22	-	22	-	-	-
Whimbrel	1	-	1	-	-	-
Latham's Snipe	3	-	3	-	-	-
Bartailed Godwit	1	1	2	8	-	8
Red Knot	-	-	-	197	11	208
Great Knot	-	-	-	5	1	6
Sharptailed Sandpiper	425	14	439	22	-	22
Rednecked Stint	2134	649	2783	194	47	241
Curlew Sandpiper	438	187	625	309	92	401
Sanderling	-	-	-	1	-	1
	3090	882	3972	983	169	1152

VICTORIAN WADER CATCHES
1975 TO 31 DECEMBER 1985

	NEW	RETRAP	TOTAL
Pied Oystercatcher	199	102	301
Sooty Oystercatcher	4	1	5
Masked Lapwing	122	3	125
Grey Plover	29	-	29
Lesser Golden Plover	68	11	79
Redkneed Dotterel	133	11	144
Hooded Plover	12	1	13
Mongolian Plover	56	2	58
Doublebanded Plover	1154	106	1260
Large Sand Plover	13	-	13
Redcapped Plover	377	134	511
Blackfronted Plover	50	4	54
Blackwinged Stilt	10	-	10
Rednecked Avocet	139	1	140
Ruddy Turnstone	84	2	86
Eastern Curlew	115	2	117
Whimbrel	1	-	1
Greytailed Tatler	6	-	6
Greenshank	1	-	1
Terek Sandpiper	9	1	10
Latham's Snipe	54	-	54
Bartailed Godwit	370	2	372
Red Knot	697	30	727
Great Knot	161	7	168
Sharptailed Sandpiper	2479	58	2537
Little Stint	1	-	1
Rednecked Stint	21587	4509	26096
Longtoed Stint	1	-	1
Curlew Sandpiper	7569	1152	8721
Sanderling	14	-	14
30 species	35515	6139	41654

In addition, the Group has been involved in handling a further 15,671 waders during joint operations with local groups in other States. If these are included the VWSG has now been involved in the catching of 57,325 waders.

ANNUAL WADER BANDING TOTALS BY VWSG IN VICTORIA

CALENDAR YEAR	NEW	RETRAPS	TOTAL
1975	9	-	9
1976	616	4	620
1977	482	12	494
1978	1296	42	1338
1979	7436	486	7922
1980	6121	1206	7327
1981	4561	869	5430
1982	3774	796	4570
1983	2875	628	3503
1984	4272	1045	5317
1985	4073	1051	5124
Total catches in Vic to end 1985	35515	6139	41654

LOCATION OF WADERS CAUGHT IN VICTORIA

	TO DEC 1984	1985	TOTAL
Werribee	21,188	1,662	22,850
Westernport Bay	7,071	577	7,648
Queenscliff/Pt Lonsdale	4,576	2,670	7,246
Anderson's Inlet (Inverloch)	1,611	87	1,698
Corner Inlet	1,458	112	1,570
Altona	307	8	315
Bendigo (Sewage Farm)	143	-	143
Seaford Swamp	98	-	98
Mud Island	35	-	35
Geelong (Point Henry)	25	-	25
Seaspray (Lake Reeve)	18	-	18
Towong	-	8	8
	36,530	5,124	41,654

Totals include 35,515 newly banded birds and 6139 retraps of 30 species.

NUMBERS OF WADERS "PROCESSED" BY VWSG IN VICTORIA IN EACH MONTH TO 31 DECEMBER 1985

"Processing" includes measuring wing length, bill length and/or total head length (as appropriate) and weight; also recording full details of primary wing feather moult (if any). Additional wing moult has been gathered on some birds which were not fully processed. The table below is used to plan fieldwork, with the object of obtaining usable samples (preferably on at least 50 birds) of data for each month of the year for all the main study species.

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
Pied Oystercatcher	4	13	82	28	30	98	7	-	2	4	9	20	297
Sooty Oystercatcher	-	-	3	-	-	2	-	-	-	-	-	-	5
Masked Lapwing	1	2	77	-	-	13	-	-	-	2	18	11	124
Grey Plover	-	-	4	3	-	2	-	-	2	18	-	-	29
Lesser Golden Plover	8	3	1	1	-	-	-	-	-	-	8	39	60
Redkneed Dotterel	-	10	-	20	-	44	11	16	12	8	22	-	143
Hooded Plover	-	-	-	-	-	12	-	-	-	-	-	-	12
Mongolian Plover	43	-	2	7	1	1	-	-	-	-	-	-	54
Doublebanded Plover	-	-	32	41	260	239	197	394	-	-	-	-	1253
Large Sand Plover	12	-	-	-	-	-	1	-	-	-	-	-	13
Redcapped Plover	7	46	19	108	156	41	57	11	8	9	8	2	472
Blackfronted Plover	-	5	-	-	11	16	6	9	2	-	4	7	60
Blackwinged Stilt	-	6	-	-	-	-	-	-	-	1	2	1	10
Rednecked Avocet	39	-	-	-	-	-	-	10	2	6	46	36	139
Ruddy Turnstone	14	-	22	27	-	6	-	-	1	7	-	7	84
Eastern Curlew	15	-	-	-	-	15	-	-	8	34	40	5	117
Greytailed Tatler	-	-	-	3	-	3	-	-	-	-	-	-	6
Greenshank	-	-	1	-	-	-	-	-	-	-	-	-	1
Terek Sandpiper	2	1	-	-	2	-	-	-	-	-	-	5	10
Latham's Snipe	29	44	-	-	-	-	-	-	-	1	4	8	86
Bartailed Godwit	-	-	-	1	-	6	-	-	34	28	33	266	368
Red Knot	29	33	56	34	-	39	73	-	4	256	35	169	728
Great Knot	-	-	3	-	-	4	-	-	15	20	-	127	169
Sharptailed Sandpiper	821	175	83	2	-	-	-	9	394	146	207	516	2353
Little Stint	-	-	-	-	-	-	-	-	-	-	1	-	1
Rednecked Stint	1232	684	3136	1623	122	139	237	188	385	743	2272	1889	12650
Longtoed Stint	-	-	-	-	-	-	-	-	-	1	-	-	-
Curlew Sandpiper	402	609	724	60	77	3	110	48	116	238	452	608	3447
Sanderling	11	-	-	-	-	-	-	-	-	1	-	2	14
Whimbrel	-	-	-	-	-	1	-	-	-	-	-	-	1
													22706

The majority of the 1327 birds caught in Tasmania (Nov 1979), 820 birds in South Australia (Feb 1980) 921 birds in New South Wales (Mar 1981) and 12603 in West Aust (Aug/Sept 1981, Aug/Sept/Nov 1982, Oct/Nov 1983 and Mar/April 1985) were also processed.

RECOVERIES OF BANDED BIRDS

Pied Oystercatcher

100-81167	Juvenile	28.4.79	Werribee	
	Found dead	23.5.85	Queenscliff	25 km SSE
100-82057	Adult	1.3.80	Rhyll, Phillip Island	
	Recaptured	2.6.85	Queenscliff	65 km WNW
100-82069	Adult	8.3.80	Werribee	
	Recaptured	6.3.83	Queenscliff	25 km SSE
	"	2.6.85	"	
100-82074	Adult	8.3.80	Werribee	
	Recaptured	2.6.85	Queenscliff	25 km SSE
100-82080	Adult	8.3.80	Werribee	
	Recaptured	14.6.81	Queenscliff	25 km SSE
	"	28.3.82	"	
	"	2.6.85	"	
100-82084	Adult	8.3.80	Werribee	
	Recaptured	2.6.85	Queenscliff	25 km SSE
100-81151	Juvenile	27.1.79	Werribee	
	Recaptured	26.3.83	Queenscliff	25 km SSE
	"	2.6.84	"	
	"	2.6.85	"	

Further recoveries illustrating the mobility of Pied Oystercatchers in Victoria, with movements being especially common between Werribee S.F. and Queenscliff.

Doublebanded Plover

New Zealand B-53566	Juvenile	24.12.84	Cass River, Lake Tekapo, NEW ZEALAND	
	Recaptured	18.5.85	Werribee	2359 km W
041-09865	Adult	30.6.84	Queenscliff	
	Recaptured	3.8.85	Werribee	25 km WNW
New Zealand B-52910	Adult	29.10.84	Cass River, Lake Tekapo, NEW ZEALAND	
	Recaptured	17.8.85	Yallock Creek	2187 km WNW
041-01444	Adult	1.8.81	Werribee	
	Retrapped	3.8.85	"	
	Recaptured	24.9.85	Tekapo River, NEW ZEALAND	2267 km ESE
041-06811	Adult	24.4.82	Stockyard Point, Westernport	
	Recaptured	6.10.85	Potts River, NEW ZEALAND	2204 km ESE
041-05050	Adult	24.7.83	Stockyard Point	
	Recaptured	9.10.85	Tekapo River, NEW ZEALAND	2133 km ESE

041-09885	Juvenile	30.6.84	Queenscliff	
	Recaptured	20.10.85	Alexandra, NEW ZEALAND	2187 km ESE
041-01361	Adult	31.5.81	Werribee	
	Recaptured	27.10.85	Alexandra, NEW ZEALAND	2208 km ESE
040-95519	Adult	17.6.79	Werribee	
or -96019	Recaptured	9.11.85	Hakataramea River, NEW ZEALAND	c.2200 km ESE

The huge increase in the number of movements between New Zealand and Australia reflects the efforts being put in on the joint project on Doublebanded Plovers. See also the sightings of colour banded birds detailed separately.

Retraps between locations within Victoria are unusual (041-09865); most birds seem to return to the same location each year.

Red Knot

051-16176	1st year	3.6.84	Queenscliff	
	Found dead	19.5.85	Manakau Harbour, Auckland, NEW ZEALAND	2652 KM E

This is an intriguing recovery. Possibly the bird spent its first year in Australia and its second in New Zealand; alternatively, it may have spent its first summer in New Zealand also, but came to Australia for its first winter. It is the third recovery showing movement between Port Phillip Bay and the Auckland area, and the fifth recovery linking the New Zealand and Australian Red Knot populations.

051-04864	Juvenile	6.11.78	Werribee	
	Retrapped	25.11.78	"	
	"	27.12.78	"	
	Recaptured	31.10.82	Queenscliff	25 km ESE
	"	19.10.85	"	
051-05907	Juvenile	6.11.78	Werribee	
	Recaptured	5.1.86	Queenscliff	25 KM ESE
061-37795	Adult	18.2.84	Werribee	
	Recaptured	5.1.86	Queenscliff	25 km ESE

Further examples of movements of Red Knot from Werribee S.F. to Queenscliff. Mostly these involve birds banded as juveniles at Werribee. The first two birds were last recaptured c. 7 years after banding.

Sharptailed Sandpiper

041-01835	Adult	27.11.81	Werribee	
	Captured	2.5.85	Tadu River, TAIWAN	7339 km NNW

This is the first recovery of a VWSG-banded bird in Taiwan, and only our second overseas recovery of a Sharptailed Sandpiper.

Rednecked Stint

032-19920	Adult	22.9.79	Werribee	
	Captured	1982	Gesik, Cirebon District, W. Java INDONESIA	5031 km NW
032-23914	Adult	10.3.80	Queenscliff	
	Recaptured	21.2.82	Werribee	25 km WNW
032-33596	Adult	25.11.81	Werribee	
	Shot	c. 1.10.82	Khasan, Primorye Region, USSR	9024 km N
032-41782	Juvenile	24.11.84	Inverloch	
	Recaptured	12.1.85	Werribee	124 km NW
032-41921	Juvenile	26.11.84	Inverloch	
	Recaptured	12.1.85	Werribee	124 km NW
032-45383	Adult	15.11.81	Inverloch	
	Recaptured	13.1.85	Werribee	124 km NW
032-36284	Adult	4.12.82	Yallock Creek	
	Retrapped	14.3.83	" "	
	Recaptured	26.1.85	Queenscliff	70 km W
032-35610	Adult	2.10.82	Werribee	
	Recaptured	5.3.83	Queenscliff	25 km SSE
	"	26.2.84	"	
	"	26.1.85	"	
	"	23.3.85	"	
032-29980	Juvenile	5.12.82	Hobart, Tasmania	
	Recaptured	26.1.85	Queenscliff	579 km NNW
032-34397	Adult	20.2.82	Werribee	
	Recaptured	26.1.85	Queenscliff	25 km SSE
032-46519	2nd year	4.9.83	Werribee	
	Recaptured	26.1.85	Queenscliff	25 km SSE
032-46592	Adult	8.10.83	Werribee	
	Recaptured	26.1.85	Queenscliff	25 km SSE
032-42966	Adult	30.9.84	Hobart, Tasmania	
	Recaptured	27.1.85	Queenscliff	579 km NNW
032-41793	Juvenile	24.11.84	Inverloch	
	Recaptured	23.2.85	Yallock Creek	51 km NNW
032-43968	Juvenile	26.1.85	Queenscliff	
	Recaptured	23.2.85	Yallock Creek	70 km E
032-43309	Fullgrown	22.2.84	Kangaroo Island, SA	
	Recaptured	23.2.85	Yallock Creek	753 km ESE
032-29909	Juvenile	5.12.82	Hobart, Tasmania	
	Recaptured	23.2.85	Yallock Creek	558 km NNW
	"	18.1.86	" "	

Rednecked Stint (cont.)

032-41960	Juvenile	24.11.84	Inverloch	
	Recaptured	9.3.85	Hobart, Tasmania	509 km SSE
032-11349	Fullgrown	8.12.79	Lake Forrestdale, Perth, WA	
	Recaptured	23.3.85	Queenscliff	2691 km ESE
032-12814	Fullgrown	18.9.76	Werribee	
	Recaptured	23.3.85	Queenscliff	25 km SSE
032-42079	Adult	24.11.84	Inverloch	
	Recaptured	23.3.85	Queenscliff	103 km WNW
032-42023	Juvenile	24.11.84	Inverloch	
	Recaptured	21.4.85	Yallock Creek	51 km N
032-51255	Juvenile	23.2.85	Hobart, Tasmania	
	Recaptured	6.7.85	Inverloch	509 km NNW
032-54757	Juvenile	21.4.85	Yallock Creek	
	Recaptured	4.8.85	Barry Beach	95 km NW
032-39283	Juvenile	20.2.83	Werribee	
	Recaptured	17.8.85	Yallock Creek	85 km ESE
032-36273	Adult	4.12.82	Yallock Creek	
	Captured	24.10.85	Pabean Hilir, Ci Manuk Estuary, W. Java, INDONESIA	5151 km NW
032-26374	Adult	9.11.80	Werribee	
	Recaptured	12.1.86	Hobart, Tasmania	604 km SSE

The list contains our first two Rednecked Stint recoveries from Indonesia and one from the USSR - at the very southernmost part of the E. coast, near Vladivostok. Within Australia there are six more recoveries involving movements between Hobart, Tasmania, and Victoria - as well as other movements from Perth and from Kangaroo Island, S.A.

Of the 16 movements within Victoria half involve birds banded as juveniles. Note the rapid movements of 032-41921 (7 weeks) and 032-43968 (4 weeks).

032-12814 was recaptured at Queenscliff 8½ years after it was banded at Werribee S.F.

Curlew Sandpiper

041-05675	Adult	4.9.83	Werribee	
	Recaptured	26.1.85	Queenscliff	25 km SSE
040-96914	Adult	22.12.79	Yallock Creek	
	Recaptured	26.1.85	Queenscliff	70 km W
040-97012	Adult	22.12.79	Yallock Creek	
	Recaptured	23.3.85	Queenscliff	70 km W
041-12982	Adult	26.1.85	Queenscliff	
	Captured	15.5.85	Fujian Province, Longhai Co., CHINA	7481 km NNW
040-97184	Adult	26.10.80	Werribee	
	Retrapped	7.12.80	"	
	"	18.2.84	"	
	"	12.1.85	"	
	Captured	-.8.85	Gesik, Cirebon District, W. Java, INDONESIA	5031 km NW
041-11207	Adult	26.1.85	Queenscliff	
	Retrapped	23.3.85	"	
	Recaptured	31.8.85	Werribee	25 km WNW
041-12649	Adult	26.12.84	Yallock Creek	
	Found injured	10.9.85	Austral Eden, Kempsey, NSW	1049 km NE
040-95238	Adult	10.3.79	Werribee	
	Captured	21.9.85	Ci Manuk Estuary, Indramaya, W. Java, INDONESIA	5079 km NW

Three nice overseas recoveries, including our first Curlew Sandpipers in Indonesia. It is interesting that the movements between locations in Victoria all involve adult birds - in contrast to Rednecked Stints in which it is mainly juveniles which occur at other sites. 041-11207 and 041-05675 could both have still been on passage to Queenscliff when caught at Werribee S.F.

RETRAPS OF OLD BIRDS

20% of birds caught in each of the last two years have been retraps (i.e. local recaptures of birds previously banded by the VWSG). Some are now reaching a considerable age with banding having commenced at Werribee S.F. in early 1976 and on a larger and more wisespread scale in early 1979. Particularly interesting records include -

Doublebanded Plover

040-95486/	Juvenile	25.4.79	Werribee	
041-01384	Retrapped	31.5.81 and 18.5.85		(6 yrs 1 mth)
040-96034	Juvenile	17.6.79	Werribee	
	Retrapped	18.5.85		(5 yrs 11 mths)

Rednecked Stint

032-14010	Adult	22.1.77	Werribee	
	Retrapped	12.1.85		(8 yrs)
032-14553	Adult	3.3.78	Werribee	
	Retrapped	12.1.85		(6 yrs 10 mths)
032-12856	Adult	19.10.76	Werribee	
	Retrapped	13.1.85		(8 yrs 3 mths)
032-16502	Juvenile	24.2.79	Werribee	
	Retrapped	22.7.79, 8.3.80 & 28.12.85		(6 yrs 10 mths)
032-16868	Adult	9.3.79	Werribee	
	Retrapped	7.10.79, 18.11.79, 13.4.80, 20.2.83 & 28.12.85		(6 yrs 9mths)

There were many other retraps of 5 and 6 yr old Rednecked Stints.

Curlew Sandpiper

040-93433	Adult	5.3.77	Werribee	
	Retrapped	26.1.80 & 28.12.85		(8 yrs 10 mths)
040-93537	Adult	3.3.78	Werribee	
	Retrapped	9.3.79 & 28.12.85		(7yrs 10 mths)
040-91879	Adult	6.11.78	Werribee	
	Retrapped	28.12.85		(7 yrs 1 mth)
040-33413	Adult	22.1.77	Werribee	
	Retrapped	13.1.85		(8 yrs)

There were many other retraps of 5 and 6 yr old Curlew Sandpipers.

WADER BANDING JANUARY - JUNE 1986

With the rather later date of publication than usual for this V.W.S.G.Bulletin it is possible to include an interim report on the results of wader banding activities in the first half of 1986. This is a particularly pleasant task since it was a record period in the history of the group with 5000 birds caught(see table below).

V.W.S.G. Wader Catches by half year period since 1979

Year	Jan-June	July-Dec	Total
1979	4289	3633	7922
1980	4127	3200	7327
1981	2113	3317	5430
1982	2394	2176	4570
1983	2882	621	3503
1984	2654	2663	5317
1985	3972	1152	5124
1986	5000		

Not only was the quantity large but the quality was equally good. A miraculous weekend at Queenscliff on 4/5 January produced(amongst others)28 Greytailed Tatlers (previously only six caught by V.W.S.G.),96 Great Knot,77 Red Knot and 72 Bartailed Godwits. Five Terek Sandpipers at Yallock Creek on 19 January was our largest single catch of this species. Lesser Golden Plovers (which,like most of the Arctic waders,had a bumper breeding season in 1985) featured well with 23 on 15 February at Werribee S.F. and 29 at Pt.Smythe,Inverloch,on 1 March - nearly doubling our previous grand total. And the Doublebanded Plover 'winter season' has got off to a great start with a record 281 already caught.

As an innovation,to enable non-participating members to share in the trials and tribulations (and successes) of our fieldwork,some keen (leaned-on!) participants have very nobly written up some of our activities this year. These follow this brief introduction - our thanks to the authors. *

Clive Minton

* These and other more lighthearted contributions form a supplement to this Bulletin. Ed.

REGULAR WADER COUNTS IN THE WERRIBEE - AVALON AREA

JULY, 1983 TO JUNE, 1985

REPORT TO PARTICIPANTS

From July, 1983 to June, 1985 the Werribee Sewage Farm, Spit Faunal Reserve and Avalon Saltworks were visited about once per month and all waders present were counted. The aim of these regular counts was to determine when migratory waders arrived and departed from the area and to monitor changes in numbers of all species of wader. This information was gathered to discover how waders use the area, whether there is any migration through the area and how the Australian-breeding species change in numbers through the year.

Table 1 lists the dates of visits. The area was divided into sub-regions, each covered simultaneously by separate teams. These were:

- Eastern Part of the Farm (E. of Beach Rd.)
- North and South Spits
- Austin Road Lagoons
- Point Kirk
- Avalon Saltworks

These are shown on Figure 1. The area is a mixture of coastal mudflats, saline evaporation ponds, sewage lagoons and irrigated pasture.

Because of access problems, the Point Wilson Explosives Area was only counted during winter National Wader Counts, principally to determine the number of Double-banded Plovers in the area. At most, 133 of this species were observed in the regularly covered sub-regions whereas there were about 500 in the Explosives Area each winter National Wader Count. The regular count results for the Double-banded Plover are therefore not very meaningful and this species is excluded from further discussion.

RESULTS

Table 2 shows the maximum counts of each species in the area (regardless of month) between July, 1983 and June, 1985. The equivalent figures for each species for February and June/July counts from 1979 to 1983 are also given for comparison. Of the maximum total of 28,673 waders, 8.9% were Australian-breeding species and 91.1% were migrants. More than 97% of the migrants were of three species; Sharp-tailed Sandpipers (max. 4,040), Red-necked Stints (max. 13,417)

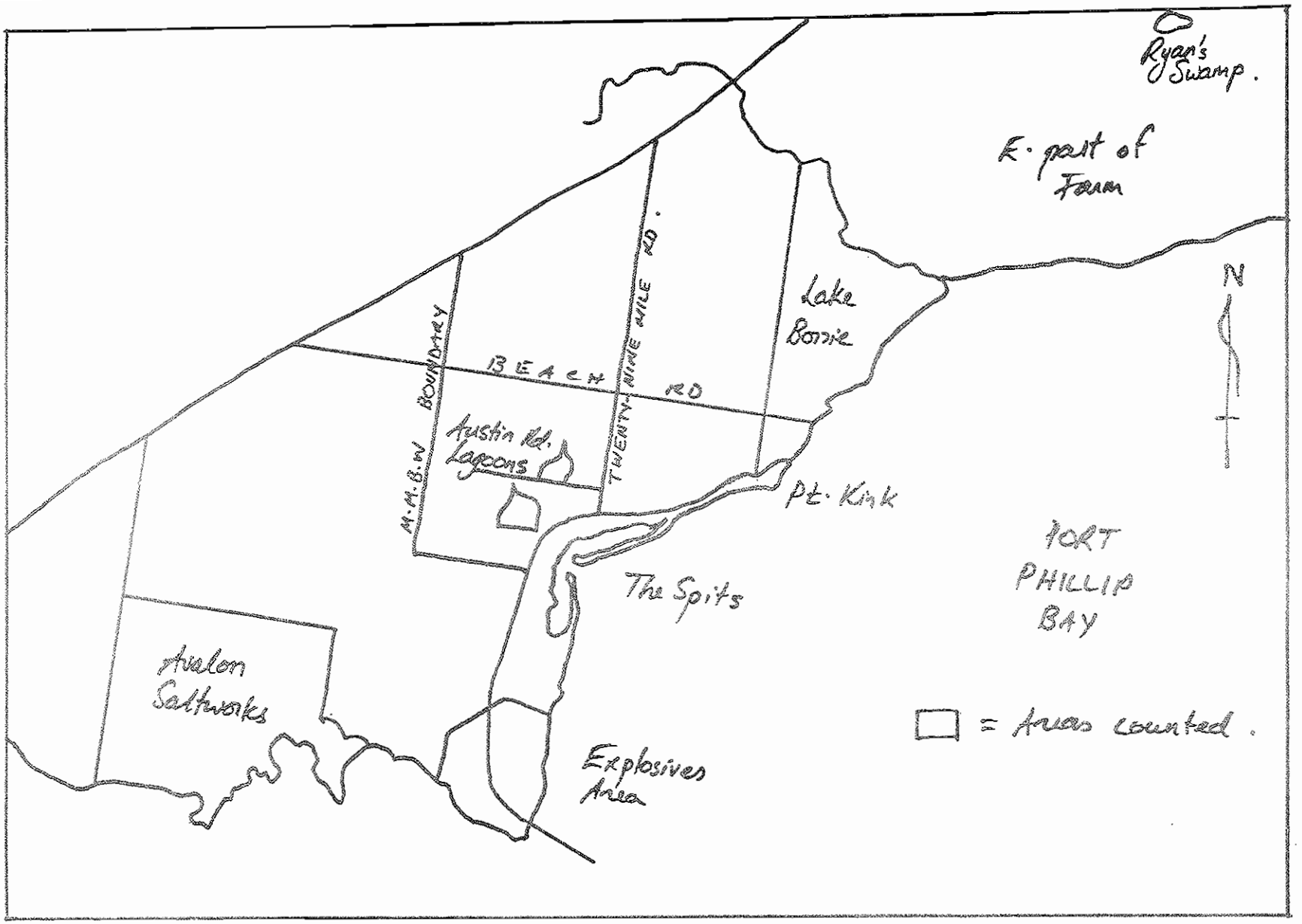


FIGURE 1 : MAP SHOWING AREAS COUNTED .

and Curlew Sandpipers (max. 7,981).

The average total numbers of waders in the area in each month is shown in Table 3. This shows that December, January and February are the peak months. Numbers build up slowly through September, October and November but drop off rapidly through March and April.

A total of 29 species of wader were recorded during the counts. The lowest number of species was between 10 and 13 in the winter months and the highest between 20 and 23 in the summer months. The highest number of species seen on one day was 28 in February, 1985.

Movements within the Area

Figures 2 to 4 show monthly changes in distribution within the study area of the three dominant migrants. All counts were done at high tide, so the results refer to habitats other than intertidal mudflats.

Sharp-tailed Sandpipers occurred mostly on Austin Road Lagoons and in the eastern part of the Farm until January after which time Avalon Saltworks was favoured as well. They used the Spits in mid-summer. Red-necked Stints occurred in greatest numbers on the eastern part of the farm early in the season, moving to the Spits and Avalon Saltworks after January. Overwintering stints generally favoured Austin Road Lagoons and the eastern part of the farm. Curlew Sandpipers occurred in largest numbers on Austin Road Lagoons and the eastern part of the farm until January. The Spit then became favoured, followed in March and April by Avalon Saltworks. Overwintering Curlew Sandpipers mostly used Austin Road Lagoons and the eastern part of the farm.

It is of interest that the paddocks of the farm are flooded with sewage from April to October. This irrigation enables treatment of sewage during the cooler months of the year when biological activity in lagoons declines and they do not have the capacity to treat the full load of sewage which the farm receives. The common migrants appear to move off the paddocks when they dry and back onto them when they are flooded. This latter movement was particularly evident in Sharp-tailed Sandpipers in April, 1984 (see Figure 2).

As no counts were done at low tide to determine the distribution of waders in the study area when they were feeding it is not possible to determine accurately whether their preferences for feeding sites within the area changed during the year. Usage of Point Kirk as a roost by all three abundant migrants paralelled that of the eastern part of the farm. Given the range of potential roost sites available throughout the area it is probable that the observed changes reflect varying suitability of nearby feeding areas which, in turn, could be affected by management in the sewage farm.

Investigation of these questions would make an interesting study.

FIGURE 2: CHANGES IN DISTRIBUTION OF SHARP-TAILED SANDPIPERS WITHIN THE STUDY-AREA (o---o = 1983-4 ; x···x = 1984-5).

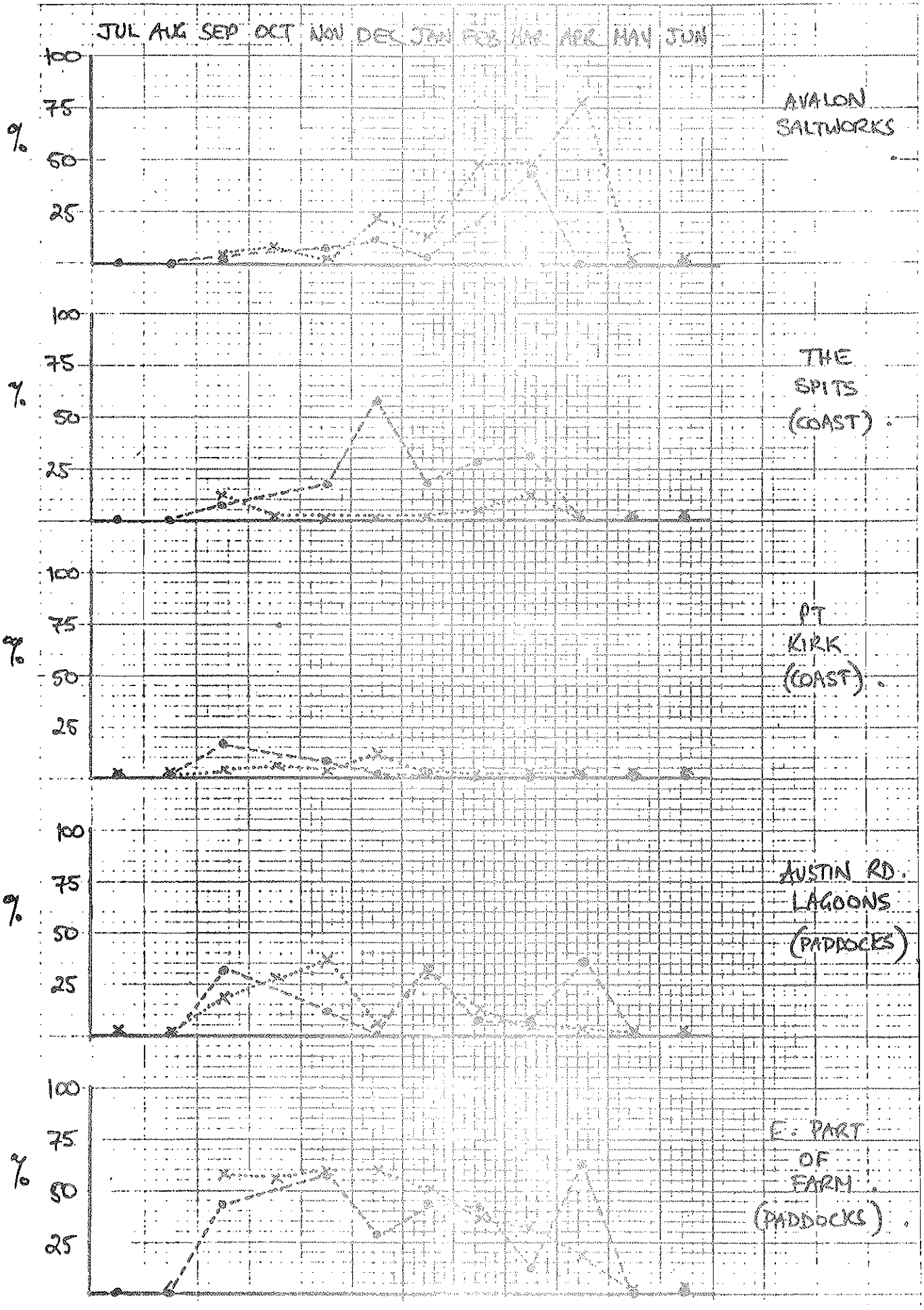


FIGURE 3: CHANGES IN DISTRIBUTION OF RED-NECKED STINTS WITHIN THE STUDY-AREA (●----● = 1983/4 ; x·····x = 1984/5).

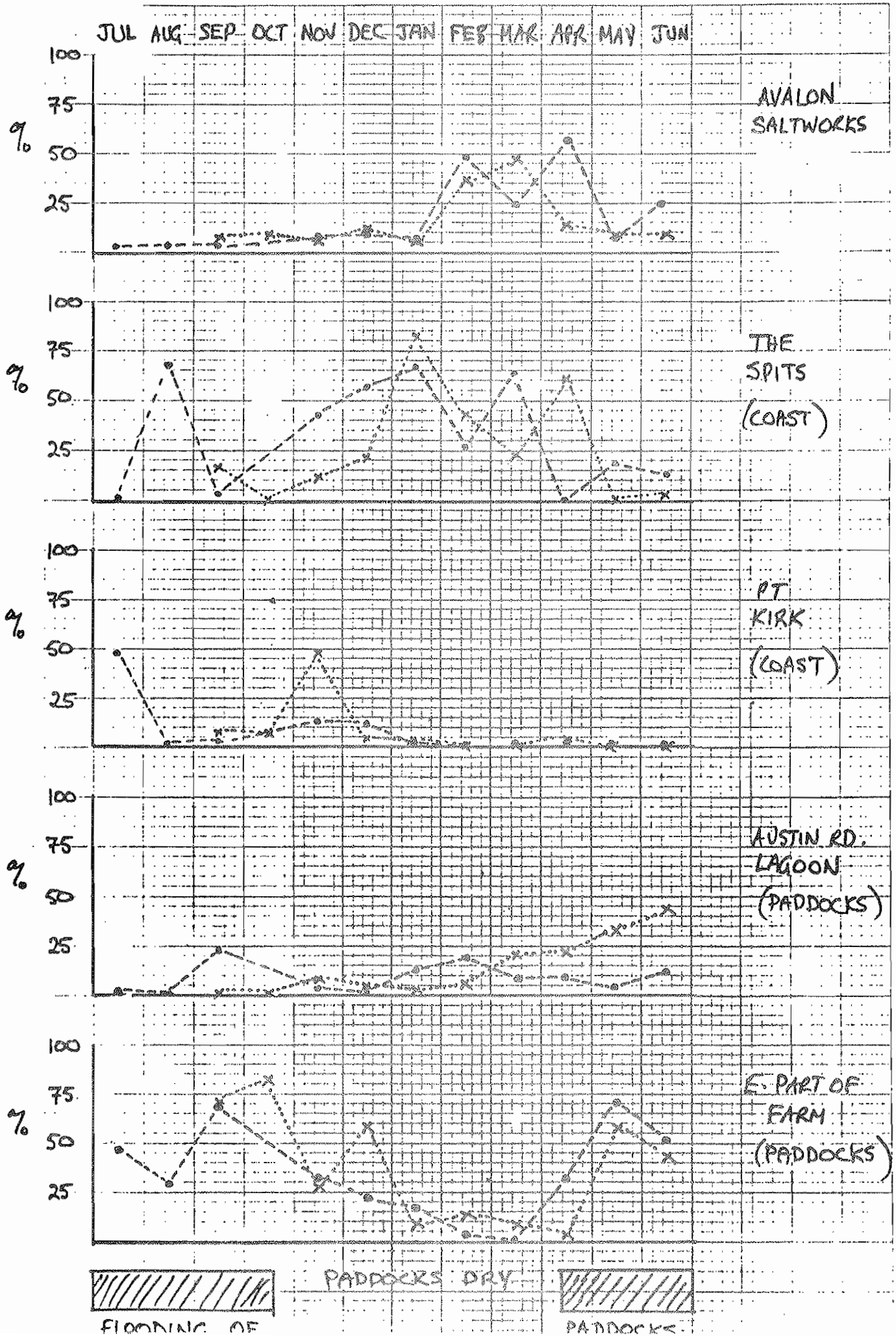
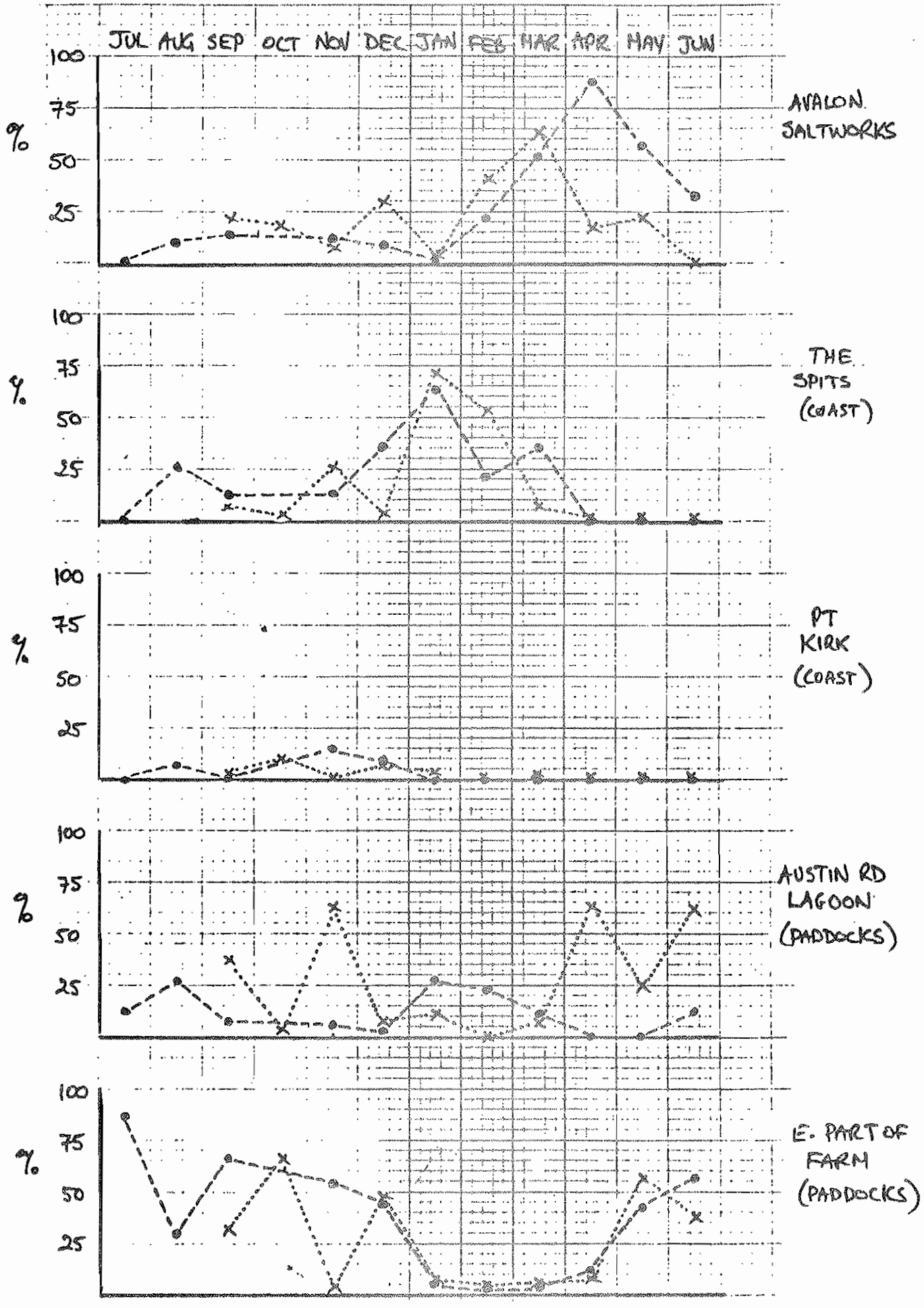


FIGURE 4: CHANGES IN DISTRIBUTION OF CURLEW SANDPIPERS IN THE STUDY AREA (●----● = 1983-4; x····x = 1984-5).



Movements into and out of the area

MIGRANTS

Sharp-tailed Sandpipers and Red-necked Stints showed a steady build-up in numbers to a December - February maximum. Sharp-tailed Sandpipers did not increase as early as the other two abundant migrants. Monthly counts elsewhere in Australia showed that many Sharp-taileds occurred on inland wetlands between September and November. This suggests that their southward migration was protracted. Curlew Sandpipers continued to arrive in the area until maximum numbers were reached in February. National Wader Count results showed that in February this species occurred inland in lower numbers than the other two species. Monthly counts elsewhere in Australia showed that they had left inland wetlands usually by December. The February peak could have reflected movement from other coastal areas over summer, although this remains to be proved.

Eastern Curlews numbered less than 20 in the area. Interestingly enough, in common with other coastal sites in Victoria which have been counted regularly, they showed November and February peaks, suggesting movement through the area during migration.

Lesser Golden Plovers arrived in September but numbers did not increase substantially until November and December. Sites counted regularly along the eastern coast of Australia, where most of the Australian population occurred, showed September and October peaks, suggesting that this species, like the Sharp-tailed Sandpiper, has a protracted southward migration.

Ruddy Turnstones showed November and February peaks, suggesting migration through the area.

Latham's Snipe attained maximum numbers in January. This suggests that they concentrate at the end of summer, either in preparation for northward migration or in response to inland wetlands drying out over summer.

Red Knots showed a substantial November peak in 1983-84 but a February-March peak in 1984-85 of similar magnitude. They probably migrated through the study area but their usage of the area was different in each year. A similar pattern was observed for Bar-tailed Godwits except that the February peak of 1984-85 was smaller.

Few other migrants, common elsewhere in Victoria, occurred regularly or in large numbers in the area. Black-tailed Godwits occurred both years in small numbers. All other migratory species tended to be transient and stayed no longer than a month or two. Examples include: Grey Plover, Mongolian Plover, Large-sand Plover, Grey-tailed Tattler, Terek Sandpiper, Marsh Sandpiper, Great Knot and Sanderling.

Rarer migrants such as Common Sandpipers, Wood Sandpipers and Pectoral Sandpipers occurred in small numbers for most of the period from September to April.

AUSTRALIAN-BREEDING SPECIES

Generally speaking, highest numbers of Pied Oystercatchers, Masked Lapwings and Red-capped Plovers occurred in autumn and winter. At other times they presumably dispersed for breeding. The pattern for the Pied Oystercatcher was somewhat complicated by large month-to-month fluctuations, possibly due to non-breeding birds moving into and out of the area. Movements of non-breeding oystercatchers are yet to be studied in detail.

Amongst the generally non-coastal species, Red-necked Avocets were present during the warmer months of the year (November to April) when inland wetlands are dry. Numbers of this species were higher in 1984-85 than in the preceeding year, presumably because in 1983-84 Lake Eyre and nearby salt-lakes held water and lots of Red-necked Avocets, less moving to the coast at that time. By 1984-85 these lakes had dried and counts all over eastern Australia showed that the birds dispersed coastwards again. Black-winged Stilts were present in largest numbers between November and April and bred on the sewage farm at this time. In June, 1985 numbers were also high. In both years they declined in autumn, possibly moving inland as rainfall increased and wetlands there filled. Black-fronted Plovers on the other hand, reached their maximum numbers in winter and probably dispersed for breeding at other times of year. Red-kneed Dotterels occurred in largest numbers in autumn and winter, 1985. Only small numbers occurred in the area before then. Between mid-1983 and early 1985 the Darling and Cooper Basins in the far inland experienced floods and wetlands there were full. By summer, 1985 they were drying. The large numbers of Red-kneed Dotterels counted in the study area were presumably some of those dispersing coastwards after successful breeding. The changes in numbers of this species at Werribee-Avalon paralelled those at other sites in south-eastern Australia counted at the same time.

There were occassional flocks of Banded Stilts, a Painted Snipe and an Australian Pratincole observed in the area during the period of regular counting.

ACKNOWLEDGEMENTS

I would like to thank all those who participated in the counts over the two years. I am particularly grateful for the assistance of Angela Jessop and Brenda and Mick Murlis in arrang ing teams to count the area.

Brett A Lane
Wader Studies Co-ordinator.

28th August, 1985

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TABLE 1: Dates of monthly counts of waders at Werribee - Avalon, 1983-85.

MONTH	DAY	
	1983-84	1984-85
JULY	10	-
AUGUST	21	-
SEPTEMBER	18	9
OCTOBER	-	7
NOVEMBER	20	11
DECEMBER	18	2
JANUARY	15	20
FEBRUARY	12	17,20
MARCH	18	3,10,17,24,31
APRIL	15	7,14,21
MAY	13	19
JUNE	24	30

(Underlined dates are those used in the analysis)

TABLE 2: Maximum numbers of each species observed between February, 1979 and February, 1983 and equivalent figures for July, 1983 to June, 1985.

SPECIES	79-83	83-85
Pies Oystercatcher	81	55
Masked Lapwing	368	338
Grey Plover	4	19
Lesser Golden Plover	152	55
Red-kneed Dotterel	260	436
Mongolian Plover	15	10
Red-capped Plover	180	274
Black-fronted Plover	128	104
Black-winged Stilt	153	219
Banded Stilt	680	230
Red-necked Avocet	807	909
Ruddy Turnstone	17	60
Eastern Curlew	33	19
Wood Sandpiper	2	3
Grey-tailed Tattler	1	1
Common Sandpiper	2	2
Greenshank	72	131
Marsh Sandpiper	5	9
Terek Sandpiper	0	1
Lathams Snipe	14	20
Black-tailed Godwit	44	21
Bar-tailed Godwit	21	28
Red Knot	170	170
Great Knot	4	160
Sharp-tailed Sandpiper	6,700	4,040
Pectoral Sandpiper	11	5
Red-necked Stint	16,800	13,417
Long-toed Stint	2	0
Curlew Sandpiper	13,323	7,981
Sanderling	1	6
Ruff or Reeve	1	1
Australian Pratincole	2	1
TOTAL		28,673

Table 3: Average monthly totals of waders in the Werribee - Avalon area, July, 1983 to June, 1985.

MONTH	AVERAGE TOTAL	NUMBER OF COUNTS
JULY	1,974	1
AUGUST	2,023	1
SEPTEMBER	5,902	2
OCTOBER	12,594	1
NOVEMBER	12,242	2
DECEMBER	16,192	2
JANUARY	17,251	2
FEBRUARY	17,203	2
MARCH	7,684	2
APRIL	1,465	2
MAY	1,257	2
JUNE	1,967	1

FIELD NOTE

Sharptailed Sandpipers: Return migration route to breeding grounds

In V.W.S.G. Bulletin no.9 p. 10 it is suggested that Sharptailed Sandpipers summering in Victoria initially move in a N.E. direction on their return migration to their Arctic breeding grounds.

I regularly visit Kooragang Ist. at Newcastle and on the weekend of 6/7 April 1985 I recorded two Sharpies there. On the following weekend, 13/14 April I came across over 100 Sharpies and one Pectoral Sandpiper. Other waders had also increased by about 20% in the usual areas. Normally Kooragang is not a good place for Sharpies and anything over 20-30 is a good number. Not like Victoria I'm afraid.

Alan McBride

CATCH PHRASE

I'm too young to dye - Peter Haward when confronted with duty as a colour-dyer

WADER RECOVERIES FROM NORTH WEST AUSTRALIA EXPEDITIONS

Large Sand Plover

051 - 15876	Adult	2.9.81	Broome	
	Killed	12.8.82	Beihai, Kwang-Si, CHINA	4450 km NNW
051 - 24631	Adult	3.11.83	Anna Plains, 80 Mile Beach	
	Caught	4.8.85	Beihai, Kwang-Si, CHINA	4702 km N

Greytailed Tatter

051 - 00412	2nd Year	30.8.81	Broome	
	Caught	21.5.82	Guangdong, CHINA	5500 km NNW

Great Knot

061 - 00287	2nd Year	30.8.81	Broome	
	Recaptured	24.8.82	Anna Plains, 80 Mile Beach	170 km SW
061 - 39448	Adult	30.3.82	Broome	
	Recaptured	31.10.83	Anna Plains, 80 Mile Beach	170 km SW
061 - 41973	Adult	8.11.83	Port Hedland Saltworks	
	Recaptured	28.3.85	near Shanghai, CHINA	5646 km N
061 - 38111	2nd Year	24.8.82	Anna Plains, 80 Mile Beach	
	Recaptured	5.4.85	near Shanghai, CHINA	5536 km N

Rednecked Stint

032 - 37405	2nd Year	22.8.82	Anna Plains, 80 Mile Beach	
	Recaptured	4.9.82	Broome	170 km NE
032 - 37441	2nd Year	28.8.82	Port Hedland Saltworks	
	Recaptured	4.9.82	Broome	480 km NE
032 - 22790	Juvenile	22.11.79	Hobart, Tasmania	
	Recaptured	7.9.82	Anna Plains, 80 km Beach	3600 km NW
	Recaptured	10.10.82	Hobart	3600 km SE
032 - 14105	Adult	30.8.81	Broome	
	Caught	22.12.83	Guangdong, CHINA	4350 km NNW
Moscow	Juvenile	7.9.84	near Kyzl, Tuva, USSR	
P729029	Recaptured	19.4.85	Broome	8140 km SSE

Gurlew Sandpiper

040 - 96206	Adult	30.11.79	Werribee SF, Victoria	
	Recaptured	27.8.82	Port Hedland Saltworks	3200 km NW
Moscow 55331-	Juvenile	28.8.82	near Kyzl, Tuva, USSR	
	Recaptured	3.11.83	Anna Plains, 80 Mile Beach	8250 km SSE

SIMILARITIES AND DIFFERENCES IN THE FIRST HALF OF PRIMARY FEATHER MOULT OF CURLEW SANDPIPERS (CALIDRIS FERRUGINEA) IN NORTH WESTERN AUSTRALIA, SOUTHERN VICTORIA AND HOBART.

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1. SUMMARY

An analysis has been made of the timing of the first half of primary moult in adult, second-year and first-year Curlew Sandpipers in north Western Australia, southern Victoria and Hobart. Both adult and second-year birds in north Western Australia commence moult before the same age groups in southern Victoria and Hobart, and are still significantly ahead during mid-moult. Adult males in north Western Australia, as in Victoria, are more advanced than females in both the initial and middle stages of moult. Second-year birds in north Western Australia and Hobart commence primary moult before adults, but adults have caught up by mid-moult. The majority of first-year Curlew Sandpipers in north Western Australia and southern Victoria undergo a partial outer primary moult, most commonly of four feathers, with birds from the north-west having a slightly higher median primary moult score. Possible explanations are proposed for the difference in moult timing of adult and second-year birds in the three areas.

2. INTRODUCTION AND METHODS

This paper records and compares the results of analyses of primary feather moult data for adult, second-year and first-year Curlew Sandpipers caught by cannon- and mist-netting methods in north Western Australia (NWA), southern Victoria and Hobart during the period 1978-1985. The analysis for NWA is being presented for the first time, whilst that for Victoria incorporates data additional to that used in previous work (Paton, Wykes and Dann 1982 and Starks 1983). The Hobart analysis is shortly to be published elsewhere (Barter 1986a), with the exception of the data for first-year birds which is new.

Moult was scored according to the method described by Snow (1967) and the results are presented either as percentage of birds moulting or the median primary moult score for each sample analysed. Adult Curlew Sandpipers were sexed by bill length (Barter 1985).

In southern Victoria and Hobart the samples comprised individual catches at a variety of sites. For NWA, the samples consist of combined catches for a number of successive days at each of three sites, namely Broome, Anna Plains and Port Hedland. The periods over which the catches have been combined range from two to seven days and the median date has been used in the graphs.

3. RESULTS

3.1 Adult Curlew Sandpipers

Median primary moult scores (MPMS) for adult birds from NWA and Hobart are shown in Fig. 1 together with the regression and 95% confidence lines (male

upper and female lower) for Victorian adult male and female Curlew Sandpipers (see Barter 1986b for detailed Victorian MPMS data).

Apart from one catch in early November, all the Hobart MPMS values fall within the confidence lines indicating that there is not a significant difference between the moult of Victorian and Hobart adults. However, in NWA both sexes are significantly ahead of Victorian birds in late October - early November. Similarly to Victoria, NWA males have higher MPMS values than females.

As can be seen from Fig. 2, NWA adult males commence moult some two to three weeks before Victorian males and also start about two weeks before NWA females, which in turn are some three to four weeks ahead of Victorian females.

3.2 Second-year Curlew Sandpipers

MPMS values for NWA, Victorian and Hobart second-year birds are shown in Fig. 3. The regression line for Victorian birds is included with upper and lower 95% confidence lines.

It is evident that the moult of Tasmanian second-years is not significantly different from that of Victorian birds. However, NWA birds are significantly ahead of Victorian second-years during the late October - early November period.

Data for the early stages of moult are given in Fig. 4. It can been seen that NWA second-year birds commence moulting about four weeks ahead of both Victorian and Hobart birds of the same age.

3.3 Adult vs Second-year Curlew Sandpipers

MPMS data for Victorian and Hobart second-year birds is shown in Fig. 5 superimposed on regression and 95% confidence lines (male upper and female lower) for Victorian male and female adults. All of the Tasmanian catches (n=4) and three out of the four Victorian catches fall within the confidence lines, indicating that the moult progression is similar for both age groups in the two areas once primary moult is well established.

The percentages of moulting birds by catch in the two age groups in Victoria are shown in Fig. 6. In Hobart, it has been previously shown (Barter 1986a) that second-year birds are ahead of adults during the early stages of moult. However, there is insufficient evidence to support the same conclusion for Victoria.

As can been seen from Fig. 7, NWA second-year birds commence moulting before adults. However, adults have caught up with second-year birds by the middle stages of moult (see Fig. 8).

3.4 First-year Curlew Sandpipers

MPMS values for first-year birds in NWA, Victoria and Hobart are shown in Fig. 9.

The commencement of partial outer primary moult in Victoria is variable with a wide scatter in moult scores during the mid-February to mid-March period. Moult appears to be complete by early May. Analysis of outer primary moult in second-year Curlew Sandpipers caught in September-October (ie. when the first complete primary moult has not reached a stage where it obscures the

previous partial moult) gave an average MPMS value of 17 (n=129). This result is consistent with that for individual catches of first-year birds in May, July and August.

In NWA, Broome first-year birds are ahead of Victorian birds in late March-early April whilst birds in Anna Plains and Port Hedland have similar scores to their southern counterparts. NWA second-year birds caught in August-September have an average MPMS of 20 (n=270). This result indicates that Broome first-years have completed their partial primary moult by early April.

Hobart data is too limited to allow any conclusions to be drawn. The exodus of first-year birds from Tasmania during the austral winter means that the extent of partial primary moult will have to be determined from returning second-year birds during the August-September period.

The frequency distribution of the numbers of primary feathers replaced by first-year birds in Victoria (n=129) and NWA (n=270) is shown in Fig. 10. The data has been obtained from second-year birds caught in August and September. 88% of Victorian and 90% of NWA first-years undergo partial primary moult. The most common number of feathers replaced in both areas is four. The variation in number of feathers replaced is less in NWA than in Victoria. However, in NWA 4% of first-years underwent a complete primary moult whereas none did so in Victoria.

4. DISCUSSION

The difference in moult timing between adults in NWA and south-eastern Australia can be explained by the variation in arrival times in the two areas. It has been established that adults do not commence primary moult at Australian sites until they reach their non-breeding season destination. The major arrivals of adults in NWA occur in late August whilst numbers do not build up appreciably in the south-east until mid September. The difference between arrival times is similar to that between moult initiation dates.

The earlier moult of adult male Curlew Sandpipers in NWA, compared to females, is probably due to their prior arrival from the breeding grounds.

The advanced start of moult by second-year Curlew Sandpipers in NWA compared to south-eastern Australia maybe a result of the heavier feather wear which occurs in NWA. Thus, birds in NWA would need to replace the more heavily worn feathers earlier in order to maintain flight efficiency.

The earlier commencement of moult in second-year compared to adult Curlew Sandpipers in NWA and Hobart could be due to the second-year birds being present at the non-breeding site before adults. Second-year Curlew Sandpipers do not return to the breeding area and either remain at the non-breeding site or only move a relatively short distance northwards. Their earlier arrival, or continued residence, at the non-breeding site would mean that they would be able to start primary moult before the adult birds. An alternative, and possibly additive, reason for earlier primary moult in second-year birds could be the greater need to replace the very worn inner primary feathers that were not replaced during the partial primary moult some six months earlier.

The advanced start of moult in adult and second-year birds in NWA has been maintained at least up to mid-moult. It is probable that the NWA birds complete primary moult before those in south-eastern Australia. The reason for adults

apparently catching up with second-years in Hobart and NWA may be due to the second-years slowing down once their very worn inner primaries have been replaced.

Extra feather wear could also explain why first-year Curlew Sandpipers moult marginally more outer feathers in NWA than in southern Victoria. The southern Victorian results agree well with those of Starks (1983) and Paton, Wykes and Dann (1982).

5. CONCLUSIONS

Results of analyses of primary feather moult in adult, second-year and first-year Curlew Sandpipers in north Western Australia, southern Victoria and Hobart show the following similarities and differences.

(i) Adults in southern Victoria and Hobart have similar primary moult regimes. However, north Western Australian adults commence moult before south-eastern Australian birds and are still significantly ahead during the middle stages of moult. These differences can be explained by the earlier arrival of adults in north Western Australia.

(ii) Adult males in north Western Australia commence moult before females, and are still ahead during mid-moult. These results are similar to those obtained for Victorian adults.

(iii) The primary moult of second-year birds in southern Victoria and Hobart is similar. Second-years in north Western Australia start moulting before south-east Australian birds and are still significantly ahead during mid-moult. The greater feather wear occuring in north Western Australia could explain the difference in starting times and consequently more advanced moult in the middle stages.

(iv) Second-year birds commence moulting before adults in both Hobart and north Western Australia. However, adults have caught up by the middle moult stages. There is insufficient data to confirm that Victorian birds behave in the same way. The earlier moult of second-year birds could be due to either the prior arrival of this age group at the non-breeding site or to the need to replace the extremely worn inner primary feathers. The reason for adults catching up with second-year birds may be due to the latter slowing down as their very worn inner primary feathers are replaced.

(v) About 80% of first-year birds undergo partial outer primary moult in both NWA and southern Victoria. The most common number of feathers replaced in both areas is the outer four, although NWA birds have a slightly higher median primary moult score than Victorian birds. 4% of NWA first-years complete a full primary moult; none do so in Victoria. The higher median primary moult score in NWA could be due to the greater feather wear occuring in that region.

ACKNOWLEDGEMENTS

My thanks are due to all those hardy souls who have spent many hours in the field carefully collecting the data for this paper. They belong to the Australasian Wader Studies Group, the Western Australian and Victorian Wader Study Groups and the Tasmanian Shorebird Study Group. My thanks also go to Karen Barter for typing the various drafts and the final paper.

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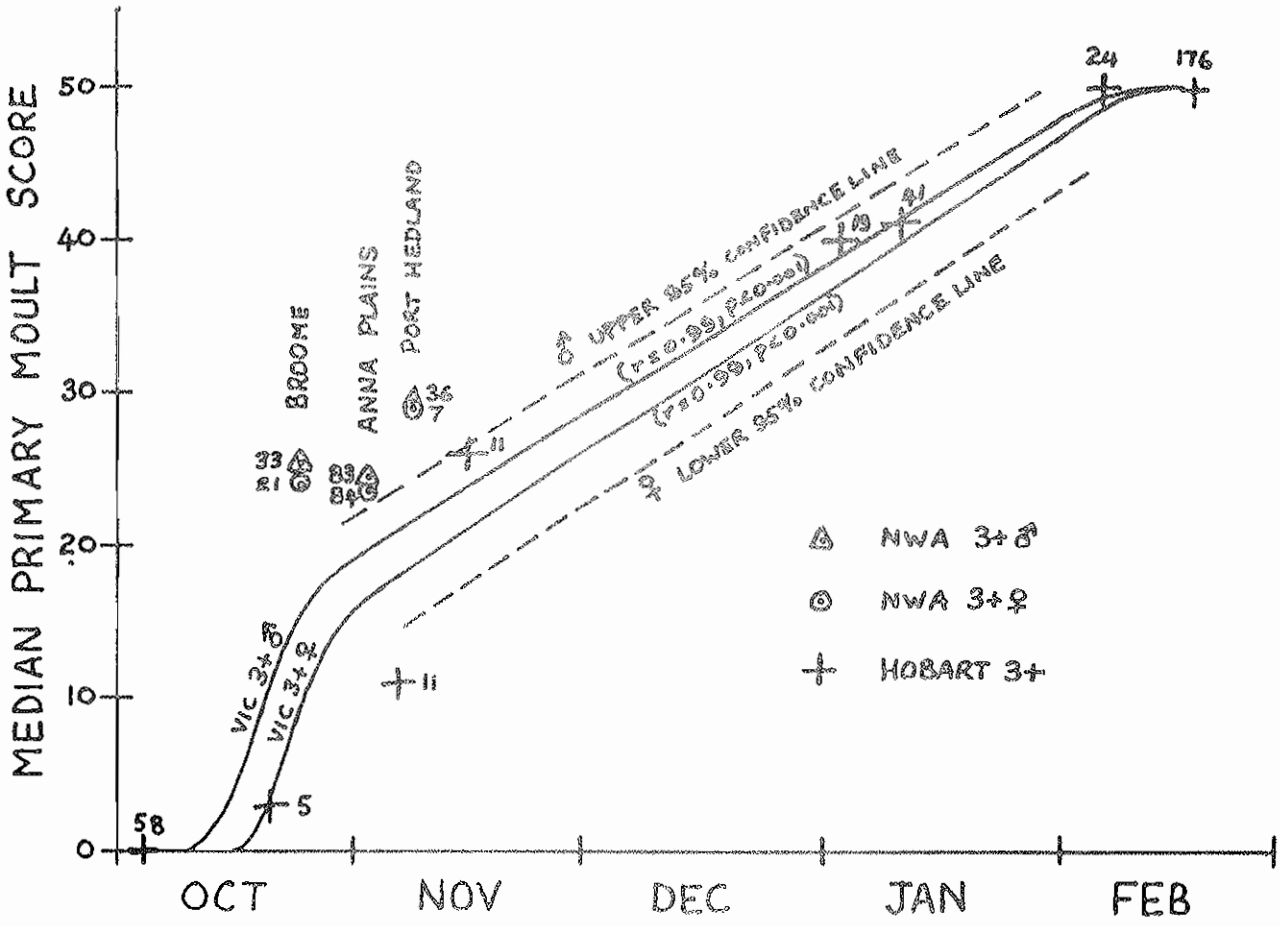


FIG.1. Median primary moult scores for NWA and Hobart adults with regression and 95% confidence lines (male upper, female lower) for Victorian adult male and female Curlew Sandpiper. (Number alongside symbols=sample size, 3+ = third-year or older, 2=second-year, 1=first-year bird)

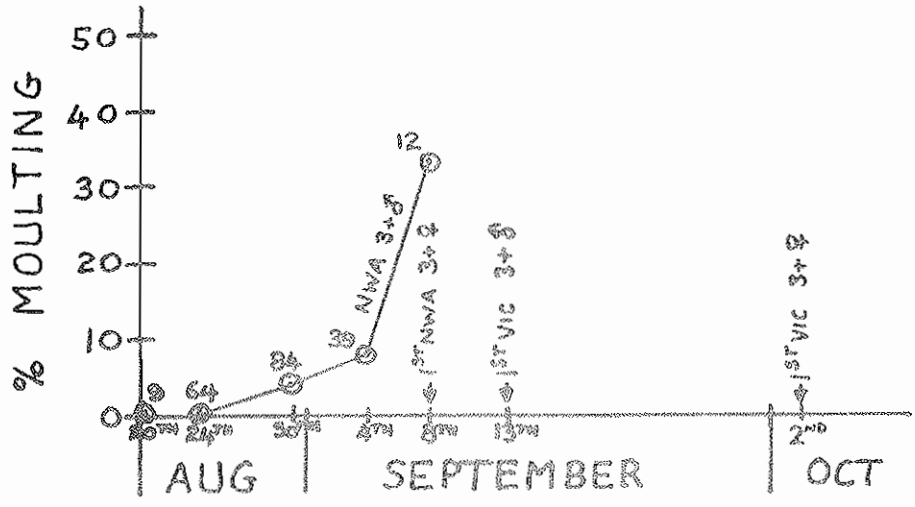


FIG.2. Percentages of NWA adult males in primary moult, with earliest start dates for NWA female and Victorian male and female birds.

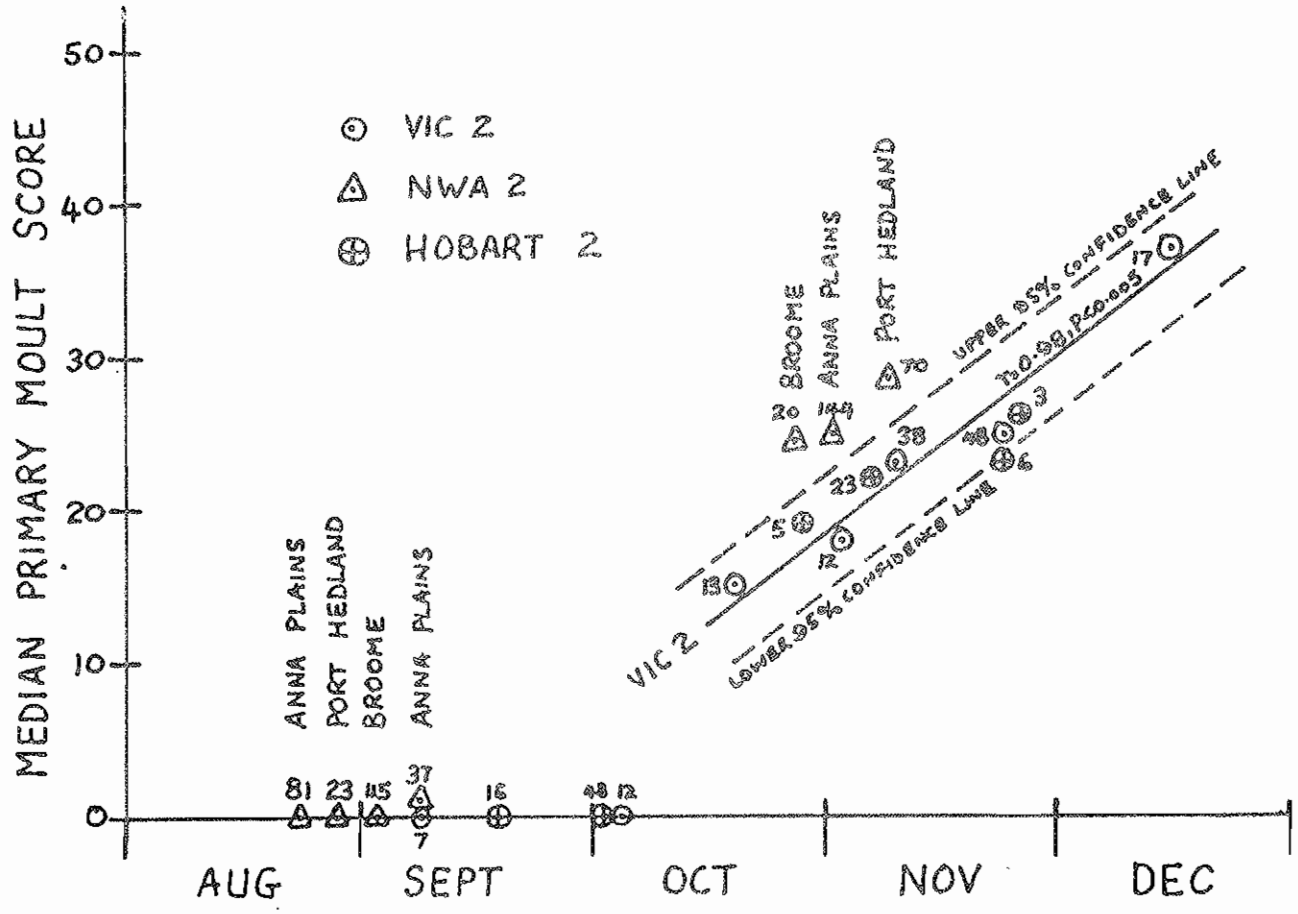


FIG.3 Median primary moult scores for NWA, Victorian and Hobart second-year birds, with regression and 95% confidence lines for Victorian second-year Curlew Sandpipers.

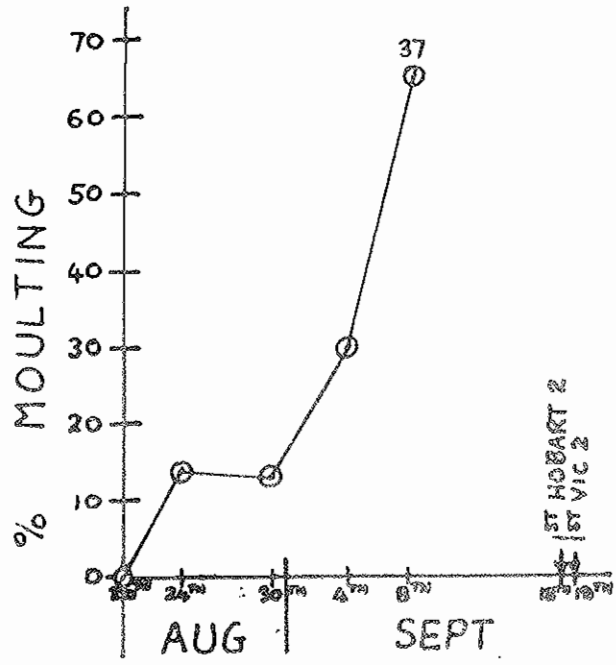


FIG.4. Percentages of NWA first-year birds in primary moult, with earliest start dates for Victorian and Hobart first-year birds.

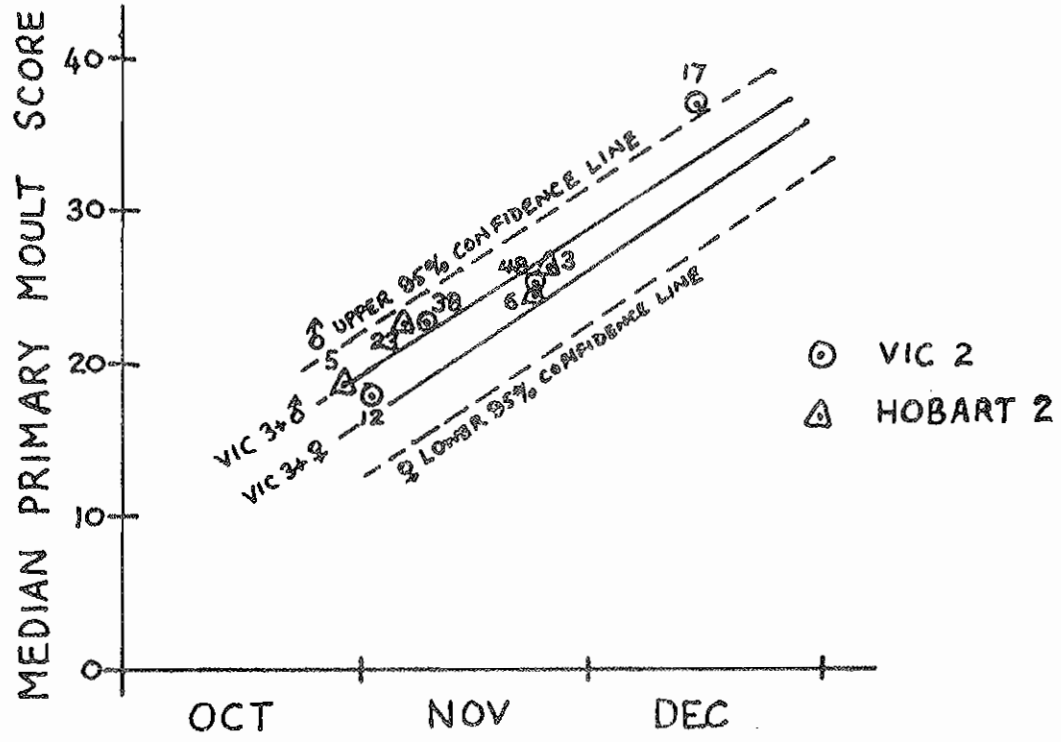


FIG.5. Median primary moult scores for Victorian and Hobart second-year birds with regression and 95% confidence lines (male upper, female lower) for Victorian adult male and female Curlew Sandpipers.

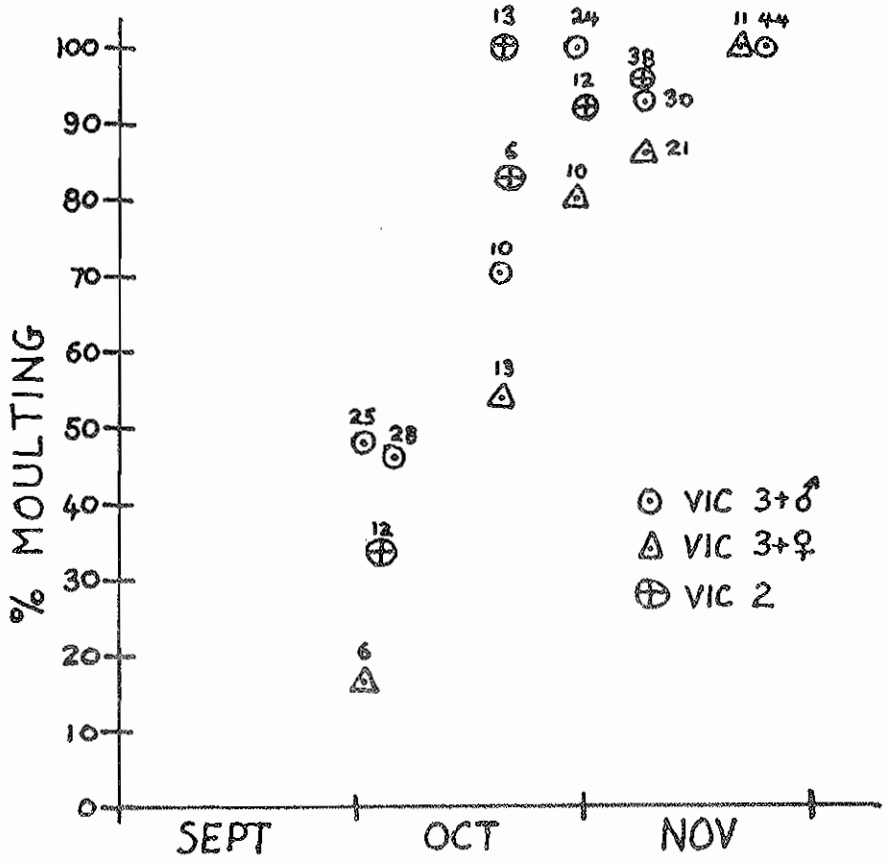


FIG.6. Percentages of Victorian adult male and female and second-year birds in moult.

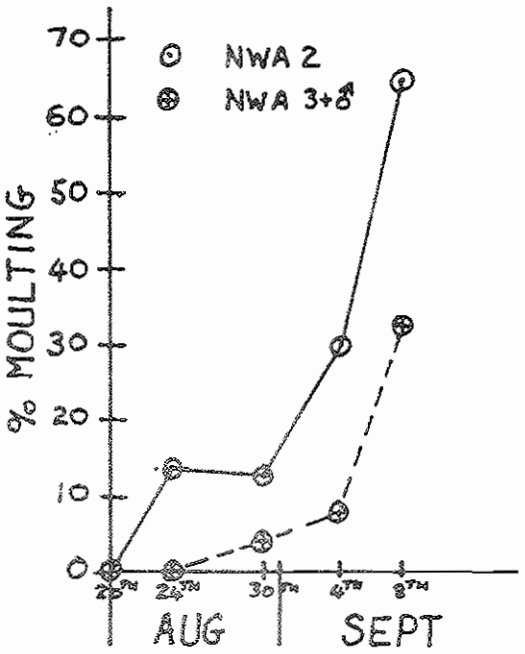


FIG.7. Percentages of NWA adult male and second-year birds in primary moult.

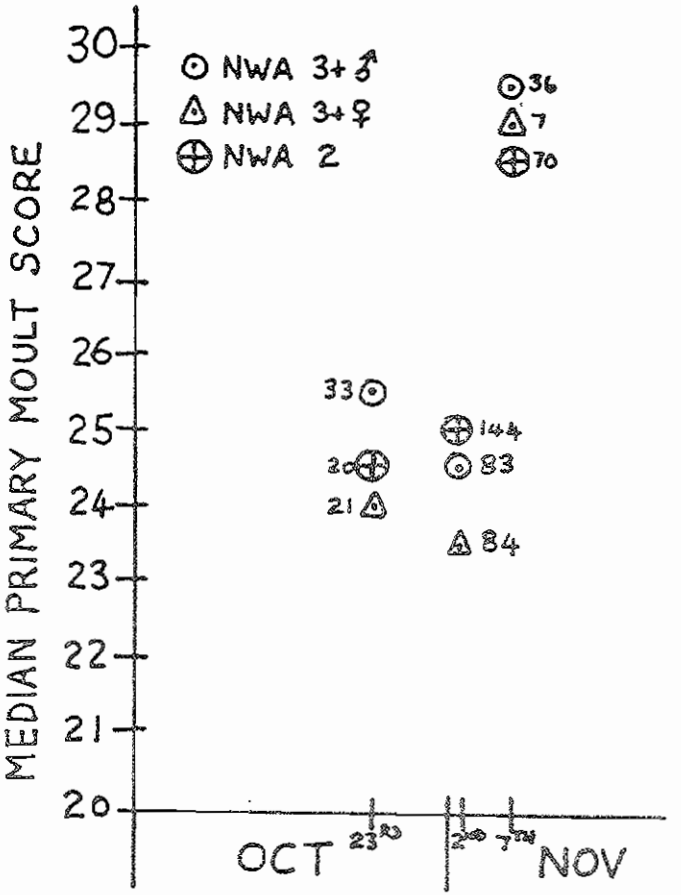


FIG.8. Median primary moult scores for NWA adult male and female and second-year birds.

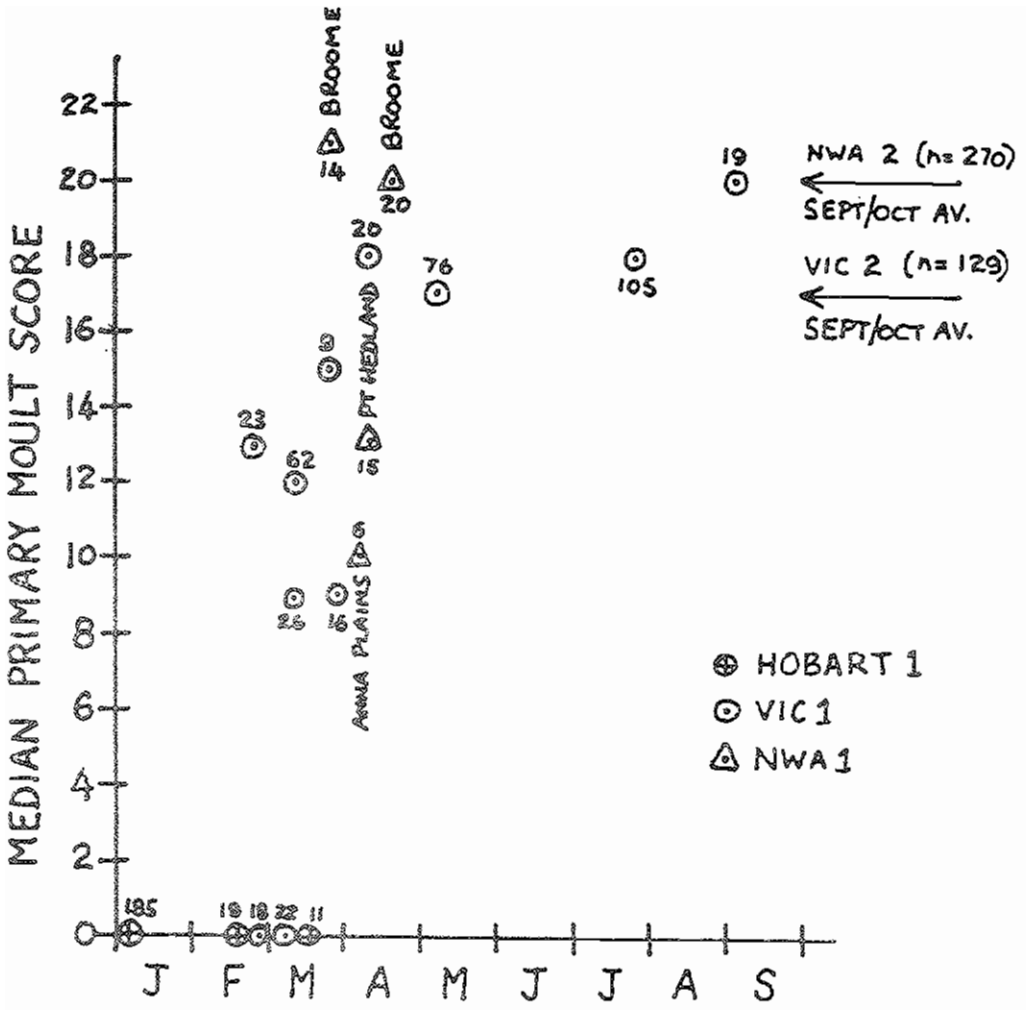


FIG.9. Median primary moult scores for NWA, Victorian and Hobart first-year birds.

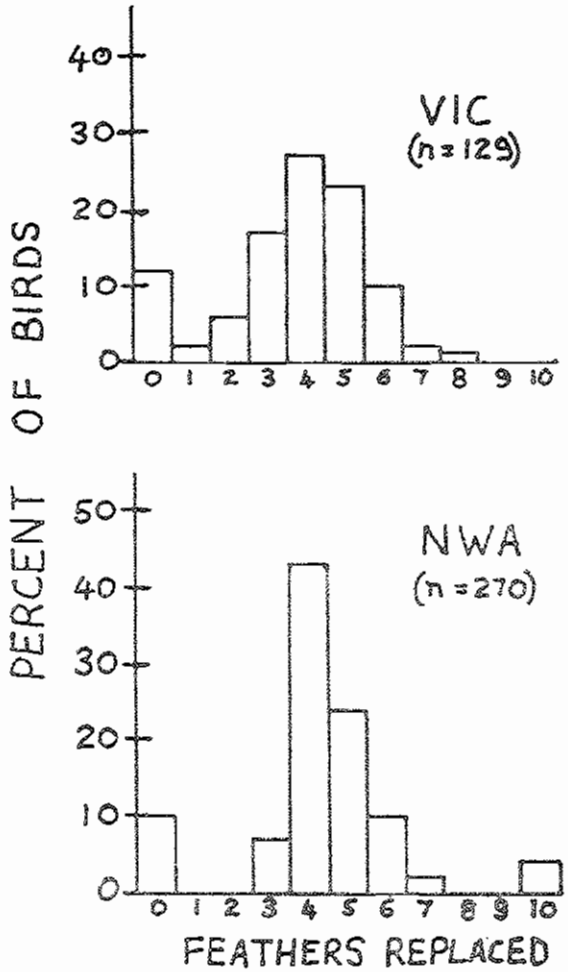


FIG.10. Percentage frequency histograms of number of outer primary feathers replaced by Victorian and NWA first-year birds.

A PLEA FOR BETTER BAND INSCRIPTIONS

Most bird banders have thought revolutionary thoughts on occasion about the materials used to make bands. Steel which will not close, alloys which permit the inscription to wear away (particularly in New Zealand on Doublebanded Plovers), or synthetics on which, (especially on the smaller rings and in fading light) the inscription is well nigh impossible to read. These matters we hope and believe are under constant and earnest review in Canberra.

But there is a problem of more consequence. How to increase the number of bands recovered. The time and effort we are putting in is not producing a good enough return. It is all very well amassing huge amounts of biometric, population and other data, essential as this may be for the analyst. But what of recoveries? By the end of 1985 we had banded some 35,500 birds in ten years of considerable effort. Of these a mere 0.1% have been recovered (excluding the comparatively high number retrapped by us). If the recoveries in Australia are discounted the percentage is even lower.

It must be difficult to make convincing estimates of losses to migrating birds through the many hazards which face them. Predators, shooters, hungry human beings, storms at sea, disease and even old age, all contribute. Most birds, once banded, are never seen or heard of again. As so little banding is done in countries on the migration routes and in the breeding areas we must rely heavily on trappers and shooters. And here lies the ficulty. Most of the banded birds which are recovered will fall into the hands of people who cannot speak let alone read English. Many will not be able to read at all. An exhortation on the outside (and in many cases on the inside) of a band, to 'Write C S I R O Canberra Australia' may not make compelling reading even to those who do understand English.

There are two problems. To have an inscription which is easily understood and to motivate the finder to do something about it. Even if the finder understands what is requiredand is willing to return the ring there are substantial practical difficulties. He must for instance be able to write or know someone who can, he must have paper and an envelope and the price of a stamp. There must also be a postal service - and no restraint by the authorities on sending letters overseas. A peasant in an Asian paddy field or a fisherman on some distant tidal estuary is unlikely to be able to cope.

Motivation must, it seems, depend on curiosity, interest or some vague sense of duty. Reward is hardly practical, although it would be interesting to try a 'U.S. $1' sign.

Intelligibility seems almost as difficult. From time to time it is suggested that rings be inscribed in a variety of languages. This is an attractive idea. Space would permit only one language on each ring of the kinds now used. Japanese for Japanese Snipe and English for Doublebanded Plover are easy enough but messages in a dozen languages might be needed for Palaearctic waders.

A different ring for each language? Wider rings with more than one language? There are plenty of possibilities. Birds now often carry three or four colour rings as well as the numbered ring. So there seems to be no reason why rings in several languages could not be worn by one bird. Or why sets of rings in different languages could not be issued and applied selectively at the discretion of the bander. What we need is some imaginative and practical solution.

Cost may be raised as an objection. Bands are issued to banders free of charge so their cost is not known although it must be much higher than the cost of colour bands which have to be paid for by the bander (at 12c.each). Nevertheless it could only be a miniscule fraction of the cost of running the banding scheme in Canberra and the personal cost in time, effort and expense of the volunteers who do the field work and run the study group.

If appropriate bands had been used during the past ten years of wader banding, information on migration routes and staging points could now be reasonably complete rather than sketchy. Not only this but the birds already banded would continue to provide far more information than is now likely to be the case.

The case for better bands shouldbe discussed and developed so that a persuasive and convincing request could be made for their supply.

John Dawson

VICTORIAN WADER STUDY GROUP
DATES FOR FIELDWORK AUG-DEC 1986

DATE	PLACE & OBJECTIVES	TIDE TIME	TIDE HEIGHT
AUG 2 - 3rd	Werribee S.F. & Altona	Sat 1236	0.8 m
	Doublebanded Plovers	Sun 1341	0.8 m
AUG 9 - 10th *	Inverloch & Barry Beach	Sat 1443	1.5 m
	Doublebanded Plovers	Sun 1517	1.5 m
AUG 17th	Yallock Creek	Sun 0941	2.6 m
	Doublebanded Plovers		
SEPT 13-14th*	Queenscliff	Sat 0633**	1.5 m
	Eastern Curlew & Red Knot	1745	1.3 m
		Sun 0733	1.4 m
OCT 5th	Yallock Creek	Sun 1353	2.6 m
	Eastern Curlew		
OCT 25th	Werribee S.F.	Sat 0805	0.9 m
	Golden Plover		
NOV 8 - 9th*	Queenscliff	Sat 0519**	1.7 m
	Red & Great Knot, Grey Plover	1651	1.4 m
		Sun 0606	1.6 m
DEC 6 - 7th*	Inverloch	Sat 1555	1.4 m
	Eastern Curlew	Sun 0505	1.6 m
DEC 20-21st *	Werribee S.F.	Sat 0714	0.9 m
	Large catch of small waders	1806	0.8 m
		Sun 0746	0.9 m

* These weekends involve camping. Please try and come for the whole weekend

** Time of tide at Port Phillip Heads - two hours later in Swan Bay

The normal meeting time will be 5 hours before high tide. Please however phone Clive Minton or Mark Barter a few days before each planned date to advise of your availability and to obtain final details of the rendezvous time and location. It is most desirable that people do phone in this way rather than waiting for the organisers to make 20 or 30 phone calls before each fieldwork weekend:

CONTACTS

Clive Minton - 589 4901 (h) 267 6499 (w)
Brenda Murlis - 874 2860 (h)
Angela Jessop - 398 1288 (h)
Mark Barter - 233 3330 (h) 658 3966 (w)
Ira Savage - 052-21 6253 (h)
Brett Lane - 428 4694 (h) (RAOU w 370 1272)
John Dawson - 787 2082 (h)

Clive's address - 165 Dalgetty Rd., Beaumaris 3193

THE WERRIBEE S.F. FAIRY TERNS, SUMMER 1985/86

This year contrasted markedly with last year, with an exceptionally late - and poor - breeding season.

The vegetation in the centre of the small island near the tip of South Spit was again cleared in September. A rather larger area than normal was prepared in order to ensure sufficient room for all the terns which might want to nest.

Visits in October, November and early December failed to reveal any signs of nesting Fairy Terns. In fact at this time small flocks continued to be seen around Port Phillip Bay suggesting that breeding had probably not commenced[2] anywhere (in the previous summer most chicks fledged in late November/ early December).

On 28 December nesting had commenced. Only about 30 pairs appeared to be present (compared with over 50 in the last three years), and most nests had only one egg. A visit two weeks later showed a similar situation, with hatching just commencing. On 10 February only 9 unfledged young could be found, and although there were some recently fledged birds in the area it is probable that no more than 20-30 young actually fledged.

November and December 1985 were exceptionally wet months and it is possible that this caused the delay in the breeding season. Alternatively, the food supply may have been unsatisfactory for some reason.

We look forward with even greater interest to the 1986-87 season.

CLIVE MINTON

ACKNOWLEDGEMENTS

It is customary to recognise at the VWSG Annual General Meeting the contributions made by so many people in so many ways to the successful operation of our wader banding activities. However, it is timely to extend these acknowledgements by formal mention of our appreciation in this annual report.

The VWSG would like to thank -

a) All those landowners who kindly grant permission for us to enter their property - at Werribee Sewage Farm, Point Wilson, Point Cook, Swan Island, Yallock Creek, Stockyard Point, Inverloch, Barry Beach and Corner Inlet.

b) Those who generously help us with boat transport at Corner Inlet (Fisheries & Wildlife Dept., Brian Compton) and at Inverloch (Arthur Harrison).

c) Members who assist the smooth running of the group by work behind the scenes - especially Ira Savage (equipment maintenance), Brenda Murlis (finances), Mick Murlis (processing of recoveries), Joy Pagon (schedules - until the new banding scheme computer printed schedules become available), Lee Duclos (loan of house at Point Lonsdale as base for winter operations at Queenscliff) and Angela/Ros Jessop's father (repairs of radios).

Finally, a great heap of thanks to all those who have participated in our intensive and highly successful fieldwork programme over this last 18 months.

VICTORIAN WADER STUDY GROUP

Financial Statement from 25/5/85 to 30/6/86

INCOME	$	EXPENDITURE	$
Subscriptions	695.00	Postage	75.18
Sale of Bulletins	28.50	Stationery	14.75
Proceeds of Trading Table - A.G.M.	69.70	Printing - Bulletins	148.72
		Colour Bands	204.15
Re-imbursement from RAOU - Keeping Cages	131.12	Gunpowder	132.00
Bank Interest	37.72	Material for Keeping Cages for RAOU	131.12
		Equipment & Repairs inc: Radio parts, Balances, Batteries, Screwdrivers, Paint, Plasticine, Elec. blocks etc.	206.19
		State Taxes	.21
	962.04		912.32
Cash in bank 25/5/85	150.78	Cash in Bank 30/6/86	199.66
Cash/cheques in hand at 25/5/85	69.86	Cash/cheques in hand at 30/6/86	70.70
	1182.68		1182.68

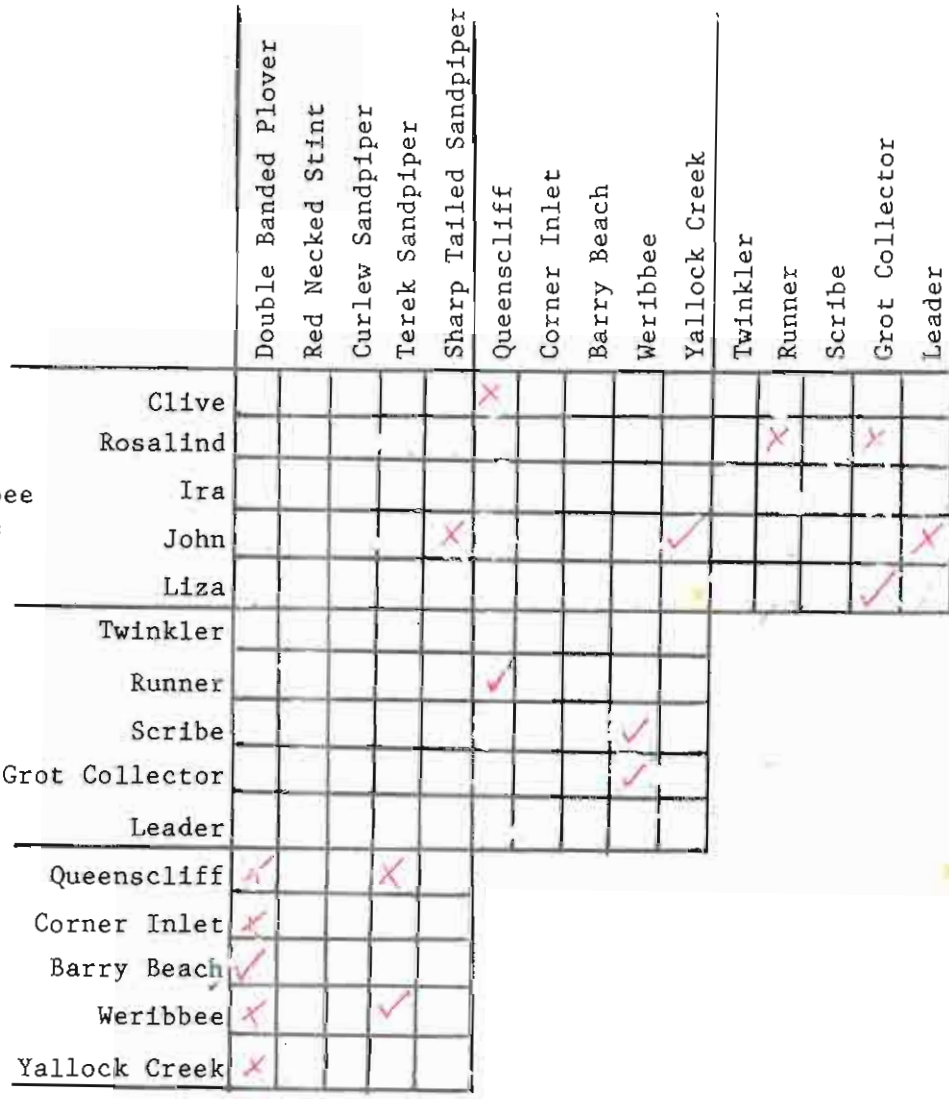
Brenda Murlis,
Hon. Treasurer.

WADER LOGIC - A PROBLEM

Five banders were working at different locations. From the clues given below, can you work out which bird each person banded, the job function of each individual and the location they were at?

CLUES

1. The Double Banded Plover was caught at Barry Beach.
2. Rosalind banded the Red Necked Stint, however, she was neither the Runner nor the Grot Collector.
3. John was at Yallock Creek; the person who was at Weribbee was either the Scribe or the Grot Collector.
4. The Runner was at Queenscliff; this was neither the place where the Terek Sandpiper was caught nor the place where Clive was.
5. The Sharp Tailed Sandpiper was banded by the Leader. This was not John.
6. Liza was the Grot Collector.



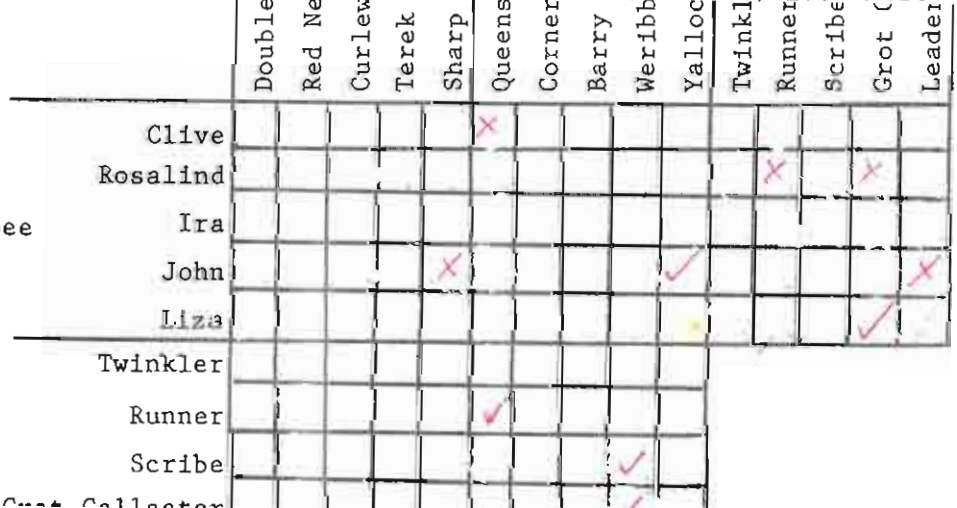
BANDER	BIRD	LOCATION	JOB FUNCTION
	DOUB BAN PL.	BARRY BEACH	
ROSALIND	RNS		
JOHN		YALLOCK CREEK	

For those who have not tackled these puzzles before, I can assure you that they look more

2. Rosalind banded the Red Necked Stint, however, she was neither the Runner nor the Grot Collector.

3. John was at Yallock Creek; the person who was at Weribbee was either the Scribe or the Grot Collector.

4. The Runner was at Queenscliff; this was neither the place where the Terek Sandpiper was caught nor the place where Clive was.



QUEENSCLIFF

3-5 January 1986

By Lisa Barter

What a great way to begin the New Year!

It began appropriately with the Minton family. The Minton entourage, consisting of Volvo station wagon, boat and trailer, parted company involuntarily in Queenscliff. The boat trailer collapsed with the temporary solution being that the boat arrived on Clive's roofrack tied to oars, and the pieces of the trailer appeared ignominously lashed to Bruce's roofrack.

Recces by Gail on Tuesday and Bruce on Thursday evening had shown that several thousand small, medium and large waders were roosting on Pipe Point. (N.B. Pipe Point is a spit that has extended considerably in the last twelve months, near the entrance to the cut that leads to the QCYC.)

Two nets were set on Pipe Point on Friday evening, with the primary aim of catching a large sample of Stints and Curlew Sandpipers on Saturday morning's high tide. Members of the Barter family and "extras" arrived just at the moment the nets had finished being set (pure coincidence!!), and briefly encounted Bruce Male who was determinedly hurrying back to his awaiting meal of roast lamb.

We camped in our usual spot almost on the supposedly "empty" explosives dump. A visit on Saturday afternoon by an unidentified official warned us that the site actually contained one hundred kilograms of explosives. The weekend obviously was destined to be a memorable one.

Early on Saturday morning after the twinkling by Mark on land and Brett and Andrew in the boat, and following a successful attempt at scattering various flocks around Swan Bay and on Mud Island, we obtained a catch. There were suprisingly few juveniles.

	New	Retrap	Total	% Juvenile
Curlew Sandpiper	121	61	182	1.6
Red Necked Stint	99	74	173	0.5
Large Sandplover	1	-	1	-
Mongolian Plover	1	-	1	-
Red Knot	1	-	1	-
	223	135	358	

We returned to our camping site around midday and spent the next few hours having brunch and watching the waders feeding on the sand flats that were appearing as the tide receded. An oversummering Orange Bellied Parrot (aged as a one year old) was also spotted in the area.

Later in the afternoon two nets were set. One, with the aim of catching Sharp-tailed Sandpipers, was set in Sailing Club Bay. A flock of about seventy had been seen that morning. There were already several people on the Yacht Club balcony, ready to settle in and watch the spectacle with appropriate refreshments (I wonder if they were the same people who watched last year's Sharpie catch.)

The second net was set on the small sandy island beside the causeway that connects Swan Island with Sand Island. We were trying to catch a flock of thirty-seven Grey Tailed Tattlers that were roosting alternately on the causeway or on "Tattler Island" when disturbed by cars.

The weather had been improving all day. It had been quite cold and overcast in the morning but was now sunny and warm. What choice was there? It was time to go swiming for the first time in the New Year. It is probably relevant to record the fact that only the younger members of the group went swimming. After much consideration I present the hypothesis that this behavioural difference in the "flock" is the combined result of infirmity due to old age and cold bloodedness due to non-Australian nationality.

After eating fish and chips at about 5.30 pm, Brett ended the enjoyable feast precipitously when he announced the Tattlers had landed on the island. We rushed to the firing position and following Brett's confirmation from the far end of the causeway that the birds were safe, we fired. The net went out beautifully and we caught most of the Tattler flock as well as two Masked Lapwings.

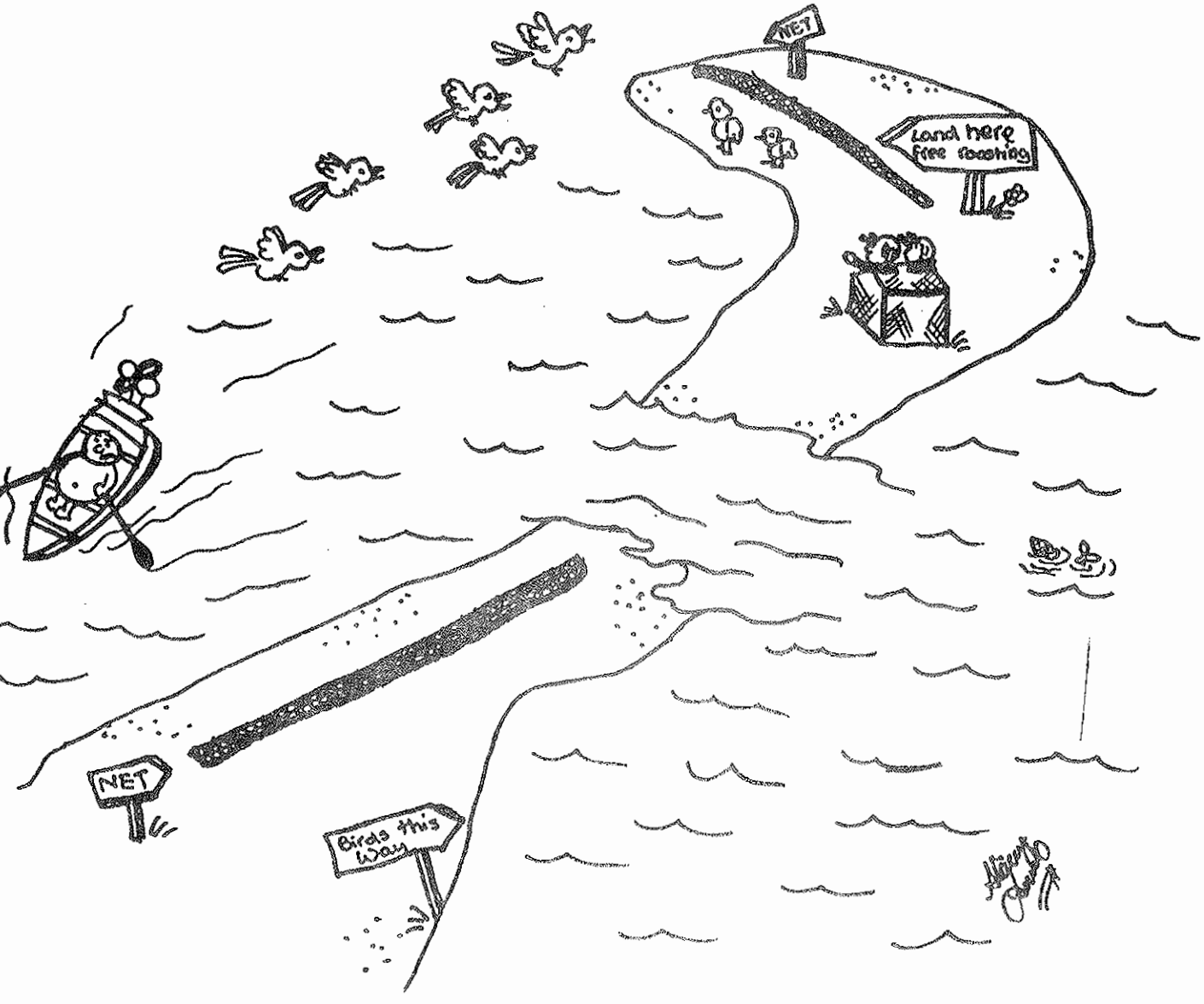
	New	Retrap	Total	% Juvenile
Grey Tailed Tattler	27	1	28	7.1
Masked Lapwing	2	-	2	-
Curlew Sandpiper	1	-	1	-
	30	1	31	

While the birds were being processed to the accompaniment of a few drops of rain, efforts were being made by the rest of the team to catch the Sharpies. Unfortunately the last catch of the day was scratched due to lack of interest by the feathered participants, who were meant to be

Sharpies but needed to be Stilts to wade without drowning in the catching area. The spectators on the balcony were forced to cancel all bets on who would reach the net first (bets were reportedly based on last year's form guide).

After such a successful day it seemed to be encroaching upon the gods good humour to set again but needless to say we did. We set two nets at different spots on Pipe Point with the objective being to catch large waders (knot, godwit, plover) and then retired for the night.

As the sun rose the next morning so did we and ate breakfast to the astonishing, correction "earth shattering" words from our intrepid leader that there was "....plenty of time for breakfast and no need to hurry." Needless to say such outrageous lies were ignored by those who in the past, had gone hungry through believing such nonsense. However, not long after we were at base camp with the situation being that there were no birds at the near net but the far net looked quite promising. Clive, Roger and I went by boat to the hide (see illustration ... note especially that Roger is rowing. Does this imply that the engine has failed yet again?).



It was a cool morning and there were waves breaking on the side of the point where the hide was. Clive got out of the boat and the water was about knee level on him with the occasional wave coming well up his legs. He told me to stay in the boat and I attributed this direction to his kindness of heart, thinking that he meant to pull the boat into shallower water before I alighted.

How wrong can one be? His next instruction was to get out immediately. Obediently, I followed our illustrious leader's order and clambered out to be thoroughly soaked (almost up to my waist) by the next wave that came along. I'm still wondering if the timing was deliberate.

We all but crawled through the water and over the sand to get into the hide without disturbing the birds. We successfully reached the hide but entering this hessian construction was another matter altogether. Perhaps the simplest description is to say that I followed Clive in. We coiled our limbs up, and contorted our bodies, with our heads craning to see the birds through the hessian.

After various discussions between ourselves and base camp and with the efforts of several twinklers the information soon reached us that there were several flocks of large waders on their way. With excitement we tried to peer through the hessian and could see several blurred masses landing in the catching area. After surveying the situation Clive asked me "should we fire?" I answered in the affirmative and expressed concern about waiting too much longer. The exact quote, simply stated but with a wealth of meaning was "Don't let's be greedy."

With that decided we prepared to fire. Another flock landed, none of the birds were in danger and we fired. It was a superb catch. One of the best in January.

	New	Retrap	Total	% Juvenile
Great Knot	85	11	96	7
Red Knot	65	12	77	31
Bartailed Godwit	58	14	72	3
Curlew Sandpiper	7	16	13	-
Mongolian Plover	2	-	2	-
Grey Plover	1	-	1	-
Large Sandplover	-	1	1	-
Turnstone	-	1	1	-
Fairy Tern	5	-	5	-
	223	45	268	

We processed the birds, having the opportunity to examine and compare a variety of species including a Great Knot that still retained a considerable degree of breeding plumage.

The weekend had ended just as well as it began and with the trailer fixed (welded together in Geelong on Saturday afternoon) and a grand total of 657 birds, we celebrated with ice creams in Queenscliff.

My thanks go to Stacey Lewis for the illustrations, Karen Barter for typing the article and most of all to the birds for being such active participants throughout the weekend.

YALLOCK CREEK - 18-19 JANUARY 1986

Clive to Brenda, "It will be a sunny day with hardly any breeze" - what we have is threatening rain and a 10-15 knot wind.

The cavalcade arrives loaded down to the gunnels with four faces; Clive, Roger, Jo and William (visitors from the UK) peeking out from between the luggage.

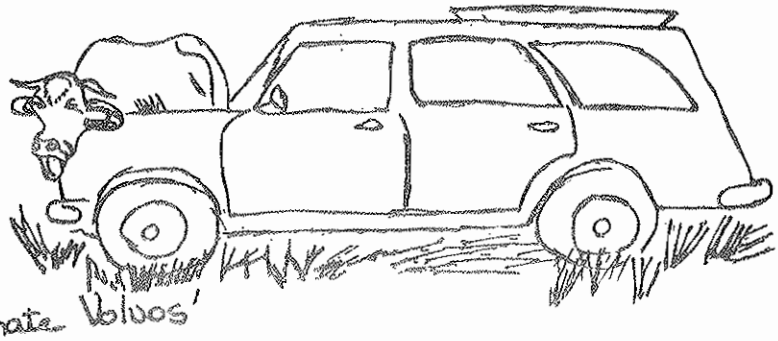
Recces by Mark earlier in the week and Mick and Brenda yesterday reveal the birds are using the Beatties Road farm. After brief consultation at the farm we're off to the usual spot near the creek. Hay making is in progress and there are the usual cows and heifers about (more anon).

The nets were set - one for catching Red-necked Stint and Curlew Sandpiper on the beach and the other in the Salicornia to catch Masked Lapwings. We had a number of problems with the electrics including the phone line connections which were fixed with the aid of a small portable gas ring.

We then made a strategic retreat to eat our dinner and put up the tents etc. The Minton Hilton, Stark's Mansion and Tonkinson's Shanty were soon in place, the Hilton being fully occupied by 9 persons.

Rain over in the south-west caused Clive to note, "So confident was I of what the weatherman said I didn't even bring a mac!"

While waiting, after an excruciating crawl to the levee bank in front of the beach, we were "entertained" by the cows and heifers moving into camp; one took long soulful looks at Sue's "Chookie" (Long-billed Corella) in the back of her car. Chookie reacted with a corroboree involving feet stamping, head waving and bill clacking. After several licks at other cars the cows decided that they liked my car best as a giant saltlick. Plaintive cries from the firing position; 'Do something about those cows', were ignored. They didn't have to do the crawling.



After an abortive attempt by Phil to get the birds into the net, Dale's comment of the day - 'we've fired' - SILENCE. The firing box failed. A quick change of box, a small wait and bang. Over the bank with the covering material and keeping cages, to encouraging shouts from our illustrious leader. A good catch of stints.

	NEW	RETRAPS	TOTAL	% JUVENILES
Red-necked Stint	232	162(41%)	394	20 %
Curlew Sandpiper	1	2	3	
	233	164	397	

Processing was accomplished as the sun set like a glorious golden ball, tinting the clouds orange then pink.

The mosquitoes took advantage of the twilight to snack on uncovered limbs. One disgruntled birdo muttered "I'm sure mosquitoes use "Rid" on sandwiches!" Another (RM) on being bitten on the side of the face - "It's sucked my brains out" - an appalling prospect!!

A bite to eat and brief chat and off to sleep, the threatening rain saving itself for the middle of the night.

Up with birds and cows. Grave difficulties were experienced in finding some relief but this was soon remedied by the use of an axe. After breakfast the troops were off to the firing position while some remained to keep an eye on the cows. Ira on cows: - "Cows and dotterels are almost the same - they both have beautiful eyes".

The radio departed with Dale on a twinkle. BANG - run for it - the rest of us went by car - a good catch of Curlew Sandpiper.

	NEW	RETRAPS	TOTAL	%JUVENILES
Curlew Sandpiper	232	135(37%)	367	15%
Red-necked Stint	4	18	22	
Sharp-tailed Sandpiper	2	-	2	
Terek Sandpiper	5	-	5	
Red-capped Plover	-	1	1	
Masked Lapwing	1	-	1	
	244	154	398	

Processing was finished by 10 am. We then packed up the first net and decided to try for a few Masked Lapwings. We retired to our starting positions. Despite an exaustive twinkle by Dale, we only managed to catch one Masked Lapwing (included above). All done by 11 am.

We then packed up. Jo, William and Roger nearly lost the Minton Hilton as it attempted to fly away. A good weekend with catch objectives fulfilled.

ROS JESSOP


There it goes!

WERRIBEE S.F. WEEKEND

14-16 FEBRUARY 1986

The Blue Sardine Tin arrived at Kirk Point, Werribee S.F. about 6.30 pm on Friday, bursting at the seams with five passengers and all their gear and the boat. Introductions were made (we had visitors from the UK and from Sweden). As soon as we arrived net-setting commenced on the low-lying area behind the Point. The recce, done by Brenda and Mick, had shown there to be 80+ Golden Plover there - a species for which we needed more information. The nets were set, firing towards each other, quickly, so we were all in bed by 10.00 pm. We all slept under the stars but behind wind-shields to shelter us from the strong wind. Next morning we all rose by dawn. An initial look-see of the site looked promising with some Golden Plover already there. After a very quick breakfast, the team split up into three-firing position, twinkler and Roving Intelligence Team. It looked as if there were 40-50 Golden Plovers in the area plus Rednecked Stints, Sharptailed Sandpipers and Curlew Sandpipers. The Roving Intelligence Team moved into action to block the public access road. Then everybody held their breath as an aerial display took place above the catching area - 2 Black-shouldered Kites which could have so easily spoilt our catch. Fortunately, the waders were not disturbed, so M.B. in the firing party fired the nets. A perfect catch - 23 Golden Plover, 56 Rednecked Stints, 4 Sharpies and 3 Curlew Sandpipers.

This was the largest Golden Plover catch that we had made and so would provide much scientific information. All the birds were fully processed and released by 7.30 am.

After a second breakfast the gear was packed up quickly, then the visitors and some of the team went for a tour around the S.F. The remaining members of the team took the gear to the 'camp' at South Spit and after setting up camp loaded the gear into the boat ready for RM to take it to the end of the Spit. Recce information had showed that some 2000 waders were using the very end of the Spit as a roost. The bird-watching party returned about 1.00 pm and shortly after everyone set off for the end of the Spit and set the nets. These were set near the very end of the Spit. The team returned to shop, to eat a meal before being on duty about 6.00 pm. RM, SJ and KB went off twinkling in the boat and the rest of the team installed themselves in the hide. Very few birds were around the Spit area - those put up at Austin Rd Lagoon set off determinedly towards Avalon.

After much effort by many members of the team (John Dawson got sore knees and a ricked back!) the darkness came down so 'back to camp'. On the way back two fishermen were bringing in their catch of 11 Sting Ray and several hundred mullet and whiting. A dozen or so fish were given to us; these were cleaned straight away at the camp and cooked by CDTM - a lovely snack!

We woke next morning to a dense fog and very heavy dew. After a quick breakfast the team set off for a second attempt. There were several hundred birds near the catching area, but as the team entered the hide, the birds departed (laughing?). The boat was despatched with RM, SJ and LB in it. RM said over the radio that the N. Spit could not be seen. The optimistic reply came over the radio "Go 250 for 5 minutes flat-out, and if you haven't hit land then you're lost!" Very few birds were about, perhaps because of the fog.

RM successfully dropped SJ and LB on N. Spit and on the way back to S. Spit saw a 30 ft Shark Cat. with 2 90 H.P. motors. The skipper called out "Are we in Corio Bay?". RM replied, "No, Werribee S.F. Harbour", but was able to direct the chap towards Geelong.

RM then went on to Kirk Point in an attempt to find some birds - none were there to talk about though. Meantime, some birds, about 250, had landed on some floating seaweed in front of the nets. It was decided to try to get these birds on to the shore, so Roger did a gentle 'water-twinkle'. Some 200 birds landed in front of the nets and CDTM fired about 9.30 am. 150 Rednecked Stint were caught. These were banded and aged, then the gear packed up. A good weekend was had by all. Thanks everyone - see ya next time!

ROGER MINTON

INVERLOCH 1-2 MARCH 1986

by Lisa Barter

A long distance recce began this weekend. From afar, on the Friday afternoon, Dale Tonkinson and David Legge estimated that there were 5000 small waders and 300 Eastern Curlew on Smythe Point, opposite the town of Inverloch. With the usual precision of a VWSG enterprise, people and equipment arrived on time on the Saturday morning and were ferried across the mouth of Anderson's Inlet by Clive's (new look, faster but still sinkable) boat and by Arthur, our resident boatman (whose boat provides the class and safety factor in our operation).

After much deliberation, and a substantial amount of guesswork, the nets were set in what was considered to be THE location for the birds to arrive. Between the ominous black rainclouds we had some intermittent sunshine, and lunch was eaten to the accompaniment of drizzle and the surrounding scenic panorama of windbreaks in the sand-blown dunes.

Large flocks of Eastern Curlew arrived to roost on the tip of Point Smythe. Needless to say the nets were not set at this spot. With no sign of the small waders I must admit to being sceptical about the mythical 5000. The tide was rising quite fast, and it was with some excitement that we watched a flock of Golden Plover roosting behind and, later, in front of the nets. They were twinkled into the catching area and a catch was made - our first ever of Golden Plover in March.

	New	%Juv
Lesser Golden Plover	19	35%
Double Banded Plover	1	100%
	20	

Hastily, we reset the nets, observing that we now had our own little gulf of water in the catching area. Deciding not to move the nets as the tide would supposedly fall soon we retreated back to base camp to process the Plover and await the arrival of the 5000.

It was during this processing that large flocks of Stint began to arrive and soon we were ready to catch again. After some further twinkling we caught the Stint and some more Plover.

Wide-eyed, 5 year old Matthew Legge was watching Brett measure the bill depth on the Golden Plover. With sincere interest he enquired of Brett, "Why are you cutting the plumber's nose off?" What could one possibly reply?

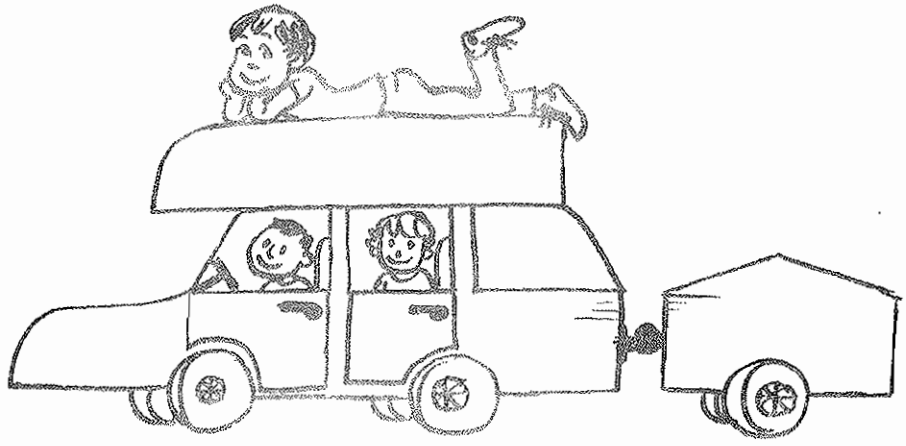
	New	Retraps	Total	% Juv
Rednecked Stint	460	45	505	37%
Curlew Sandpiper	14	-	14	28%
Lesser Golden Plover	10	-	10	35%
Doublebanded Plover	1	-	1	100%
	485	45	530	

We reset the nets for the next morning and as the dusk settled we "boated back" to Inverloch and set up camp. After consuming numerous pizzas we rested to prepare for the seventh day of the week, the day of rest (but not us when Clive's around!).

Next morning we were ferried back across the estuary in the little boat before dawn and as daylight came we assembled behind the sand dunes on Point Smythe. It was a grey morning and without much ado we caught some more Stints and Doublebanded Plovers.

	New	Retrap	Total	% Juv
Rednecked Stint	145	30	175	22%
Doublebanded Plover	3	1	4	100%
	148	31	179	

The sun, after several futile attempts, finally appeared and the procession of cars set off to our next catching site at Barry's Beach (60 km to the east).



The pioneering spirit then overtook Clive. After travelling across country towing the trailer and with the boat attached to his roofrack, our intrepid leader set about forging a path to the catching site.

Regrettably or not, depending on your point-of-view, not all members of the team had developed this spirit and as the jungle brigade advanced, some (no names mentioned) relaxed in the sun. Amidst much sweat and the sound of metal on wood a track was cleared to our destination.

The nets were then set leisurely, followed by the cultural hour. Lunch was eaten, refreshment taken, books read, slides viewed and of course the inevitable afternoon siesta was taken by some (not to mention the ever favourite entertainment of cleaning and loading cartridges).

As the afternoon progressed the birds started to arrive. Soon about 3000 birds would repeatedly fly past the nets, reach a spot further down the beach, turn and fly back. This relay exercise continued for a while and it was delightful to watch the sun ripple along the flock as they changed direction time after time.

Eventually they landed, as was no doubt expected, outside the catching area. Everyone assumed catch positions and the fun officially began. Twinkling exercises were carried out (to the amusement of the birds who decided to play hard to get), and after the obligatory wait the nets were successfully fired.

We'd made quite a large catch and all the hessian covering material was used to cover the Stints. The theory behind the use of the covering material is to prevent the birds from flapping about in the net. We are quite familiar with the theory but it must be seriously questioned if the birds are. (You may ask what are their parents teaching them nowadays when they holiday annually on the Siberian tundra - education is definitely not what it once was!).

Some decided to put the theory to the test. They flapped about in the net, managed to free themselves, and then played games under the covering material, with the ultimate objective of escaping. Thus, wherever the covering material was rolled back small flocks would depart. If they did not feel like leaving the fun quite yet they would just run back and forth, and back and forth, and back and ...., much to the annoyance of those trying to catch them.

So when you come cannon netting these days, there is now an added dimension. Not only do you have to catch the birds once, but after the first time be prepared for a slow match replay when you have to recatch them after they are in the net!

	New	Retrap	Total	%Juv
Rednecked Stint	784	17	801	10%
Curlew Sandpiper	4	-	4	75%
	788	17	805	

This was our largest ever catch at Barry Beach. The much lower percentage of juveniles in the population compared with Inverloch (10% vs. c.30%) was particularly interesting.

We set off for Melbourne as darkness arrived (8.30 pm) after a most successful weekend with over 1500 birds caught.

LISA BARTER

QUEENSCLIFF

28th-29th March 1986

Good Friday was all that and more at Queenscliff this Easter and marked the start of a rather successful weekend. At about 10 a.m. a motley crew of banders gathered at the checkpoint on the landward side of the causeway to Swan Island. Since the causeway was under repair some other way of transferring ourselves and the equipment across to the catching sites had to be found. The obvious way, at least to our leader, was to commandeer a vacant berth in the harbour, close to its seaward end, and ferry people and packages across in the boat. Great fun it was, too, nipping across between powerboats - look left, look right, look boat!

I suppose it was because I had assumed (rashly) that we would camp close to the catching sites, and had packed accordingly, that our leader announced that we would be returning to camp near the cars that night. "Take only what you need for the day", we were urged, leading to a hasty unpacking of gear - and then to an equally hasty repacking of much of it as we thought back to long hot thirsty days, and long cold hungry evenings spent out of reach of cars and civilized comforts on previous banding trips.

Once ferried across, we found ourselves with the usual long walk to the proposed catching site. At least we didn't have to carry the equipment this time - that went by boat! The day's objective was to catch a flock of double-banded plovers which customarily roosted on the Outer Point. Since we were a small team it made sense to leave the bigger catches for succeeding days when reinforcements would be arriving. (Such confidence!).

It was a lovely day and laying out the nets was a pleasant uplifting (downlaying?) task in the warm sunshine. Even more uplifting were the regular visits we began to receive from double-banded plovers, coming in their ones and twos to inspect progress and urge us to complete our tasks and push off. Quite clearly we were starting to interfere seriously with the day's siesta programme. At last all was in order and we withdrew past the hide and firing position to a base camp in the sand dunes. Almost at once a few double-banded plovers pitched into the area in front of the nets and hopes for a good catch began to increase. To help things along Clive and the two youngest members of the party, Adam and Robin, took the boat to Pipe Point and conducted a very quick and successful twinkle, sending flocks of smaller waders scooting along to join the double-banded plovers. It was then just a question of getting the boat party back and pressing the firing button. A most uncharacteristically quick and easy catch!

A most successful catch, too, for besides the double-banded plovers (32) we had a Mongolian plover in nearly full breeding plumage, turnstones (6), some of which were also sporting nearly complete breeding dress, a solitary sharp-tailed sandpiper, and a good selection of curlew sandpipers (53) and red-necked stints (255) of all stages and ages. Particularly with the curlew sandpipers the weight differences between skinny juveniles and "fat as butter" adults were very marked.

No doubt to their considerable bemusement the birds were not only banded (if necessary - there was a good percentage of retraps) and "processed" but also dyed yellow underneath. Adding insult to injury, figuratively speaking! With any luck, sightings of these birds on their migratory journeys northwards will provide us with valuable information on their rates of movement and favoured stopover points. One hopes that the distinctive coloration does not mark them out for special attention from predators, both natural and human!

Having completed the banding and dyeing there was time to collect up and cache the equipment before the light had faded completely. It then remained only to walk back, take the Minton ferry across the channel, and settle down for an unhurried tea on a patch of close-cropped green turf next to the harbour wall. The stars twinkled cheerfully, a brilliant moon beamed benevolently down on us and passing boats and fishermen provided entertainment. All in all a somewhat atypical evening for a bird-banding trip!

On such a fine night it seemed a pity to sleep under canvas and so a tarpaulin was laid out in a dip close to but hidden from the road and we all bedded down companionably together. There were high hopes of getting good views of Halley's Comet and everyone had binoculars to hand; however the brilliance of the moon defeated us.

Much to the surprise of the experienced banders among us there was time on the Saturday for a leisurely awakening, an unhurried breakfast, and even an opportunity to wash! Then it was back to the sand dunes to recover the equipment and move it to Pipe Point where the forecast high tide was expected to cover much of the lower-lying sand during the afternoon.

It was at this stage that it became obvious that some members of the party were rather overwhelmed and disoriented by the conditions. "Look, there's a pratincole", came the cry from Peter as he played with a piece of plasticine. "No", said our leader, "it looks more like a meadow pipit." "More like a brown falcon", came from elsewhere in the circle. At which the kestrel lifted in disgust from its perch on the spoil pipe and left us to our task of preparing cartridges and loading cannons!

With the nets set and equipment cached we were able to retreat once more to the cars for a civilized lunch before heading back to the nets and a vantage point in the sandhills. And then the fun began. First of all the tide was much lower than expected, leaving the birds free to choose a variety of roosting sites well away from the catching area. They did. Then there were the people, brought by the heat and sun. The drinking party further down the beach was not of too much concern, having their attention directed towards the assuaging of what was obviously a persistent thirst; however the para-gliding group caused much uneasiness amongst the birds that did, unwisely, choose to roost at Pipe Point - the sudden billowing out of the large parachute at the start of a run had all the waders flying hither and thither in panic. Then there was the dog, which executed an unauthorized twinkle that didn't make the birds any less skittish. Finally, after much careful

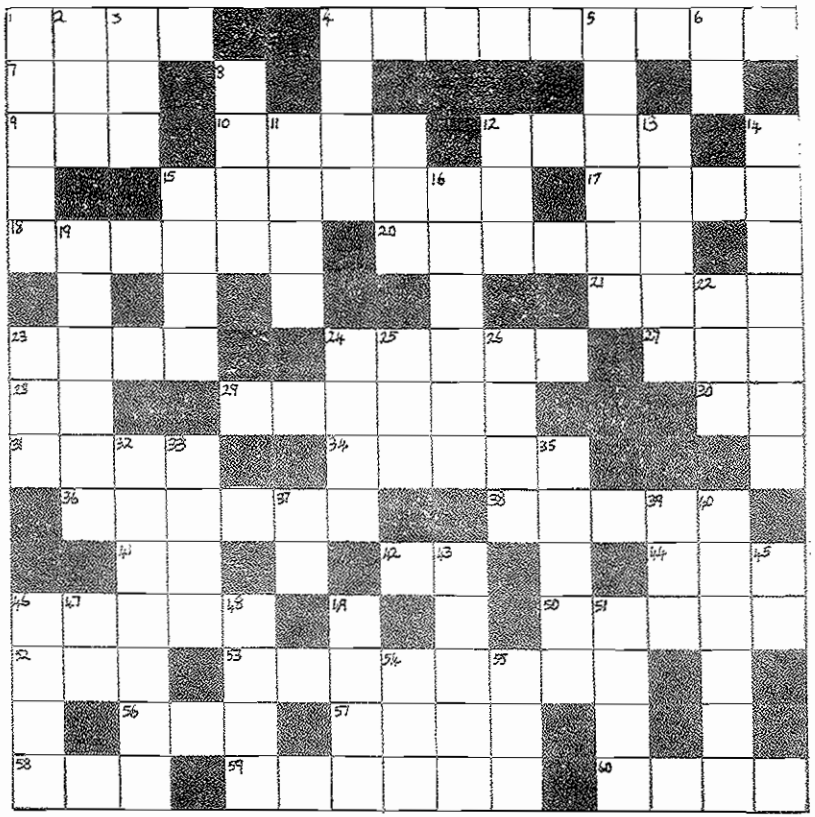
twinkling by various members of our group and a slow fading of hope that something would come out of the day's endeavours, a flock of birds did at last alight in the catching area and a reasonable catch was made. Red-necked stints (148) and curlew sandpipers (39) dominated but there were also double-banded plovers (17) and a single sharp-tailed sandpiper and Mongolian plover; like the previous day's catch these birds, too, became involuntary recruits to the yellow-bellied brigade.

The evening was well upon us before the birds had been processed, the equipment tidied away, and we could once again head for camp, and, in the case of Robin and myself, home to Melbourne. It had been a most productive and enjoyable two days - fine weather, good birds, and great companionship! One of the trips after which you don't go home saying "I must have been crazy to get mixed up in this".

Mike Connor

ACROSS

1. high & low
4. measuring instrument
7. period of time
9. beam of sunshine
10. indolent
12. Clive, "About to fire, 3,2,1,_ _ _ _"
15. feathers
17. 240 ___s
18. these have to take great weights
20. journey
21. cable dispenser
23. net camouflage
24. noise of firing cannons
27. sun
28. similarity
29. receive when team has large catch
30. not applicable (int.)
31. juvenile feather colour
34. navigate
36. smelly mud found at Werribee
38. groove found on bill
41. exists now
42. convenience
44. _ _ _graphical region
46. scribes use them
50. utter
52. remains of fire
53. large wader
56. hot beverage
57. tall story
58. attempt
59. patience is always _____.
60. often locked at Werribee



DOWN

1. nests on South Spit
2. equipment officer
3. wader banding is usually an all ___ affair
4. no wind
5. type of wader
6. Red Knot (abbr)
8. beak
11. evening
12. Tasman
13. supports
14. bird navigation
15. red is left
16. lubricant
19. leg part
22. evolutionary period
23. talk (slang)
24. ___camp
25. ignite gas lamp
26. was observed
32. restless Curlews
33. place in end of cartridge
35. lift
37. set off
39. always recorded
40. studied
43. conveys charge
45. alright
46. piece
47. two letters in Australasian Wader Study Group
48. bay
49. locality
51. wad
54. condition of mind
55. colour of colour band

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