

VICTORIAN WADER STUDY GROUP



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VICTORIAN WADER STUDY GROUP INC.

BULLETIN No 15

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JULY 1991

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SUMMARY OF VWSG ACTIVITIES IN 1990

1990 was an average year for VWSG. The catch total of 6,044 was slightly below the 12-year average of 6,951. This was in fact due to the absence of the main cannon netting equipment in NW Australia for most of March and April. However we also failed to make the large summer catches at some locations in February, and our success on Pied and Sooty Oystercatchers was lower than in the previous year. The absence of a consistent wader roost on Sand Island, Queenscliff - due to disturbance from sand dredging operations - also reduced the variety and quantity of waders caught there.

Nevertheless some important catches were made. These included:-

- * 133 Eastern Curlew in four separate catches at the Gurdies - halfway down the eastern side of Westernport. This is by far the best year ever for this species and raises the previous grand total of 178 by 70%.
- * a further 100 Turnstones - in one catch - at Swan Island, Queenscliff. This follows the 109 caught there a year previously (Nov 89). It increases the previous grand total of 275 by 35%.
- * 245 Double-banded Plover - mainly at Queenscliff, the ongoing annual productivity/survival rate monitoring site for this species.
- * 120 Bar-tailed Godwits. These were in a mid-winter catch (June) of McLoughlins Beach, Corner Inlet.
- * a catch of over 2,800 Red-necked Stints and Curlew Sandpipers at North Spit, Werribee Sewage Farm, on 30 December. This included many hundreds of retraps - some up to 12 years ago. This was the Group's largest catch (and significantly larger than intended!).
- * In contrast no Greenshank were caught. The site at Warneet, used successfully in 1988 & 89 has been disturbed by local housing development and the roost abandoned. We again failed on Red Knot (only seven caught). Sharp-tailed Sandpiper (110) and Lesser Golden Plover (13) were improvements on the previous year but not as high as desired.

The highlight of the recoveries reported during the year was the same bird which was top of the list in 1989. It is our first 'double journey recovery' (except for Double-banded Plovers to/from New Zealand). The Turnstone banded at Swan Island, Queenscliff on 18 November 1989, and recaptured on migration through Taiwan in April 1990, was caught back again at Queenscliff on 18 November 1990 - exactly one year after the original banding.

Other recovery highlights included:-

- * a Red Knot from Queenscliff caught for a second time in New Zealand. It was at a different location to the first recapture.
- * two Red-necked Stints in North Vietnam. These birds were obtained from a local hunter by Brett Lane, one of our members.

the capture of a Hongkong-banded Curlew Sandpiper at Werribee SF. The compliment was returned by Hongkong catching one of our Curlew Sandpipers there in April 1991. This was one of three Australian-banded Curlew Sandpipers caught at the Mai Po Nature Reserve on the one night (out of 60 Curlew Sandpipers caught that night).

Colour banding programmes again provided an effective supplement to normal recovery methods. The orange leg-flagging of several species of palearctic wader provided the hoped-for sightings of birds on migration through Asia - a Red-necked Stint and at least two Curlew Sandpipers observed at Mai Po, Hongkong during northward migration in April. But an unexpected bonus was the sighting of a colour-flagged Red-necked Stint at Christchurch in New Zealand - the first proven movement of this species between the two countries. Other sightings of Red-necked Stints showed strong westerly components in their March/April migration (to South Australia & Western Australia).

Sightings of colour-banded Pied and Sooty Oystercatchers exceeded all expectations with many individuals moving over 200km (up to 400km) - along the Victorian coast into South Australia and across Bass Strait into Tasmania. Nearly every time intrepid beach walkers like Martin Schulz (Discovery Bay) and Sir Edward Woodward (Port Fairy) set forth they return with sightings of colour-banded birds. It is not possible to discern any real pattern in the movements yet. A systematic search for banded birds during the breeding season in late 1991 will be mounted, following another good banding season in Feb-July 1991.

The VWSG programme on terns also continued in 1990-91. The colony of Crested Terns at Mud Island continued to grow (to 1,850 pairs) and 1,650 chicks were banded. Unfortunately the colony in Corner Inlet, off Mann's Beach, was washed out (twice) by high tides this year and few (if any) chicks fledged. The grass on the hummock on which they previously nested grew too thick - due to fertilising by their droppings from previous years - forcing them to nest on lower, less safe, sand hummocks. The Caspian Terns there were also unsuccessful for the same reason. Adult tern banding at Spermwhale Head was carried out for the third year, although fewer Common Terns were caught than in Jan-Mar 1990.

The VWSG now has an extremely experienced core of wader banders, enabling it to successfully carry out an intensive complex fieldwork programme throughout the year (and to support studies elsewhere in Australia and Asia). Some 10 to 15 people are regulars (Ross Jessop and Ira Svage being the most outstanding), but are supported by 20-30 others who come when they are able to or when there are urgent needs for additional help. In parallel with the fieldwork Mark Barter continues to organise the analysis and publication of biometric and moult data on a species by species basis. In due course (when Clive Minton retires) more major papers on the results of the VWSG long term study programme will be produced.

Meanwhile many thanks to everyone who has contributed in so many different ways to the success and enjoyment of VWSG activities.

Clive Minton

RECOVERIES OF BANDED BIRDS

TURNSTONE

051-29700	2nd Year	18.11.89	Queenscliff	
	Recaptured	29.4.90	Szo-Tsao, TAIWAN	7244 km NNW
	Recaptured	18.11.90	Queenscliff	7244 km SSE

This is our first "double-journey" recovery for a palearctic migrant. Caught on northward migration when passing through Taiwan, it was recaptured at Queenscliff exactly a year after original banding.

RED KNOT

051-15251	Juvenile	8.11.86	Queenscliff	
	Recaptured	23.2.89	Kaipara Harbour, NZ	2631 km E
	Recaptured	3.11.90	Miranda, Firth of Thames, NZ	100 km SE

This Red Knot was recaptured for a second time in New Zealand, but had changed estuaries.

RED-NECKED STINT

033-43127	Juvenile	20.2.88	Queenscliff	
	Killed	- .3.90	Xuan Thuy, N. VIETNAM	7626 km NNW
033-70197	Adult	19.2.89	Werribee S.F.	
	Killed	- .3.90	Xuan Thuy, N. VIETNAM	7602 km NNW
033-65884	Adult	20.11.88	Inverloch	
	Killed	12.5.90	Shanghai, CHINA	8117 km NNW

Three more valuable overseas recoveries. The bands from the two birds in Vietnam were obtained from a hunter by a VWSG member (Brett Lane) who was on a wader study visit to North Vietnam.

CURLEW SANDPIPER

NV 52467	Adult	25.8.90	Mai Po, HONG KONG	
	Recaptured	30.12.90	Werribee S.F.	7445 km SSE
041-25257	Adult	18.1.87	Werribee S.F.	
	Recaptured	10.4.91	Mai Po, HONG KONG	7445 km NNW
041-60318	Adult	12.1.91	Yallock Creek	
	Killed	10.5.91	Ying Kou, Liaoning, CHINA	9018 km N

The strong link between Victoria and Hong Kong for Curlew Sandpipers (and Red-necked Stints) is further evidenced by this exchange of birds. David Melville captured three Australian-banded Curlew Sandpipers on the one night (10 April) at Mai Po (a World Wildlife Fund Nature Reserve) - out of only 60 Curlew Sandpipers caught (the other two had been banded in N.W. Australia).

Silver Gull

081-80739	Nestling Seen	23. 10. 81 26. 08. 89	Mud Island Rye Back Beach	19km SE
081-87776	Nestling Seen	30. 10. 83 03. 02. 90	Ulverstone, Tasmania Corner Inlet	256km NE
081-90541	Nestling Recaptured	14. 10. 84 03. 03. 90	Mud Island Inverloch	94km SE
082-07587	Nestling Recaptured	09. 10. 88 22. 09. 90	Mud Island Warrabee SF	32km NW
081-91799	Nestling Recaptured	17. 10. 84 12. 01. 91	Mud Island Yallock Creek	61km E

These birds were all banded by other banders and seen (band number read on live bird in the field) or recaptured by VWSG or its members.

Caspian Tern

091 -23323	Nestling Found dead	23. 12. 89 13. 01. 91	off Mann's Beach Fraser Is. Queensland	Corner Inlet 1,548km NE
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This is VWSG's second Caspian Tern recovery on Fraser Island. There have now been four recoveries on the coast of southern Queensland and two in northern New South Wales from chicks banded at the colony on Box Bank, off Mann's Beach.

Little Tern

041-47340	Juvenile Seen	05. 03. 89 16. 09. 89	Spermwhale Head, Boat Harbour, NSW	Lakes National Park 539km NE
041-47341	Adult Breeding	04. 03. 89 23. 11. 90	Spermwhale Head Sydney Airport, NSW	543km NE
041-47332	Adult Seen	04. 03. 89 05. 02. 91	Spermwhale Head Botany Bay NSW	544km NE

All the above birds were recognised by their individual colour band combinations. The bird breeding at a small colony on the side of Sydney Airport is particularly interesting.

Many other birds colour banded at Spermwhale Head have been seen in subsequent years by the Department of Conservation & Environment wardens at the Rigby Island (Lakes Entrance) and Lake Tyers breeding colonies.

Crested Tern

Chicks banded at Mud Island have been recovered as follows:-

Banded 21. 12. 86

071-63571 Found dead 14. 12. 91 Cape Woolamai 62km ESE

Banded 13. 12. 87

071-76247 Seen 28. 06. 89 Brighton 42km NE
071-83281 " 02. 01. 90 " "

Banded 17. 12. 88

071-95424 Caught & released 07. 05. 89 Beaumaris 37km NE
071-95365 Found dead 26. 06. 89 Coronet Bay 63km E
071-95592 Found dying 06. 08. 89 Port Phillip Bay ?
071-95895 Caught & released 13. 10. 89 Oil rig "Southern Cross"
Bass Strait 333km E
071-95802 Found dead 29. 10. 89 Inverloch 95km ESE
071-41098 Seen 05. 01. 90 Brighton 42km NE
071-84111 Found dead 13. 02. 90 Point Cook 37km N
071-95197 " 07. 04. 90 Paynesville 258km E
071-95270 " 12. 09. 90 Storm Bay, Phillip Is 49km ESE
071-95315 " 01. 03. 91 Port Fairy 218km W

Note 071-95315 - a rare westerly movement.

Banded 16. 12. 89

071-97651 Found dead 12. 01. 90 Torquay 39km W
072-04572 Found dying 09. 02. 90 Port Macquarie, NSW 1062km NE
072-04479 Found dead 13. 02. 90 San Remo 63km ESE
072-04375 " 16. 03. 90 Newhaven 59km ESE
072-04407 " 18. 03. 90 Woolamai Beach 60km ESE
072-04537 " 19. 06. 90 Sandringham 42km NE
072-04053 Seen 07. 07. 90 Tankerton 47km E
071-97605 Found dying 18. 10. 90 Portland 275km W
071-97551 Found dead 03. 04. 91 Nelsons Bay, NSW 910km NE

Note that 072-04572 had moved over 1000km within seven weeks of banding (and probably within 5-6 weeks of fledging). Note also 071-97605 - a rare westerly movement.

Banded 15. 12. 90

072-14917 Found dead 03. 02. 91 Woolamai Beach 62km ESE
072-14453 Found injured 21. 04. 91 Glen Waverley 56km NE
072-15483 Found dying 24. 04. 91 Ventnor 43km ESE
072-05386 Found dead 18. 05. 91 Cabarita Beach, NSW 754km NE
072-15299 Found dying 19. 05. 91 Mordialloc 30km NE
072-14453 Found injured 11. 05. 91 Flinders 41km E
072-15576 Found dead 19. 06. 91 Cape Woolamai 62km ESE

Chicks banded at Box Bank, off Mann's Beach, Corner Inlet, have been recovered as follows:-

Banded 10.01.88

071-83466 Found dead 13.09.89 Seaworld, Gold Coast,
Queensland 1,332km NE

This is the longest movement yet of a VWSG-banded Crested Tern, and the first recovery in Queensland.

Banded 24.12.88

071-97138 Caught
& released 23.06.89 off Vincentia, NSW 521km NE
071-96811 Found dying 04.07.89 Lakes Entrance 127km NE
071-96994 Found dead 13.08.89 Lake Tyers 136km NE
071-96965 Caught
& released 27.09.89 Bermagui, NSW 371km NE
071-97042 Found dying 06.01.91 Cape Woolamai 129km W

Note 071-97042 - the only westerly movement recorded so far of Crested Tern chicks banded at Box Bank.

Banded 23.12.89

072-04890 Found dying 20.06.90 Evans Head, NSW 1,232km NE

Other Crested Tern recoveries

072-01732 Chick 29.11.90 Bicheno, Tasmania
Recaptured) 09.03.91 Spernhale Head 438km N
071-96506 Chick 27.11.90 Bicheno, Tasmania
Recaptured 10.03.91 Spernhale Head 438km N

WADER BANDING TOTALS - VICTORIA - 1990

	<u>NEW</u>	<u>RETRAP</u>	<u>TOTAL</u>
Pied Oystercatcher	56	36	92
Sooty Oystercatcher	14	2	16
Lesser Golden Plover	8	5	13
Double-banded Plover	140	105	245
Red-capped Plover	2	-	2
Ruddy Turnstone	30	70	100
Eastern Curlew	127	6	133
Bar-tailed Godwit	120	-	120
Red Knot	7	-	7
Sharp-tailed Sandpiper	107	3	110
Red-necked Stint	2564	1395	3959
Curlew Sandpiper	919	328	1247
	<u>4094</u>	<u>1950</u>	<u>6044</u>

ANNUAL WADER BANDING TOTALS BY VWSG IN VICTORIA

CALENDAR YEAR	NEW	RETRAP	TOTAL
1975	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
1986	7144	2057	9201
1987	5350	1559	6909
1988	8019	2697	10716
1989	5437	1584	7021
1990	4094	1950	6044
Total catches in Victoria to end 1990	<u>65559</u>	<u>15986</u>	<u>81545</u>

Average annual total for 1979 to 1990 period of 6591.

LOCATION OF WADERS CAUGHT IN VICTORIA

	To Dec 1989	1990	TOTAL
Werribee	33314	2868	36182
Westernport	16305	1284	17589
Queenscliff/Pt Lonsdale	15110	1037	16147
Anderson Inlet (Inverloch)	5517	640	6157
Corner Inlet	3989	215	4204
Altona	937	--	937
Bendigo (Sewage Farm)	143	--	143
Seaford Swamp	98	--	98
Mud Island	35	--	35
Geelong (Point Henry)	25	--	25
Seaspray (Lake Reeve)	18	--	18
Toowong	10	--	10
	<u>75501</u>	<u>6044</u>	<u>81545</u>

Totals include 65,559 newly banded birds and 15,986 retraps of 31 species

VICTORIAN WADER CATCHES
1975 TO 31 DECEMBER 1990

	NEW	RETRAP	TOTAL
Pied Oystercatcher	576	228	804
Sooty Oystercatcher	82	6	88
Masked Lapwing	127	3	130
Grey Plover	72	6	78
Lesser Golden Plover	177	21	198
Red-kneed Dotterel	133	11	144
Hooded Plover	15	1	16
Mongolian Plover	66	4	70
Double-banded Plover	2820	915	3735
Large Sand Plover	16	1	17
Red-capped Plover	476	172	648
Black-fronted Plover	52	4	56
Black-winged Stilt	13	-	13
Red-necked Avocet	174	1	175
Ruddy Turnstone	279	96	375
Eastern Curlew	303	8	311
Whimbrel	1	-	1
Grey-tailed Tattler	33	1	34
Greenshank	93	19	112
Terek Sandpiper	22	1	23
Latham's Snipe	54	-	54
Bar-tailed Godwit	787	54	841
Red Knot	1221	96	1317
Great Knot	308	32	340
Sharp-tailed Sandpiper	3819	129	3948
Little Stint	1	-	1
Red-necked Stint	40974	11609	52583
Long-toed Stint	1	-	1
Curlew Sandpiper	12843	2568	15411
Sanderling	20	-	20
Broad-billed Sandpiper	1	-	1
31 Species	<u>65559</u>	<u>15986</u>	<u>81545</u>

In addition, the Group has been involved in handling a further 28,024 waders during joint operations with local groups in other States. If these are included, the VWSG has now been involved in the catching of 109,569 waders.

NUMBERS OF WADERS "PROCESSED BY VMSG IN
VICTORIA IN EACH MONTH TO DECEMBER 1990

Processing" includes measuring wing length, bill length and/or total head length (as appropriate) and weight; also recording full details of primary 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 useable samples (preferably on at least 50 birds) of data for each month of the year for all the main wader study species.

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
Pied Oystercatcher	68	64	84	72	143	164	119	45	4	6	9	20	798
Sooty Oystercatcher	2	-	3	2	-	24	43	14	-	-	-	-	88
Masked Lapwing	4	3	77	-	-	13	-	-	-	3	18	11	129
Grey Plover	1	14	4	3	-	2	-	-	2	35	16	-	77
Lesser Golden Plover	9	26	30	1	-	-	-	-	-	28	47	39	180
Red-kneed Dotterel	-	10	-	20	-	44	11	16	12	8	22	-	143
Hooded Plover	-	-	-	-	-	15	-	-	-	-	-	-	15
Mongolian Plover	46	1	6	7	1	2	2	-	-	-	1	-	66
Double-banded Plover	-	1	134	257	676	750	903	870	1	-	-	-	3592
Large Sand Plover	14	-	-	-	-	1	1	-	-	-	1	-	17
Red-capped Plover	11	66	48	111	192	74	61	14	8	11	10	5	611
Black-fronted Plover	-	7	-	-	11	16	6	9	2	-	4	7	62
Black-winged Stilt	-	6	-	-	-	-	-	-	-	4	2	1	13
Red-necked Avocet	39	-	-	-	-	-	-	10	2	41	46	36	174
Ruddy Turnstone	17	1	76	27	1	7	-	1	12	7	209	16	374
Eastern Curlew	15	-	1	-	22	15	-	43	78	73	59	5	311
Whimbrel	-	-	-	-	-	1	-	-	-	-	-	-	1
Grey-tailed Tattler	28	-	-	3	-	3	-	-	-	-	-	-	34
Greenshank	1	-	76	-	-	-	-	-	-	-	36	-	113
Terek Sandpiper	8	1	-	1	2	-	-	1	-	1	-	10	24
Latham's Snipe	29	44	-	-	-	-	-	-	-	1	4	8	86
Bar-tailed Godwit	95	8	31	1	-	157	-	-	34	52	191	267	836
Red Knot	125	65	56	34	2	44	73	-	8	420	255	174	1256
Great Knot	96	1	3	-	-	4	-	-	15	53	40	129	341
Sharp-tailed Sandpiper	1050	499	93	2	-	-	-	9	519	332	271	910	3685
Little Stint	-	-	-	-	-	-	-	-	-	-	1	-	1
Red-necked Stint	1328	685	3400	1860	331	223	436	317	463	986	2296	1890	14215
Long-toed Stint	-	-	-	-	-	-	-	-	-	1	-	-	1
Curlew Sandpiper	471	771	923	144	205	33	141	308	168	826	555	789	5334
Sanderling	11	-	-	-	-	-	-	-	-	1	6	2	20
Broad-billed Sandpiper	-	1	-	-	-	-	-	-	-	-	-	-	1
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The majority of the birds caught when the VMSG visited other States were also processed including 1327 birds caught in Tasmania (Nov 1977), 820 birds caught in South Australia (Feb 1980), 921 birds in New South Wales (Mar 1981) and 24956 birds in Western Australia (Aug/Sept 1981, Aug/Sept/Nov 1982, Oct/Nov 1983, Mar/Apr 1985, Aug/Sept 1986, Mar/Apr 1988 and Mar/Apr 1990).

SIGHTINGS OF INDIVIDUALLY COLOUR-BANDED
PIED AND SOOTY OYSTERCATCHERS

The VWSG is now in the third year of a long term study of Pied and Sooty Oystercatchers in Victoria. This is the Group's first intensive study of a "resident" species of wader.

Greatest effort at present is concentrated on catching and individually colour banding birds when they are present in flocks, between late summer and late winter (Feb to early Aug). Birds are banded with the following codes:-

Left tarsus 3 Colour bands.

Red, orange, dark blue, yellow, dark green, light green, white and black are the colours used. There are never two bands of the same colour next to each other in this individually identifiable combination. It is important to note the order of the bands.

Right tarsus 2 Colour bands (both the same colour) above the metal band.

The colour indicates the banding location:-

Dark Blue -	Werribee S.F.		
	Light Green	-	Queenscliff
	Red	-	Stockyard Point
	White	-	Hastings or Fairhaven (French Island)
	Orange	-	Phillip Island (Rhyll)
	Dark Green	-	Inverloch
	Yellow	-	Corner Inlet (Barry Beach to Manns Beach/ McLoughlins Beach)

Some birds banded at Werribee S.F. have the band combinations on the opposite legs to that indicated above.

Any bird for which the full combination of bands can be determined is then individually identifiable. It is, thus, very important indeed to try and record all the band colours.

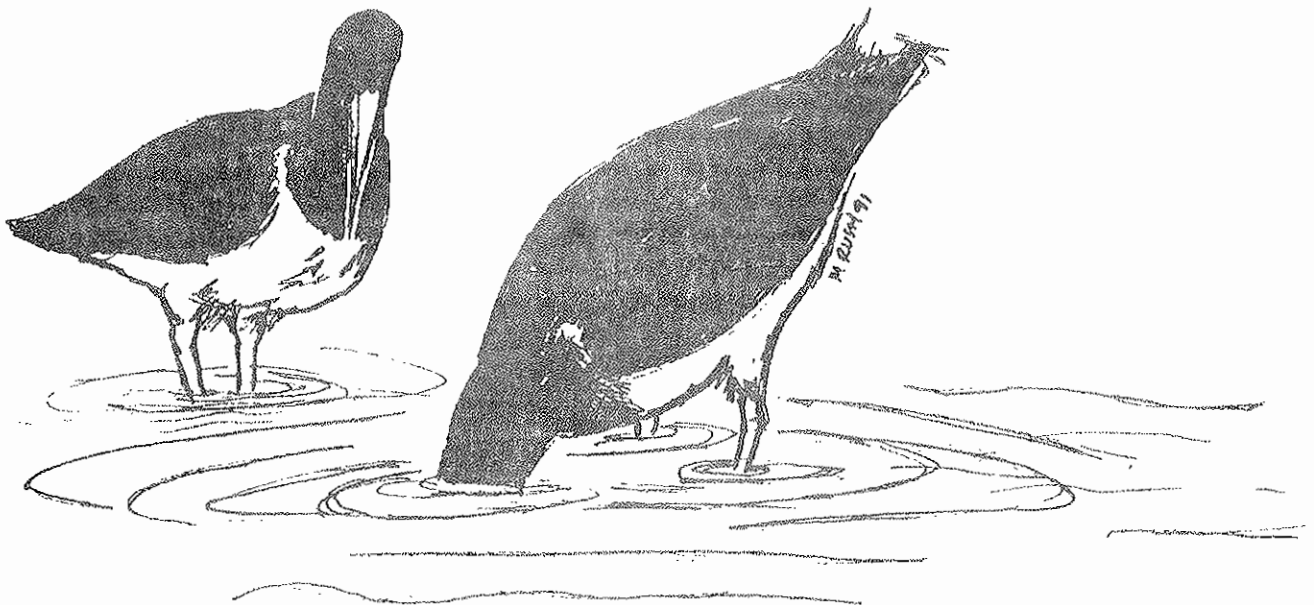
Some observers have reported difficulties in being certain about some band colours - especially in poor light conditions and without a telescope. Dark blue, dark green and black can be difficult to separate, as can red and orange. Another problem is that some bands become stained (especially white bands in Westernport Bay) and others fade (especially dark blue which can sometimes look almost grey).

In spite of the above minor practical difficulties, there have been a great many valuable sightings of birds both at and away from their original banding locations. Records of movements of over 200 km are now quite regular.

A selection of some of the longer movements are shown below. So far, no clear pattern is emerging, other than the fact that birds from all along the coast (as opposed to just local birds) move into the flocks in Westernport, Port Phillip Bay

and Corner Inlet. Whilst there is clearly some consistency in movement, with some birds being seen or caught in successive years at the same location, there is a lot of apparently random winter-flock movement. One bird banded at Queenscliff was seen at Port Albert, Corner Inlet, only 15 days later - a remarkably rapid 180 km journey. In contrast, some birds remain throughout the year on the coasts, possibly even on their breeding territories (the successful breeders or the long-established pairs), without apparently going into a flock.

It is planned to mount a major search of the Victorian coastline (including the Bays and Corner Inlet) during the breeding season in Oct-Dec 1991 to look for colour-banded birds so that their breeding location can be related to their previous (and subsequent) flock locations.



OYSTERCATCHERS FEEDING.

OYKs have a habit of probing into the mud flats as shown and they wiggle their entire body & wag their tail feathers as they try to get feed. They look really cute and funny.

COLOUR BANDS (LEFT/RIGHT)	STATUS	ORIGINAL BANDING/ RE-SIGHTING	PLACE	DISTANCE	OBSERVER
<u>PIED OYSTERCATCHER</u>					
a/YY	In flock	Jan 1989 or before 24.10.90	Corner Inlet Lake Tyers	150km NE	Richard Owen
a/B	Paired	1988 or before 14.4.90	Werribee SF Griffith Is., Port Fairy	210km NSW	Sir Edward Woodward
	Breeding	29.12.90	" "		"
	"	14.1.91	" "		"
	Paired	9.3.91	" "		"
	"	2.4.91	" "		"
a/O	Paired	1.3.80 15.4.90	Rhyll Killarney Beach	260km W	Sir Edward Woodward
	"	30.12.91	"		"
	"	3.1.91	"		"
	"	10.3.91	"		"
a/DGOG	In flock	15.5.88 18.5.91	Inverloch Picanninie Ponds, Discovery Bay, SA	420km MNW	Martin Schulz
YBKO/BBa	Paired	16.4.89 7.4.91	Werribee SF nr. Lake Mombong, Discovery Bay	290km W	Martin Schulz
	"	19.5.91	" "	"	"
YBLG/RRa	In flock	20.5.89 7.4.91	Stockyard Point 6km E of Lake Mombong, Discovery Bay	370km W	Martin Schulz
	Paired	19.5.91	" "	"	"
a/YY	In flock	Jan 1989 or before 1.12.90	Corner Inlet 7km E of Lake Mombong, Discovery Bay	450km MNW	Martin Schulz
	"	19.5.91	1km E of Lake Mombong, Discovery Bay	"	"
a/BB	Paired	1988 or before 19.5.91	Werribee SF 10km E of Nelson, Discovery Bay	300km W	Martin Schulz
a/YY	In flock	Jan 1989 or before 19.5.91	Corner Inlet 12km E of Nelson, Discovery Bay	470km MNW	Martin Schulz
a/B	Paired	1988 or before 7.4.91	Werribee SF Discovery bay	290km W	Martin Schulz
a/LG	In flock	1988 or before 7.1.91	Queenscliff Port Fairy	210km W	Mary Griffith
a/Y	In flock	Jan 1989 or before 7.1.91	Corner Inlet Port Fairy	210km W	Mary Griffith
	"	17.1.91	" "	"	"

7/00a		22.7.90	Rhyll			
	In flock	1.12.90	Port Fairy	270km W	Mary Griffith	
	"	7.1.91	"		"	
	"	13.1.91	"		Sir Edward Wood	
m/B		1988 or before	Werribee SF			
	Single bird	22.1.91	Port Fairy	360km W	Mary Griffith	
YRY/YYa		4.1.87	Queenscliff			
	In flock	8.7.89	Barry Beach	158km SE	VMSG (captured)	
	"	29.1.91	Werribee SF	175km NW	Nike Weston	
	"	9.2.91	"	"	VMSG team	
YBO/RRa		20.5.89	Stockyard Point			
	Nesting	1.12.90	5km E of Lake Mosbeong, Discovery Bay	370km W	Martin Schulz	
WBDG/BBa		1.7.89	Werribee SF			
	Paired	1.12.90	E end of Discovery Bay	270km W	Martin Schulz	
YWDG/YYa		10.6.90	Barry Beach			
	In flock	14.10.90	E of Mallacoota	330km ENE	Bob Semmens	
YWR/YYa		10.6.90	Barry Beach			
	Paired	13.10.90	W of Warrnambool	350km W	Margaret Camero	
a/DGDG		15.5.88	Inverloch			
	In flock	15.9.90	Killarney Beach	300km W	Jeff Campbell	
a/LG		1988 or before	Queenscliff			
	In flock	15.9.90	Killarney Beach	205km W	Mark Barter	

SOOTY OYSTERCATCHER

a/YY		1988 or before	Barry Beach			
	Sighted	13.10.89	Bridport, Tasmania	269km S		
a/LGLG		25.6.83	Queenscliff		Martin Schulz	
	In flock	19.11.90	Darby Beach, Wilson's Promontory	140km SE		

SIGHTINGS OF ORANGE LEG-FLAGGED WADERS

Since January 1990, orange PVC leg-flags have been put on many of the palearctic waders caught in Victoria. The principal purpose is to increase the number of sightings of such birds on migration through Asia.

Several thousand waders have now been marked in this way, with the flag on the tibia rather than the tarsus on most birds (so that it is visible when the bird is standing in shallow water). Curlew Sandpipers and Red-necked Stints have so far formed the bulk of the birds marked, but in due course most species will be covered.

Because the orange leg-flag is not specific to a particular banding site in Victoria, or to a particular date, it is only possible to define the banding details of birds sighted elsewhere as "banded Victoria, January 1990 or subsequently". However for all movements outside the state or overseas the general distance and direction of movement can be identified.

Some very interesting reports have already been received and they are detailed below.

Rednecked Stint

22.12.90	Lake Ellesmore, Christchurch	Kathleen Harrison
18.4.91	NEW ZEALAND	Shelia Petch
10.3.91	St Kilda, Adelaide, SA	John Cox
30.3.91	Tullakool, near Moulamein, NSW	Phil Maher
2.4.91	Pt Pinline, Kangaroo Is, SA	Chris Lester
15.4.91	Eyre Bird Observatory, WA	Gwen Goodreid
16.5.91	Mai Po, HONG KONG	Wendy Young
26.5.91	Lake Eyre South, SA	John Read

The report at Lake Ellesmere is the first recorded movement of a Red-necked Stint between Australia and New Zealand (where the species occurs in small numbers only).

The sightings at Adelaide, Kangaroo Island and Eyre Bird Observatory indicate a surprisingly strong westerly component in the initial stage of the "northward" migration back to the breeding grounds. In contrast the sighting at Lake Eyre South in late May was of a bird in non-breeding plumage - presumably a wandering first-year bird.

Within Victoria there have also been a number of sightings away from banding sites. These include two birds at Lake Murdeduke on 15 March 91 and one at Cundare Pool on 22 March (both seen by George Appleby).

Curlew Sandpiper

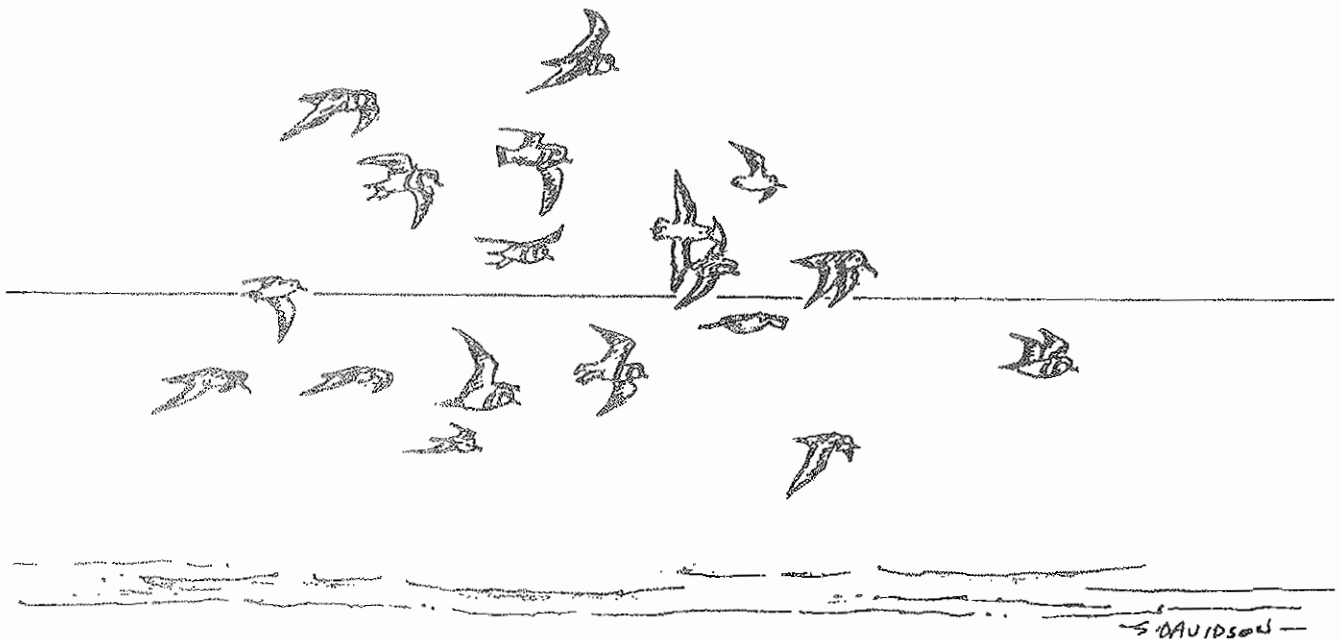
There were four sightings at Mai Po, HONG KONG, between 9 and 17 April 1990. The different positions recorded for the leg-flag (2 sightings on tibia and 2 on tarsus) indicate that at least two individuals were involved.

Sanderling

A bird observed by Martin Schulz on 19 May 1991 near Lake Mombiong, Discovery Bay, had been banded on 2 March 1991 at Killarney Beach. This represents a movement of 100 km WNW. The bird was in a small flock of presumed immature non-breeding birds.

This is the first recorded movement (albeit small) of a Sanderling banded in Australia.

Clive Minton



TERN-BANDING AT POINT WILSON, SPERMWHALE HEAD,
LAKES NATIONAL PARK ON 26-28 JANUARY AND
9-10 MARCH 1991

INTRODUCTION

Two visits were made to Pt Wilson to continue this segment of the VWSG tern study programme. They follow similar visits in the previous two years (see Victorian Wader Study Group Annual Reports for 1989 and 1990).

CATCHES

Catching proved much more difficult this year. Birds were again present in good numbers (500+ Common Terns, 100+ Little Terns typically roosting on the spit on days preceding the visits) but seemed much more wary of the presence of even well-camouflaged cannon nets. A higher than normal water level on the first visit also made net setting more complicated, with a catch not being made until the third day !

In spite of the problems three useful catches, totalling 181 birds, were made as detailed below. These contained some interesting recaptures of previously-banded birds as well as increasing the pool of banded/colour marked birds. Additional valuable biometric and moult data was also obtained.

		New	Retrap/Control	Total
28/1/91	Common Tern	35	1	36
	Crested Tern	11	1	12
		--	--	--
		46	2	48
		---	--	---
9/3/91	Little Tern	25	4	29
	Common Tern	27	1	28
	Crested Tern	6	1	7
	Fairy Tern	1	--	1
		---	--	---
		59	6	65
		---	--	---
10/3/91	Common Tern	42	7	49
	Crested Tern	16	2	18
	Caspian Tern	1	--	1
		---	--	---
		59	9	68
		---	--	---

RESULTS

Common Terns

The most interesting aspect of the 113 Common Terns caught was the low recapture rate of previously banded birds (9 birds = 8%; 2 from 1989 and 7 from 1990).

The species is thought to be comparatively long-lived. But with 531 birds caught in Jan/Mar 1990 and 101 in Jan/Mar 1989 one would have expected a much higher retrap rate given that the population estimate for the whole of the Gippsland Lakes is only 1000-1500.

The total population may be higher - for example on 10 March 1991 we observed nearly 1000 birds flying east past Pt Wilson over only a 2-3 hour period. But the results also suggest that it is not a 'closed' population of birds returning to the same locality, and remaining there, each year.

Evidence of mobility comes from recaptures and sightings of colour marked birds moving the 120 km between Pt Wilson and the "Corner Inlet" complex (between the SW end of 90 Mile Beach and Wilsons Promontory). In addition to examples documented previously three birds colour marked at Pt Wilson were sighted in the same flock off Mann's Beach on 18th March 1991 - one from Jan/Mar 1989, one from Jan/Mar 1990 and one from Jan/Mar 1991 ! On 10th February 1990 one was seen there which had been banded at Pt Wilson only a month beforehand (on 13-14 January).

As yet there have been no sightings of colour banded birds elsewhere in Australia or overseas. Retraps have shown that colour bands have survived well, with no losses or fading. But to increase visibility 'leg flags' were used instead of bands in 1991 - orange being the colour selected - and all new birds were marked in this way.

Efforts will be made in future years to obtain a better estimate of the population present in the Gippsland Lakes, as this is probably the largest regular concentration in Australia. A greater effort to look for colour marked birds elsewhere will also be encouraged, aided by further banding and colour marking at Pt Wilson (and possibly in "Corner Inlet").

Little Terns

A further 29 birds were caught to add to the 109 in 1990 and 131 in 1989.

Of the four retraps two were from 1989 and two from 1990. On all of these the orange and yellow colour bands had faded to near-white (and had embrittled), as suspected from some 1990 retraps and recent field observations, confirming their unsuitability for long term identification purposes.

All birds caught in 1991 were therefore colour marked with the more durable and visible PVC leg flags - but still using the same colour coding combinations established in previous years. It is hoped this will further increase the value of marked birds in the populations which breed at Lakes Entrance, etc, and are being studied by the Department of Conservation and the Environment. Many colour banded birds were again observed at these sites in the 1990-91 breeding season.

Evidence of long distance interchange between populations is increasing with two further sightings in Sydney (see 1990 VWSG report for earlier record) of birds colour banded at Pt Wilson. Both had been banded as adults on 4th March 1989. One was part of a small colony which bred on the sand dunes adjacent to the airport runway on Botany Bay in Oct/Nov 1990. The other was seen in February 1991 on the foreshore in Botany Bay.

A number of colour banded Little Terns were seen in the "Corner Inlet" complex in the period 18-23 March 1991 but colour combinations could not be obtained. It is hoped that expansion of the use of leg flags for colour marking next summer will result in even more valuable sightings.

Crested Terns

More were present in the Pt Wilson area in Jan/Mar 1991 than at a similar time in the two previous years. 37 were caught, compared with 6 in 1990 and none in 1989.

Of the four retraps two had been banded (by VWSG) as chicks on Mud Island in Port Phillip Bay in December 1989. The other two had been banded as chicks on Governor Island, S.E. Tasmania, in late November 1990.

These movements further support the strong evidence of the migration of many of the Crested Terns breeding in South Australia, round the coast of S.E. Australia (and ultimately up the coast of New South Wales).

CONCLUSIONS & RECOMMENDATIONS

Results to date have begun to answer some of the initial questions which the studies at Pt Wilson set out to answer. But even more questions have been raised !

It is hoped therefore that periodic banding of the terns at Pt Wilson will continue as an integral part of the comprehensive study of terns throughout Victoria being undertaken by the VWSG. The colour marking and data collection will also continue in order to assist the Department of Conservation and Environment in its studies of Little Terns in particular and of the Gippsland Lakes and Corner Inlet regions as a whole.

ACKNOWLEDGEMENTS

The VWSG is again grateful to the National Parks and Wildlife Service, the Department of Conservation and Environment and all who participated in the fieldwork.

C D T MINTON

VISITS TO "CORNER INLET"
18-24 MARCH & 25-28 APRIL 1991

OBJECTIVES

The principal objectives of each visit were:

(a) March

To catch samples of migrant palaeartic waders immediately prior to departure for their northern breeding grounds. This was primarily to obtain departure weight data to compare with that of similar species leaving N.W. Australia, as determined by Australasian Wader Study Group Expeditions to the Broome/80 Mile Beach/Port Hedland area in March/April of several recent years.

(b) April

To catch and colour band Pied and Sooty Oystercatchers, the subject of a major long term study by the VWSG. The "Corner Inlet" complex contains around 900 Pied Oystercatchers (at the time of the autumn flocking) out of an estimated 1400 in Victoria, and is the largest concentration in Australia (national population estimated at 10,000). The corresponding figures for Sooty Oystercatchers are 270 Corner Inlet/360 Victoria/3,500 Australia.

BACKGROUND

When comprehensive wader counting in Victoria commenced c.1980 it was quickly apparent that "Corner Inlet" (defined for these studies as the whole of the intertidal areas and islands between the end of 90 Mile Beach - near McLoughlin's Beach - and the true Corner Inlet of Foster/Toora/Barry Beach, etc.) was an extremely important area for a large number of species of waders. A recent analysis of count data under a World Wildlife Fund sponsored study by the AWSG has shown that there are 'nationally significant numbers' of 13 species of waders in Corner Inlet, ranking it fourth in Australia for this combined measure of species diversity/numbers. The area has recently been declared a Marine Coastal Park (the Nooramunga MCP).

The VWSG have periodically attempted to catch and band waders in Corner Inlet, commencing in December 1979. Some success has been achieved, but only after considerable physical effort, many failures, and a fair sprinkling of mishaps. Most difficulties have stemmed from inadequate and unreliable boat transport, compounded by the fickle and frequently windy weather (with corresponding rough seas and blown sand rendering the nets inoperable). The last major banding visit, in 1982, was so plagued by such problems that the island on which we mostly operated (the easternmost of the complex, off Mann's Beach) was sarcastically named Dream Island by the Rogers' family (we subsequently learned that its local name is Three Hummock Island).

With Corner Inlet holding the main populations of so many wader species in Victoria the VWSG has long wished to mount a more concerted banding study there, to complement the excellent series of summer and winter count data now amassed. The recent offer of boat transport assistance for this activity also (it has always been provided for all the counting work) by the Department of Conservation and Environment, plus the acquisition of a slightly larger and more reliable boat by Clive Minton, made a renewed attempt to carry out significant banding in Corner Inlet feasible. The initial visits described here were directed at the highest perceived priorities.

RESULTS

Catches were made on 4 out of 6 days in March, and on all three days attempted in April (see full details attached). However, two of the catches (on 18/3 and 26/4) were greatly reduced by wind-blown sand preventing the net coming out properly and weather conditions were also responsible for the failure to catch on 20/3 or even to set the nets on 22/3.

Nevertheless valuable samples of Bartailed Godwit, Red Knot, Rednecked Stint and Turnstone were caught on the March visit (total of 391 birds) and of both Pied and Sooty Oystercatchers (total 105 birds) in April. In addition to banding and colour banding new birds, and obtaining weight/moult/other biometric data, some valuable recaptures of previously banded birds were made. These included some old birds going back to 1978 and 1979, and some birds which had moved from other wader locations in Victoria.

A detailed resume of key results for the main species is given below.

(a) Bartailed Godwit

Of the 54 Bartailed Godwits caught on 19/3 fifty were adult birds carrying large quantities of premigratory fat deposits (the other four were first year birds). The average weight of 31 females for example was 540g (max. 630g). This is nearly 100g heavier than the female Bartailed Godwits in N.W. Australia immediately prior to departure and corresponds to an addition of nearly 70% to the estimated fat free weight of c.320g.

This presumably means that the Corner Inlet Bartailed Godwits are intending to make an even greater initial flight on their northward migration than the 5,500 km known to be covered by birds departing from N.W. Australia. Theoretical calculations suggest that the heaviest birds might even be able to cover the 8,000 km to Shanghai in China (a known stopping off point for many waders from Australia) in a single 4-5 day flight !!

It is interesting that a flock of 80 Bartailed Godwits was seen to depart on migration at 1700 hours on 23/3. Their departure direction was N.E. (compared with N.W. in N.W. Australia). There was a light following wind (as in N.W. Australia departures) and it is probably significant that the 23rd was the onset of the first good weather conditions after several unsettled days. The timing also suggests that the sample caught four days earlier probably contained many birds at or close to their preferred departure weight.

The single retrap in the March catch had been banded originally, as an adult, in the same region of Corner Inlet in December 1979. At 11 1/4 years since banding it is the VWSG's oldest Bartailed Godwit.

The small catch on 25/4 was composed of immature birds, mainly in their first year. However the retrap was a bird in its second year confirming earlier suspicions that some birds may not return to the breeding grounds for the first time until their third year.

(b) Red Knot

Surprisingly, all of the 101 Red Knot caught at the McLoughlin's Beach entrance end of Dream Island on 21/3 were first year birds.

It is not clear whether this was because all the adults had already departed on northward migration or because this was a highly segregated part of the population. Certainly there were some adult birds still present in the Knot flocks seen in preceding days on "New Island" (the island which first appeared three years ago in the Mann's Beach entrance, between Dream Island and Box Bank). Unfortunately it was not possible to check the main Knot roosts on Box Bank for age structure.

There is growing evidence that the McLoughlin's Beach end of Corner Inlet may be the 'nursery' area for the whole complex with a higher than average proportion of young birds in some species. This was certainly true for the Pied Oystercatcher samples caught on 27-28/4. Marked variation in the proportion of young birds between sites has been shown for a number of waders in Victoria - it is presumed that the adult birds occupy the prime breeding sites and that the young birds are preferentially forced to less productive areas. It would be valuable if in due course invertebrate and feeding ecology studies could be carried out in various parts of Corner Inlet.

Two of the birds caught on 21 March already carried bands (and orange leg flags) having been originally banded at Yallock Creek, Westernport, on 12 January. This is an interesting, and rarely recorded, movement between major wader complexes within the same season.

(c) Rednecked Stint

The 203 Rednecked Stints caught at the McLoughlin's Beach entrance on 23/3 were mostly adult birds (only 9 first years) in the process of putting on fat reserves for the first leg of their northward migration.

Weights were typically 33-39g, with a few at 40-43g. This compares with the typical summer weight range of 27-31g. With most Rednecked Stints not departing from Victoria until April it is likely that few had already reached take-off weight. A sample in early April would be valuable in a future year.

Eight of the nine retraps had been banded in a large catch made on the eastern end of Box Bank in January 1989. However the remaining bird was especially interesting having been banded as a juvenile at Werribee Sewerage Farm on 27th December 1978. This bird is now in its 13th year - not bad for a bird which weighs less than 30g (an ounce) and flies up to 30,000 km during migration each year !

(d) Turnstone

Although the sample of Turnstones caught on 19/3 was small (12) the nine adults were already quite well advanced with laying down premigratory fat deposits. The average weight was close to 140g, an addition of 40% to the estimated fat free weight of around 100g.

(e) Oystercatchers

75 Pied Oystercatchers and 25 Sooty Oystercatchers were caught and individually colour banded - a most valuable contribution to the target of a minimum of 200 for Victoria for 1991.

There were some interesting recaptures. Two Pied Oystercatchers had originally been banded there in December 1979 - 11 1/4 years ago. Another had been banded at Stockyard Point, Westernport, in February 1988.

All adult birds were still in the process of moulting their flight feathers, though most were probably within 2-3 weeks of completion.

THE FUTURE

These two visits were a valuable recommencement of wader banding in Corner Inlet. It is hoped that this will become an increasing feature of the VWSG Fieldwork Programme in the future.

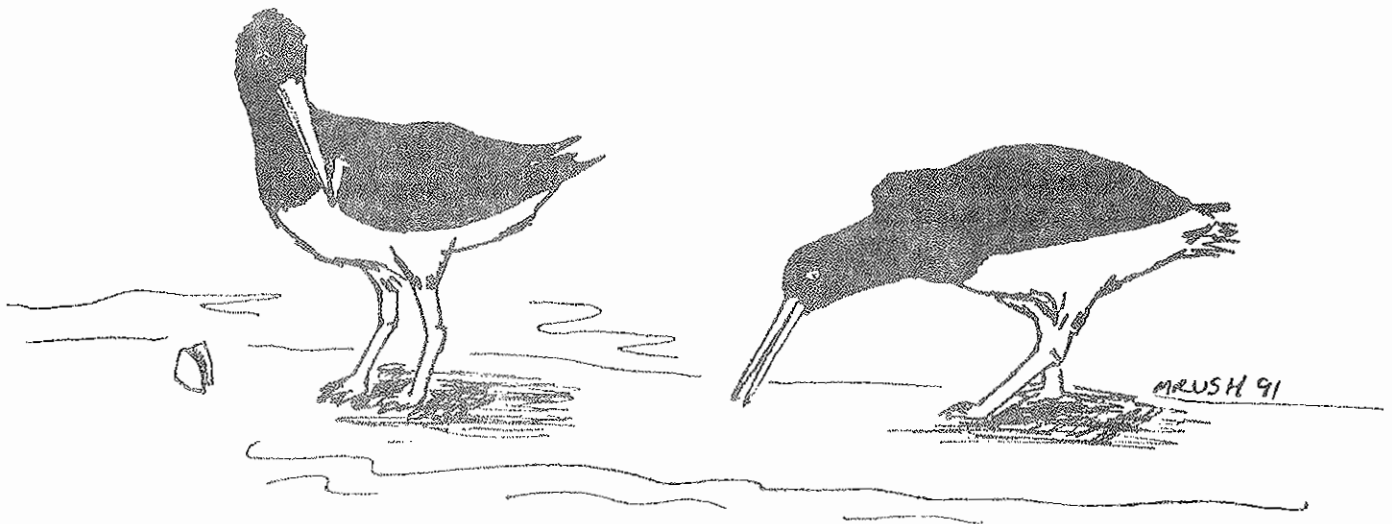
The next visit is scheduled for 26-29 October with the prime objective being Red Knot. This species is the subject of a joint study with New Zealand. The end of October is the time when many birds are likely to be passing through Victoria on their way to New Zealand.

ACKNOWLEDGEMENTS

The VWSG is extremely grateful for the invaluable assistance of the Department of Conservation and Environment with boat transport for equipment and people throughout both visits. In particular we would like to thank Susan Taylor, who made all the arrangements, and Darren Heil, who drove one of the boats on every day.

We are also grateful to the Mann's Beach authorities who allowed us to use their building as a base for our second visit - our tents having suffered considerably in a storm during the March visit. This building will be a great advantage for all future visits.

CLIVE MINTON
14/6/91



PIPING DISPLAY

CORNER INLET - DETAILS OF CATCHES

		New	Retrap	Total
18.3.91	New Island/Mann's Beach Entrance Pied Oystercatchers	4	4	8
19.3.91	"			
	Bartailed Godwit	53	1	54
	Turnstone	12	-	12
	Curlew Sandpiper	1	-	1
		---	---	---
		66	1	67
		---	---	---
21.3.91	Dream Island-McLoughlin's Beach Entrance			
	Red Knot	99	2	101
	Curlew Sandpiper	1	-	1
		----	---	----
		100	2	102
		----	---	----
23.3.91	"			
	Rednecked Stint	194	9	203
	Doublebanded Plover	9	-	9
	Curlew Sandpiper	2	-	2
		----	---	----
		205	9	214
		----	---	----
26.4.91	"			
	Bartailed Godwit	12	1	13
	Pied Oystercatcher	5	-	5
		---	---	---
		17	1	18
		---	---	---
27.4.91	"			
	Pied Oystercatcher	28	3	31
	Sooty Oystercatcher	7	-	7
		---	---	---
		35	3	38
		---	---	---
28.4.91	New Island/Mann's Beach Entrance			
	Pied Oystercatcher	25	6	31
	Sooty Oystercatcher	17	1	18
		---	---	---
		42	7	49
		---	---	---

CONSERVING THE COASTAL SCENE

E. L. Jones

Last year, overseas, I bought a small map of India, dated 1719. Back in Australia I went to have it framed. The girl in the shop tried to insist that it should go into an 'antiqued' frame (if the verb 'to antique' exists). She found it hard to understand that one would put only reproductions in fake frames. But we did agree on one thing: the frame matters, almost as much as the picture.

In this note I want to urge that those of us in Victoria who are interested in waders are in danger of neglecting their setting - the frame. In arguing this, my implicit comparisons are with two overseas localities where I have watched waders quite a lot during the past few years, the New Jersey Shore and the Exe Estuary in Devon. The waders there are more exciting than here. There is more migration, more variety, and more chance of spotting rarities. Yet the scene is less appealing.

Both of those areas are overcrowded. Parts are built up, the waters full of boats, the beaches and flats made intolerable by dogs, and the strandlines ankle-deep in litter. I do not want to see the Victorian coastal marshes become as tawdry but they are on the way down too, despite the far lower density of population here. The odds are that although our smaller population produces less disturbance and litter in absolute terms, it produces more relatively, which does not bode well for the future.

The first and biggest eyesore, because it is so hard to roll back, is indiscriminate development. Apparently, planning permissions for houses are in the gift of shire councils, which are often hungry for increased rateable values but demonstrably care little for scenic values. As a result, a number of important wader sites is now subject to visual pollution of an excruciating kind. It may be marvellous to live in a house the size of a motel on a bluff overlooking a marsh but the spillover effects (the 'negative externalities') are considerable. Everyone else for miles around has had stolen any sense or illusion of getting away from it all to a passably natural environment. The offending buildings obtrude into every view.

I am surprised as well as disappointed that Australians will put up with this visual squalor, this building up of the coastline into a low density Britain. Perhaps it is because of the big country mystique, except that as far as coastal marshes go, Australia, or at any rate Victoria, is not infinite. For example, it is certainly not big enough to absorb without pain a seven-storey hotel at Cowes.

There seems no defence against this sort of thing. One major wader resort in Gippsland has a new sawmill on it, besides an oyster farm established only during the last six or seven

years. And what jogged me into writing this note was coming across the mention of an environmental enquiry about an oyster farm on Corner Inlet. This will not do any harm to the birds was the conclusion. I have not seen the particular report but I would take little notice of any environmental impact statements, since they are too likely - given that there are no clearly-specified and intellectually-acceptable rules - to dish up whatever clients want or governments find politically convenient. The oyster farm may or may not hurt the birds but that is not the only possible kind of hurt. It must represent a visual intrusion and a precedent for commercial premises on mud flats.

Perhaps little can be done about the unsightly rash of coastal development. Perhaps it can. After all, the MMBW is happy to close down and flatten business premises on land under its jurisdiction, so why not on the coast? We need a new Highland Clearances.

The second problem is disturbance. Wind-surfboards, power boats, four-wheel drive vehicles, motorcycles, the aerial motorbikes called Ultralights, dogs (with their owners not above encouraging them to charge into flocks of gulls and waders), and especially fishermen, are becoming ever more prevalent at more and more wader haunts. The people involved are frankly competing with birders for favoured parts of the shore, and if it comes to a show-down they have more clout. They do create disturbance. Many of them seem to be uncomprehending about the presence of birds.

Again, that is not perhaps the prime difficulty, which is that there are fewer and fewer places where one can actually watch waders undisturbed. Victoria seems a big place but the concentration of leisure users on 'honey pots' creates nodes of congestion even here. Windsurfing is particularly pernicious, as one might expect from the tasteless colours chosen for by the sails; the boards can and do zoom into very shallow water close to where birds roost. For the sake of the next generation we should think hard about the way people are encouraged to fan out into the countryside and harder still about their behaviour when they get there.

Occasional 'offenders' simply do not know what they are doing. One Ultralight pilot came in low over a roost on Westernport and put up every bird in sight just as my wife and I were starting a count. He was actually putting himself in danger; a Curlew might have brought him down. I shook my fist. He gave me a wave. But the editor of the Ultralight magazine was most concerned. The keen people interested in that sport are worried that 'cowboys' are going to provoke greater regulation of flying. The editor asked me for a note about wader roosts and I hope my attempt to educate his readers bore fruit. At any rate, the pilot rang up to apologize and we have not been bothered since, whereas at one time there was a lot of disturbance.

Many of the competing activities are noisy and obtrusive. The third problem is that they are carried on by litter louts.

Shore fishermen are the worst. The broken bottles, beer cans, and bits of plastic which they leave are incredible. At times we pick our way through a little coastal slum at one of the places we watch. It is also being stripped as the fishermen break up the bushes for bonfires to stand around while they drink equally incredible volumes of beer, as a prelude, as like as not, to smashing the bottles. Perhaps one should not expect better behaviour from people who make a hobby of killing things, but I have never, never seen birders littering. How can we change the fishing culture?

Coping with all these problems is tricky. I particularly do not want to be written off as a greenie, keen to regulate economic activity out of existence. I reject as hysterical most of what I read in the press from that camp. (There are plenty of good treatments of environmental issues by economists and an occasional sound journalist such as Frank Devine and Padraic McGuinness in The Australian). Nevertheless, I do have a sense of getting the worst of two worlds: on the one hand, a deluge of absurd demands that the economy should shut down because the world is on the brink of environmental disaster, and on the other little actually being done to protect the environment where it matters to me, on the Victorian coast.

My preference is for a response which uses less regulation and more market solutions - a tariff for users of the coast which reflects the average nuisance value of the activity and generates the revenue to clean up the mess. Unfortunately almost no conservationists have professional qualifications in economics, even though what they deal with is simply an aspect of resource allocation on which there is abundant technical work.

I would also like to see more education in natural history, in which regard I find the Victorian school-teachers of my acquaintance very lacking, for all the 'environmentalism' the younger ones have picked up in college. They seem to think that nature is 'out there' in the Outback with Harry Butler and do not so much as notice the flock of Cattle Egrets flying past the staff-room window. By overseas standards, the Victorian community as a whole has a very low percentage of naturalists and we have failed to make our mark.

Most of all I would like to see the consciousness of wader watchers raised with respect to the aesthetic aspects of our hobby. If I can goad a few people into taking this seriously I shall be well pleased. At present what we do is a mixture of stamp-collecting, sport and natural science. We need more poets, more people from the humanities and social sciences. We need to contemplate and protect scenic values as well as the birds themselves, not just the picture but the frame. If we do not, in a generation's time some Victorian wildlife artist will be selling his painting, 'Greenshank over beer can, with windsurfer (motel behind).'

A WALK ON THE BEACH
by Hugo Phillipps

The hills of south Gippsland were once covered with a tall forest of Mountain Ash and other eucalypts that extended to the granite peaks of Wilson's Promontory. Much of that forest was eventually cleared for cattle grazing and, when driving down from Melbourne to the Prom early one Saturday morning in October, I passed through this shaven landscape of rolling hills, textured by the terraces made by cloven hooves.

There are patches and strips of Monterey Cypress, ubiquitous along the settled Victorian coast, but virtually every large native tree has been lost from the route to the Prom. Huge charred and weather-worn stumps can be seen occasionally, along with the infrequent treefern, grotesquely forlorn on the bleak sward.

The Prom has fared better than this, retaining a cover of original vegetation. Even so, bushfires in the early 1950s killed many large trees whose skeletal boles stand as pale streaks above the surrounding regrowth.

Connecting the shaved hills of South Gippsland and the wooded granite peaks of the Prom is the Yanakie Isthmus, a causeway of scrub-covered sand-dunes thrown up by the ocean and the wind in the last few thousand years. My intention was to walk down the west side of the Yanakie Isthmus from Shallow Inlet to the mouth of the Darby River. The distance was about eighteen kilometres, almost entirely within the Wilson's Promontory National Park. The occasion was the Victorian Hooded Plover Survey, which has been held every two years for the last ten, in order to monitor the numbers of an interesting little bird.

The Hooded Plover is an endemic Australian shorebird, found around the coasts of south-eastern and south-western Australia. In the south-east it is confined almost entirely to ocean beaches where it nests on the sand above the high-tide mark. Total numbers are not large, probably no more than two or three thousand. Of these probably less than a thousand live in Victoria.

It is also a bird that may be undergoing a gradual decline. The beaches it lives on are being used increasingly by people. Along the Coorong in South Australia it was found during an experimental study that some eighty percent of eggs were actually crushed by the wheels of recreational vehicles. The use of beaches by humans and their pet dogs also cause disturbance to the plovers that allows increased predation by gulls and ravens.

So, I thought that the walk down Darby Beach would probably be one of the better places along the Victorian coast to see Hoodies. After all, Darby Beach is within a National Park, and most of it is free of any but occasional human activity. Indeed, on a Saturday morning with magnificently sunny spring weather, I encountered no people at all until I reached the Darby River itself.

The tide was high but receding when I started, the beach flat and increasingly broad. Within twenty minutes of the start I saw my first pair of Hoodies, beautiful pale grey birds with black heads walking down the sand from the back of the beach. They stayed together, scurrying faster as I approached, but not bothered enough to take to the air.

The pair stopped at the edge of the water, where they formed a social lure for a small flock of sparrow-sized Red-necked Stints which wheeled and flashed in the morning sun before settling beside them. A little further on a Ruddy Turnstone was picking small crabs from the sand.

The only other wading birds seen, and by far the most numerous, were the Sooty Oystercatchers. Mainly in pairs, they were spaced regularly along the beach, striking black birds with bright red bills and legs, probing for small creatures at the water's edge.

Later I came across the half-buried corpse of an albatross, beachwashed after having died at sea. I had no means of identifying what species it was on the spot, and was tempted to take it with me for later examination. However, it was partly decayed and caked with wet sand, so I left it for the crabs and the gulls.

Since the weekend for the Hooded Plover count is fixed long in advance, and takes place whatever the weather, those taking part have endured some appalling conditions in the past. Bad weather can also affect the number of plovers seen by forcing them into the relative shelter of the dunes. In October 1990, though, it was perfect weather for the survey. There was a light wind from the south, the sun was behind me and there were a few fluffy clouds in the sky.

On my left were the grass and scrub-covered dunes of the Isthmus. On my right the weather-beaten granite dome of Shellback Island swelled up and I scanned its lichen-stained rocks in a vain search for Cape Barren Geese. On an isolated stack of beach-rock two Great Cormorants sat, surveying the coast from what was probably their nesting site.

From the back of the beach a single Hoody walked away from me, calling softly but insistently. I looked closely along the tide-wrack for another but saw nothing. Searching systematically for nests was not possible because of the time it would have taken, and it was probably a little too early in the season for eggs anyway. The birds I saw, though, did appear to be territorial and, therefore, preparing to breed.

The day warmed up and I ate lunch in the shade of a large rock, listening to the piping calls of the Sooty Oystercatchers against the white noise of the waves. The beach seemed endless, its ends obscured by haze. Swallows dived low across the beach, possibly chasing the flies which were beginning to make their presence felt. I continued the walk.

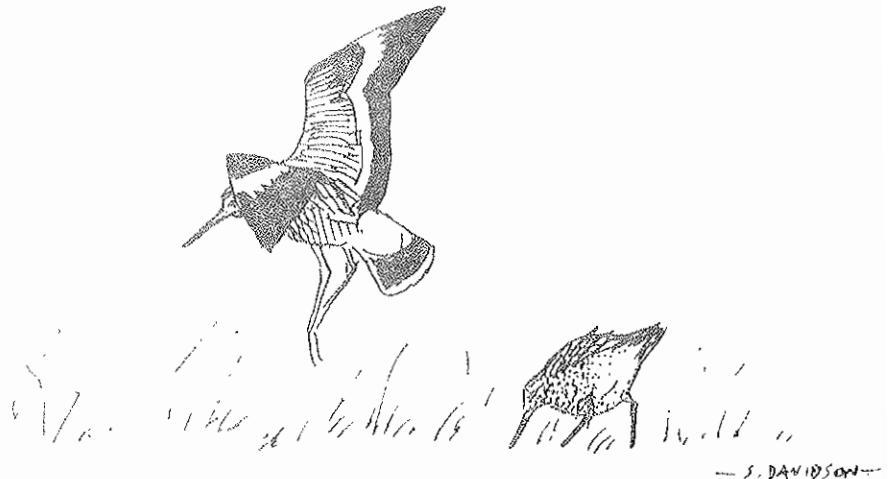
One pair and another single Hoody later, four hours after leaving the entrance to Shallow Inlet, I arrived at the tannin-stained Darby River. Its waters, when I forded it, were numbingly cold. It marked the end of my survey stretch, and I walked to the car park to await my lift home with those who had surveyed the beaches further south on the Prom.

What about the results of the survey? Well, they have not yet been fully analysed, although numbers seemed generally down. I felt, however, some concern. The numbers of Hoodies along the Victorian coast suitable for them have, in the past, been estimated at about one per kilometre. I saw only six birds along eighteen kilometres of what should have been one of the best beaches in the State for them, with no vehicles and few people.

One possibility tentatively raised to account for apparently lower numbers counted this year concerned the occurrence of stormy weather just prior to the survey, with the suggestion that many Plovers might have been sheltering behind the foredune. However, my count was made in balmy conditions and one would think that the birds would have emerged from any foul weather retreats to feed.

There is another possible cause for the low numbers of Hooded Plovers on the strip of coast I surveyed. Along the top of the beach there were frequent tracks of foxes. A fox was also seen by the roadside near the start of the survey, as well as a very large feral cat. The density of plovers on beaches in Tasmania is reported to be much higher than that in Victoria, and this may have something to do with the fact that the Apple Isle is free of foxes.

Whatever the causes, it does seem that the Hooded Plover is in some danger in Victoria. Its range on the New South Wales coast has already contracted from Port Stephens to Jervis Bay, and it may well disappear from that State in the near future. Active management of oceanic beaches through restrictions on use during the breeding season, as well as predator control, may have to be implemented. Otherwise yet another species may slip imperceptibly towards extinction.



IT WAS THE NIGHT BEFORE EASTER
by Hugo Philipps

The two angels flew steadily together over the dark land. The senior, an archangel and third-rank bureaucrat recently seconded to the Terrestrial Inspectorate, was distinguishable by golden eighth primaries and an air of self-importance. In the west the last remnants of the sunset glow dimmed the stars near the horizon. It was the evening of the 14th of April 1990, Easter Saturday, and the Christian world lay hushed, reverently awaiting the dawn of a new day, symbolic of rebirth and resurrection.

At least, thought the Inspector, it should have been. There were, however, disturbing signs that matters were awry. Why, even his companion, a very junior Local Representative for the Pilbara Coast, was wearing jewellery. He stared at her with disdain.

'I realise that I haven't been over this part of the world for a couple of centuries, but you've been letting things slip a bit, haven't you?'

She winced, her wings fluttering unevenly.

'Er, it's not that easy, Sir. Policy now is not to interfere too much and, well, what with human population growth and pollution...'

'This whole region is supposed to be a Special Protection Zone for migratory waders. You know that. That's why the climate here was made so miserable for humans in the first place, and now...' He paused for a moment. 'And just what is that horrible noise, anyway?'

'Brine pumps, Sir. You can see the lights of Port Hedland ahead of us, and these are the salt-works.'

They circled above the evaporation ponds and the archangel grunted a reluctant acknowledgement.

'At least there's something the humans do that benefits the birds. But who are they?' He gestured with a wing to a scattering of tents and unwashed people, some of whom, he noticed with a sudden surge of righteous indignation, seemed to be handling birds and committing arcane atrocities upon them.

'That's the latest North-west Expedition of the Australasian Wader Studies Group,' the junior angel explained nervously. 'They come here every couple of years to...'

'Muck around with the waders,' interrupted the archangel grimly, 'and you've done nothing to stop this?'

The angel was flustered and defensive.

'Well, I did try once to... But, anyway, they are only trying to get data... The conservation of the...'

'I'll give them data. They think they can interfere with the Master Plan, do they?' The archangel screeched in outrage. 'Who's responsible for all this?'

'Er, well, one of them is a Doctor Minton. That's probably him, asleep under the mosquito-net there.'

'Minton, eh? I'll see if we have anything on him.'

For a few long microseconds the archangel consulted the Great Omniscient Databank.

'Ah, yes.' The bureaucrat's face twisted to form a vindictive smile. 'His is a very long file. Nasty stuff, too. He's been doing it for years; meddling, managing, messing about; tonight, of all nights; he's quite incorrigible. Well, he's not going to sleep much longer.'

Swooping lower over the camp, where the thudding of the brine-pumps competed with the sound of irregular snores, he called out imperiously.

'Minton! The time has come to answer for your sins!'

There was a muffled grunt and the snores stopped abruptly. The junior angel hovered nervously above.

'Please, Sir. I don't think that we should...'

The archangel silenced her with an angry flap.

'Minton! What have you to say for yourself?'

The figure below rolled from beneath the mosquito-net and struggled to it's feet, hastily pulling on some shorts while blinking up at the night sky.

'Eh? What's that? You'll have to speak up.'

Gesturing to his subordinate to follow him, the archangel circled menacingly and then descended in a slanting stoop towards the stocky moonlit figure, the humid air whistling through the half-folded wings.

'Minton! This is your final...'

'Watch out, Sir,' the junior angel screamed. 'They may have...' there was a soft and soundless crash of feathers into nylon monofilament, '...mistnets,' she finished despairingly.

'Beautiful!' came a shout from the camp. 'It looks like two species, and one a retrap! Hey, does anybody know the band size for an archangel?'

However, the archangel did not reply. For the first time in his long career he was thoroughly tongued.

FIELD NOTE

Large Flock Of Double-banded Plover

George Appleby reports a flock of 3,511 Double-banded Plover at Middle Lough Calvert, one of a chain of wetlands near Beeac, north of Colac and east of Lake Corangamite. He first saw them on 29 June; he made the count on 1 July and says the numbers were confirmed on 6 July by Mark Barter who counted 3,700.

The birds were in the damp margins of the wetlands, pasture and rocky outcrops. The area is accessible to four wheel drive vehicles but cannon netting might be difficult.

George Appleby counted 2,180 Double-banded Plover in the same area the previous year.

EXAMINING THE BUSINESS OF LIVING

A REPORT ON CURRENT OYSTERCATCHER RESEARCH

Michael Weston

"Oystercatchers, too have often baffled us"

D & N Nethersole-Thompson

For some time, Australian ornithological research has lagged behind banding schemes. This phenomenon seems unique to this country, as in most other countries the reverse appears to be true. Interestingly, while the banding efforts such as those of the VWSG should promote research, many honours, and to a lesser degree, Masters and Phd. students of the Biological and Environmental sciences are unaware of the potential for studying wading birds. For the sake of unravelling some of the mysteries of the charismatic, stocky Oystercatcher, I have undertaken research on it as part of my fourth year honours at the University of Melbourne. Here I hope to explain the nature of my research and the important role the VWSG is playing in ornithological research of this kind.

The Oyk is an ideal bird to study; its reasonable size, comparatively slow and discernable feeding behaviours, its distinctiveness, the vast literature base from other parts of the world, and of course, the proportion of individually colour-banded Victorian specimens all add up to a researcher's Utopia. The only problem being that one topic must be chosen from the myriad of possibilities. This not-to-be underestimated task took me some two over-estimated months! My topic is within a paradigm known as "optimal foraging". Very simply this controversial area is based on the idea that organisms forage as well as they possibly can as evolution via natural selection has acted upon their feeding behaviour and apparatus so as to produce an optimum. This idea lends itself to mathematical modelling of foraging, provided at least some assumptions about constraints and habitats are made. Modelling is useful because very accurate predictions on a range of parameters can be made, and indeed testing of the models themselves is very useful as it can show what variables are most influential to an organism. All of the pre-1985 work made a very dubious, basic assumption; that maximising energy intake maximized evolutionary fitness. Natural selection acts, however, on reproductive success, (that is "Evolutionary" or "Darwinian" fitness, the ability to pass genes to the next generation), not energy intake, and it was McNamara and Houston (1986) who managed to overcome this problem. Using a new application of a complex mathematical procedure, they specifically concluded that for an organism that cannot feed nocturnally, the optimal feeding behaviour should depend on the time of day and energy reserves. That is, the closer to dark the more effort it should devote to feeding and this effect would be reduced if high energy reserves were available. In the Oyk, however, the issue is not so black and white!

Oystercatchers do feed at night as do most waders. However, the literature is divided over whether they do so less efficiently than during daylight hours, some even suggest that waders are able to feed more efficiently at

night due to increase in invertebrate prey activity! As Oyks utilize (at least to some degree) visual cues to forage, moonlight very possibly could affect nocturnal feeding efficiency and therefore perhaps their daylight feeding behaviour. Constraints due to the length of exposure of the mudflats and tidal height and difference (Neap versus Spring tides) may also affect Oystercatcher foraging, and possibly in a complex way with interactions between these variables. Relevant hypotheses were developed.

In order to understand the complex patterns of environmental variables and their implications for the predictions made by the present study it became clear that they had to be partitioned into an all-inclusive set of combinations. Thus from the three factors (diurnal exposure of mudflats, moonlight and tidal difference) eight combinations were produced and the days that represented each were deduced. Before too long my "yearly planner" was filled with days - that - I - must - be - at - Werribee!

Oystercatchers could alter their foraging behaviour in two ways. They could change the time they devote to it, or they could feed at varying speeds or efficiencies. Hence both feeding rates, (wherever possible for individually colour-banded birds) and time budgeting of all individuals in my field of vision are recorded. Climatic variables are also recorded along with predation threats by raptors or foxes, aggression (mainly involving other Oyks but also a Pacific Gull, Teal and small wader thus far) and kleptoparasitic attacks (attacks to gain food, primarily by other Oyks and Silver Gulls). Faecal analysis, in an effort to determine prey types and quantity, proved fruitless in the field thanks to contamination by the shell matter of the Spit. This was overcome however by collecting samples during a cannon netting operation, thanks to a great deal of co-operation and tolerance by all involved. No findings have yet been produced due to a heavy field regime.

So not only will these data be applicable to testing the specific hypothesis but they will provide much basic ecological data on this hardy, adaptable species. A comparison with the Pied Oystercatchers of the world will also be conducted (they have been studied substantially in many places particularly England and Holland). The VWSG has played an integral role in such scientific endeavours. Its banding has proved extremely useful and as more researchers, students and enthusiasts become involved the VWSG will find itself at the forefront of the campaign to conserve and understand the idiosyncrasies and beauty of wading birds.

Illustrations by Megan Bush

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SPECULATIONS
by Hugo Phillipps

What happens to the Godwits? I refer specifically (or probably subspecifically) to the Bar-tailed Godwits that visit south-eastern Australia and New Zealand. We know fairly accurately where they spend the non-breeding season. We know, though much less accurately, where they breed. What we do not really know are the exact routes they take, although there are some clues.

Look through the back numbers of *The Stilt* and the *VWSG Bulletin* for international retraps of Godwits banded in Australia. Compare the numbers with those of other species such as Red Knots or Curlew Sandpipers. You will find proportionately far fewer retraps amongst the Godwits until the time when returns began to come in from the coast of eastern China, near Shanghai; and note that they are almost entirely of birds banded in the north-west of Western Australia. There is still virtually nothing from south-eastern Australia.

Oh, there is the odd exception. For instance, there are returns from two birds banded in New South Wales, from Korea and eastern Siberia, at about longitude 151° East. Birds have also been known to move between Australia and New Zealand. All this seems to support the suggestion, backed up with biometric and sex-ratio data (Mark Barter, 1989, *Stilt* 14: 43-53) that Bar-tailed Godwits of the East Asian/West Pacific Flyway are divided into at least two distinct populations or subspecies. Probably the Godwits of north-western Australia will be assigned to the hitherto unrecognized subspecies *Limosa lapponica menzbieri* erected by Leonidas Portenko in 1936, but Godwit taxonomy still appears fuzzy and it will be interesting to see what decisions are made for the second volume of HANZAB.

So what route do Australia's south-eastern Godwits take to their breeding grounds? Well, there is some slight evidence that the northward journey is made up the western side of the Pacific ocean, curving round to the east when the Kamchatka Peninsula and the Aleutian Islands are reached, at least for those birds breeding in Alaska. The retrap from Korea may indicate the western edge of this route. There have also been reports of large numbers of Godwit-sized birds detected by radar when flying northwards over Guam.

As for the return route, it is possible that a somewhat more direct route is taken over the central and western Pacific. Quite apart from any consideration of the prevailing winds, this would be safer for the following reason. The islands of the Pacific are concentrated to its south and west. The distance between Australia and New Zealand in one corner of the Pacific basin, and Alaska diametrically opposite, is some ten or eleven thousand kilometres, a very long flight by any consideration. Any large migratory movement is likely to involve 'fallout' near the end of the route by those individuals whose energy reserves are just short of sufficient. Those flying directly north-east will drop into the sea; those bound south-west have at least some chance of finding an island upon which to rest and feed before continuing.

However, finding food is not easy; not for large numbers for long. The commoner Palearctic-breeding migratory waders of the Pacific include the Pacific Golden Plover, the Ruddy Turnstone and the Wandering Tattler. All of these, in their feeding habits, are relatively short-beaked 'pickers' rather than long-beaked 'probers'. Given that most of the central Pacific Ocean's islands are atolls with coarse coral sand beaches, and that its tides have a relatively short range, this is not surprising. The Bar-tailed Godwit, adapted to the muds and fine sands of the continental margins and large islands, still turns up regularly throughout the scattering of atolls, and much of this can be attributed to migratory 'fallout'.

All this shows up our enormous ignorance about the life of the Bar-tailed Godwit. Maybe about a thousand birds have been banded in south-eastern Australia. The returns have, so far, been meagre. In contrast, returns on Godwits banded in north-west Australia have been much better, because of the different route used by that subspecies which is harvested by the wildfowling of eastern China. Korea is known to be an important staging point for Bar-tailed Godwits, but the ratio of the different subspecies is unknown. A very large proportion of the population spends the non-breeding season in New Zealand, but there has been little large-scale banding of the species there.

Some people may question the importance of wondering or worrying about the taxonomic status of *Limosa lapponica*. After all, the birds one sees on the red sand beaches of Roebuck Bay are visually indistinguishable from those on the mudflats of Corner Inlet. The implications, though, are far from trivial. It is increasingly recognized that one of the most important reasons for conserving habitats is the conservation of genetic variability. Different subspecies, even distinct populations, may need different strategies to manage and conserve them.

We may begin to find out a bit more in future. The program of colour-flagging birds caught in Australia could result in useful sightings in the Pacific and in Asia. Maybe birdwatchers going on trips in these regions to tick the colourful and rare endemic species there could spare a little time to look for flagged waders on migration. It would also be nice if there was a program in New Zealand to band and flag, say, a thousand Godwits a year for the next ten years. Possibly an enthusiastic Korean wader study group could start to catch and measure Godwits on migration there. Maybe a small and adventurous expedition could do the same on the breeding grounds in north-eastern Siberia. Even so, it is likely to be some time before we really start beginning to understand the elusive Bar-tailed Godwit.

Acknowledgements are due to Brett Lane, Les Christidis and Mark Barter for discussions about Godwits.

WADER THESES
compiled by Hugo Phillipps

This is a preliminary list of theses relating to the waders of Australasia. It was compiled sporadically and opportunistically from various sources, the two most important of which are listed at the end. It is probably fairly complete for New Zealand theses up to mid-1989. It is almost certainly incomplete for Australian ones. Additions and corrections would be welcomed by the compiler.

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INCOME	\$	EXPENDITURE	\$
Subscriptions	1170.00 (1100.00)	Printing	360.00 (300.00)
Donations	80.00 (10.00)	Postage	153.58 (125.10)
Sale of Bulletins	10.00 (10.50)	Stationery	23.00 (27.75)
Sale of firing box	127.00	Firing Box Materials	77.00
Refund for unused Colour Bands	60.00	A.G.M. Statement fee	25.50
Proceeds Trading Table at AGM	10.00 (61.10)	Fuses & Sleeves	320.00 (292.80)
Bank Interest	71.96 (93.49)	Colour Bands & Leg Flags	548.96 (32.80)
Cash at bank - 1/7/90	1434.09	Equipment & Repairs inc. radios, batteries, plasticine screwdrivers, etc	240.38 (163.45)
Cash in hand - 1/7/90	144.38	Materials for new keeping cages	139.70
		Black Powder	360.00
		Trailer Repairs	249.92
		Bank charges	13.19
		Cash at bank - 30/6/91	513.70
		Cash in hand - 30/6/91	122.50
	<u>3147.43</u> *****		<u>3147.43</u> *****

Brenda Murlis, Hon Treasurer

VICTORIAN WADER STUDY GROUP

FIELDWORK PROGRAMME - JANUARY-MAY 1991

DATE	PLACE & OBJECTIVE	TIME	HIGH TIDE HEIGHT
Sun Dec 30	<u>Werribee SF</u> Large catch of small waders	1215	0.8m
Tues Jan 1	<u>Yallock Creek</u> Large catch of small waders	1245	2.4m
*# Sat/Sun Jan 5/6	<u>Queenscliff</u> Large catch of small waders Large waders	0410) 1609) 0455	5th 1.6m 1.4m 6th 1.6m
Sun Jan 13	<u>Werribee SF</u> Large catch of small waders	1207	0.7m
*# Sat/Mon Jan 26/28	<u>Lakes National Park</u> Common Terns & Little Terns	-	-
# Sat/Sun Feb 9/10	<u>Barwon Heads</u> Greenshank & Golden Plover	2043 0751	1.3m 1.3m
Sun Feb 17	<u>Yallock Creek</u> Large catch of small waders	1553	2.5m
# Sat/Sun Feb 23/24	<u>The Gurdies</u> Eastern Curlew	2015 0745	2.8m 2.6m
*# Sat/Sun Mar 2/3	<u>Port Fairy/Killarney Beach</u> Sanderling & Turnstone	1418 1445	0.7m 0.8m
# Mon/Sun Mar 18/24 (7 days !)	<u>VWSG Corner Inlet Week</u> Departure weights of migrant waders. Pied Oystercatchers	1330 to 1709	1.4m to 1.5m
Sun Apr 14	<u>Werribee SF</u> Pied Oystercatchers	1434	0.8m
Sun Apr 28	<u>Fairhaven, French Island</u> Pied Oystercatchers	1238	2.7m
Sat May 18	<u>Barry Beach</u> Pied & Sooty Oystercatchers	1512	1.7m
Sun May 26	<u>Hastings or Stockyard Point or Rhyll</u> Pied Oystercatchers	1107	2.7m

* Meet pm Friday
Involves camping

VICTORIAN WADER STUDY GROUP
 FIELDWORK PROGRAMME - MAY-DECEMBER 1991

DATE	PLACE & OBJECTIVE	HIGH TIME	TIDE HEIGHT
Sun May 5	<u>Long Island, Hastings</u> Pied Oystercatchers	1719	3.1m
Sat May 18	<u>Barry Beach</u> Pied Oystercatchers	1547	2.6m
Sun May 26	<u>The Gurdies or Stockyard Point</u> Eastern Curlew or Pied Oystercatchers	1107	2.7m
(Sat Jun 1	<u>Mud Island</u> Vegetation clearing	1444	1.6m)
Sat Jun 15	<u>Queenscliff</u> Bartailed Godwits	1408	1.6m
Sat Jun 29	<u>Fairhaven, French Island</u> Pied Oystercatchers	1440	2.9m
(Sun Jun 30	<u>Corner Inlet</u> Wader count	1445	2.2m)
Sat Jul 13	<u>Rhyll</u> Pied Oystercatchers	1357	2.9m
Sun Jul 14	<u>Barry Beach</u> Pied Oystercatchers	1400	2.9m
Sun Jul 28	<u>The Gurdies</u> Eastern Curlew	1412	2.8m
Sat Aug 3	VWSG Annual General Meeting At Clive Minton's house (10.30 a.m. to 11.00 p.m.)		
Sat Aug 31	<u>The Gurdies</u> Eastern Curlew	1630	2.8m
Sat Sept 14	<u>Yallock Creek</u> Eastern Curlew/early arriving small waders	1644	2.8m
Sun Sept 29	<u>Yallock Creek</u> as above (or vice versa)	1604	2.7m
Sat Oct 12	<u>Queenscliff</u> Red Knot	1428	1.4M
Sat/Tues Oct 26-29	<u>Corner Inlet</u> Red Knot, etc.	1420(26th) to 1651(29th)	2.1m 2.4m

Sun Nov 10	<u>Swan Island, Queenscliff</u> Turnstone	1456	1.35m
Fri/Sun Nov 29-Dec 1	<u>Port Fairy</u> Sanderling & Turnstone	1704 (29th) 0613 (1st)	0.5m 0.7m
Sun Dec 8	<u>Yallock Creek</u> Small waders	1451	2.5m
Sat Dec 14	<u>Mud Island</u> Crested Terns	1749	1.3m
Sun Dec 22	<u>Corner Inlet</u> Crested & Caspian Terns	1147	2.2m
Fri/Sat Dec 27/28	<u>Queenscliff</u> Small waders	1717 (27th) 0545 (28th)	1.45m 1.6m
Sat/Sun Dec 28/29	<u>Werribee S.F.</u> Small waders	2101 (28th) 0916 (29th)	0.8m 0.9m

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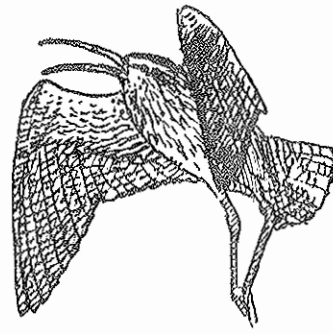
Clive's address ~ 165 Dalgetty Road, Beaumaris, 3193

BULLETIN BOARD

Publication

Each year, despite our best intentions, there is a last minute rush to have the Bulletin ready for distribution at the the Annual General Meeting. One of the the principal sufferers is Terry Barter who for some years has been our printer. Assembly of each copy from the printed sheets calls for a team of volunteers. Brenda and Mick Murlis and Mark Barter somehow find time to put each issue together - a tiring and time consuming task. And this year much typing of Clive Minton's material was done by Karen Barter.

We are much obliged to all of them.



-S. DAVIDSON-

VICTORIAN WADER STUDY GROUP INC.
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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
reproduction. Preferably the lines should be single spaced with double

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