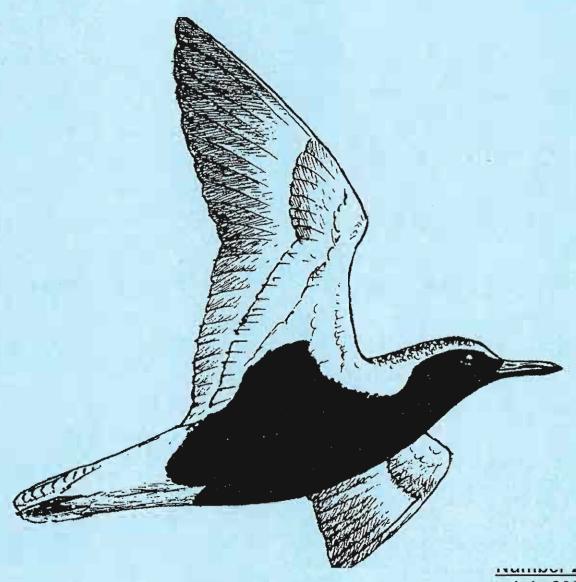
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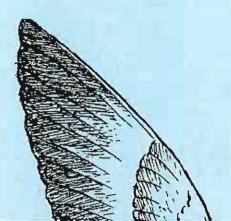
VWSG BULLETIN

JOURNAL OF THE VICTORIAN WADER STUDY GROUP

Number 27 July 2004



July 2004



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VICTORIAN WADER STUDY GROUP INC.

MISSION STATEMENT

The principal aim of the Victorian Wader Study Group is to gather, through extensive planned fieldwork programs, comprehensive data on waders and terns throughout Victoria on a long-term basis.

This scientifically collected information is intended to form a factual base for conservation considerations, to be a source of information for education of a wider audience, to be a means of generating interest of the general community in environmental and conservation issues, and to be a major contribution to Australian, Flyway and Worldwide knowledge of waders and terns.

FORMATION/BACKGROUND

The wader banding fieldwork, which led to the formation of the Victorian Wader Study Group, commenced in December 1975. The Group was formally named in late 1978 and was subsequently incorporated in 1986.

add to history.

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Subscriptions for 2004/05 (payable in advance on 30th June 2004)

Full Member

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Student

\$10.00

This bulletin is usually published on the date of the Annual General Meeting and contains reports and cumulative records of fieldwork of the Victorian Wader Study Group with articles, field notes and other material.

Contributions are welcome. Please consult the editor or assistant editors on questions of format.

Views and opinions expressed in "VWSG Bulletin" are those of the author(s) and not necessarily those of the VWSG.

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VWSG WEB SITE www.vicnet.net.au/~vwsg

Summary of VWSG Activities - 2003 to July 2004

Clive Minton

Introduction

Each year I write an introduction to the Bulletin in which I try to summarise the highlights of our fieldwork activities and the results that have derived from them. This is not intended to deter members from reading every line of every table and text in the Bulletin! But it may help those with less time or who are less involved in the detail of our activities to obtain more easily a broad understanding of what has occurred and been achieved during the past twelve months. It also enables me to briefly cover one or two more formal administrative aspects (eg. finances) and to appropriately thank the many people and organisations who have helped the Group, both financially and otherwise.

2003 was another extremely successful year for the VWSG, though not quite at the level of the record achievements of 2002. Unfortunately the first half of 2004 has not been quite so productive in terms of catching and banding activities, but hopefully the remainder of the year will rectify this situation. Meanwhile, read all about the final outcome of Year 2003 and other happenings since the last VWSG Bulletin (No. 26) published in August 2003.

Objectives

It may be helpful to VWSG members to briefly trace the evolution of the principal fieldwork activities and objectives of the Group since its formal formation in late 1978.

When we started virtually nothing was known about the migration of waders that visit Australia, or about the movements of resident species. Also nothing was known of their numbers and their distribution around Australia. Extensive counts around the whole of Australia, coordinated by the Australasian Wader Studies Group/Birds Australia, in 1981 to 1985 provided the first comprehensive population data, and this has been a baseline for all subsequent population monitoring. The initial banding activities were principally aimed at maximising the number of individual birds banded, of as wide a variety of species as possible, in order to maximise the number of recoveries. These would delineate migration routes and movement patterns, destinations, stopover locations and faithfulness to particular non-breeding areas (via retraps). The rate of generation of such movement data was greatly enhanced when leg flagging was introduced in 1990.

The ancillary data collected during banding operations on biometrics and moult gradually received greater attention with priority being given to attempts to fill in gaps to give a comprehensive coverage for each species/age group throughout the year (or at least for the period that the birds were in Australia). The collection of weight data associated with the fattening prior to migration received particular attention.

During the last ten years the highest priority in fieldwork has been accorded to the collection of demographic data – reproduction and survival rate information – which is necessary to explain population levels and trends determined from population monitoring counts. Attempts are now made each year to catch an adequate sample (preferably at least a hundred, but more of the more numerous species) of as wide a variety of species as possible during the mid-November to mid-March period when wader populations are most stable ie. when virtually all the juveniles have arrived

and adults have not yet started departing on northward migration. The percent of juveniles present in catch samples is the best method we currently have for obtaining an index of annual productivity from banding data. Survival rates can be calculated if sufficient retraps are made of birds banded in previous years. Whilst this is readily achievable in Red-necked Stint, it is difficult to obtain sufficient retraps regularly each year in other species.

So whenever the VWSG goes into the field it always has specific objectives and priority lists for catch options. These will vary from season to season. In winter for example the long term special study of Sooty and Pied Oystercatcher means that they are usually the highest priority (from 1979 to 1988 the "winter" target species was Double-banded Plover, which come from New Zealand). In the main "summer" catching season (November to March) the key priority is the reproduction/survival rate data. However further movement /biometrics/moult data is inevitably generated.

Banding

The total wader catch in 2003 was 11,349, the third highest total in the 25 years since the VWSG started cannon-netting. The average annual catch in this period has been 6419. The grand total of waders caught by the VWSG since the first mistnetting in late 1975 is 184,822, involving 37 different species, and comprising 148,145 newly banded birds and 36,677 retraps.

In 2003 a record number of 2854 previously banded birds was caught. This is 25% of the total catch and compares with an average over the 25-year period of 20%. Rather surprisingly the only other time retraps comprised 25% of the annual catch total was way back in 1988.

A wide variety of species was caught during 2003, especially in the first half of the year. Best were 1152 Sharp-tailed Sandpiper (a record), 466 Sanderling, 262 Bartailed Godwit, 162 Ruddy Turnstone, 60 Red Knot (only), 40 Common Greenshank and 36 Eastern Curlew (all in one catch). The bread and butter was 8133 Rednecked Stint and 650 Curlew Sandpiper, the latter still being present in far fewer numbers than ten or twenty years ago. Satisfactory numbers of Oystercatcher were caught, with 253 Pied and 34 Sooty.

The 2003 year ended with a real bang (and the extremely high total largely derives from this). A record 3475 birds were caught in four catches at Werribee Sewage Farm during the usual three day visit, from 27th to 29th December. This involved two catches of over a thousand (1369 and 1129). Unbelievably, 1281 birds were caught at Yallock Creek only two days later, on 31st December.

Most of the 2004 birds were caught at various locations on Western Port and at Werribee Sewage Farm. The usual thousand or so birds were caught at Andersons Inlet. However only moderate catches were made at Corner Inlet, and poor catches at Queenscliff.

2004 has started off much more quietly with a record LOW total of 1288 in the first half-year. This is partly because of the absence of key members of the Group for nearly a month on a wader expedition in NWA in late January/first half of February. It is also because the most successful catches in late 2003 at Werribee and Yallock Creek obviated the need for further catches at these locations. However the low total was also partly a consequence of windy weather on both the February and June visits to Corner Inlet preventing catching activities on some days. 49 Bar-tailed Godwit on 19th June is the only real "quality" in the 2004 catches so far. In the

Oystercatcher study only 45 Pied and 54 Sooty had been caught up to mid July – well below the 150 per annum target for Pied but satisfactory for the 50 for Sooty. This shortfall is also partly a result of the exceptional learning abilities and wisdom of adult Pied and Sooty Oystercatchers which at some locations now seem to be able to recognise the presence of cannon-netting activities in an area, even when the cannon net is completely buried in sand!!

The annual visits to the south-east coast of South Australia, targeting principally Sanderling and Ruddy Turnstone, have not been as successful in the last year with catches of only 72 birds in December 2003 and 101 in March 2004 (usual catch c.500 per visit). This is partly because both these species had a very poor breeding season in 2003 with therefore very few juvenile birds present in the (reduced) populations. However Maureen Christie continued regular small cannon-net catches with her local team (sometimes a team of only two!) and the total of waders caught through her efforts, and the earlier efforts of lain Stewart, is now 432 up to mid-2004. A most valuable augmentation of the "flying visits" of the VWSG team.

Recoveries

Although worldwide there seems to be a gradual decline in the reporting rate of banded birds – perhaps due to lesser levels of hunting and possibly apathy – a valuable trickle of recoveries is reported to us via the Australian Bird Banding Office each year. 2003/04 was the "Year of China" as far as both recoveries and flag sightings are concerned. It is really pleasing to be able to see that years of groundwork are beginning to pay dividends in terms of the levels of banding and flag sighting effort. A team at Chong Min Dao, in the mouth of the Yangtse Estuary, near Shanghai, caught four VWSG-banded waders in the first two weeks of April. These included a Grey Plover (the first overseas recovery of an Australian-banded Grey Plover), a Great Knot, a Red Knot and a Sharp-tailed Sandpiper (the VWSG's first overseas recovery of this species since 1987!). Four Red-necked Stint and a Curlew Sandpiper were also caught in the northwest Yellow Sea by a Chinese bander operating there for the first time.

Other notable recoveries during the year included a Red Knot in Eastern Siberia, well south of the breeding grounds. There has never been a recovery or flag sighting of this species on the breeding grounds from birds marked in Victoria or even elsewhere in eastern Australia or New Zealand. The first Ruddy Turnstone ever recovered in Japan was killed by a Peregrine Falcon. A delayed report was a Bartailed Godwit recovered in the Solomon Islands in 1997, presumably when on a direct flight across the Pacific to Australia/New Zealand from Alaska.

Another delayed report, because it was only recently recognized in the retraps, was a "double journey recovery" of a Ruddy Turnstone. Having been banded at Carpenters Rocks in South Australia in February 1997 it was captured near Shanghai in China only five weeks later (2nd April) and then was back again at Carpenters Rocks in January 1998. The VWSG has only had one previous double journey recovery (excluding Double-banded Plover to/from New Zealand) and this also involved a Ruddy Turnstone – moving from Queenscliff to Taiwan and then back again to Queenscliff.

A double recapture of a different form occurred in December 2003 when a Curlew Sandpiper carrying a Taiwan band was recaptured at Yallock Creek. Having been banded in April 1995 as an adult bird migrating through Taiwan it had initially been recaptured in January 1996 at Stockyard Point. The two recaptures on different parts of Western Port were eight years apart.

la stories

The recoveries lists show a large number of movements of Pied Oystercatcher of up to 700 kms, and a smaller number of recoveries of Sooty Oystercatcher which had moved up to distances of 275 kms. Both these species are much more mobile than the "resident" terminology would imply. Most of these movement records derived from the individual colour band markings, which have been used on each of these species since 1989.

Flag Sightings

The leg flagging programme has been extraordinarily successful in greatly augmenting the rate of data collection on the movements of wader populations both overseas and in Australia. Altogether 64,492 waders have now been orange-flagged in Victoria and 3254 orange/yellow-flagged in the south-east of South Australia. An unbelievable array of sightings of these birds has been received during the last twelve months.

Top of the list was an incredible 74 sightings of orange-flagged Bar-tailed Godwit made in south-west Alaska in late August/early September where flocks collect prior to their 10,000 km trans-Pacific non stop flight back to Australia. Overall there were a record 271 Bar-tailed Godwit flag sightings in the period including 252 overseas. An exceptional 39 were in China – all at the northern end of the Yellow Sea where two Australian/New Zealand/Chinese teams were present in late April/early May 2004.

As during the previous year a massive number of leg flagged Red Knot, 347 were seen – including an amazing 312 in New Zealand and four in China, not a regular occurrence.

It was mentioned earlier that it was a particularly successful year for data emanating from China. Other components of this were sightings of the first two Eastern Curlew in China, the first Ruddy Turnstone in China, the first Grey Plover in China and the first two Sanderling in China. Of the 149 sightings of Red-necked Stint 11 were in China (a record number in China) as well as three in Indonesia. Three of the sightings were in Macao. Of 65 Curlew Sandpiper sightings this year, only one was in China (excluding those reported in Hong Kong).

Waders flagged in South Australia produced an amazing total of 59 sightings. It does appear that the colour combination allocated to South Australia (orange/yellow) has the greatest visibility in the field of all current flag combinations! Highlights of sightings of South Australian birds were the first Ruddy Turnstone to move to the South Island of New Zealand, Sanderling seen at Sakhalin Island in eastern Siberia and a Red-necked Stint in Indonesia.

Alpha-numeric Flags

A field test commenced in mid-2003 of the suitability of engraved leg flags as a replacement for the multiple colour bands which have been used to individually identify Pied and Sooty Oystercatcher since 1989. Only yellow flags, the original colour code used for Corner Inlet, have so far been used with 97 deployed on Pied Oystercatcher and 31 on Sooty Oystercatcher up to mid July 2004. Each flag used so far has a letter and a number engraved on each side (A1 through to Z9).

The flag is placed on the right tibia of the bird and the metal band on the left tibia. Indications so far are that these flags can be read with binoculars at 25 metres and with a telescope at 50 to 100 metres (depending on lighting conditions). Whilst this is quite satisfactory for persons going out deliberately to search for flagged birds,

there are some indications that this new marking method may lead to reduced reports of colour-marked birds from the general birdwatcher who is normally only equipped with binoculars.

The great advantages of the new marking method are that it is much quicker to put on a single flag than five colour bands (which need to be glued at both their inner and outer ends) and that with the colour marker and the metal band placed on the tibia the susceptibility of the birds' legs to be caught in fishing line etc. will be reduced.

At present the leg flags are only being placed on newly banded birds. Existing colour-banded birds are not being changed except that, of course, damaged or faded colour bands are replaced. Only after a full evaluation over the next year or so will a decision be made on whether to extend this method of marking to other oystercatcher locations, and possibly even to the re-marking of existing colour banded birds.

Ages

Two new age records occurred during the year. Our oldest wader of any species is now a Sooty Oystercatcher originally banded as an adult in 1983 in Queenscliff and observed breeding on Phillip Island in February 2004. This bird is now a minimum of 23 years old. A Red-necked Stint has finally got past the 20 year mark with an adult banded at Werribee Sewage Farm in 1985 being recaptured there in October 2003. This bird is now a minimum of 20 ½ years old.

Breeding Success

The 2003 breeding season in the arctic seems to have resulted in markedly different outcomes for the species monitored annually in Victoria via the percentage of juveniles in cannon net catches made during the 2003/2004 austral summer.

Sharp-tailed Sandpiper had a bonanza year with 39% juveniles – the second highest year in 25 years of monitoring. The plethora of young birds was widely apparent in the field from early in the season (October) and resulted in higher numbers of Sharp-tailed Sandpiper at many locations than have been recorded for many years.

Red-necked Stint and Curlew Sandpiper both had average breeding success. But Ruddy Turnstone and Sanderling had horror seasons with the lowest breeding productivity in the last six years. Bar-tailed Godwit and Red Knot also appear to have fared poorly, though sample sizes were small. In all these species it was noticeable that the populations in winter 2004 were well down on normal – not surprising since winter populations are largely first year birds.

The VWSG (and AWSG) data, on percentage juveniles were presented at an international workshop of wader breeding success in Copenhagen in December 2003. It was considered to be the most comprehensive data set in the world. Fuller information is presented in a separate article in this Bulletin.

Terns

Terns, as usual, received a considerable amount of fieldwork attention, especially the breeding colonies during the late spring and summer.

Whilst the Crested Tern population remained at a high level, and the number of chicks banded marginally a record, an unexplained breeding failure at Corner Inlet affected them and, subsequently, the Caspian Terns nesting in the same area. The record of number of Fairy Terns (75) nesting in Corner Inlet also, as usual, had a

complete breeding failure but this was for the more normal reasons of storm tide inundation and wind blown sand. Completing a bad year for breeding success for many terns was the finding of 14 predated adult Fairy Tern at the Rams Island colony in Western Port. That colony was then deserted but fortunately some renested at Tortoise Head.

The study designed to determine the age of first breeding of Crested Tern continued successfully at the Mud Islands and The Nobbies colonies, with record numbers of banded breeding adults being recaptured and the best ever total of yearly cohort colour-banded breeding adults being sighted. The colour banding of yearly cohorts has now ceased but the observations will need to continue for at least two or three more years until all colour-marked birds have matured and joined the breeding population. Results to date suggest that most Crested Tern start to breed at age four (typical range three to five) with the younger birds commencing their nesting activity each year some two to three weeks later than the oldest birds. Recaptures of adult breeding birds give a misleading measure of the age of first breeding (with almost all retraps being more than five years old) because younger birds are less confident at defending their nests and are therefore more difficult to catch by hand or with a hand-held net.

For the third time in four years no cannon-netting of adult Common Tern or Little Tern in the Gippsland Lakes took place due to the absence of satisfactory congregations of roosting birds.

Recoveries and flag sightings continue to provide valuable information on movements and longevity. Of 13 Caspian Tern sightings, 12 were in the wintering area of south-east Queensland. The 14 Common Tern flag sightings were all birds on passage down the east coast in New South Wales. Record ages for VWSG banded birds, which occurred during the year, were a Caspian Tern recaptured when 15 years old and a Little Tern which was at least 14 years old.

Analysis and Publications

An innovation in this year's VWSG Bulletin is lists of papers recently published and analyses of data currently in train or envisaged. The massive total of 120 items is an indication of the volume of data we have now generated and the huge task before us to analyse and write this up for publication. Whilst this is proceeding well it will take many years (at least five to ten) to complete the task. Any ideas for extra resources (human or financial) would be welcomed!

Equipment

The main item of equipment, which required attention during the year, was the replacement of the trailer used for carrying the Group's cannon-netting equipment into the field. As predicted by most senior members of the Group (voiced at the 2003 AGM) the existing trailer finally collapsed in a rusty heap in December. Paul Feast and lain Stewart are thanked for helping with repairs while the team was in South Australia and Maureen Christie for loaning her trailer so the equipment could be returned to Victoria. Roz and Pete very kindly loaned us their trailer for two months until a wonderful new trailer designed by our equipment officer, Paul Buchhorn, was commissioned at the end of February. Rod McFarlane also greatly assisted with the finishing stages of the construction.

Woodside Petroleum most generously provided \$3500 of the cost (they had also paid for the original trailer some 15 years ago). The remainder of the cost was covered by a grant by Coast Action/Coast Care and an anonymous donation.

Paul and Rod also maintained our cannons, projectiles and cartridges in top rate condition throughout the year. Frustration due to equipment failure in the field is now a rare event and the power of the current hardware reliably enables a net completely buried in sand to come out to its full extent.

Finances

The financial figures and written report included at the end of this Bulletin show that the higher annual subscription (\$20), introduced from July 2003, the generous donations/grants/contracts which the Group has received, and the generally lower level of capital expenditure (apart from the trailer) than other recent years have resulted in a satisfactory outcome for the financial year 2003/4.

All those who have contributed financially to the Group during the year are gratefully acknowledged. Full details are given in the Financial Report.

Membership

At the 30th June 2004 there were 104 paid up members of the VWSG. However, as a single subscription covers a family as well as an individual member, this actually represents about 142 active/interested members/participants. In addition there are some twenty members, who perhaps didn't realise they were not financial, who it is expected will pay their back dues in future!! There are also six honorary members of the Group - persons who have greatly helped the Group in various ways over the years and are not expected to pay an annual subscription though they receive an Annual Bulletin and other member benefits. Overall the VWSG membership is therefore effectively around 168, some live interstate or overseas. A total of 101 members participated in VWSG fieldwork during the past year.

Committee

The Committee of the VWSG during 2003/04 is detailed at the beginning of this Bulletin. Mark Barter, Jeff Campbell and Alan Clarke retired at the end of the previous financial year. All have been long-term officers of the VWSG and are greatly thanked for their services. At the 2003 AGM Maureen Christie, who runs the VWSG activities in South Australia, was elected to the Committee.

The Committee does not normally formally meet. Its members are consulted in a variety of ways on relevant issues and have the opportunity to input with ideas for any aspect of the management of the VWSG, at their own initiative. Hopefully minimising the formality of our organisation's activities results in the maximisation of our enjoyment of them!

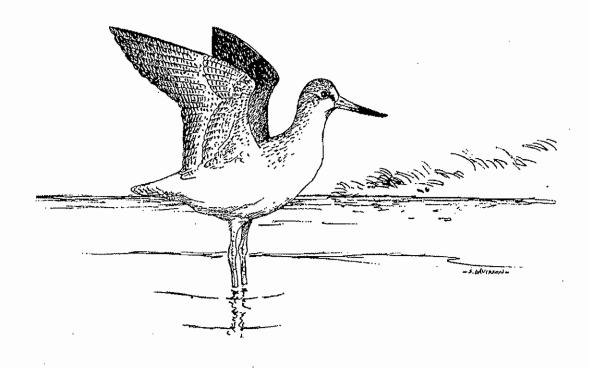
Acknowledgments

It would easily be possible to fill a whole page to acknowledge those who have contributed in one way or another to the successful operations of the VWSG in the past year. Many acknowledgments have already been given elsewhere in the Bulletin and are not repeated here. But others I would particularly like to mention are

- officers and members of the Group who have put in so much time and effort in the field and behind the scenes at home and elsewhere
- government bodies who have provided assistance in a variety of ways such as boat transport (Parks Victoria & Phillip Island Nature Park), permits (Bird Banding Office/DSE/SA DEH), financial assistance (DSE, PV and Coast Action/Coastcare)
- the many landowners who have given us permission to catch on their land
- the Australian Department of Environment and Heritage, who have provided funding for operating the leg flag database

 the Natural Heritage Trust for a grant to nominate Shallow Inlet and Discovery Bay to the Shorebird Site Network

Without all these personal and financial contributions we would not have been able to achieve so much. Many thanks.

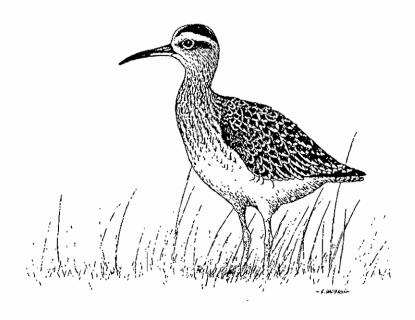


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Wader Banding Totals - VWSG 2003

Species	New	Retrap	Total
Black-tailed Godwit	1	0	1
Bar-tailed Godwit	193	69	262
Eastern Curlew	38	0	38
Common Greenshank	41	0	41
Ruddy Turnstone	95	67	162
Great Knot	3	1	4
Red Knot	54	6	60
Sanderling	356	110	466
Little Stint	2	0	2
Red-necked Stint	5855	2278	8133
Sharp-tailed Sandpiper	1084	68	1152
Curlew Sandpiper	516	134	650
Pied Oystercatcher	144	109	253
Sooty Oystercatcher	25	9	34
Black-winged Stilt	1	0	1
Pacific Golden Plover	1	0	1
Grey Plover	1	0	1
Red-capped Plover	9	1	10
Double-banded Plover	69	2	71
Hooded Plover	1	0	1
Red-kneed Dotterel	1	0	1
Masked Lapwing	5	0	5
22 Species	8495	2854	11349

Table prepared by Helen Vaughan & Clive Minton



VWSG Wader Catches 1975 to 31 December 2003

Species	New	Retrap	% Total
Latham's Snipe	347	14	361
Black-tailed Godwit	3	0	3
Bar-tailed Godwit	3019	330	3349
Short-billed Dowitcher	1	0	1
Whimbrel	24	0	24
Eastern Curlew	796	62	858
Marsh Sandpiper	2	0	2
Common Greenshank	474	60	534
Terek Sandpiper	33	1	34
Grey-tailed Tattler	38	3	41
Ruddy Turnstone	2418	729	3147
Great Knot	593	73	666
Red Knot	3928	477	4405
Sanderling	2671	995	3666
Little Stint	7	0	7
Red-necked Stint	94196	26497	120693
Long-toed Stint	1	0	1
Pectoral Sandpiper	2	0	2
Sharp-tailed Sandpiper	7476	305	7781
Curlew Sandpiper	23854	4618	28472
Cox's Sandpiper	1	0	1
Broad-billed Sandpiper	5	0	5
Pied Oystercatcher	2081	1115	3196
Sooty Oystercatcher	638	146	784
Black-winged Stilt	24	0	24
Banded Stilt	151	0	151
Red-necked Avocet	312	5	317
Pacific Golden Plover	236	24	260
Grey Plover	144	18	162
Red-capped Plover	631	181	812
Double-banded Plover	3 <u>5</u> 16	991	4507
Lesser Sand Plover	115	11	126
Greater Sand Plover	31	3	34
Black-fronted Plover	56	4	60
Hooded Plover	26	1	27
Red-kneed Dotterel	135	11	146
Masked Lapwing	160	3	163
37 Species	148145	36677	184,822

Table prepared by Helen Vaughan & Clive Minton

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VWSG Annual Wader Catch Totals

Calendar Year	New	Retrap	Total
1975	9	0	9
1976	616	4	620
1977	482	12	494
<u>1</u> 978	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
1991	3224	850	4074
1992	4652	861	5513
1993	8831	2588	11419
1994	4839	1753	6592
1995	2708	625	3333
1996	5263	1035	6298
1997	4366	1050	5416
1998	8083	1408	9491
1999	6515	1591	8106
2000	10350	2594	12944
2001	4839	1320	6159
2002	10421	2162	12583
2003_	8495_	2854	11349
Totals to end 2003	148145	36677	184822

Average annual total for '79-03 = 6419

Table prepared by Helen Vaughan & Clive Minton

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VWSG Catch Record - Waders

Calendar	Jan to June	July to Dec.	Total
Year			
1975			9
1976			620
1977			494
1978			1338
1979	4289	3633	7922
1980	4127	3200	7327
1981	2113	3317	5430
1982	2394	2176	4570
1983	2882	621	3503
1984	2654	2663	5317
1985	3972	1152	5124
1986	5000	4201	9201
1987	3135	3774	6909
1988	5235	5481	10716
1989	3854	3167	7021
1990	1661	4383	6044
1991	2376	1698	4074
1992	3357	2156	5513
1993	5287	6132	11419
1994	2789	3803	6592
1995	1521	1812	3333
1996	1802	4496	6298
1997	1913	3503	5416
1998	5568	3923	9491
1999	4142	3964	8106
2000	5987	6957	12944
2001	3851	2308	6159
2002	8174	4409	12583
2003	3033	8316	11349

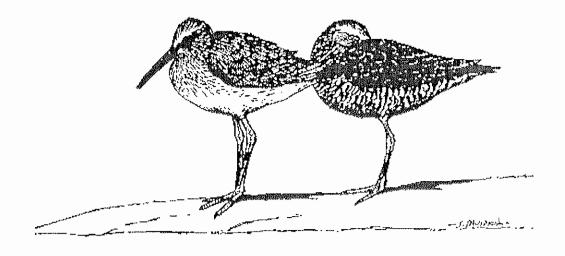
Table prepared by Helen Vaughan & Clive Minton



Location of Waders Caught in Victoria and South Australia

	to Dec. 2002	%	2003		Total	%
Victoria						
Werribee	53084		3974	A.P.ITO	57058]]
Western Port/Flinders Island	43274		4601		47875	
Queenscliff/Swan Bay	27745		157		27902	
Anderson Inlet (Inverloch)	19452		1044		20496	
Corner Inlet	19380		695		20075	
Sandy Point/Shallow Inlet	1411		132		1543	
Altona	955		0		955] [
Mud Islands	753		0		753	
Killarney Beach	426		0		426	
Geelong (Point Henry / Belmont Common)	257		0		257	
Bendigo SF	143		0		143	\
Seaford Swamp	98		0		98	\
Braeside/Croyden	79		0		79	
Gippsland Lakes	40		0		40	
Toowong	10		0		10	
Total Victoria						
South Australia						
Canunda/ Carpenter Rocks/ Brown Bay/ Beachport	6456		746		7202	
Total South Australia						
Total Wader camplet.	173563		11349		184912	

Table prepared by Helen Vaughan & Clive Minton



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1001 1000	Waders Led
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Waders Leg Flagged by VWSG in South Australia (orange/yellow)

Species	1999	2000	2001	2002	2003	Total
Latham's Snipe	0	0	4	0	0	4
Grey-tailed Tattler	0	1	0	0	0	1
Bar-tailed Godwit	0	0	0	3	0	3
Ruddy Turnstone	234	226	73	193	76	802
Sanderling	63	420	2	315	328	1128
Red-necked Stint	126	383	22	319	163	1013
Sharp-tailed Sandpiper	0	2	0	27	7	36
Curlew Sandpiper	24	11	0	190	13	238
Pacific Golden Plover	0	2	0	0	1	3
Red-capped Plover	0	0	1	7	5	13
Double-banded Plover	0	0	4	5	1	10
Black-fronted Dotterel	0	0	0	3	0	3
(pullus)						
Hooded Plover	0	0	0	0	1	1
Masked Plover	0	0	0	0	4	4
Total	447	1045	106	1062	599	3254

Table prepared by Helen Vaughan & Clive Minton

Left to right: Clive Minton, John Stoney, Paul Buchhorn, Mike Preeston, Charles Smith (French Is) Photo by P. Collins.



DATE	PLACE AND OBJECTIVES	HIGH	TIDE
*Fri 2 Jan	Yallock Creek Red-necked Stint and Curlew Sandpiper	0847	2.47
Mon 5 Jan	Corner inlet Caspian and Crested Tern chicks	n/a	
Fri 16 Jan	Queenscliff - Swan Island and Swan Bay	1906	1.25
to Sat 17 Jan	Red-necked Stint and Curlew Sandpiper	0706*	1.32
*Sun 18 Jan	Barrallier Island, Western Port Red-necked Stint and Curlew Sandpiper	0840	2.51
Sun 25 Jan	Yallock Creek Red-necked Stint and Curlew Sandpiper	1630	2.53
Sun 1 Feb	Werribee Sharp-tailed Sandpiper and Curlew Sandpiper	1036	0.81
Sun 8 Feb	Sandy Point - Sanderling	1344	1.87
*Sat 21 Feb	Gippsland Lakes	n/a	
To Sun 22 Feb	Little and Cornmon Tern		
*Wed 25 Feb to Thurs 26 Feb	Queenscliff Large Waders and Pied Oystercatcher	042 7** 1653** 0458**	1.44 1.40 1.42
*Sat 28 Feb	Corner Inlet	0624	2.29
to Wed 3 Mar	Large waders and Pied/Sooty Oystercatcher	to 0822	to 2.2
Sun 7 Mar	Sandy Point - Sanderling	1203	1.89
Sat 13 Mar	Flinders - Ruddy Turnstone	1755	1.49
*Wed 17 Mar	Werribee Spit - Pied Oystercatcher	1047	0.8
*Fri 26 Mar	Barry Beach	1753	2.33
to Sat 27 Mar	Bar-tailed Godwit	1827	2.36
Tues 6 April	Rhyll - Pied Oystercatcher	1342	2.57
Tues 20 April	Long Island, Hastings Pied Oystercatcher	1407	2.69
Sat 24 April	Stockyard Point Pied Oystercatcher	1641	2.93
Wed 21 Apr	West Head - Flinders Sooty Oystercatcher	1454	2.82
Wed 5 May	Fairhaven, French Island Pied Oystercatcher	1318	2.75
Sat 8 May	Barry Beach Pied Oystercatcher	1525	2.64
Wed 19 May	Long Island, Hastings Pied Oystercatcher	1337	2.75
Sat 22 May	Stockyard Point - Pied Oystercatcher	1535	2.96
Thur 3 Jun	Rhyll - Pied Oystercatcher	1251	2.85
*Wed 16 Jun	Corner Inlet	1122	2.21
to Sun 20 Jun	Pied/Sooty Oystercatchers Overwintering migratory waders	to 1432	to 2.35
Sat 3 Jul	Barry Beach	1226	2.47
Sun 4 Jul	Pied/Sooty Oystercatcher Roussac Point, Foster Pied/Sooty Oystercatcher	1334	2.51
Sat 24 Jul	Annual General Meeting at Clive's house 10am – 10pm, 10am Equipment maintenance 4pm AGM 7pm Talks and slides		
Sun 1 Aug	Lyon Downs, Yanakie Pied/Sooty Oystercatcher	1157	2.31
Sat 21 Aug	Barry Beach - Pied Oystercatcher	1546	2.32
Sat 18 Sept	Stockyard Point Pied Oystercatchers and Red-necked Stint/ Curlew Sandpiper	1527	2.68

*Fri 1 Oct	Queenscliff - Bar-tailed Godwit, Red Knot etc.	1547	1.39
to Sun 3 Oct		0430	1.53
		1623	1.39
		0511	1.54
Sat 23 Oct	Yallock Creek	0740	2.60
***************************************	Red-necked Stint and Curlew Sandpiper		
Sat 6 Nov	Flinders - Ruddy Turnstone	0634	1.30
*Fri 19 Nov		1926**	1.28
to	Queenscliff	0836**	1.42
Sun 21 Nov	Large waders	2020**	1.23
********	20130 1100	0929**	1.34
*Sat 4 Dec to	Inverloch	0532	1.40
Sun 5 Dec	Red-necked Stint	0608	1.35
Sat 18 Dec	Sandy Point	1725	1.30
	Sanderling		
Tue 21 Dec	Corner Inlet	1428	0.67
	Caspian and Crested Tern chicks	(Low tide)	
*Mon 27 Dec	Werribee	0503	0.87
to	Small waders	1522	0.74
Wed 29 Dec		0548	0.88
		1610	0.75
/=-		0627	0.87
Sun 2 Jan 2005	Yallock Creek		
www	Small waders		

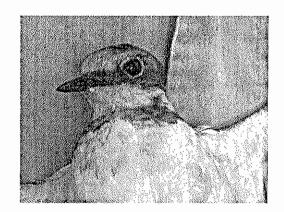
Indicates camping

What IS the Point by Graham Beal

For some time now I have been confused about the names of some of the Points on Western Port, Victoria, SE of Melbourne.

- a) Sandy Point This is situated in the SW of the bay near HMAS Cereberus. The point on the easterly tip of French Island is also referred to, on some maps, as Sandy Point and others Spit Point. Also confused with Sandy Point at Waratah Bay/Shallow Inlet, Gippsland where we go cannon netting for Sanderling.
- b) Stockyard Point Located On the Eastern side of the bay north of Pioneer Bay, also called Jam Jerrup Point after the small community that it is near. There is also a Stockyard Point on SE French Island just NE of Red Bluff!!

What is this species? (Picture by Adrian Boyle)



Recoveries in 2003/04 of Waders Banded in Victoria

Clive Minton, Rosalind Jessop and Peter Collins

A "recovery" is when another bander recaptures a banded bird or when a banded bird is found dead, locally or at another location.

In the above circumstances, the metal band number is generally reported to the Australian Bird and Bat Banding Scheme in Canberra or to the bander, but in some instances (particularly Oystercatchers in the case of the VWSG) the band number is inferred because of the unique colour combination placed on the bird.

It is particularly noticeable that in recent years the recovery rate, particularly of waders reported overseas, has fallen significantly. At least part of this is probably due to the reduced level of hunting in some countries in the Flyway. But it may also be in part due to a lower tendency to report dead birds – it is no longer the exciting novelty it once was. A reduced recovery rate has been noted in many other parts of the world on a variety of species. As a consequence it now takes longer to build up information on migratory routes and stopover sites from recoveries. Fortunately, the introduction of leg flagging, with the much higher reporting rate of marked birds, has more than offset this decline.

The list below shows all recoveries of waders relating to Victoria reported since the last VWSG Bulletin. The list also includes one or two "retraps" (ie. where the VWSG has recaptured its own banded bird), where these have shown considerable longevity.

The age codes at banding are

1 = first year or juvenile

2 = second year

2+= second year or older

3+= third year or older

Bar-tailed Godwit

Band	Age	Date		Date recovered	Location	Km
		banded	Location			moved
07282011	1 (F)	02/04/02	Barry Beach	07/09/03	Firth of Tharnes,	2532 E
				(Band read in	New Zealand	
				field)		
07184152	2+	04/11/89	Corner Inlet	Aug/Oct 1997	Sikaiana Island	4000
				(Found dead?)	Solomon Islands	NE

Onward movements to New Zealand of Bar-tailed Godwit which have spent their first year in Victoria are normal. The recovery in the Solomon Islands has not been published earlier whilst attempts were made to obtain more specific information. Almost certainly this bird landed there whilst on a direct flight to Australia/New Zealand over the Pacific from Alaska. There have been a small number of other recoveries and flag sightings of Bar-tailed Godwit on Pacific Islands during southward migration.

The picture on the previous page is of a Little Ringed Plover in Broome, WA.

Ruddy Turnstone

Band	Age	Date	Location	Date recovered	Location	Km
		banded				moved
05203904	1	10/02/01	Queenscliff	28/07/03	Nakajo, Japan	8509 N
				(killed by		
				Peregrine)		

This is the first Ruddy Turnstone from Victoria to be recovered in Japan. The only previous overseas recoveries have been from China, Taiwan and Papua New Guinea (single recoveries in each). A Japanese banded Ruddy Turnstone was recaptured at Flinders in 1997.

Great Knot

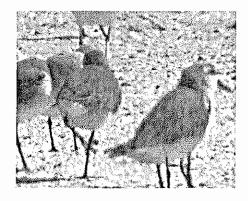
Band	Age Date		Location	Date recovered	Location	Km
		banded				moved
06280110	2	18/10/97	Queenscliff	09/04/04	Chongming	8095 N
				(recaptured)	Dontang, China	

This is the fifth VWSG - banded Great Knot to be recovered in China. All have been at this same location -- in the Yangtse River estuary, near Shanghai.

Red Knot

Band	Age	Date banded	Location	Date recovered	Location	Km moved
05142681	1	12/01/91	Yallock Creek	29/08/98 (recaptured)	Broome	3173 NW
05224194	1	12/06/02	Barry Beach	06/08/03 (shot)	SW sea of Okhotsk Russia	10291 N
05224205	1	02/04/02	Barry Beach	25/01/04 (recaptured)	Manukau Harbour New Zealand	2491 E
05203667	1	17/06/00	Corner Inlet	25/01/04 (recaptured)	Manukau Harbour New Zealand	2491 E
05222966	1	20/01/02	Barrallier Island	06/04/04 (recaptured)	Chongming Dontang, China	8121 N

The recovery in Russia is the first Red Knot to migrate this far north when only aged two. Red Knot mostly do not migrate back to the breeding grounds until aged three. The movement of birds which spend their first year in Australia to New Zealand in later years is common in this species. Recoveries on migration through Asia are infrequent, as also are movements through NW Australia of Red Knot on their way back to Victoria.



Sanderling

Band	Age	Date	Location	Date recovered	Location	Km
		banded				moved
04160529	2+	02/03/91	Killarney	23/08/03	Funabashi,	8232 N
_			Beach	(recaptured)	Chiba, Japan	

Japan is the main location where Australian - banded or flagged Sanderling are reported during southward migration through Asia.

Red-necked Stint

Band	Age	Date	Location	Date	Location	Km moved	
		banded		recovered			
03573219	2+	26/01/00	Queenscliff	14/05/02	Hebei, China	8936 N	
				(recaptured)			
03539233	2+	29/11/98	Inverloch	25/05/02	Hebei, China	90009 N	
				(recaptured)			
03580528	2+	10/02/01	Queenscliff	25/05/02	Hebei, China	8936 N	
				(recaptured)			
03577824	1	02/12/00	Inverloch	06/08/03	Hebei, China	9009 N	
				(recaptured)			
03247353	2+	20/01/85	Werribee SF	27/10/03	Werribee SF	Local. Elapsed	
				(recaptured)	VIC	time 18 ¾	
						years	
03679232	2+	27/12/00	Werribee SF	05/12/03	Nene Valley	350 W	
				(recaptured)	SA		
03342197	2+	14/02/88	Yallock	31/12/03	Yallock Creek	Local, Elapsed	
			Creek	(recaptured)	VIC	time 15 3/4	
						years	

The four recaptures at Hebei, in the north west of the Yellow Sea, resulted from newly initiated mist netting activities by a local university team. The bird recaptured in South Australia had clearly changed its non-breeding area. The recapture at Werribee S.F. was the oldest Red-necked Stint yet recorded from Australian banding - a minimum age of 20 1/4 years.

Sharp-tailed Sandpiper

Band	Age	Date	Location	Date	Location	Km
		banded		recovered		moved
		28/12/03	Werribee	14/04/04		8078 N
				(recaptured)	Dongtang, China	

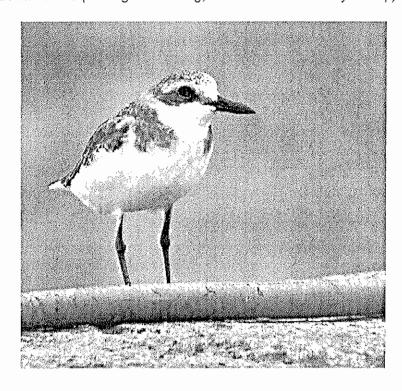
This is the first overseas recovery of a VWSG banded Sharp-tailed Sandpiper since 1987! It comes from the large catches, totalling 682, made at Werribee SF between 27th and 29th December.

Curlew Sandpiper

Band	Age	Date banded	Location	Date recaptured	Location	Km moved
04230935	2+	22/01/02	Werribee SF	06/05/02 (recaptured)	Hebei, China	8914 N
04232432	1	28/12/02	Werribee SF	04/07/03 and 16/08/03 (recaptured)	Broome WA	3099 NW
Taiwan B17568	2+	29/04/95	Taichung, Taiwan	14/01/96 (recaptured) &	Stockyard Point VIC	7428 S
				31/12/03 (recaptured)	Yallock Creek VIC	Local
04117850	1	12/04/86	Yallock Creek	31/12/03 (recaptured)	Yallock Creek VIC	Local. Elapsed time 17 ¾ years
04147060	2+	27/12/88	Yallock Creek	31/12/03 (recaptured)	Yallock Creek VIC	Local. Elapsed time 15 years

A nice selection of recoveries. It was particularly pleasing to recapture the Taiwan banded bird eight years after its initial recapture. The recovery in China is further north, in the NW Yellow Sea, than most other recoveries (and flag sightings) in China. The bird found in Broome in July and mid-August was on its "summer holidays". Quite a few immature birds from southern Australia move to the north of the continent for their first winter. It was nice to catch two old birds together at Yallock Creek - one was 18 ¾ years old and the other a minimum of 16 ½ years old.

Photograph of Greater Sand Plover (Chung-Yu Chiang, Taiwan Wader Study Group)



Pied Oystercatcher

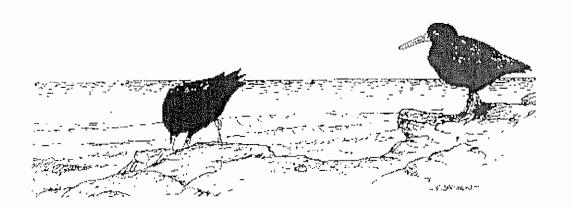
Band	Age	Date Banded	Location banded	Date(s) seen/ recovered	Location found	State	Km moved
10104621	3+	30/09/95	The Gurdies	1/04/03 to 11/01/04	Wonboyn Lake near Merimbula	NSW	401 ENE
10107309	2	07/03/01	Manns Beach	1/04/03 7/05/03 11/01/04	Wonboyn Lake	NSW	315 ENE
10115919	3+	20/06/00	Roussac Point	1/04/03 20/02/03	Merimbula Lake Merimbula	NSW	383 ENE
10104813	3+	06/07/96	Barry Beach	6/04/03	VIC/SA Border Piccaninny Ponds	VIC	341 ENE
10121152	2	14/04/02	Stockyard Point	6/04/03	SA/VIC Border	SA	355 W
10121948	,		Manns Beach	15/04/03	Pelican Point	SA	560 W
10096844	2+	06/05/90	Werribee SF	1/05/03	Port Fairy	VIC	204 W
10099304	2+	14/04/91	Werribee SF	1/05/03	Port Fairy	VIC	204 W
10115410	1	24/06/98	Roussac Point	10/05/03 26/09/03	Bournda Beach	NSW	391 ENE
10104025	3	11/0994	Stockyard Point	25/05/03	Warrnambool	VIC	252 W
10121220	3+	25/05/02	Roussac Point	27/05/03	Tuross	NSW	398 ENE
10096888	3+	10/06/90	Barry Beach	08/06/03 to 15/11/03	Livingstones, Pelican Point, Carpenter Rocks, Gerloff Bay	SA	427 W
10115597	3	26/02/00	Stockyard Point	27/07/03	Glenelg River	VIC	355 W
10115972	2	17/07/00	French Island	5/08/03	Merimbula	NSW	440 ENE
10115910	2	19/06/00	Manns Beach	4/08/03	Merimbula Lake	NSW	334 ENE
10104647	2+	18/05/96	Stockyard Point	14/08/03 to 2/10/03	Port Fairy	VIC	272 W
10107364	3+	09/04/01	Long Island	14/08/03 to 30/10/03	Port Fairy	VIC	258 W
10115406	3	24/06/98	Roussac Point	14/08/03 to 5/09/03	Port Fairy	VIC	351 W
10121163	3+	14/04/02	Stockyard Point	14/08/03 to 23/10/03	Port Fairy	VIC	272 W
10115981	1	02/08/00	Rhyll	24/09/03	Port Fairy		264 W
10122059	2	02/08/03	Roussac Point	25/09/03	Merimbula	NSW	384 ENE
10121170	3+	14/04/02	Stockyard Point	2/10/03	Port Fairy	VIC	272 W
10115540	1	28/06/99	Stockyard Point	10/10/03 3/01/04	Livingstones Bay	SA	439 W
10121221	2	28/05/02	Roussac Point	5/11/03	Toora (Found dead)	VIC	14 ENE

10121222	2	28/05/02	Roussac Point	9/11/03	Berrara	NSW	550 ENE
10104836	2	03/08/96	The Gurdies	14/10/03	Disaster Bay, Eden	NSW	405 NE
10099572	1	03/05/92	Werribee SF	30/10/03	Port Fairy	VIC	204 W
10121177	3+	14/04/02	Stockyard Point	30/10/03	Port Fairy	VIC	272 W
10121259	3	25/05/02	Roussac Point	5/11/03	Aragunnu Beach	NSW	414 ENE
10104641	3+	18/05/96	Stockyard Point	6/11/03	9K N Beachport	SA	482 W
10096760	2+	16/04/89	Werribee SF	7/11/03	10 Km N Carpenter Rocks	SA	364 W
10096933	2+	09/02/91	Werribee SF	8/11/03	Griffith Island	VIC	205 E
10104632	3+	18/05/96	Stockyard Point	8/11/03	Griffith Island	VIC	273 E
10115947	1	20/06/00	Roussac Point	8/11/03	Bermagui River	NSW	427 ENE
10121211	2	13/05/02	Manns Beach	13/11/03 to 18/12/03	Port Fairy	VIC	394 W
10115240	1	27/06/98	Manns Beach	14/11/03	61 Km S Murray Mouth	SA	660 W
10115596	1	26/02/00	Stockyard Point	14/11/03	35 Km S Murray Mouth	SA	639 W
10115909	3+	19/06/00	Manns Beach	19/11/03	Crescent Island	VIC	114 E
10115960	3+	16/07/00	Stockyard Point	3/12/03 03/07/04	Rigby Island Merimbula	VIC NSW	231 E 425 ENE
10115100	3+	06/07/97	Manns Beach	4/12/03	Rigby Island	VIC	132 E
10107479	1	22/07/01	Barry Beach	12/12/03	Wonboyn Beach	NSW	352 ENE
10121226	3+	25/05/02	Roussac Point	10/12/03	Rigby Island	VIC	179 E
10104643	3+	18/05/96	Stockyard Point	12/12/03	Brown Bay	SA	481 W
10107349	2	08/04/01	Manns Beach	12/12/20 9/04/20	Brown Bay VIC/SA Border	SA	522 W
10085195	2+	02/07/88	Manns Beach	27/12/03	Perkins Island, Smithton	TAS	279 S
10096915	1	22/07/99	Rhyll	27/12/03	Perkins Island, Smithton	TAS	258 SE
10103556	3+	14/06/92	Rhyll	27/12/03	Perkins Island, Smithton	TAS	258 SE
10121249	3	25/05/02	Roussac Point	14/11/03 2/02/04	27 Km S Murray Mouth, 52 Km N Ti Tree Crossing	SA	690 W 710 W
10115537	3+	28/06/99	Stockyard Point	15/05/03 13/11/03	82 Km S Murray Mouth 80 Km S Murray Mouth	SA	639 W
10121158	1	14/04/02	Stockyard Point	15/12/03 9/01/04	Rigby Island Merimbula	VIC NSW	231 E 418 ENE

10121176	3+	14/04/02	Stockyard Point	2/10/03 to 12/12/03	Bungalow Point, Pelican Point, Gerloff Bay, Brown Bay	SA	399 W
10104816	2+	06/07/96	Barry Beach	26/11/03 7&10/12/03	Rigby Island	VIC	263 W
10107341	3+	08/04/01	Stockyard Point	27/07/03 to 23/10/03 27/10/03 to 7/11/03	Glenelg River & Port Fairy Gerloff Bay 4 Km N Carpenter	VIC SA	272 W 439 W
				7711703	Rocks		
10115502	3+	16/05/99	Barry Beach	3 to 10/12/03	Rigby Island	VIC	263 E
10107345	1	08/04/01	Stockyard Point	3/01/04 7/02/04	Livingstones Bay Bucks Bay	SA	439 W
10115973	3+	02/08/00	Rhyll	4/11/03 to 11/01/04	Wonboyn Lake	NSW	427 ENE
10115902	2	19/06/00	Manns Beach	4/12/03 19/12/03	LakeTyers Rigby Island	VIC	144 E
10096800	2+	20/05/89	Stockyard Point	6&8/11/03	16 Km N Beachport	SA	482 W
10107349	2	08/04/01	Stockyard Point	6/04/03 1/05/03	VIC/SA Border Piccaninny Ponds	VIC	355 W
10104718	3+	03/06/96	Long Island	6/11/03 8/11/03	5 Km N Beachport 6 Km N Beachport	SA	482 W
10115535	1	28/06/99	Stockyard Point	7/11/03 2/02/04	42 Km N Carpenter Rocks 55 Km N Ti Tree Crossing	SA	370 E 690 E
10121932	3+	03/05/03	Fairhaven, French Is	7/11/03 to 07/02/04	Carpenter Rocks, Brown Bay, Livingstones Bay, Pelican Point	SA	328 E
10115403	1	24/06/98	Roussac Point	8&12/08/03	Port Fairy	VIC	351 E
10115418	1	12/07/98	Stockyard Point	8/01/04 2/02/04	Oil Rig Square, Canunda NP	SA	449 E
10121167	3+	14/04/02	Stockyard Point	8/06/03 to 21/01/04	Livingstones & Gerloff Bay	SA	439 E
10160003	1	26/02/00	Stockyard Point	8/08/03 to 03/01/04	Port Fairy VIC and Livingstones Bay SA	VIC	439 E
10121159	3+	14/04/02	Stockyard Point	8/08/03 to 18/12/03	Port Fairy & Green Point	VIC	272 E
10107339	2	08/04/01	Stockyard Point	3/01/04	Port MacDonnell	SA	411 E
10107486	3	22/07/01	Barry Beach	19/01/04	Merimbula	NSW	369 ENE
10121217	2	13/05/02	Fairhaven, French Is	24/01/04	LakeTyers	VIC	355 E
10103686	2+	09/07/94	Altona foreshore	2/02/04	34 Km N Ti Tree Crossing	SA	570 W
10104616	3+	30/09/95	The Gurdies	2/02/04	52 Km N Ti Tree Crossing	SA	630 W

10104716	3	03/06/96	Long Island	2/02/04	52 Km N Ti Tree Crossing	SA	620 W
10107500	3	04/08/01	Rhyll	2/02/04	55 Km N Ti Tree Crossing	SA	632 W
10115562	1	16/07/99	Manns Beach	2/02/04	55 Km N Ti Tree Crossing	SA	752 W
10096812	3+	05/08/89	Stockyard Point	1&3/03/04	Port Fairy	VIC	272 W
10096787	2+	20/05/89	Stockyard Point	13/03/04	Mallacoota	VIC	394 E
10104613	2+	30/05/95	The Gurdies	13/03/04	Mallacoota	VIC	379 E
10115542	1	14/07/99	Manns Beach	13/03/04	Mallacoota	VIC	284 ENE
10103692	4+	13/08/94	Barry Beach	23/03/04	Port Sorell, Devonport	TAS	316 S

The records above show just how mobile Pied Oystercatchers are along the coast of SE Australia. 101-22059 had moved 384 km in less than two months. 101-21221 and 21222 were banded on the same day but were recovered over 500 km apart a year and a half later. The value of colour banding is demonstrated by all but one of these records deriving from sightings of individually marked birds. Special thanks to all those dedicated colour band reporters that continue to help with this project.



Sooty Oystercatcher

Band	Age	Date Banded	Location banded	Date seen	Location found	State	Km moved
10103691	2+	09/17/94	Altona foreshore	7/05/03	Port Fairy	VIC	226 W
10115108	3+	24/07/97	Roussac Point	11/11/03	Rabbit Island	VIC	24 S
10115220	3+	24/06/199 8	Roussac Point	11/11/03	Rabbit Island	VÍC	24 S
10096864	1	06/08/198 9	Barry Beach	15/01/04	Kanowna Island	VIC	51 S
10082131	2+	25/06/83	Queenscliff	20/02/04	Woolshed Bight, Phillip Island	VIC	Local
10121285	3	12/06/02	Lyons Down	03/07/04	Perkins Island	TAS	275 S

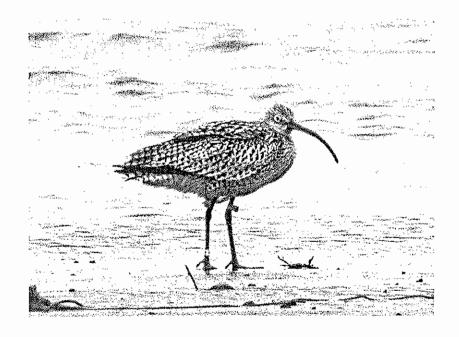
Three of the above were at typical nesting sites for the species – on islands in Bass Strait (just off Wilson's Promontory). At 23+ years old 10082131 is the oldest VWSG banded Sooty Oystercatcher so far. All the above were sightings of individually colour banded birds.

Grey Plover

Band	Age	Date	Location	Date seen	Location found	Km moved
		Banded	banded			
0722927	2+	29/10/95	Queenscliff	30/03/04	Chongming	8095 N
7				(recaptured)	Dontang, China	

This is the first overseas recovery of a Grey Plover banded in Australia. There have however been leg flag sightings previously in Japan and Korea and this year one in the northern Yellow Sea, China, also.

Photograph of orange flagged Eastern Curlew in Taiwan (Chung-Yu Chiang, Taiwan Wader Study Group)



Recoveries in 2003/04 of Waders Banded in South Australia

Clive Minton, Rosalind Jessop, Peter Collins, Maureen Christie and Iain Stewart

This list details recoveries reported since those listed in the last VWSG Bulletin from VWSG banding activities in the south-east corner of South Australia.

Ruddy Turnstone

Band	Age	Date	Location	Date	Location	KM
		banded		recovered		moved
0511922	2+	28/02/97	Carpenters	02/04/97	Shanghai, China	7888 N
			Rocks	&		
				17/01/98	Carpenters Rocks	7888 S

A rare 'double – journey' ie. to China and back. Many years ago a similar double-journey recovery of a Ruddy Turnstone occurred between Queenscliff (Vic) and Taiwan.

Sanderling

Band	Age	Date	Location	Date	Location	KM
		banded		recovered		moved
04232025	2+	23/03/02	Brown Bay	01/11/03	Queenscliff	336k E
				(recaptured)		

Movements of Sanderling between locations in Victoria and the SE coasts of South Australia are common

Curlew Sandpiper

Band	Age	Date	Location	Date	Location	KM
		banded		recaptured		moved
04232262	1	19/10/02	Carpenters	16/08/03	Broome WA	2821k
			Rocks	(recaptured)		NW
04200876	1	07/04/99	Carpenters	28/12/03	Werribee SF	361k E
			Rocks	(recaptured)		

The first bird had moved northwards within Australia for its first winter. The second had probably changed its non-breeding area.

Pied Oystercatcher

Band	Age	Date	Location	Date	Location	KM
		banded		recaptured		moved
10121948	1	15/04/03	Carpenters	28/12/03	Carpenters Rocks	Local
			Rocks	(killed by		
				motorbike)		

An unfortunate way to die.

Sightings of Waders Leg Flagged in Victoria

Report Number 11

Clive Minton, Roz Jessop, Peter Collins and Inka Veltheim

2003/2004 has been a record period for reports of sightings of waders leg flagged in Victoria. This is partly because of increased field observation activities throughout the Flyway, particularly in New Zealand, China and Taiwan.

The attached lists detail all sightings of birds which have moved a significant distance (generally regarded as overseas or interstate) from their marking location. Comments are appended under each species giving explanations of some of these movements.

This list is published for the interest of VWSG members and as recognition of the huge contribution by the many people who have sighted and gone to the trouble of reporting flagged birds. It is not the intention that the data listed should be used by others for publication without the prior permission of the VWSG.

During the year the leg flag database has mainly been maintained by Lauren Beasley and later in the year by lnka Veltheim and April Reside. This work is carried out through funding provided by the Department of Environment and Heritage Australia through the AWSG. Their financial support is greatly appreciated.

A table elsewhere in this report gives full details of the 64,492 waders of 32 species orange flagged in Victoria up to the end of 2003.

Bar-tailed Godwit

Overseas sightings

USA

Date	No	Location seen	Observer
seen 16/08/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Sarah Connors
18/08/03	2		Sarah Connors
20/08/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen & S. Connors
21/08/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen & S. Connors
22/08/03	3	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen & S. Connors
24/08/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen & S. Connors
25/08/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen
26/08/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Sarah Connors
28/08/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen
28/08/03	5	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen & S. Connors
29/08/03	9	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen & S. Connors
30/08/03	3	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen & S. Connors
31/08/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Sarah Connors
31/08/03	2	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen
1/09/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen
2/09/03	1	Egegik Bay, Alaska	Daniel Ruthrauff
2/09/03	3	Egegik Bay, Alaska	Robert Gill
2/09/03	2	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen
2/09/03	2	Egegik Bay, Alaska	Robert Gill

3/09/03	2	Tern Mountain, Village of Chefornak, Yukon Delta	Sarah Connors
3/09/03	3	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen
4/09/03	1	Egegik Bay, Alaska	Daniel Ruthrauff
4/09/03	1	Egegik Bay, Alaska	Robert Gill
4/09/03	3	Tern Mountain, Village of Chefornak, Yukon Delta	Sarah Connors
4/09/03	6	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen
4/09/03	1	Egegik Bay, Alaska	Robert Gill
4/09/03	1	Egegik Bay, Alaska	Robert Gill
5/09/03	1	Tern Mountain, Village of Chefornak, Yukon Delta	Heather Swensen
5/09/03	10	Tern Mountain, Village of Chefornak, Yukon Delta	Sarah Connors
5/09/03	2	Egegik Bay, Alaska	Robert Gill
7/09/03	2	Tern Mountain, Village of Chefornak, Yukon Delta	Sarah Connors

KOREA

Date seen	No	Location seen	Observer
8/05/03	1	Mokpo City in south-west Korea	Kwak Ho-kyong
2/04/04	1	Hongsung	Ji In-sook & Kwan Kyong-sook
17/04/04	6	Hongsung	Kim Hyun-tae
19/04/04	2	Hongsung	Ji In-sook & Ham In-ja
22/04/04	2	Hongsung	Ji In-sook & Ham In-ja
25/04/04	2	Hongsung	Kim Hyun-tae
21/05/04	2	Yeongjong	Nial Moores

CHINA

Date seen	No	Location seen	Observer
14/04/04	7	Yalu Jiang National Nature Reserve	Yalu Jiang 2004 team
15/04/04	8	Yalu Jiang National Nature Reserve	Yalu Jiang 2004 team
17/04/04	1	Tianjin	Liu Yang & Mark Barter
17/04/04	2	Yalu Jiang National Nature Reserve	Yalu Jiang 2004 team
18/04/04	1	Yalu Jiang National Nature Reserve	Yalu Jiang 2004 team
19/04/04	8	Yalu Jiang National Nature Reserve	Yalu Jiang 2004 team
20/04/04	1	Yalu Jiang National Nature Reserve	Tony Habraken, David Lawrie, & Gillian Vaughan
20/04/04	2	Yalu Jiang National Nature Reserve	Yalu Jiang 2004 team
21/04/04	1	Yalu Jiang National Nature Reserve	Wang Tao, Gillian Vaughan, Mark Barter & Keith Woodley
21/04/04	1	Yalu Jiang National Nature Reserve	Yalu Jiang 2004 team
22/04/04	2	Yalu Jiang National Nature Reserve	Tony Habraken, David Lawrie & Adrian Riegen
23/04/04	1	Yalu Jiang National Nature Reserve	Wang Tao
25/04/04	3	Yalu Jiang National Nature Reserve	David Lawrie & Gillian Vaughan
22/05/04	1	Zuidong, near Tanshang, Hebei Province	Hongyan Yong

NEW ZEALAND

Date seen	No	Location seen	Observer
16/11/02	3	Miranda, Firth of Thames, South Auckland	J. Berry
28/11/02	1	Miranda, Firth of Thames, South Auckland	Keith Woodley
5/01/03	1	Nelson Haven, South Island	Peter Field
20/01/03	1	Nelson Haven, South Island	Peter Field
1/02/03	1	Pakawau, Golden Bay, South Island	Peter Field
2/02/03	3	Farewell Spit, Gobi, near Nelson, South Island	Peter Field
3/02/03	1	Pakawau, Golden Bay, South Island	Peter Field
3/02/03	1	Totara Ave, Golden Bay, South Island	Peter Field

15/02/03	2	Nelson Haven, South Island	Peter Field
22/02/03	2	Farewell Spit, Gobi, near Nelson, South Island	David Melville & Gillian Pollock
22/02/03	1	Farewell Spit, Gobi, near Nelson, South Island	Willie Cook
23/02/03	3	Farewell Spit, Gobi, near Nelson, South Island	Rob Schuckard
18/03/03	1	Miranda, Firth of Thames, South Auckland	L. Scott
24/03/03	1	Farewell Spit, Gobi, near Nelson, South Island	Phil Battley & Rob Schuckard
24/06/03	1	Miranda, Firth of Thames, South Auckland	N. Milius & W. Hare
12/08/03	1	Waimea Inlet, Mapua Estuary, Nelson	Willie Cook
28/08/03	1	Waimea Inlet, Mapua Estuary, Nelson	Willie Cook
30/08/03	1	Waimea Inlet, Mapua Estuary, Nelson	Willie Cook
31/08/03	2	Karaka, Manukau Harbour, South Auckland	David Lawrie & Tony Habraken
9/09/03	1	Miranda, Firth of Thames, South Auckland	Phil Battley
12/09/03	1	Miranda, Firth of Thames, South Auckland	Phil Battley
13/09/03	3	Karaka, Manukau Harbour, South Auckland	David Lawrie & Tony Habraken
13/09/03	1	Tasman Bay, Nelson Haven	Peter Field
14/09/03	2	Miranda, Firth of Thames, South Auckland	Phil Battley
18/09/03	1	Mairetahi, Kaipara Harbour	John Simmons & Gwen Pulham
25/09/03	1	Pakawau, Golden Bay, South Island	Peter Field
26/09/03	2	Pakawau, Golden Bay, South Island	Peter Field
27/09/03	3		G. Pulham & S. Chamberlin
8/10/03	3	Tapora Wildlife Refuge, South Kaipara Tasman Bay, Nelson Haven	
11/10/03	·····		Peter Field
	1	Pakawau, Golden Bay, South Island	Peter Field
11/10/03	2	Totara Ave, Golden Bay, South Island	Peter Field
12/10/03	2	Totara Ave, Golden Bay, South Island	Peter Field
13/10/03		Tasman Bay, Nelson Haven	Peter Field
17/10/03	2	Miranda, Firth of Thames, South Auckland	Phil Battley
24/10/03	2	Tasman Bay, Nelson Haven	Peter Field
24/10/03	1	Taramaire, Firth of Thames, South Auckland	Phil Battley
25/10/03	2	Farewell Spit, Gobi, near Nelson, South Island	Peter Field
26/10/03	4	Farewell Spit, Stockyard, South Island	Peter Field
27/10/03 27/10/03	2	Karaka, Manukau Harbour, South Auckland	G. Pulham & G. Goreby
29/10/03		Totara Ave, Golden Bay, South Island Tasman Bay, Nelson Haven	Peter Field Peter Field
	2	-	
2/11/03		Papanui Inlet	Peter Schweigman
5/11/03	1	Miranda, Firth of Thames, South Auckland	Phil Battley
5/11/03	1	Miranda, Firth of Thames, South Auckland	Sav Saville
12/11/03	2	Tasman Bay, Nelson Haven	Peter Field
12/11/03	2	Nelson Haven, South Island	Peter Field
15/11/03	1	Tapora Wildlife Refuge, South Kaipara	Tony Habraken & G. Vaughan
15/11/03	1	Whangerai Harbour	G. Grant & M. Twyman
16/11/03	2	Waihou River, Thames, Firth of Thames	Tony Habraken
16/11/03	2	Miranda, Firth of Thames, South Auckland	David Lawrie et al.
21/11/03	2	Golden Bay, Taupota Point, South Island	Peter Field
24/11/03	1_	Tasman Bay, Nelson Haven	Peter Field
26/11/03	1	Motueka Sandspit, near Nelson	Peter Field
10/12/03	1	Tasman Bay, Nelson Haven	Peter Field
11/12/03	2	Miranda, Firth of Thames, South Auckland	Phil Battley
11/12/03	1	Tasman Bay, Nelson Haven	Peter Field
24/12/03	1	Totara Ave, Golden Bay, South Island	Peter Field
2/01/04	2	Farewell Spit, Gobi, near Nelson, South Island	Peter Field
4/01/04	1	Farewell Spit, Stockyard, South Island	Peter Field
7/01/04	3	Totara Ave, Golden Bay, South Island	Peter Field
8/01/04	1	Tapora Wildlife Refuge, South Kaipara	Gwen Pulham
20/01/04	1	Tasman Bay, Nelson Haven	David Melville
21/01/04	1	Kaiaua, Firth of Thames, Auckland	Phil Battley

22/01/04	1	Nelson Haven, South Island	David Melville
23/01/04	1	Kaiaua, Firth of Thames, Auckland	Phil Battley
24/01/04	1	Kaiaua, Firth of Thames, Auckland	Phil Battley
25/01/04	2	Tapora Wildlife Refuge, South Kaipara	Gwen Pulham et al
7/02/04	1	Miranda, Firth of Thames, South Auckland	Tony Habraken .
25/02/04	1	Whangapoua Beach, Great Barrier Island	Keith Woodley
1/03/04	1	Kaiaua, Firth of Thames, Auckland	Phil Battley
5/03/04	1	Kaiaua, Firth of Thames, Auckland	Phil Battley
7/03/04	1	Farewell Spit, Bushend Point, South Island	Rob Schuckard
8/03/04	1	Kaiaua, Firth of Thames, Auckland	Phil Battley
9/03/04	2	Waihou River, Thames, Firth of Thames	Phil Battley
11/03/04	1	Kaiaua, Firth of Thames, Auckland	Phil Battley
13/03/04	1	Kaiaua, Firth of Thames, Auckland	Simon Fordham
17/04/04	2	Walker Island, Kaipara Harbour	G. Pulham & G. Goreby
27/04/04	1	Thames, Firth of Thames	Phil Battley
19/06/04	1	Tapora Wildlife Refuge, South Kaipara	E Lagnez et al
19/06/04	1	Walker Island, Kaipara Harbour	T. Wnorowski

Sightings within Australia

Western Australia

Date seen	No	Location seen	Observer
4/08/03	1	Roebuck Bay, Broome	Inka Veltheim
15/12/03	1	Roebuck Bay, Broome	Adrian Boyle & Chris Hassell
6/03/04	1	Roebuck Bay, Broome	Adrian Boyle

Queensland

Date seen	No	Location seen	Observer
18/05/03	1	Manly Boat Harbour, Moreton Bay	S. Harding, D. Milton, B & J Morgan
27/09/03	1	Manly Boat Harbour, Moreton Bay	S. Harding, D. Milton, Barry & Joanna Morgan
4/10/03	1	Mathieson Homestead, near Hervey Bay	John Knight
5/10/03	1	Maroom, Great Sandy Strait	John Bell & Inge Brandt
13/10/03	1	Mathieson Homestead, near Hervey Bay	John Knight & Elaine Lyons
14/10/03	1	Mathieson Homestead, near Hervey Bay	John Knight & Elaine Lyons
16/10/03	1	Mathieson Homestead, near Hervey Bay	John Knight
17/10/03	1	Banksia Beach, Bribie Island	Ted & Kerry Davenport
19/10/03	1	Banksia Beach, Bribie Island	Phil & Linda Cross et al.
20/10/03	1	Kakadu Beach, Bribie Island	Linda Cross & Ivell White
29/10/03	1	Mathieson Homestead, near Hervey Bay	Bob & June Gleeson, Les Strong, Sean Norman
1/11/03	1	Lytton High Tide Roost	David Edwards
1/11/03	1	Mathieson Homestead, near Hervey Bay	John Knight

New South Wales

Date seen	No	Location seen	Observer
30/09/03	I	Stockton Bridge, Hunter River,	Ivan Chapman
		Newcastle	
3/10/03	1	Pelican Island, Hastings River mouth	Hastings Birdwatchers
15/10/03	1	Kooragang Island, Stockton Bridge	Keith Brandwood

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The above list contains a record 252 overseas sightings of Bar-tailed Godwit flagged in Victoria. An unbelievable total of 74 of these sightings were in south west Alaska where post breeding flocks gather in late August/early September prior to their trans-Pacific 10,000 Km non stop flight back to Australia and New Zealand. Two dedicated teams from the US Fish and Wildlife Service were in the field studying these pre-migratory departure flocks for three weeks.

There was also a record number of 123 flag sightings in New Zealand. This huge increase over previous years is particularly the result of intensive observational fieldwork in the Auckland area, particularly by Phil Battley, and intensive fieldwork in the north west corner of South Island, New Zealand, by Peter Field. This data further confirms the extremely strong link between the Bar-tailed Godwit populations in eastern Australia and New Zealand.

There was also an unprecedented 39 flag sightings in China on northward migration in April/May 2004. Most of these were at Yalu Jiang, at the northern end of the Yellow Sea, where two separate teams from Australia/New Zealand were working with Chinese ornithologists counting and banding waders.

And finally it is pleasing to see Korea again featuring significantly in the lists of flag sighting locations. This is the result of an excellent web site operated by Kim Hyun-tae and the communication efforts of Nial Moores.

It is very noticeable as usual, that all the Asian flag sightings were during northward migration. On southward migration Bar-tailed Godwit from the Alaskan breeding grounds on their way back to non breeding areas in Eastern Australia and New Zealand by-pass Asia during their direct flight over the Pacific.

The sightings in Western Australia, Queensland and New South Wales, are a mixture of birds passing through those areas on southward migration, birds which have clearly changed their non breeding area away from Victoria, and one or two birds (immature) which have gone for "winter holidays" in northern Australia.

Eastern Curlew

Overseas sightings

CHINA

Date seen	No	Location seen	Observer
14/04/04	1	Yalu Jiang National Nature Reserve	Yalu Jiang 2004 team
15/04/04	1	Yalu Jiang National Nature Reserve	Yalu Jiang 2004 team

TAIWAN

Date seen	No	Location seen	Observer
21/03/04	1	Lun-Wei, Changhua County, Taiwan	Chung-Yu Chiang

Sightings within Australia

Queensland

Date seen	No	Location seen	Observer
5/05/03	1	Mathieson Homestead, near Hervey Bay	John Knight, Don & Rhonda Jennings
6/05/03	1	Mathieson Homestead, near Hervey Bay	John Knight & Laurie Baldwin
7/08/03	1	Mathieson Homestead, near Hervey Bay	John Knight et al.
22/08/03	1	Mathieson Homestead, near Hervey Bay	John Knight et al.

The sightings in China are the first for this species. However, this is mainly the result of the previous lack of observers. Count data shows the northern Yellow Sea to be a very important migratory stop over area for Eastern Curlew.

Sightings in Taiwan are more regular. This one, on the 21st of March, follows one reported last year on the very early date of the 9th of March.

The first two sightings in Queensland probably refer to an immature bird that had moved north within Australia for the winter. The last two records more likely refer to birds on southward migration back to Victoria.

Ruddy Turnstone

Overseas sightings

CHINA

Date seen	No	Location seen	Observer
17/04/04	1	Tianjin	Liu Yang & Mark Barter

TAIWAN

Date seen	No	Location seen	Observer
20/04/04	1	Changhua County	Chung-Yu Chiang
3/05/04	2	Han-Pao, Changhua County	Taiwan Wader Study Group

Sightings within Australia

South Australia

Date seen	No	Location seen	Observer
21/08/02	1	Cape Banks Lighthouse, Carpenters Rocks	Maureen Christie
22/08/02	1	Pelican Point, near Mt Gambier	Maureen Christie
23/08/02	1	Cape Banks Lighthouse, Carpenters Rocks	Maureen Christie
6/11/03	1	Gerloff Bay, Carpenter Rocks	Maureen Christie
7/11/03	1	Stony Point, Port MacDonnell	Maureen Christie & Lorraine Moore
28/11/03	1	Stony Point, Port MacDonnell	Maureen Christie & Lorraine Moore
10/02/04	1	Riddock Bay, near Port MacDonnell	Maureen Christie & Lorraine Moore
24/04/04	1	Cape Banks Lighthouse, Carpenters Rocks	Maureen Christie

New South Wales

Date seen	No	Location seen	Observer
8/04/04	1	Lord Howe Island	Danny Rogers

Western Australia

Date seen	No	Location seen	Observer
16/09/03	1	Roebuck Bay, Broome	Inka Veltheim

Northern Territory

The sighting in China is the first for that country. Sightings of birds on migration through Taiwan are more regular.

The sighting on Lord Howe Island is the second at that location, the first being in October 2002. The records in WA and NT are probably birds on southward migration back to Victoria. The records in South Australia reflect the small interchange that seems to take place of Ruddy Turnstone between different locations along the coasts of south east Australia.

Great Knot

Overseas sightings

CHINA

seen 17/04/04		Tianiin	Liu Yang & Mark Barter
Date	No	Location seen	Observer

HONG KONG

	Date seen	No	Location seen	Observer
ſ	6/04/04	1	Mai Po Marshes	Jemi Wong

Sightings within Australia

Queensland

Date seen	No	Location seen	
30/06/03	1	Mathieson Homestead, near Hervey Bay	John Knight & Peter Royall
14/08/03	1	Mathieson Homestead, near Hervey Bay	John Knight
14/09/03	1	Toorbul North	Dez Wells, Phil & Linda Cross
27/09/03	1	Mathieson Homestead, near Hervey Bay	John Knight
4/10/03	1	Mathieson Homestead, near Hervey Bay	John Knight
10/10/03	1	Toorbul, near Brible Island	Dennis Stanbridge
14/10/03	1	Mathieson Homestead, near Hervey Bay	John Knight & Elaine Lyons
25/10/03	1	Toorbul, near Bribie Island	Dez Wells
29/10/03	1	Mathieson Homestead, near Hervey Bay	Bob & June Gleeson, Les Strong, Sean Norman

29/11/03	1	Toorbul North	Dennis Stanbridge
30/11/03	1	Toorbul, near Bribie Island	Phil & Linda Cross
10/12/03	1	Toorbul North	Dennis Stanbridge
13/12/03	1	Deception Bay mangroves	Phil & Linda Cross
30/12/03	1	Toorbul Sandfly Bay roost	Dez Wells

Northern Territory

Date seen	No	Location seen	Observer
15/09/03	1	Darwin	Bas Hensen
23/09/03	1	Darwin	Bas Hensen
11/10/03	1	Buffalo Creek Beach, Darwin	Arthur & Sheryl Keates
26/10/03	1	Buffalo Creek Beach, Darwin	Arthur & Sheryl Keates
23/11/03	1	Between Lee Point & Buffalo Creek	Arthur & Sheryl Keates
22/02/04	1	Buffalo Creek Beach, Darwin	Arthur & Sheryl Keates

Only a very small part of the Great Knot population comes as far south as Victoria for the non breeding season. The overseas sightings suggest that these birds migrate through the same part of Asia and at the same time as Great Knot from non breeding grounds in northern Australia.

The sightings within Australia may contain some birds that are on southward migration back to Victoria but mostly indicate birds that have changed their non breeding area to the more conventional non breeding areas along the northern coast of Australia.

Red Knot

Overseas sightings

CHINA

Date seen	No	Location seen	Observer
17/04/04	1	Tianjin	Liu Yang & Mark Barter
20/04/04	1	Yalu Jiang National Nature Reserve	Gillian Vaughan & Tony Habraken
22/05/04	1	Zuidong, Tanshang, Hebei Province	Hongyan Yong
9/06/04	1	Zuidong, Tanshang, Hebei Province	Yang Hong Yan

TAIWAN

Date seen		Location seen	Observer
25/04/03	1	Ta-chuang, Hsin-chu City	Wen-Hsiung Li
22/07/03	1	Chi-ku, Tainan County	Mr. Li, Chung-hsien
25/04/04	1	Auku, Chiayi County	Chwan-Jyh Lin

HONG KONG

Date seen	No	Location seen	Observer
29/04/03	1	Mai Po Marshes	Yu Yat-Tung
19/05/04	1	Mai Po Marshes	Mike Leven

NEW ZEALAND

NEW ZEAL Date seen	No	Location seen	Observer
31/03/02	1	Farewell Spit, Gobi, Nelson, South Island	Peter Field
22/09/02	1	Miranda, Firth of Thames, South Auckland	Will Perry
6/10/02	1	Farewell Spit, Gobi, near Nelson, South Island	Rob Schuckard
12/10/02	1	Miranda, Firth of Thames, South Auckland	Bruce Keeley
9/11/02	1	Waikiri Creek, Kaipara	Gwen Pulham
10/11/02	1	Farewell Spit, Farmpark, South Island	Peter Field
2/12/02	1	Miranda, Firth of Thames, South Auckland	Nigel Milius
10/12/02	4	Miranda, Firth of Thames, South Auckland	Nigel Milius
17/12/02	2	Miranda, Firth of Thames, South Auckland	T. Wilson
20/01/03	1	Miranda, Firth of Thames, South Auckland	Keith Woodley
2/02/03	8	Farewell Spit, Gobi, near Nelson, South Island	Peter Field
22/02/03	1	Farewell Spit, Gobi, near Nelson, South Island	Willie Cook
22/02/03	_ <u></u>	Farewell Spit, Gobi, near Nelson, South Island	Rob Schuckard
23/02/03	3	Farewell Spit, Gobi, near Nelson, South Island	Rob Schuckard
23/02/03	1	Farewell Spit, Bay Flat, near Nelson	Rob Schuckard
23/02/03	5	Farewell Spit, Gobi, near Nelson, South Island	David Melville & Rob Schuckard
31/08/03	8	Karaka, Manukau Harbour, South Auckland	
		Miranda, Firth of Thames, South Auckland	David Lawrie & Tony Habraken
1/09/03	1	Miranda, Firth of Thames, South Auckland Miranda, Firth of Thames, South Auckland	Phil Battley Phil Battley
1/09/03	1	· · · · · · · · · · · · · · · · · · ·	
13/09/03	12	Karaka, Manukau Harbour, South Auckland	David Lawrie & Tony Habraken
18/09/03	2	Mairetahi, Kaipara Harbour	John Simmons & Gwen Pulham
27/09/03	1	Tapora Wildlife Refuge, South Kaipara Harbour	G. Pulham & S. Chamberlin
27/09/03	2	Farewell Spit, Stockyard, South Island	Peter Field
29/09/03	1	Manawatu Estuary, North Island	lan Saville
2/10/03	1	Mangawhai Estuary, Auckland	Gwen Pulham & Gordon Gorbey
4/10/03	1	Farewell Spit, Farmpark, South Island	Peter Field
5/10/03	2	Farewell Spit, Farmpark, South Island	Peter Field
6/10/03	6	Miranda, Firth of Thames, South Auckland	Phil Battley
7/10/03	5	Taramaire, Firth of Thames, South Auckland	Phil Battley
8/10/03	5_	Miranda, Firth of Thames, South Auckland	Phil Battley
11/10/03	2	Farewell Spit, Gobi, near Nelson, South Island	Peter Field
12/10/03	1	Manawatu Estuary, Manawatu, North Island	lan Saville
15/10/03	6	Miranda, Firth of Thames, South Auckland	Phil Battley
17/10/03	6	Miranda, Firth of Thames, South Auckland	Phil Battley
18/10/03	1	Miranda, Firth of Thames, South Auckland	Phil Battley
19/10/03	1	Manawatu Estuary, Manawatu, North Island	lan Saville
24/10/03	1	Taramaire, Firth of Thames, South Auckland	Phil Battley
24/10/03	3	Taramaire, Firth of Thames, South Auckland	Phil Battley
24/10/03	3	Taramaire, Firth of Thames, South Auckland	Phil Battley
24/10/03	8	Taramaire, Firth of Thames, South Auckland	Phil Battley
25/10/03	2	Farewell Spit, Gobi, near Nelson, South Island	Peter Field
26/10/03	3	Tapora Wildlife Refuge, South Kaipara Harbour	G. Grant & M. Twyman
26/10/03	7	Farewell Spit, Stockyard, South Island	Peter Field
27/10/03	1	Manawatu Estuary, Manawatu, North Island	lan Saville & Brent Stephenson
1/11/03	2	Manawatu Estuary, Manawatu, North Island	lan Saville
2/11/03	3	Taramaire, Firth of Thames, South Auckland	Phil Battley
5/11/03	6	Miranda, Firth of Thames, South Auckland	Sav Saville
5/11/03	5	Miranda, Firth of Thames, South Auckland	Phil Battley
			· —
5/11/03 9/11/03 12/11/03 15/11/03	5 1 2 7 1	Waikiri Creek, Kaipara Manawatu Estuary, Manawatu, North Island Tapora Wildlife Refuge, South Kaipara Harbour Tapora Wildlife Refuge, South Kaipara Harbour	G. Pulham & G. Goreby lan Saville Gillian Vaughan & T. Habra Gillian Vaughan & T. Habra

15/11/03	1	Takahiwai, Whangarei Harbour	G. Grant & M. Twyman
16/11/03	15	Waihou River, Thames, Firth of Thames	Tony Habraken et al.
16/11/03	8	Miranda, Firth of Thames, South Auckland	David Lawrie et al.
16/11/03	3	Maketu Bay of Plenty, North Island	Tim Barnard
21/11/03	1	Golden Bay, Taupota Point, South Island	Peter Field
22/11/03	3	Tasman Bay, Best Island	Willie Cook, R. Blois & D Cooper
22/11/03	2	Walker Island, Kaipara Harbour	L. Alston & T. Kitching
22/11/03	1	Jordan's Farm, SE Kaipara Harbour, Auckland	G. Eller & M. Taylor
22/11/03	3	Tapora Wildlife Refuge, South Kaipara Harbour	Ted Wnorowski
23/11/03	1	Motueka Sandspit, near Nelson	Steve Wood
23/11/03	4	Karaka, Manukau Harbour, South Auckland	D. Lawrie & T. Crocker
29/11/03	1	Maketu Bay of Plenty, North Island	Tim Barnard
11/12/03	1	Miranda, Firth of Thames, South Auckland	Phil Battley
13/12/03	2	Mangere Sewage Ponds, Manukau Harbour	T. Wilson
14/12/03	2	Manawatu Estuary, Manawatu, North Island	Sav Saville
14/12/03	1	Manawatu Estuary, Manawatu, North Island	Ian Saville
21/12/03	2	Shellbanks, Miranda	Adrian Riegen
26/12/03	12	Waihou River, Thames, Firth of Thames	David Lawrie & Tony Habraken
27/12/03	9	Karaka, Manukau Harbour, South Auckland	David Lawrie et al.
30/12/03	3	Taramaire, Firth of Thames, South Auckland	Phil Battley
1/01/04	6	Mangere Sewage Ponds, Manukau Harbour	G. Pulham & R. Clough
2/01/04	6	Farewell Spit, Gobi, near Nelson, South Island	Peter Field
4/01/04	1	Farewell Spit, Stockyard, South Island	Peter Field
8/01/04	7	Tapora Wildiife Refuge, South Kaipara Harbour	Gwen Pulham
20/01/04	1	Maketu Bay of Plenty, North Island	Tim Barnard
22/01/04	1	Waipu Estuary, Northland	Gwen Pulham & Gordon Gorbey
25/01/04	2	Tapora Wildlife Refuge, South Kaipara Harbour	Gwen Pulham et al
6/02/04	3	Kaiaua, Firth of Thames, Auckland	Phil Battley
8/02/04	3	Walker Island, Kaipara Harbour	Gwen Pulham & K. McMullen
9/02/04	2	Rangipo, Firth of Thames	Phil Battley
14/02/04	7	Mangere Sewage Ponds, Manukau Harbour	Ted Wnorowski
16/02/04	1	Farewell Spit, Base, South Island	Chris Petyt
19/02/04	2	Jordan's Farm, SE Kaipara Harbour, Auckland	Stephen Davies
29/02/04	1	Waiongana Beach, near New Plymouth	Peter & Julie Flyer
1/03/04	8	Taramaire, Firth of Thames, South Auckland	Phil Battley
1/03/04	3	Kaiaua, Firth of Thames, Auckland	Phil Battley
2/03/04	2	Wairoa River, Mataitai Firth of Thames	Graham Don
4/03/04	4	Kaiaua, Firth of Thames, Auckland	Phil Battley
7/03/04	2	Farewell Spit, Bushend Point, South Island	Rob Schuckard
9/03/04	5	Waihou River, Thames, Firth of Thames	Phil Battley
11/03/04	2	Kaiaua, Firth of Thames, Auckland	Phil Battley
13/03/04	2	Miranda, Firth of Thames, South Auckland	Adrian Riegen & W. Lee Long
15/03/04	2	Waihou River, Thames, Firth of Thames	Phil Battley
18/03/04	3	Kaiaua, Firth of Thames, Auckland	Phil Battley
19/03/04	1	Mangere Sewage Ponds, Manukau Harbour	R. Clough
19/03/04	1	Waihou River, Thames, Firth of Thames	Phil Battley
21/03/04	2	Tapora Wildlife Refuge, South Kaipara Harbour	Simon Chamberlin
31/03/04	1	Kaiaua, Firth of Thames, Auckland	Phil Battley
22/05/04	1	Karaka, Manukau Harbour, South Auckland	David Lawrie
12/06/04	1	Miranda, Firth of Thames, South Auckland	Tony Habraken
13/06/04	1	Miranda, Firth of Thames, South Auckland	Phil Battley
13/06/04	1	ivilranda, Firth of Thames, South Auckland	Phil Battley

Sightings within Australia

New South Wales

Date seen	No	Location seen	Observer
22/09/03	1	South Beach, Ballina	Bo Totterman
30/09/03	1	Stockton Bridge, Hunter River, near Newcastle	Ivan Chapman
11/10/03	1	Kooragang Dykes, near Newcastle	Liz Crawford & Chris Herbert, Hunter BOC
15/10/03	2	Kooragang Island, Stockton Bridge	Keith Brandwood
18/10/03	1	Brou Lake, north of Narooma	Mike Crowley
20/10/03	1	Shell Point, Botany Bay	Ken Gilmore
31/10/03	1	Tuross Estuary	George Rayner
8/11/03	2	Kooragang Dykes, near Newcastle	Ann Lindsey
8/12/03	1	Pelican Island, Hastings River mouth	Hans Lutter

Northern Territory

Date seen	No	Location seen	Observer
19/02/04	1	Buffalo Creek Beach, Darwin	Arthur & Sheryl Keates
22/02/04	1	Buffalo Creek Beach, Darwin	Arthur & Sheryl Keates
6/03/04	2	Buffalo Creek Beach, Darwin	Arthur & Sheryl Keates

Queensland

Date seen	No	Location seen	Observer
30/08/03	2	Deception Bay mangroves	Phil Cross

South Australia

Date seen	No	Location seen	Observer
26/12/03	2	Thompson Beach, near Dublin	John Seymour

Tasmania

Date seen	No	Location seen	Observer
24/01/04	1	Robbins Island (Knot Pt)	Peter & Hazel Britton

Western Australia

Date seen	No	Location seen	Observer
27/08/03	1	Roebuck Bay, Broome	Jonny Schoenjahn
4/09/03	2	Roebuck Bay, Broome	Adrian Boyle
9/09/03	1	Roebuck Bay, Broome	Adrian Boyle
28/09/03	1	Quarry Beach, Broome	Chris Hassell, Rob & Gail Berry
15/12/03	1	Roebuck Bay, Broome	Adrian Boyle & Chris Hassell

The list contains an incredible 321 overseas leg flag sightings including 312 in New Zealand. The latter are a product of the intensive and extremely skilled team of wader watchers in New Zealand, with Phil Battley joining the effort this year with his intensive studies in the Auckland area. Banding recoveries have shown that many of the Red Knot caught in Australia in their first year subsequently move to New Zealand and adopt that country as their principal non breeding area in subsequent years. Judging by the volume of sightings,

there is an even stronger link between the Red Knot populations of eastern Australia and New Zealand than there is for Bar-tailed Godwits.

Flag sightings of Red Knot on migration through Asia are quite scarce and therefore nine sightings in China/Taiwan/Hong Kong are pleasing. The main migratory stopover locations for Red Knot in Asia are still poorly known — hence the dearth of flag sightings and recoveries. The breeding grounds are also unknown, with no recoveries or flag sightings of Red Knot from eastern Australia or New Zealand. This population is presumed to breed in the Chukotsk region of north-east Siberia.

Most of the sightings within Australia are birds, which appear to have changed their non-breeding area, particularly to the northern parts of the continent. However, some may have been on passage when seen.

Sanderling

Overseas sightings

CHINA

Date	No	Location seen	Observer
3/08/03	1	Zuidong, Tanshang, Hebei Province	Yang Hong Yan
9/08/03	1	Zuidong, Tanshang, Hebei Province	Yang Hong Yan

HONG KONG

Date seen	No	Location seen	Observer
23/04/03	1	Mai Po Marshes	Geoff Carey
29/04/03	1	Mai Po Marshes	Yu Yat-Tung

Sightings within Australia

Northern Territory

Date seen	No	Location seen	Observer
30/08/02	1	Darwin	Bas Hensen
21/09/02	1	Darwin	Bas Hensen

South Australia

Date seen	No	Location seen	Observer
20/08/02	1	Oil Rig Square, Millicent	Maureen Christie
28/11/03	1	Stony Point, Port MacDonnell	Maureen Christie & Lorraine Moore

Western Australia

Date seen	No	Location seen	Observer
22/09/03	1	Broome Port	Megan Underwood & Inka Veltheim

The sightings in China were the first for this species. It was also notable that these were on southward migration. Sanderling is the only species where more reports of flagged or banded birds tend to be seen on southward, as opposed to northward, migration.

The sightings within Australia appear to be mostly of birds on southward migration back to Victoria. However, those in SA could very well reflect the considerable movement of Sanderling between different non breeding areas in south east Australia.

Red-necked Stint

Overseas sightings

RUSSIA

Date seen	No	Location seen	Observer
6/08/03	1	Lake Baikal, Island of Kosa, Irkutskaya Oblast	Hans-Heiner Bergmann

CHINA

Date seen	No	Location seen	Observer
15/04/02	1	Taipa-Coloane Wetland, Macao	Dr. Leung Chee Va
7/05/03	1	Taipa-Coloane Wetland, Macao	Dr. Leung Chee Va
29/04/04	1	Taipa-Coloane Wetland, Macao	Va Leung
8/05/04	1	Beidaihe, Qinhuangodao City, Hebei Province	Hans Meltofte
10/05/04	1	Ba Li Qiao, 50 km south of Beidaihe	Allan Hale
13/05/04	1	Ba Li Qiao, 50 km south of Beidaihe	Allan Hale
13/05/04	1	Happy Island, Hebei Province	Shaun Robson & David Taylor
18/05/04	1	Beidaihe, Qinhuangodao City, Hebei Province	Robert Stormes
19/05/04	1	Beidaihe, Qinhuangodao City, Hebei Province	Hans Meltofte
20/05/04	1	Beidaihe, Qinhuangodao City, Hebei Province	Allan Hale
22/05/04	1	Zuidong, near Tanshang, Heibei Province	Hongyan Yong

TAIWAN

Date seen	No	Location seen	Observer
27/07/03	1	Yung-An, Kao Hsiung County	Kun-Hai Lin
28/07/03	1	Fu-Pao wetland, Changhua County	Chung-Yu Chiang & Wen-yin Hu Taiwan Wader Study Group
29/07/03	1	Szu-Tsao, Tainan city	Miss Wang, HsinHua
17/08/03	1	Chi-ku, Tainan County	Su-Lien Yu
22/08/03	1	Changhua County	Wei-Chieh Liao
23/08/03	1	Chi-ku, Tainan County	Chi-Yuan Pan
15/05/04	1	Chinshan, Taipei County	Shueng-Chang Chen
22/05/04	1	Li-Chai Estuary, Taitung Country	Wei-Hsuan Tsai
25/05/04	1	Han-Pao, Changhua County	Taiwan Wader Study Group
25/05/04	2	Chi-An, Hualien County	Ching-Wen Liu '
25/05/04	2	Han-Pao, Changhua County	Taiwan Bird Banding Centre
27/05/04	1	Cheng-Hsi-Li, Tainan City	Hsing-Jen Chou
10/06/04	1	Hsiang-Shan, Hsinchu County	Cheer

HONG KONG

Date seen	No	Location seen	Observer
25/04/03	1	Mai Po Marshes	Richard Lewthwaite
2/05/03	2	Mai Po Marshes	Yu Yat-Tung

3/05/03	1	Mai Po Marshes	John Allcock
5/05/03	2	Mai Po Marshes	Yu Yat-Tung
8/05/03	1	Mai Po Marshes	H. F. Cheung
17/05/03	1	Mai Po Marshes	Yu Yat-Tung
18/05/03	2	Mai Po Marshes	Yu Yat-Tung
28/05/03	1	Mai Po Marshes	Yu Yat-Tung
5/06/03	1	Mai Po Marshes	Yu Yat-Tung
26/08/03	1	Mai Po Marshes	Yu Yat-Tung
23/04/04	1	Mai Po Marshes	Tam Yiu-leung
24/04/04	1	Mai Po Marshes	Tam Yiu-leung
4/05/04	2	Mai Po Marshes	Yu Yat-Tung
7/05/04	1	Mai Po Marshes	Yu Yat-Tung
8/05/04	1	Mai Po Marshes	Mike Chalmers
10/05/04	14	Mai Po Marshes	Yu Yat-Tung
16/05/04	3	Mai Po Marshes	Yu Yat-Tung
19/05/04	7	Mai Po Marshes	Mike Leven
22/05/04	2	Mai Po Marshes	John Holme
23/05/04	5	Mai Po Marshes	John Holme
8/06/04	1	Mai Po Marshes	Yu Yat-Tung

INDONESIA

Date seen	No	Location seen	Observer
1/04/04	1	East Java	Iwan Londo
2/05/04	1	East Java	Iwan Londo & Y Peksa
2/05/04	1	Wonorejo Wetlands, Surabaya	Iwan Londo & Y Peksa

NEW ZEALAND

Date seen	No	Location seen	Observer
6/10/03	1	Lake Grassmere Blenheim, South Island	Steve Wood
19/10/03	1	Lake Wainono, South Island	Alan Collins

Sightings within Australia

New South Wales

Date seen		Location seen	Observer
22/09/03	1	Wallagoot Lake, Bournda National Park	Derek & Glenys Lambert
10/10/03	1	Rainbow Beach, near SW Rocks	Laurie McEnally
12/12/03	1	Lake Cathie	Dave Whitfield
22/12/03	1	Hunter River, near Newcastle	Phil Straw
28/12/03	1	Hunter Estuary, near Newcastle	Ann Lindsey
4/01/04	1	Shoalhaven Heads	Ken Gilmore
15/01/04	1	Shoalhaven Rivermouth, Shoalhaven Heads	Phil Craven

Northern Territory

Date seen	No	Location seen	Observer
1/09/02	1	Darwin	Bas Hensen
21/09/03	1	Alice Springs Sewage Ponds	Phil Gregory

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Queensland

Date seen	No	Location seen	Observer
31/08/03	1	Fishermans Island, Moreton Bay	Linda Cross
28/09/03	1	Fishermans Island, Moreton Bay	Linda Cross & Andrew Geering
28/09/03	1	Fishermans Island, Moreton Bay	David Edwards & Joyce Harding
22/11/03	2	Caboolture River	Ivan Fien
23/11/03	1	Fishermans Island, Moreton Bay	Linda Cross & Ralf Regeer
10/01/04	1	Fishermans Island, Moreton Bay	David Edwards et al
11/01/04	1	Deception Bay Bermuda Avenue	Phil & Linda Cross
6/03/04	1	Deception Bay Bermuda Avenue	Linda Cross
7/03/04	1	Fishermans Island, Moreton Bay	David Edwards
15/05/04	1	Fishermans Island, Moreton Bay	S. Harding, D. Milton, B & J Morgan, A & S Keates
16/05/04	1	Manly Harbour	S. Harding, D. Milton, B & J Morgan, A & S Keates
6/06/04	1	Fishermans Island, Moreton Bay	Linda & Phil Cross et al

South Australia

Date seen	No	Location seen	Observer
20/02/03	1	Nene Valley	Maureen Christie
30/06/03	2	Lake Eliza, southeast of Robe	Maureen Christie
2/11/03	1	Gantheume Bay, south coast of Kangaroo Island	Bev Abbott
2/11/03	1	Douglas Point Conservation Park	Mt. Gambier Area Friends of the Parks
16/12/03	1	Coorong National Park	Margaret & David Dadd
17/02/04	1	Goolwa Barrage. Murray Mouth, Coorong	Dean Cutten
31/03/04	3	Lake Alexandrina	Ken Gosbell
18/04/04	2	Tolderol Game Reserve	Dean Cutten
24/04/04	3	Blackfellows Caves, Carpenters Rock	Maureen Christie
24/04/04	1	Cape Banks Lighthouse, Carpenters Rocks	Maureen Christie
26/04/04	1	Cape Banks Lighthouse, Carpenters Rocks	Maureen Christie & Lorraine Moore
29/04/04	1	Bucks Bay, Carpenter Rocks	Maureen Christie

Tasmania

1 aoinaina			
Date seen	No	Location seen	Observer
7/11/03	1	Cape Portland	Ralph Cooper
25/11/03	3	Sorell, near Hobart	Chris Loyd
27/12/03	1	Perkins Island	Peter & Hazel Britton
14/01/04	1	Marion Bay	Tenille Plummer
24/01/04	1	Kangaroo Island	Richard & Erica Ashby
26/01/04	1	South Arm Peninsula	Denis Charlesworth
8/02/04	1	Pipe Clay Lagoon, Hobart	Priscilla Park
8/02/04	1	Orielton Lagoon	Elizabeth Jones
16/04/04	1	Marion Bay	Andrew Meyles

Victoria

* A Marie Sidologies (4 1975)	30.2 . 3.	Location seen	Observer
21/11/03	1	Tern Island, Gippsland Lakes	Faye Bedford
16/03/04	1	Glenelg River	Maureen Christie
17/05/04	1	Tatura Sewage Lagoons, near Shepparton	Don Roberts

Western Australia

Date seen	No	Location seen	Observer
11/04/02	1		
29/12/02	1	Alfred Cove, Swan River, Perth	Tony Webster
28/08/03	1	Roebuck Bay, Broome	Inka Veltheim
28/09/03	1	Eyre Bird Observatory	Bea Myers & lan Tarbin
7/10/03	1	Barrow Island (east side)	Dr. Mike Craig
11/01/04	1	Lake McLarty, near Pinjarra, SE of Perth	John Dartnell
8/03/04	1	Alfred Cove, Swan River, Perth	Colin Davis
21/04/04	2	Eyre Bird Observatory	Frank O' Connor
21/04/04	1	Eyre Bird Observatory	Frank O' Connor
15/05/04	1	Eyre Bird Observatory	Karina & Ken Harris
28/05/04	1	Lake Preston, Myal National Park	Tony France

Another excellent list of sightings, from a wide variety of locations both overseas and within Australia.

It is noticeable that most of the sightings in Asia are in May whereas in most other species the majority on northward migration occur in April. The Red-necked Stint is the last species to set off on northward migration from Australia with some individuals not departing from Victoria until the very end of April.

There were more sightings in China than in any previous year. The ones in Hebei province, northwest Yellow Sea, mainly derive from bird watchers around the world who now visit that area each year because of its reputation as an excellent place to see a wide variety of wading birds on northward migration. It's also interesting to speculate whether the single bird seen at Macao in three successive years was the same individual.

The extensive northward passage of flagged birds in Taiwan and Hong Kong continued into early June this year at both locations.

The sightings in Indonesia are most welcome. There are very few previous records of flagged or banded birds there, especially on northward migration.

Each year seems to produce some flag sightings in New Zealand even though only a few hundred Red-necked Stint spend the non-breeding season there.

Extensive lists of sightings in different parts of Australia mainly relate to birds on migration to/from Victoria via a variety of stopover locations elsewhere in Australia. However, sightings in the November to mid March periods almost certainly indicate Red-necked Stint which have moved their non breeding area away from Victoria. A few also reflect the wanderings of immature birds during their first austral winter (May to mid August records).

Sharp-tailed Sandpiper

Overseas sightings

TAIWAN

Date seen	No	Location seen	Observer
15/04/04	1	Chi-Feng, Pingtung County	Chung-Ying Chen
7/05/04	1	Fubou, Chang Hwa County	Wen-Yin Hu
9/05/04	1	Wu-Ku, Taipei County	Hsiu-li Lin

Sightings within Australia

New South Wales

Date seen	No	Location seen	Observer
21/09/03	1	Hunter Estuary, near Newcastle	Edwin Vella
22/09/03	1	Bushells Lagoon	Keith Brandwood

Queensland

Date seen	No	Location seen	Observer
6/04/03	1	Fishermans Island, Moreton Bay	Linda Cross et al
3/04/04	1	Kedron Brook Wetlands	Dez Wells

Victoria

Date No	Location seen	Observer
28/01/04 1	Hird Swamp, near Terrick Terrick	A. Boyle, M.Tarburton, C. Colebourne

Western Australia

Date seen	No	Location seen Observer
8/02/04	1	Lake McLarty, near Pinjarra, SE of Perth John Hansen & Allan Collins

The increased number of sightings in 2004, from a normally low level, are probably a result of several hundred Sharp-tailed Sandpiper being caught at Werribee Sewage Farm in late December 2003.

The sightings in Queensland in early April probably reflect the tendency of this species to move from Victoria in very early March to carry out their main pre-migratory fattening in the wetter regions of northern Australia.

Curlew Sandpiper

Overseas sightings

CHINA

Date seen	No	Location seen	Observer
1/05/04	1	Xuwei Saltworks near Lian Yun Gang	Mark Barter

TAIWAN

Date seen	No	Location seen	Observer
1/08/03	1	Szu-Tsao, Tainan City	Cheng-feng Lee
3/09/03	2	Chi-ku lagoon, Tainan County	Mr. Fu, Yung-Tsang
20/04/04	1	Changhua County	Chung-Yu Chiang, the Team of Video Broadcast Co. Ltd. & the TWSG
20/04/04	1	Changhua County	Chung-Yu Chiang, the Team of Video Broadcast Co. Ltd. & the TWSG
3/05/04	1	Han-Pao, Changhua County	Taiwan Wader Study Group
4/05/04	1	Szu-Tsao, Tainan City	Cheer
29/04/04	1	Szu-Tsao, Tainan City	Pete Collins & TWSG

HONG KONG

Date	No	Location seen	Observer
seen			
1/04/03	2	Mai Po Marshes	Richard Lewthwaite
2/04/03	1	Mai Po Marshes	Richard Lewthwaite
11/04/03	2	Mai Po Marshes	Richard Lewthwaite
17/04/03	1	Mai Po Marshes	Geoff Carey
20/04/03	2	Mai Po Marshes	Ying Hak King
20/04/03	1	Mai Po Marshes	Apachae Lau
23/04/03	1	Mai Po Marshes	Geoff Carey
23/04/03	3	Mai Po Marshes	Yu Yat-Tung
29/04/03	1	Mai Po Marshes	Richard Lewthwaite
3/05/03	3	Mai Po Marshes	John Allcock
4/05/03	1	Mai Po Marshes	Apachae Lau
27/07/03	1	Mai Po Marshes	Yu Yat-Tung
22/04/04	2	Mai Po Marshes	Yu Yat-Tung
23/04/04	4	Mai Po Marshes	Tam Yiu-leung
24/04/04	3	Mai Po Marshes	Tam Yiu-leung

Sightings within Australia

New South Wales

Date seen	No	Location seen	Observer
21/09/03	1	Hunter Estuary, near Newcastle	Edwin Vella
24/09/03	1	Hunter Estuary, near Newcastle	Ann Lindsey

Queensland

Date seen	No		Observer
27/09/03	1	Manly Boat Harbour, Moreton Bay	S. Harding, D. Milton, B. & J. Morgan
25/10/03	1	Deception Bay mangroves	Phil & Linda Cross
23/11/03	1	Fishermans Island, Moreton Bay	Sandra Harding & Phil Cross
13/12/03	1	Pine River, North Side	David Edwards
10/01/04	1	Fishermans Island, Moreton Bay	David Edwards et al

South Australia

Date seen	No	Location seen	Observer
7/11/03	1	Stony Point, Port MacDonnell	Maureen Christie & Lorraine Moore
2/02/04	2	Murray River Mouth	Terry Dennis

Tasmania

seen	433		
Date	No	Location seen	Observer

Western Australia

Date seen	No	Location seen	Observer
4/08/03	1	Roebuck Bay, Broome	Inka Veltheim
6/08/03	1	Roebuck Bay, Broome	Adrian Boyle
4/09/03	2	Roebuck Bay, Broome	Adrian Boyle
9/09/03	2	Roebuck Bay, Broome	Adrian Boyle
15/09/03	1	Roebuck Bay, Broome	Adrian Boyle
24/09/03	1	Roebuck Bay, Broome	Megan Underwood & Inka Veltheim
6/11/03	1	Roebuck Bay, Broome	Adrian Boyle, Inka Veltheim, Megan Underwood
9/12/03	2	Wader Beach, Roebuck Bay, Broome	Adrian Boyle
15/12/03	1	Roebuck Bay, Broome	Adrian Boyle & Chris Hassell
30/12/03	1	Pelican Point, Gascoyne River, Carnarvon	Les George
5/02/04	1	80 Mile Beach Anna Plains	Andrea Spencer, Shih Han, Chris Hassell
6/03/04	1	Roebuck Bay, Broome	Adrian Boyle

A nice series of flag sightings, but nothing like so extensive as for the Red-necked Stint. This reflects the current relatively low population of Curlew Sandpiper in Australia and therefore the reduced number caught and flagged in recent years.

As usual the main locations for overseas sightings were Hong Kong and Taiwan.

Most of the sightings in other places around Australia appear to be of birds which have changed their non-breeding areas from Victoria. The two August sightings at Broome, however, were birds in non breeding plumage, clearly immatures which had moved north within Australia for their first winter.

Grey Plover

Overseas sightings

CHINA

Date seen	No	Location seen	Observer
24/04/04	-,(1)	Yalu Jiang National Nature Reserve	Gillian Vaughan, David Lawrie & Tony Habraken

This is the first flag sighting in China of a Grey Plover from Australia. Previous flag sightings have been in Japan and Korea.

Double-banded Plover

Overseas sightings

NEW ZEALAND

Date seen	No	Location seen	Observer
1/01/04	1	Lake Ellesmere, South Island	Tony Crocker

Another example of the well established movement of Double-banded Plovers between wintering grounds in southeast Australia and the breeding grounds of South Island, New Zealand.

Greater Sand Plover

Sightings within Australia

New South Wales

Date seen	No	Location seen Observer
15/02/04	1	North Creek, Richmond Estuary, Ballina Bo Totterman

This species is comparatively uncommon in Victoria and only 16 have been flagged. This bird appears to have changed its non-breeding area.

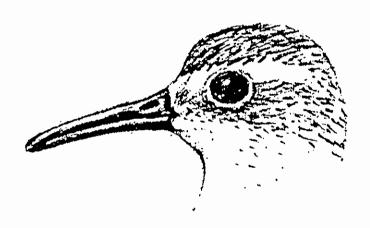
Lesser Sand Plover

Sightings within Australia

Queensland

seen 28/09/03		Fishermans Island, Moreton Bay	Linda Cross & Andrew Geering
Date	No	Location seen	Observer

Less than one hundred of this species normally spend the non-breeding season in Victoria and comparatively few have been flagged (55). This bird was probably on its way back to Victoria.



Sightings of Waders Leg flagged in South Australia Report No. 4

Clive Minton, Roz Jessop, Peter Collins, Maureen Christie, Iain Stewart and Inka Veltheim

Leg flagging of waders has continued in the south eastern coastal region of South Australia during 2003 and new sightings of these orange/yellow leg flagged birds are detailed below. The main banding targets in this area are Sanderling and Ruddy Turnstone, but a significant by-catch of other species, especially Red-necked Stint, also occurs. A list of the numbers of each species flagged is given elsewhere in this Bulletin.

Ruddy Turnstone

Overseas sightings

NEW ZEALAND

Date seen	No	Location seen	Observer
1/11/03	1	Kaitorete Spit, Lake Ellesmere, South Island	Colin Hill
11/12/03	1	Miranda, Firth of Thames, South Auckland	Phil Battley

TAIWAN

Date seen	No	Location seen	Observer
6/05/04	1	Han-Pao, Changhua County	Taiwan Wader Study Group

Sightings within Australia

Western Australia

Date seen	No		Observer
22/09/03	1	Broome Sewage Works	Adrian Boyle
26/09/03	1	Roebuck Bay, Broome	Megan Underwood

Northern Territory

Date seen	No	Location seen	Observer
26/09/03	1	Darwin	Bas Hensen
26/10/03	1	Nightcliff Rocks, Darwin	Arthur & Sheryl Keates

It is interesting that there have been several previous sightings of flagged Ruddy Turnstone in New Zealand and this year produced two more. However the one at Lake Ellesmere is thought to be the first in the South Island. Taiwan is the most regular location in Asia where flagged Ruddy Turnstone are seen on migration.

The sightings in Broome and Darwin are probably birds on southward migration back to South Australia.

Sanderling

Overseas sightings

RUSSIA

Date seen	No	Location seen	Observer
22/07/03	1	Astokh Bay, NE Sakhalin	Andrej Blokhin

Sightings within Australia

Northern Territory

seen 1/09/02			Bas Hensen
Date	No	Location seen	Observer

South Australia

Date seen	No	Location seen	Observer
4/01/04	1	Yanerbie, Sceale Bay, Eyre Peninsula	Julian Reid
13/01/04	2	Murray River Mouth, Coorong	Margaret & David Dadd

Victoria

Date seen	No	Location seen	Observer	
30/11/02	3	Glenelg River	lan Faithfull	
26/07/03	1	Between Warrnambool & Port Fairy	Ray Schulz	
17/01/04	1	Queenscliff	VWSG Members	
31/01/04	7	Port Fairy	Adrian Boyle & Rob Berry	
7/03/04	1	Sandy Point, near Wilson's Promontory	Birgita Hansen	
10/03/04	1	Between Torquay & Barwon Heads	Peter Fuller	
20/03/04	1	Sandy Point, near Wilson's Promontory	Inka Veltheim & Birgita Hansen	

Western Australia

Date seen	No	Location seen	Observer
16/09/03	1	Coconut Wells near Broome	Adrian Boyle
22/09/03	1	Broome Port	Megan Underwood & Inka Veltheim
2/10/03	1	Eyre Bird Observatory	Bea Myers & Ian Tarbin

It is nice to get another Sanderling report from eastern Siberia.

Sightings listed from various places in Australia relate either to birds on southward migration through Broome and Darwin or to birds which have changed their non-breeding area to other locations in South Australia or to Victoria. The Sanderling is much less faithful to a particular non-breeding location than most other migratory waders and birds move regularly between different parts of the coast of southeast Australia.

Red-necked Stint

Overseas sightings

HONG KONG

Date seen	No	Location seen	Observer
19/05/04	1	Mai Po Marshes	Mike Leven
22/05/04	1	Mai Po Marshes	John Holme
9/06/04	1	Mai Po Marshes	Yu Yat-Tung

INDONESIA

Date seen	No	Location seen	Observer
2/05/04	1	Wonorejo Wetlands, Surabaya	Iwan Londo & Y Peksa

Sightings within Australia

South Australia

Date seen		No	Location seen	Observer
23/01/0)4	1	Murray River Mouth, Coorong	Dean Cutten

Tasmania

Date seen	No	Location seen	Observer
27/09/03	1	Cape Portland	Ralph Cooper

Victoria

Date seen	**************************************	Location seen	Observer
4/09/03		Cheetham Saltworks, Laverton	Bernie McCarrick
23/10/03	1	Werribee Sewage Farm	Lauren Beasley
22/11/03	1	Reef Island, Western Port	Peter Dann, Moragh Mackay, Pete Collins
25/11/03	1	Sandy Point, near Wilson's Promontory	Pete Collins et al.
22/01/04	1	Borrow Pit Lagoon, WTP, Werribee	Digger Jackson & Lauren Beasley
2/03/04	2	Killarney Beach	Barbara Garrett
2/04/04	1	West Head, Flinders	Pete Collins

Western Australia

Date seen	No	Location seen	Observer
21/03/04	1	Lake Yangebup, Perth	Clive & Wendy Napier
12/04/04	2	Eyre Bird Observatory	Frank O' Connor

Flag sightings in Indonesia are not common and therefore it was particularly pleasing to have one reported there on northward migration in early May. The movement through Hong Kong is mainly in May and even early June, as with Red-necked Stint from Victoria.

Most of the sightings reported in Australia seem to relate to birds which have changed their non-breeding area. Most interchange takes place with Red-necked Stint to/from Victoria.

Curlew Sandpiper

Overseas sightings

HONG KONG

Date seen	No	Location seen	Observer
2/04/03		Mai Po Marshes	Richard Lewthwaite
17/04/03	1	Mai Po Marshes	Yu Yat-Tung
3/05/03	1	Mai Po Marshes	John Allcock
8/05/03	1	Mai Po Marshes	Yu Yat-Tung
22/04/04	1	Mai Po Marshes	Yu Yat-Tung
23/04/04	1	Mai Po Marshes	Tam Yiu-leung
24/04/04	2	Mai Po Marshes	Tam Yiu-leung

Sightings within Australia

Victoria

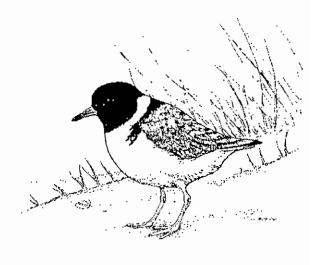
Date seen	No	Location seen	Observer
18/03/04	1	Little River Mouth, Werribee SF	Digger Jackson

Western Australia

Date seen		Location seen	Observer
14/08/03	1	Roebuck Bay, Broome	Megan Underwood
6/03/04	1	Roebuck Bay, Broome	Adrian Boyle

Hong Kong is a favourite stopover area of Curlew Sandpiper from south eastern Australia. Not many continue up the Chinese coast to the Yellow Sea area. All eight overseas sightings of South Australian-flagged Curlew Sandpiper in the last two years were in Hong Kong.

The bird seen at Broome on the 14th of August was in non-breeding plumage and was almost certainly an immature which had moved to northwest Australia for its first austral winter. The bird in Broome on the 6th of March could have been an early northward migrant as some individuals leave southern Australia from the very beginning of March each year.



Tern Recovery Report 2003/04

Clive Minton, Roz Jessop and Peter Collins

The tables below detail the recoveries during the past year of terns banded by the VWSG. Caspian and Crested Terns were banded as chicks at Victorian breeding colonies. Little Terns are mostly banded as adults, cannon netted in the Gippsland Lakes. No Common Terns were recovered this year (or last) – probably because fewer have been cannon netted at the Gippsland Lakes than in earlier years. Flag sightings of terns are given in a separate table.

Caspian Tern

Band	Age	Date	Location Banded	Date	Location	Km
		Banded		Recovered		Moved
09106194	Chick	24/12/88	Off Manns Beach,	21/12/03	Barry Beach	39 W
			Corner Inlet	(recaptured)		

This bird was 15 years old when recaptured. It was paired to an unbanded bird and may well have been part of the breeding population on Clonmel Island in late 2003.

Crested Tern

Recoveries of terns banded as chicks at Mud Islands, Port Phillip Bay

Band	Date	Method o	f	Date	Location	Km Moved		
	Banded	Recovery	/	Recovered	i			
07204133	16/12/89	Found dead	at	27/11/02	The Nobbies, Phillip	41 SE		
		nest			Island			
07318434	11/12/02	Found dea	ıd	23/02/03	Mud Islands	Local		
07292232	17/11/99	Found dea	id	09/03/03	Cowes, Phillip Island	49 ESE		
07272506	21/12/96	Found injur	ed	16/07/03	Portland	275 W		
07204067	16/12/89	Found dea	ıd	27/09/03	Malua Bay NSW	559 ENE		
07246696	18/12/94	Found dea	Found dead		Phillip Island	47 SE		
07205410	15/12/90	Found injur	ed	10/12/03	Werribee SF	34 NW		
07318499	11/12/02	Found injur	ed	28/12/03	Phillip Island	59 NE		
07318992	17/12/02	Found injur	ed	21/01/04	Phillip Island	59 NE		
07285255	03/12/98	Found injur	ed	26/02/04	Phillip Island	59 NE		
07330286	23/12/03	Found injur	ed	03/03/04	Phillip Island	59 NE		
		_						
		Sightir	ng of	colour band	ed birds			
Band	Date	Date	Lo	ocation	Kilometres moved	Observer		
colour	banded	sighted						
Orange	17/12/95	14/08/03	Ар	ollo Bay	106 SW	Jeff		
(2 birds)			·			Campbell		

Only one recovery reported from the non-breeding areas in northern NSW this year. The westward movement to Portland is unusual. There is an amazing dearth of sightings of coloured metal banded birds this year.

Recoveries of terns banded as chicks at The Nobbies, Phillip Island

Band	Date	Method of	Date	Location	Km
	Banded	Recovery	Recovered		Moved
07298256	30/12/99	Killed by	05/10/03	The Nobbies	Local
		Peregrine			
07327385	18/12/03	Found dead	08/01/04	Woolamai	20 E
07326386	02/12/03	Killed by	20/01/04	Point Grant	Local
		raptor			
07327329	18/12/03	Found injured	23/01/04	Cleeland Bight	19 E
07327506	18/12/03	Found injured	06/02/04	Cleeland Bight	19 E
07323538	23/12/02	Found injured	08/03/04	Cleeland Bight	19 E
07327073	18/12/03	Found dead	26/02/04	The Nobbies	Local
07327612	18/12/03	Found dead	26/02/04	The Nobbies	Local
07298629	19/12/00	Found injured	26/02/04	Cleeland Bight	19 E
07298759	19/12/00	Found injured	26/02/04	Cleeland Bight	19 E

The high mortality of birds in their first year is well illustrated in the above recoveries. The birds 'found injured' at Cleeland Bight all had broken wings and were thought to have flown into overhead cables. A surprising absence of long distance recoveries considering the number of tern chicks banded at The Nobbies in recent years.

Recoveries of terns banded as chicks off Manns Beach, Corner Inlet

Band	Date	Method of	Date	Location	Km Moved
	Banded	Recovery	Recovered		
07217756	21/12/02	Found	11/10/03	North Stradbroke Island,	1395 NNE
		injured		Moreton Bay, Queensland	

Comparatively few Crested Terns from Victoria ever reach Queensland. The fact that it was still there in its first October suggests it was not going to return to Victoria until a later year.

Little Tern

Australian Recoveries

Band	Age	Date Location Banded		Date	Location	Km
		Banded		Seen		Moved
04161492	2+	25/01/92	Spermwhale head,	10/11/03	Salty Lagoon,	1130 N
			Lakes NP		Ballina, NSW	

This is the oldest Little Tern so far recorded from VWSG banding. When seen (recognised by colour flags) it would have been a minimum of 14 years old.

Sightings of Leg Flagged Terns from Victoria – 2003/04 Clive Minton, Roz Jessop, Peter Collins and Inka Veltheim

Orange leg flags are placed on all Caspian Tern chicks banded in Victoria, on all Common Terns cannon netted in the Gippsland Lakes, and, on Little Terns (also cannon netted at the Gippsland Lakes) which are thought by moult/plumage to be from the northern hemisphere breeding population. Listed below are sightings of these birds that have been reported during the last year.

Caspian Tern

Flag sightings

Caspian Terns banded at Mud Islands

Date seen	No	Location seen	THE LONG OF STATE OF	Distance moved
13/08/03	1	Boorac, Hervey Bay, QLD	Bob & June Gleeson	1625 NE
13/03/04	1	Toorbul, near Bribie Island, QLD	Linda & Phil Cross	1472 NE

Caspian Terns banded at Clonmel Island

Date seen	No	Location seen	Observer	Distance moved
5/07/03	1	Mathieson Homestead, Hervey Bay, QLD	John Knight	1587 NE
18/07/03	1	Booral, 12km from Hervey Bay, QLD	Bob & June Gleeson	1627 NE
3/09/03	1	Mathieson Homestead, Hervey Bay, QLD	John Knight	1587 NE
14/09/03	1	Toorbul, near Bribie Island, QLD	Phil & Linda Cross & Dez Wells	1420 NE
27/09/03	1	Manly Boat Harbour, Moreton Bay, QLD	Sandra Harding et al.	1381 NE
15/10/03	1	Comerong Island, Shoalhaven, NSW	Philip Brook	550 NE
2/11/03	1	Buckleys Hole, Bribie Island, QLD	Esther Townsend	1418 NE
22/11/03	1	Manly Boat Harbour, Moreton Bay, QLD	David Milton & Sandra Harding & others	1381 NE
17/12/03	1	Albifrons Island, VIC	Faye Bedford	116 NE
17/01/04	1	Buckleys Hole, Bribie Island, QLD	Laurel Allsop, Marion Williams & Frank Bigg	1418 NE
26/01/04	1	Buckleys Hole, Bribie Island, QLD	Esther Townsend	1418 NE
6/06/04	1	Fishermans Island, Moreton Bay, QLD	Linda & Phil Cross & Dawn Beck	1391 NE

The pattern of sightings follows that of previous years and illustrates that most Victorian breeding Caspian Terns travel up to southeast Queensland for the winter. Sightings up there in the October to January period almost certainly refer to immature birds which have remained in these non-breeding areas. Adult Caspian Terns are normally back at their breeding colonies by October and remain in their vicinity until the following February.

Common Tern

Flag sightings

Date seen	No	Location seen	Observer	Distance moved
15/10/03	1	South Beach, Ballina, NSW	Bo Totterman	1149 NNE
16/10/03	3	Nambucca River Estuary, NSW	David Secomb	463 NNE
17/10/03	1	South Beach, Ballina, NSW	Bo Totterman	1149 NNE
Date seen	No	Location seen	Observer	Distance moved
17/10/03	1	Bombing Range Beach, NSW	Bo Totterman	1114 NNE
5/11/03	1	Bombing Range Beach, NSW	Bo Totterman	1114 NNE
8/11/03	1	Penrhyn Inlet in Botany Bay, NSW	Mark Husk	545 NNE
9/11/03	1	Penrhyn Inlet in Botany Bay, NSW	Darryl McKay	545 NNE
30/11/03	3	Nambucca River Estuary, NSW	David Secomb	463 NNE
20/12/03	1	Karagi Point, The Entrance, NSW	Darryl McKay	620 NNE
19/03/04	1	Flat Rock between Lennox Head & Ballina, NSW	Bo Totterman	1153 NNE

Many fewer Common Terns have been caught and flagged in the last four years and this is reflected in the reduced list of flag sightings compared with lists in previous VWSG bulletins. The cessation of intensive tern studies at Caloundra in southeast Queensland has also affected flag sightings.

Most sightings relate to birds on migration through the northern coast of NSW, presumably on their way to/from Victoria. However, one bird seen in NSW on the 20th of December may have changed its non-breeding area.

Little Tern

Flag sightings

Date seen	No	Location seen	Observer	Distance moved
16/10/03	1	Lennox Head, Ballina, NSW	Bo Totterman	1153 NE
6/03/04	1	Tweed River Entrance, QLD	Marion Williams	1221 NE

Both these records probably relate to northern hemisphere Little Terns on their way to/from Victoria.

Tern Breeding and Banding Report 2003/04

Clive Minton, Rosalind Jessop and Peter Collins

The 2003/04 breeding season for terns in Victoria was a poor/disastrous one except for the Crested Terns at The Nobbies and at Mud Islands. There were complete breeding failures for Caspian Terns and Crested Terns in Corner Inlet and for Fairy Terns in Corner Inlet and at Rams Island. Furthermore many of the breeding Fairy Terns at Rams Island were killed by a predator.

The breeding populations, breeding outcomes and number of chicks banded for each species at each location in the 2003/04 summer are detailed below. Additional information is also given on the more intensive studies again carried out at Crested Tern breeding colonies.

Caspian Tern

Location	Breeding pairs	Chicks banded
Mud Islands	18	7
Corner Inlet	72	0
Totals	90	7

The Mud Islands colony produced some young, as usual, and it is estimated that up to ten may have fledged (still some eggs and small young at last visit).

However at the colony in Corner Inlet, which was situated as usual near the western end of Clonmel Island, a total breeding failure occurred due to causes which are not clear. When the first visit was made on the 20th of December an estimated 72 pairs were breeding (within the normal range of 55-90 pairs). Fifty one pairs had eggs, another nine had newly hatched chicks, and there were 12 new scrapes in which eggs had not yet been laid. On the return visit, on the 5th of January, neither adult nor young Caspian Terns were present at the colony and the remains of eggs and dead chicks, partially covered by windblown sand, were all that remained. No adult Caspian Terns were present anywhere else in the Nooramunga National Park section of Corner Inlet.

The cause of this breeding failure is puzzling. The symptoms were exactly the same as found in the adjacent Crested Tern colony during the first visit on the 20th of December. On neither occasion had there been a storm tide which had flooded the colony. Most of the eggs were laid on a low dune and whilst they are always susceptible to be buried in windblown sand their particular positioning made this appear an unlikely problem. In fact many of the Caspian Tern eggs were still visible, ie. were not covered in sand. There were also few signs of predation with some of the abandoned eggs still being intact.

The only explanation we can think of which fits some of the facts is that there had been a massive local shortage of suitable food for the terns. This would account for the adult birds not even remaining in the area and not even making further nesting attempts. Caspian Terns will regularly re-lay, sometimes two or three times in a season if they lose clutches. Whatever the explanation the result was the first complete breeding failure of Victoria's major Caspian Tern colony for many, many years.

Crested Tern

Location	Breeding pairs	Chicks banded	Banded adults retrapped at nest	Sightings of colour banded adults*
Mud Islands	1300	1116	104	249 (1104)
The Nobbies	3000	2696	331	280 (1782)
Corner Inlet	110+	0	0	0
Totals	4410	3812	435	529 (2886)

^{*}Figure in brackets is number of birds scanned.

This season was much later in its timing than other recent breeding seasons, with few eggs being laid until after mid-November and many not until the first half of December. The overall outcome of the 2003/04 breeding season for Crested Terns was satisfactory, but this was only because of the success of the ever growing Nobbies colony and the long established colony at Mud Islands. The Corner Inlet colony had already been abandoned when the first visit was made on the 20th of December. The circumstances and a possible explanation are identical to those detailed under Caspian Tern (above), with all adult Crested Terns appearing to have left the Nooramunga area completely by the 20th of December and no further nesting attempts being made. One hundred and ten largely undamaged eggs were still visible on the 20th of December and therefore at least this number of pairs had laid before the disaster struck.

In spite of little contribution from Corner Inlet the number of breeding pairs in the three colonies monitored each year was close to the record high established in 2002/03. The total number of chicks banded (3812) was in fact the highest ever.

It was a most successful season for catching banded adults at the nest, with a massive 331 being caught at The Nobbies colony. Also, extensive scanning of breeding adults in The Nobbies and Mud Islands colonies revealed 529 (in 2886 birds examined) sightings of birds carrying coloured metal bands which indicate the age of each bird. It will probably need another two or three seasons of catching and scanning banded adult breeding Crested Terns before we can complete the study into the age at which they first breed. But so far the indications are that most birds start breeding at the age of three or four. Young birds also breed later in the season (two to three weeks) than the oldest birds. Retrapping of birds at the nest indicated (falsely) that breeding did not begin until birds were five or six years old. The cause of the difference between ages of recaptured birds and those colour marked and sighted is associated with the younger birds being much less defensive of their nests and more difficult to trap in hand nets.

For the record the colour of the metal bands used on chicks at the Mud Islands colony over the eight years when this was carried out is detailed below. The intention was to colour mark exactly a thousand chicks each year. However, 1997 was a very poor breeding year, due to the failure of local food supplies, and in the 1998 and 2002 seasons the last visit was made before all the eggs had hatched. So in these three years there was a shortfall from the target.

Colour	Breeding season	Date of banding	Number colour marked
Orange	1995	17/12/1995	1021
Blue	1996	21/12/1996	1000
Yellow	1997	21/12/1997	697
Dark Green	1998	3/12/98 & 20/12/98	938
White	1999	17/11/99 & 6/12/99	1000
Red	2000	6/12/00 & 16/12/00	1000
Black	2001	30/11/01 & 13/12/01	1000
Gold	2002	11/12/02 & 17/12/02	970

Little Tern

A pair of Little Tern nested at Sand Island, Queenscliff, where birds were seen incubating on the 21st of December (per John Newman). The outcome of this nesting attempt is not known. A single pair has nested in several recent years at Sand Island but none was recorded in 2002/03.

The main breeding area for Little Terns in Victoria has always been from the Gippsland Lakes eastwards. The Little Tern Taskforce (organised by the Department of Sustainability and Environment, Bairnsdale) monitors and protects the Little (and Fairy) Tern colonies each year. This year they also banded 46 Little Tern chicks (with VWSG bands).

A handful of Little Terns are also reported to breed most years in western Victoria at the mouth of the Glenelg River. They generally however have poor breeding success.

Fairy Tern

In what has been a dramatic year for Nooramunga National Park, Corner Inlet, Fairy Terns formed their largest ever colony there, on the north east end of Box Bank. Thirty pairs were present there, preparing to nest, on the 20th of December. There were at least 75 pairs estimated to be present on the 5th of January when there were 64 nests with eggs and another seven with newly hatched chicks. However, when the colony was revisited on the 19th of January it was found that the whole area had been inundated by a storm tide and all nests/chicks destroyed. This seems to be the fate of breeding Fairy Tern at Corner Inlet almost every year.

Fairy Terns bred, as they do in most years, on Rams Island just off the southeast coast of French Island. Twelve to fourteen nests were apparently observed in late November. However a Friends of French Island visit on the 10th of January found the colony deserted and ten pairs of adult Fairy Tern wings scattered on the beach. A further four pairs of wings were found on a later visit. Some of the Fairy Terns had clearly moved to Tortoise Head and re-nested in January. A visit on the 21st of February found one pair still present, feeding a chick.

The cause of the dead adults at Rams Island is a mystery. There has been a suggestion that it is the result of human interference. But others suggest that cat predation is more likely. Over the years the breeding success of Fairy Terns at Rams Island has been very poor, due to both predation and, more often, storm tides. It does seem that they have slightly better success at Tortoise Head even though it is a more exposed location. It would be good if habitat improvement could be carried out at Rams Island to raise the level of the nesting area (with gravel) above storm tide level and to introduce intensive predator control measures before the 2004/05 breeding season.

Cannon netting at the Gippsland Lakes

No significant concentrations of Common Tern or Little Tern at cannon-net sites were reported in the January-March 2004 period so no banding of adult birds of these species there took place this year.

Photograph of "Baked Bean Lady" in Don Gang City, China (Pete Collins)



South Australian Team Catches 1/12/2000 to 30/04/2004

Maureen Christie

The VWSG have been sending teams to the SE of SA regularly since 1993. In November 2000 another dimension was added to this effort with the formation of a small group of locals who were issued with a half cannon net. Since then the group has banded 432 waders (Table 1). To achieve this there have been 34 outings consisting of 18 successful catches, 11 unsuccessful, and 5 occasions when only chicks were banded.

The aims of this group are set out below, together with a brief comment on progress made towards achieving them.

- 1. Target species are Sanderling and Ruddy Turnstone. Sanderling are often difficult to find, and if found, are often at difficult catch sites. Pethers Rocks in Canunda is too far afield and Danger Point is difficult to catch at even for the most experienced of teams. Ruddy Turnstone are usually to be found in good numbers close enough to home so that regular monitoring of their movements can be undertaken. So we have found it much easier to target Ruddy Turnstone.
- 2. Catch 100 each of the target species in December February to gauge percentage of juveniles in the population. Low high tides of the summer cycle present problems for a small team. This, combined with the difficulty of fielding a team in school holidays, has meant that this target has not been achieved.
- 3. Catch late September and October for arrival weights. There have been no outings during these months. Equinoctial gales and the resultant heavy seas mean that often very little beach is available to catch upon. Continual washing of the sea wrack means it contains very little food.
- 4. Catch in April for departure weights. We have been more successful in achieving this target, with 98 Ruddy Turnstone caught in April and 47 of these towards the end of the month. This year a small catch of 7 on the 27th resulted in the recording of extremely heavy weights (156, 158, 162, 168, 178, 190 & 192 grams). By the 29th only 9 first year birds remained on the beach, all the adults having commenced migration.
- 5. Catch during winter. The VWSG has very little data on over-wintering Sanderling and Ruddy Turnstone. With 5 Sanderling and 52 Ruddy Turnstone processed during winter months the group is helping to fill this gap.

SUMMARY

It is easier for our group to target Ruddy Turnstone than Sanderling. As the group gains in confidence and experience the contribution they make should grow.

Brod

Table 1. Month Waders Caught in each month in South Australia	ers Cau	ght in e	ach mon	th in So	uth Aus	tralia							
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	
Ruddy Turnstone			1	98		7	24	27			-	************	162
Red Knot				1									_
Sanderling		17	2	2				5					26
Red-necked Stint		34	34	18		15	43	40			-	23	208
Curlew Sandpiper						2	7						6
Pied Oystercatcher				1							-	9	8
Sooty Oystercatcher				3									က
Red-capped Plover		4	1					-				-	7
Double-banded Plover			4										4
Black-fronted Dotterel			3										8
Hooded Plover												-	_
TOTALS	0	22	45	123	0	28	74	73	0	0	က	31	432

Conservation Report 2003-2004

Doris Graham

Over the past 12 months we were concerned with international, interstate and local issues.

International

Saemangeum Reclamation Project, South Korea.

This huge project has been in progress for a number of years. It involves the damming of three rivers and the flooding of 40,000ha of tidal mud flats and estuarine shallows, by the construction of a 33km seawall. This will destroy the feeding grounds of 300,000 to 400,000 migratory waders and other waterbirds, which regularly use this area on migration, including the Spoon-billed Sandpiper, Nordman's Greenshank and about one third of the total population of Great Knot in the Flyway.

Despite probably the biggest ever worldwide conservation campaign to try to stop the project, which succeeded for several months after a ruling brought down in a medium-level court in July 2003, it will now go ahead. On January 29th 2004 it was announced that the decision above was successfully challenged by the Ministry of Agriculture in a higher court. The loss of this site will strike a major blow against the Flyway's shorebird and waterbird populations AND SO THE FIGHT CONTINUES.

Lawyers opposed to the reclamation who contested the above case have vowed that they will appeal to an even higher court. The stakes are hugely high and international help is still needed. You will have received notice of and hopefully previously added your voice to the protest above which echoed around the world.

So, herewith another appeal to "all those who love wetlands and the birds and people they support" to continue to protest by

- (i) signing our online petition at < http://www.bwkenglish.com/petition01.asp>,
- (ii) sending letters, faxes and/or emails to the Embassy of the Republic of Korea, Canberra, or by phoning on 02 6270 4100,
- (iii) spreading this news and need among your friends, colleagues and relatives, and encouraging them to help in these ways.
 - *Abridged from The Tattler, April 2004, Charlie and Nial Moores, Kim SuKyung, wbkenglish@aol.com

Only one ray of sunshine appears to have come out of all this so far. The Government has stated that such constructions will not be allowed in the future, so it may be the last of its type in South Korea. Dare we hope that one day the wall may be opened, but where will the waders have gone by then?

Victoria

Ramsar Sites

The Strategic Management Plans drawn up by Parks Victoria and the Department of Sustainability and Environment (DSE) for Victoria's Ramsar sites, after public consultations, including ours, were all released. They provide interesting reading for those concerned with the ongoing protection of these sites, ie. Barmah Forest, Corner Inlet, Gippsland Lakes, Gunbower Forest, Hattah-Kulkyne Lakes, Kerang Wetlands, Lake Albacutya, Port Phillip Bay, Western District Lakes, and Western Port. Copies are available free from the Department of Sustainability and Environment (DSE) Information Shop, 8 Nicholson Street/Corner Victoria Parade, East Melbourne, best to order on 9637 8325, or at www.dse.vic.gov.au > then enter "Strategic Management Plans", search, then go to required Ramsar site.

Marine National Parks, Sanctuaries and Coastal Parks

Parks Victoria is preparing Management Plans for all Victoria's Marine National Parks, Marine Sanctuaries and Coastal Parks. Since our expertise is principally in shorebirds and their habitats and not in Marine Ecology, we feel that we can best serve this programme by detailing our "Expressions of Interest" and requesting that we be kept informed and supplied with these documents when still in the consultative stages.

Perhaps our interest is based on the following: "Healthy shorelines, be they sand, mud, shell or rocks will be best served by healthy seas and ocean floors".

Andersons Inlet

A huge commercial development involving a marina for 150 boats, 900 houses and 18-hole golf course, plus some associated amenities was put forward in early 2003, to be built fronting the Inlet from Maher's Landing to beyond the area where we usually catch Eastern Curlew.

This project was strongly opposed by the Inverloch Residents Association, environmentalists, the South Gippsland Conservation Committee and many others. We were very concerned for the fate of the habitats and feeding grounds of the thousands of Red-necked Stint, and hundreds of Curlew Sandpiper, Sharp-tailed Sandpiper, Eastern Curlew and the other 19 species found on the Inlet with the maximum count in the summer of almost 7,000 in 2002-ref. Whitelaw, J. and Whitelaw, A. VWSG Bulletin, No 2002.

Our submissions were greatly strengthened by data obtained of the species and number of birds using the Inlet since 1980. Over the past 3 years our members, Anthea and Jim Whitelaw and Brian Martin, who operated the boat supplied by Parks Victoria, made bimonthly boat-based counts. The AWSG counts, since 1980, though not continuous, provided good comparisons with these latter counts.

This project may now never occur since the Bass Shire Council has recently finalised The Bass Coast Coastal Strategic Framework. This plan to cover future use of land between coastal townships will preclude the above type of development going ahead along this coast. Thanks to Parks Victoria for supplying the boat and to Dave Sutton, Residents Association for this very recent good news.

Point Lonsdale Golf Course Expansion:

This project was actively opposed by Birds Australia, the Swan Bay Integrated Catchment Management Committee, as well as several other concerned community groups on the Bellarine Peninsula. Our support of the Birds Australia submission was based on the undoubted severe effect the project would have on Lake Victoria. This large shallow lake and its adjoining ephemeral wetlands, enhance the adjacent Ramsar site at Swan Bay in which up to 22,000 waders have been counted. This complex of wetlands, of which Lake Victoria is the most important are used as a feeding and roosting habitat for shorebirds such as the endangered Hooded Plover as well as Pied Oystercatcher and Red-capped Plover and the thousands of migratory waders, Red-necked Stint, Bar-tailed Godwit, Curlew Sandpiper, Grey Plover, and Eastern Curlew and sometimes large flocks of Black-winged and Banded Stilt and waterbirds.

As a result of these submissions Environment Australia required that the project be classified as a "Controlled Action", under the Environment Protection and Biodiversity Conservation Act (1999) (EPBC Act), and the State Government required that an Environment Effects Statement (EES) must be prepared. This document will soon be completed and public comment will be called for again.

Port Phillip Channel Deepening Project.

Either Mark Anderson or I have attended one of each of the sets of public meetings held to date. The EES is now available for public inspection and comment. We will examine this and prepare a submission if thought necessary, by the deadline 16th August.

South Australia

Harvesting seagrass from beaches:

Maureen Christie (VWSG committee member), asked us to prepare a submission to the EES Assessment of the South Australian Beach-cast Seagrass and Marine Algae Fishery. This was to try to prevent commercial licences being granted for the clearing of seagrass/algae from beaches in the vicinity of Port MacDonnell, South Australia. As anyone who has been cannon netting with us to these wonderful beaches will remember seagrass and algae is washed up almost continuously, onto some of these beaches and can be up to 2m thick after big storms.

Within this mass whole ecosystems develop and part of the life cycle of the millions of invertebrates that accrue there is to provide food for birds. Ruddy Turnstone, Double-banded Plover, Pacific Golden Plover, Sanderling and Red-necked Stint, to name those of most interest to us fossick at frenetic rates to capture the protein stored in these creatures. Other species, such as Hooded Plover, Red-capped Plover and Pied Oystercatcher also nest in areas protected by these walls of beach wrack. Birds also shelter from the frequent gale-force winds in and behind the wrack.

We were able to support the view that too little research has been done on the potential damage these actions could inflict on the topography and ecology of the beaches and thus likely impact on the habitat of shorebirds is unknown. In this instance, we supported others to insist that the precautionary principle should be followed until further research has been carried out to assess these dangers. Furthermore if licences were issued they should be granted for harvesting to be carried out outside the shorebird nesting season and the summer months when migratory waders are present. Furthermore, they should be strictly regulated and fully monitored, particularly as Australia is signatory to several International Agreements that protect these birds.

Tasmania

Ralphs Bay

A huge canal development has been proposed at Ralphs Bay near Lauderdale, Hobart. The proposed development will destroy unique resident and migratory shorebird habitat. A coalition has formed to help fight the development and has asked for urgent help – to help look up www.saveralphsbay.org or email info@saveralphsbay.org.

STOP PRESS-exciting news from Wetlands International, Canberra.

The Federal Government, Department of Environment and Heritage has just released an Issues Paper relating to their undertaking to prepare a Wildlife Conservation Plan for Migratory Shorebirds, under the EPBC Act 1999. This is the first wildlife conservation plan they have done and indicates the importance of migratory birds under this Act.

http://www.deh.gov.au/biodiversity/migratory/shorebirdss/issues/index.html

By the end of the year the Plan should be completed. This will give a framework within which cooperation between government, and sea- and wetland- management can be maximised. Under the Plan, programs of research and management actions necessary to support the survival of listed migratory species can be prepared. Data obtained from the AWSG long-term Population Monitoring Scheme have and no doubt will be one of the bases for these plans.

We will be looking at this plan to ensure that our knowledge of these birds will be used to obtain maximum benefits for them in the final plan.

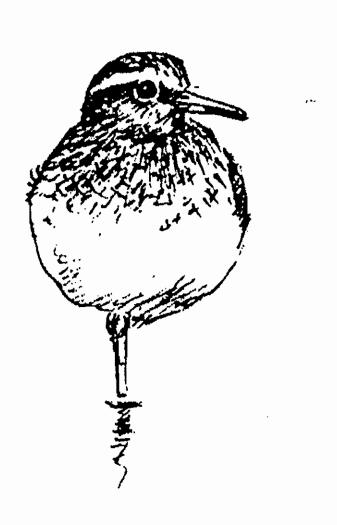
Acknowledgments:

To prepare submissions to evaluate the possible effects of developments on wader habitats is a time consuming job. I have had invaluable assistance from many people such as Mark Anderson, Mark Barter, Pete Collins, Colin Gibbs, Roz Jessop, Sue and Andy Longmore, Brian Martin, Clive Minton, Dave Sutton, Mike Weston and Anthea and Jim Whitelaw, I thank them sincerely for their help and for increasing my knowledge of the diversity and wonders of the ecological systems involved in the wader worlds.

If any of the readers of this article has detailed knowledge of a particular wetland, ocean, bay or estuary and would be willing to assist in the above work to preserve the habitats of our birds I would value your contribution.

Ideally, I would like to create a list of people with interest in particular areas so that I could call on them to share that expertise with me when dealing with issues relating to that area.

Unless our voice is heard new developments or changes in management could be disastrous for our waders whose habitats always seem to suffer when "progress" invades the increasingly few untouched special areas which they require for their lives.



2003 Arctic Breeding Success Based on Juvenile to Adult Ratios in Waders in Australia in the 2003/04 Austral Summer

Clive Minton, Rosalind Jessop, Peter Collins, Humphrey Sitters and Chris Hassell

Surrani

Introduction

Monitoring the annual breeding success of wader populations which spend the non-breeding season in Australia is a key element of the fieldwork programs of the Victorian Wader Study Group in SE Australia (Victoria and south east of South Australia) and the Australasian Wader Studies Group (north west Australia). The percentage of juvenile birds in catches is used as a measure of apparent breeding success.

Data from previous years has been published in Arctic Birds Newsletters 2, 3, 4 and 5 (Minton et al. 2000, 2001, 2002 & 2003). This article gives data on the results obtained in the 2003/04 Austral summer relating to outcomes of the 2003 Arctic breeding season.

Objectives

This data is collected and published annually for three principal reasons:

- a. To put on permanent record the percentage juvenile data collected on a variety of species in the non-breeding season in two different parts of Australia. By publishing this data it will not be lost and will be available to relevant researchers to use both now and in the future.
- b. This percentage juvenile data from birds caught from banding data complements reproductive success data obtained by other methods and published annually.
- c. It is hoped that publication of this data will stimulate other banders elsewhere in the world to plan and undertake their wader banding activities in a manner, which will generate similar data on other wader populations.

Methods

The same data collection methods and criteria were used as in previous years (Minton et al. 2000, 2001, 2002 & 2003). As far as possible conditions are standardised to minimise variations caused by catching factors. Only birds caught by cannon netting were counted, though some additional mist netting information is, for the first time, included here for comparison. Only birds caught in the period when populations are considered to be most stable are counted, ie. after the majority of juveniles have arrived and before adults depart on northward migration. In North West Australia this covers the period 1st of November to the 20th of March and in South East Australia, 15th of November to the 20th March except for Sharp-tailed Sandpiper *Calidris acuminata* and Curlew Sandpiper *C. ferruginea* where the end date is the 28th of February.

There are potential biases in data collected in this way due especially to lack of homogeneity in the flocks of birds caught in the cannon nets. There is considerable data showing that on some species there is significant regional and local variation in the distribution of the different age groups and that even in a single roosting flock there can be a patchy distribution of the age groups. It is hoped that such effects are minimised by trying to collect data from as many different catches and locations as possible throughout the study areas and this is why details of the number of catches for each species are given. Please see earlier publications in the Arctic Newsletter series (Minton *et al.* 2000, 2001, 2002, 2003) for a more detailed discourse on the subject of potential biases.

Results

The detailed results for the 2003/04 season are given in Tables 1 and 2 for south east Australia and North West Australia respectively. Table 3 gives some information on waders mist netted, as opposed to cannon netted, in north west Australia. Tables 4 and 5 summarise the percentage juvenile data in south east Australia and North West Australia for the last six years.

South East Australia

The outstanding feature of the 2003/04 data is the extremely high breeding success of Sharp-tailed Sandpiper with 39% juveniles in 989 birds caught in 10 catches. It was extremely noticeable from early October onwards to any wader watcher in the field that there were unusually large numbers of juvenile birds present.

In contrast Red-necked Stint *C. ruficollis* (23%) and Curlew Sandpiper (15%) had average breeding years in 2003 whereas Ruddy Turnstone *Arenaria interpres* (6.7%) and Sanderling *C. alba* (2.7%) clearly had very poor breeding years. Samples of Bar-tailed Godwit *Limosa lapponica* and Red Knot *C. canutus* were small but both probably also had poor breeding seasons in 2003. The Red Knot figure should not be taken as indicative because of the high level of segregation of juvenile Red Knot into selected areas away from the normal locations of the main flocks of adult non-breeding birds. The fact that only 22 Red Knot were caught is in itself an indication that juvenile numbers were low.

North West Australia

Overall wader populations spending the non-breeding season in north west Australia seemed to have had a poor breeding season. Red-necked Stint (10%) and Curlew Sandpiper (7.4%) had much lower proportions of juveniles than populations of the same species in south east Australia. Red Knot (3.4%) also fared badly in 2003. Ruddy Turnstone fared even less well than in South East Australia with no juveniles present in a sample of 57 birds caught. Only Great Knot *C. tenuirostris* (16%) seemed to have had a good breeding outcome, being the only species where the proportion of young was higher than the six-year average.

As usual breeding outcome data is given for a number of species that breed in non-arctic regions of Siberia. Greater Sand Plover *Charadrius Ieschenaultii* (24%) again produced a high proportion of juveniles, but this is normal and the 2003 figure was actually marginally below the six-year average. On the other hand Terek Sandpiper *Xenus cinereus* seemed to have had a good breeding season (19%) and relatively better than the closely associated (in the non-breeding season) Grey-tailed Tattler *Heteroscelus brevipes* (14%). Oriental Pratincole *Glareola maldivarum* were sampled for the first time and had only a modest 8.3% first year birds, meaning that the huge concentrations (2.88 million) of this species located at 80 Mile Beach were not in any way caused by an exceptionally good breeding season in 2003.

Some mist net catches are included for the first time. Mostly these are of small numbers of birds and of species that are normally not caught by cannon netting. Whilst there is a tendency for mist netting to produce a higher proportion of first year birds in catches than cannon netting it would nevertheless appear from this data that Sharp-tailed Sandpiper and Long-toed Stint *C. subminuta* must have had a good breeding season in 2003.

Discussion

Overall the 2003 breeding season produced more variable percentage juvenile results in south east Australia than usual and overall poorer results than usual in north west Australia.

The outstanding success of 2003 seems to have been the Sharp-tailed Sandpiper. Quite why this species should have done so well when other similar size species breeding in the same general areas of the Arctic should have fared significantly less well is unclear. Clearly

Ruddy Turnstone, Sanderling and Red Knot, which all share similar habitats in parts of the breeding range, had a uniformly bad 2003-breeding outcome. The fact that the north west non-breeding population of Red-necked Stint and Curlew Sandpiper had only half the proportion of juveniles of the non-breeding populations of the same species in south east Australia suggests that there may be differences in the specific breeding areas of the populations of these two species in the Arctic. At present there is insufficient recovery or leg flag data to determine any difference in the breeding areas of the SEA and NWA populations.

It is interesting that the Great Knot had a markedly different outcome in 2003 to most other species. It breeds on high mountains in north east Siberia, in a quite different habitat to most other wader species. The results here suggest that it was subject to more favourable weather/predation pressures in 2003 than most other wader populations breeding in northern Siberia. This is the second good breeding year for Great Knot after three of the four previous years showed poor breeding outcomes.

Conclusion

A great deal of field work effort is required to obtain satisfactory population monitoring data in each year in these two widely separated regions of Australia. Apart from Red-necked Stint, which can almost be caught at will in south east Australia, specifically targeted catching activities often repeated several times in a season are required to obtain adequate samples of other species. In north west Australia there are the added constraints caused by the very high temperatures (typically 35-40° Centigrade) experienced in the November to mid-March period and the potential and actual interruptions to field work caused by the January/February wet season.

Nevertheless it is the intention of VWSG and AWSG to continue to obtain percentage juvenile breeding success measurements in the future because such data is key to helping explain population changes in species. Such changes are particularly likely to result from reductions in the volume and quality of habitat at migratory staging areas in Asia and longer term from the effects of climatic change on habitats used throughout the annual cycle of waders.

Data will be generated in south east Australia by the VWSG through regular field work activities throughout the monitoring period. In NW Australia the bulk of the data will need to be gathered through special three week banding expeditions to the region each season, supplemented by catches made by the local North West Wader Study Group/Broome Bird Observatory (organised by Chris Hassell).

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Table 1. Percentage of juvenile/first year waders in cannon net catches in SE Australia in 2003/04.

Species	No of c	atches	Total	Juv/1st year	%Juv/1st
	Large (>50)	Small (<50)	caught		year
Red-necked Stint	12	7	5470	1259	23
Sharp-tailed Sandpiper	3	7	989	388	39
Curlew Sandpiper	2	6	233	34	15
Ruddy Turnstone	0	9	122	8	6.7
Sanderling	0	4	74	2	2.7
Bar-tailed Godwit	0	1	43	1	(2)
Red Knot	0	1	22	19	(86)

Also Common Greenshank *Tringa nebularia* (2 caught, 1 juvenile), Great Knot (1, 1) and Pacific Golden Plover *Pluvialis fulva* (1, 0). All birds cannon netted in period 15 November to 28 February except for Red-necked Stint, Ruddy Turnstone and Sanderling where catches up to 23 March are included.

Table 2. Percentage of juvenile/first year waders in cannon net catches in NW Australia in 2003/04.

Species	No of o	atches	Total	Juv/1st	%Juv/1st
	Large (>50)	Small (<50)	caught	year	year
	Ar	ctic migrants			-
Great Knot	3	7	579	94	16
Bar-tailed Godwit	2	7	312	28	9.0
Red-necked Stint	2	9	303	30	10
Grey-tailed Tattler	0	7	158	22	14
Red Knot	1	2	157	5	3.2
Curlew Sandpiper	0	12	122	9	7.4
Ruddy Turnstone	1	3	57	0	0
Broad-billed Sandpiper	0	1	12	3	(25)
Limicola falcinellus					, ,
	Non-	arctic migrants		_	
Greater Sand Plover	3	6	499	121	24
Terek Sandpiper	2	4	254	47	19
Oriental Pratincole	2	2	228	19	8.3
Marsh Sandpiper	0	1	12	5	(42)
T. stagnatillis					, ,
Oriental Plover	0	2	10	2	(20)
C. veredus					
Lesser Sand Plover	0	3	9	2	
C. mongolus					
Common Greenshank	0	2	7	2	

Also Black-tailed Godwit *L. limosa* (5, 0), Grey Plover *P. squatarola* (2, 0) and Eastern Curlew *Numenius madagascariensis* (1, 0). All birds cannon netted in period 1 Nov 2003 to 29 Feb 2004 (actually all in period 25 Jan to 13 Feb 2004).

Table 3. Percentage of juvenile/first year waders in mist net catches in NW Australia in 2003/04.

_	No of c	atches	Total	Juv/1st	%Juv/1st
Species	Large (>50)	Small (<50)	caught	year	year
Sharp-tailed Sandpiper	1	2	87	49	- 56
Oriental Pratincole	0	2	22	2	(9.1)
Wood Sandpiper	0	3	20	4	(20)
T. glareola					
Long-toed Stint	0	3	17	16	(94)
Marsh Sandpiper	0	3	11	1	(9.1)
Oriental Plover	0	2	9	2	
Common Greenshank	0	2	6	4	
Common Sandpiper	0	2	7	3	
Actitis hypoleucos					
Pacific Golden Plover	0	1	3	0	
Pin-tailed Snipe	0	1	1	1	
Gallinago stenura					
Swinhoe's Snipe	0	1	2	2	
G. megala					

All birds mist-netted, near Broome, in period 15 Nov 2003 to 4 Feb 2004.

Table 4. Percentage of first year birds in wader catches in SE Australia 1998/99 to 2003/04

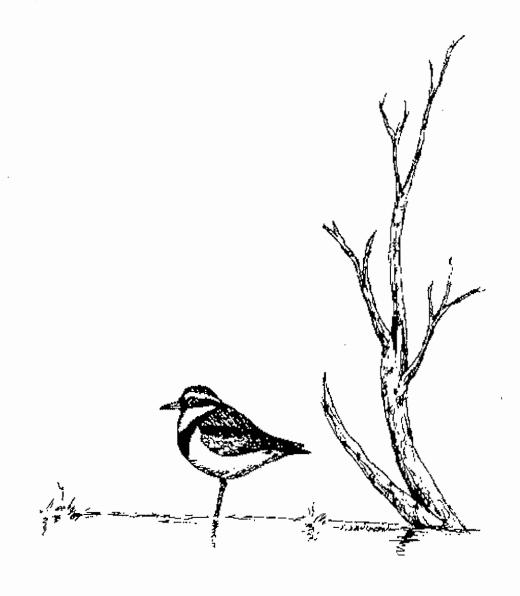
Species	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	Average
Ruddy Turnstone	6.2	29	10	9.3	17	6.7	13
Red-necked Stint	32	23	13	35	13	23	23
Sanderling	10	13	2.9	10	43	2.7	14
Curlew Sandpiper	4.1	20	6.8	27	15	15	15
Sharp-tailed	12	10	17	7.8	20	39	18
Sandpiper							
Great Knot	-	7.5	(3.7)	8.2	•	•	(7.9)
Red Knot	2.8	38	52	69	(92)	(86)	27
Bar-tailed Godwit	41	19	3.6	1.4	16	(2)	13

All birds cannon netted between late November and third week in March (except Sharp-tailed Sandpiper and Curlew Sandpiper to end February only). Averages exclude figures in brackets (small samples) and years when no sample was obtained (-). NB. Some of the figures for earlier years in the above table have been revised from those published in Arctic Newsletter Number 4 (Minton et al. 2002). This results from some small changes to the range of catch dates for which samples are included.

Table 5. Percentage of first year birds in wader cannon-net catches in NW Australia 1998/99 to 2003/04.

Species	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	Average
		Arc	ctic migran	ts			
Grey-tailed Tattler	26	(44)	17	17	9.0	14	17
Red-necked Stint	26	46	15	17	41	10	26
Curlew Sandpiper	9.3	22	11	19	15	7.4	14
Great Knot	2.4	4.8	18	5.2	17	16	11
Red Knot	3.3	14	9.6	5.4	32	3.2	11
Little Curlew	57	33		36	30	-	39
Bar-tailed Godwit	2.0	10	4.8	15	13	9.0	9.0
		Non-a	arctic migr	ants			
Terek Sandpiper	12	(0)	8.5	12	11	19	13
Greater Sand Plover	25	33	22	13	32	24	25

All birds cannon-netted in the period 1 November to mid-March. Figures in brackets are from small samples. A (-) indicates no sample.



Biogeography of Red Knot in Victoria and North-west Australia

Birgita Hansen

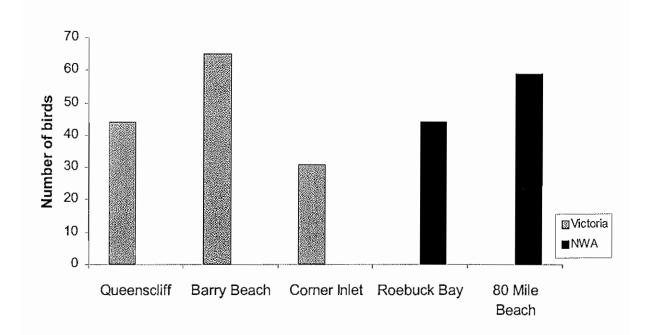
There are currently two subspecies of Red Knot Calidris canutus recognised as possible candidate populations overwintering in Australia. The breeding grounds of Red Knot from northwest Australia are thought to be the New Siberian Islands while those of Victoria probably breed on the Chukotsk Peninsula. The population from the New Siberian Islands has not received much study, but is a distinct sub-species. Evidence for separate migration routes for these different populations would strengthen this notion. Studies of museum specimens from the breeding grounds have shown that populations can be distinguished on the basis of structural size differences. Molecular markers are not available at this stage. The size difference between the sexes exceeds the differences between populations and knowledge of the sex is therefore essential.

It is widely accepted that some shorebird species exhibit site specific sex bias, for example, Grey Plover populations in Victoria are comprised entirely of females. The implications for Red Knot are the knowledge of which sub species uses different sites and thus, which breeding population is using that flyway destination in non-breeding season. The different subspecies of Red Knot occupy very different global locations during breeding season and management of these species is subject to the governing power of those regions and the regions along that flyway.

The aims of this study are to identify the breeding grounds of these populations by comparing the size measurements of birds of known sex to published material from Siberia and Alaska and to determine the distribution of subspecies at Australian sites. To achieve these aims the sex of birds must be accurate. Thus, the VWSG have implemented a blood sampling program to obtain genetic material for molecular sexing. Not only can the sex be unequivocally obtained using molecular methods, it can also be used to qualify current morphometric sexing protocols. Birds were sexed using standard molecular techniques, which utilize the P2/P8 primer pair designed from the avian CHD gene on the sex chromosomes of all birds.

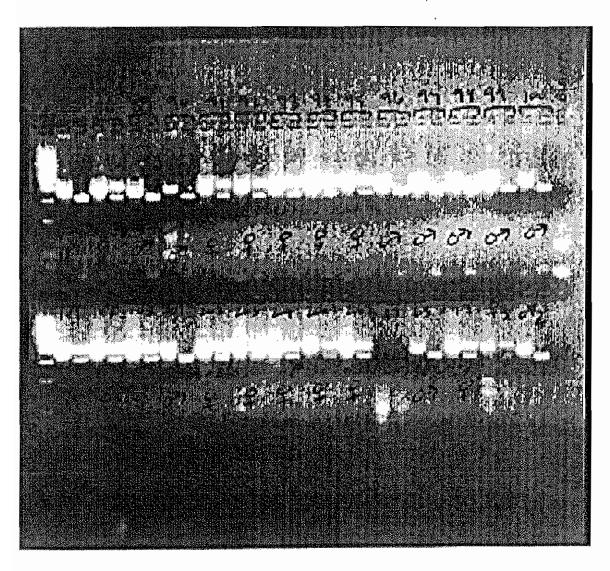
Blood samples were taken from the wing of Red Knot of all ages caught by the VWSG at both Victorian and north west Australian cannon netting sites. A total of 245 birds were sampled across both regions of the country, 103 at Roebuck Bay and 80 Mile Beach, and the remaining 142 were sampled in Victoria. Below is a summary of the collection sites (Figure 1).

Figure 1. Total numbers of Red Knot sampled at different locations in both Victoria and north west Australia. Corner Inlet refers to islands sites within the inlet, for example, Mangrove Root Island where most collections were made.



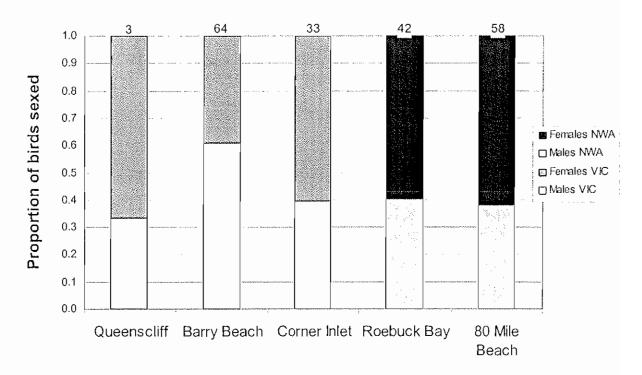
I extracted DNA from approximately $50\mu L$ of each blood sample using a standard extraction protocol that employs a 'salting out' technique. This protocol isolates DNA from blood cells by lysing the cell and its contents, and selectively precipitating the DNA from the digested cell solution. This purified DNA is used as a template for an amplification process called Polymerase Chain Reaction (PCR). In this procedure, a short section of the avian CHD gene, which is located on both the Z and W sex chromosomes, is copied exponentially such that the DNA can be visualised by gel electrophoresis (separating DNA of different sizes using an electrical current applied to a gel matrix). The size of the PCR product is equal in both sexes, but digestion using an enzyme cuts the product into 2 fragments in females (ZZ) but only 1 in males (ZW). Below is an example of a sexing gel:

Figure 2. A stained DNA gel viewed under UV light. The numbers at the top of the gel correspond to different individuals. The bands in the far left lane both top and bottom are a molecular weight marker which allows approximate determination of size of PCR products. For each individual there are 2 lanes. The lane on the left is the original PCR product. The lane on the right is the digested PCR product. Where one band is visible in the right lane, the individual is a male. Where two bands are visible, the individual is a female. The last 2 individuals on the bottom row are known female and male samples.



Using this technique, I have sexed 200 of the 245 blood samples. Below is a summary of the results collected:

Figure 3. Proportion of Red Knot sexed to date. The numbers at the top of each column represents the total number of males and females in the sample at each location.



Once all the samples have been sexed, this information will be used to compare the size differences between males and females at each location. Thus, inferences can be made about the location of breeding grounds of these sampled birds, on the basis of recorded size dimorphism in museum specimens and biometrics of birds studied at these locations. This information will allow probable identification of the sub species that overwinters in Victoria and north west Australia.

The Amorous Oyk

A black and white pie by the sea,
Got an urge that was not meant to be,
He entered the water,
To do what he oughter
Saying "You don't look so Sooty to me"

John Stoney

Terek Sandpiper - Xenus cinereus

Graham Beal

One of my favourite waders is the Terek Sandpiper. It is always a thrill to find one with a flock of mixed waders, often on the perimeter it is usually quite obvious with its orange—yellow legs. I find it a character with its upturned black bill with dull orange-yellow base and the way it jerks it's tail, bobs its head and dashes after small crabs and insects etc. Non-breeding plumage, generally plainer pale—grey above, shoulders darker, white bar often visible on secondaries, white below faintly streaked on breast.

Once known as *Tringa cinerea* it is now in a genus of its own, *Xenus*. As with some other wader species it is a more abundant summer visitor in northern Australia than in the south. In Victoria it has been recorded as single birds, 2s or 3s, in eastern Corner Inlet, around Port Philip Bay at Werribee, Point Wilson, Laverton and Avalon Saltworks. On Western Port, which is probably its Victorian stronghold, it is regularly seen at Barrallier Island, Yallock Creek, Stockyard Point and at high tide roosting on the mangroves offshore from Blind Bight in the north of the Bay. The Western Port Survey has found that the Grand Total for this species for sites counted at least 70 times (1973-2003) is 2. It is obvious though that it is more abundant in the above locations than others. On May 22nd this year, 11 were seen on a fieldwork outing at Stockyard Point with 3 seen over-wintering on June 16th. One has also been spotted here by Pete Collins with a blue flag (Japan). 34 have been banded (10 flagged) by the VWSG from 1975 to December 2002.

It is a non–arctic breeder and breeds from Finland to SE Siberia and migrates to Africa, India, SE Asia, Borneo to PNG, Australia, vagrant to Tasmania and New Zealand.

References

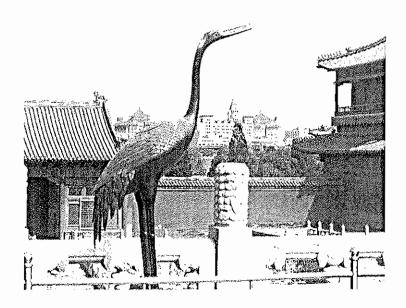
B.O.C.A. Wings over Western Port, 2003.

B.O.C.A. Victorian Bird Report 1981.

G. Pizzey & F. Knight, The Field guide to the Birds of Australia, 1998.

V.W.S.G. Bulletin, No.26, August 2003.

Photographed in the Forbidden City, Beijing – Band size 700 – maimed three banders before they got a band on it (Pete Collins)



Pied Oystercatchers an update on the story 2004 Peter Collins

On one cold Saturday a few brave souls sat huddled in a flimsy hide trying to keep warm and ignoring the howling gale that threatened to blow the hide halfway to Tassie. Naturally the talk turned to the purpose of the exercise and that evening after a few wines after the whines in the hide the conversation returned to the purpose and the results of the present study. So I thought it might be a good idea to present a few results from the database.

Oystercatchers as a worldwide group are pretty standard either being black or black and white in varying degrees of combinations. In Australia there are black ones and black and white ones of two main species with a blow in from New Zealand occurring rarely on the coast around New South Wales. The Sooty and Pied types have also been known to hybridise. As far as Pied Oystercatcher are concerned there are about 10,000 birds in Australia with 1500 in Victoria, Sooty Oystercatcher have a total population of 4000 with a few hundred only in Victoria.

Work has or is being carried out on both Pied and Sooty Oystercatchers using data from Victoria and the north west of Australia. A paper has been published in the AWSG journal *The Stilt* by Femmie Kraaijeveld-Smit on sexing of Pied Oystercatcher in Victoria, and Birgita Hansen is undertaking analysis, on Sooty Oystercatcher. This is in tandem with blood sampling to confirm the sexing criteria in the future.

In the VWSG Bulletin 23 there was a report given of the movements of Pied Oystercatchers from various sites where they were caught. This work has also been presented at an AWSG conference.

The following table shows the areas where we catch Pied Oystercatchers and the breakdown of their ages. On the face of it looks as if there is a good story emerging but there is more analysis to be done. However we can make some observations.

Table 1. Location of new birds caught and their ages

Location	Total	1 st years	2 nd years	3 rd years	Adults
Werribee	251	57	17	4	169
Queenscliff	122	4	5	6	92
Yallock Creek	20	3	4	1	12
Stockyard Point	338	57	69	48	164
Rhyll	137	28	18	10	77
Long Island	99	12	4	8	75
Gurdies	72	3	25	7	37
Fairhaven	79	2	13	7	56
Inverloch	35	2	0	0	33
Barry Beach	187	32	34	21	96
Manns Beach	422	47	28	8	338
Roussacs Farm	205	54	36	26	85

Superficially this tells an interesting story about the different sites. Werribee appears to fit a nice normal pattern of juvenile survival with a decreasing number of birds in age classes that can be identified in the field. This would suggest that as you get older the better you are at feeding and avoiding danger, which makes biological sense. At the opposite end of the scale Queenscliff has so few juveniles that either juveniles disperse rapidly from the site, do

not survive or perhaps are never there in the first place. It will be interesting to contrast this information about age structure with the number of birds recorded in AWSG counts as recorded in *The Stilt*. However the Queenscliff population could be considered to be critically endangered. The Western Port mob mainly seen at various points around French Island, Stockyard Point and Rhyll, make up for Queenscliff, by having a high number of juvenile and sub-adult birds. This suggests that either juveniles and sub-adult birds gather at these sites or good numbers of chicks are produced on fox free French Island each year and they remain in Western Port until they go off to breed as adults. With this sort of production we should be knee-deep in Oystercatcher pooh on Fairhaven, Phillip Island and Jam Jerrup! This is obviously not the case so they must either kark it or disperse. A cursory look through the data base shows that lots of these birds are seen again so they are not karking it. So apart from every thing else it looks as if these sites are the top up centre for the westerly breeding areas.

The same could be said for Corner Inlet / Nooramunga where good numbers of juveniles are produced on the outer barrier islands such as Clonmel and Box Bank as well as Sunday Island which are fox free. With high survival rates this could explain the number of Corner Inlet birds seen again along the east coast. As has been said before more work needs to be done before such speculation becomes drawn into the next stage of solidity but there is no harm in theorising a bit.

So once a bird has been banded what are its chances of being seen again? So far there have been 2077 birds of all ages banded of these there have been 10 banded as tiny weeny little babies, 315 birds in their 1st year, 260 2nd year, 160 3rd year and 1332 adults. This is a bit blurry as in the early days birds were aged as either adult or not and presumably some second and third year birds were lumped into the adult class. However for the benefit of this article the line will be drawn in that all 1+ and 2+ in the database are considered adult. Of the 2077 birds banded 442 have not been seen again. The breakdown of this can be seen in table 2.

Number banded	Total	Adult	1 st years & pullus	2 nd year	3 rd year
Seen or retrapped	2077	1332	315	260	160
Not seen	442 (21%)	289 (22%)	67 (21%)	40 (15%)	44 (27%)

Surprisingly birds banded in their first year have the same chance of being seen again as other age classes. The age class seen least often is birds in their second year. Perhaps birds disperse in their second year to find territories or settle on alternate over-wintering sites and do not necessarily return to the sites they used in their first year. Hopefully further analysis may tease this out.

One of these is the proclivity of juveniles to wander. As any mother would know juveniles do wander especially when there is no longer any room for them on the territory. It would take too long to work out the average movement of sub adult birds but the number of juveniles that are seen well away from there banding site is quite huge. So it could easily be that the sub-adults we are missing are where people are not. There are other things that need to be taken into account for instance is the misinterpretation of bands due to either loss of a band or discolouration making the individual impossible to identify. Anyone who has tried to record bands at Stockyard Point will know that there seems to be a lot of Orange colour bands and when they are caught the orange turns out to be yellow, blue or some other colour. This is the result of abnormal staining that is peculiar to that area. Another interesting thing is that birds turn up after years of being on the missing list. There are at least five examples of birds turning up quite recently that have not been seen for over eight years. The reason for this is the interest in one particular area, which had not been looked

at for several years. The most recent case is Altona where certain members of the VWSG were/are lived/are living. Two birds have been reported from there that have not been seen since they were banded over ten years ago. So if you see an oystercatcher look at it and it may be that we can take it off the MIA* list. All things considered the reporting rate is very good.

To finish a few Pied Oystercatcher facts, to drop at dinner parties just to break the ice. The oldest Pied Oyc on our records is difficult to say but there are two birds that are at least 26 years old. The first was banded at Queenscliff and still lives, breathes and breeds there or at least it is often seen with a partner. The second was at Manns Beach and again it does not move off its island where it is living with an unbanded partner. There are two others that are probably in this bracket but were aged as 2+'s one at Werribee whose home is now Cotters Beach on the Prom, after going and trying the Port Fairy area for a season. The other is a Queenscliff bird that also prefers an island existence and now lives and breeds on Mud Islands. Interestingly this last individual is a product of a Pied and Sooty mixed pair. The furthest that one has moved is just over 1251 kilometres between Corner Inlet and Ballina, NSW. Unless you know different.

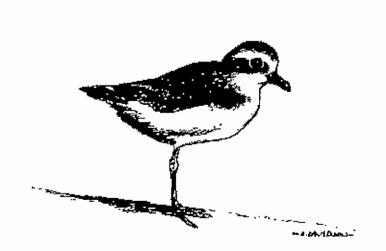
There are now records from the east coast that appear to show a regular movement between Corner Inlet and sites further north on the NSW coast and back again. This could be translated as migration. Incidentally it is also reflected in birds between Werribee and breeding sites between there and the Murray Mouth.

Adult birds on Sunday Island and French Island appear to stay on breeding territories all the year. These could be considered sedentary or resident. Other birds go to the same wintering flock year in year out but others change wintering flocks or are some just unlucky to be seen or get caught at the same sites?

I was going to do a report on Sooty Oystercatchers but I have run out of time and space. Once again I have, rather surprisingly, talked too much. Although a lot of the above is taken from the database it needs more rigorous statistics to verify some of the statements and they should not be quoted in scientific papers.

Incidentally we are still looking for people to do regular monitoring of wintering flocks. There is no need to let me know but it would be off great benefit if you would like to monitor a flock on a reasonably regular basis.

*Not Missing in Altona but after banding.



Analysis and Publications using VWSG Data

Clive Minton, Rosalind Jessop and Peter Collins

VWSG members often ask about how the data which they help to generate is utilized for scientific and conservation purposes. Whilst most see written output which appears in the VWSG Bulletin, The Stilt, Wingspan, Vic Babbler and The Tattler, many would not see publications in Emu, Corella, the Australian Birdwatcher (now The Australian Field Ornithology). Also comparatively few would be aware of data analyses and papers currently in preparation or envisaged.

Having data analysed and published is essential to getting our results placed on the permanent scientific record. It is also then in a useable form for conservation purposes, both within Australia and internationally, by relevant government and other conservation bodies.

Lists of publications using VWSG data have been presented in past VWSG Bulletins. For the first time we have listed below not only those publications that have been made in the last two years (36 items), but also analyses/draft papers which are currently at various stages (11 at first draft, 21 where significant analysis has been undertaken, a further 21 where analysis is at an early stage and 31 envisaged where analysis has not yet commenced).

These lists will give VWSG members a much more comprehensive picture than formerly of the vast volume of data generated on waders and terns in Australia, which is now available for analysis. It will also illustrate how much effort is being put into this behind the scenes by a wide variety of people. It will be apparent that in many cases data generated by the VWSG is being analysed in conjunction with data generated by the AWSG from their expeditions in NW Australia and the ongoing catching activities of the North West Australia Wader Study Group. Included in the list also are analyses where no VWSG data is incorporated. This is done because the core of all the teams involved in NWA expeditions has come from VWSG members.

One of the practical problems in the above data analyses and publications programme is the shortage of persons within the VWSG with the appropriate experience and skills to carry out sophisticated analyses using up to date statistical tests and putting the whole into the format required of higher scientific journals. In the past most of the preliminary analyses of our data were only suitable for publication in mediums such as the VWSG Bulletin and Stilt, for which only modest analytical and writing skills were necessary. Now the quality and volume of so much of our data qualifies much of it for publication in national and international journals with extremely high standards of analysis and presentation required. People with such skills within the Group are in short supply and this is why in quite a few instances persons external to the Group are involved in the analyses and paper preparation, with relevant members of the Group however still being involved as joint authors.

If anyone within the VWSG wishes to put their hand up to become involved in any of the analyses listed, or any other analysis which they favour, would they please contact Clive Minton. Clive together with Roz Jessop, Peter Collins, Ken Gosbell and Danny Rogers, form the Publications Committee of the AWSG/VWSG.

It should be noted that the above lists are oriented towards the banding activities of the VWSG and AWSG do not do justice to the count and other population monitoring activities which members undertake. As an example of this, the extensive counts carried out in The Coorong in South Australia in recent years have been carried out almost entirely by VWSG members and comprehensively written up by Ken Gosbell (and previously Jim Wilson). Hopefully, a separate listing of such analyses/publications will be prepared in the future.

using VWSG data at various conferences and workshops in Australia and overseas. Doris Graham has prepared a list of these, which is published elsewhere in this report.

Also not included in the listings are presentations made by VWSG members, or others,

Congratulations to Lauren Beasley for completing her Honours Thesis at Deakin Uni.

Habitat use by three species of sandpiper at the Western Treatment Plant, Victoria. B.Sc.Hons. Thesis, Deakin University, May 2004.

Lauren Beasley

ABSTRACT

This study investigated habitat use by Red-necked Stint, Curlew Sandpiper and Sharp-tailed Sandpiper at the Western Treatment Plant (WTP), a large sewage treatment plant in Victoria. This site is unusual because it has large areas of both natural intertidal mudflats and artificial non-tidal sewage ponds suitable for feeding shorebirds. It is recognised as a site of international importance for shorebirds. Sandpiper were observed in both tidal and non-tidal habitats throughout the tidal cycle. A broad-scale survey of habitat use showed that habitat type, tidal stage and the interaction between tidal stage and habitat type all had a significant effect on the number of feeding Sandpiper. Site use over the tidal cycle showed that habitat use by Red-necked Stint and Sharp-tailed Sandpiper was mostly related to the tidal cycle, whereas the tidal cycle had much less influence on habitat use by Curlew Sandpiper. On some days non-operational sewage ponds managed for shorebirds provided a high proportion of daily feeding time for all three species. Within a pond, Sandpiper preferentially selected certain microhabitats for feeding and roosting. Wet mud, shallow water and deeper water were preferred for feeding. There are concerns that ongoing improvements in the sewage treatment process that reduce nutrient inputs into the sea will have negative impacts on feeding conditions for shorebirds along the foreshore. The results from this study suggest that specially managed non-operational sewage ponds could offset such impacts.

Papers, which have been or are about to be, published since May 2002 (36)

Species	Subject	Authors	Publication
Marsh Sandpiper	Swimming while feeding	Clive Minton and Pete Collins	Stilt 43, Apr 2003 P 28
Ruddy Turnstone	Moult	Jenny Skewes, Clive Minton and Ken Rogers	Stilt 45, Apr 2004 pp. 20-32
Red Knot	Rates of pre-migratory weight gain in Red Knot (globally)	Theunis Piersma, Danny Rogers, et al.	Birds of two worlds: the ecology and evolution of migratory birds. John Hopkins University Press, Baltimore 2004.
Curlew Sandpiper	Transfer to South Africa Flyway	Clive Minton	Stilt 42, Oct 2002 P 37
Red-necked Phalarope	Biometrics and moult	David Melville, Clive Minton and Pete Collins	Stilt 43, Apr 2000, pp. 23-27
Red-necked Stint and Curlew Sandpiper	Breeding success 1991 - 2001	Clive Minton, Roz Jessop and Pete Collins	Stilt 43, Apr 2003, pp. 30-33
Red-necked Stint and Curlew Sandpiper	Breeding success 1991 - 2001	Clive Minton, Roz Jessop and Pete Collins	Arctic Birds 4, 2002, pp. 43-45
Sanderling and Ruddy Turnstone	Breeding success 1989 to 2002	Clive Minton, Roz Jessop and Pete Collins	Arctic Birds 5, 2003, pp. 48-50
Oystercatchers	Fading of colour bands on Pied and Sooty Oystercatchers	Pete Collins, Roz Jessop and Clive Minton	IWSG Bulletin 99, Dec 2002, pp. 45-49
Banded Stilt	Biometrics, moult and age structure	Ken Kraaijeveld, Clive Minton, Pete Collins and Roz Jessop	Stilt 43, Apr 2003, pp. 14–19
Oriental Pratincole	Unprecedented numbers in NWA	Humphrey Sitters, Clive Minton, Pete Collins, Chris Hassell and Frank O'Connor	IWSG Bulletin 103, Apr 2004 pp 26-31 Stilt 45 Apr 2004 pp 43-49
Crested Tern	Diet of Crested tern chicks on Phillip Island, Victoria, Australia	Andre Chiaradia, Peter Dann, Roz Jessop and Pete Collins	Emu
Five species	Gut analysis of birds collected in NWA	Angela Jessop	Stilt 43, Apr 2003, pp. 3 - 13
All	Year On The Wing	Nell White	ABC web site – on line documentary June 2002 to June 2003
All	Year 2001 Arctic breeding success - % juveniles in SEA and NWA	Clive Minton, Roz Jessop, Pete Collins and Chris Hassell	Stilt 42, Oct 2002 pp. 32-36
Ail	Sightings of waders and terns leg flagged in NWA. Report 7	Clive Minton, Roz Jessop, Pete Collins, Chris Hassell, Julie Deleyev and Lauren Beasley	Stilt 42, Oct. 2000, pp. 38 - 51
Aii	Sightings of waders leg flagged in South Australia. Report 1	Clive Minton, Roz Jessop, Pete Collins, Chris Hassell, Julie Deleyev and Lauren Beasley	Stilt 42, Oct. 2002, pp. 52-55
All	Sightings of waders leg flagged in Vic. Report 9	Clive Minton, Roz Jessop, Pete Collins, Julie Deleyev and Lauren Beasley	Stilt 42, Oct. 2002, pp. 56-72

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All	Year 2002 breeding success	Clive Minton, Koz Jessop, Pete Collins and Chris Hassell	Arctic Birds 5, 2003, pp. 45-47
Ail	NWA 98 Expedition Report	Clive Minton, Roz Jessop, Pete Collins and Humphrey Sitters	Stilt 43, Apr 2003, pp. 42-46
All	NWA 2000 Expedition Report	Clive Minton, Roz Jessop & Pete Collins	Stilt 43, Apr 2003, pp. 47 - 50
₹	NWA Jan 2001 Expedition Report	Clive Minton, Pete Collins & Humphrey Sitters	Stilt 43, Apr 2003, pp. 51-54
All	NWA 2001 Expedition Report	Clive Minton, Pete Collins and Humphrey Sitters	Stilt 43, Apr 2003, pp. 55-67
All	Year 2001 breeding success	Clive Minton, Roz Jessop, Pete Collins and Chris Hassell	Arctic Birds 4, 2002, pp. 39-42
Ail	NWA 2002 expedition report	Clive Minton, Pete Collins, Humphrey Sitters, Roz Jessop and Chris Hassell	Stilt 46, Oct, 2004
Ali	NWA 2003 expedition report	Clive Minton, Pete Collins Humphrey Sitters, Chris Hassell and Roz Jessop	Stilt 44, Oct. 2003, pp. 64-72
All	NWA 2004 expedition report	Clive Minton, Pete Collins Humphrey Sitters, Chris Hassell and Roz Jessop	Stilt 45, Apr. 2004 pp54-59
All	Sightings of waders leg flagged in NWA. Report 8	Clive Minton, Roz Jessop, Pete Collins, Chris Hassell and Lauren Beasley	Stilt 45 Apr. 2004 pp60-70
Ail	The importance of long term monitoring of reproduction rates in waders	Clive Minton	IWSG Bulletin 100, Apr. 2003, pp. 178-182
All	Shorebird Conservation in Australia	Bianca Priest, Phil Straw, Michael Weston	Supplement to Wingspan, vol 12, 2002
All	Sightings of waders leg flagged in Victoria, Report 11.	Clive Minton, Roz Jessop, Pete Collins, Inka Veltheim	Stilt 46, Oct 2004
All	Sightings of waders leg flagged in Victoria, Report 10	Lauren Beasley, Clive Minton, Roz Jessop & Peter Collins	Stilt 46 Oct 2004
All	Sightings of waders leg flagged in South Australia Report 2	Clive Minton, Roz Jessop, Peter Collins, Maureen Christie, Iain Stewart	Stilt 46 Oct 2004
All	Sightings of waders leg flagged in South Australia Report 3	Luaren Beasley, Clive Minton, Roz Jessop, Peter Collins, Maureen Christie, Iain Stewart	Stilt 46 Oct 2004
All	Sightings of waders leg flagged in South Australia Report 4	Clive Minton, Roz Jessop, Peter Collins, Maureen Christie, Iain Stewart & Inka Vettheim	Stilt 46 Oct 2004
All	Year 2003 Breeding success	C. Minton, R. Jessop, P. Collins & C. Hassell	Arctic Birds 6, 2004.

Papers that have reached first draft (11)

Species	Subject	Lead analyst/Initial Draft Publication	Publication	Current Status
Bar-tailed Godwit	Movements and Biometrics	Jim Wilson	Emu	Final draffing, after referees' comments, almost complete.
Eastern Curlew	Movements	Clive Minton	Emu	Redrafting after referees comments. Will be completed by Aug 2004
Curlew Sandpiper	Migratory movements	Clive Minton	IWSG Monograph	Resubmitted Sept 2003. Still awaiting editors comments
Curlew Sandpiper	Movements within Australia	Clive Minton	IWSG Monograph	Resubmitted Oct 2003. Still awaiting editor's comments
Curlew Sandpiper	Biometrics and moult	Clive Minton	IWSG Monograph	Update of original draft yet to be started. Target Sept. 2004
Pied Oystercatcher	Biometrics and Moult in NWA	Femmie K. Smit	Stilt	Final draft complete, submitted
Roseate Tern	Populations of Roseate Tern on the Swain Reef (includes biometrics)	Paul O'Neill	Emu	Accepted for publication. Referee's comments being incorporated
General	Fox control in Nooramunga NP	Jonathan Stephenson	VWSG Bulletin	Two years old draft still awaiting PV Foster approval before release
All	80 Mile beach counts	Clive Minton/David Price	Emu	Final drafting, after referee's comments, about to commence. Resubmit by Aug 2004
Ail	Waders on ephemeral wetlands at Anna Plains and Mandorah	Stuart Halse	Emu	Just submitted for publication
Red-necked Stint	Survival Rates	Ken Rogers	Emu	Considerable analysis undertaken. Final update and completion due to start late 2004.
Gull-billed Tern	Biometrics and Moult	Danny Rogers	Emu	First draft almost complete

Papers where significant analysis has been undertaken (11)

Species	Subject	Lead analyst/Initial Draft	Journal	Current Status
Great Knot	Radio tracking in Roehlick Bay	lackie Heafon / Clive	###.	Data (from 1998) assembled and part of draft prepared. Currently
Bar-tailed Godwit		Minton		stalled.
Great Knot	Movements	Clive Minton	Emu	Initial analysis to be updated and paper prepared
Red Knot	Biometrics and moult	Ken Kraaijeveld, Birgita Hansen & Roz Jessop	Emu/Stilt	Re-analysis to be undertaken and new paper prepared after data on DNA sexed birds available
Red Knot	Movements between Australia and New Zealand	Adrian Riegan	Emu/Stilt	Data presented at AWSG conference 2003. Expansion of analysis and draft to be prepared.
Red Knot	International movements	Adrian Riegan	Emu/Stilt	Data presented at AWSG conference 2003. Expansion of analysis and draft to be prepared.
Red-necked Stint	Survival rates	Ken Rogers	Emu	Considerable analysis undertaken. Final update and completion due to start late 2004
Red-necked Stint	Movements	Clive Minton	Emu	Update of paper published in Stilt 10 years ago
Broad-billed Sandpiper	Biometrics moult and movements	Roger Richards	Stilt	Analysis mostly complete, draft to be prepared
Pied Oystercatch er	Movements	Roz Jessop/Pete Collins	Stilt	Initial analysis needs to be updated and draft prepared
Pied Oystercatch er	Breeding success in Corner Inlet	Pete Collins	Stilt	Data assembled and partly analysed, draft to be prepared
Double- banded Plover	Movements	Clive Minton	Emu	Data mostly analysed. Paper to be prepared
Crested Tern	Population and breeding success and age of first breeding	Roz Jessop/ Pete Collins	Emu	Analysis almost complete, draft to be prepared
Little Tern	Movements	Peter Mitchell/Dave Pridell	Emu	Data assembled and some analysis completed.
All	Survival rafes	David Milton et al?	د	Some initial analysis completed. Discussion needed on how to proceed further
All	Juvenile ratios/breeding success	Clive Minton	Stilt	Data presented at AWSG conf. 2003. Draft to be prepared.
All	Results of 25 years of wader banding	Clive Minton	Stilt	Data presented at AWSG conf. 2003. Draft to be prepared.

All	Relationship between juvenile	Mikhail Soloviev	IWSG/Ibis	WSG/lbis Analysis nearly complete. Presented in Copenhagen and Edinburgh.
	ratios and Arctic breeding			Final draft to be prepared
	conditions			
All	Weight changes associated with	Humphrey Sitters	Stilt	Initial analysis to be expanded and draft prepared
	primary moult			
All	Weight changes associated with	Humphrey Sitters	IWSG	Analysis largely complete, draft to be prepared
	moon phases		Bull	
₩	Comprehensive review of primary Humphrey Sitters & Danny	Humphrey Sitters & Danny	Emu	Some analysis undertaken. Assembly of published data, plus
	moult	Rogers		new/updated analysis to start in 2005
₽	Visible migration from NW	Roz Jessop and Pete	Emu	Analysis needs updating and draft prepared
	Australia	Collins		

Papers where analysis is in progress but at an early stage.

Species	Subject	Lead analyst/Initial Draft	Publication	Current Status
Bar-tailed Godwit, Great Knot, Red Knot	Age structure of birds remaining in Roebuck Bay in May to July	Danny Rogers	Emu	Data generation complete. Initial partial analysis needs to be updated and finalised
Red Knot	Stable Isotope analysis world wide	Nigel Clark		Initial feather samples from Australia sent to Nigel Clark. More feathers to be collected.
Ruddy Turnstone	Biometrics and movements	Inka Veltheim	Stilt	Analysis in progress. Target final draft Dec 2004.
Little Stint	Capture records and biometrics	Chris Hassell	Stilt	Data collection complete. Analysis and draft paper just started.
Sharp-tailed Sandpiper	Biometrics, moult and migration	Stephanie Tyler	Emu	Data checked and corrected. Analysis just commenced
Sooty Oystercatcher	Biometrics, moult and age ratios	Birgita Hansen	Stilt	Analysis well advanced. Final Draft paper December 2004
Sooty Oystercatcher	Movements	Peter Collins and Roz Jessop	Stilt	Initial analysis to be updated and paper prepared
Banded Stilt	Predation at Lake Eyre	Clive Minton	Emu	Analysis largely complete, paper needs to be prepared.
Grey Plover	Sex ratios and breeding origins based on DNA analysis	Danny Rogers, Michael Exo, Liv Wennenberg, Roz Jessop	?Nature	DNA analysis mostly complete. Draft paper to be prepared.
Greater Sand Plover	Biometrics, moult and movement	Chung-Yu Chiang	Emu	Taiwan data analysed. NWA data to be incorporated.
Gull billed Tern	Comprehensive review	Danny Rogers	Wingspan	Due to be published end 2004

Roseate Tern	Moult	Paul O'Neill	Emu	Initial analysis completed two years ago. Draft
				paper needs rewriting and updating.
All	Ageing guide for waders in NWA	Humphrey Sitters,	Stilt	No progress in last 2 years
All	Departure weights of waders from Victoria vs. waders from NWA	Clive Minton	Emu	Only limited analysis undertaken so far
All	Comparison of high and low tide counts in Roebuck Bay	Danny Rogers	خ	Preliminary analysis done some time ago. Stalled?
All	Wader Book	David Hollands and Clive Minton	Book	Many photos taken. First drafts of some chapters prepared. Target completion 2006.
All	Juvenile ratios worldwide, including statistical treatment of	Clive Minton, Nigel Clark	IWSG Bulletin	Australian raw data to be assembled and sent to Nigel
	data			
All	% juveniles as an index of recruitment	Ken Rogers	Stilt	Just started
14 species (initially)	Sex ratios in relation to latitude of non-breeding area	Silke Nebel	خ	Data assembled. Analysis just starting
Corner Inlet	23 years of count and banding data	Clive Minton, Peter Dann and Alice Ewing	Emu	Data partly assembled. Main analysis and paper preparation to be started.

Papers to be started or in a very early stage.

Species	Subject	Lead analyst/Initial Draft	Publication	Current Status
Black-tailed Godwit	Biometrics, moult and movements	Diane Emslie	Stilt	٤
Bar-tailed Godwit	Rump patterns of different subspecies	Clive Minton	Stilt	Photos taken. Paper to be prepared
Whimbrel	Biometrics and moult	Danny Rogers	Stilt	Just started
Little Curlew	Biometrics and moult	Maria Bellio	Stilt	Not yet started
Little Curlew	Ageing	Clive Minton	Stilt	Data assembled, short paper envisaged
Eastern Curlew	Biometrics and moult	اخ	Stilt	Analysis not yet started. Needs an analyst.
Redshank	Race(s) in NWA	Pete Collins/Roz	Stilt	Analysis not yet started
		Jessop		
Red Knot	Biometrics of DNA-sexed birds	Birgita Hansen	Emu	DNA analysis progressing well
Grey-tailed Tattler	Biometrics and moult	ذ	Stirt	Analysis not yet started. Needs an analyst.
Ruddy Turnstone	More in depth analysis of moult using new statistical techniques especially on first year moult	Ken Rogers	SE	Just commenced.
Sanderling	'I I	Ken Gosbell	Stilt	Analysis not yet started

Banded Stilt	Breeding Ecology at Lake Ballard	Jim Lane/Clive Minton	Emn	Preliminary analysis undertaken
Banded Stilt	Predation at Lake Eyre	Roz Jessop	Emu	Preliminary analysis presented
Pied Oystercatcher	Victorian breeding population	Susan Taylor	Stilt	Analysis not yet started
Pied, Sooty	Biometrics of DNA-sexed birds	Roz Jessop	Stilt	Blood samples being collected
Oystercatchers				
Greater Sand	Sexing by plumage characteristics	Peter Fullager	Stilt	Photographs taken analysis to be started
Plover				
Oriental Plover	Biometrics and moult	٥	Stilt	Analysis not yet started. Needs an analyst.
Caspian Tern	Movements	Clive Minton	Corella	Analysis not yet started
Crested tern	Movements	Roz Jessop/Pete	Corella	Previous analysis published in VWSG Bulletin in
		Collins		1990 needs to be updated and draft prepared.
Crested Tern	Diet of chicks from Mud Island	Andre Chiaradia	Emu	Analysis not yet started
Roseate Tern	Migratory movements	Kiyo Ozaki	Yamashina	Data assembled
			Inst. Bulletin	
Roseate Tern	Populations in NWA	Chris Hassell	Emu	Analysis not yet started
Common Tern	Movements, moult and biometrics	Mike Dawkins	Emu	Will commence in 2005
Little Tern	Populations, biometrics and moult	Roz Jessop/Pete Collins	Emu	Analysis not yet started
Little Tern	Survival based on flag sightings	Peter Mitchell	Corella	Data base complete. Analysis in early stages
Ali	Site faithfulness	Doris Graham	Stilt/Emu	Still at planning stage
All	Stable Isotope analysis	Roz Jessop	خ	Feather collection started
All	Arrival dates of waders in NWA and Vic	5	Stilt	Analysis not yet started. Needs an analyst.
All	Radar studies of waders at Broome	Roz Jessop		Old data to be reanalysed
All	Waders of NWA	Clive Minton	Wingspan	Article not yet started
All terns	Breeding populations in Victoria over 25 years	Clive Minton	Corella	Analysis not yet started

Other Publications and Presentations using VWSG Data

1st July 2002 - 30th June 2004

Compiled by Doris Graham

NEWSLETTERS

- "The Tattler", Newsletter for the East Asian-Australasian Flyway Clive Minton, "Flag Sightings Contract Speeds up Sightings Reports", No 36, p 8-9, July 2003. Clive Minton, "Banding news from VWSG", No 37, p5-6, October 2003. Clive Minton, "Alaska-Australia Migration", p2; Individually Numbered Flags on Trial, p3; "Oz Flag sightings in Hong Kong", p9, No 38, January 2004.
- "VicBabbler", quarterly newsletter of the Birds Australia Victoria Regional Group of Birds Australia.

Clive Minton, "Victorian Wader Study Group." No 68, p8-9, September 2003; No 69, p4, November 2003; No 71, p10-11, June 2004.

Doris Graham and Roger Richards, "VWSG at the AWSG Conference, December 2003." No 70, p4-5, March 2004.

ORAL PRESENTATIONS AT CONFERENCES/WORKSHOPS

- International Wader Study Group Conference,
- "Are waders world-wide in decline?" September 2003, Cadiz, Spain. Workshop "Reviewing the Evidence",

Jim Wilson, 2003, "The East Asian-Australasian Flyway." Wader Study Group Bulletin, **101/102**, 15, 2003.

· Asian Waterbird Census co-ordinators meeting,

Kuala Lumpur, Malaysia, 9-10th October 2003. Ken Gosbell, "Shorebird Monitoring in Australia".

• The Pan-Arctic Shorebird/Wader Monitoring and Research Workshop, "Monitoring Arctic Shorebirds: an International Vision for the Future." Karrebaksminde, Denmark, December, 2003

Clive Minton presented a paper summarising data generated by cannon netting of large numbers of waders in Australia. The percentages of juveniles in each flock of each species was used as a measure of recruitment/reproduction of Arctic breeding waders. There was general consensus that this data set was the best of its type in the world, and that the methodology allowed valid conclusions to be drawn. Wader Study Group, Bulletin, 103, 2-5, April 2004.

- Australasian Ornithological Conference, Canberra, A.C.T., December 2003. Roz Jessop, Clive Minton and Pete Collins "A long term Study of Crested Terns in Victoria." p67.
- · Fourth Australasian Shorebird Conference,

"Status and Conservation of Shorebirds in the East Asian- Australasian Flyway", Australian National University, Canberra, A.C.T., December 2003.

Danny Rogers, Ken Rogers, and Mark Barter "Measuring age-ratios of shorebirds with a telescope: a pilot study." p10.

Clive Minton, Roz Jessop, Pete Collins and Ken Gosbell, "Monitoring wader breeding productivity", p11.

Nell White, "A Year on the Wing", the reality and rigours of shorebird migration", p20. Clive provided much of the commentary of this series.

Clive Minton, "What have we learned from banding and flagging waders in Australia?" P23.

Adrian Riegan, Clive Minton, Roz Jessop, and Pete Collins. "One-way movements of Red Knot between Australia and New Zealand and their migration strategies on the East Asian-Australasian Flyway." p34.

Gippsland Community Leadership Program 2002.

Paul van Loon contributed to this course by presenting a talk on the relationship of the cleanliness of coasts to the needs of Migratory Shorebirds. He took his favourite bird the Red-necked Stint as a model, describing the dangers faced during its yearly migration to and from its breeding grounds in the high Arctic. Then the paramount need of these birds to be able to return to their specific beaches where their food is of high quality and density.

- Public meeting at Port Welshpool, 26th June 2003, organised by Parks Victoria to discuss the Management Plan for the Marine and Coastal Park:

 Margaret Rowe, "Waders and Terns of Corner Inlet and Nooramunga Marine and Coastal Park".
- Meeting of Landcare, Inverloch, October 2003, organised to discuss possible effects on the birds of Andersons Inlet of a proposed development including marina, golf course and 700 houses at Maher's Landing. Doris Graham, "The Birds of Inverloch and Andersons Inlet".
- Regular meeting of the South Gippsland Bird Observers Club of Australia, Foster, 28th May 2004:

Margaret Rowe, "Waders – from my experience participating in Victorian Wader Study Group fieldwork".

Talks given by Graham Beal

Upper Beaconsfield Community Centre Short Courses 1st Aug., 13th 20th & 24th Oct.1997 16th Feb,16th March & 6th April 1998

Talks, B.O.C.A. slides identification and discussion on locally seen birds followed by excursions to various nearby locations including Pakenham S.F. and Yallock Creek, Westernport Bay for waders and waterbirds etc. (included explanation of flagged birds and work of VWSG etc,).

Emerald Lake Park Information Centre - June 10th, 2000 Evening talk and slides given to local people organised by Friends of Wright Forest & Emerald Lake Groups

Again on locally seen birds including Waders on Western Port and Port Philip Bays and work done by VWSG. B.O.C.A.&V.W.S.G. slides shown

Talks and BOCA slides shown, twice to Meadowvale Retirement Village Garden Club, Pakenham and once to Cranbourne Garden Club on garden birds, identification and how to attract them etc.

Seashore

Softly sibilant,
The surge and splash of the surf
sing
frills of white ruching the shore
to sift the shingle~~
opercula and limpet shells,
a skeleton graveyard
mounded and defenceless

wavelets nibble, encroach, until a purler strikes and spills, drenching the bleached shell-heap

whiteness cascades

over tawny rocks

a snowy jabot, filmy lace mantilla, lightening the sombre sandstone bastion.

Further off the dull roar of pounding surf cannons as salt-spume drifts, a warning of the sea's mood.

Back beach, Wonthaggi

Terri Allen

VWSG Financial Report 2003/04

The financial report, detailed below, indicates that the VWSG is in a satisfactory financial position.

If income and expenditure related to the normal activities of the group are considered alone (ie. without grant and contract income/expenditure) then income of \$4806 exceeded expenditure of \$4266 by a margin of \$540. However this positive balance was only achieved as a result of donations of \$737 from members (including an extremely generous anonymous donation of \$500).

The accounts do not include three contributions which did not involve money passing through the VWSG accounts. Woodside Petroleum paid \$3500 of the total net cost of \$4373 for a new trailer to carry the VWSG's cannon netting equipment in the field. Parks Victoria French Island paid the \$600 cost of 125 safety electric fuses (used to operate the cannons) and The Friends of Birds Australia kindly purchased waterproof covers for the group's five field radios (two having been ruined by being accidentally dunked in the sea in recent years!). All are thanked for their generosity.

The group also receives grants and contracts for specific items (eg. equipment) or work from government bodies such as Coast Action/Coast Care, the Department of Sustainability and Environment, the EnviroFund and the Phillip Island Nature Park. The income and expenditures associated with the above are detailed in the accounts also. However it should be noted that in some of these the income and relevant expenditure do not occur in a single financial year. Outstanding commitments on VWSG are to complete the Discovery Bay and Shallow Inlet Projects (\$5000), the Anderson Inlet Project (\$2900) and the Corner Inlet Data Analysis Project (\$4000).

The net result of the above is that the VWSG has a net uncommitted balance of around \$13K at 30 June 2004.

Rosemary Davidson and Clive Minton.

Victorian Wader Study Group Incorporated A.B.N.12 724 794 488 Income & Expenditure Statement for the year ended 30 June, 2004

INCOME		EXPENDITURE	
Subscriptions	\$2,265.00	Printing Bulletin	\$1,441.00
Bank Interest	\$764.01	Postage and stationary	\$71.25
Sale of Bulletins	\$230.00	Photocopying	\$153.00
Surplus from AGM food	\$40.00	Phone calls-conservation & teams	\$280.00
New cannons for AWSG	\$249.99	Bank & Government charges	\$28.50
Donations: Anon. (\$500)		Incorporation fee	\$35.00
M Anderson, C.Allen, A Archbold, M Brow			
D Emslie, D Farrer, C Melaine, N Roussac, E Sarrailhe, D Thomas	\$737.00	Boat hire- Barralliar Island	\$90.00
L Garraine, D Thomas	Ψ737.00	Misc. expenses- gifts, flowers etc.	\$216.60
Payment for Tern information- B Lane	\$500.00	Sub-total	\$2,315.35
Use of cannon net-Stint project-D Rogers	\$20.00		72,010.00
	,	Equipment	
Sub-total	\$4806.00	24upmen.	
		Novembre Commission at annual	#547.00
		New radio & service charges	\$517.99
		Trailer expenses (Reg. & repairs)	\$119.90
		Colour bands-Darvic	\$427.50 \$350.00
		Cable winding drum, rope, calipers Tape, screw drivers, grease, glue,	\$350.00
		etc	\$236.28
		Engraved leg flags	\$299.00
		Sub-total	\$1950.67
One 1 - 0 - 0 - 1 - 1 - 1		0-1-45	
Grants & Contracts	o #430.00	Project Expenses	\$430.00
PINP: Payment for cannon netting expertis		PINP: Cannon netting expertise	\$420.00
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables	\$950.00	PINP: Cannon netting expertise Coast Action/Coast Care	
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment	\$950.00 \$850.00	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring	\$720.00
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis	\$950.00	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer	
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun:	\$950.00 \$850.00 \$4,000.00	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects	\$720.00 \$873.00
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project	\$950.00 \$850.00 \$4,000.00 \$29,380.00	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project	\$720.00 \$873.00 \$2890.60
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun:	\$950.00 \$850.00 \$4,000.00	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project	\$720.00 \$873.00 \$2890.60 \$2,275.00
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total	\$950.00 \$850.00 \$4,000.00 \$29,380.00 \$35,600.00	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total	\$720.00 \$873.00 \$2890.60 \$2,275.00 \$7178.60
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total TOTAL INCOME	\$950.00 \$850.00 \$4,000.00 \$29,380.00	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total TOTAL EXPENSES	\$720.00 \$873.00 \$2890.60 \$2,275.00
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total TOTAL INCOME Cash Balance 1/07/2003	\$950.00 \$850.00 \$4,000.00 \$29,380.00 \$35,600.00 \$40,406.00	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total TOTAL EXPENSES Cash Balance 30/06/2004	\$720.00 \$873.00 \$2890.60 \$2,275.00 \$7178.60 \$11,444.62
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total TOTAL INCOME Cash Balance 1/07/2003 Petty Cash	\$950.00 \$850.00 \$4,000.00 \$29,380.00 \$35,600.00 \$40,406.00 \$0.55	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total TOTAL EXPENSES Cash Balance 30/06/2004 Petty Cash	\$720.00 \$873.00 \$2890.60 \$2,275.00 \$7178.60 \$11,444.62 \$2.60
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total TOTAL INCOME Cash Balance 1/07/2003 Petty Cash Bank of Melbourne Account	\$950.00 \$850.00 \$4,000.00 \$29,380.00 \$35,600.00 \$40,406.00 \$0.55 \$1,262.79	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total TOTAL EXPENSES Cash Balance 30/06/2004 Petty Cash Bank of Melbourne Account	\$720.00 \$873.00 \$2890.60 \$2,275.00 \$7178.60 \$11,444.62 \$2.60 \$3,253.88
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total TOTAL INCOME Cash Balance 1/07/2003 Petty Cash Bank of Melbourne Account Macquarie Account	\$950.00 \$850.00 \$4,000.00 \$29,380.00 \$35,600.00 \$40,406.00 \$0.55 \$1,262.79 \$22,121.31	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total TOTAL EXPENSES Cash Balance 30/06/2004 Petty Cash Bank of Melbourne Account Macquarie Account	\$720.00 \$873.00 \$2890.60 \$2,275.00 \$7178.60 \$11,444.62 \$2.60 \$3,253.88 \$49,418.86
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total TOTAL INCOME Cash Balance 1/07/2003 Petty Cash Bank of Melbourne Account Macquarie Account Total	\$950.00 \$850.00 \$4,000.00 \$29,380.00 \$35,600.00 \$40,406.00 \$0.55 \$1,262.79 \$22,121.31 \$23,384.65	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total TOTAL EXPENSES Cash Balance 30/06/2004 Petty Cash Bank of Melbourne Account Macquarie Account Total	\$720.00 \$873.00 \$2890.60 \$2,275.00 \$7178.60 \$11,444.62 \$2.60 \$3,253.88 \$49,418.86 \$52,675.34
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total TOTAL INCOME Cash Balance 1/07/2003 Petty Cash Bank of Melbourne Account Macquarie Account Total Unpresented Cheques	\$950.00 \$850.00 \$4,000.00 \$29,380.00 \$35,600.00 \$40,406.00 \$0.55 \$1,262.79 \$22,121.31 \$23,384.65 \$994.69	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total TOTAL EXPENSES Cash Balance 30/06/2004 Petty Cash Bank of Melbourne Account Macquarie Account Total Unpresented cheques	\$720.00 \$873.00 \$2890.60 \$2,275.00 \$7178.60 \$11,444.62 \$2.60 \$3,253.88 \$49,418.86 \$52,675.34 \$1,324.00
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total TOTAL INCOME Cash Balance 1/07/2003 Petty Cash Bank of Melbourne Account Macquarie Account Total	\$950.00 \$850.00 \$4,000.00 \$29,380.00 \$35,600.00 \$40,406.00 \$0.55 \$1,262.79 \$22,121.31 \$23,384.65	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total TOTAL EXPENSES Cash Balance 30/06/2004 Petty Cash Bank of Melbourne Account Macquarie Account Total	\$720.00 \$873.00 \$2890.60 \$2,275.00 \$7178.60 \$11,444.62 \$2.60 \$3,253.88 \$49,418.86 \$52,675.34
PINP: Payment for cannon netting expertis DSE: Corner Inlet consumables Coast Action/Coast Care - Equipment Comer Inlet data analysis Aust. Govt. Enviro Fun: Anderson Inlet Habitat Managmt. Project Sub-total TOTAL INCOME Cash Balance 1/07/2003 Petty Cash Bank of Melbourne Account Macquarie Account Total Unpresented Cheques	\$950.00 \$850.00 \$4,000.00 \$29,380.00 \$35,600.00 \$40,406.00 \$0.55 \$1,262.79 \$22,121.31 \$23,384.65 \$994.69	PINP: Cannon netting expertise Coast Action/Coast Care OYC breeding success monitoring Excess on trailer Aust. Govt. Envirofund Projects Discovery Bay Project Shallow Inlet Project Sub-total TOTAL EXPENSES Cash Balance 30/06/2004 Petty Cash Bank of Melbourne Account Macquarie Account Total Unpresented cheques	\$720.00 \$873.00 \$2890.60 \$2,275.00 \$7178.60 \$11,444.62 \$2.60 \$3,253.88 \$49,418.86 \$52,675.34 \$1,324.00
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VWSG INC Membership List

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Charles & Jocelyn Allen

Terri Allen Mark Anderson Peter Anton Allen Archbold Bruce Atkin

Steve & Robyn Atkinson Mark & Terry Barter Graham & Jenny Beal

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NWA WSG- Chris Hassell

NZWSG- Adrian Riegan

Queensland Wader Study Group Rhyll Gen Man Phillip Is Nature Park

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Journal of the Victorian Wader Study Group Bulletin Number 27 2004

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