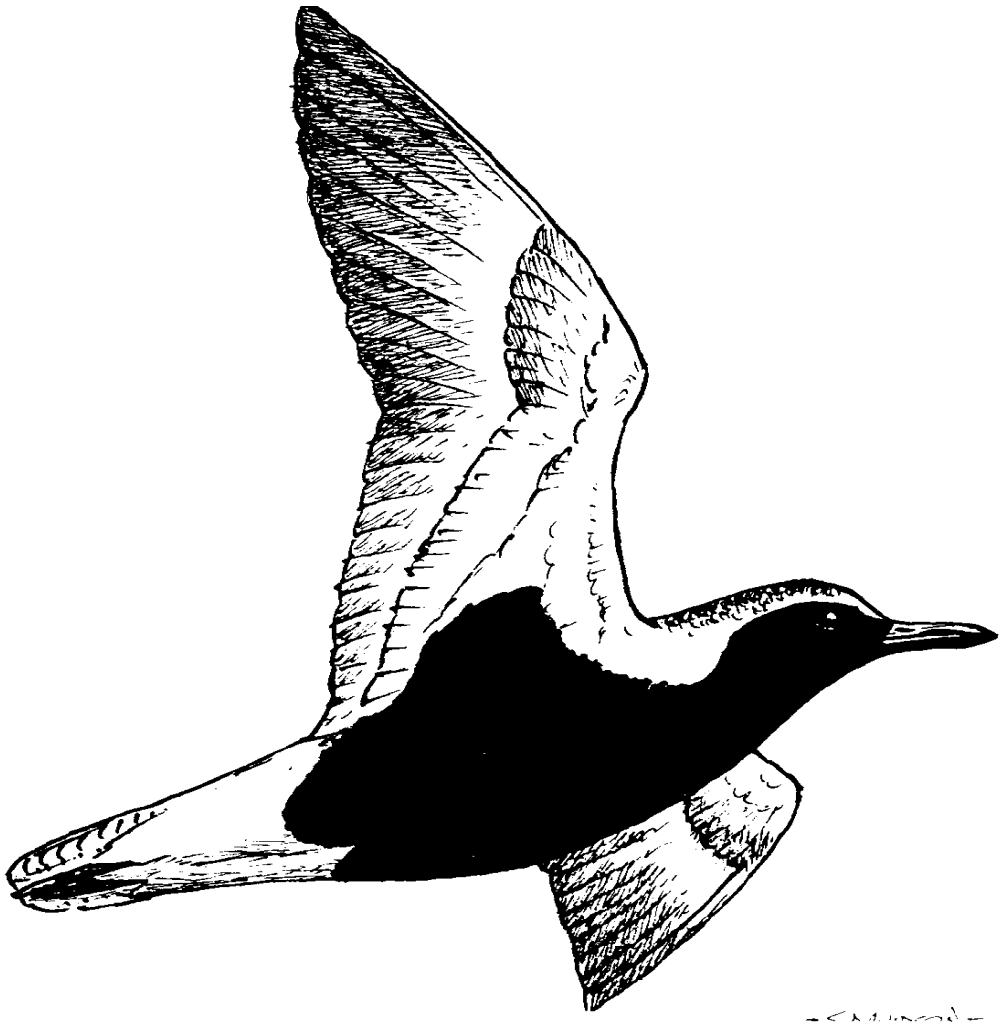
VWSG BULLETIN

JOURNAL OF THE VICTORIAN WADER STUDY GROUP

Number 37
August 2014



ISSN 0159-6896

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 the East-Asian Australasian 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 incorporated in 1986.

Pied Oystercatcher drawn by Amelia Formby

VICTORIAN WADER STUDY GROUP INC.

OFFICE BEARERS

Chairman
Dr. Clive Minton
165 Dalgetty Road
Beaumaris, Vic. 3193.
Tel. 03 9589 4901
mintons@ozemail.com.au

Treasurer/Secretary
Rosemary Davidson
14 Young Street
Ashburton, Vic. 3147.
Tel. 03 9885 8231
Yanakie 03 5687 1322
rosiedavidson@iprimus.com.au

Equipment Officer
Paul Buchhorn
PO Box 32
Balnarring, Vic. 3926.
Tel. 03 5983 5537
buchhorn@peninsula.hotkey.net.au

Editor/Deputy Chairman
Dr. Rosalind Jessop
PO Box 4009,
Wimbledon Heights, Vic. 3922.
Tel. 03 5951 2800
moonbird39@gmailcom

Assistant Editor and
Conservation Officer
Dr. Doris Graham
14 Falconer Street
Fitzroy North, Vic. 3068.
Tel/fax. 03 9482 2112
grahamdm@melbpc.org.au

Assistant Equipment Officer
Rod McFarlane
106 Haydens Rd
Beaumaris, Vic. 3193.
Tel. 9589 2187
helandrod@bigpond.com

Committee for 2014/15
The above officers and
Robyn Atkinson, Malcolm Brown, Maureen Christie, Ken Gosbell, Birgita Hansen, Penny Johns, Rob Patrick, Graeme Rowe, Margaret Rowe, Roger Standen, Susan Taylor, Inka Veltheim, Dave Cropley, Prue Wright, Peter Jenkins (Assistant Treasurer)

Public Officer: Dr. Clive Minton

Subscriptions for 2014/15 (payable in advance on 1st July 2014)

Full Member	$20.00
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 (VWSG) with articles, field notes and other material. Contributions are welcome. Please consult the editor or assistant editor on questions of format. Line illustrations are reproduced from the Australasian Wader Studies Group journal "Stilt" with permission of the editor unless otherwise indicated.

VWSG WEB SITE http://www.vwsg.org.au/

Our web site is maintained by Roger Standen

Summary of VWSG Activities in 2013/14

Clive Minton

Introduction

As usual I try to draw together in this introductory note some of the highlights of VWSG activities during the last year which are covered in more detail in the various sections of this annual Bulletin. For those who don't have the time to read every page this will hopefully give them a flavour at least of what the VWSG has done and achieved during this past year.

A major change, which has enormously benefited me personally, is that the load of organising and coordinating teams for most of the fieldwork activities is now carried out by Penny Johns and Rob Patrick. They've succeeded in putting together an adequate size of team for each item of fieldwork and have also been excellent in bringing in an increasing proportion of the younger generation (particularly Mike Weston's students from Deakin University, Burwood) to take part in fieldwork.

A total of 56 cannon-net catches were made during the calendar year 2013. This is similar to the number of catches in most recent years. Overall it means that about 80 days of fieldwork were undertaken by VWSG, if allowance is made for the days spent banding tern chicks and catching tern adults and if failed catching days are also included. With a typical team of 15 persons spending an average of eight hours in the field on each occasion this equates to more than 10,000 man hours of fieldwork input by VWSG teams during the year. This of course excludes all the time spent on activities at home such as organising and maintaining equipment, cleaning and loading cartridges, procuring supplies, making leg flags, computerising the data, organising teams and analysing data for presentations and publications. Using the CoastCare guideline of $30 per hour as the value of volunteer work, this adds up to a value of around half a million dollars per annum value. This is the level of commitment by VWSG members to wader and tern studies in south-east Australia annually.

Fieldwork

Waders

A total of 5488 waders were caught during calendar year 2013. The increase over the previous year was mainly the result of a unique total of 1101 Banded Stilt, including over 900 chicks banded by Reece Pedler (and helpers) at the breeding colony on Lake Torrens. Good numbers were again achieved on several other species. A satisfactory total of 209 adult Pied Oystercatchers was caught, but with only 31 Sooty Oystercatcher we fell below our annual target of a minimum of 50 birds.

Fieldwork again took place at the usual locations in Victoria, King Island and South Australia (including Yanerbie and Thompsons Beach). An additional location in Victoria was a one day visit made to Killarney Beach (near Port Fairy) in October which produced 50 Ruddy Turnstone, including one which subsequently moved to New Zealand and another which was carrying a geolocator put on in South Australia.

Banding has continued successfully in the first half of 2014 with 2752 waders caught up to the end of June. We've done reasonably well again for a variety of species, though for the second consecutive year we are running well behind on our total of Sooty Oystercatchers with only 11 caught.

The largest catch of waders in the last 12 months was 913 Red-necked Stints and 53 Curlew Sandpipers at Barrallier Island on 25 January 2014. In a most unusual situation the birds were already roosting in the catching area when the team arrived on Barrallier Island just after dawn (the net having been set the previous afternoon). It was fired within two minutes of the leaders crawling into the firing hide. The target was Curlew Sandpipers but they are so diluted by Red-necked Stints these days that a large catch has to be made in order to obtain a reasonable sample.

Terns

Some 4100 terns were banded in calendar year 2013 with a further 1083 in the first half of 2014. As usual the bulk were Crested Tern chicks, though the numbers were somewhat lower than usual due to poor breeding success at The Nobbies colony on Phillip Island in both 2012-13 and 2013-14.

A highlight was the breeding of some 2000 pairs of Crested Terns at the McLaughlin's Beach entrance area of Corner Inlet in both summers. Breeding success in both years appeared to be good and almost 2000 chicks were banded in the 2013-14 summer. It will be interesting to see if this larger number of breeding birds remains in Corner Inlet in future years or gradually drifts back to where many of them came from – The Nobbies on the west end of Phillip Island.

Recoveries, Retraps and Flag Sightings

Recoveries of waders and terns reported through the Banding Office have now almost dried up as a source of movement and longevity information. Fortunately we continue to receive an excellent number of reports of birds carrying leg flags, these being increasingly engraved flags which therefore enable the full history of the bird to be known.

Red Knot (1341) and Bar-tailed Godwit (544) still dominate the reports of flagged birds with a high proportion continuing to emanate from New Zealand. However there was an amazing 769 sightings of Victorian-flagged Red Knot on the Chinese mainland in the past year, with most emanating from the intensive sighting work by the Global Flyway Network personnel at Bohai Bay. Another surprising total was 51 sightings of Sanderling from South Australia in the Yellow Sea, where there was previously relatively little data on its use as a stopover location by Sanderling. There were many interesting individual records also but the highlight was probably a Bar-tailed Godwit, originally from Corner Inlet, which has now been seen by Andreas Kim in South Korea in four successive years on northward migration. The same bird has also now been seen in New Zealand, which has presumably become its normal non-breeding location.

Red-necked Avocets continue to produce surprises. There have been many further sightings of Victorian-flagged birds which have moved to the Hunter Estuary, Newcastle, New South Wales. One bird has now been seen in two separate summers on the Hunter, having returned (and been re-caught again) to Yallock Creek on Western Port, in between. Following the surprise movement of an Avocet

right across to Broome last year, a Broome-flagged Red-necked Avocet has now flown to Amata in outback northern South Australia.

The Avocet is yet another species to demonstrate how well Australian birds are able to systematically exploit the food resources of Australia, even when their location may vary enormously from one year to the next.

Tern flag sightings continue to be excellent, with 37 new reports of Caspian Terns in this Bulletin alone. It is also amazing that we are still receiving reports of flagged Common Terns when our main flagging activity took place 20 or more years ago.

Breeding success

Monitoring the annual breeding success of the migratory waders from the Northern Hemisphere is one of the main VWSG fieldwork targets. This requires a selection of catches at a range of locations during the core of the non-breeding season (mid-November to March) when most of the adults and juveniles are present. Data collected in the 2013/14 season showed that 2013 had been an exceptionally good breeding year for the Ruddy Turnstone and Curlew Sandpiper populations which come to south-east Australia. The proportion of juveniles was a record high and not surprisingly it led to a much higher than normal number of over-wintering first-year birds in the 2014 Austral winter (because one-year-old birds do not migrate northwards). Both these species were in need of boosts to their populations after declines due to poor breeding in recent years and even more so due to losses of their important migratory staging areas in the Yellow Sea.

Geolocators

This bulletin contains a summary of the number of the 381 geolocators deployed and 111 retrieved during the five-year period since the VWSG first used them. It also lists the scientific publications made and the verbal presentations on the results of the geolocator studies so far.

The annual deployment of geolocators on Ruddy Turnstone is an on-going process on King Island and in South Australia. A new aspect of the King Island studies is work by Marcel Klaassen's team on geolocator studies to see if suppression of the intestinal parasite load increases the efficiency of the migration of individual Turnstone.

Equipment

The group continues to operate with equipment which is kept in top-rate condition by the equipment officers. Our strong financial situation also enables us to replace equipment where necessary.

A new innovation to be tested shortly is an alternative method of attaching the projectiles to nets. This has been used effectively for a number of years by the Wash Wader Ringing Group in the UK and cuts down the wear on the projectile ropes considerably.

Finances

Yet again our income and operating expenditure were almost equal for the 2013/14 financial year. This is only achieved through the considerable ancillary income generated by donations from members, fund raising activities of members and a generous grant from CoastCare.

Acknowledgements

As always the VWSG has been dependent on the input of a great many people over the past year. Members, and others who come to assist us in the field, put in a huge number of man hours both in the field and back at base and this is enormously appreciated. So too is the generous assistance from so many other people and organisations. Most of all are thanked the land owners who allow us to catch on their land or traverse their property to reach catching sites. Finally thanks are due to the National Bird Banding Office and state authorities who provide the appropriate permits and licences for us to operate.

The past year has been another enjoyable and successful one, with new ground broken, new findings made and with the usual occasional failure. Let us hope we still maintain the usual positive balance of this mixture in the current year and for the foreseeable future.

School children from Newbery Park Primary School learning about shorebirds at Nene Valley SA (photo M. Christie).

Total Number of Waders Caught by Species
VWSG 2013

SPECIES	New	Retrap	Total
Bar-tailed Godwit	10	0	10
Ruddy Turnstone	321	253	574
Red Knot	4	0	4
Sanderling	159	91	250
Red-necked Stint	2025	497	2522
Sharp-tailed Sandpiper	135	6	141
Curlew Sandpiper	381	123	504
Pied Oystercatcher	140	86	226
Sooty Oystercatcher	36	4	40
Black-winged Stilt	5	0	5
Banded Stilt	1098	3	1101
Red-necked Avocet	63	20	83
Red-capped Plover	4	0	4
Double-banded Plover	17	1	18
Hooded Plover	6	0	6
15 Species	**4404**	**1084**	**5488**

Table prepared by Helen Vaughan and Clive Minton

The total (5488) is significantly above that of 2012 (4467), almost entirely because of the 1101 Banded Stilt caught during the year (more than 900 of these by Reece Pedler in SA). Red-necked Stint was again the dominant species (almost 50%) but there were also good totals for Ruddy Turnstone, Sanderling, Curlew Sandpiper, Pied Oystercatcher and Red-necked Avocet. In contrast the total for Bar-tailed Godwit (10) was the lowest for many, many years and the total for Red Knot (4) was again very poor. No Eastern Curlew or Great Knot were caught in 2013.

Re-traps (1084) again formed a significant portion (19.7%) of the total catch for the year.

Total Waders Caught by Species
1975 to 31 December 2013 – VWSG

Species	New	Retrap	Total
Latham's Snipe	347	14	361
Australian Painted Snipe	1	0	1
Black-tailed Godwit	4	0	4
Bar-tailed Godwit	5383	728	6111
Short-billed Dowitcher	1	0	1
Whimbrel	49	6	55
Eastern Curlew	869	89	958
Marsh Sandpiper	2	0	2
Common Greenshank	535	64	599
Terek Sandpiper	37	1	38
Grey-tailed Tattler	38	3	41
Ruddy Turnstone	5286	2536	7822
Great Knot	698	89	787
Red Knot	5170	743	5913
Sanderling	5472	2091	7563
Little Stint	9	0	9
Red-necked Stint	122099	32727	154826
Long-toed Stint	1	0	1
Pectoral Sandpiper	2	0	2
Sharp-tailed Sandpiper	10006	447	10453
Curlew Sandpiper	26364	5041	31405
Cox's Sandpiper	1	0	1
Broad-billed Sandpiper	5	0	5
Pied Oystercatcher	3164	1613	4777
Sooty Oystercatcher	1043	369	1412
Black-winged Stilt	51	0	51
Banded Stilt	1985	3	1988
Red-necked Avocet	631	26	657
Pacific Golden Plover	267	26	293
Grey Plover	177	30	207
Red-capped Plover	723	186	909
Double-banded Plover	3823	1007	4830
Lesser Sand Plover	115	11	126
Greater Sand Plover	31	3	34
Black-fronted Plover	57	4	61
Hooded Plover	44	2	46
Red-kneed Dotterel	136	11	147
Masked Lapwing	189	5	194
38 Species	**194815**	**47875**	**242690**

Table prepared by Helen Vaughan and Clive Minton

The number of waders caught by VWSG over a 39 year period has now grown to 242,690. For eleven species the cumulative total is now over 1000, with Banded Stilt having reached that milestone in 2013. Eastern Curlew and Red-capped Plover are the next potential species to reach the 1000 level, but progress is only slow on both.

Overall Red-necked Stint comprises 64% of the total, with Curlew Sandpiper at 13%. Both these species now form a smaller component of each year's totals. This is because we make fewer large catches of Red-necked Stints, partly deliberately and partly because there are no longer opportunities at places such as Swan Island and Inverloch. Curlew Sandpiper numbers have reduced so much that we have to struggle quite hard in some years to make any significant catch of them at all.

The total of 38 different species caught by the VWSG over the years is equivalent to 50% of the wader species ever recorded in Australia.

New and Retrapped Waders Caught Each Calendar Year by VWSG

Calendar Year	New	Retrap	Total
* 1975	9		9
* 1976	616	4	620
* 1977	482	12	494
* 1978	1296	42	1338
1979	7436	486	7922
1980	6121	1206	7327
1981	4561	869	5430
1982	3774	796	4570
1983	2875	628	3503
1984	4272	1045	5317
1985	4073	1051	5124
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
2004	5110	1224	6334
2005	6320	1893	8213
2006	6676	1467	8143
2007	4689	924	5613
2008	4611	1317	5928
2009	3965	831	4796
2010	3006	759	3765
2011	4291	830	5121
2012	3598	869	4467
2013	4404	1084	5488
Totals to end 2013	**194815**	**47875**	**242690**

Average annual total for 1979 – 2013 = 6863 (* excluded)

Table prepared by Helen Vaughan and Clive Minton

The catch total was the highest since 2008. This is mainly the result of the exceptional total of 1101 Banded Stilt. Without these, the total would have been the second lowest in the last 30 years.

The smaller catches in recent years are partly a result of declining wader populations and partly because catching effort is now much more orientated towards species such as Bar-tailed Godwit, Red Knot, Pied and Sooty Oystercatcher, Ruddy Turnstone and Sanderling, all of which are not normally caught in large numbers.

Total Waders Caught Each Six Months
1979-2013 – VWSG

Calendar Year	January to June	July to December	Total
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
2004	1288	5046	6334
2005	5003	3210	8213
2006	5192	2951	8143
2007	3646	1967	5613
2008	3812	2116	5928
2009	2726	2070	4796
2010	2136	1629	3765
2011	1967	3154	5121
2012	3199	1268	4467
2013	3270	2218	5488
Totals to end 2013	**123355**	**116874**	**242690**

Table prepared by Helen Vaughan and Clive Minton Note: Six month data are not available for years 1975 - 1978

Without the Banded Stilts the total for the second half of the year would have been the second lowest during the last 30 years.

.

Location of Waders Caught in Victoria, South Australia & Tasmania

Victoria	To Dec 2012	2013	Total
Werribee	66818	820	67638
Western Port/Flinders	61192	1668	62860
Queenscliff/Swan Bay	31975	0	31975
Corner Inlet	30789	651	31440
Anderson Inlet (Inverloch)	22302	4	22306
Sandy Point/Shallow Inlet	2788	0	2788
Laverton	956	0	956
Mud Islands	757	0	757
Killarney Beach	426	86	512
Barwon Heads	845	0	845
Other	628	0	628
South Australia	15931	1919	17850
Tasmania	1885	340	2225
Total	**237292**	**5488**	**242780**

Other includes Geelong (Point Henry/Belmont), Bendigo Sewage Farm, Seaford Swamp, Braeside/Croyden, Gippsland Lakes and Toowong

Table prepared by Helen Vaughan and Clive Minton

The trend over the last 15 or more years is for an increasing proportion of our annual catch totals to be from Flinders and Corner Inlet and a decrease proportion from Werribee. This is because of the distribution of the species which we now selectively target.

The SA total in 2013 was boosted by over 900 Banded Stilts.

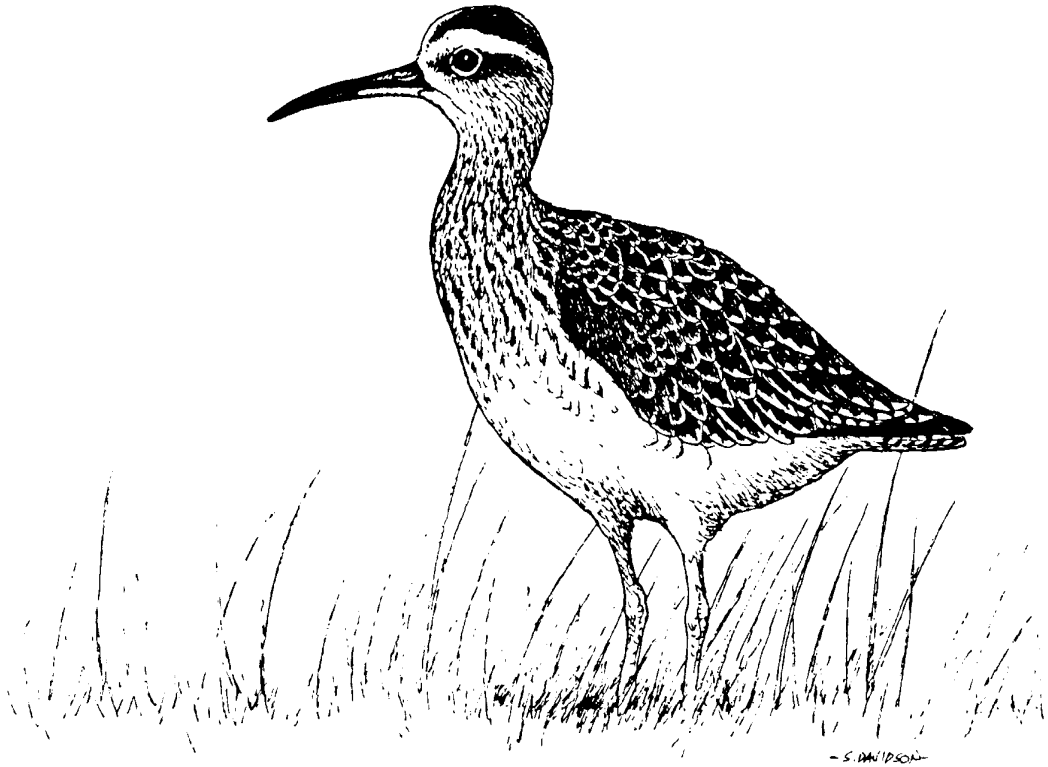
Numbers of waders processed by the VWSG each month to December 2013.

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
Latham's Snipe	51	44	0	0	0	0	0	0	106	99	35	61	396
Australian Painted Snipe	0	0	0	1	0	0	0	0	0	0	0	0	1
Short-billed Dowitcher	0	0	0	0	0	1	0	0	0	0	0	0	1
Black-tailed Godwit	1	0	0	0	0	1	0	0	0	1	1	0	4
Bar-tailed Godwit	889	1268	777	99	24	775	127	286	77	335	294	566	5517
Whimbrel	3	2	41	0	0	1	0	0	1	4	3	0	55
Eastern Curlew	23	177	24	0	24	18	21	76	175	149	180	100	967
Common Greenshank	69	135	122	0	0	0	0	0	0	37	176	60	599
Marsh Sandpiper	0	0	0	0	0	0	0	0	0	0	0	2	2
Terek Sandpiper	17	2	1	1	2	0	1	1	0	1	1	12	39
Grey-tailed Tattler	31	0	1	3	0	4	0	0	0	0	1	1	41
Ruddy Turnstone	440	587	2714	1601	39	23	77	82	114	215	1089	636	7617
Great Knot	197	87	26	0	0	30	21	6	16	116	78	130	707
Red Knot	928	399	302	201	47	430	469	139	96	1000	546	285	4842
Sanderling	376	1654	2060	535	0	0	1	5	0	265	893	668	6457
Little Stint	2	2	0	0	0	0	0	0	0	0	1	4	9
Red-necked Stint	2735	1737	7046	2703	546	749	1032	899	997	2140	3655	3895	28134
Long-toed Stint	0	0	0	0	0	0	0	0	0	1	0	0	1
Pectoral Sandpiper	0	2	0	0	0	0	0	0	0	0	0	0	2
Sharp-tailed Sandpiper	1832	943	240	2	0	0	0	16	635	563	743	2871	7845
Curlew Sandpiper	1567	1709	1727	231	223	128	266	514	348	1139	943	1612	10407
Broad-billed Sandpiper	1	2	0	0	0	0	0	0	0	0	0	2	5
Pied Oystercatcher	120	237	407	624	800	964	801	370	235	38	23	61	4680
Sooty Oystercatcher	13	108	86	204	226	372	296	109	0	1	2	3	1420
Black-winged Stilt	6	9	0	0	0	0	1	12	0	4	2	17	51
Banded Stilt	28	24	12	41	59	0	0	0	0	0	0	151	315
Red-necked Avocet	281	0	0	0	14	0	11	67	78	65	47	89	652
Pacific Golden Plover	40	27	62	2	0	0	0	0	0	28	63	65	287
Grey Plover	38	14	4	6	0	9	0	0	2	92	42	1	208
Red-capped Plover	44	89	64	122	210	110	77	28	12	23	35	22	836
Double-banded Plover	0	2	229	329	757	956	1053	964	1	0	0	0	4291
Lesser Sand Plover	54	5	13	7	3	2	2	0	0	1	15	12	114
Greater Sand Plover	21	3	6	0	0	1	1	0	0	0	1	0	33
Black-fronted Dotterel	0	7	1	0	11	16	7	9	2	0	4	8	65
Hooded Plover	3	0	1	3	1	15	0	0	0	2	5	0	30
Red-kneed Dotterel	0	10	0	20	0	44	11	17	12	8	23	1	146
Masked Lapwing	5	8	93	14	4	13	4	1	1	5	21	19	188
Cox's Sandpiper	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	9815	9293	16059	6749	2990	4662	4279	3601	2908	6332	8923	11354	86965

Table prepared by Helen Vaughan and Clive Minton

“Processed” means that two or more of the following were recorded for a bird; bill length, total head length, wing length, weight, primary moult.

This table used to be a key in determining fieldwork programs, with the target being to obtain an adequate sample of each species of wader processed for each month of the year. Nowadays almost all the practical opportunities for this have been filled. The table now clearly shows when populations of each species are available in Victoria for catching and processing. Thus only those species where immature birds remain behind during the Austral winter can be sampled at that time of year. Also Australian resident species can only really be adequately sampled during their non-breeding season. There are now no really obvious gaps which can be filled in our coverage on any species during the year.



Numbers of Waders Leg-flagged in Victoria (orange)

Victoria	To Dec 2012	2013	Total
Werribee	66818	820	67638
Western Port/Flinders	61192	1668	62860
Queenscliff/Swan Bay	31975	0	31975
Corner Inlet	30789	651	31440
Anderson Inlet(Inverloch)	22302	4	22306
Sandy Point/Shallow Inlet	2788	0	2788
Laverton	956	0	956
Mud Islands	757	0	757
Killarney Beach	426	86	512
Barwon Heads	845	0	845
Other	628	0	628
South Australia	15931	1919	17850
Tasmania	1885	340	2225
Total	**237292**	**5488**	**242780**

Other includes Geelong (Point Henry/Belmont), Bendigo Sewage Farm, Seaford Swamp, Braeside/Croyden, Gippsland Lakes and Toowong

***Includes Ruddy Turnstone and Sanderling flagged with orange (only) in the south east of South Australia between 1993 and 1998. T**able prepared by Helen Vaughan and Clive Minton.

This table has now grown too large to give details for every year back to when flagging was commenced by the VWSG in December 1989. Details for earlier years can be obtained from past VWSG bulletins (comprehensive up to that in the 2009 Bulletin).

Flagging in Victoria commenced in 1990. 103,899 waders have been flagged so far in SE Australia (includes SA and King Island, Tasmania). Only the annual totals for the last 7 years are given in the above table. The shortfall in Bar-tailed Godwit in 2013 is the most noticeable deficiency.

Numbers of Waders Leg-flagged in South Australia (orange/yellow)

Species	1999	2000	2001	2002	2003	2004	2005	2006	2007	###	2009	2010	2011	2012	2013	Total
Latham's Snipe	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
Grey-tailed Tattler	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bar-tailed Godwit	0	0	0	3	0	8	0	0	0	0	0	0	0	12	6	29
Ruddy Turnstone	234	226	73	193	76	141	74	258	84	141	96	109	268	45	117	2135
Great Knot	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4
Red Knot	0	0	0	0	0	1	0	11	0	0	0	0	0	1	0	13
Sanderling	63	420	2	315	328	76	220	250	506	244	87	261	439	268	159	3638
Red-necked Stint	126	383	22	319	163	93	174	465	54	90	179	208	356	92	369	3093
Sharp-tailed Sandpiper	0	2	0	27	7	73	27	21	0	15	0	0	74	40	1	287
Curlew Sandpiper	24	11	0	190	13	2	103	8	21	33	1	4	15	0	7	432
Banded Stilt	0	0	0	0	0	0	0	334	0	0	0	54	332	12	998	1730
Pacific Golden Plover	0	2	0	0	1	0	16	13	0	0	0	0	2	1	0	35
Red-capped Plover	0	0	1	7	5	0	7	4	1	0	0	2	3	8	0	38
Double-banded Plover	0	0	4	5	1	0	0	27	2	0	1	5	29	12	0	86
Black-fronted Plover	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
Hooded Plover	0	0	0	0	1	0	0	0	1	0	1	1	5	0	3	12
Masked Lapwing	0	0	0	0	4	2	2	4	1	0	0	0	1	0	0	14
Total	**447**	**1045**	**106**	**1062**	**599**	**396**	**623**	**1395**	**670**	**523**	**365**	**644**	**1524**	**495**	**1660**	**11554**

Table prepared by Helen Vaughan and Clive Minton

This table gives the total history of wader leg-flagging in SA. The number of waders flagged each year has been remarkably consistent, mainly in the 400 to 700 range, with a few years with a total well above this (1000 to 1700). The 2011 and, especially, the 2013 totals were boosted by the large number of Banded Stilts flagged (mostly chicks at Lake Torrens).

VWSG FIELDWORK PROGRAM January to December 2014

DATE	PLACE AND OBJECTIVES	HIGH	TIDE
Sat 4 Jan and Sun 5 Jan	**Yallock Creek and Stockyard Point** Small waders and Red-necked Avocet	1541 1641	2.73 2.82
Wed 22 Jan	**Yallock Creek** Small Waders and Red-necked Avocet	1759	2.66
Sat 25 Jan	**Barrallier Island** Small waders	714	2.77
Mon 3 Feb	**Rhyll** Bar-tailed Godwit	1634	2.88
Sat 8 Feb to Tues 11 Feb	**Corner Inlet** Bar-tailed Godwit, Red Knot, Oystercatchers	719 to 8.43	2.59 to 2.35
(Sun 16 Feb to Sun 9 Mar)	**AWSG NWA 2014 Wader and Tern Expedition** Broome and 80 Mile Beach		
Mon 17 Mar to Tues 25 Mar	**King Island** Ruddy Turnstone	1238 to 1729	1.31 to 1.52
Sun 30 Mar to Mon 7 Apr	**South Australia** Ruddy Turnstone and Sanderling	1340 to 1720	0.96 to 1.09
Wed 16 Apr	**Fairhaven** Pied Oystercatcher	1352	2.78
Tues 29 April	**Stockyard Point** Pied Oystercatcher	1251	2.86
Thur 15 May	**Rhyll** Pied Oystercatcher	1321	2.88
Sat 17 May and Sun 18 May	**Roussac's and Barry Beach** Pied and Sooty Oystercatcher	1529 1620	2.6 2.72
Sun 22 Jun to Tues 24 June	**Charles Hall Road near Yanakie (22nd)** **Corner Inlet (23 and 24th)** Oystercatchers and overwintering waders	815 908 1002	2.53 2.46 2.4
Sat 28 Jun to Sun 29 Jun	**Corner Inlet** Oystercatchers and overwintering waders	1401 1454	2.45 2.52
Sat 12 Jul	**Rhyll** Pied Oystercatchers	1214	2.86
Sun 13 Jul	**Stockyard Point** Pied Oystercatcher and overwintering waders	1318	3
Tue 29 Jul & Wed 30 Jul	**Charles Hall Road and Barry Beach** Sooty and Pied Oystercatchers	1501	2.43
Sun 10 Aug	**Yallock Creek** Double-banded Plover and overwintering small waders	1142	2.77
Sat 30 Aug	**A.G.M.** At Clive's house, 165 Dalgetty Rd, Beaumaris 10am net mending, 4pm AGM, 5.30pm barbecue, 7–10pm Talks/Pictures		

DATE	PLACE AND OBJECTIVES	HIGH	TIDE
Thurs 11 Sept	**Stockyard Point** Pied Oystercatchers and early-arriving returned migrants	1419	2.97
Sun 26 Oct* to Fri 31 Oct	**Thompsons Beach, South Australia** (100k N of Adelaide) Red Knot and Bar-tailed Godwit	643 to 0757	2.58 to 2.32
	accommodation booked from 25th October contact Maureen Christie		
Sat 1 Nov to Thurs 6 Nov	**Nene Valley, South Australia** Retrieval of geolocators from Ruddy Turnstone	0851 to 1213	0.79 0.74
Thurs 6 Nov	**Mud Islands** Crested Tern adults & Caspian Tern chicks	1128	1.37
Sun 23 Nov to Mon 1 Dec	**King Island**, **Tasmania** Retrieval of geolocators from Ruddy Turnstone	1346 to 826	1.36 1.39
Sat 6 Dec to Sun 14 Dec includes 4 days travel	**Eyre Peninsula** Ruddy Turnstone, Sanderling and oystercatchers	catch 8-12 Dec *Contact Maureen Christie*	
Wed 17 Dec	**Mud Islands** Crested Tern & Caspian Tern chicks	1334 (low tide)	0.47
Fri 19 Dec	**Corner Inlet** Caspian & Crested Tern chicks	950	2.41
Mon 22 Dec	**The Nobbies** Crested Tern chicks	1815 (low tide)	0.34
Sun 28 Dec to Tue 30 Dec	**Werribee S F** Small waders	823 to 940	0.94 0.93

Little Penguins at Port MacDonnell, SA
(photo R. Jessop)

Recoveries of Waders

Clive Minton, Roz Jessop and Maureen Christie

The number of recoveries of waders for which we receive formal Recovery Reports from, or through, the Bird Banding Office in Canberra has decreased enormously in recent years. This is partly because of a lesser tendency, noticeable worldwide, for people to find and report band numbers from dead birds they find. But it is also because of a change in policy at ABBBS, forced by financial constraints, to now only formally process dead birds reported to it by the public or overseas "recoveries" sent through foreign banding schemes.

Thus the myriad of sightings of engraved leg flags on Pied Oystercatchers, including interstate movements, are now handballed to us to directly respond to the flag sighter. Also movements within Australia and outside of Australia, where the Banding Office knows that we have already obtained, through our own network, the original banding information, are no longer processed into the Recoveries Database, at least not immediately. We had previously relied on these formal reports to produce lists in the VWSG Bulletin and have not currently developed our own systems to capture such data for this purpose. Thus the list of recoveries during the last year, given below, is meagre compared with earlier years. Fortunately leg flag sighting data seems to more than compensate for this.

Detailed below are the only recoveries showing interstate or overseas movements.

Red-capped Plover

Band No.	Banding details			Recovery details			
	Age	Date	Location	Date	Location	Condition of bird	Movement
036-79229	Adult	21/12/12	Manuka, King Island, Tas.	20/3/14	Flinders, Vic.	Dead	185km NE

This is an amazing recovery – our furthest movement yet for a Red-capped Plover. It was found dead on Flinders Beach by Penny Johns, who is regularly part of the VWSG team which has visited King Island twice a year since 2007.

Red Knot

Band No.	Banding details			Recovery details			
	Age	Date	Location	Date	Location	Condition of bird	Movement
052-29806	Adult	5/2/06	Corner Inlet	1/3/13	80 Mile Beach, WA	Recaptured	3268 km NW
052-60839 (Engraved)	Juv	25/01/12	Barwon Heads	16/06/13	Broome, WA	Seen	3112 km NW

Red Knot have not been recorded moving as frequently as many other wader species between Victoria and north-west Australia. It was amazing therefore to get two records in the same year. The first bird seems to have genuinely changed its non-breeding area. The second is a two-year-old bird probably doing some exploratory northward migration.

Red Knot are notorious for their mobility between different locations at all times of the year.

Pied Oystercatcher

Band No.	Banding details			Recovery details			
	Age	Date	Location	Date	Location	Condition of bird	Movement
101-15410 (Engraved flag)	Juv	24/6/98	Roussac's Farm, Corner Inlet, Vic	1/12/12	Merimbula, NSW	Seen	390 km NE
101-24088 (Engraved flag)	3	13/8/06	Barry Beach, Corner Inlet, Vic	27/1/14	Narooma NSW	Seen	431 km NE

Victorian Pied Oystercatchers, especially those from the Corner Inlet complex, regularly move into the southern half of the New South Wales coast, especially when they become of breeding age.

Pied Oystercatcher seeing off a "dummy" oystercatcher near noose matt (Photo M. Christie)

Sightings of Waders Leg-flagged in Victoria, South Australia and King Island, Tasmania.

Roger Standen, Clive Minton, Roz Jessop, Maureen Christie, Margaret Bennett

Following several years of disrupted reporting on wader sightings, this year's report is reasonably comprehensive as it includes both the Taiwan and Bohai Bay birds that have not been fully included in recent Bulletins.

The tables have all of the sightings reported of birds that were flagged from the three states that were seen, between July 1, 2013 and June 30, 2014. No doubt there will be more come in from the recent northern migration, but as at the time of writing, late July, all data is included. The exception is Banded Stilt which is covered in Reece Peddler's report elsewhere in the Bulletin.

Because sightings coming into the database at various times, the tables cannot be used as a complete set of sightings, more a good reflection of where the sightings are made and the relative sightings for each species. Note that many of the sightings are of the same birds many times over, wherever there are dedicated wader watchers.

Sightings within Australia that are included are either, interstate, inland or clearly several hundred kilometres from the banding location.

There are many sightings of locally flagged birds that have been collected, but not yet been analysed. Hopefully by next year's Bulletin, there will be a section on local sightings.

Some general points about the sightings compared to the number of birds flagged (based on the Victorian sample) are made below:

- Red-necked Stint sightings are relatively few given the huge number that have been flagged (less than 4% of sightings were RNS, while around 50% of flagged birds were stint (2009-2012)). However, they were seen across the largest number of countries.
- Conversely, Red Knot make up about 60% of sightings but were <3% of birds flagged in the same period.
- Sharp-tailed Sandpipers are rarely reported that probably reflects the capacity of this species to use such a wide range of habitats, including more freshwater sites than many other waders.
- Bar-tailed Godwit and Red Knot have a large number of sightings from New Zealand that reflects the tendency for young birds banded in Victoria to move to New Zealand before migrating for the first time.
- The large number of sightings emanating from China (mainland), are mostly from the team of dedicated watchers from the Global Flyway Network who spend two months during the peak of northward migration in Bohai Bay. This year they gathered just over 5000 sightings of 17 species.

Victoria

All sightings of birds flagged in Victoria from both within Australia and overseas, are included in the following table.

Species	Australia	China (mainland)	Hong Kong (China)	Indonesia	Japan	Malaysia	New Caledonia	New Zealand	Russia	South Korea	Taiwan (China)	Total Overseas	Total Sightings
Bar-tailed Godwit	136	41			2		2	255		108		408	544
Common Greenshank										3*		3	3
Ruddy Turnstone	1							11			2	13	14
Great Knot	6	1									1	2	8
Red Knot	141	769			1			430				1200	1341
Sanderling	8	12									1	13	21
Red-necked Stint	25	43	7	4		1			1		5	61	86
Sharp-tailed Sandpiper		5										5	5
Curlew Sandpiper	22	62	13								6	81	103
Red-necked Avocet #	130												130
Total	472	933	20	4	3	1	2	696	1	111	15	1786	2257

#This bird was reported as having an orange flag, but with a note to say it was faded orange or stained yellow. It is therefore from Australia, but may be from Vic or NWA. The bird was seen in October 2013 and twice in April/May 2014.

Notable individual sighting include:

a) Curlew Sandpiper 'J5' banded at Werribee on 28/12/13, aged 1, flew over 3,000km to be seen by Clare Morton at Simpson's Beach, Broome on 13/3/14. This is unusual in the timing, as many of these young birds can make their way to NWA later in their first austral winter/spring, but not this early.

b) A Red-necked Stint seen in Taiwan on 7/6/14 was 7,380km into its 11,000km journey to breed. This sighting came to us via the Taiwan managed website - Shorebird Resighting Information of East Asian-Australasian Flyway - (http://resights.bfsa.org.tw/) - that is increasingly being used by people in that region to log their sightings. These are often posted with photos that help confirm the description.

c) Another Red-necked Stint was seen around Pekulneiskoe Lake, near Chukotka, far-eastern Russia, on 21/7/13 11,540km from its austral summer base, just on or immediately south of the RNS breeding areas. It was seen in Pavel Tomkovich's study area in a group of about 40 birds.

d) A Red-necked Stint returning from breeding on 24/8/13 stopped off at West Kalimantan, Indonesia, still 5,600km from Victoria.

e) A Red-necked Stint was seen at Mai Po, Hong Kong on 7/4/14 well into its migration, some 7,240km north of its banding location.

f) A Ruddy Turnstone 'YRZ' was caught at Killarney Beach, Victoria on 20/10/13, aged 2+, and must have still been returning from breeding, on its way to New Zealand as it was seen there on 2/1/14.

g) Liz Crawford and Chris Herbert are regular reporters of sightings in the Hunter Estuary, NSW and Liz sent in a few interesting notes about the Red-necked Avocets they see there. Of the twelve avocet flagged with ELFs from Victoria seen in the Hunter Estuary, eleven were flagged on the same day in January 2012 and one was flagged in January 2013. They also found that one of these birds - orange engraved 'ADM' - was flagged at Yallock Creek in January 2012, seen in the Hunter Estuary once in September 2012, caught again in Yallock Creek in January 2013, and seen again in the Hunter Estuary in August-September 2013 (22/8/13 - 4/9/13) and again in November 2013 (16 - 27/11/13). This bird makes it obvious that some avocet migrate between the two sites. It is also interesting to note that three avocets with orange ELFs were still present in the Hunter Estuary in January 2013 when 'ADM' was back in Yallock Creek.

h) A Bar-tailed Godwit 'RN' banded at Corner Inlet in February 2011 aged 3+, so a genuine Victorian bird, spent at least a month at New Caledonia between Oct 14 and Nov 14, 2013, while on its return from the breeding grounds, only 2,600km from where it was flagged.

i) A Bar-tailed Godwit 'ALL' was banded aged 1, at Barwon Heads on 18/12/12, only to move up to the Hunter Estuary in NSW by March 2013, where it was seen several times every month until the last sighting on November 16 (a total of 32 sightings by Liz and Chris). Presumably it then decided to relocate to New Zealand as it was not seen again until seen at Miranda on 30/3 14. It will most likely remain at Miranda for its austral summers from now on. While this simply confirms what is already known for many of the young godwit banded in Victoria, it is interesting to see the hard data show up once again with the benefit of engraved flags.

j) Another great story from engraved flags is that of Bar-tailed Godwit 'T0'. Banded aged 1 at Corner Inlet on 23/6/09, it is not known how long it stayed in Victoria, but it returned to New Zealand following migration in 2013.

   The first migration where it was seen was at Aphae Island in South Korea, by Andreas Kim and others on 23/4/11, which is almost certainly its first migration. It returned to Aphae Island the next year on its second northern migration to be seen by Andreas and others on 11/4/12 where it stayed until the 13/5/12. Again it migrated through the same place on the third migration first seen on 8/4/13 and staying until at least 28/4/13. It was seen in New Zealand on 16/11/13, so really we can hardly claim it as a Victorian bird any more. This year is its fourth migration and Andreas reported seeing it again on the 3/4/14 and it was still there 29/4/14.

   This is a wonderful record for this bird showing that every year of its northern migration so far it has passed through the same staging area in South Korea. How long will Andreas continue to see it in the future we will have to wait and see?

k) Tony Habraken made many sightings of orange engraved flagged Red Knot over the austral summer that had all been banded in four catches between Barwon Heads and

Corner Inlet in Victoria. When the banding details were checked it turned out that Tony had seen over 40% of all the birds banded at those catches, with nearly all being aged one at banding. This reinforces the understanding that many first-year Red Knot stay in Victoria initially, but ultimately move to New Zealand before they start their breeding migration.

South Australia

There were 196 sightings of migratory waders flagged in South Australia between 1/7/13 and 30/6/14 as shown the following table.

Species	Australia		China (mainland)	East Timor	Hong Kong (China)	Japan	New Zealand	Taiwan (China)	Total Overseas		Total (All)
Bar-tailed Godwit	0		4				8		12		12
Ruddy Turnstone	25		2					9	11		36
Red Knot	7		2				5		7		14
Sanderling	26		51	1		6		2	60		86
Red-necked Stint	5		17		4			2	23		28
Curlew Sandpiper	4		4						4		8
Total	71		80	1	4	6		13	117		188

Notable individual sightings include:

a) A 16 year old Ruddy Turnstone banded at Beachport in 1998, was seen at Taiwan on 11/5/14, 7,000km into its migration.

b) A Red-necked Stint was seen near Esperance on May 4, 2014, in non-breeding plumage. It is likely this is a first year bird. They often roam around quite widely in winter but do not necessarily relocate to another non-breeding area.

c) A Ruddy Turnstone 'ZJS' banded aged 1 at Port MacDonnell on 24/4/11 decided to relocate to NWA where it was seen ten times between 23/9/13 and 6/4/14. This was unlikely to be its first migration, given it is in its fourth year. Other Australian sightings of turnstone were mainly birds returning through NWA, NT and NSW.

d) The paucity of sightings of Ruddy Turnstone in the Yellow Sea compared to Taiwan continues the long-term story of flag sightings failing to pick up these birds there, when the geolocator work clearly shows they nearly all use the Yellow Sea. This is thought to be a factor of habitat use as they do not tend to be out on the mudflats where the sighters generally are.

e) Sanderling seen within Australia were nearly all seen on southward migration, or close to their banding area (i.e. across the border in Victoria), except for one in non-breeding plumage seen at Carnarvon in WA in 18/6/14, that was not

migrating and was probably a first year bird finding a new austral home. Of the overseas birds, a Japanese observer saw four birds with engraved flags on 28/8/13, one from Port MacDonnell, one from Canunda NP and two from Yanerbie, the latter being a great result given the few birds that have been banded there.

f) Another Sanderling was seen returning on 29/9/13 at Dili, East Timor, 2,800km from its banding site.

g) A plain orange/yellow flagged Red Knot was seen by Chris & Liz in the Hunter Estuary seven times between 9-19/10/13. It was one of 11 birds flagged 12/6/06 at Lake George where there were 11 red knot flagged OY/- and all were juveniles so are now in their eighth year. It was probably en-route to New Zealand where there have been several sightings of these birds.

King Island

As the target species on King Island is Ruddy Turnstone, it is not unusual that nearly all sightings are of this species.

Species	**Australia**	China (mainland)	Japan	New Zealand	South Korea	Taiwan (China)	**Total Overseas**	**Total (All)**
Ruddy Turnstone	14	4	2	1	1	15	23	**37**
Double-banded Plover	1						0	**1**
Total	**15**	**4**	**2**	**1**	**1**	**15**	**23**	**38**

Some notable records are elaborated on here:

a) Unusually, one Ruddy Turnstone was seen at Darwin on northward migration (19-21/4/14) as usually all turnstone overfly the north coast of Australia with a long initial flight.

b) A Double-banded Plover banded on King Island (orange/blue) was seen at Flinders on 29/3/14 by Penny Johns. It had most likely just returned from New Zealand after breeding and could have been moving on to King Island again.

c) Northern migration accounted for 85% of the Taiwan sightings of turnstone, which is consistent with previous years.

d) Two sightings of engraved flagged turnstones returning via the Eyre Bird Observatory in WA (both early September) show an interesting route home from their breeding grounds.

Pavel Tomkovich sent an image of a Red-necked Stint flagged in Thailand that was nesting and it shows the fine line the birds make when judging when to arrive at the breeding grounds, as there is still plenty of snow around in the photo.

Pied Oystercatchers (Photo Prue Wright).

Sightings of Waders Leg-flagged elsewhere and then seen in Victoria, South Australia or Tasmania

Roger Standen, Clive Minton, Roz Jessop, Maureen Christie, Margaret Bennett

Despite the leg flag database being brought up-to date there were disappointingly few records reported of leg flag sightings from within the VWSG region of birds seen away from their banding area. A total of 40 sightings of these birds is 20-30% less than the previous two years.

Only two overseas sightings were made. When the number of birds being flagged across the flyway is increasing, it would be expected that we see more, rather than less. A concerted effort is needed to search for flags in a complementary effort to the banding program.

Some detail on individual sightings is provided in the sections below.

Victoria

The only two sightings of overseas birds were made in Victoria; nine were from interstate and seven from within the state, but inland from the banding areas along the coast.

	China (mainland)			**Australia**					
Species	Chongming Dongtan NNR	Bohai Bay	**Total overseas**	NWA	SA	TAS	VIC	**Total Australia**	***Total All***
Ruddy Turnstone				1		1		**2**	***2***
Sanderling					5			**5**	***5***
Red-necked Stint					1		1	**2**	***2***
Curlew Sandpiper		1	**1**				6	**6**	***7***
Sharp-tailed Sandpiper	1		**1**					**0**	***1***
Double-banded Plover						1		**1**	***1***
Total	1	1	**2**	1	6	2	7	**16**	***18***

Some detail is provided here:

a) The Sharp-tailed Sandpiper was seen at Werribee on 11/3/14, some 8,070km from where it was banded at Chongming Dongtan NNR, near Shanghai.

b) The Curlew Sandpiper, 8,900km from where it was banded at Bohai Bay, was seen in January 2014 on the Bellarine Peninsula, where it was also seen the previous January.

c) A group of six Victorian-flagged Curlew Sandpipers were seen at Lake Colac on 23/4/14. While within about 100km of the nearest potential banding sites, it was unusual to see these birds inland.

d) Three of the SA flagged Sanderling were just over the border from their banding site at Port MacDonnell and the furthest was seen at Phillip Island in February 2014, a bird banded 400km away in April 2013 aged 2+, also at Port MacDonnell.

e) The Ruddy Turnstone from NWA was seen at Barwon Heads in January. This is not a conclusive sighting, due to the observer not getting a clear view, but is possible as a number of Victorian Ruddy Turnstone pass through northern Australia on their return from migration.

f) A Double-banded Plover banded on King Island (orange/blue) was seen at Flinders on 29/3/14 by Penny Johns. It had most likely just returned from New Zealand after breeding and could have been moving on to King Island again.

South Australia

Nine of the SA sightings were of interstate flagged-birds; the other five were seen away from the flagging area but within the state.

	Australia				
Species	NWA	SA	TAS	VIC	**Total**
Bar-tailed Godwit		1			1
Ruddy Turnstone			3		3
Sanderling		2			2
Red-necked Stint		2		5	7
Red-necked Avocet	1				1
Total	**1**	**5**	**3**	**5**	**14**

Some detail is provided here:

a) The Red-necked Avocet 'CP' was seen at the Amata aboriginal community in north-west SA on 24/11/13, three months after it was banded at Roebuck Bay, 1,280km away.

b) Bar-tailed Godwit 'AHU' was banded at Thompson Beach aged 2+in November 2012 and was seen there again in November 2013. While this was a local sighting, it is seen as important as the local movements of these birds are potentially going to be the subject of a satellite transmitter study beginning late in 2014.

c) The two SA flagged Red-necked Stint were banded at Yanerbie and were seen some 350km to the east at Barkers Rocks, in December 2013.

d) The two Sanderling, were Canunda NP flagged birds seen 250km away at Goolwa, at the end of October 2013. One had been banded 10/11/11 and the other 2/12/12.

e) One of the Victorian flagged Red-necked Stints was seen at Thompson Beach in April, which is not unusual. However, the detail provided with this sighting shows how much information can sometimes be gathered along with the sighting itself. The field notes provided were that …" there was one flagged red-necked stint, foraging on beach mudflat with patches of beach washed seagrass & sand, receding tide, with loose mix of waders, e.g. c. 50 Red-necked Stint, 1 Bar-tailed Godwit, 2 Double-banded Plover, 1 Sharp-tailed Sandpiper, 5 Ruddy Turnstone, 5 Red-capped Plover. 3 km of beach surveyed for 2 hrs. no other flags seen. Other waders seen incl. 300+ Red Knot, 2 Great Knot, 500+ Banded Stilt, 20 Common Greenshank, 150 additional Red-necked Stint, 50+ Red-capped Plover, 5 Curlew Sandpiper, 20 additional Ruddy Turnstone.

Tasmania

Some of the Tasmanian sightings came from individuals and some from a group conducting summer wader counts.

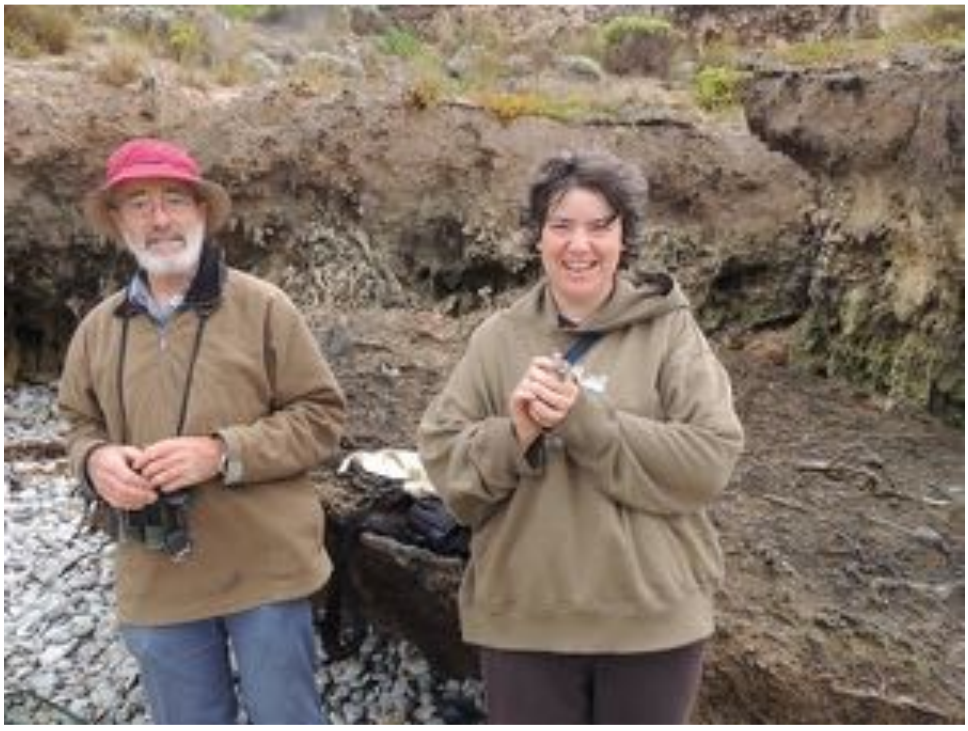
	Australia		
Species	SA	VIC	**Total**
Ruddy Turnstone	2		2
Red Knot		2	2
Red-necked Stint	1	3	4
Total	**3**	**5**	**8**

Some detail is provided here:

a) The Red Knots were seen in January on the summer count on Robbins Island.

b) One of the Victorian Red-necked Stints was seen at Hobart, 580km away from the flagging zone, on 1/3/14.

c) Both Ruddy Turnstone were seen on King Island, with 'ZDB' being flagged on 21/3/11 aged 1 at Port MacDonnell. However, it has become a local King Island bird having been seen and caught there several times since, including having had a geolocator applied and retrieved.



Eric and Heidi Miller releasing a Ruddy Turnstone (photo M. Christie)

Tern Breeding and Banding Report 2013/14

Clive Minton, Roz Jessop, Susan Taylor, Dave Cropley and Robyn Atkinson

Caspian Tern

Location	Breeding pairs	Chicks banded
Mud Islands	20	11
Corner Inlet	50	9
Totals	**70**	**20**

Caspian Tern breeding colonies occurred, as usual, on the west end of Clonmel Island in Corner Inlet and on Mud Islands in Port Phillip Bay. It was difficult to be sure of the exact number of pairs on Clonmel because the colony was partially washed out by storm tides in early December. Some relaying took place but the overall outcome in terms of young birds fledged was poor with probably only 20 – 25 eventually fledging and only 9 being banded. A single pair again nested, apparently successfully, on the east end of Dream Island.

At Mud Islands the breeding location was again on one of the new off-shore sandbanks. These have built up slightly over the last year and this enabled some nests to survive the highest tides. Probably only about 15 young eventually fledged, from the reduced size colony of 20 pairs, with 11 chicks being banded.

Crested Tern

Location	Breeding pairs	Chicks banded	Banded adults
Mud Islands	900	210	35
The Nobbies	2500	1915	-
Corner Inlet	2300	1900	1
Totals	**5700**	**4025**	**36**

Crested Terns nested in modest numbers and with only moderate breeding success at Mud Islands. Numbers were also well down at The Nobbies (west end of Phillip Island) and the eventual breeding success was poor. In contrast Crested Terns had another outstanding year at Corner Inlet.

There was some recovery in numbers of breeding pairs at Mud Islands (from 454 pairs last year to 900 this year). Also all birds returned to breed at the traditional Mud Islands location, with none on South Channel Fort as there had been the previous year. Breeding success was only moderate, though exact figures could not be obtained because 300 pairs were still sitting on eggs at the time of the last visit on 12 December. It does seem however that Silver Gull predation of eggs and chicks is now greater than it used to be, perhaps because the nesting Silver Gulls are now infiltrating the Crested Tern colony with their nests. This probably gives them greater opportunities to snatch eggs and chicks from the Crested Terns. Vegetation clearance on Mud Islands in the area around the Crested Tern nesting site was carried out extensively in August 2013. Unfortunately an exceptionally high tide in October took advantage of the relatively unprotected sand and washed part of the usual nesting area away (before the Crested Terns arrived). It is hoped that this will build up again to a satisfactory level with wind-blown sand before the 2014 nesting season.

There was again a period of shortage of food for the Crested Terns (and the Penguins) around Phillip Island in November. This seems to have contributed to the early cessation of egg laying and the colony at The Nobbies only reached 2500 pairs, its lowest level for more

than 10 years. Fortunately sufficient food was available by the time the chicks had hatched and 1900 were banded on 23 December. However food resources again became scarce in January and over 400 dead chicks were picked up, with many more corpses thought to have been washed away by very high tides.

The big surprise in the 2013/14 season was the Corner Inlet breeding colony. It had been expected that the exceptional numbers of the 2012 breeding season (2000 pairs) would have dropped back to the more normal level of 400 to 600 pairs, given that the severe food shortages elsewhere, which caused the 2012 influx, had largely disappeared. Instead, however, the population increased to 2300 pairs – they obviously liked what they found and decided to stay for another year!

Breeding was extremely successful with 1900 chicks being banded. Follow-up visits suggested extremely low mortality and that most of the chicks fledged in spite of record high temperatures in Victoria during January. It will be interesting to see what transpires in the 2014/15 breeding season. The nesting area used in 2013/14, on the east end of Dream Island, seems to have successfully survived the initial winter gales and storm tides.

There was no systematic attempt to recapture banded breeding adults at The Nobbies and Corner Inlet colonies this year. Only 35 could be caught at Mud Islands, where they seem to have learned to avoid being captured at the nest!

Fairy Tern and Little Tern

Up to 50 pairs of small terns were seen in Corner Inlet and breeding activity was recorded between December and February, particularly near the eastern end of Dream Island. Most were thought to be Fairy Terns but some Little Terns were also recorded. However most eggs laid were soon washed over by high tides or covered by sand, as usual. It is unfortunate that these species always lay on low patches of sand which are regularly washed over by each series of spring tides.

Some 30 pairs of Fairy Terns apparently laid eggs on Rams Island, just off French Island in Western Port. This occurred in December, but by early February no birds were present. Only broken eggshells were found, some still in the nest. Eggs were mostly broken in half, with jagged broken edges (not the way eggs appear after hatching) and small holes pecked in them. Broken eggshells collected. It appears the colony has been disturbed – by people and/or a dog – and predated by birds, most likely Silver Gulls (Chris Chandler pers. Comm.). No small terns were known to have nested at Andersons Inlet, Inverloch, or at any locations in Port Phillip Bay.

Gull-billed Tern

For most of the last 35 years Gull-billed Terns have only been recorded occasionally, and then only in small numbers, on the bays and coasts of Victoria where VWSG regularly operates. Numbers caught and banded over the years have been miniscule.

However, the situation has changed markedly in the last five years since extensive inland rains in 2009, and since, have led to extensive successful breeding and a marked increase in the total Gull-billed Tern population. In the last three years flocks of 20 to 60 Gull-billed Terns have been seen quite regularly at high tide roosts in Western Port, particularly Stockyard Point and Yallock Creek and in Corner Inlet, particularly Barry Beach and Sunday Island. They have often been associated with Red-necked Avocet or Banded Stilt or with Pied Oystercatcher high tide roosts.

Inevitably some have been cannon-netted. Biometrics has shown them all to be from the larger sub-species *macrotarsus*, which are the sub-species which breeds in Australia. The

smaller sub-species *affinis* breeds in Asia but is a regular visitor to the northern coasts of Australia during the northern hemisphere winter.

21 Gull-billed Terns were caught, banded and flagged by VWSG during 2013, six in Western Port and 15 in Corner Inlet. A particularly interesting record was the recapture at Sunday Island on 25.6.13 a bird which had been banded on 6.1.13 at Yallock Creek. It is not unsurprising that these birds should move around between suitable habitats along the Victorian coast and bays. Several other sightings of flagged birds also showed similar coastal movements within Victoria.

Crested Terns bathing at The Nobbies, Phillip Island, December 2013, (Photo J. Fallaw)

Tern Recovery and Flag Sighting Report 2013/14

Clive Minton, Roz Jessop, Robyn Atkinson, Susan Taylor and Roger Standen

This year the tern recoveries and flag sightings reports have been amalgamated, for simplicity in understanding the movements data which has been generated on each species during the last year or so. Usually, recoveries are of dead birds and are received via a notification from the Bird Banding Office in Canberra. Flag sightings, including sightings of birds carrying individually engraved flags, are normally reported to the AWSG Flag Sightings Coordinator (Roger Standen). However technically engraved flag sightings are “recoveries” because the number of the metal band on the bird can be traced through the original flagging records. These particular classifications are however largely irrelevant when listing movement data for the VWSG Bulletin.

Caspian Tern

There were an amazing 37 records of Caspian Terns which had moved a significant distance away from their original marking area and which were reported in the last year. In fact all but one (Victorian) record came from Queensland (18) and New South Wales (19). Movement distances were between 540 and 1472km. The furthest were to Bribie Island in Queensland (15 records). Some of these relate to juvenile birds at the end of their first winter northward migration but others refer to older birds which return to their northern non-breeding areas each year.
This data is a further strong indication that almost all Victorian-breeding and Victorian-bred Caspian Terns vacate Victoria in the non-breeding season and spend this somewhere along the east coast of Australia between southern New South Wales and the most northerly parts of Moreton Bay in Queensland.

Pelicans on the Coorong (photo R. Jessop)

Caspian Tern flag sightings

Date Seen	Observer	Site Seen	Certainty	ELF	Band	Age at Banding	Banding Date	Banding location	Distance
20-Mar-12	Liz Crawford and Chris Herbert	Kooragang Dykes, Kooragang Island, near Newcastle, NSW	Sure	28	09152891	P	18/12/2011	Off Mann's Beach, Corner Inlet	785
26-Mar-12	Liz Crawford and Chris Herbert	Stockton Sandspit, Hunter Estuary, near Newcastle, NSW	Sure	28	09152891	P	18/12/2011	Off Mann's Beach, Corner Inlet	785
10-Apr-12	Liz Crawford and Chris Herbert	Stockton Sandspit, Hunter Estuary, near Newcastle, NSW	Sure	28	09152891	P	18/12/2011	Off Mann's Beach, Corner Inlet	785
21-Apr-12	Lachlan Hall	the north end of Werri Beach, Gerringong, NSW	Sure	29	09152892	P	18/12/2011	Off Mann's Beach, Corner Inlet	566
06-May-12	Linda Cross	Fishermans Island, Moreton Bay, QLD	Sure	39	09158101	P	18/12/2011	Off Mann's Beach, Corner Inlet	1391
19-Jul-12	Christina Port	Berkeley Vale Foreshore of Tuggerah Lake, NSW	Sure	33	09152896	P	18/12/2011	Off Mann's Beach, Corner Inlet	724
19-Aug-12	Dez Wells	Buckley's Hole Sandspit, Bribie Island, QLD	Probable	02	09152868	P	2/11/2011	Mud Islands, Port Phillip Bay	1469
16-Sep-12	Dez Wells	Buckley's Hole Sandspit, Bribie Island, QLD	Sure	24	09158104	P	3/01/2012	Off Mann's Beach, Corner Inlet	1417
30-Jan-13	Christina Port	The Entrance, NSW	Sure	33	09152896	P	18/12/2011	Off Mann's Beach, Corner Inlet	727
06-Feb-13	Liz Crawford and Chris Herbert	Stockton Sandspit, Hunter Estuary, near Newcastle, NSW	Sure	77	09158168	J	29/11/2012	Mud Islands, Port Phillip Bay	874
04-Mar-13	Richard Brown	Lake Wollumboola, near Culburra, NSW	Sure	69	09158135	P	9/02/2012	Off Mann's Beach, Corner Inlet	540
11-Mar-13	Richard Brown	Lake Wollumboola, near Culburra, NSW	Sure	80	09158171	P	29/11/2012	Mud Islands, Port Phillip Bay	649
17-May-13	Liz Crawford and Chris Herbert	Stockton Borehole Lagoon, NSW	Sure	77	09158168	P	29/11/2012	Mud Islands, Port Phillip Bay	858
23-Jul-13	Steve Davidson	Breamlea, between Torquay and Barwon Heads, Vic	Sure	_	0914142-	P	22/11/2000	Mud Islands, Port Phillip Bay	31
24-Aug-13	Judy Coles	Toorbul, near Bribie Island, QLD	Sure	24	09158104	P	3/01/2012	Off Mann's Beach, Corner Inlet	1420
12-Sep-13	Arthur Keates and David Edwards	Toorbul, near Bribie Island, QLD	Sure	37	09152900	P	18/12/2011	Off Mann's Beach, Corner Inlet	1420
26-Sep-13	Dez Wells	Buckley's Hole Sandspit, Bribie Island, QLD	Sure	24	09158104	P	3/01/2012	Off Mann's Beach, Corner Inlet	1417
20-Oct-13	Dez Wells, Julie Sarna	Buckley's Hole Sandspit, Bribie Island, QLD	Sure	24	09158104	P	3/01/2012	Off Mann's Beach, Corner Inlet	1417
10-Dec-13	Liz Crawford and Chris Herbert	Stockton Sandspit, Hunter Estuary, near Newcastle, NSW	Sure	86	09159149	P	6/02/2013	Off Mann's Beach, Corner Inlet	785
14-Dec-13	Dez Wells	Toorbul, near Bribie Island, QLD	Sure	47	09158115	P	3/01/2012	Off Mann's Beach, Corner Inlet	1420
18-Dec-13	Liz Crawford, Chris Herbert and Mick Roderick	Kooragang Dykes, Kooragang Island, near Newcastle, NSW	Sure	86	09159149	P	6/02/2013	Off Mann's Beach, Corner Inlet	785
29-Jan-14	Liz Crawford	Stockton Sandspit, Hunter Estuary, near Newcastle, NSW	Sure	86	09159149	P	6/02/2013	Off Mann's Beach, Corner Inlet	785
22-Feb-14	Tony Cotter	Wynnum Esplanade, QLD	Sure	34	09152897	P	18/12/2011	Off Mann's Beach, Corner Inlet	1382
04-Mar-14	Liz Crawford and Chris Herbert	Stockton Sandspit, Hunter Estuary, near Newcastle, NSW	Sure	86	09159149	P	6/02/2013	Off Mann's Beach, Corner Inlet	785
15-Mar-14	Dez Wells	Toorbul, near Bribie Island, QLD	Sure	C1	09159257	P	20/12/2013	Off Mann's Beach, Corner Inlet	1420
16-Mar-14	Michael Strong	Kakadu Beach, Bribie Island, QLD	Sure	C1	09159257	P	20/12/2013	Off Mann's Beach, Corner Inlet	1420
22-Mar-14	Arthur Keates	Toorbul, near Bribie Island, QLD	Probable	07	09152873	P	2/11/2011	Mud Islands, Port Phillip Bay	1472
22-Mar-14	Arthur Keates and Phil Cross	Toorbul, near Bribie Island, QLD	Sure	C1	09159257	P	20/12/2013	Off Mann's Beach, Corner Inlet	1420
27-Apr-14	Michael Strong	Kakadu Beach, Bribie Island, QLD	Sure	C1	09159257	P	20/12/2013	Off Mann's Beach, Corner Inlet	1420
14-May-14	Liz Crawford and Chris Herbert	Stockton Sandspit, Hunter Estuary, near Newcastle, NSW	Sure	28	09152891	P	18/12/2011	Off Mann's Beach, Corner Inlet	785
17-May-14	Liz Crawford and Chris Herbert	Kooragang Dykes, Kooragang Island, near Newcastle, NSW	Sure	28	09152891	P	18/12/2011	Off Mann's Beach, Corner Inlet	785
28-May-14	Liz Crawford and Chris Herbert	Stockton Sandspit, Hunter Estuary, near Newcastle, NSW	Sure	28	09152891	P	18/12/2011	Off Mann's Beach, Corner Inlet	785
12-Jun-14	Liz Crawford and Chris Herbert	Stockton Sandspit, Hunter Estuary, near Newcastle, NSW	Sure	28	09152891	P	18/12/2011	Off Mann's Beach, Corner Inlet	785
17/05/2014	Dez Wells	Toorbul, near Bribie Island, QLD	Sure	37	09152900	P	18/12/2011	Off Mann's Beach, Corner Inlet	1420
17/05/2014	Dez Wells	Toorbul, near Bribie Island, QLD	Sure	C1	09159257	P	20/12/2013	Off Mann's Beach, Corner Inlet	1420
16/06/2014	Mike Strong	Bribie Island	3 birds					Off Mann's Beach, Corner Inlet	1420
18/03/2014	via ABBBS	Lake Tabourie entrance, NSW	plain flag		9150432	P	5/11/2008	Mud Islands, Port Phillip Bay	593

Crested Tern

Most of the information on Crested Tern movements comes from recoveries reported through the Banding Office as the VWSG does not currently carry out any colour marking or flagging of this species.

During the past year there were only five individuals which moved interstate. The rest of the recoveries mostly involved birds found within 100km of their original marking locations at Mud Islands, The Nobbies and Corner Inlet. Listed below are the five interstate movements, the longest of which was a bird from Corner Inlet which went to Bilinga in south-east Queensland (1323km). Few Crested Terns penetrate as far as the Queensland shores during their non-breeding season; with the northern New South Wales coast being their preferred destination.

Note that the movement to Seacliff in South Australia and the one to Flinders Island, Tasmania – both birds marked at The Nobbies colony – are unusual.

073-13580	Chick	23/12/2002	The Nobbies	4/05/2014	Flinders Island, TAS	Dead	288km SE
073-49263	Chick	21/12/2006	off Manns Beach, Corner Inlet	7/08/2013	Bilinga, QLD	Died	1323km NNE
073-36750	Adult	3/08/2008	Barry Beach	29/09/2013	Baycliff, NSW	Dead	354km NE
074-17057	Chick	21/12/2012	The Nobbies, Phillip Island	22/07/2013	Seacliff, SA	Died	716km WNW
074-17215	Chick	21/12/2012	The Nobbies, Phillip Island	3/09/2013	Tathra, NSW	Dead	453km ENE

Common Tern

Some two thousand Common Terns were caught and flagged in the Gippsland Lakes between 1989 and early 2000 (plus another 43 in February 2003). Amazingly we are still regularly receiving sightings of these orange-flagged birds. Detailed below are two seen in northern New South Wales, the area from which most flag sightings of Common Terns from the Gippsland Lakes have been reported over the years.

These Common Terns breed in the Northern Hemisphere, probably mostly in central and southern Siberia, and migrate to the Southern Hemisphere each year. They gradually trickle down the east coast (as well as occurring in large numbers in north-west Australia) but relatively few seem now to come as far as Victoria. Only small numbers are now apparently found in the Gippsland Lakes and in Corner Inlet rarely more than a couple of hundred are seen.

Date seen	Location seen	Distance moved
10/11/13	Newcastle, NSW	672km NNE
14/4/14	Ballina, NSW	1152km NNE

Friends of Shorebirds SE

South Australian Team Report

August 2013 – July 2014

Maureen Christie

Catching and Geolocators

During summer our effort was directed to retrieving geolocators. We were successful on two occasions – 2 geolocators were retrieved in a catch of 10 turnstones at Nora Creina and another was retrieved in a catch at Nene Valley. This latter catch illustrated how important it is to have someone with a telescope overlooking the catching area. Only one turnstone was caught – the only one present with a geo! Although we only caught 23 turnstone over the summer, a haul of 3 geolocators made it well worthwhile.

As has been reported elsewhere in the Bulletin, turnstone had an extremely successful breeding season last year. In May we had an estimated 250 turnstone between Carpenter Rocks and Nene Valley. As overwintering turnstone are much more mobile than adults during summer we were conscious that catching would be a challenge. However, we did not appreciate just how difficult it would be. Beaches had little food and the coastal lakes were extremely difficult of access, with no muddy edges available for foraging. Turnstone could not be reliably found anywhere. Our only net set for the winter was on 3rd June. 30 Sanderling at Nene Valley presented a worthwhile target especially as the VWSG has only ever caught six Sanderling in winter (1 at Corner Inlet and 5 at Nene Valley). The Sanderling departed whilst the net was being set, the small number of turnstone present were un-cooperative, and the net was packed up, unfired.

Once again the VWSG made a special visit in November to retrieve geolocators. This visit was based at Carpenter Rocks and resulted in the retrieval of one geolocator. A report of this visit was made in Newsletter 104.

And, of course, the VWSG annual expedition in March/April. Newbery Park Primary School pupils were present at the only catch that geos were retrieved – six, at Nene Valley, with another 12 deployed.

Wader and Bittern Workshop at the Bool, 21/22 Sept, 2013

A wonderful weekend. Water in The Bool. Informative and interesting presentations by Golo Maurer (waders) and Andrew Silcocks (bittern). Extremely comfortable accommodation at Killanoola – so close to The Bool that those sleeping outdoors could hear bittern calling overnight. First class catering by The Bool Hall Committee ladies. Worthwhile monitoring carried out.

Eyre Peninsula – Catching 14th – 18th Nov (inclusive)

Once again a team went to Streaky Bay. Catching success was variable. No turnstone. 7 Sanderling and 7 Curlew Sandpipers. But a good number of stint, including one that had been banded as an adult on our first visit to Yanerbie 15.11.2011, recaught 4.11.2012 and again on this visit on 16.11.2013. Each time it was in moult. Once again, a day island hopping in the calm waters of Venus Bay, banding oystercatcher chicks, was a highlight. To this was added the thrill of our first successful capture of an adult using noose mats.

Sightings of waders flagged in Yanerbie are starting to accumulate. Sanderlings have been reported from several mainland Chinese sites, and also from Japan. One of the Curlew Sandpipers given an engraved flag this year appears to have overwintered in Broome – with sightings in May and July, 2014.

A 2014 expedition is planned for December (catching days 8 – 12 Dec incl). Jane Cooper has once again managed to find funding to provide us with accommodation. She also hopes to be able to contribute to our fuel costs. Volunteers are encouraged!

Thompson Beach, Gulf of St Vincent 17th Nov – 25th Nov (inc. travel)

The 2012 expedition to Thompson Beach had resulted in catching only 1 of our target species –Red Knot. Failure in 2012 was partly attributed to insufficient knowledge of how wind strength/direction and barometric pressure affected the tides. In an effort to remedy this, regular visits were made to the site by an experienced observer. And the first two days of the November 2013 visit was dedicated to observing knot behaviour at varying levels of tide, with five days available for catching. One day's catching was lost to windy weather. One catch was attempted at Thompson Beach (abandoned as net submerged by tide). Three catches were attempted at Third Creek, with 2 nets set on each occasion. Successful catching is dependent on tides being sufficiently high to force the shorebirds off the mud flats, and onto the shore. Unfortunately, the prevailing wind direction meant that shorebirds did not remain at Third Creek, but flew south to an unknown roost site. Despite this, the team managed one successful catch of 6 Bar-tailed Godwit. On several occasions the chance of a catch of non-target species was sacrificed with the hope of being able to catch knot. Despite failures, team members cheerfully worked long hours. The time of high tide necessitated very early mornings, with the team departing for the field as early as 3.30 am.

We now have a total of 18 Bar-tailed Godwit carrying engraved flags. As reported in last year's Bulletin, one of those caught in 2012 was seen several times between 9th and 28th April 2013 on northward migration in Bohai Bay, China. It was seen again at the same location on northward migration in 2013. We are yet to identify the sub-species of Bar-tailed Godwit that uses the Gulf St Vincent as a non-breeding site, so flagging this species is a priority. Tony Flaherty, Adelaide and Mount Lofty Ranges NRM Board has assisted with providing funding to fit 10 satellite transmitters. If all goes to plan, 5 transmitters will be available for us to fit during our October, 2014 expedition.

Graham Parkyn and Vivien Holyoake are planning reccies in the high tide series mid October. The accommodation we had last year has been booked for the period 25th – 31 October, with catching planned for the 27 – 30th. Once again a contribution to volunteers fuel expenses will be made. I do hope that you can join us!

Predator Control – Threat Abatement Project

This is a continuing project. However, it is timely to review how this project has developed since our first involvement in late 2008, when funding was obtained by DEH for an 18 months program. Various other grants have extended the life of this project to 2017/18.

Our first challenge was to develop monitoring techniques to judge how successful the project was in improving conditions for beach nesting birds. The short time frame made this extremely difficult. Annual summer and winter counts of two Shorebirds 2020 sites was already being done, as was the biennial Birdlife Hooded Plover November count for the SE coast. It was decided to increase this to annually in November and commence a fledged count annually in May. We commenced a project of monitoring artificial nests in Rivoli Bay and Canunda. Ultimately this was to extend over 3 seasons and the results were presented at the Eastern Mainland Hooded Plover Recovery Workshop, at The Nobbies, Phillip Island, in 2012. With many questions remaining unanswered, it was decided to monitor a live nest using night cameras. In making this decision, we took into account that the Raven present

on our beaches is generally the Forest Raven, not the Little Raven that so much research has already been conducted on.

In 2011 we commenced colour banding hooded Plovers with individual colour flags under an existing VWSG project.

Steve Johnson and Mike Weston has given us instructions on using loop mats, and spent a couple of days with us in the field catching. They use different data sheets to us, and record a few more measurements – Black on bill, tarsus & toe, tarsus. We agreed to take these extra measurements. Mike is also working on whether there is a difference in head colour that relates to sex. We agreed to take the necessary photos once we had got organised with grey cards. They also take feathers for DNA testing to determine sex. This not only ties in with Mike's head colour/sex research, but also with Grainne Maguire's work on sex balance of the population.

As reported last year, we finally seem to be making headway with resolving the issues surrounding data sharing between Birdlife and DEWNR. Grainne visited in October 2013 and gave us instruction on using the My Hoodie Portal. She also spent time with us in the field. Commencing with the 2013/14 season all SE SA Hooded Plover sightings/ nesting records have been entered, and data downloaded. The Portal was originally designed around nesting records but I understand that changes have been made so that it can also be used to record individuals/flocks not associated with breeding. Hopefully we will be able to resolve our issues of recording observations not associated with a known breeding pair as we become more confident with using the site. The site does not record other beach nesting species.

Several members attended Birdlife's National Beach-nesting Birds Conference at Warrnambool in June 2014. Ross Anderson made a presentation: "Beach Nesting Shorebirds in the SE – 40 years" in 15 minutes.

A summary of where we are at:
We do all of our banding under the VWSG permit. All data has been entered into our data base by David Trudgen with the note that extra measurements have been taken. Our data sheets are to be made available to Mike and Grainne, along with feathers and photographs of head colour. Sightings are entered into the engraved flag data base in the same way that the original Oystercatcher coded bands are. At this stage we only have 15 adult Hoodies flagged but we are already starting to accumulate data on site fidelity/movement.

Catching with noose mats can be successful with just one person. We have several licensed banders spread out along the SE coast so, over time we hope to achieve a good coverage of the SE coast. The following have been added to the VWSG long term banding project. Individuals have a specific area of operating although this off course does not mean that they are restricted to that area!

Jeff Campbell – Port Mac to state border; The Trudgens – Beachport area; Vicki Natt – Kingston area; Jonathan Starks - the Coorong. And, me! Hopefully, as people get experience using the mats, we will manage to get more Hoodies flagged over the length of our patch.

Grainne is using engraved flags on Hoodies on Fleurieu and SW Victoria. She has added the SA banders to her ethics for feather collection and live nest monitoring.

To date we have not deployed a camera on a live nest. We had decided to use it at the Pool of Siloam in Beachport – a pair regularly nest there after they have failed on the nearby beach. They have only ever been recorded fledging one clutch so it seemed a good place to start. Unfortunately water levels were too high this year and they did not nest there.

Our President, Jeff Campbell is count organiser for Shorebirds 2020 sites and Hooded Plover counts. He also coordinates the protection of all beach nesting waders/terns. As a group we are struggling with the problem of too few volunteers and too many miles of beach.

We continue with our Dog's Breakfast program. Both the District Council By-law officers and the vets- all of whom assist in a voluntary capacity - consider it worthwhile continuing although we struggle with reaching our target audience. The Coastal Team of DEWNR continues to support this project.

General

All SA and King Island data is entered by David Trudgen. David is also responsible for maintaining the VWSG Oystercatcher Database. Flag making is organised by Jeff and Sarah Campbell, in collaboration with Malcolm Brown. Newsletters continue to be issued from time to time.

The group continues to provide input into various forums, with both Jeff Campbell and myself representatives on various committees. Press reports and radio interviews are conducted as the opportunity arises. We continue to be involved in more and more public relations activities. Jeff Campbell acts as our unofficial 'Conservation Officer' and makes comments on Draft Plans and the like. The sale of Australian Kelp Products P/L to Qingdao Gather Great Ocean Seaweed Industry Co Ltd raises the specter of increased beachwrack harvesting, initially at Beachport, but potentially along much of the SE coastline. Comment was made to the Federal Department of Environment on the 'Ecological Assessment of the South Australian Beach-Cast Seagrass and Marine Algae Fishery' prepared by PIRSA (Primary Industries and Regions SA). Acceptance of this assessment by the federal department is needed for export approval to be granted. The VWSG also made comment and more details are included in Doris Graham's Conservation Report.

A very successful AGM and working bee was held at the Campbell family home in Mt Gambier.

We sadly record the passing of supporter Elaine Lawson.

Releasing three Hooded Plover chicks at 3 Mile, Beachport, SA (photo Kym Onton)

Thank you to the members of the group who have worked hard to produce these results. Thank you too, to the members of both the Regional and District Offices of the Department of Environment, Water and Natural Resources who have provided encouragement and practical help.

SOUTH AUSTRALIAN TEAM CATCHES 01.08.13 TO 31.07.2014										
DATE	PLACE	Sanderling	Ruddy Turnstone	Red-necked Stint	Curlew Sandpiper	Sharp-tailed sandpiper	Banded Stilt	Other		TOTALS
4-6.8.2013 +	Lake Torrens						161			161
10-11.8.2013 +	Lake Torrens						244			244
18.8.2013 +	Lake Torrens						115			115
25.10.2013 #	Beachport (3 Mile)							2	Hooded Plover	2
7.11.2013**	Gerloff Bay (Private Beach)							1	Pied Oystercatcher	1
14.11.2013**	Picaninnie Ponds							1	Pied Oystercatcher	1
20.12.2013**	Nene Valley							1	Hooded Plover	1
26.12.2013**	Stony Point							1	Red-capped Plover	1
7.1.2014#	Gerloff Bay							1	Hooded Plover	1
18.1.2014	Beachport									*
24.1.2014#	Lurline Point, Nora Creina							1	Hooded Plover	1
14.2.2014#	Robe							1	Hooded Plover	1
26.2.2014#	Nene Valley/B.fellows Caves							2	Hooded Plover	2
3.3.2014	Nora Creina (2 geos)		10							10
11.3.2014**	Cape Banks Lighthouse							1	Hooded Plover	1
11.3.2014#	Cape Banks Lighthouse							1	Pied Oystecatcher	1
15.3.2014	Nora Creina									*
7.4.2014#	Nene Valley							1	Hooded Plover	1
8.4.2014	Nene Valley (1 geo)		1	3				1	Double-banded Plover	5
15.4.2014	Beachport		12	1						13
13.5.2014#	Cape Banks Lighthouse							1	Hooded Plover	1
3.6.2014	Nene Valley									*
SA TEAM THIS YEAR	SA this year	0	23	4	0	0	520	16		563
B/F SA team	1.12.00 – 31.7.2014	26	552	429	18	107	1211	437		2780
TOTALS SA TEAM TO DATE	**SA TEAM TO DATE**	**26**	**575**	**433**	**18**	**107**	**1731**	**453**		**3343**
Eyre Peninsula										0
15.11.2013	Yanerbie			16						16
16.11.2013	Yanerbie	7		42						49
17.11.2013	Yanerbie			32	7					39
18.11.2013**	Venus Bay							5	Pied Oystecatcher	5
18.11.2013**	Venus Bay							2	Sooty Oystercatcher	2
18.11.2013#	Venus Bay							1	Pied Oystercatcher	1
										0
	Eyre Peninsula this year	7	0	90	7	0		8		112
B/F Eyre Peninsula		194	39	112	0	2		15		362
TOTALS EYRE PEN.	**Eyre Peninsula to date**	**201**	**39**	**202**	**7**	**2**		**23**		**474**
Thompson Beach										
21-24.11.2014	Multiple net sets									
23.11.2014	Third Creek							6	Bar-tailed Godwit	**6**
B/F Thompson Beach				20		39		20		79
TOTALS THOMPSON	**Thompson Beach to date**			**20**	**0**	**39**	**0**	**26**	**0**	**85**
special geo trips										
2.11.2013	Nene Valley (1 geo)		27	61						88
3.11.2013	Port MacDonnell		31	84		1				116
4-6.11.2013	Nene Valley/B.Caves									*
	geo trips this year		58	145		1				204
B/F geo trips	23.4.2009 - 31.7.2013	648	192	153	13	76		8		1090
TOTALS GEO TRIPS	**Geo trips to date**	**648**	**250**	**298**	**13**	**77**		**8**		**1294**

* net set, no catch made; ** chicks/'runners; #noose mat; + Reece Pedler's PhD project (Banded Stilt chick retraps not included in totals)

SOUTH AUSTRALIAN TEAM CATCHES - Month Waders Caught 1.12.2000 TO 31.07.2014

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	TOTALS
Ruddy Turnstone	5		11	218	38	16	46	66	77	1	97		575
Red Knot				1		12							13
Sanderling		17	2	2				5					26
Red-necked Stint		34	34	100	4	20	49	93	32	43	1	23	433
Sharp-tailed									6	101			107
Curlew Sandpiper						2	7	6		3			18
Pied Oystercatcher	9	2	1	1	1			2			8	13	37
Sooty Oystercatcher			2	3	2						1		8
Banded Stilt	192	173	12	351		54	429	520					1731
Red-capped Plover	3	4	1	4				5		1		2	20
Double-banded			4	7		4		10					25
Black-fronted Dotterel			3										3
Hooded Plover	4	5	1	2	2					2	5	6	27
Little Tern	17												17
Fairy Tern		104											104
Crested Tern	199												199
TOTALS	429	339	71	689	47	108	531	707	115	151	112	44	3343

excludes special geo expeditions by visiting Vic teams, Thompson Beach and Eyre Peninsula catches.

Bush Stone-curlew – a brief note

Maureen Christie

There is a small population of Bush Stone-curlew in the urban areas of Bordertown and Mundulla in the Upper South East of South Australia. In 2005, Dan Harley, Threatened Fauna Recovery Officer, South East Conservation Programs, Department for Environment and Heritage (now DEWNR), asked me to help with banding both adults and chicks. Although this project was not part of their program, it was heavily dependent on the VWSG for advice and support. The first adults were caught using mist nets by a team consisting of Dan and DEH staff, Roz Jessop, Pete Collins, Paul Van Loon, me and local volunteers in June 2005. Graeme Rowe was a member of a team in October, 2005 which caught adults and chicks. Altogether we banded 10 birds - 1 we thought might be aged 2, a 1 year old, 4 adults and 4 chicks. They were banded with colour band combinations similar to those used by the VWSG on Oystercatchers.

Whenever I am in Bordertown I always try and check out the various pairs. On a recent visit we managed to find 4 adults at Mundulla (all unbanded) and the Possum Park pair (both banded). We were unable to read the bands in the field, but close examination of some rather fuzzy photos gave us an unexpected result. One was banded as a chick at the Christian Centre. The other was banded as a 1 year old at the Cemetery. So, neither of the original pair were there. Unfortunately we were unable to find any present at the other known Bordertown sites.

So, what do we know of the fate of the 4 chicks that were banded?

There were 2 chicks banded at the Christian Centre. One is now at Possum Park. The other was run over in May 2009. The 2 chicks banded at the Transport SA Depot were predated at 3-6 months old. The culprit was thought to be a dog. The accompanying photo is of one of these chicks.

Old Birds 2013

Clive Minton

It is always satisfying to banders to recapture a shorebird which was originally banded many years ago. This is especially so if it is a wader which has been clocking up mileage big time in its annual migrations to and from its breeding grounds in the Arctic region of the northern hemisphere. The cumulative distance moved by such birds, on migration alone, has often been put in context by reference to the distance from the earth to the moon (385,000 km). With many of our waders from Victoria undertaking a 25,000 km round trip migration each year it only takes 16 to 18 years (depending on age of first breeding) for a bird to have flown on migration a distance equal to that from the earth to the moon. It made such an impression when a Red Knot in the flyway between South America and the east coast of the USA achieved such longevity that it was christened "Moonbird". This was the title of a book written about this individual and now that a second such old bird has been located in the same flyway it is known as "Mrs Moonbird".

The VWSG has had a number of migrant waders which have lived to at least 20 years old. These include Eastern Curlew, Red Knot, Curlew Sandpiper and Red-necked Stint. The longest lived migratory wader for Australia as a whole was a Bar-tailed Godwit banded at Broome which was 29 years old when last seen.

"Resident" wader species can also live to a ripe old age. In fact, without the rigours of two long migrations each year, one could expect them to live even longer than migratory waders. In Europe Oystercatchers (very similar to our Pied Oystercatcher) have gradually been extending their known longevity and recently one has been found which was 40 years old. In Australia our oldest resident wader species is the Pied Oystercatcher where we recaptured a few years ago a 29 year old bird from Rhyll, Phillip Island. Our second oldest Pied Oystercatcher occurred in 2013 when we recaptured a bird banded as an adult in May 1988 at Inverloch. This was an elapsed time of 25 ¼ years and the bird would have been a minimum age of 28 1/2 years. It was paired and has probably been breeding annually at Point Smythe near Inverloch ever since 1988 (and probably even before that).

Can you spot the Bush Stone-curlew? (Photo R. Jessop).

Banded Stilt flagging and re-sightings

Reece Pedler

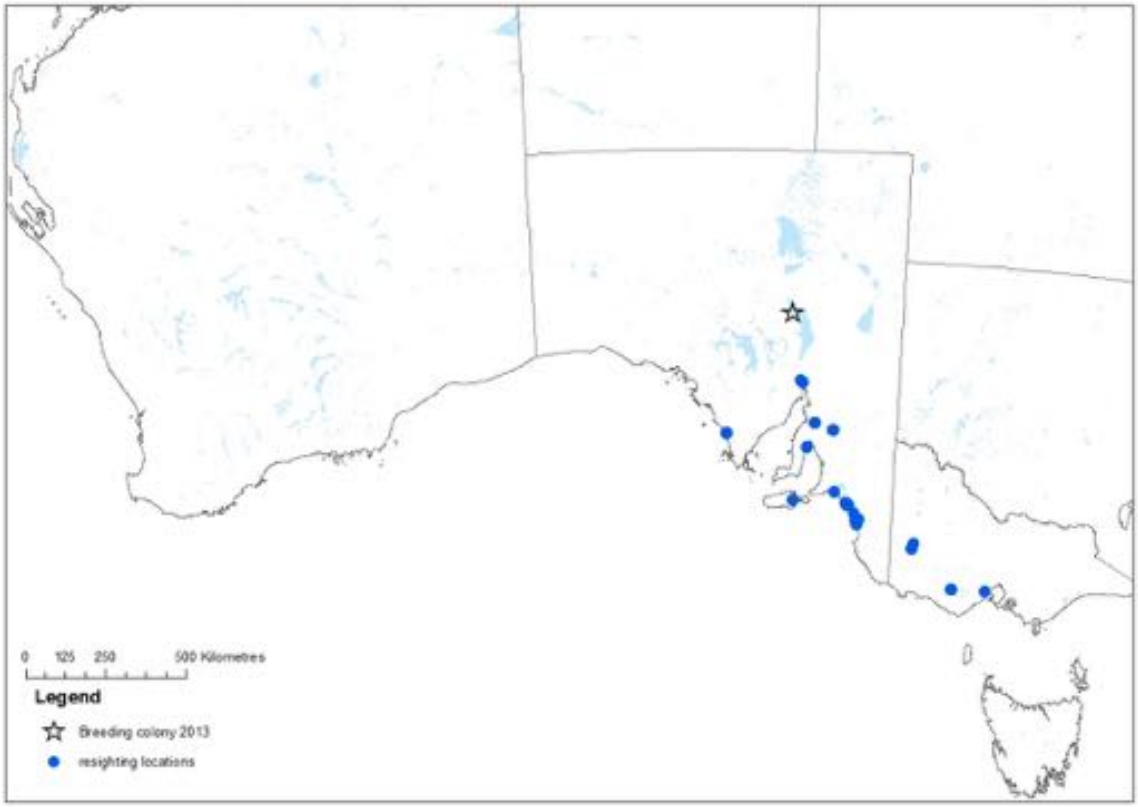
During 2013-14, 947 Banded Stilt chicks were banded and flagged at Lake Torrens in northern South Australia following a breeding event. Fifteen VWSG members and local volunteers from Roxby Downs caught the chicks from kayaks, with the chicks banded on board before being released back with their parents in the water.

Following fledging and dispersal of these chicks in September 136 sightings have been made from across south-eastern Australia. Notably there have been no resightings from Western Australia as yet, despite significant publicity through local bird groups.

Additionally, 26 sightings of stilts flagged at previous breeding events in SA were made in 2013/14. Most notable were Werribee 2000 orange-flagged stilt observed at Lake Cooloongup, near Rockingham, Western Australia and an orange/yellow-flagged stilt banded as a chick at Lake Torrens in 2010. Not only do these sightings show longevity (with the Werribee bird minimum 14 years), but also further demonstrate movements between east and Western Australia.

The VWSG stilt chick banding team taking a break on the shore of Lake Torrens in northern South Australia, July 2013.

Stilt chicks were captured with hand nets in the water and banded/flagged on board before being returned to the water (photo Zoe Jellie).



A summary of resighting locations of chicks banded at Lake Torrens. The lack of resightings from WA is notable given search effort there.


A blue-flagged chick with full breast band at just 12 months of age.

KING ISLAND VISIT REPORT
(18 - 24 November 2013)

Robyn Atkinson

A small team arrived on a beautiful day to be warmly welcomed by Margaret Bennett and Margaret and Graeme Batey. During morning tea and scones at our base at Jenny's house we discussed the primary objective of the trip which was to recover some of the geolocators attached to 30 Ruddy Turnstones 7 months earlier. We then headed out to collect equipment and spot some geolocators.

After searching three separate beaches and finding only a single geolocator we returned home for Margaret's delicious chicken and corn pies and Yaara's chocolate dessert. While Margaret's culinary skills were already known and appreciated, Yaara's creation was a pleasant surprise.

Day2.
We decided to set a net at the southern end of Central Manuka beach where Turnstone activity was evident. To cut a very long cold, wet and windy story short, we caught nothing and went home. However, we noted the fondness birds had for a particular patch of weed and tucked this intelligence away for later use.

Day3.
Penny joined us and we set at Burgess Bay. Once again, the birds and the very low high tide defeated us.

We set off for a recce of Little Porky and Unlucky Bay. Finding two "geos" at Little Porky, in a bay which seemed an easier catch site, we decided to set and catch early the next day rather than wait for high tide.

In the evening, on Margaret Bennett's recommendation, we headed to the breakwater at Grassy to witness Little Penguins coming ashore. Crouching and standing beside a bush track some 20 metres from the water's edge we were privileged to enjoy small groups shuffling past us within a metre or two, then hearing the 'welcome home' calls minutes later. As we drove along the breakwater and access roads through the port on our way back we saw dozens of penguins in the headlights making this pilgrimage. Not even running the gauntlet of Paddymelons and Wallabys on the way home could take away from this memorable experience.

Day4.
Success at last. After setting the net, Peter and Yaara bravely set off to twinkle in the rain. The birds were very co-operative and finally we had possibly twenty birds and not one but two "geos" in the catching area. We fired, and as always, the miracle of the multiplying turnstones delivered us thirty-seven turnstones and three "geos", some three hours before high tide.

Day5.
Count Day. Three vehicles headed off in different directions to count the usual beaches. A high percentage of juveniles was noted, as has been seen elsewhere this year, but overall numbers had not increased from last year's count.
After dinner, we went to the Boat House for a talk given by Lisa Cawthorn on bats. Lisa was on King Island with Eric Woehler to do a study of the bats on the island. Little is known about the species and abundance of bats on K.I.

Day6.
Jenny from KINRMG joined us for the day. The King Island Natural Resources Management Group (KINRMG) was formed in 1996, with representatives from Landcare Groups, the King Island Council, National Parks and Wildlife, King Island District High School and the general community.

Another desperate day at Central Manuka ensued. We set the net based on our knowledge from Day 2 only to find birds flew everywhere except in the direction of the net. Finally, a geo appeared below the weed bank with possibly six or seven other birds. Would the net reach that far down the beach? As it was our best chance all day, we fired. The net went out so far the jump ropes were stretched to their limit. Behold another small miracle, seventeen birds and two geos.

Tim Woodburn very generously invited us to a BBQ at his home at Yellow Rock to meet Eric Woehler and his team from Birdlife Tasmania (Richard, Inger and Lisa). They were visiting the island to count resident shorebirds, waterfowl and bats. We had a lovely evening with barbequed crayfish and King Island steak on the menu.

Day7.
With no Clive to crack the whip, we decided on a leisurely day of packing, lunch, and a visit to the museum to view, amongst other things, a very impressive photographic display of King Island birds by Margaret and other local photographers.

Thanks to every one who participated and helped make this a productive and fun trip. Team members were Rob and Linda Patrick, Peter Jenkins, Penny Johns, Yaara Rotman, Margaret and Graeme Batey, Margaret Bennett, and Robyn Atkinson. Thanks also to Rob Patrick for his input and editing of this report.


King Island (photo R. Jessop)

HAVE YOU SEEN?

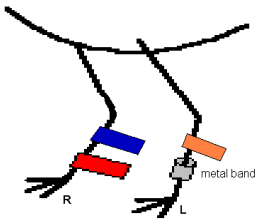
By Roz Jessop

Always read flag combinations from top to toe

RED-CAPPED PLOVERS WITH ENGRAVED LEG-FLAGS?
In 2008 Deakin University commenced a banding study of Red-capped Plover at Cheetham Wetlands and Truganina Swamp, west of Melbourne – near Altona and Altona Meadows. Dr Mike Weston and students have flagged over 100 Red-capped Plover on the upper leg with an orange leg-flag engraved with two letters. They would greatly appreciate any sightings you may make. Masked Lapwings have also been marked with engraved flags at Phillip Island.

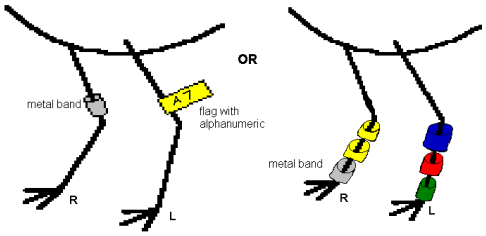
Please send details (including date and place) to
Dr Mike Weston, Deakin University,
221 Burwood Hwy, Burwood, 3125.
Email: mike.weston@deakin.edu.au
Phone: (+61 3) 9251-7433

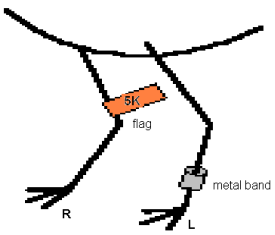
HOODED PLOVERS, OYSTERCATCHERS OR GREY WADERS WITH FLAGS?



Hooded Plover with colour bands or flags?
Phillip Island Nature Park has an ongoing study colour flagging Hooded Plover chicks on Phillip Island. Any sightings of colour marked or alpha numeric flagged Hooded Plover should be sent to Jon Fallaw jfallaw@penguins.org.au

Pied and Sooty Oystercatchers with colour bands or flags?
Any sightings of Pied and Sooty oystercatchers with colour bands or flags should be sent to David Trudgen trudgen@iinet.net.au





"Grey" waders and terns with engraved or plain flags or colour bands? Any sightings of grey waders or terns with engraved flags or plain colour flags should be reported to Roger Standen flagging@awsg.org.au

WADER BREEDING SUCCESS IN THE 2013 ARCTIC SUMMER, BASED ON JUVENILE RATIOS OF BIRDS WHICH SPEND THE NON-BREEDING SEASON IN AUSTRALIA

Clive Minton, Rosalind Jessop and Chris Hassell

INTRODUCTION

The Victorian Wader Study Group has been collecting "percentage juvenile" data from waders in south-east Australia annually since the 1978/79 non-breeding season. Similar data has been collected by the Australasian Wader Studies Group at Broome and 80 Mile Beach in north-west Australia since 1998/99. This data is a proxy for measuring the level of annual breeding success for a range of migratory wader species which spend their non-breeding season in these areas of Australia.

The data collected each year has been published annually since 2000 in Arctic Birds and in the AWSG Bulletin (Stilt) (Minton et al 2000, Minton et al 2013 etc.). It has also been analysed regularly with results being published in scientific papers (Boyd et al 2005, Minton et al 2005, Rogers & Gosbell 2006, Rottman et al, in prep).

The principal purpose of this note is to place on permanent record the data collected in Australia during the 2013/14 non-breeding season so that this is available at any time in the future to wader researchers worldwide.

METHODS

The data has been collected, and the results presented, in the same way throughout this long-term study. Only birds caught by cannon-netting are included. Only birds caught in defined periods (see footnotes to Tables 1 & 2) are used. These periods are determined for each species in each area by using banding data to show when both adult and juvenile birds have largely completed their southward migration and when adult birds have not yet set off again on their northward migration.

Birds were aged by conventional methods involving both diagnostic body plumage (mostly wing coverts) and the wear/moult of the primary feathers. In most species the level of experience in the banding groups now enables ageing to be carried out with a high level of accuracy in most species throughout the defined periods. The greatest difficulties are encountered late in the season – in Sanderling in south-east Australia and in Terek Sandpiper and Grey-tailed Tattler in north-west Australia – when some individual birds have almost completely lost all traces of their original juvenile plumage.

The shortcomings of this method of measuring breeding success have been fully elaborated in earlier papers. It needs to be stressed that the data is a measurement of the proportion of first-year birds in the population some months after the end of the breeding season, after completion of the southward migration. The true reproductive rate, measured by the number of young at fledging, is likely to be higher. The numerical figure obtained is therefore more of an annual index of reproductive success rather than an absolute measure. Since the greatest interest is in comparing year to year breeding success variations and looking for any long-term trends in breeding success, this does not particularly matter. At the present time these measurements of percentage juveniles in banding catches are the only practical method of collecting long-term reproductive rate data on a range of migratory wader species.

Note that for the data from south-east Australia both the median (for the 35 year data set) and the average (for the last 15 years of data) are presented. In all cases the median is lower than the average, indicating that the data is not normally distributed. A small number of

exceptionally high percentage juvenile figures have occurred in most species, thus raising the average. However in most species the difference between the median and the average is not large.
Classification of the breeding success in a particular year is made by reference to the average figures for that species. The classification is only in broad terms.

RESULTS

Adequate samples were obtained in the 2013/14 non-breeding season for all the main study species in south-east Australia except the Red Knot. A total of 45 days was spent in banding fieldwork in the defined period, producing 47 samples of the seven study species (Table 1). Good coverage was also achieved in north-west Australia, except on Sanderling, with 32 catching days producing 104 samples of the 11 listed species (Table 2).

Exceptionally high percentage juvenile figures were obtained for Curlew Sandpiper (39.8%), Bar-tailed Godwit (44.7%) and Ruddy Turnstone (37.7%) in south-east Australia. These three species were classified as having had “very good” breeding success in 2013 and no species was classified lower than “average”. It is likely that if a larger sample of Red Knot had been obtained then it would also have shown an unusually high level of breeding success. Small flocks of juvenile Red Knot were seen (but not caught) at a number of non-regular sites, including Werribee Sewage Farm (per D. Rogers). This predominately happens after ‘good’ breeding years.

Only Ruddy Turnstone, with a juvenile percentage of 30.8%, was classified as “very good” in north-west Australia. Two species – Great Knot and Red Knot – were classified as “very poor” (5.0% and 7.9% juveniles) and it is likely that Broad-billed Sandpiper would have fallen in this category if the sample size had been large enough to be significant. The best performance amongst the other species monitored was by Bar-tailed Godwit (17.0%) and this was the only one of these species which had a classification above “average”.

DISCUSSION

After the abysmal 2012 breeding success of most of the migratory wader species which spend the non-breeding season in south-east Australia (Table 3) it was particularly welcome that all species had a much improved performance in 2013, with half the species being classed as “very good”. In Curlew Sandpiper, Bar-tailed Godwit and Ruddy Turnstone the 2013/14 percentage juvenile figure had only been exceeded twice in the 35 years of this study. Curlew Sandpipers achieved an incredible 45.3% juveniles in 1991/92. In the same year – well known worldwide for its incredible productivity – the Ruddy Turnstones produced 80.3% juveniles. High figures in Bar-tailed Godwits occurred in 1981/82 (60.5%) and 2007/08 (36%). These are a far cry from the single figure numbers obtained in three species in 2012/13 and also in 2011/12.

The 2013 breeding outcomes for migratory wader species in north-west Australia were also generally an improvement on the previous year (Table 4), but overall they were not as good as the results from south-east Australia. It was interesting that Ruddy Turnstone breeding success was of the same unusually high level in both areas suggesting that conditions were suitable for their breeding in 2013 across a wide area of their arctic breeding habitat. Red-necked Stint outcomes were also similar in the two areas (17.3% juveniles in south-east Australia and 19.4% in north-west Australia).

It is of particular concern that both Red Knot and Great Knot in north-west Australia again had a low percentage of juveniles, with both species now having had similar low percentage juvenile figures for each of the last three years (Table 4). It is tempting to wonder whether the extensive losses of habitat at their major stopover sites in the Yellow Sea, used especially on northward migration to the breeding grounds, are now having an effect on the subsequent breeding success when birds reach the arctic.

CONCLUSION

As the length of the data sets on the percentage of the juveniles in wader populations in the non-breeding areas in south-east and north-west Australia continues to grow this study becomes progressively more valuable. Some earlier analyses did not indicate any noticeable change over time in the breeding success of various species during the earlier years of the study. But with the rate of loss of intertidal habitat in the Yellow Sea having grown enormously in the last 10 years, and with the overall losses encountered now reaching 50% over the last 30 years, this data set will become even more valuable in the future in assessing whether one of the consequences of these changes is a reduced breeding success in some wader species. Annually monitoring wader populations in south-east Australia and north-west Australia will therefore be continued as a high priority for the foreseeable future by the VWSG & AWSG.

ACKNOWLEDGEMENTS

The dedication of VWSG and AWSG fieldwork teams, and their efforts and perseverance in sometimes extremely adverse weather conditions, is fundamental to the success achieved in obtaining adequate samples of all the main study species each year. Everyone is greatly thanked for their efforts and their considerable input of time (and cost).

Many land owners kindly granted access through their land to shorelines where we catch birds. Anna Plains Station and Broome Bird Observatory in north-west Australia, and Rosemary Davidson at Yanakie in south-east Australia, also very kindly provided accommodation for fieldwork teams based there. The wildlife authorities in Victoria, South Australia, Tasmania and Western Australia kindly provided the necessary permits, with some financial support also from the WA Parks Department. The Australian Bird Banding Scheme is thanked for providing banding permits and bands.

REFERENCES

Boyd, H., Minton, C. & K. Rogers. 2005. Has the timing of snowmelt in eastern Siberia affected the numbers of juvenile waders wintering in South-East Australia? *The Stilt,* **48,** 2-9.

Minton, C., Jessop, R., Collins P. & K. Gosbell. 2005. Monitoring Wader Breeding Productivity by the proportion of first year birds in wader populations in S.E. Australian non-breeding areas. Pp. 73-85. *In:* Straw, P. (Ed.) Status and Conservation of Shorebirds in East Asian-Australasian Flyway. Proceedings of the Australian Shorebirds Conference, Canberra, Dec. 2003. IWSG Special Publication 17 and Wetlands International Global Series 18.

Minton, C., Jessop, R., Collins, P. & C. Hassell. 2000. 1999 Arctic breeding success from Australian perspective *Arctic Birds 2:* 19-20. ,

Minton, C., Jessop, R. and C. Hassell. 2013. Wader breeding success in the 2012 Arctic summer, based on juvenile ratios of birds which spend the non-breeding season in Australia. *Stilt 63-64*: 56-58.

Minton, C., Jessop, R. & C. Hassell. 2013. Wader breeding success in the 2012 Arctic summer, based on juvenile ratios of birds which spend the non-breeding season in Australia. http://www./arcticbirds.net/docs/minton_AB2012.pdf.

Rogers, K.G. & KL. Gosbell. 2006. Demographic models for Red-necked Stint and Curlew Sandpiper in Victoria. *Stilt 50*: 205 – 214.

Rottman, Y., Soloviev, M., Minton, C., Tomkovich, P., Hassell, C. and M. Klaassen. In prep. Loss of periodicity in breeding success of waders supports a circumpolar loss of grip of lemming cycles on Arctic ecosystems.

Table 1. Percentage of juvenile/first year waders in cannon-net catches in south-east Australia in 2013/14

Species	No. of catches		Total caught	Juv./ 1st year		Long term median* % juvenile (years)	Assessment of 2013 breeding success
	Large (>50)	Small (<50)		No.	%		
Red-necked Stint *Calidris ruficollis*	8	6	2185	379	**17.3**	14.8 (35)	Average
Curlew Sandpiper *C. ferruginea*	3	2	251	100	**39.8**	9.6 (34)	Very good
Bar-tailed Godwit *Limosa lapponica*	2	1	152	68	**44.7**	18.5 (24)	Very good
Red Knot *C. canutus*	0	2	19	18	**(94.7)**	58.0 (18)	(Very good?)
Ruddy Turnstone *Arenaria interpres*	0	18	475	179	**37.7**	9.3 (23)	Very good
Sanderling *C. alba*	2	1	157	33	**21.0**	10.0 (22)	Good
Sharp-tailed Sandpiper *C. acuminata*	2	0	126	24	**19.0**	11.5 (32)	Average

All birds cannon-netted in period 2 November to 25 March except Sharp-tailed Sandpiper and Curlew Sandpiper to end February only and some Ruddy Turnstone and Sanderling to early April.

* Does not include the 2013/2014 figures

Table 2. Percentage of juvenile/first year waders in cannon-net catches in north-west Australia in 2013/14

Species	No. of catches		Total caught	Juv/1st year		Assessment of 2013 breeding success
	Large (>50)	Small (<50)		No.	%	
Great Knot *Calidris tenuirostris*	8	3	1049	53	5.0	Very poor
Bar-tailed Godwit *Limosa lapponica*	2	7	224	38	17.0	Good
Red-necked Stint *C. ruficollis*	4	7	676	131	19.4	Average
Red Knot *C. canutus*	3	10	392	31	7.9	Very poor
Curlew Sandpiper *C. ferruginea*	1	14	281	66	23.5	Average (Good?)
Ruddy Turnstone *Arenaria interpres*	1	7	133	41	30.8	Very Good
Sanderling *C. alba*	0	4	5	1	-	-
Non-arctic northern migrants						
Greater Sand Plover *Charadrius leschenaultii*	4	9	843	181	21.5	Average
Terek Sandpiper *Xenus cinereus*	1	9	139	21	15.1	Average
Grey-tailed Tattler *Heteroscelus brevipes*	2	8	314	51	16.2	Average
Broad-billed Sandpiper *Limicola falcinellus*	0	4	29	2	(7.4)	(Very poor)

All birds cannon-netted in period 1 November to mid-March

Table 3. Percentage of first year birds in wader catches in south-east Australia 1998/1999 to 2013/14

Species	**98/99**	**99/00**	**00/01**	**01/02**	**02/03**	**03/04**	**04/05**	**05/06**	**06/07**	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**	**12/13**	**13/14**	***Average (15yrs)***
Ruddy Turnstone *Arenaria interpres*	6.2	29	10	9.3	17	6.7	12	28	1.3	19	0.7	19	26	10	2.4	37.7	*13.1*
Red-necked Stint *Calidris ruficollis*	32	23	13	35	13	23	10	7.4	14	10	15	12	20	16	22	17.3	*17.4*
Curlew Sandpiper *C. ferruginea*	4.1	20	6.8	27	15	15	22	27	4.9	33	10	27	(-)	4	3.3	39.8	*15.7*
Sharp-tailed Sandpiper *C. acuminata*	11	10	16	7.9	20	39	42	27	12	20	3.6	32	(-)	5	18	19.0	*18.7*
Sanderling *C. alba*	10	13	2.9	10	43	2.7	16	62	0.5	14	2.9	19	21	2	2.8	21.0	*14.7*
Red Knot *C. canutus*	(2.8)	38	52	69	(92)	(86)	29	73	58	(75)	(-)	(-)	78	68	(-)	(94.7)	*58.1*
Bar-tailed Godwit *Limosa lapponica*	41	19	3.6	1.4	16	2.3	38	40	26	56	29	31	10	18	19	44.7	*23.2*

All birds cannon-netted between 15 November and 25 March, except Sharp-tailed Sandpiper and Curlew Sandpiper to end February only and some Ruddy Turnstone and Sanderling to early April. Averages (for previous 15 years) exclude figures in brackets (small samples) and exclude 2013/14 figures

Table 4. Percentage of first year birds in wader catches in north-west Australia 1998/1999 to 2013/14

Species	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	Average (15yrs)
Red-necked Stint *Calidris ruficollis*	26	46	15	17	41	10	13	20	21	20	10	17	18	24	15	19.4	*20.8*
Curlew Sandpiper *C. ferruginea*	9.3	22	11	19	15	7.4	21	37	11	29	10	35	24	1	1.9	23.5	*17.0*
Great Knot *C. tenuirostris*	2.4	4.8	18	5.2	17	16	3.2	12	9.2	12	6	41	24	6	6.6	5.0	*12.2*
Red Knot *C. canutus*	3.3	14	9.6	5.4	32	3.2	(12)	57	11	23	12	52	16	8	1.5	7.9	*17.7*
Bar-tailed Godwit *Limosa lapponica*	2.0	10	4.8	15	13	9.0	6.7	11	8.5	8	4	28	21	8	7.6	17.0	*10.4*
Non-arctic northern migrants																	
Greater Sand Plover *Charadrius leschenaultii*	25	33	22	13	32	24	21	9.5	21	27	27	35	17	19	28	21.5	*23.6*
Terek Sandpiper *Xenus cinereus*	12	(0)	8.5	12	11	19	14	13	11	13	15	19	25	5	12	15.1	*13.6*
Grey-tailed Tattler *Heteroscelus brevipes*	26	(44)	17	17	9.0	14	11	15	28	25	38	24	31	20	18	16.2	*21.0*

All birds cannon netted in the period 1 November to mid-March. Averages (for previous 15 years) exclude figures in brackets (small samples) and exclude 2013/14 figures.

Geolocator use by VWSG

Clive Minton, Ken Gosbell, Maureen Christie and Roz Jessop

Introduction

All VWSG members will have been aware that we have been extremely active over the last five years in exploiting the use of the new lightweight geolocators on migratory shorebirds. A number of papers and presentations detailing the exciting results has been published (mainly in the International Wader Study Group Bulletin) and given (mainly at AWSG biennial conferences and relevant Flyway meetings).

However VWSG members probably do not have a clear idea (neither did the project leaders!) of the overall number of geolocator units deployed on the different species and at various locations, nor on the proportion retrieved from each. This note is primarily to set on record this information. It does **not** attempt to cover the scientific information generated through the geolocators on migration routes, stopover locations, breeding locations, breeding ground activities etc. This information has already been published separately, or will be published elsewhere in the future.

Geolocator deployments and retrievals

The first geolocators were deployed by VWSG in April 2009 – six at Flinders, Victoria, and two at Carpenter Rocks, South Australia. All were on Ruddy Turnstone, and this species has continued to be the main target in each subsequent year (see tables below).

The premise which helped guide the original selection of Ruddy Turnstone as a suitable species on which to employ geolocators was that they potentially had a higher rate of retrieval than other species. This has proved to be correct with 85 units having now been recovered, corresponding to a 37% retrieval rate from the 230 units deployed up until April 2013. The 60 further geolocators put on Ruddy Turnstones in April 2014 have not yet had a chance of being retrieved because the birds have been away on their migration to the Northern Hemisphere.

Sanderling were the next “cab off the rank” for geolocator deployment by VWSG with a total of 68 receiving geolocators, at Canunda National Park in South Australia, in 2011 and 2012. Retrieval success was very poor in the first year but a bonanza collection of 16 units back in 2012 more than made up for this. Currently the retrieval rate for Sanderling is 26%. Eastern Curlew, the largest wader in the world, was also selected for the application of geolocators (23) in 2011. Retrieval proved enormously time consuming but eventually a total of eight units (35%) was retrieved.

To date therefore the VWSG has deployed 321 geolocators (plus 60 more in April 2014) and retrieved 111, a retrieval rate of 36%. Before we embarked on putting geolocators on any species we assessed that a return rate of at least 20% was potentially achievable. Whilst this has proved to be correct in south-east Australia (Victoria, South Australia and King Island, Tasmania) it has not been so for Roebuck Bay, Broome, in north-west Australia, where deployment and retrieval rates to date have so far been 32% on Greater Sand Plover (62 geolocators), 20% on Great Knot (65 geolocators) and only 7% on Red Knot (42 geolocators).

Retrieval of geolocators is undoubtedly made less difficult if birds are present in largely single-species flocks. This is the situation for Ruddy Turnstone, Sanderling and Eastern Curlew in south-east Australia. There is also the advantage that these flocks are relatively small in size (20 – 200) making it easier to pick out with a telescope birds which are carrying geolocators and to not fire the cannon-net until a geolocator-carrying bird is present in the

catching area. The very large (often several thousand) wader flocks present at Roebuck Bay make geolocator retrieval much more difficult, especially for Red Knot which are usually only present in relatively small numbers scattered through these larger flocks. The low retrieval rate on Red Knot is also partly attributed to their lack of site faithfulness – a return to the same area at which the geolocators were originally put on is a helpful aid to maximising retrieval rates.

Ruddy Turnstone

Although the original geolocators were deployed on Ruddy Turnstone in Victoria in 2009 and 2010, it has subsequently proved to be more productive to deploy geolocators on this species in King Island, Tasmania and in South Australia (see Table). The retrieval rate in Victoria has been high (55%) but the flocks of Ruddy Turnstone at Flinders and at Barwon Heads have become so small and irregular that they are no longer ideal for this study. In contrast the King Island population is particularly limited in its mobility, rarely moving more than 5km from the banding site and so that location has proved to be an excellent place for intensive Ruddy Turnstone studies with a 34% retrieval rate. The retrieval rate in South Australia (31%) has been a little lower because birds move around over rather greater distances between flocks and because the overall geography for cannon-netting Ruddy Turnstone is more difficult.

Technical performance

Only two birds, both Ruddy Turnstone, have been known to lose their geolocators during the VWSG studies. On both occasions the geolocator had become detached from the flag on the bird's leg.

Ruddy Turnstone do seem to cause much more wear and abrasion on their geolocators than any other shorebird species. This is probably because they frequent rocky areas at times and also because they are regularly fossicking around in beds of seaweed. This heavy abrasion can even wear the numbers of stamped metal bands and wear away completely a leg flag if these are placed on the lower leg (tarsus). But even though all geolocators have been attached to birds via leg flags on the upper leg (tibia) considerable wear of the unit, sometimes leading to the ingress of sea water and therefore corrosion, has often taken place.

There have also been technical failures of retrieved geolocators, over and above those associated with wear/corrosion. The Integeo units from Migrate Technology which have been predominantly used for the last two years have proved to be by far the most reliable. They also have the added advantage of a more sensitive light sensor (better enabling determination of arctic breeding locations) and, now, a temperature sensor (aiding incubation studies and height of migration determinations).

The original geolocators from British Antarctic Survey had some units which failed prematurely for no apparent reason but others which performed excellently. Unfortunately all the geolocators supplied by the Swiss Ornithological Institute failed, as they were insufficiently protected for use in the marine environment occupied by shorebirds.

Costs

The geolocators have been purchased at an average cost of close to $200 each. With 381 units deployed over the last six years this equates to a cost of around $76,000.

Funding has been obtained from a wide range of sources including significant contributions made by, or organised by, VWSG members (including legacies from two deceased members). Funds were also raised by a number of special activities, particularly at the AGM,

which included raffles for items such as wine (generously donated by the Myer family) and books (kindly donated by Andrew Isles).

Maureen Christie was also most successful in raising a total of $17,540 from South Australian sources including Nature Foundation of SA, Kimberley Clark Aust P/L, Department of Environment and Natural Resources (now DEWNR) and the South East Cooperative Coastal Conservation Initiative and Newbery Park Primary School'. The largest contributions have been made by Marcel Klaassen's Migration Ecology unit at Deakin University and by the Norman Wettenhall Trust. All are greatly thanked for their most generous help which has been fundamental to us being able to undertake geolocator studies on a scale which is significant.

Publications

Listed below are the scientific papers published so far giving results of our geolocator studies. Further analyses are in train and additional papers will be published in the future. Also listed below are the most recent verbal presentations made on our geolocator work. There were earlier presentations (including at the Australasian Ornithological Conference in Cairns) going right back to 2009, but these are not listed.

Papers published

Minton, C., Gosbell, K., Johns, P., Christie, M., Fox, J.W. & Afanasyev, V**.** 2010.Initial results from light level geolocator trials on Ruddy Turnstone *Arenaria interpres* reveal unexpected migration route. *Wader Study Group Bull.* 117 (1).

Minton, C., Gosbell, K., Johns, P., Christie, M., Klaasson, M., Hassell, C., Boyle, A., Jessop, R. & Fox, J. 2011a. Geolocator studies on Ruddy Turnstones *Arenaria interpres* and Greater Sandplovers *Charadrius leschenaultii* in the East Asian-Australasian Flyway reveal widely different migration strategies. *Wader Study Group Bull.* 118 (2).

Gosbell, K., C. Minton & J. Fox. 2013 Geolocators reveal incubation and re-nesting characteristics of Ruddy Turnstones *Arenaria interpres* and Eastern Curlews *Numenius madagascarensis*. *Wader Study Group Bull.* 119 (3).

Minton, C Gosbell K., Johns, P, Christie M, Klaassen M, Hassell C, Boyle A, Jessop R, Fox J. 2014 New insights from geolocators deployed on waders in Australia. *Wader Study Group Bull.* 120 (1).

Presentations

AWSG Conference, Adelaide, September 2012

Unlocking some of the mysteries of migration – geolocators providing new insights of the migration strategies for 4 shorebird species.
Clive Minton, Ken Gosbell

What can geolocators tell us about shorebirds breeding in the Arctic?
Ken Gosbell, Clive Minton

EAAF Partnership Meeting, Alaska, June 2013

What we have learnt from Geolocators in Australia about the migration of small waders.
Ken Gosbell.

IWSG Conference, Germany, 2013

What we have learnt from six years of deploying geolocators in Australia.
Clive Minton

AWSG Conference, Darwin, September 2014
Three papers are scheduled.

The Future

When the initial geolocator deployments resulted in successful retrievals and the downloading of exciting new information there was a period of euphoria when everyone thought geolocators were the answer to the prayers of all those who had toiled over many years to study wader migration by banding and colour-flagging.

Gradually however a more realistic assessment of the situation showed that there are comparatively few species of migratory wader which visit south-eastern Australia on which geolocators can be economically deployed. Species which it would be highly desirable to study – Curlew Sandpiper, Sharp-tailed Sandpiper, Red Knot, Bar-tailed Godwit for example – have low recapture rates, either because only a small proportion of the population can be captured each year because of their low populations/inaccessibility, or because of the ephemeral nature of their return patterns, Sharp-tailed Sandpiper particularly. Thus the VWSG considers that at present there are no new species on which it should be deploying geolocators. Satellite transmitters are therefore the next tool in the armoury and these are currently being evaluated in Australia on some of the larger shorebirds.

Deployment of geolocators on Ruddy Turnstone on King Island and in South Australia is still, continuing. This part of the King Island study has now morphed into a special investigation by the Deakin University team into the effects of intestinal parasite load on migration efficiency. Part of the geolocator sample each year will be pre-treated to remove intestinal parasites. Also, with more sophisticated analytical techniques becoming available it is hoped we can determine reasons for some of the quite marked migration ecology differences between the Ruddy Turnstone populations of the south-east of South Australia and those of King Island, which are only some 200km apart.

Conclusion

The VWSG's move into the field of geolocators in early 2009 has proved to be an astounding success. We were, and still are, one of the world leaders in the use of geolocators to study shorebird migration. A total of 381 geolocators has now been deployed on three species in five different locations over six years, with a more than satisfactory retrieval rate of 36% so far. VWSG members are to be congratulated on the dedication and perseverance they have shown through intensive fieldwork which has enabled such a satisfactory retrieval rate to be achieved and therefore much significant new migration information to be obtained.

Clive Minton – Corner Inlet (Photo Prue Wright).

Geolocators deployed/retrieved each year by VWSG/AWSG to 04/2014

Year	Ruddy Turnstone		Sanderling		Eastern Curlew		TOTAL	
	On	Off	On	Off	On	Off	On	Off
2009	8	4					8	4
2010	75	33					75	33
2011	46	13	24	1	23	3	93	17
2012	32	12	44	16		5	76	33
2013	69	23		1			69	24
2014	(60)						(60)	
TOTAL	230	85	68	18	23	8	321	111
	(+60)	37%		26%		35%	(+60)	36%

"On" relates to Geolocators on birds in the seven months up to April of the specified year
"Off" relates to Geolocators taken off birds between deployment and the end of April of the following year

Locations of Geolocators used on Ruddy Turnstone

	On	Off	% Retrieval
Vic	38	21	55%
SA	61 (+13)	19	31%
KI	131 (+47)	45	34%
Total	**230 (+60)**	**85**	**37%**

Figures in brackets are geolocations deployed in 2014, for which there have not yet been retrieval opportunities.

Robyn Atkinson releasing a Bar-tailed Godwit (Photo Prue Wright).

Report on Visit to South Australia 30 March to 7 April 2014

Clive Minton

Introduction

This was the traditional main annual March/April visit by the VWSG, principally to catch Ruddy Turnstone and Sanderling. In contrast to most previous such visits the team was initially based at Rendelsham (three nights at Iain and Sandy Stewart's farm) followed by five nights at Paul Feast's cottage on the shore at Green Point (near Port MacDonnell).

Catching Programme

The visit started inauspiciously with a whole day on the shore at Canunda National Park failing to produce a catch of Sanderling. There were initially 150–200 present, but we could not concentrate them in any one area and numbers gradually dwindled as we repeatedly tried to twinkle them.

The next day was a complete contrast with a rapid catch of 38 Ruddy Turnstones at Beachport followed by a move to Nora Creina where another 37 were caught. We also only narrowly failed to catch the 70 Sanderling which were also present there. The move to the Port MacDonnell area on 2 April quickly revealed good numbers of Sanderling at several different locations, including three flocks at Green Point totalling almost 500 and a further 500 at Danger Point. These were immediately targeted, but a rather disappointing catch of only 50 Sanderling was made due to the net not going out completely.

The next day was a "red letter" day. We went to Nene Valley, where 30 geolocators were deployed on Ruddy Turnstone in April 2013. Only four of these had been retrieved so far, but a beautiful catch of 45 Ruddy Turnstone contained six birds carrying geolocators (plus another one where the initial geolocator had been retrieved in November 2013, with a new geolocator replacing it). This unit was, of course, left on the bird. A bonus for the day was an additional 37 Sanderling. It was great that 10 students plus teachers from a local school were with us, especially as they had been present when the geolocators were initially deployed and that they had also provided the funding for one of these.

It was fortunate that we had targeted Sanderling as soon as we found them because numbers were decreasing rapidly and they had disappeared completely from the Green Point area by 4 April. Nevertheless sufficient still remained at Danger Point for us to catch another 63 (together with 141 Red-necked Stints!).
Next day we went to Stoney Point to a location where we had been watching a regular Ruddy Turnstone roost over several previous days. The birds performed as expected and we made another nice catch of 39.
In contrast the last day was not so productive. After much deliberation we went to the shore of Pelican Point where a good Turnstone flock had regularly been seen roosting at high tide. However only about 20 birds came and in the end we had to settle for just one Turnstone caught (plus two Pied and two Sooty Oystercatchers). As it turned out we would have done better to have tried at Port MacDonnell or, again, at Danger Point.

Nevertheless the overall total of 500 birds, including 172 Ruddy Turnstone, 164 Red-necked Stint and 150 Sanderling was a most successful outcome for the visit (see Table).

Geolocators

All six geolocators retrieved from Ruddy Turnstone at Stoney Point have been successfully downloaded by Ken Gosbell. All seem to have given complete migratory paths to and from their breeding grounds in arctic Siberia. All three examined in detail so far appear to have bred successfully in the June/July 2013 arctic breeding season. This corresponds well with the high proportion of juveniles present in the Turnstone population in the 2013/14 non-breeding season in Australia.

Twelve new geolocators were deployed on Ruddy Turnstone at Nene Valley.

% Juveniles
The catches in South Australia confirmed earlier data from north-west Australia, from King Island and from last November's visit to South Australia that 2013 was an exceptionally good breeding year for Ruddy Turnstones. In the five catches of Turnstone made the percentage of juveniles varied between 16% and 42%, with a mean of 30%. This is the highest level ever recorded in our intensive studies of Ruddy Turnstone over the last 20 years. The good breeding outcome was very timely as there was almost zero breeding success in the 2012 breeding season.

Sex ratios
Of the 121 adult Ruddy Turnstone caught 69 (57%) were male and 52 were female. In four of the five Turnstone catches males were present in greater numbers than females, while in the fifth catch numbers of both sexes were equal.

This is in marked contrast to the results obtained during the recent visit to King Island (Tasmania) where females outnumbered males in all catches and the overall male percentage was only 37%. Data from previous years will need to be examined to see if this pattern of sex segregation is significant and occurs regularly.

Weather

We were blessed with stable weather for the whole of the visit with no significant rain occurring during planned fieldwork activities. Winds were also generally not too strong, thus not preventing us from catching in preferred locations.

Acknowledgements
The VWSG is extremely grateful to Iain and Sandy Stewart for hosting the first three days of our visit at Rendelsham and for providing a memorable crayfish feast on our last night there. Paul Feast also extremely kindly allowed us to again use his cottage at Green Point as our base, even though he was away on holiday in the Philippines. And Maureen Christie is again thanked for all the arrangements she made on our behalf and all the recceeing she carried out before our visit.

South Australia 30/3 to 7/4/14

	TOTALS			
	New	Retrap	Total	(Juvs)
Ruddy Turnstone	101	71	172	(51 = 30%)
Red-necked Stint	146	18	164	(50 = 30%)
Sanderling	134	16	150	(28 = 19%)
Curlew Sandpiper	6	-	6	(6 = 100%)
Double-banded Plover	2	-	2	(1)
Pied Oystercatcher	2	-	2	(-)
Sooty Oystercatcher	2	-	2	(-)
Sharp-tailed Sandpiper	1	-	1	(1)
Red Knot	1	-	1	(1)
	395	**105**	**500**	

Ruddy Turnstone
69 Male (57% Male)
52 Female

Retrieved 6 geolocators from Ruddy Turnstone
Deployed 12 new geolocators on Ruddy Turnstone

CONSERVATION

Doris Graham

Western Port

This year Western Port has been at the top of the agenda due to the proposed expansion of the Port of Hastings. I attended a workshop for Scenario Planning for Western Port run by the Victorian National Parks Association and Australian National University. This workshop explored futures for Western Port with and without a port – the final report will be available later in the year.

Western Port has also been the focus of the Western Port Catchment Committee (WPCC) meetings I have attended this year. Some about 10 years ago a group termed WPCC was formed. Its function over the last decade has been to provide a forum for learning about the environment of the catchment and networking between community and public agencies managing the area.

During 2013 the WPCC has strengthened, by the establishment of a memorandum with the Western Port Biosphere Reserve. The group is managed by a small committee and there is no joining fee or subscription, and there is a morning meeting each 2 months, with speaker, or discussion or both. Topics are chosen by the group and each person can make suggestions or ask questions.

A single representative from each group in the community is sufficient, but the meetings are open to all conservation related groups in the area. The group has risen from about 25 to about 50 participants. There are about 2 or 3 speakers at each meeting and at least one boat trip or excursion each year. Boat trip last about 4 or 5 hours and persons whom have considerable knowledge come along to talk about the coast.

Melbourne Water is conducting various investigations on Western Port and their reports can be found at the Melbourne Water web page:

http://www.melbournewater.com.au/whatwedo/protectrivers/research/Pages/Western-Port-environment-research.aspx

Last Year's Projects

First I will give you the results of projects described in the Bulletin 36 2013. Unfortunately these projects, the Mallacoota Ocean Access Boat Ramp- Bastion Point and the Lonsdale Golf Course Re-development were both lost.

The Geelong Saltfields Project redevelopment has not been completed, to my knowledge. Roger Richards and I were lucky to hear at the last minute of a weekend opportunity for non-scientific people to be allowed into the Moolap Saltworks, under the security of the Geelong Field Naturalists who are trusted by their owners to facilitate visits. Visitors, who were known by their Recreation/Scientific group were divided into small groups to accompany the Geelong Field Naturalists and allowed to help in their counting and identification of birds. Each of our group found the leader inspiring and learnt how the birds used each type of pond. Their usage will be in trouble if these saltworks are converted into the human use.

A recent article can be found at:
http://www.geelongadvertiser.com.au/news/geelong/b-waterside-suburb-planned-for-former-cheetham-saltworks/story-fnjuhovy-1226953675514

South Australia (Maureen Christie)

Beach Wrack Harvesting

The sale of Australian Kelp Products P/L to Qingdao Gather Great Ocean Seaweed Industry Co Ltd raises the specter of increased beachwrack harvesting, initially at Beachport, but potentially along much of the SE coastline. Comment was made to the federal Department of Environment on the 'Ecological Assessment of the South Australian Beach-Cast Seagrass and Marine Algae Fishery' prepared by PIRSA (Primary Industries and Regions SA) see http://www.environment.gov.au/system/files/pages/347911ae-424e-45c4-84da-9ba975cab7a9/files/seagrass-submission.pdf and http://www.environment.gov.au/system/files/pages/184d00cd-c225-446d-9cb9-3019d3f7880f/files/sa-seagrass-assessment.pdf .
Acceptance of this assessment by the federal department is needed for export approval to be granted. The VWSG also made comment and more details are included in Doris Graham's Conservation Report.

Australian Kelp Products P/L (originally Bevan Mills, now *Qingdao Gather Great Ocean Seaweed Industry Co Ltd ,* operate under an Annual Licences. There are only two licences in the fishery in SA – this one which is for the area Kingston to just south of Beachport, and one at Kingston which is just for the town for seagrass removal from an area rarely used by shorebirds.

The District Council of Wattle Range has an introduction to this company on their web page. http://www.wattlerange.sa.gov.au/page.aspx?u=590

Submissions that were made:
VWSG, SA Conservation Council (prepared by James Brook), Friends of Shorebirds SE (Jeff Campbell), Nature Conservation Council of SA (Nicki De Prue), Department of Environment, Water and Natural Resources South East Region, Birdlife/AWSG (Golo Maurer, Dan Weller and Grainne Maguire), Robe Coast Care (Richard Evans), 3 private individuals (inc. Maureen Christie)

Those submissions that I saw tended to have different emphases. I think we all commented on the Macro-Algae (the Beachport licence), rather than sea-grass, the Kingston licence.

I understand from PIRSA that they have been sent all of the comments received by the Feds for them to review. 10 comments were received. They plan to review all as a whole. Once this is done they will send it to the Feds. It will then be up to the Feds to decide whether a licence to export will be granted, and if any conditions are attached to it. Unlike in the past when submissions have not been acknowledged, PIRSA have advised that they will send all those who made comment a copy of their reply to the Feds.

When we all started work on making comment, it was considered that there was very little published work available on the importance of beachwrack, however, we managed to gather together quite a body of work.

Flinders University (Centre for Marine Bioproducts Development) is in collaboration with QGGO - this will involve joint algae biorefinery laboratories in South Australia and at the QGO headquarters in Qingdao. The joint laboratory confirmed QGO's commitment of $450,000 over three years into the development of new products, new technology and enhanced research talents for QGO and Flinders University, with the ultimate aim of supporting QGO's commercial ventures in South Australia.

Adelaide has a sister city relationship with Qingdao.

Peripatetic Movements of Ruddy Turnstone in the Austral winter

Maureen Christie and Clive Minton

In many of the species of migratory wader which breed in the Northern Hemisphere and come to Australia in their non-breeding season, immature/first year birds do not return to the Northern Hemisphere at the end of their first year. Such birds do not therefore breed for the first time until they are at least two (or more) years old. The one year old birds thus largely remain within Australia during their first austral winter.

Ruddy Turnstone is one of these species. This means that the birds seen in the May to August period are nearly all immature, approximately one year old, birds.

Engraved flags, which can be read on the live bird in the field with binoculars or a telescope, have been a great aid in examining local movements of waders within Australia (as well as in studying overseas migration patterns). The South Australian team has been extremely diligent over the last 10 years in searching for and reading engraved flags on Ruddy Turnstone. This is not easy because the flag, on the tibia, is often hidden by the body feathers, particularly when birds are fluffed up in cold weather. Also seeing an engraved flag is made more difficult because feeding Turnstone are so energetic, often feeding in piles of rotting seaweed where even the bird itself is sometimes obscured.

Data collected in the period Nov 2004 to August 2008 was analysed and published in a report prepared for the SA Wildlife Conservation Fund. It showed that most of the Turnstone in the 140km or so of shoreline in the south-east of South Australia which was studied remained faithful to a particular non-breeding flock/location within each non-breeding season and from one year to the next. This was particularly true of adult Ruddy Turnstone. However, overwintering Turnstone were found to be much less site faithfull, especially those from the Nora Creina/Beachport area.

Data on several species of migratory wader, including Ruddy Turnstone, suggests that the one-year-old birds which do not migrate do tend to move around more during their first austral winter compared with their first austral summer. In some species (e.g. Curlew Sandpiper and Eastern Curlew) there is a quite marked northwards movement by many individuals in that first winter.

In the austral winter of 2014 Ruddy Turnstone numbers everywhere were much higher than usual as a result of the highly successful breeding season experienced by this species in the arctic summer of 2013. Thus along the coast of the south-east of South Australia more than 200 (and possibly as many as 300) Ruddy Turnstone were present compared with the more usual winter figure of 20 – 50 birds (and sometimes none). The SA team put in an enormous amount of effort in 2014 to read the engraved flags on almost all the birds present in the main winter congregation at Nene Valley. The gathering together of these birds into flocks is normal, and the flock is most frequently located at Port MacDonnell or Nene Valley. In August 2014 however it was mainly located at Livingston Bay, just to the Carpenter Rocks side of Blackfellows Caves.

Listed below are the origins of flagged Turnstone seen at Livingston Bay between 8 and 22 August:

10 Nora Creina
5 Beachport
1 Gerloff Bay (Carpenter Rocks)
8 Nene Valley
6 Stony Point/Port MacDonnell
2 King Island (Tasmania).

Livingston Bay is 87km south-east of Nora Creina and 34km north-west of Stony Point. King Island is about 200km east of Livingston Bay. This demonstrates mobility of much greater distances than during the summer with birds from widespread locations coming together in winter.

This data is an excellent example of the value of engraved leg flags. Congratulations on the perseverance of the flag-sighting team.

Maureen Christie, Rosalind Jessop and Heather Gibbs April 2009. Report to the Conservation Research Grants Programme. Site faithfulness of Ruddy Turnstone *Arenaria interpres* in the South East of South Australia

Nene Valley SA (photo R. Jessop)

Victorian Wader Study Group at Werribee Sewage Farm
27– 30 December 2013

Barbara Campbell

Friday 27 December

I feel like an old hand now: this is my third December at Werribee. As the saying goes, 'same, same but different': this year, instead of one of the gated entrances to the lagoons, we meet at the campsite (also known as the offices of Melbourne Water, Western Treatment Plant). We won't be setting a net this evening. Tomorrow's high tide is relatively late; there'll be time enough in the morning.

We lug our assortment of bags, boots and portable fridges through the glass entrance way. First stop: tent-pitching, really more like cubby-house-building as we move whiteboards and other bits of office furniture around to create partitions against the sleep-piercing light of the Exit signs. By the second night newcomer Chan takes to sleeping on a row of padded stools, conjuring for me the figure of a well-travelled Sultan.

Beds ready, Clive leads us past the dormant Discovery Centre full of water-wise displays and a large, elevated, scale-model of the Treatment Plant's layout. In the previous year, this complex array of painted MDF sheets served as a fine cave for one of the group's heavier snorers. The present party goes through to the fluoro-flooded, vinyl-floored dining hall and kitchen. We park our collection of Eskies and grocery bags neatly against the wall decorated with OH&S and other procedural information.

Most of us have already eaten. We sit at the dining tables for a classic Clive briefing. He's glowing more than usual: recently back from a trip to Kenya banding passerines and a couple of days at the MCG where the Australians, already with that little urn in their clubhouse, have still got some work to do to bag the Fourth Test of the summer. Despite his roots in England, Clive's 'we' is most definitely Australian where the cricket is concerned. For now, he's focussed on our own team mission: catching and banding—in order of priority—a good number of Sharp-tailed and Curlew Sandpipers; Red-necked Stints; and if these prove elusive, Whiskered Terns. He takes us through some of the variables that will affect what we do: the temperature; the weather, particularly the wind strength and direction; the height of various pond levels, some of which are artificially regulated by the computers and machines that whir away in a room not far from where we sit, and some which are determined by the pull of the moon, already set, into its third quarter, and about 380,000 kms offshore. Clive does some mental arithmetic, starting with tomorrow's high tide at 10.20am when the birds will congregate to roost, and gradually subtracting to arrive at a 5.30am wake-up for the humans. We are ordered immediately to bed.

Saturday 28 December

As per breakfast tradition, we compare sleep notes over our bowls of assorted cereals. Some were bothered by the sounds, by the light, by the cold, by the hardness of the concrete slab or any combination of these but we all know that we'll be so utterly tired by the work that lies ahead that sleep should come much easier tonight. The packing of lunch, the filling of flasks, the brushing of teeth, and so on, are done with patterned chaos out of which arises a neat line of packed SUVs exiting the security gates of the centre, snaking down the freeway then to the lagoons at the end of Point Wilson Road.

Over time I've come to understand more about the fine calculations that must go on inside Clive's head: a mind shaped by decades of empirical knowledge of bird habits, environmental variables and human ingenuity. In the days before Christmas, Clive had reconnoitred down here and consulted with the Water Board on current pond levels. His

assessment of how the birds would likely behave, where they would go, and where we could safely fire a net all keep us now to the relative confines of the contiguous ponds of Western Lagoon.

We start the day in Pond 0, vehicles evenly notching the roadway horizon like ancient crenulations. Out of the VWSG covered trailer, we conga down two small mesh nets and all the relevant equipment for their firing: pegs, mallets, cannons, projectiles, firing cable, jiggling line, electrical hardware and a stool to which Clive anchors himself in the soft muddy sand. He focuses now on the wind. The net will need to fire downwind and it will be strong. Clive determines a higher firing angle than usual to counter these forces. Our roles are distributed: some tasks require chorus work like the net-furling and the grass-cutting; while others are cameo-like such as the laying out of the jiggling line, and the wiring in of the cannon charges. Each of us must faithfully play his or her part or parts and entrust the dramaturgy to Clive. After some chorus work I'm given the cameo of mark-setter, that is, I must mark out, using available rocks, the imagined rectangles of the nets on the ground post-firing. Four rocks represent the four corners of the nets' safe catching zone. I stride out, placing one rock at two metres out and one at eight, first down one net side, and then the other. Clive deems my stride lengths too extreme. Even this, it seems, requires rehearsal. The rocks need to be visible from several distant monitoring positions so that Clive and other designated spotters can ascertain when the birds are in the catching area and safe from potential harm. Without the markers, the net line seems to disappear from view.

Nets set, we retreat in cars to one end of the pond, in an attempt to restore the natural picture for any birds that will gather here to roost in an hour or so's time. As the waiting commences, I begin my own recruitment drive.

Readers of my previous Werribee reports will know I'm doing a PhD in the creative arts, looking at how migratory birds on the EAAF 'direct' human 'performance'. Up until now this has taken the form of describing certain citizen science activities (such as the VWSG banding program) *as* performance. You will have already detected a theatrical vocabulary in the previous paragraphs. This year I want to also shape the humans' relationship with the birds in a more consciously directed way. I've devised several activities requiring the participation of those already attached to volunteer wader programs. I begin with the most radical activity: the *sympathetic banding program* in which I ask participants to wear an engraved stainless steel finger band for a year, signifying their committed relationship to one of the birds banded at Werribee. The bird is selected by the participant, they are photographed together, the bird's band number recorded and debossed into a specially designed notebook in which the participant is asked to record any thoughts about the bird as the year progresses. In December 2014 when we are again at Werribee I hope to 'retrap' a good number of the participants and gather up their recorded notes. It's possible that one or some of the same birds will also be retrapped here. Before the first net has been fired, two game souls have signed up for the journey. I've agreed only to use their initials: MRJK and PAB. Before the day is out they will be committed to Sharp-tailed Sandpiper 042 69635 and Curlew Sandpiper 042 69707 respectively.

Meanwhile, Eric has donned his waders and is quietly twinkling birds down from one end of the pond. The birds have returned to the catching area sooner than we'd expected. We're ordered back in our cars, keys to the ignition, ready for Clive's signal. He warns us there'll be no countdown. Just the single word.

'FIRE!'

The blast sprays the nets into the air. White smoke. Grass shards. The delayed boom. Fine nylon mesh suspended for a moment. Gravity intervenes. Too slowly the netting settles to the ground. Some of the leading edge birds escape. Their associates further back beat against the binding web. All this has happened but not actually seen. We are speeding in

cars, then on striding legs, lumbering towards the nets, towards those flapping shapes on the mud; the shapes that must be calmed.

Great swathes of green and cream shade cloth are spread across the heaving, protesting mass. Whereas the open mesh of the netting caused distress, the light-blocking weave of the shade cloth produces the opposite effect. I am always amazed at this sudden pacification.

The next batch of roles is assigned. Two or three set up the keeping cages, anchoring them in the sand close by the catching area. An experienced chorus lines up on bended knees at the net edge and begins to extract birds. Backing them up is the party of carriers, ferrying birds from extraction line to keeping cages: one species per cage accompanied by identification lessons and revisions. Curlew? Sharpie! Sharpie? Sharpie! Sharpie? Stint! Stint? Stint! Stints here. Curlew! Curlews there. Sharpie? Sharpie. Sharpies here. Plus two ring-ins: a Red knot and a Red capped plover.

The birds are now organised, ready for processing. It's 11am. As predicted the heat-fuelled northerly is upon us. A windbreak is erected for our comfort but it stops too much airflow to the birds so is quickly dismantled. The shade cloth is reassigned: another layer goes over the cages. The humans also need protection but there are no trees in this landscape. Clive orders three off-road vehicles off the road and onto the flat. The wagons circle the camp forming the anchor points for an improvised ceiling. Soon an undulating patchwork of green and cream skims our bended heads.

The going is slow in these conditions: paperwork flies around; the wind pushes on the scales; flag solvent dries in the tube; and novices must be trained. There is however an important advancement introduced: alphanumeric engraved flags for the Sharp-tailed and Curlew Sandpipers. Those of us involved with field monitoring will now be looking out for orange flags with simple combinations: L1, G3, N5, etc. and know what all we animals had to endure the day those birds were so-Christened.

At 3.30pm the wind swings around blowing in cool from the south. We are packing the last layer of equipment back in the trailer. As one, we lift our heads to feel the change.

It's too late for another catch but time aplenty to set a net for the morning at Pond 6. It's quickly done and with the extra hours of saved daylight we campers have the unusual experience of returning to base before dusk. Back in the dining room, Roger and Rob cover a couple of tables with newspapers and start dismantling, cleaning, greasing, loading, wiring, marking, and reassembling the cannons in readiness for the morning. Clive catches up on some paperwork and is well pleased with news from the 'G': England collapsing for 179 in their second innings before the end of Day 3.

Clive is pleased too with our own score:

Species	**New**	**Retrap**	**Total (Juvenile)**
Curlew Sandpipers	86	3	89 (39)
Sharp-tailed Sandpipers	72	2	74 (22)
Red-necked Stints	52	9	61 (14)
Red Knot	1		1 (1)
Red-capped Plover	1		1 (-)
Totals	**212**	**14**	**226**

Sunday 29 December

As though a heat beast had walked over us, Sunday brings with it a 15 degree drop in the forecast maximum. The ponds, sandy islands, samphire clumps, flowering pigface, ruffled bay and distant hills arrange themselves in benign harmony. And then we enter the scene.

During the night the tide has come in further than expected and is pooling in inconvenient areas. The net is wet. Clive puts on his engineer's cap, directing Chan to dig drainage channels and holes while Ila and I raise the net above the water with some 'cover material' (harvested samphire). Remedial work done, we all retreat back to the edges. The birds are all over the pond but not in our little marked-out patch. Time for some twinkling. Roger and I drive East to survey the site from a distance. Eric's waders are on the back seat: a new role awaits for me. Vivien has arrived and is immediately sent in to twinkle in gumboots from the West.

The moment has come. Waders: check. Hat: check. Radio, spare battery: check, check. Roger's tip for twinkling: keep the same profile when moving around even when directed sideways or backwards. Ila had also recommended a pole for balance but all the long wooden stakes are with teams in other parts of the country.

Clive begins today's dance improvisation. Vivien moves. Birds move. Vivien waits. Vivien moves. Birds move. Birds wait. Vivien waits. I move. I begin to sink. I retreat. I move by a different course: a deeper channel but not so muddy. Birds move. I wait. We wait. I move further. Birds move off. I move back, all the way back, back across the water. I wait. Vivien moves. Birds gather. Birds move. Birds move into danger. Jiggling line jiggles. Birds shuffle forward. Clive readies us. We must all be ready to run. Yes, me too. Three, two, one FIRE! Run, run, run, run, fall, splash, recover, run, run, run, run.

No one has witnessed my self-baptism. Each was running their own race to the net. There are many many birds. Hundreds. We start the ferrying business using drawstring bags this time, one species per bag. The extractors call out: Stint! Sharpie! Curlew! An open bag greets each call. Back and forth, back and forth. Many birds are discovered pressing right against the back corner, the last to be extracted. Back and forth, back and forth until the last.

And so our processing begins, not under cover this time. With this many birds, not all get the full data record but all are banded, flagged, and aged according to moult stage.

The reading of the moult is a practiced art. It begins bird in hand, belly nestled into left palm. A simple action of the right hand fans out the primary feathers of the bird's right wing. This is the shape of the wing in flight. Imagine the beating it does to cover such distances. Imagine the beating it takes against sun and rain, over salty sea and smog-choked land. All this tells on the structure of the feathers. They are only designed for one great return journey, after which they are discarded and replaced, one by one, in sequence, generally from inner 1 to outer 10. The juveniles born in June on the other side of the world arrive in Australia with their very first feathers. Their primaries will only have done half the work of their parents'. They are also out of synch with their parents who have arrived a couple of months earlier. The juvenile Red-necked Stints, for instance, reveal their youth to human enquiry with the tiniest crescent of rusty-buff fringing on one of their innermost median coverts. Shielded against the sun's bleaching ways for all that journey, a single human breath blown into the point where body meets wing can discover the hidden colour that is the final proof of youth. It's a small delicate moment but it speaks to the greater purpose of the program. The percentage of juveniles to adults indicates the success or otherwise of the previous year's breeding season on the far side of the planet. 2013 will be compared with 2012, with 2011, and so on back in time. Data is recorded. Patterns emerge. Predictions are made. Stories are written.

The end of the day brings with it early victory on the cricket pitch and a good set of bird numbers from the single net.

Species	New	Retrap	Total (Juvenile)
Curlew Sandpipers	85	9	94 (46)
Sharp-tailed Sandpipers	50	2	52 (2)
Red-necked Stints	293	59	352 (45)
Totals	**428**	**70**	**498**

Monday 30 December
Today our operations are restricted in a few ways. Firstly, word has got out amongst the twitcher community that a Long-toed Stint, notoriously difficult to distinguish from a Sharp-tailed Sandpiper, has been spotted in Western Lagoon. We do our best to accommodate our movements to the enthusiasms of this other bird group. Secondly our own options for setting a net have been reduced by simply not wanting to return to sites we've already caught at. Thirdly, Clive suspects the neap tide is keeping birds out on the beaches where they see no reason to leave. It brings us to the picturesque but unpromising island down the eastern end of Pond 0 where we had set a net the previous afternoon. We convoy around the pond trying to keep out of the way of twitchers and out of sight of any waders coming in for a nice place to roost. The first situation resolves itself with time. The second too, but disappointingly. The birds are just not interested. Not even Eric's twinkling down the centre of the pond towards the island can corral the birds into position. They simply rise up and head towards the sea.

Finally, reluctantly, Clive declares the operation nonviable. In single file the gang wades out to the island to collect the objects of our thwarted efforts. Piece by piece of anomalous matter: cast iron, woven nylon, coated wire, and shaped wood comes back and is carefully layered into the trailer.

Looking around, it's hard to feel bad about the day: the blue sky reflected between islets of green algae; the You Yangs drawing waves on the horizon echoed by the white domes of Avalon airport to the left, and overhead a raptor waiting for his chance. We leave the scene.

Little Curlew satellite tracking updates can be found at

http://www.eaaflyway.net/our-activities/working-groups/shorebirds-working-group/little-curlew-satellite-transmitter-project/

Vale John Dawson

4/11/1922 - 4/7/2014

John Dawson died in July 2014 aged 91. John had been a member of the VWSG almost since its inception (in 1978). He was active in the early days of our cannon-netting both here in Victoria and in north-west Australia. Being a solicitor by profession (actually, a qualified barrister) he was also instrumental in providing sound advice to the Group on a range of matters in its early days, including on its incorporation. John was a quiet, enormously pleasant person with a marvellous wry sense of dry humour. His quips, especially in tight situations, were legendary. My failing memory precludes me quoting any of these but I can remember a couple of particular incidents when we were in the field together.

Both times were when we were in a small group of VWSG members photographing waders in north-west Australia. On one occasion we were at 80 Mile Beach, with only an ordinary car for ground transport. We were driven down the Old Coast Road from Anna Plains Station for 15km and then walked the kilometre or so across undulating dunes to the shore. Afterwards we walked back to the road for our arranged pickup. However a massive grass fire was advancing towards us across the plains. We decided that John would go back to the beach for safety, carrying all our camera equipment. We left our hides and tripods in the hollow of the Old Coast Road and I set off on foot back along the coast road towards our expected transport. After 10 exhausting kilometres this eventually arrived (having been delayed helping prevent the fire burn the station) and rescued me. We then drove down to the beach and managed to get the car along it without getting it bogged, to rescue John. He had stoically carried all the camera equipment almost half-way back to base camp and had been wondering what had happened to the rest of us. When we went back later in the day along the burnt out coast road we found our hide materials had been completely burned, together with everything else except, amazingly, one of the tripods.

When we photographed the waders at Broome we often built substantial hides out of the multitude of sandstone rocks on the shore. One dropped on John Dawson's ankle one day when we were doing this. Never one to complain, John grimaced but carried on. Three days later when we returned to Melbourne and he had it x-rayed it was discovered that his ankle was broken!

John emigrated from the UK early 1955 as a ten pound Pom. He practised as a solicitor throughout his career, latterly based at his home in Mount Eliza. He married Joan, whose main career was in administration at Monash University, and they had two children. They moved from Victoria in the early 1990s to be closer to their daughter's family in Canberra.

John will continue to be well remembered by those of his colleagues in VWSG who are still here!

Clive Minton.

Vale Geoffrey (Geoff) McDonald

Geoff and his wife Joan joined the VWSG early last decade. They became enthusiastic supporters of banding activities in Corner Inlet, joining in cannon-netting waders and banding terns. They also regularly volunteered for reeces, whether it was paddling out in canoes to check on the progress of breeding activity of terns on the outer barrier islands of Nooramunga MCP, or scrambling under and over fences to check on whether waders were roosting at Barry Beach.

Geoff and Joan made their house at Port Albert available for members to use, whether for sleeping or a place to enjoy a hot shower.

Geoff and Joan also took on the job of Volunteer Camp Hosts at Broome Bird Observatory (BBO) three times: in 2006 and 2009 for three months each time and in 2012 for two months. There they made many lasting friendships including with Assistant Wardens coming from overseas. They ran a weekly market stall in Broome to sell merchandise and publicise the tours offered by the BBO.

Geoff developed a keen interest in wader conservation. He was responsible for the installation of posters and other educational material about waders at the Port Albert Maritime Museum. He also gave talks to local groups on the waders of South Gippsland and their extraordinary migration.

Geoff was a highly regarded member of the South Gippsland community for his extraordinary service to the community as a secondary school teacher, and to local arts and sporting groups, the historical society and service clubs for over 50 years. He passed away in August of this year, aged 75 years. We have lost a true and generous friend.

Susan Taylor

Publications and Presentations using VWSG data

Compiled by Roz Jessop

NEWSLETTERS

Members made contributions to the following:

- **"The Tattler",** Newsletter for the East Asian-Australasian Flyway. Copies can be down loaded from the AWSG web page http://www.awsg.org.au/. You can also download previous copies of the AWSG journal Stilt from this site. Article prepared by Clive Minton
- **"VicBabbler",** quarterly newsletter of the BirdLife Victoria Article prepared by Clive Minton
- **"Birdlife South East SA Newsletter"** page of 'wader notes' prepared by Maureen Christie
- **"Friends of the Shorebirds South East"** email newsletters prepared by Maureen Christie

Papers of interest:

Barshep, Y, Minton, CDT, Underhill, LG, Erni, B & Tomkovich, P. 2013. Flexibility Constraints in the molt cycle of long-distance migratory shorebirds: cause and effect. Ecology and Evolution; 3(7): 1967–1976.

Clemens, RS, Herrod, A, & Weston, MA. 2014. Lines in the mud; revisiting the boundaries of important shorebird areas. *Journal for Nature Conservation*, *22* (1), 59-67.

Coleman, A, Minton, CDT & Coleman, J. 2013. Factors affecting the number of pairs and breeding success of Mute Swans *Cygnus olor* in an area of south Staffordshire, England, between 1961 and 1985. Wildfowl, [S.l.], p. 103-109, apr. 2013. ISSN 2052-6458. Available at: <http://wildfowl.wwt.org.uk/index.php/wildfowl/article/view/1372>.

Fullagar, PJ, Dawkins, MJ & Minton, C. 2013. Biometrics and wing molt in White-winged Black Tern (*Chlidonias leucopterus*) in north-west Australia. Chinese Birds 4(4):306–313.

Harris JBC, Yong DL, Sodhi NS, Subaraj R, Fordham DA, & Brook, BW. 2013. Changes in autumn arrival of long-distance migratory birds in Southeast Asia. Clim Res 57:133

Iwamura, T, Possingham, HP, Chadès, I, Minton, C, Murray, NJ, Rogers, DI, Treml, E & Fuller, RA. 2013. Migratory connectivity magnifies the consequences of habitat loss from sea-level rise for shorebird populations. Proc. R. Soc. B 2013 280, 20130325, published 1 May 2013.

Minton, C, Jessop, R & Hassell, C. 2013. Wader breeding success in the 2012 Arctic summer, based on juvenile ratios of birds which spend the non-breeding season in Australia. *Stilt 63-64*: 56-58.

Minton, C, Jessop, R & Hassell, C. 2013. Wader breeding success in the 2012 Arctic summer, based on juvenile ratios of birds which spend the non-breeding season in Australia. http://www./arcticbirds.net/docs/minton_AB2012.pdf.

Minton, C, Jessop, R. & Hassell, C. 2014. Wader breeding in the 2013 Arctic summer, based on juvenile ratios of birds which spend the non-breeding season in Australia. *Stilt* 65: 41-46.

Minton, C., Jessop, R. & Hassell, C. 2014. North-West Australia wader and tern expedition report 16th February to 9th March 2014. *Stilt* 65: 47-50.

Minton, C., Gosbell, K., Johns, P., Christie, M., Klaassen, M., Hassell, C., Boyle, A., Jessop, R. & Fox, J. 2013. New insights from geolocators deployed on waders in Australia. Wader Study Group Bull. 120(1): 37–46.

Nebel, S, Rogers, KG, Minton CDT & Rogers DI. 2013. Is geographical variation in the size of Australian shorebirds consistent with hypotheses on differential migration? *Emu* 113(2) 99-111.

Whitney K. 2013. Tangled up in knots: An emotional ecology of field science. Emotion, Space and Society 6: 100- - Elsevier

Web contributions
http://beautyofbirds.com/bartailedgodwit.html

FLYWAY – A contemporary arts project - news from Elizabeth Dunn

Dear Flyway birders!

Just a quick update...

I recently arrived back from Europe where we presented Flyway in the west and the east to new audiences. It was a great trip and the work was really well received.

To develop new localised video and sound I travelled to Schiermonnikoog in the Netherlands' Wadden Sea and along Bulgaria's Black Sea Coast. A big THANK YOU to Liam Bailey, an Australian PHD student conducting research on local Pied Oystercatcher populations on Schiermonnikoog, and to Dimitar Gradinarov, from the Bulgarian Society for the Protection of Birds, for so generously showing me around their respective hoods and sharing their knowledge of locals species and issues.

I'm sending a couple of photographs of Flyway in action. You can find more on Aphids Facebook at the addresses below if you'd like to check them out.

As an aside, I highly recommend Bulgaria as a destination for any birdwatching trips (or general holidays) you might be thinking of. What an incredible place!

Best wishes, Liz

Operadagen Rotterdam, Rotterdam
https://www.facebook.com/media/set/?set=a.868965243120864.1073741835.109465669070829&type=3

International Theatre Festival Varna Summer, Bulgaria
https://www.facebook.com/media/set/?set=a.877292445621477.1073741836.109465669070829&type=3

For more details see http://aphids.net/projects/Flyway

There is also a book available.

VWSG Financial Report

Rosemary Davidson and Clive Minton

In the past financial year VWSG expenditure marginally exceeded its income. A large expenditure item was again the printing of the Annual Bulletin ($2139) which was not far short of our subscription income of $2625. The bulk of the expenditure however was a miscellany of items (totalling $4755) directly related to our fieldwork activities. There was also again a cost of $4168 for typing assistance for Clive Minton (our computer naïve Chairman and Chief Organiser/Coordinator!).

Our near break-even situation was only possible because of further generous donations from a number of VWSG members, plus the proceeds from various fund-raising activities they organised at the Annual General Meeting and elsewhere. External funds were also received through another generous grant from CoastCare ($2500) and a special donation ($450) from the company (Bendigo Wildlife) of one of our members (Jim Reside).

Overall the VWSG financial situation remains healthy. This will enable us to continue to maintain our fieldwork equipment in top-rate condition and also to make expenditure on items such as geolocators and satellite transmitters as appropriate in the future.

Thanks again to all the generous donors who have created this stable financial position over the years.

Victorian Wader Study Group Inc.

ABN 12 724 794 488

Income & Expenditure Statement for the year ended 30 June 2014

INCOME			**EXPENDITURE**	
Subscriptions	$2,625.00		Printing Bulletins	$2,139.50
Bank Interest	$881.92		Postage, photocopying etc.	$117.55
Term Deposit Interest	$1,350.00		Bank Charges	$9.14
Donations D&J Wyatt, R Patrick			Incorporation Fee	$51.40
P Park, H Phillipson, X Dennett,			**Sub-total**	**$2,317.59**
S Chong, R Richards, D King				
A Gutowski, M Bennett, J Shaw,			*Equipment*	
R Atkinson, J Stevenson, J Limb,			Engraved flags & colour bands	$857.00
N Takeuchi, B Dawson, D Thomas			Miscellaneous items	$121.99
R Clemens, K Shannon			Hovercraft Fuel	$70.00
D& J Gillespie, A Renkin	$935.00		Tool boxes, spanners & pliers	$328.44
Sub-total	**$5,791.92**			
			Black powder	$420.00
Proceeds from AGM Door Prize &	$963.00		Fuses	$886.52
Trading Table			Balance	$150.00
Excess from AGM food	$255.00		Trailer expenses	$134.98
Flinders Shorebirds Walk Proceeds	$140.00		Cannon net expenses	$682.93
Sub-total	**$1,358.00**		Radios and batteries	$913.62
			Solvent cement	$190.00
Grant from Costcare	$2,500.00		**Sub-total**	**$4,755.48**
Don. from Bendigo Wildlife-J&J Reside	$450.00		Payment for secretarial help	$4,168.50
			for C Minton	
			Reimbursment for King Island	$200.00
			expenses	
			Payment for posters	$76.00
TOTAL INCOME	**$10,099.92**		**TOTAL EXPENDITURE**	**$11,517.57**
Cash Balance at 1/07/2013			Cash Balance at 30/06/2014	
Petty Cash	$71.25		Petty Cash	$29.35
Westpac Com. Solns Account	$5,477.71		Westpac Com Solns Account	$5,883.12
Westpac Cash Reserve Bonus Acct.	$32,442.55		Westpac Cash Res. Bonus Acct	$29,306.27
Westpac Term Deposit	$30,000.00		Westpac Term Deposit	$31,350.00
Macquarie Account	$215.73		Macquarie Account	$220.85
NET TOTAL	**$68,207.24**		**NET TOTAL**	**$66,789.59**

VWSG Inc Membership List August 2014

Bev & Geoff Abbott
Richard & Margaret Alcorn
Charles & Jocelyn Allen
Malcolm Allen
Terri Allen
Mark Anderson
Peter Anton
Robyn & Steve Atkinson
Tony Ball
Graham & Jenny Beal
Andy Bennett&Kate Buchanan
Margaret Bennett
Rob & Gail Berry
David Billinghurst
Malcolm & Judy Brown
Paul & Anna Buchhorn
Bill Bygott
Gordon & Dawn Cameron
Aiden Campbell
Jeff & Sarah Campbell
Mervyn & Ann Chappel
Rob Clemens
Smathi Chong
Maureen Christie
Allan Clarke & Marj Reni
Bretan Clifford
Peter Collins
Christine Connelly
Mike Connor
Mary Cowling
Dave Cropley
Rosemary Davidson
Michael Dawkins
Bob Dawson
Xenia Dennett
Barbara Dickson
Joris Driessen
Elizabeth Dunn
Dianne Emslie
Alice Ewing
Jon Fallaw & Becky Hayward
Erin Farmer
Maureen & Robin Fitzgerald
Amellia Formby
Colin & Angela Gibbs
Don & Joyce Gillespie
Ken & Carlene Gosbell
Andrew & Kath Gosden
Doris Graham
Nicole Grenfell
Patrick-Jean Guay
Jim Gunn
Angie Gutowski
Birgita Hansen
Neville Hatten & Robin Borland
Peter Haward
Peter Hermans
David & Margaret Hollands
Vivien Holyoake
Patsy Hohnen
Tracey-Ann Hooley
Peter Houston
Damian Howard
Bethany Hoye
Tania Ireton
Peter Jenkins
Rosalind Jessop
Penny & Murray Johns
Steve Johnson
Peter Johnstone
Greg Kerr
Debbie King
Marcel Klaassen
Irma Kluger
Tessa & Angus Lamin
Brett Lane
Bruce Lavender
Jutta Leyrer
Rick Lebenhole
Janet Limb
Simon Lisovski
Moira Longden
Sue & Andy Longmore
Richard & Debbie Loyn
Callum Luke
John & Susie Lyons
Meg Macmillan
Bernie McCarrick
Clare Mc Cutcheon
Joan McDonald
Rod McFarlane & Helen Vaughan
Mark McKinnon
Pat Macwhirter
Kathryn Manago
Ila Marks & Eric Miller & Heidi
Brian Martin
Gary Mathews
Golo Maurer
David Melville
Jan Merkel-Stol
Clive & Pat Minton
Stewart Monckton
Lorraine Moore
Maureen, Paul & Jordan O'Neill
Kim O' Riley
Ben Oliver
Priscilla Park
Rob & Linda Patrick
Reece Pedler
Hugo Phillipps
Heather & David Phillipson
Mike Preeston
Thomas Putt
Susan Quirk
David Rantall
Ann Renkin
John Renowden
Jim, Jenny & April Reside
Roger & Annabel Richards
Bruce Ridgeway
Don & Jude Ripper
Bruce Robertson
Danny Rogers
Ken & Annie Rogers
Don & Greta Robertson
Yaara Rotman
Neville & Nancy Roussac
Graeme & Margaret Rowe
Liz Sarrailhe
Kelly Shannon
Julie Shaw
Charles Silveira
Howard Simco
Holly Sitters
Marta Slawuta
Roger Standen
Will & Angela Steele
Jonathan Stevenson
Iain, Sandy, Sally, Anna & James Stewart
John Stoney
Bob Swindley
Naoko Takeuchi
Laura Tan
Susan Taylor
Deryn Thomas
David&Wendy Trudgen
Lyn Turner
Stephanie & Lindsay Tyler
Connor Van Doorn
Paul & Kay Van Loon
Inka Veltheim
Cameron Villani
John & Caroline Walmsley
Hazel Watson
Dan Weller
Andrea West
Mike Weston
Jim & Anthea Whitelaw
David & Jean Wilbraham
Ross Williamson
Kailash Willis
David Wilson
Sharon Woodend
Prue Wright
Dallas & Judi Wyatt
Celine Yap
Meijuan Zhao
Elizabeth Znidersic

Bulletins are also sent within Australia to:

Australian Bird & Bat Banding Schemes
Australasian Wader Studies Group
Birdlife Australia

Broome Bird Observatory
CSIRO Library, ACT
Dept. of Defence, Swan Is.
Queenscliff
Eyre Bird Observatory
French Is. Head Ranger FINP
(Mick Douglas)
Melbourne Water (Werribee
Sew. Farm)
(Peter Gall}
National Library- ACT
NSW Wader Study Group
(*Phil Straw)*
NWA WSG- Chris Hassell
Phillip Island Nature Park
Parks Victoria, Foster
(*Gerard Delany)*
Parks Victoria, Queenscliff
Parks Victoria, Wonthaggi
Queensland Wader Study
Group
Victoria Museum
Victorian Ornithological
Research Gp
Victorian State Library
And landowners on whose property the group operates in Victoria

Overseas recipients of the Bulletin:

*Alaska:*R Gill- Alaska Science Centre
B McCafferty-US Fisheries & Wildlife Service

China: National Birdbanding Centre
Ma Qiang -Chongming Dongtan Nature Reserve
France: Natural History Museum, Paris

Hong Kong- Geoff Carey, Yu Yat-Tung, John Allcock

Indonesia Y R Noor-Wetlands International
Iwan Londo

Japan:
Kiyo Ozaki & Y Shigita-Bird Mig. Res. Cent.
T Hiroi-Japan Wetlands Active Network
M Kashiwagi

Korea:
Nial Moores, Dr K Jin-Han

Mongolia:
M Gilbert, Wildlife Conservation Soc.

New Zealand:
NZWSG – Adrian Riegen
P Battley, T Habraken, R Schuckard

Russia:
Dr P Tomokovich, Dr Y Gerasimov

Singapore: J Gan

Switzerland: Senckenbergische Bibliiothek
Taiwan: Chung Yu Chiang,Weiting Liu

Thailand: Prof. P Round

United Kingdom:
Highland Ringing Group, Scotland: Hugh Insley
Dr H Sitters
Wash Wader Ringing Group: Phil Ireland

Journal of the Victorian Wader Study Group
Bulletin Number 37 2014