

# VICTORIAN WADER STUDY GROUP



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**STUDY GROUP**



VICTORIAN WADER STUDY GROUP INC.

BULLETIN No 12

JULY 1988

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## E D I T O R I A L

### Is There Life After Banding?

It's as well occasionally to stand back from the easel to see how the work is progressing. A look at the VWSG picture could lead to disturbing thoughts. We have achieved our aim. We've been at it for ten years or so and have actually done what we set out to do (and more) in the way of collecting data in the field. Done, finished, done. The canvas has been filled. Nothing for it but to retire to the study and try to make some sense of the figures, measurements and recovery records, to immerse ourselves in statistical method, to search for and recognise trends, to wait for further recoveries and to admire the migration maps, to write things up, to get published, to launch prickly attacks on other published material, to give substance to hitherto unproved hunches, to initiate and develop conservation proposals, to search for new meaning. Field naturalists must become interpretative ornithologists. All very admirable and so on but how could we maintain our enthusiasm or give life, reality and purpose to the paper work without those memorable days spent in fieldwork? What could replace the sense of purpose and achievement offered by catching and banding. Would we not grow limp and inert without the physical demands of exposure to sun, rain and wind, of ferrying cumbersome equipment, and simply dashing about. Would we not miss the sheer beauty of sand spit and mudflat, the wild fluting call of the Curlew? Could we do without the generous companionship and relaxed friendship of those we have come to rely on so much?

All these deflating ideas arose after reading the objectives of the VWSG set out by Clive Minton so purposefully in the first issue of the Bulletin: namely to find out which populations occur at Werribee and which migration routes are used, whether individual birds use the Werribee area throughout the season, and if they return in subsequent years, to estimate the total number of birds using the area during the year, to obtain data on weights and on the use (e.g. as a moulting area) being made of the Werribee area, to estimate the annual survival rates of different species and to obtain data on annual variations in the breeding success of each species.

Well, all that sounded very profound, even mystifying, way back in 1980. But today it seems elementary. Too obvious for words. We know all about that. Let's now do something really epoch-making to push back the bounds of ornithological awareness.

Happily the pursuit of knowledge in ornithology as in all fields of human endeavour can never be regarded as over. Increasing knowledge relentlessly reveals yet wider gaps to be filled. We can look forward indefinitely to many more enjoyable days in the field. There is plenty of scope to nurture the ornithological spirit.

Wader Banding Highlights 1987

1987 was another successful year. The total of 6909 waders caught was well above the nine year average of 6145, though below the record level of the previous year.

Particularly pleasing was the return of Werribee Sewage Farm to top spot, with 2686 birds caught, and this resulted in many valuable recaptures of birds banded in previous years - some now in their tenth year. Good totals were again achieved at Sand Island, Queenscliff (2141), and Andersons Inlet, Inverloch (997), but catching success at Yallock Creek, Westernport Bay (1085), was lower than in other recent years.

The exceptional 1986 catches of Red Knot, Great Knot and Bartailed Godwit were not repeated but, in lieu, good totals of Sharptailed Sandpiper (465), Turnstone (49), Rednecked Avocet (35) and useful further samples of Eastern Curlew (19) and Lesser Golden Plover (22) were obtained. Overall the Victorian Wader Study Group has now caught 57,764 waders in Victoria; if waders caught in other states during major visits by VWSG members are included then the total is 73,814 (excluding the 1988 N.W. Australia Expedition).

To meet some of the objectives of the VWSG it is necessary eventually to obtain a sample (minimum 50 of each age group, but preferably 100) of each species of wader in each month of the year. The fieldwork programme is planned, inter alia, around filling gaps in this data. Successes in 1987 included:

- (a) the first January sample of Pied Oystercatchers (total now 13);
- (b) the first February samples of Grey Plover (14) and Bartailed Godwit (8); and a doubling of the February Red Knot total (33 to 65);
- (c) good increases in the March samples of Turnstone (28 to 76), Bartailed Godwit (15 to 31) and Redcapped Plover (22 to 48);
- (d) doubling the April sample of Doublebanded Plover (113 to 257); and
- (e) the first October Lesser Golden Plovers (22) and significant increases in the October Rednecked Avocet (6 to 41) and Curlew Sandpiper (245 to 322) totals.

The main disappointment of the 1987 season was the failure to catch any Red Knot during the September to November period, when previous recoveries have shown that some of the birds at

Queenscliff are on passage to New Zealand. In fact both the VWSG and the New Zealand banders, with whom a cooperative study has been initiated, did not succeed in making any Red Knot catches during the whole of the 1987-88 season. This is the first summer in which the VWSG has failed to make a Red Knot catch and it leaves an unfortunate gap in the data, particularly the monitoring of annual breeding success via the proportion of young birds in the population.

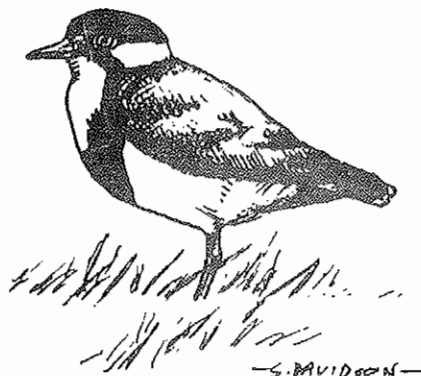
For the second consecutive year the proportion of retraps in the waders caught was 22.5%. The rate has now been over 20% for the last four years. This is the result of the constant annual effort at the main banding sites over a ten year period. The retraps are producing many interesting longevity records and will soon be sufficient to be used to estimate annual survival rates. The retraps also continue to show how faithful most of the migrant waders are to particular sites, to which they return year after year.

Recoveries reported in the last year continue to break new ground as well as further reinforcing emerging patterns. In the latter category were seven more Doublebanded Plovers banded in the centre of the South Island of New Zealand and recaptured in Victoria. But a Red Knot recovered in China (banded at Queenscliff) and a Rednecked Stint recaptured by Japanese banders were both 'firsts' for VWSG. There was also a good crop of tern recoveries following increased VWSG effort on Crested and Caspian Terns.

1988 has started well, with over 5000 waders caught in the first half of the year, for the first time ever. Excellent catches of Rednecked Stints and Curlew Sandpipers were made at the main sites and exceptional numbers of Sharptailed Sandpipers were caught at Queenscliff. The new Pied Oystercatcher study has also been successfully launched with nearly 200 birds caught - almost doubling the total of the previous years. All Pied Oystercatchers have been colour banded so please keep a look out, especially in the breeding season.

The success and enjoyment of the VWSG activities is due to the abilities and efforts of those who participate in the fieldwork and to the many others who assist in a variety of ways. Particular appreciation is also expressed to individual landowners and organisations who so generously allow access to properties and foreshores. Hopefully, the achievements detailed in this bulletin will be some reward for everyone's effort and kindness.

Clive Minton.



WADER BANDING TOTALS - VICTORIA - 1987

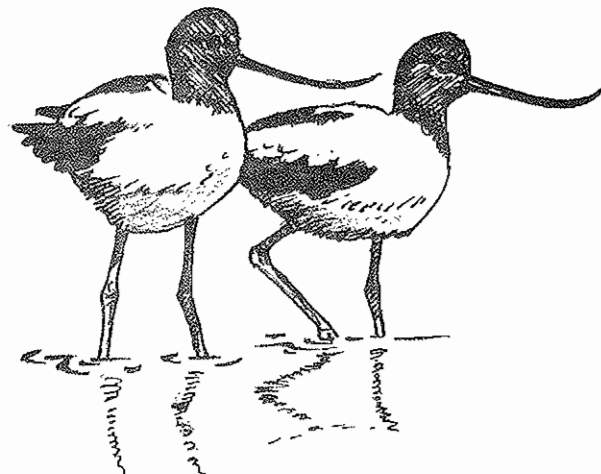
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	<u>NEW</u>	<u>RETRAP</u>	<u>TOTAL</u>
Pied Oystercatcher	12	1	13
Sooty Oystercatcher	5	-	5
Masked Lapwing	1	-	1
Grey Plover	12	2	14
Lesser Golden Plover	17	5	22
Mongolian Plover	1	1	2
Doublebanded Plover	314	184	498
Redcapped Plover	27	12	39
Blackwinged Stilt	3	-	3
Rednecked Avocet	35	-	35
Ruddy Turnstone	46	3	49
Eastern Curlew	19	-	19
Terek Sandpiper	3	-	3
Bartailed Godwit	20	5	25
Red Knot	46	5	51
Great Knot	3	-	3
Sharptailed Sandpiper	442	23	465
Rednecked Stint	3,234	1,077	4,311
Curlew Sandpiper	1,110	241	1,351
	<u>5,350</u>	<u>1,559</u>	<u>6,909</u>

VICTORIAN WADER CATCHES  
1975 TO 31 DECEMBER 1987

	<u>NEW</u>	<u>RETRAP</u>	<u>TOTAL</u>
Pied Oystercatcher	211	103	314
Sooty Oystercatcher	9	1	10
Masked Lapwing	126	3	129
Grey Plover	53	4	57
Lesser Golden Plover	169	16	185
Redkneed Dotterel	133	11	144
Hooded Plover	15	1	16
Mongolian Plover	65	3	68
Doublebanded Plover	2,054	447	2,501
Large Sand Plover	15	1	16
Redcapped Plover	433	151	584
Blackfronted Plover	52	4	56
Blackwinged Stilt	13	-	13
Rednecked Avocet	174	1	125
Ruddy Turnstone	151	8	159
Eastern Curlew	135	2	137
Whimbrel	1	-	1
Greytailed Tatler	33	1	34
Greenshank	1	-	1
Terek Sandpiper	18	1	19
Latham's Snipe	54	-	54
Bartailed Godwit	532	43	575
Red Knot	1,043	76	1,119
Great Knot	278	25	303
Sharptailed Sandpiper	3,048	87	3,135
Little Stint	1	-	1
Rednecked Stint	29,347	7,047	36,394
Longtoed Stint	1	-	1
Curlew Sandpiper	9,830	1,719	11,549
Sanderling	14	-	14
<u>30 Species</u>	<u>48,009</u>	<u>9,755</u>	<u>57,764</u>

In addition, the Group has been involved in handling a further 16,050 waders during joint operations with local groups in other States. If these are included the VWSG has now been involved in the catching of 73,814 waders.



ANNUAL WADER BANDING TOTALS BY

VWSG IN VICTORIA

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<u>CALENDAR YEAR</u>	<u>NEW</u>	<u>RETRAPS</u>	<u>TOTAL</u>
1975	9	-	9
1976	616	4	620
1977	482	12	494
1978	1,296	42	1,338
1979	7,436	486	7,922
1980	6,121	1,206	7,327
1981	4,561	869	5,430
1982	3,774	796	4,570
1983	2,875	628	3,503
1984	4,272	1,045	5,317
1985	4,073	1,051	5,124
1986	7,144	2,057	9,201
1987	<u>5,350</u>	<u>1,559</u>	<u>6,909</u>
Total catches in Vic. to end 1987	<u>48,009</u>	<u>9,755</u>	<u>57,764</u>

Average annual total for 1979 to 1987 period is 6,145.

LOCATION OF WADERS CAUGHT IN VICTORIA

	<u>TO DEC.</u>		<u>TOTAL</u>
	<u>1986</u>	<u>1987</u>	
Werribee	24,363	2,686	27,049
Westernport Bay	10,513	1,085	11,598
Queenscliff/Pt. Lonsdale	9,156	2,141	11,297
Anderson's Inlet (Inverloch)	3,332	997	4,329
Corner Inlet	2,435	-	2,435
Altona	727	-	727
Bendigo (Sewage Farm)	143	-	143
Seaford Swamp	98	-	98
Mud Island	35	-	35
Geelong (Point Henry)	25	-	25
Seaspray (Lake Reeve)	18	-	18
Towong	<u>10</u>	<u>-</u>	<u>10</u>
	<u>50,855</u>	<u>6,909</u>	<u>57,764</u>

Totals include 48,009 newly banded birds and 9,755 retraps of 30 species.



NUMBERS OF WADERS "PROCESSED" BY VWSG IN VICTORIA IN EACH MONTH TO 31 DECEMBER, 1987

"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.

	<u>J</u>	<u>F</u>	<u>M</u>	<u>A</u>	<u>M</u>	<u>J</u>	<u>J</u>	<u>A</u>	<u>S</u>	<u>Q</u>	<u>N</u>	<u>D</u>	<u>TOTAL</u>
Pied Oystercatcher	13	16	82	28	30	99	7	-	2	4	9	20	310
Sooty Oystercatcher	-	-	3	-	-	7	-	-	-	-	-	-	10
Masked Lapwing	4	3	77	-	-	13	-	-	-	2	18	11	128
Grey Plover	1	14	4	3	-	2	-	-	2	18	13	-	57
Lesser Golden Plover	9	26	30	1	-	-	-	-	-	22	40	39	167
Redkneed Dotterel	-	10	-	20	-	44	11	16	12	8	22	-	143
Hooded Plover	-	-	-	-	-	15	-	-	-	-	-	-	15
Mongolian Plover	46	-	6	7	1	1	2	-	-	-	1	-	64
Doublebanded Plover	-	-	95	257	395	413	627	608	1	-	-	-	2,396
Large Sand Plover	14	-	-	-	-	-	1	-	-	-	1	-	16
Redcapped Plover	10	47	48	111	165	67	58	12	8	10	8	3	547
Blackfronted Plover	-	7	-	-	11	16	6	9	2	-	4	7	62
Blackwinged Stilt	-	6	-	-	-	-	-	-	-	4	2	1	13
Rednecked Avocet	39	-	-	-	-	-	-	10	2	41	46	36	174
Ruddy Turnstone	15	-	76	27	1	6	-	-	10	7	1	14	157
Eastern Curlew	15	-	1	-	-	15	-	-	8	34	59	5	137
Greytailed Tatler	28	-	-	3	-	3	-	-	-	-	-	-	34
Greenshank	1	-	1	-	-	-	-	-	-	-	-	-	2
Terek Sandpiper	8	1	-	1	2	-	-	-	-	-	-	8	20
Latham's Snipe	29	44	-	-	-	-	-	-	-	1	4	8	86
Bartailed Godwit	72	8	31	1	-	6	-	-	34	28	124	267	571
Red Knot	124	65	56	34	2	39	73	-	8	256	236	170	1,063
Great Knot	96	1	3	-	-	4	-	-	15	20	36	129	304
Sharptailed Sandpiper	919	191	93	2	-	-	-	9	471	173	265	823	2,946
Little Stint	-	-	-	-	-	-	-	-	-	-	1	-	1
Rednecked Stint	1,232	685	3,400	1,860	250	150	262	206	431	864	2,295	1,890	13,525
Longtoed Stint	-	-	-	-	-	-	-	-	-	1	-	-	1
Curlew Sandpiper	402	612	923	144	85	5	114	145	159	322	555	702	4,168
Sanderling	11	-	-	-	-	-	-	-	-	1	-	2	14
Whimbrel	-	-	-	-	-	1	-	-	-	-	-	-	1
													<u>27,132</u>

The majority of the 1,327 birds caught in Tasmania (Nov. 1979), 820 birds in South Australia (Feb. 1980), 921 birds in New South Wales (Mar. 1981) and 12,982 in Western Australia (Aug./Sept. 1981, Aug./Sept./Nov. 1982, Oct./Nov. 1983, Mar./April 1985 and Aug./Sept. 1986) were also processed.

RECOVERIES OF BANDED BIRDSDouble Banded Plover

041-01533	First year	15.8.81	Altona	
	Recaptured	20.7.86	Queenscliff	38 km S
041-12252	Adult M	19.6.82	Barry Beach	
	Recaptured	3.8.86	Altona	166 km WNW
New Zealand B54289	Adult F	21.12.85	Old Man Range, NEW ZEALAND	
	Recaptured	16.5.87	Queenscliff	2177 km WNW
New Zealand C42270	Juvenile	29.11.86	Cass River, NEW ZEALAND	
	Recaptured	16.5.87	Queenscliff	2249 km WNW
New Zealand C42164	Adult F	6.11.86	Tekapo River, NEW ZEALAND	
	Recaptured	31.5.87	Werribee	2258 km WNW
New Zealand B54241	Adult F	28.10.85	Alexandra, NEW ZEALAND	
	Recaptured	13.6.87	Inverloch	2085 km WNW
New Zealand B54203	Adult M	22.9.85	Matukituki River, NEW ZEALAND	
	Seen	12.7.86	Queenscliff	2119 km WNW
	Recaptured	20.7.86	"	
	"	12.7.87	"	
New Zealand B53690	Adult F	12.12.85	Ashley River, NEW ZEALAND	
	Recaptured	12.7.87	Queenscliff	2390 km WNW
New Zealand C35687	Adult F	2.11.86	Ashley River, NEW ZEALAND	
	Recaptured	12.7.87	Queenscliff	2390 km WNW
041-31245	First Year	26.4.87	Yallock Creek	
	Found Dead	17.12.87	Twizel, NEW ZEALAND	2162 km ESE

An excellent further batch of movements between New Zealand and Australia, conforming to the well established pattern detailed in the last VWSG Bulletin (No. 11, July 1987).

Red Knot

051-18162	Adult	19.10.85	Queenscliff	8010 km NNW
	Captured	24.4.87	Yangtze River Estuary, CHINA	

This is the first VWSG-banded Red Knot to be recovered in China. A Great Knot banded at Queenscliff has previously been recovered in the same area in China.

Rednecked Stint

032-54546	Second Year	4.8.85	Barry Beach	
	Recaptured	26.7.87	Niigata, JAPAN	8522 km N

This is the first VWSG-banded Rednecked Stint to be recovered in Japan.

032-80601	Juvenile	28.11.87	Inverloch	
	Recaptured	26.6.88	Stockyard Point	45 km NW

Curlew Sandpiper

041-09054	First year	9.3.86	Hobart, Tasmania	
	Recaptured	16.8.86	Yallock Creek	560 km NNW
041-43023	Adult	2.1.88	Werribee S.F.	
	Recaptured	25.3.88	Broome, W.A.	3096 km NW

This is the first report of a wader from Victoria passing through N.W. Australia during its northward migration. There have however been several examples of Victoria-bound Curlew Sandpipers and Rednecked Stints occurring there on southward migration.

Crested Tern

The following recoveries have been reported from 484 chicks banded at Mud Island on 21.12.86 :-

071-63637	Found sick	12.2.87	San Remo	61 km ESE
071-63657	"	1.4.87	Newhaven	60 km ESE
071-65860	Seen alive	-6.87	Rutherford Inlet, Westernport	69 km E
071-51304	Found sick	25.7.87	Mothers Beach, Mornington Peninsula	9 km S
071-51338	Found dead	9.8.87	Freycinet Peninsula, Tasmania	523 km SE
071-37039	Found injured	18.9.87	near Mount Eliza	29 km ENE
071-63768	Found dead	23.10.87	Rame Head, East Gippsland	419 km E
071-63777	"	18.11.87	Altona	46 km NNE
071-65933	Found sick	9.12.87	Booker Bay, N.S.W.	795 km NE
071-65932	Found dead	25.1.88	near Cape Otway	125 km WSW

In addition 14 more birds were sighted (band numbers of roosting birds read with telescope) at Ricketts Point, Beaumaris, in the period 3-14.2.87 (moved 42 km NE).

Dispersal within Port Phillip Bay after fledging, followed by a generally eastwards coastal movement during the first year, seems to be the pattern emerging from these first recoveries. Note however the recovery of one year old birds (with consecutive band numbers!) in northern New South Wales and (westwards) at Cape Otway.

Recoveries reported so far from a further 451 chicks banded at Mud Island on 13.12.87 are :-

071-82593	Found sick	4.2.88	Newhaven	60 km ESE
071-76269	Found dead	13.3.88	Mordialloc	43 km NE

The origins of other birds, all banded as chicks in South Australia, seen at Beaumaris in the period 3-14.2.87 were :-

071-20670	21.12.74	Bird Island, Wallaroo	809 km ESE
071-20589	"	" "	"
071-23789	23.12.75	Troubridge Island, Edithburgh	725 km ESE
071-7763.	28.12.86	" "	"
071-62588	14.12.86	Halfway Island, Coorong	531 km ESE
071-62598	"	" "	"
071-62525	"	" "	"
071-62795	"	" "	"
071-38783	16.12.78	Stoneywell Island, Coorong	542 km ESE
071-25206	3.12.83	" "	"
071-55871	"	" "	"
071-34254	14.12.75	" "	"
071-34222	"	" "	"
071-25833	7.12.74	" "	"
071-20336	9.12.73	" "	"
071-07699	14.12.69	" "	"

Note that the oldest bird was in its 18th year! This pattern of movement of South Australian adults and young birds into Victoria after the breeding season is similar to that of earlier sight records from Beaumaris.

#### Caspian Tern

091-06149	Chick	31.1.87	off Mann's Beach, Corner Inlet
	Found sick	13.6.87	Southport Broadwater, 1327 km NNE Queensland
	Died	15.6.87	" "
091-06139	Chick	31.1.87	off Mann's Beach, Corner Inlet
	Found dead	9.8.87	Bribie Passage, 1420 km NNE Queensland

V.W.S.G. has now had three recoveries on the southern Queensland Coast and one in northern New South Wales from 71 chicks banded in Corner Inlet up to the end of the 1986-87 summer. A further 40 chicks were banded there in the 1987-88 breeding season (plus three on Mud Island), so hopefully some further useful recoveries will ensue.

#### Silver Gull

Origins of birds whose band numbers were read with a telescope at Beaumaris (first bird on 18.8.84 ; the other two on 13.2.87) were :-

082-48769	Chick	6.12.83	Hobart, Tasmania	581 km NNW
081-86250	"	9.10.83	Mud Island	41 km NE
081-91986	"	30.10.84	"	"

FURTHER SIGHTINGS OF COLOUR-MARKED BIRDS

This list of sightings of colour-banded birds away from their banding locations follows that in V.W.S.G. Bulletin No. 11 of July 1987.

Pied Oystercatcher

-	16.5.87)	Stockyard Point	Eric & Sylvia Jones
	13.6.87) 12.7.87)	1 'pale green' (ex Queenscliff, 70 km E) bird in flocks ranging from 88 to 120 birds.	
-	26.7.87	Rosebud 1 'pale green' banded bird from Queenscliff (26 km E).	Mrs. J. Elmer
-	30.1.88	off Mann's Beach, Corner Inlet 2 'pale green' banded birds from Queenscliff (200 km ESE) in total flock population of 850.	Bob Swindley
-	9.4.88	Stockyard Point  3 'pale green' (ex Queenscliff, 70 km E) birds in flock of 133.	Eric & Sylvia Jones
-	5.6.88	Stockyard Point  1 'pale green' (ex Queenscliff, 70 km E) and 1 'orange' bird (ex Rhyll, 25 km NE) in flock of 116.	Eric & Sylvia Jones

Rednecked Avocet

-	19.12.87	Tullakool, near Moulamien, N.S.W. 1 'yellow' leg flagged bird seen in flock had been banded at Werribee SF on 31.10.87 (moved 294 km N). It is interesting that the unusually high Rednecked Avocet population in winter/spring at Werribee SF had largely disappeared by December/January following some inland rains.	Fred Smith
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INTRODUCTION:

One of the principal objectives of banding, and especially of enhancing this by the use of colour bands in addition to the normal individually numbered metal band, is to study the movements of birds. In the case of waders, such studies encompass both long distance movements associated with migration and shorter distance more local movements between different wader habitats.

To date, the major effort of the VWSG has been concentrated on the migratory species. This has shown the routes and destinations of some of these long distance migrants. It has also shown that most return to exactly the same location in Victoria each year and that there is negligible movement between locations during the period the birds are here (August/September to March/April).

PIED OYSTERCATCHER MOVEMENTS

In contrast data collected so far on the Pied Oystercatcher, a 'resident' species, shows a relatively higher degree of movements within Victoria.

BANDING LOCATIONS OF PIED OYSTERCATCHERS  
(1976 - 1987)

<u>Location</u>	<u>Newly Banded</u>	<u>Retraps</u>	<u>Total</u>
Werribee S.F.	84	27	117
Queenscliff	79	74	153
Stockyard Pt./ Yallock Creek	16	-	16
Rhyll	13	2	15
Corner Inlet	16	-	16
Inverloch	1	-	1
			<u>1</u>
* <u>TOTAL:</u>	209	103	312
	===	===	===

From only 209 birds banded to December 1987 (almost all were also colour banded) there have been 23 retraps/recoveries and 89 colour band sightings away from the banding location. 25 of these relate to movements between Port Phillip and Westernport Bays (ranging from 60-80 km), with two even longer movements to Shallow Inlet (170 km) and King Island (220 km) from Werribee S.F. (see table on next page).

There have been 73 recorded movements within Port Phillip Bay, mainly between Werribee S.F. and Queenscliff/Mud Island and, to a lesser extent, between Werribee S.F. and Altona. The 12 movements within Westernport have been between Rhyll, Stockyard Point/Yallock Creek, Long Island (Hastings), and the southern side of French Island.

\* Totals exclude 2 chicks banded at Queenscliff and 3 at Corner Inlet.

MOVEMENTS OF PIED OYSTERCATCHER

<u>Banding Location</u>	<u>Recovery Location</u>	<u>Colour Band Sightings</u>	<u>Retraps/ Recoveries</u>
Werribee S.F.	Port Phillip Bay	43	18
	Westernport Bay	8	2
	Shallow Inlet	1	
	King Island	1	
Queenscliff	Port Phillip Bay	12	
	Westernport Bay	3	
Rhyll, Phillip Island	Westernport Bay	10	
	Port Phillip Bay	5	3
Stockyard/ Yallock Creek	Westernport Bay	2	
	Port Phillip Bay	4	
		--	--
* <u>TOTAL:</u>		89	23
		==	==

Whilst colour band sightings and retraps do not all relate to different birds (an individual moving to a different location may remain for an extended period and be sighted - also even recaptured - on more than one occasion) the level of movements of Pied Oystercatchers between different locations within Victoria is clearly quite significant.

The volume of banding/sightings/retraps is however insufficient at present to show any particular pattern in these movements. The relationship of the relatively large Pied Oystercatcher populations in Corner Inlet (up to 1500 in late summer) to those in the rest of Victoria (less than 500) has not yet been explored. No data is yet available on the breeding localities of birds which adjourn to the different late summer/autumn moulting flocks.

FUTURE STUDIES

The Pied Oystercatcher seems to be a particularly suitable species for studying movements by colour banding because of the high level of resightings (e.g. 15 sightings and 3 retraps from only 15 birds banded at Rhyll!).

It is therefore planned to expand Pied Oystercatcher banding to answer some of the questions posed above. This new project will in fact replace the Double-banded Plover study which has been conducted over the last few years and which is now largely completed (and therefore contracting to a monitoring stage).

\* Totals do not include sightings/retraps at the banding location. Totals do not necessarily indicate the number of individual birds involved. Queenscliff birds regularly commute to Mud Island and such sightings are classified as local and are therefore not included in the above totals.

It is intended that Pied Oystercatchers be caught, and colour banded, at all the main locations throughout Victoria. Most banding effort will be when birds are in flocks in the period February to July. But extended fieldwork will be necessary to look for colour banded birds throughout the year, including in the August to January period when most birds will be at their breeding locations.

Initially only one colour will be used on each bird, with a different colour for each location (birds caught at two different locations may however have both colours!). Usually the metal band will be on the left leg and the colour bands (often two of the same colour, for greater visibility) on the right leg. Colour codes are:

Werribee S.F.	Blue
Queenscliff	Light green
Stockyard Pt./Yallock Creek	Red
Rhyll	Orange
Inverloch	Dark green
Corner Inlet	Yellow
Long Island, Hastings	White

Other colours may be allocated in due course.

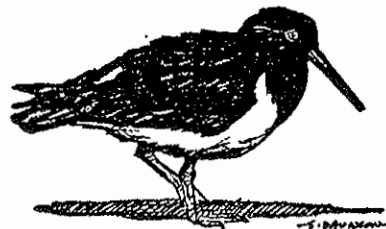
Please report all sightings which contain birds away from their banding location and give:

Location:

Date:

Number of birds in flock/examined  
for colour bands:

Details of all colour bands  
(including locally banded):



Please send reports to:

Clive Minton,  
165 Dalgetty Road,  
Beaumaris, 3193.

or

Mark Barter,  
21 Chivalry Avenue,  
Glen Waverley, 3150.

(Tel.: 589-4901)

(Tel.: 233-2330)

P.S.

Since the above was written in May the Pied Oystercatcher study has taken off with a bang! Samples have recently been caught at all the above locations except Rhyll. 156 new Pied Oystercatchers have been banded (to 3rd July) and a further 25 recaptured. The latter contained many interesting movements, including one from Werribee S.F. to Barry Beach (nearly 200 km) in only five weeks. Furthermore our first major sample of Sooty Oystercatchers - 37 at Barry Beach on 2nd July - has been caught. Finally recent colour band sightings include two Queenscliff-banded birds near Port Albert (over 200 km).



RADAR STUDIES AND WADER COUNTS AT BROOME/ROEBUCK BAY  
9 March to 7 May 1988

A Preliminary Report

Coinciding with the North-western Australia Wader Expedition, a two-months' study in the Broome area using radar and beach counts was arranged to take place during the northward departure of migrant waders in the hope of adding to knowledge gained in previous short-term studies.

In particular it was hoped that the information obtained from radar photographs could be correlated with the information obtained from counts made on the beach on the following day so as to show which species had been detected on radar and how many birds had departed. To achieve this the counts of each species had not only to be made as accurately as possible but the proportion of adult birds (which would migrate) had also to be determined.

From 9th to 31st March an advance party of three - Bob Swindley, Brenda Murlis and Nick Murlis - were in Broome, daily manning the Bureau of Meteorology radar screen at the appropriate times and counting along the beaches when and where possible.

From 1st April to 7th May the work was continued by Gail Hooper and Brice Wells the wardens of the newly established RAOU Broome Bird Observatory (in between digging ditches and laying concrete in preparation for the installation of facilities at the Observatory). They were given good assistance by a Broome schoolteacher, Brian Kane, who is a keen bird watcher and by some members of the banding expedition.

The plan was to :

i) to carry out daily counts at a selected site. Quarry Beach was chosen as being the nearest to a discrete site in that part of Roebuck Bay. The aim was to determine the number of adult birds of each species by taking a total count and assessing the proportion of adult birds. This was possible because the adults were in full or partial breeding plumage.

ii) to make weekly counts on all beaches between Dampier Creek and Crab Creek with the same aim.

iii) to take time-lapse photographs of the radar screen daily from 5 p.m. to 7 p.m. at specified intervals using the procedure set out in Appendix 1 of R A O U Report No 42 - "Wader Expeditions to Northern Australia in 1986" by Brett Lane.

Daily weather maps from 9th March to 7th May and some satellite pictures of cloud conditions over Australia and the western Pacific region north to China have since been obtained from the Melbourne Meteorological Office together with daily records of wind speeds, directions and variations with altitude. This data and the radar photographs of departing flocks were obtained to provide basic scientific data for future analysis and testing of the general theory that birds usually depart in a north-westerly direction from the Broome/Anna Plains/Port Hedland area, aided by a south-easterly to easterly wind surge across Australia. These wind surges are the result of high pressure systems

across southern Australia when centered near the head of the Great Australian Bight - Victoria region.

This was the weather pattern used by birds departing on northward migration during the study periods in April 1985/86 and 1st April to 4th April 1987. The intent in 1988 was to extend the study period considerably to obtain more data.

Successful counts were made on most days although many variables were encountered. During neap tide periods - 13th to 15th March - the high tide limit was so low the birds were scattered over vast areas of intertidal mudflats making it impossible to identify the species on Quarry Beach. On the other hand, king tides - from 20th to 22nd March - quickly pushed birds off the beaches, leaving little or no roosting spots and resulting in waders flying over the beaches to the claypans behind Crab Creek. The claypans are subject to low level flooding from king tides making ideal feeding and roosting areas; they are inaccessible from the ground but make for interesting viewing from the air.

King tides also flooded claypans behind Dampier Creek estuary, cutting off the shorter access road to the beaches, pushing millions of insects along looking for dryer ground and thus providing excellent feeding for 5000+ Oriental Pratincoles (*Glareola maldivarum*) and hundreds of Little Curlews (*Numenius minutus*). The very dry "wet" season was thought to account for the unusual occurrence of so many Oriental Pratincoles in the area.

Each day the inevitable raptors patrolled the beaches, disturbing the roosting waders, causing take-offs and rollovers of flocks and generally making life difficult for the counters.

When counting along the beaches was not possible the team went inland to Roebuck Plains looking for Little Curlews. The plains carried an abundance of grasshoppers and other insect life. There were some very small pools of water near bore overflows around which were a few Masked Lapwings (*Vanellus miles*) and Australian Pratincoles (*Stiltia isabella*); otherwise it was all very dry and hot. Many small flocks of Little Curlews were seen flying from the plains to the beaches - was this (as was later observed) to cool their feet at the water's edge as a respite from the hot plains?

On 28th March, after days of threatening storms, a monsoonal depression dumped 115mm of rain on Broome (and 185mm on the banding party at Anna Plains), cutting off access to the beaches of Roebuck Bay. Most bitumen roads were open and counts were made on "town beaches" but understandably, very few waders feed and roost so close to human habitation.

Interesting observations :

14/3/88 - 3000+ Oriental Plovers (*Charadrius veredus*) spread out on the mudflats at Crab Creek estuary.  
5000+ Little Curlews standing in water at the tide's edge at Crab Creek before flying back to Roebuck Plains.  
100,000+ waders on the beaches south of Crab Creek, stretching as far as the telescopes could see towards Bush Point.

17/3/88 - The Fly-Past! Birds very thin on the ground and then within the next five minutes, 17,000+ medium to large waders

flew past from the north in flocks of varying sizes, low over the ebbing water, to feed on mudflats at Crab Creek.

often - Hundreds of waders seen sitting on the beaches - the temperature was 40+ degrees. Birds were in full breeding plumage and had obviously gained a great deal of weight. Were they feeling the strain of the heat and their extra fat?

often - The albino Bar-tailed Godwit (*Limosa lapponica*), seen each year since 1981, was again observed a number of times, feeding and roosting with the flocks.

The counts revealed that during March some 8,000 to 12,000 waders roosted daily on Quarry Beach having fed mostly in the Dampier Creek/South Broome mudflats area and that 30,000 to 40,000 waders roosted along the stretch of coast between Dampier Creek and Crab Creek.

The flock content averaged 40% Bar-tailed Godwits of which 80% were adults in breeding plumage; 23% Great Knots (*Calidris tenuirostris*) with 76% in varying stages of breeding plumage; 10% Red-necked Stints (*Calidris ruficollis*) with only 5% showing any signs of breeding plumage and approximately 8% Large Sand Plovers (*Charadrius leschenaultii*) with 65% in breeding plumage.

Other species seen in substantial numbers were Black-tailed Godwits (*Limosa limosa*); Red Knots (*Calidris canutus*) 75% of which were in full breeding plumage; Ruddy Turnstones (*Arenaria interpres*), very fat and 80% in breeding plumage; Grey-tailed Tattlers (*Tringa brevipes*); Terek Sandpipers (*Tringa terek*); Curlew Sandpipers (*Calidris ferruginea*); Greenshanks (*Tringa nebularia*); Whimbrel (*Numenius phaeopus*); Eastern Curlew (*Numenius madagascariensis*) and Grey Plovers (*Pluvialis squatarola*).

The extremely humid weather adversely affected the clarity of pictures on the radar screen during early to mid March but some departures were indicated on 12th March and 25/26th March. Counts on the following days did not reveal any great change in numbers or proportion in breeding plumage of any particular species. The combination of low tides, heavy monsoonal rains, very strong winds and the inaccessibility of some of the beaches, made counts after 28th March to 1st April, when the team left Broome, of little scientific value.

Subsequent radar studies showed departures on 1st, 7th, 13th, 14th, 20th and 21st April and 2nd May. First indications are that departures shown on the radar screen were not as concentrated as in previous years. Preliminary studies of the weather maps and satellite pictures indicate abnormal weather patterns over Australia in early 1988 compared with 1986 and 1987. The Summer/Autumn high pressure systems appear to have crossed southern Australia much further south (by some 500km to 800km) in 1988 than is "normal". Qualified meteorologists have still to be consulted to interpret data but it appears that this year's weather patterns did not clear the skies of clouds across Indonesia as frequently as in previous years and the south-east wind surges were not strong at ground level in north-west Australia thus allowing more days with afternoon/evening north-westerly sea breezes to come in at Broome.

The birds departing on 25th and 26th March had a reasonable tail wind component on take-off but very cloudy conditions (7/8 and 8/8 cloud) and a monsoonal low

ahead of them over the seas between Australia and Indonesia. The winds around a low pressure system will give a tail wind component to north-westerly migration if the centre of the low is over the Timor Sea to the Kimberleys.

The unusual weather patterns during the northward migration season in 1988 should, when analysed, provide useful data on alternative strategies the birds adopt when conditions are not ideal.

Although no detailed counts were carried out after 31st March, Gail Hooper and Brice Wells, at the Observatory, witnessed good afternoon departures at varying times during April including one huge group of approximately 1000 Godwits leaving at mid-afternoon on 10th April, two similar sized groups in the early afternoon and early evening of 13th April, several flocks leaving on 15th April (mostly of 50-60 birds but one group of 200+) and another departure of 1000 birds on 16th April. There were some evening departures but many more during daylight hours.

These are very important sightings as previous radar observations and visual migration watches had indicated that waders left for northward migration within one hour before and after sunset.

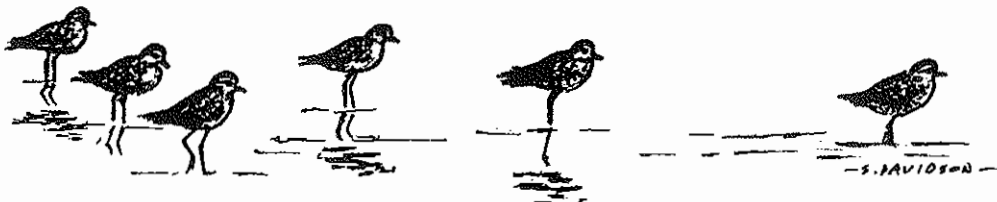
The site of the RAOU Broome Observatory has been well chosen to observe such departures. The wardens have volunteered to carry out regular counts for the Australasian Wader Studies Group, thus much more important information on wader movements and numbers of birds wintering in the Broome area can be anticipated from this remote but vital location on the waders' migration route.

Brenda Murlis  
Mick Murlis  
Bob Swindley

#### Acknowledgments

Grateful thanks are due to :

- a) Brett Lane, for his guidance and the benefit of his experience.
- b) Personnel at the Meteorological Station at Broome for the use of their equipment, for supplying wind strength/direction data and for their advice
- c) Melbourne Meteorological Office for supplying daily weather maps, satellite pictures and other climatic details.
- d) Gail Hooper and Brice Wells of the Broome Bird Observatory, for their invaluable assistance in continuing the radar studies, for being so vigilant in noticing daytime departures of waders and for serving life-saving cups of tea when the hot, dry conditions became very trying.



THE 1988 N.W. AUSTRALIA WADER EXPEDITION

The latest wader expedition to N.W. Australia was a fantastic success! Five V.W.S.G. members participated in the main expedition - Iva Savage, Ros Jessop, Dave Cropley and Clive and Pat Minton. In addition Brenda and Mick Murlis and Bob Swindley carried out wader observations (and daily shore counts) of waders departing on migration at Broome from 7th - 31st March. Their experiences are reported in a separate article in this bulletin. All participants voted the expedition the best so far (they have been almost annual since 1981) for both scientific achievements and personal enjoyment.

A total of 6638 waders (and terns) was caught in 14 cannon net and 4 mist net catches over the three week period from 19 March to 10 April. A catch was made on every occasion the nets were set. The strength of the team - 25 experienced wader banders from throughout Australia (15) and overseas (10) - enabled much more ancillary data to be collected than on previous expeditions, with the age/weight/moult/% breeding plumage being recorded on all birds as well as full biometric data on many.

The "top ten" species totals caught were:

Terek Sandpiper	1005
Bartailed Godwit	955
Great Knot	856
Curlew Sandpiper	802
Red Knot	722
Greytailed Tattler	579
Large Sand Plover	570
Rednecked Stint	391
Broadbilled Sandpiper	336
Turnstone	140

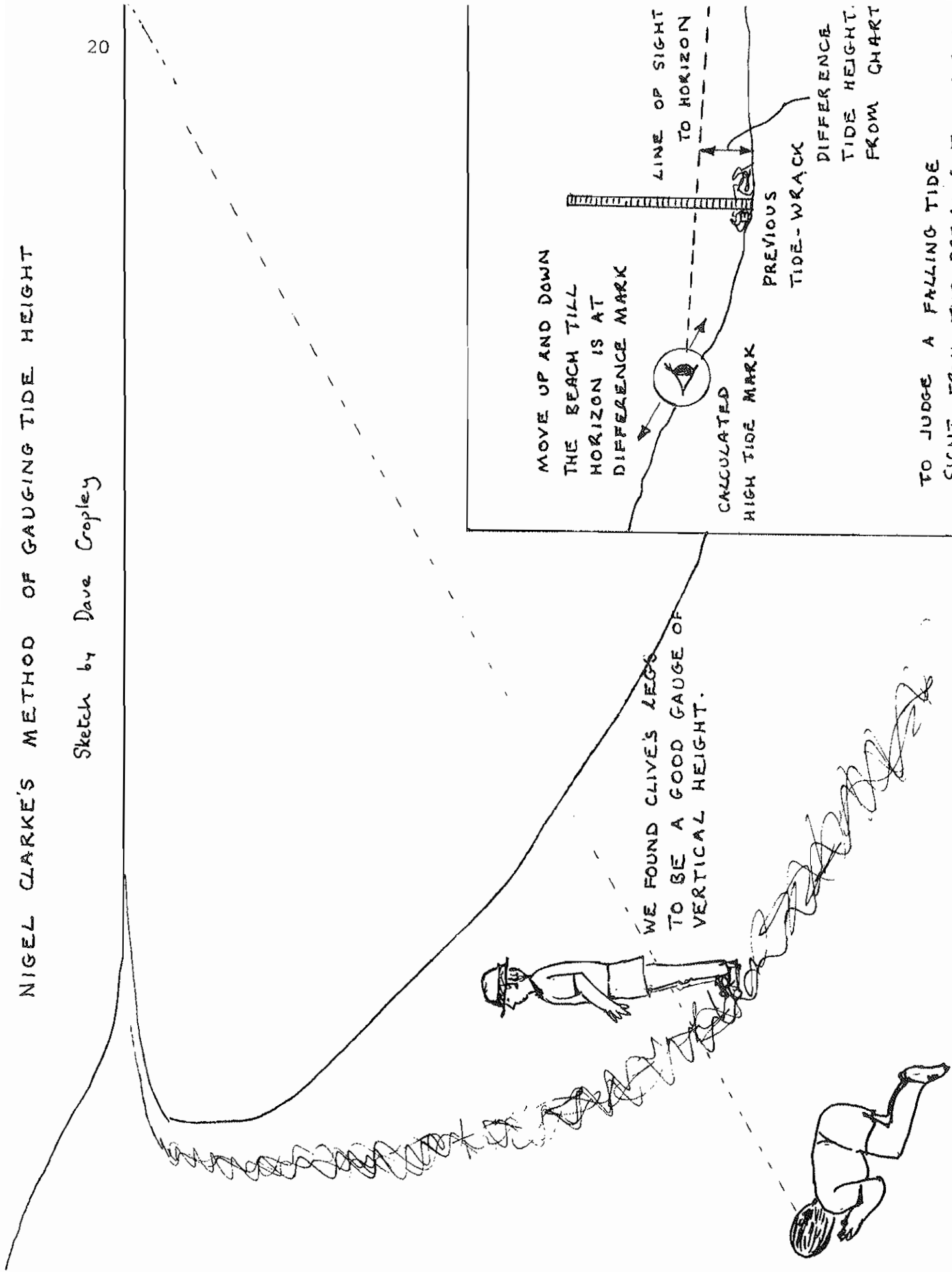
Highlights were two cannon net catches at Broome each with over 250 Terek Sandpipers and a mist netting catch at Port Hedland saltworks which included 236 Broadbilled Sandpipers in a four hour period.

There were also three exciting 'controls'. A Bartailed Godwit which had been banded as a juvenile in Hong Kong in September last year was recaptured on the beach beside the new Broome Bird Observatory. In the same catch was a Terek Sandpiper carrying a Japanese band! The expedition also recaptured a Curlew Sandpiper (carrying a leg flag) banded by V.W.S.G. at Werribee S.F. less than three months earlier (2nd January).

Every previous expedition to N.W. Australia has enjoyed the perfect climate and encountered not a drop of rain. This one made up for it with monsoon conditions at Anna Plains, 80 Mile Beach, on 29th March when 185mm of rain fell in 24 hours. Even the Great Sandy Desert was flooded and the De Grey river rose 40 ft washing away part of the Princes Highway between Port Hedland and Broome. Conditions were unsuitable for migratory departures for a week resulting in huge weight build ups in birds. A massive emigration took place as the weather finally cleared on 1st April with some 25% of the wader population departing in one night.

NIGEL CLARKE'S METHOD OF GAUGING TIDE HEIGHT

Sketch by Dave Copley



WE FOUND CLIVE'S LEGS TO BE A GOOD GAUGE OF VERTICAL HEIGHT.

MOVE UP AND DOWN THE BEACH TILL HORIZON IS AT DIFFERENCE MARK

LINE OF SIGHT TO HORIZON  
CALCULATED HIGH TIDE MARK  
PREVIOUS TIDE-WRACK  
DIFFERENCE TIDE HEIGHT FROM CHART

TO JUDGE A FALLING TIDE SIGHT FROM THE PREVIOUS TIDE-WRACK

Some exciting recoveries of birds banded on the expedition have already been reported. A Greytailed Tattler banded at Broome on 7th April was recaptured in Taiwan on 15th May, a movement of 4800 km. The 'recoverer' was none other than Doug Watkins, the joint leader of the expedition, who had subsequently gone to various countries in Asia to instruct them in wader banding techniques!

Two Great Knot, one from Broome and one from 80 Mile Beach, were reported from Shanghai, China, in late April and early May - within a month of being banded (movements of around 5500 km). All of these are part of a larger batch (of over 20) wader recoveries reported from China in the last three months - the results of increased efforts by Wang Tianhou, from Shanghai University. He participated in one of the 1986 N.W. Australia expeditions and subsequently joined the V.W.S.G. in Victoria for a few days for further wader banding experience.

There are no firm dates yet for the next wader expedition, but late September/early October 1989 is a possibility. Let us hope there is the normal strong contribution from the V.W.S.G.

CLIVE MINTON

#### GAUGING TIDE HEIGHTS

One of the valuable aspects of the recent N.W. Australia wader expedition was the opportunity to exchange ideas and techniques with wader experts from throughout Australia and from overseas.

Of particular interest was a technique (devised by Nigel Clark from England) for accurately predicting the position of the next high tide by using the horizon as a reference point. The attached sketch illustrates how the predicted tidal difference can be used, in conjunction with the tideline from the previous high tide, to determine the likely position of a future tideline.

This technique worked particularly well at Broome and 80 Mile Beach where tidal variations are large (up to a metre difference between successive tides) and weather conditions and atmospheric pressure stable.

DAVE CROPLEY

## FIELD NOTES

## GODWITS IN FEEDING FRENZY

Manning Valley Birdwatchers decided to reconnoitre Manning Point, New South Wales. The Point juts out from Mitchell's Island situated between the mouth of the North Passage of Manning River and the Pacific Ocean : it has sand spits, bars, dunes and beaches.

We had seen from Harrington, on the other side of the River, a mass of silhouettes of birds. They were too far away for identification. We assumed it was a high tide roost area.

Only a few members turned up as the weather was awful - wet, stormy and with a strong shore wind. As a president of the F.O.C. once quipped, members who turn up in this sort of weather must be unhappy at home! Walking was difficult in the soft sand. We were unable to utilise the hard sand of the tide edge as spume two feet high was running in with monstrous waves.

The first birds seen were resting in the valley of some high sand dunes - hundreds of Common Terns interspersed with a few Little, Crested and Caspian Terns. On the extreme point we came across sixty Bar-tailed Godwits feeding in a most peculiar manner. They were fluttering above the spent waves and just above the spume. As soon as the shore was exposed they grabbed some morsel from the surface, landing briefly to do so. They continued to feed in this way, doing so by sight like Dotterels and not their usual probe and find.\* We tried to ascertain what food was causing this frenzy but the waves and spume made it impossible.

We started our return journey on the river side of the Point, but in the high wind the river was behaving like an ocean. Waves were breaking down the banks making ephemeral lagoons. Few waders were roosting, most rushing around feeding. Only the Lesser Golden Plovers were behaving with their usual decorum. Our reward for the day was the sighting of two Sanderlings : perhaps the storm had blown them our way. On reaching the mangroves the river was made to give up its wave capers, but as it deepened, we had to cut across to the ocean side of the Point. The tide having receded we examined the shore carefully but all we could find were the remains of hundreds of Bluebottle Stingers. Perhaps the Godwits were eating these but it seems unlikely.

Berrice S Dale

\* An article by Peter Dann on the feeding behaviour of four species appears in the Victorian Wader Study Group Bulletin No 7 July 1983 pp 2-6. Ed.



RUNNING THE GAUNTLET IN JAVA

Mark Barter

I have long had a wish to visit the Indramayu-Cirebon region on the north coast of Java because hunting of waders for food is common in the area and I was interested in finding out about the catching and marking techniques used. Additionally, as a sad but fortuitous result, a number of the captured birds had been found to have on VWSG bands and, for me, it's always an experience to make a pilgrimage to recovery sites of birds that have been banded by the Group. To date there have been four recoveries of VWSG-banded birds including two Curlew Sandpipers from Werribee and one Red-necked Stint from each of Werribee and Yallock Creek. Additionally, two Red-necked Stints banded in Western Australia have been caught there.

Java lies directly across the flight path of waders migrating between Asia and north-western Australia (see Fig. 1) and, undoubtedly, many of the waders would stage somewhere on the island during their journeying. Whilst count data is limited, a University of East Anglia team estimated that around 19000 waders passed through a 100 hectare fish pond site during a six day period at the beginning of September 1984. The site involved is between Indramayu and Jakarta and is reminiscent of the coastal fish ponds in the Indramayu-Cirebon area. 90% of the birds were Curlew Sandpipers or Red-necked Stints, with somewhat more of the former.

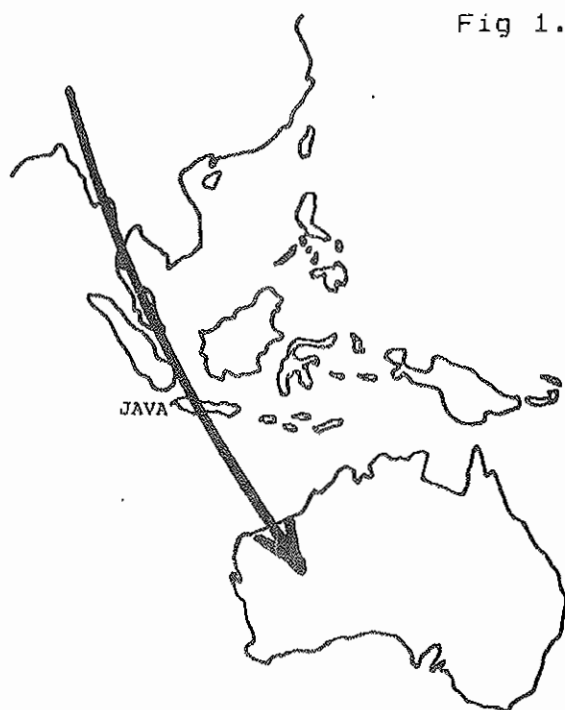


Fig 1. Location of Java with notional migration route.

Hopefully, the increasing efforts of the Asian Wetland Bureau (AWB) in Indonesia will lead to better data on wader numbers in Java and the sites that waders use, especially on migration.

Duncan Parish has estimated that between 1/4 and 1 1/2 million waders are caught annually in south-east Asia. As the flyway population is estimated to be 5 million, it seems unlikely that the upper figure could be true as it would exceed the sustainable yield level. The lower figure is probably an underestimate. The wide range in the catch figure is due to the paucity of information on catch sizes in the various countries of the region of which, perhaps, only in Malaysia, Taiwan and Hongkong are waders not caught for human consumption.

Whilst data for Indonesia are also limited, work in 1984-85 by Randy Milton and Agus Mahardi showed that at least 300,000 water birds are caught annually between Indramayu and Semarang in central north Java (see Fig.2 for location). Of this number, about 100,000 are waders of 20 different species with the major ones, in numerical order, being Pin-tailed Snipe, Wood Sandpiper and Oriental Pratincole. Other species caught which may be travelling to or from Australia are Red-necked Stint, Curlew Sandpiper, Grey-tailed Tattler, Ruddy Turnstone, Greenshank, Bar-tailed Godwit and Large Sand Plover. They reported that hunters worked different parts of the coastline according to season, as the species composition and habitat availability change.

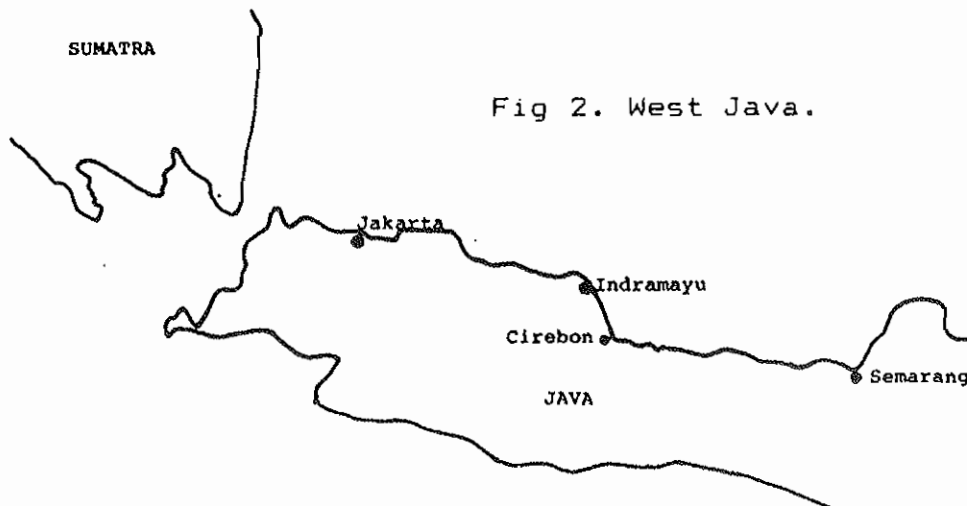
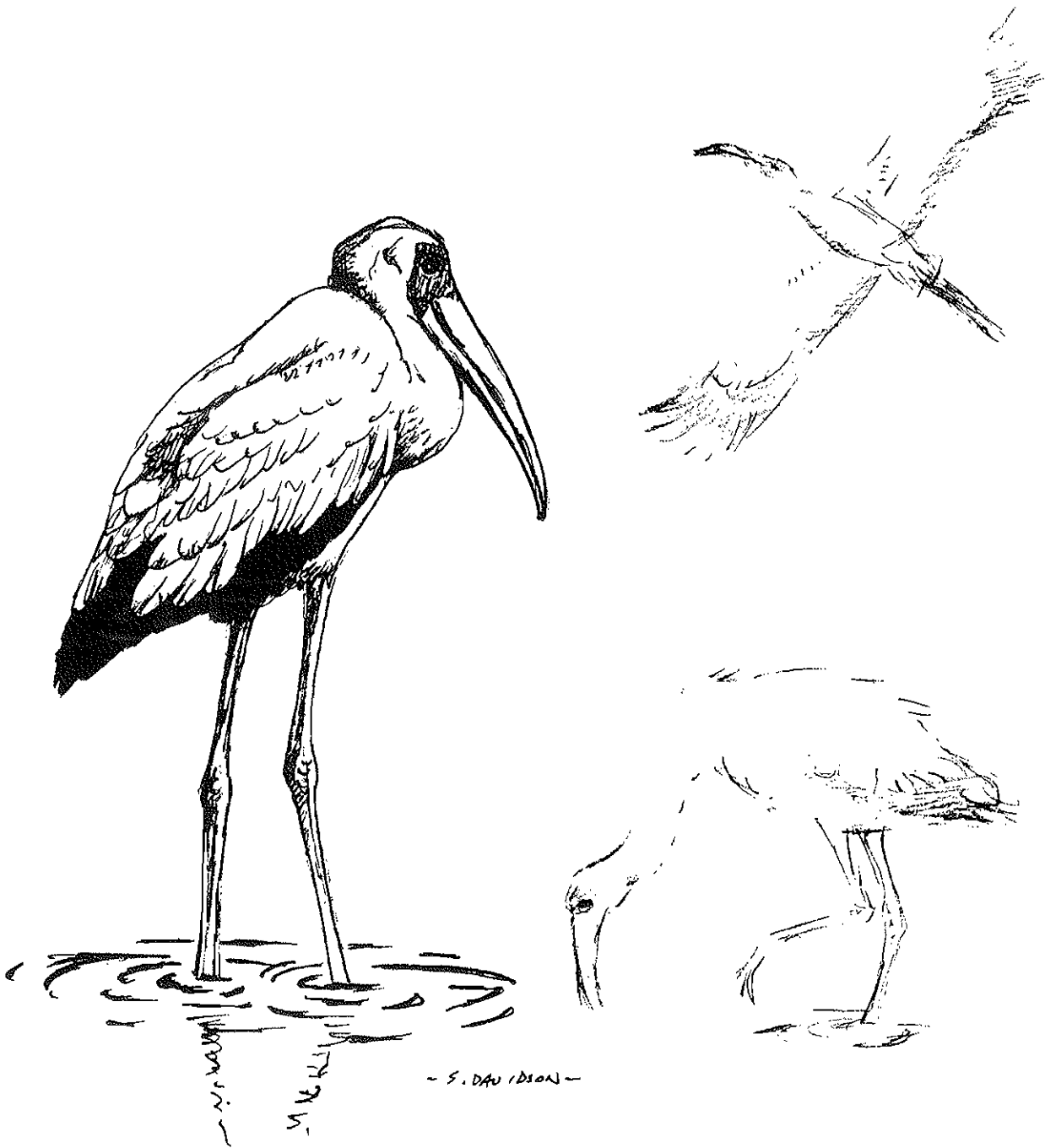


Fig 2. West Java.

Cirebon is some 250 km and 6 hours drive to the east of Jakarta. I was lucky to have as companions and guides Pandu Hartojo and Agus Marhardi (1986 north-western Australia Expeditioners) and Frank Lambert of the AWB, who was shortly leaving to survey wetlands and waterbirds in southern Irian Jaya which is to the north of the Gulf of Carpentaria. Incidentally, Agus has been the person responsible for retrieving the VWSG bands and whilst in Australia came on a VWSG catch to Yallock Creek, where one of the recoveries was originally banded.



MILKY STORK

The journey to Cirebon is extraordinarily exciting, not because of the geography, which is flat and rather uninteresting, but because of the appalling driving. The Victoria Police would have a field day. But the courts wouldn't be big enough! The road is the main highway between Jakarta and the second largest city on Java, Surabaya, which is at the opposite end of the island. It is liberally littered with wrecked vehicles and inhabited by maniacal bus drivers seemingly intent on taking their passengers to an early grave.

The Indramayu-Cirebon area is mainly devoted to rice paddies, inland from the coastline, and an ever-expanding network of fish ponds on the coast itself. In the parts of the coast that we visited there was little mangrove left, this having been removed during the construction of ponds. There appeared to be little in the way of inter-tidal mudflats because these are converted to fish-ponds as soon as they are formed (the north coast of Java is steadily accreting due to soil being carried down by rivers). Rice paddies, either when lying fallow or when being prepared for cultivation by flooding and ploughing, provide suitable feeding habitat for waders, particularly those which prefer fresh water habitat, such as Snipe and Wood Sandpipers. It is in these regions where hunting takes place.

We were told that there are between 40 and 100 groups of hunters in the Cirebon-Indramayu region depending on the season and that their catches are handled by up to 7 wholesalers, who in turn sell to the food stalls in Cirebon.

Typically, catching teams will erect self-made single-shelf mist nets during the late afternoon across suitable feeding and roosting areas. The nets are around 1.5 metres deep and 40 metres long with a mesh size of about 7 centimetres. Birds are often moved closer to the nets at nightfall. I saw this being done with large flocks of Oriental Pratincoles as they were coming in to roost in the late afternoon.

The nets are emptied of birds for a couple of hours after sunset and are then generally left unattended during the night, before being cleared at first light when all birds are taken to the wholesalers.

We spent the night at Cirebon, where I graciously paid the hotel bill for the four of us (a total of \$7.50 - not including breakfast I might add!). Agus' choice of hotel was excellent because it was very close to the railway station where there were a number of food stalls selling fried pieces of wader.

The stalls are hand-barrows that can be wheeled around to crowded areas containing potential customers, such as railway stations and street markets (we also visited some stalls at the latter). Each stall has a "wok" which is used to fry the plucked and cleaned pieces. A wader such as a Snipe or Lesser Golden Plover is split

into two pieces, whilst Oriental Pratincoles make up one portion each. Larger birds such as a Moorhen are split into four pieces. Each fried piece, irrespective of species, costs around 12 cents.

I chose Pintail Snipe and found it to be very tasty. Tender with a good flavour. However, if prizes are to be given for gastronomic feats with waders I'm sure that John Howes of the Asian Wetland Bureau would be a clear winner. He's actually eaten fried Asiatic Dowitcher in southern Thailand!

The next morning, at around 7am, we visited a wholesaler at Singakerta which is about 10 km north of Cirebon. By that time he had received some 55 birds from four groups of hunters, with more to come from the outlying areas during the next hour or so. The species in the catches were Oriental Plover(40), Pintail Snipe(7), Lesser Golden Plover(4), Wood Sandpiper(2), Little Ringed Plover and Moorhen(1 each).

The birds are delivered in groups of about 10-15 with all the birds tied together by the legs with fishing line. It's a pitiful sight to see them lying in a heap on the ground, unable to find a comfortable or dignified position. The objective is to keep the birds alive, as little is paid for dead ones due to the possibility of meat spoilage. All the Snipe and Plovers were still alive, but some of the Pratincoles were dead. The latter did not seem to be anywhere near as robust as the former two species.

Discussions with the wholesaler indicated that 500-1000 birds were being caught each night in the region at that time of the season. This number cannot be extrapolated to an annual haul, as nightly catches will vary considerably during the year.

To Australians, the prices paid by the wholesaler would not seem to make the hunters' efforts worthwhile. For example, hunters received 8 cents/bird. These were then sold to the food-stall owner for 10 cents who sold, in turn, pieces of fried bird for 12 cents.

However, the average income of Indonesian farmers is around \$10 per week. Therefore an additional income of, say, 50 cents/day is significant. Obviously, the food stall owners must also be finding their business profitable or they wouldn't be doing it either.

It's difficult to believe that the additional protein supplied by the captured birds is significant. Probably, fried wader is a luxury item and only affordable by the more affluent Indonesians. Therefore, whilst the catching and selling of birds may be of economic importance to hunters, wholesalers and food-stall owners, it does not seem to be a significant part of the local food supply.

None of the common waders caught are protected under Indonesian

law and even if they were enforcement would be very difficult to achieve.

Milton and Mahardi have suggested that a system of licencing could be progressively introduced which would be aimed at controlling the catch at a sustainable level. Emphasis would be placed on catching resident waterbirds whose population levels can be more easily monitored than those of migrants. An educational programme would be introduced with the objective of stopping the hunting of rarer species, such as the Milky Stork.

An interesting possibility may be to pay wholesalers the market rate for birds (say 10 cents each) and then band and release them. It probably costs the VWSG more than 10 cents to band a bird, and this does not include the cost of the band itself. The Australian Banding Scheme may even be interested in subsidising the cost, especially if banding is limited to species which may be migrating to or from Australia.

Adequate supervision would be required to ensure that the birds were properly handled and released and that biometric information was accurately obtained. Perhaps in time the need for active supervision would decline; but probably not.

An additional benefit of such a programme would be some insurance that band numbers from captured birds would be obtained. When Agus Marhardi was working in the area some three years ago, six Australian bands were recovered; there have been none since.

Interestingly, in southern Thailand where birds are apparently caught more for sport than gain, the AWB has successfully encouraged the catchers (generally young boys) to form teams and to dissipate their energies by playing soccer rather than by catching waders. This kind of option is probably not feasible in Indonesia where incomes are generally considerably lower and the attractions of supplementing them by catching waders obviously more attractive.

The Indramayu-Cirebon area is used by other water birds than waders. The most notable is undoubtedly the Milky Stork (Red Data Book bird) of which we saw 68. Unfortunately, hunters catch this species by using clap nets. We also saw a variety of herons (Grey, Purple, Javan Pond- and Black-crowned Night-), egrets (Cattle, Little and Intermediate), duck (Lesser Tree- and Grey Teal) and terns (out to sea, but probably Common). Waders seen, other than those at the wholesaler, were Greenshank, Common Sandpiper, Whimbrel and Pheasant-tailed Jacana.

The visit to the Cirebon area was well worthwhile. The birding, alone, would have made the trip successful. However, the opportunity to see at first hand how waders are caught and marketed was very instructive and it is obvious that the problem of how to eliminate or control the harvesting of waders is a very complex one.

TERNs

Fairy Terns failed to breed successfully at Werribee S.F. for the second successive year. This was probably because no clearance of ground-vegetation was carried out (in either year) on the small island off South Spit where the Fairy Terns normally breed.

The terns were thus forced to nest on an exposed beach on South Spit. The three nests with eggs (and about eight other 'scrapes') were inundated by a high tide in November and the birds then deserted the area. Permission has now been granted to resume limited vegetation clearance and this will be done before the 1988 breeding season.

It appears that the Werribee Fairy Terns moved to Sand Island, Queenscliff, and to Mud Island and bred reasonably successfully. Over 30 nests were reported at the former by John Pratt and Mark Barter in December/January and about 20 nests at the latter. Two chicks were banded at Queenscliff where most young fledged in late January/early February.

Crested and Caspian Terns seem to have had a bumper year in the 1987/88 summer. At Mud Island there were 20 pairs of Caspian Terns on 13th December - 10 with eggs and the rest with young (3 chicks banded). There were approximately 50 pairs of Caspian Terns on Box Bank, off Manns Beach (Corner Inlet), with the breeding season being very extended as usual (due to some nests being flooded but the birds subsequently re-laying). There were 35 nests with eggs on 7th November, 30 nests with eggs on 20th December (when 13 chicks were banded), still 10 nests with eggs on 10th January (22 more chicks banded), and even 3 nests with eggs on 30th January (when 5 further chicks were banded). The 43 Caspian Tern chicks banded this summer brings the V.W.S.G. total to 114.

Crested Terns at both Mud Island and Box Bank unusually arrived and commenced nesting in 'waves', rather than synchronously. The first eggs were laid at both sites in early November. 541 chicks were banded at Mud Island on 13th December - most newly hatched - and there were still a further 200 nests with eggs. Subsequently - in late December - another 200 pairs commenced nesting (spreading into the area cleared of vegetation in winter 1987). This gave a total population of c. 900 pairs. The last chicks did not fledge until February.

At Box Bank there were 39 nests (each with its standard 1 egg clutch) on a grassy hillock on 7th November. 100 chicks (out of 150 present) were banded on 20th December by when there were a further 150 nests with eggs. An additional 108 chicks were banded on 10th January, when 30 nests with eggs remained. These had all hatched by 30th January. It is estimated that around 350 pairs in total bred - the first large nesting colony in the area for more than five years.

Some excellent recoveries of Caspian Terns and Crested Terns have been reported in the last year and these are detailed in the 'recoveries' section.

Banding of tern chicks will be continued at all the above sites in 1988/89. It is also hoped to extend tern studies to include cannon net catches of Common Terns and Little Terns in the Gippsland Lakes area near the RAOU Observatory at Rotomah Island.

## ARE YOU RECEIVING ME?

It is some years now since we abandoned handkerchiefs in favour of walkie-talkies. Well, not entirely abandoned : radios tend to be unreliable whereas handkerchiefs are not - although their use can be a bit confusing : "one wave means stop; two, get going again; three, lie flat on your face and move if you dare." Or was it " One handkerchief means start again; two, return to base; three, ....."?

Radio communication means efficiency. At least it should. But mikes allow scope for a wide variety of style and seem to encourage expansiveness and emphasise eccentricities. They, unlike telephone answering machines, stimulate loquaciousness

It had been your contributor's intention to write a serious article on how to use walkie-talkies more effectively. Somehow the intent has become submerged in frivolity. The result is a mish mash of misquotations and re-worked old jokes, of plagiarisms, quarter-truths and pure nonsense. Here, though, is a not too unlikely exchange of banalities on the radios - in which the participants are intended to bear no resemblance to any person living, dead or in suspended animation.

IRE (Inhuman Resources Executive) - At Firing Position :*How many birds have you TWIT?* TWIT (Terribly Witty, Indefatigable Twinkler) : *About three. We'll have a recount shortly.*

IRE : *What about you, One?* First Twinkler (Earnest Young Ornithologist) : *I have a large flock of small waders mostly stints and curlew sands : some in partial breeding plumage. Shall I move them up? Over.* Silence.

FIRST TWINKLER : *One to Firing Position. Can you read me? Over.* Repeats this several times without reply.

IRE : *There are 400 birds just outside the catching area and at least two inside.* TWIT : *They're both sitting on the net* IRE

Excited Italian or perhaps Greek voices in a prolonged and heated exchange. The fishermen are out on the Bay. Who is more bemused? They about us or us about them? Each group remains politely quiet during the arcane exchanges of the other.

FIRST TWINKLER : *One to Firing Position. Can you read me? Over.*

IRE : *STAND BY! We're about to fire. I'll warn you just before we do.*

Unidentified CYNIC in aside to no-one in particular. *We've heard that one before old boy.*

IRE : *They've all taken off for Austin Road Lagoon/ Dream Island/the Saltworks/Mud Islands/ (or as the case may be, and usually is).*

FIRING POSITION : *Turn off all sets for 10 minutes. IRE has gone out to untangle the jigglers/mend a break in the circuit/set some decoys/have a ...*



Lost in static. The well-defined form of IRE can be seen crawling hard and fast towards the nets, apparently confident of invisibility, .

BASE (Manned by elderly former military person): *BASE to Firing Position. Say again. Receiving you strength four with interference.*

FIRST TWINKLER : *One to BASE. Can you read me over?*

IRE (now back at Firing Position) : *IRE to One. Are you switched on?*  
Unidentified CYNIC : *He must be joking.*

FIRST TWINKLER : *One to IRE. Yes. Receiving you loud and clear. I think we should re-set the nets nearer the point. Stunned silence from all except Firing Position.*

IRE : *We had that in mind. Now re-assessing the position.*

SECOND TWINKLER (an honest yeoman): *I'm up to my knees in sewage. Can I move out?.... Over.* IRE : *Everyone get DOWN FLAT! Birds overhead.*

IRE : *We've lost everthing and it's nearly high tide. We need to do something urgent. What's the general opinion? One: I think we must..... Squelched by IRE (who has a much more powerful set and his own answer to his question)*  
IRE : *BASE! I want two more twinklers out straight away. One to the north to collect all medium and large waders from the point (I don't want ANY small waders) and the other along the creek bed to its mouth. They MUST KEEP OUT OF SIGHT - DOUBLED UP OR CRAWLING UNLESS I SAY SO.*

BASE : *They're on their way. Twinklers three and four. At the double as requested.* IRE : (Two minutes later) *Are those twinklers in position? Please report - we have to act QUICKLY!*

THIRD TWINKLER ( who made gallant progress through a swamp but still has six hundred yards to go) : *Unintelligible remarks and much heavy panting.*  
IRE : *Three, keep your aerial UP! We can't hear you.*  
*Four - what's holding you up? You should be THERE by now.* CYNIC : *I think he's being effortlessly superior.*

FOURTH TWINKLER : *I can't go any quicker. The creeks full of water. Is it all right if I go along the bank?* IRE : *NO! Keep RIGHT DOWN - but make sure you whatever you do, keep the RADIO dry.* CYNIC : *They say life is only a terminal illness.*

IRE : *TWIT, have you any birds, Over?* TWIT : *A few sharpies and oiks, over. How many of each, Over?* TWIT: *About six of one and half a dozen of the other. There's one I can't quite identify - maybe a stretch version of a sharpie.*

Here we must switch off and leave this harrowing and far from singular scene with most of the team engaged in carefully orchestrated inertia.

*Archaeopteryx*

## VICTORIAN WADER STUDY GROUP

## DATES FOR FIELDWORK - JANUARY TO DECEMBER, 1988

<u>DATE</u>	<u>PLACE &amp; OBJECTIVE</u>	<u>TIME</u>	<u>TIDE</u> <u>HEIGHT</u>
Jan. 2-3	<u>Werribee S.F.</u> Large catches of small waders	Sat. 1257	0.8m
Jan. 23-25	<u>Queenscliff</u> Curlew Sandpipers, Sharptailed Sandpipers and Red Knot	Sat. 1553* Sun. 0436* 1648* Mon. 0515*	1.3m 1.5m 1.4m 1.5m
Feb. 20-21	<u>Yallock Creek</u> Large catch of small waders Also Masked Lapwings	Sat. 1559 Sun. 1658	2.8m 2.9m
Feb. 27-28	<u>Werribee S.F.</u> Large catch of small waders	Sat. 1009 Sun. 1053	0.8m 0.8m
Mar. 19-20	<u>Queenscliff</u> Red Knot & other large waders	Sat. 1341* Sun. 1444*	1.4m 1.5m
May 1	<u>Yallock Creek</u> Doublebanded Plovers	Sun. 1238	2.5m
May 14-15	<u>Inverloch</u> Doublebanded Plovers & Pied Oystercatchers	Sat. 1014 Sun. 1121	1.4m 1.5m
May 29	<u>Werribee</u> (Pt. Wilson) Doublebanded Plovers	Sun. 1331	0.8m
June 4-5	<u>Queenscliff</u> Doublebanded Plovers & Pied Oystercatchers	Sat. 1506* Sun. 1549*	1.6m 1.6m
June 18	<u>Inverloch</u> Doublebanded Plovers & Pied Oystercatchers	Sat. 1459	1.5m
July 2	<u>Werribee</u> (Pt. Wilson) Doublebanded Plovers	Sat. 1743	0.8m
July 23	<u>Annual General Meeting</u> Clive & Pat Minton's House 1030 Net Mending 1600 AGM Evening Slides		
July 30-31	<u>Queenscliff</u> Doublebanded Plovers	Sat. 1248* Sun. 1338*	1.4m 1.5m
Aug. 13-14	<u>Yallock Creek</u> Doublebanded Plovers	Sat. 1331 Sun. 1415	2.6m 2.6m
Aug. 28	<u>Queenscliff</u> Late Doublebanded Plovers	Sun. 1215*	1.4m

Sept. 10	<u>Werribee S.F.</u> Early arriving small waders	Sat. 1447	0.7m
Oct. 1-2	<u>Queenscliff</u> Red Knot	Sat. 1527* Sun. 0430*	1.5m 1.6m
Oct. 15	<u>Yallock Creek</u> Curlew Sandpipers	Sat. 1553	2.5m
Oct. 29-30	<u>Queenscliff</u> Red Knot	Sat. 1418* Sun. 0424*	1.4m 1.7m
Nov. 19-20	<u>Inverloch</u> Small waders & Eastern Curlew	Sat. 0730 1948 Sun. 0825	1.4m 1.2m 1.3m
Dec. 3-4	<u>Werribee S.F.</u> Large catch of small waders Golden Plover	Sat. 1023 Sun. 1055	0.8m 0.8m
Dec. 27 (Tuesday)	<u>Yallock Creek</u> Large Catch of small waders	Tue. 1617	2.5m

\* 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.

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V.W.S.G. - FINANCIAL STATEMENT from 1/7/87 to 30/6/88

<u>INCOME</u>	\$	<u>EXPENDITURE</u>	\$
Subscriptions	665.00	(1275.00) Printing - Bulletins	300.00 (370.00)
Donations	1.00	(74.00) Stationery	20.00 (31.20)
Sale of Bulletins	17.50	(111.00) Postage	103.44 (118.45)
Proceeds of Trading Table - A.G.M.	42.55	(42.35) Incorporation expenses	21.00 (135.53)
Bank Interest	51.77	(59.46) Electrics, radio repairs, batteries, etc	76.33 (99.11)
Cash in bank at 1/7/87	630.42	Shackles	30.09
Cash/cheques in hand at 1/7/87	61.15	Balances	69.20
		Trailer Repairs	64.00 (38.00)
		Black Powder	261.00 (240.00)
		Bands and glue for Oystercatchers	85.00
		Poles, Twine, dowelling	16.20
		State taxes	.16 (.32)
		Cash in bank at 30/6/88	398.50
		Cash/cheques in hand at 30/6/88	24.47
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Brenda Murlis, Hon. Treasurer

VWSG - 1988 plans for fieldwork

VWSG members may be interested in the rationale behind the 1988 fieldwork programme. It was constructed to meet the following ongoing (and two new) objectives:-

(1) To obtain 'summer' (Dec-Feb) catches of a minimum of 400 Rednecked Stints and 200 Curlew Sandpipers at the main monitoring locations of Werribee S.F., Queenscliff and Yallock Creek.

Purposes are to:

- (i) measure the success of the breeding season in the Arctic (determined from percentage juveniles);
- (ii) gather retrap data to enable survival/mortality rates to be calculated in due course; and
- (iii) keep a reasonable (20%+) proportion of the population banded, to facilitate more recoveries and future retraps.

(2) To continue the monitoring of Doublebanded Plovers at more locations - Werribee S.F, Queenscliff, Yallock Creek and Inverloch. Purposes as in (1) above. Also to catch a sample later in the departure month of August than ever before (25th vs. 16th).

(3) To continue to fill in gaps in the monthly numbers processed table - target is at least 50 birds of each age group in each month of the year.

(4) To try and catch more Red Knot, particularly in the likely passage periods of March/April and September/November, to study further the interrelationships between the New Zealand and Australian populations.

(5) To try and catch more Curlew Sandpipers at Yallock Creek in October - a catch in October 1987 showed an unexpectedly high proportion of juveniles. It is possible that there is a previously undetected passage of juveniles (on their way to Tasmania) at that time of year. We are also in need of more adult Curlew Sandpipers in the first half of October to fill a critical gap in the moult data.

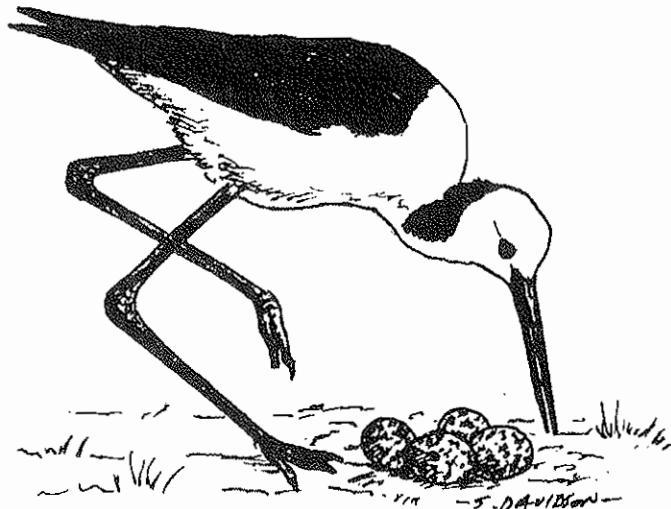
(6) To continue to obtain at least one sample of Lesser Golden Plovers (a minimum of 20) each 'summer' at Werribee S.F.

(7) To continue to catch as many as possible of all of the less frequently banded species whenever the opportunities arise (all species except Rednecked Stint, Curlew Sandpiper, Sharptailed Sandpiper and Doublebanded Plover). This is to increase the chances of obtaining subsequent recoveries (as well as for general data collection).

(8) To commence, at a low level, the projected Pied Oystercatcher comprehensive study by carrying out some colour banding of winter flocks. This technique has proved remarkably successful to date with a surprising level of movements within Victoria (latest were two Queenscliff birds seen in Corner Inlet off Mann's Beach) - and one to King Island. This study will eventually develop into a fully integrated one, including breeding numbers/distribution/ success, age of first breeding etc, throughout Victoria (including special role of Corner Inlet). Low key this year because nets away in N.W. Australia in key months of March/April and continued commitments to Doublebanded Plover monitoring.

(9) Not in the programme, but now to be added on an opportunity basis, will be further catches of small waders at Altona/Pt. Cook. A catch in January 1988 revealed high proportions of juveniles - nearly 70% for Rednecked Stints - suggesting it may be the 'nursery' for Werribee S.F. The proportion of juveniles at Werribee S.F. is always very low - probably due to pressure from adults driving out younger birds from this prime habitat - and it would appear that Altona/Pt. Cook may be the principal location to which such birds are displaced.

(10) To continue the recently expanded programme of banding tern chicks (Crested Terns and Caspian Terns at Mud Island and Corner Inlet; Fairy Terns at Werribee S.F. and Queenscliff) and to take any opportunities which may occur for cannon netting worthwhile samples of all species of terns when in roosting flocks.



*ALAS, HOW DEEPLY PAINFUL IS ALL PAYMENT*

Lord Byron

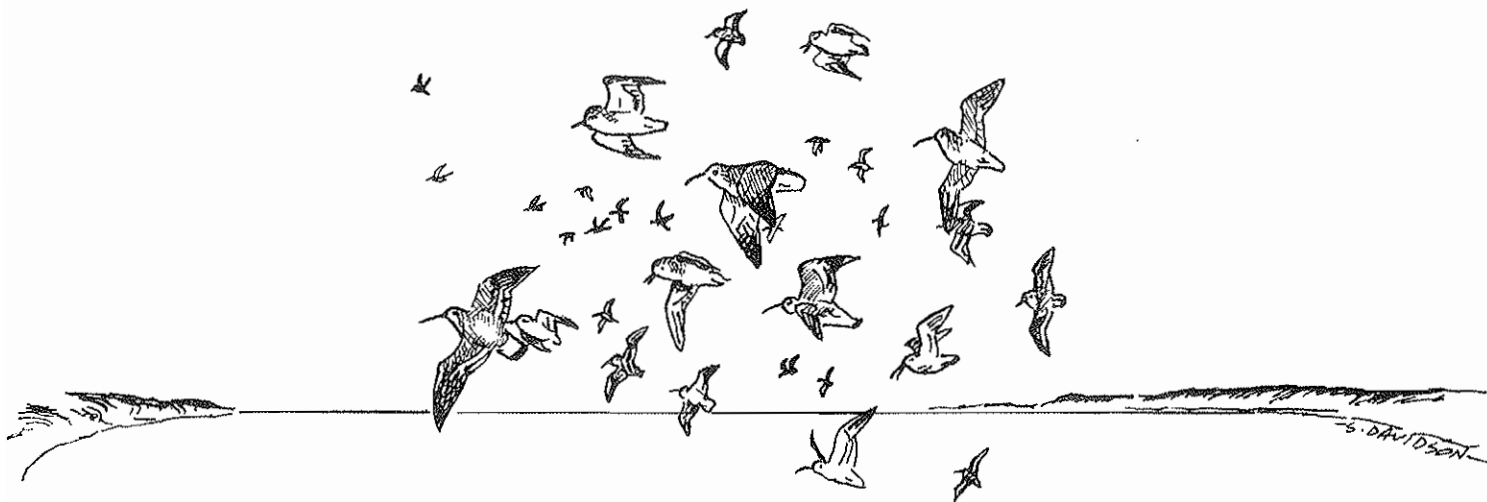
Readers may notice in the Financial Statement at the back of this issue that the Hon. Treasurer has once again skillfully and with commendable frugality kept our financial head above water - but only just. After an expenditure for the past year of \$1,046.42 on purely basic running costs we are left with funds in hand of \$422.97 to face the coming year. Subscriptions have taken a dive from \$1,275.00 in the year ended 30 June 1987 to a mere \$665.00 in the year ended 30 June 1988.

This is simply not good enough and members are asked to be a bit more punctilious about their payments. Subscriptions are payable in advance, by 30 June in each year. Those members who are 12 months behind are earnestly requested to bring their payments up to date. Subscriptions are virtually the only source of income for the V.W.S.G. It would be regrettable if activities had to be curtailed for lack of funds. And as equipment ages, more than the basic running costs will inevitably be incurred.

In case there should be any misunderstanding it should be said that membership of the A.W.S.G. does not confer honorary membership of the V.W.S.G. There are no reciprocal rights.

*Illustrations*

*It is always a pleasure to receive surprise contributions to the Bulletin. We have Stephen Davidson to thank for the very evocative drawings which enhance this issue. Clearly an artist who can convey ziz - and who obviously enjoys what he does.*







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Contributions :

Original papers and those which may be reprinted, field notes and other  
suitable contributions are welcome. If possible they should be printed by  
wordprocessor or typed, using A4, with generous margins ready for direct  
readdressing. Preferably the sheets should be single spaced with double

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