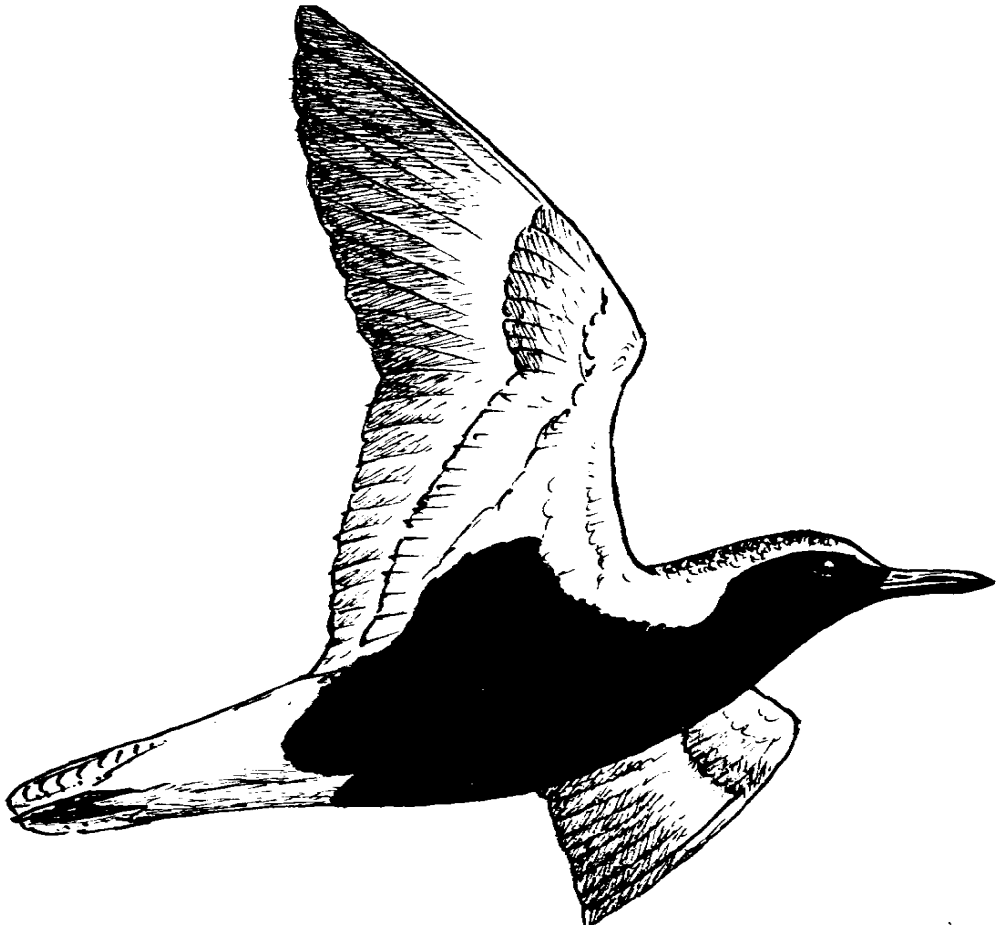
VWSG BULLETIN

JOURNAL OF THE VICTORIAN WADER STUDY GROUP

Number 46
August 2023



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 South-eastern Australia 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.

VICTORIAN WADER STUDY GROUP INC. OFFICE BEARERS

Chair
Steven Atkinson
chairvwsg@gmail.com

Deputy Chair and SAC Rep.
Dr. Rosalind Jessop
chairvwsg@gmail.com

Editor: Jeff Campbell,
sarah.jeffcampbell@bigpond.com
Assistant Editors:
Dr. Rosalind Jessop
Dr. Margaret Rowe OAM

Secretary
Ila Marks
ila@melbpc.org.au

Committee members
Robyn Atkinson, Bob Brinkman, Jeff Campbell, Maureen Christie, Penny Johns, Eric Miller, Prue Wright
FoSSE Rep.
Maureen Christie
twinpeppercorns@gmail.com

Treasurer
Tessa Lamin
vicwsg@gmail.com

Assistant Treasurer
Maureen O'Neil

Leadership, Teams and Training (LTT) sub-committee Rep.
Robert Brinkman
r.brinkman@optusnet.com.au

Field Work Operations sub-committee Rep.
Robyn Atkinson
atkinson.robyn@bigpond.com

Field Work Operations Sub-committee
Rob Patrick, rob@farmingminds.com.au, Robyn Atkinson, Penny Johns, Mem Smith

Leadership, Teams and Training Sub-committee: Bob Brinkman (Chair), Roz Jessop, Robyn Atkinson, Rob Patrick, Maureen Christie, Mem Smith, Penny Johns, Ila Marks
Scientific Advisory Committee: Danny Rogers (Chair), Marcel Klaassen, Mike Weston, Joris Driessen, Ken Gosbell, Maureen Christie, Rob Patrick, Roz Jessop, Steve Johnson, Birgita Hansen, Rog Standen.

Equipment Officer: Eric Miller
Conservation Officer: Prue Wright prue327@gmail.com
Public Officer: Ila Marks

Subscriptions for 2023/24 (payable in advance on 1 July 2023)

Full Member	$30.00
Student	$15.00

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.

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

VWSG WEB SITE www.vwsg.org.au
Our web site is maintained by Birgita Hansen
VWSG TWITTER SITE Twitter@vwsg_web
Out Twitter site is maintained by Michelle Wille

Report from the Chair of the VWSG 2022/23

Confession time: I am obsessed with the larger waders. There, I have said it out loud. They say admitting it to yourself is the first step in dealing with your problem. It is like when you take a dog for a walk and a rabbit crosses its path. Whatever else the dog was doing or thinking is gone and its entire world is taken over by the existence of that rabbit. Send me out to catch oystercatchers and yes they are incredibly cute and dare I say cuddly, but if a flock of godwit hove into view, it becomes a case of oyster What's? But there are godwit, Roz, godwit!

Such was the case on our last catch at Stockyard Point. Target oystercatchers, result godwit. Were the godwit of more scientific interest/importance than the oystercatcher data we were after? Probably not. But we do this not just because we need the scientific information about the species, but also because we love the birds themselves.

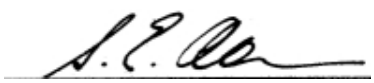
After the tumult of the previous years, it was a sort of relief to get back to a normal year of catching. Programs in South Australia, King Island and Western Port Bay (Stockyard Point, Yallock Creek and Phillip Island) are back on track. We continue to struggle in Corner Inlet (Barry Beach and the outer islands) but persevere. Werribee is proving to be nightmare with no appreciable numbers of small waders after it being a stronghold of the species for the last 45 years of our monitoring. This appears to be a combination of changes in vegetation management that has interfered in the waders' sight lines, something they will not tolerate at a roosting site, and a lack of nutrients entering the pondage. With no "poo" in the "Poo Ponds", there is no food to attract the waders.

Our duck monitoring project with the Game Management Authority continued. Despite "upping the ante" in terms of equipment to operate in the dark (IR Night vision and portable flood lights), the ducks decided that their presence was needed elsewhere and departed for parts unknown, the day before our first scheduled catch. The funds received from this project are being put towards our new custom built trailer, the deposit for which was paid today. It should be on the road this summer catching season. The design of the trailer is based on ergonomic principles as much as possible, with pull out drawers for cannons and projectiles and a flat floor for the net storage. No leaning in and bending over to get those heavy objects out of the bottom of the trailer. A career in Safety Science is now being refocused on the VWSG operations!

Another innovation we are pursuing is the establishment of an Environmental Fund to allow donors to receive Tax Deductibility for monies sent to the VWSG. Our constitution needs to be changed as per Government guidelines. A motion will be put to the AGM to effect this. An application is then made to the Federal Environment Minister and the Federal Treasurer. We then would be a Registered Environmental Organisation. Note that we will not be a charity but fit under a different category of the Tax Rules. Another more minor change to our constitution is to reflect that we elect a Chair and not a President as stated in the Incorporation Rules.

And "coming soon to a screen near you" is our Online Induction package that has been put together by Mem Smith, Ila Marks and Bob Brinkman. A professional presentation that will be mandatory for new people attending field work, is a complement to our existing manuals.

And last but by no means least, two notable achievements by our members. Maureen Christie has been made a Member of the Order of Australia (AM) in the Kings Birthday Honours List. Dr Rosalind Jessop has been awarded the John Hobbs Medal by Birdlife Australia. Congratulations to both.



Steven E Atkinson
Chair
Victorian Wader Study Group.

Note:
For all tables bird data is now sourced from BirdMark. https://birdmark.net
Re-analysis of the data has produced changes to some tables in previous Bulletins prior to 2022.

Table 1: Waders caught by species, 2022

Species	New	Retrap	Sum	% Retrap
Bar-tailed Godwit	11	-	**11**	-
Curlew Sandpiper	250	78	**328**	24
Double-banded Plover	2	1	**3**	33
Hooded Plover	7	3	**10**	30
Pied Oystercatcher	41	5	**46**	11
Red-necked Stint	711	320	**1,031**	31
Ruddy Turnstone	176	87	**263**	33
Sanderling	306	17	**323**	5
Sooty Oystercatcher	15	-	**15**	-
Sum	**1,519**	**511**	**2,030**	**167**

Table 2: Waders caught by species, 1975 - 2022

Species	C*	D**	New	Retrap	Sum	% Retrap
Australian Painted Snipe	-	-	1	-	1	-
Banded Stilt	-	-	2,062	35	2,097	2
Bar-tailed Godwit	-	-	5,979	818	6,797	12
Black-fronted Dotterel	-	-	21	-	21	-
Black-tailed Godwit	-	-	4	-	4	-
Black-winged Stilt	-	-	86	-	86	-
Broad-billed Sandpiper	-	-	7	-	7	-
Common Greenshank	-	-	1	-	1	-
Cox's Sandpiper	6	-	28,869	5,532	34,407	16
Curlew Sandpiper	22	-	4,137	1,025	5,184	20
Double-banded Plover	-	-	873	90	963	9
Far Eastern Curlew	1	-	705	84	790	11
Great Knot	-	-	31	3	34	9
Greater Sandplover	-	-	543	63	606	10
Grey Plover	-	-	38	2	40	5
Grey-tailed Tattler	-	-	201	32	233	14
Hooded Plover	1	1	145	12	159	8
Latham's Snipe	-	-	578	40	618	6
Lesser Sandplover	-	-	118	11	129	9
Little Stint	-	-	9	-	9	-
Long-toed Stint	-	-	1	-	1	-
Marsh Sandpiper	-	-	2	-	2	-
Masked Lapwing	1	-	198	4	203	2
Oriental Plover	-	-	1	-	1	-
Pacific Golden Plover	-	-	271	26	297	9
Pectoral Sandpiper	-	-	2	-	2	-
Pied Oystercatcher	-	1	3,701	1,835	5,537	33
Red Knot	-	-	825	188	1,013	19
Red-capped Plover	-	-	141	11	152	7
Red-kneed Dotterel	-	-	926	133	1,059	13
Red-necked Avocet	-	-	1	-	1	0
Red-necked Phalarope	11	3	133,497	36,028	169,539	21
Red-necked Stint	5	-	5,380	736	6,121	12
Ruddy Turnstone	1	2	7,267	4,025	11,295	36
Sanderling	-	1	6,431	2,171	8,603	25
Sharp-tailed Sandpiper	-	-	11,498	487	11,985	4
Sooty Oystercatcher	1	1	1,230	477	1,709	28
Terek Sandpiper	-	-	38	1	39	3
Whimbrel	-	-	49	6	55	11
Sum	49	9	215,867	53,875	269,800	

C* = Control recoveries (of someone else's band)

D** = Dead Recovery

Note: This table includes Latham's Snipe data collected as part of a collaborative project with Federation University Ballarat

Table 3: Waders caught each calendar year

Calendar Year	C*	D**	New	Retrap	Sum	% Retrap
1975	-	-	9	-	9	-
1976	-	-	587	4	591	1
1977	-	-	517	12	529	2
1978	1	-	1,294	42	1,337	3
1979	-	-	7,425	477	7,902	6
1980	-	-	6,102	1,200	7,302	16
1981	-	-	4,540	866	5,406	16
1982	1	-	3,814	792	4,607	17
1983	-	-	2,880	628	3,508	18
1984	1	-	4,271	1,042	5,314	20
1985	2	-	4,056	1,044	5,102	20
1986	6	-	7,133	2,045	9,184	22
1987	8	-	5,341	1,552	6,901	22
1988	4	-	8,021	2,666	10,691	25
1989	-	-	5,433	1,583	7,016	23
1990	2	-	4,093	2,027	6,122	33
1991	-	-	3,204	843	4,047	21
1992	-	-	4,648	855	5,503	16
1993	3	-	8,835	2,563	11,401	22
1994	1	-	4,839	1,744	6,584	26
1995	-	-	2,709	616	3,325	19
1996	1	-	5,257	1,028	6,286	16
1997	5	-	4,350	1,011	5,366	19
1998	-	-	8,067	1,406	9,473	15
1999	1	-	6,532	1,579	8,112	19
2000	1	-	10,333	2,571	12,905	20
2001	-	-	4,676	1,298	5,974	22
2002	-	-	10,171	2,116	12,287	17
2003	-	-	8,510	2,370	10,880	22
2004	-	1	5,109	1,217	6,327	19
2005	4	-	6,320	1,887	8,211	23
2006	-	-	6,592	1,451	8,043	18
2007	2	-	4,768	932	5,702	16
2008	2	1	4,489	1,356	5,848	23
2009	2	-	4,004	867	4,873	18
2010	-	-	3,018	751	3,769	20
2011	1	-	4,319	829	5,149	16
2012	1	-	3,616	868	4,485	19
2013	-	-	4,403	1,110	5,513	20
2014	-	-	3,654	995	4,649	21
2015	-	1	5,931	1,167	7,099	16
2016	-	3	3,071	866	3,940	22
2017	-	1	2,669	1,058	3,728	28
2018	-	-	1,630	637	2,267	28
2019	-	2	1,529	664	2,195	30
2020	-	-	706	335	1,041	32
2021	-	-	873	394	1,267	31
2022	-	-	1,519	511	2,030	25
Sum	**49**	**9**	**215,867**	**53,875**	**269,800**	
Average	**1**	**0**	**4,497**	**1,122**	**5,621**	**19**

Table 4: Waders caught in first (Jan-Jun) and second (Jul-Dec) part of each year

Calendar Year	Jan - Jun	Jul - Dec	Sum
1975	9	-	**9**
1976	193	398	**591**
1977	373	156	**529**
1978	205	1,132	**1,337**
1979	4,269	3,633	**7,902**
1980	4,108	3,194	**7,302**
1981	2,105	3,301	**5,406**
1982	2,424	2,183	**4,607**
1983	2,888	620	**3,508**
1984	2,653	2,661	**5,314**
1985	3,949	1,153	**5,102**
1986	4,997	4,187	**9,184**
1987	3,133	3,768	**6,901**
1988	5,215	5,476	**10,691**
1989	3,850	3,166	**7,016**
1990	1,656	4,466	**6,122**
1991	2,351	1,696	**4,047**
1992	3,352	2,151	**5,503**
1993	5,280	6,121	**11,401**
1994	2,879	3,705	**6,584**
1995	1,517	1,808	**3,325**
1996	1,800	4,486	**6,286**
1997	1,910	3,456	**5,366**
1998	5,544	3,929	**9,473**
1999	4,130	3,982	**8,112**
2000	5,993	6,912	**12,905**
2001	3,895	2,079	**5,974**
2002	7,931	4,356	**12,287**
2003	3,039	7,841	**10,880**
2004	1,290	5,037	**6,327**
2005	5,009	3,202	**8,211**
2006	5,089	2,954	**8,043**
2007	3,693	2,009	**5,702**
2008	4,020	1,828	**5,848**
2009	2,740	2,133	**4,873**
2010	2,141	1,628	**3,769**
2011	1,979	3,170	**5,149**
2012	3,212	1,273	**4,485**
2013	3,264	2,249	**5,513**
2014	2,732	1,917	**4,649**
2015	4,645	2,454	**7,099**
2016	1,996	1,944	**3,940**
2017	2,895	833	**3,728**
2018	1,472	795	**2,267**
2019	1,926	269	**2,195**
2020	602	439	**1,041**
2021	620	647	**1,267**
2022	1391	639	2030
Sum	**142,364**	**127,436**	**269,800**

Note: This table includes Latham's Snipe data collected in a collaborative project with Federation University, Ballarat.

Table 5: Waders caught across various Australian states			
State	**2022**	**Pre 2022**	**Sum**
SA	544	21085	**21629**
TAS	150	4245	**4395**
VIC	1288	242355	**243643**
Unknown	48	85	**133**
Sum	**2,030**	**267,770**	**269,800**
Note: This table incudes Latham's Snipe data collected as part of a collabarorative project commenced with Federation University			
For a more detailed breakdown of catching sites within each State refer to Table 6			

S Davidson

Table 6: Waders caught across various locations				
State	**Location**	**2022**	**Pre-2022**	**Sum**
ACT	Jerrabomberra Wetlands	-	71	71
SA	Bald Hill	-	15	15
SA	Baudin Rocks, opposite Boatswain Point	-	17	17
SA	Beachport	1	741	742
SA	Blackfellows Caves, 6 km SE of Carpenter Rocks	146	551	697
SA	Boatswain Point	-	32	32
SA	Brown Bay, 15 km E of Port Macdonnell	72	4,260	4,332
SA	Canunda National Park	-	1,935	1,935
SA	Carpenter Rocks	33	2,652	2,685
SA	Danger Pt, Brown Bay, near Port Macdonnell	89	4,170	4,259
SA	Fox Lake, Robe	-	4	4
SA	French Point, Port Macdonnell	-	80	80
SA	Lake Eyre Sth	-	12	12
SA	Lake George, near Beachport	-	16	16
SA	Lake Harry	-	10	10
SA	Lake Mcintyre, Millicent	-	3	3
SA	Lake Torrens	-	1,364	1,364
SA	Little Dip Conservation Bay	1	4	5
SA	Morella Basin	-	40	40
SA	Nene Valley	129	1,615	1,744
SA	Nora Creina, 22km NW of Beachport	66	443	509
SA	Port Macdonnell	7	765	772
SA	Robe	-	16	16
SA	Southern Lagoon, near Woods Well	-	334	334
SA	Stony Point, Port Macdonnell	-	959	959
SA	Ten Mile Creek, NW Beachport	-	1	1
SA	Thompsons Beach	-	210	210
SA	Venus Bay, Eyre Peninsula	-	16	16
SA	Wright Bay	-	35	35
SA	Yanerbie Beach, Streaky Bay	-	785	785
TAS	Bird Point, Robbins Island	-	39	39
TAS	Currie, King Island	1	813	814
TAS	Dripping Wells, King Island	-	254	254
TAS	Manuka, King Island	67	1,691	1,758
TAS	Porky Bay, King Island	-	256	256
TAS	Shipwreck Point, Perkins Island	-	15	15
TAS	Springs, NW King Island	-	27	27
TAS	Stokes Point, King Island	-	290	290
TAS	Surprise Bay, King Island	24	319	343
TAS	Trough Bay, SW King Island	-	31	31
TAS	Unlucky Bay, King Island	-	62	62
TAS	Whistler Point, King Island	58	448	506
VIC	Albifrons Island, Ocean Grange Lakes NP	-	17	17
VIC	Altona Foreshore	-	18	18
VIC	Bairnsdale	-	2	2
VIC	Barralliar Island, Westernport	-	8,247	8,247
VIC	Barry Beach, Corner Inlet	34	13,609	13,643
	Continued next page			

	State	Location	2022	Pre-2022
VIC	Barwon Heads	-	569	569
VIC	Belmont Common, Geelong	-	229	229
VIC	Bendigo Sewerage Farm	-	108	108
VIC	Black Rocks, near Barwon Heads	-	278	278
VIC	Braeside Metropolitan Park	-	78	78
VIC	Bullock Island, Corner Inlet	-	11	11
VIC	Bullock Swamp, NW French Island	-	166	166
VIC	Camel Rocks, west of Corner Inlet	-	2	2
VIC	Cheetham Wetlands, Laverton	-	1	1
VIC	Conroy Lane, Muckleford	-	3	3
VIC	Fairhaven, French Island	-	341	341
VIC	GMH Drain, near The Gurdies, Westernport	-	210	210
VIC	Killarney Beach, Port Fairy	109	513	622
VIC	Lake Reeve, Seaspray	-	18	18
VIC	Lake Victoria	-	167	167
VIC	Loch Sport, Lakes NP	-	3	3
VIC	Long Island, Hastings	-	416	416
VIC	Downs, Yanakie	-	370	370
VIC	Maher's Landing, Inverloch	-	22,119	22,119
VIC	Mud Island, Port Phillip Bay	-	758	758
VIC	NW corner Swan Bay, Queenscliff	-	3,107	3,107
VIC	Near ICI Research Station, Sth Croydon	-	1	1
VIC	Warneet, Westernport	-	111	111
VIC	Mann's Beach, Corner Inlet	-	17,972	17,972
VIC	Point Cook, Altona	-	933	933
VIC	Point Henry, Geelong	-	24	24
VIC	Port Albert, Corner Inlet	-	30	30
VIC	Powling Street Wetlands, Port Fairy	-	136	136
VIC	Rhyll, Phillip Island	3	1,683	1,686
VIC	Roussac's Farm, near Foster, Corner Inlet	-	1,352	1,352
VIC	Sandy Point, East French Island	-	45	45
VIC	Sandy Point, Shallow Inlet	-	2,811	2,811
VIC	Seaford Swamp	-	188	188
VIC	Sth Swan Bay, Queenscliff	-	27	27
VIC	Stockyard Point, Lang Lang, Westernport	-	11,143	11,143
VIC	Swan Island, Queenscliff	-	28,251	28,251
VIC	The Gurdies, Westernport	-	3,032	3,032
VIC	Toora	-	71	71
VIC	Tooradin	-	95	95
VIC	Tortoise Head, French Island	-	35	35
VIC	Towong, Gibson's Soak	-	3	3
VIC	West end of Phillip Island	-	4	4
VIC	West Head, Flinders	-	2,142	2,142
VIC	Western Treatment Plant, Werribee	-	75,141	75,141
VIC	Yallock Creek, near Kooweerup	1,142	45,646	46,788
VIC	Yambuk	-	119	119
Unknown		48	14	62
Sum		**2,030**	**269,792**	**269,800**

Note: This table includes Latham's Snipe data collected as part of a collaborative project commenced with Federation University

Table 7: Waders processed in each month, Jan - Dec 2022

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
Banded Stilt	294	173	12	352	84	56	430	545	-	-	-	151	**2,097**
Bar-tailed Godwit	1,098	1,602	830	98	24	1,068	293	286	78	551	286	583	**6,797**
Black-fronted Dotterel	-	-	7	-	11	1	1	-	-	-	-	1	**21**
Black-tailed Godwit	1	-	-	-	-	1	-	-	-	1	1	-	**4**
Black-winged Stilt	6	8	-	-	-	-	2	13	-	4	2	51	**86**
Broad-billed Sandpiper	2	2	-	-	-	-	-	-	-	-	-	3	**7**
Cox's Sandpiper	-	-	-	-	-	-	-	-	-	-	1	-	**1**
Curlew Sandpiper	10,954	4,682	3,341	505	237	137	504	946	550	1,536	2,598	8,417	**34,407**
Double-banded Plover	-	10	271	495	849	1,117	1,367	1,072	1	-	-	2	**5,184**
Far Eastern Curlew	26	173	18	-	24	18	21	76	175	152	180	100	**963**
Great Knot	205	149	18	-	-	45	25	6	16	117	78	131	**790**
Greater Sandplover	21	4	6	-	-	1	1	-	-	-	1	-	**34**
Greenshank	69	135	122	-	-	-	-	-	-	41	178	61	**606**
Grey-tailed Tattler	30	-	1	3	-	4	-	-	-	-	1	1	**40**
Grey Plover	38	20	9	6	-	9	-	-	2	102	43	4	**233**
Hooded Plover	30	10	34	15	2	15	-	2	4	7	21	19	**159**
Latham's Snipe	99	49	-	13	-	-	-	-	113	162	111	71	**618**
Lesser Sandplover	68	5	15	7	2	3	2	-	-	1	15	11	**129**
Little Stint	2	-	1	-	-	-	-	-	-	-	2	4	**9**
Long-toed Stint	-	-	-	-	-	-	-	-	-	1	-	-	**1**
Marsh Sandpiper	-	-	-	-	-	-	-	-	-	-	-	2	**2**
Masked Lapwing	6	11	94	18	8	13	4	1	4	5	22	17	**203**
Oriental Plover	-	-	-	-	-	-	-	-	-	1	-	-	**1**
Pacific Golden Plover	31	28	69	2	-	-	-	-	-	31	70	66	**297**
Painted Snipe	-	-	-	1	-	-	-	-	-	-	-	-	**1**
Pectoral Sandpiper	-	2	-	-	-	-	-	-	-	-	-	-	**2**
Pied Oystercatcher	203	285	412	695	811	1,143	956	543	242	42	68	137	**5,537**
Red-capped Plover	68	97	91	139	208	121	78	40	19	31	52	69	**1,013**
Red-kneed Dotterel	-	10	-	20	1	44	25	2	12	8	23	7	**152**
Red-necked Avocet	346	-	-	8	14	-	19	82	275	171	51	93	**1,059**
Red-necked Phalarope	-	-	-	-	-	-	-	-	-	-	-	1	**1**
Red-necked Stint	36,242	23,313	17,336	5,981	719	1,440	2,763	2,139	3,509	8,483	18,266	49,348	**169,539**
Red Knot	1,004	658	316	223	47	690	645	141	96	1,347	621	333	**6,121**
Ruddy Turnstone	510	825	3,705	2,486	49	23	79	179	138	282	1,843	1,176	**11,295**
Sanderling	376	976	3,682	1,199	-	-	-	5	-	265	1,114	986	**8,603**
Sharp-tailed Sandpiper	2,783	1,403	282	3	-	-	5	16	512	603	774	5,604	**11,985**
Sooty Oystercatcher	22	106	87	295	256	407	358	159	-	1	12	6	**1,709**
Terek Sandpiper	16	2	1	1	2	-	2	1	-	1	1	12	**39**
Whimbrel	3	2	41	-	-	1	-	-	1	4	3	-	**55**
Sum	**54,553**	**34,740**	**30,801**	**12,565**	**3,348**	**6,357**	**7,580**	**6,254**	**5,747**	**13,950**	**26,438**	**67,467**	**269,800**

Note: Processed means that two or more of the following were recorded for each bird; band number, bill length, total head length, wing length, weight or primary moult.

Note: This project includes Latham's Snipe data collected as part of a collaborative project commenced with Federation University

Table 8: Waders leg-flagged by VWSG

Species	1979-1989	1990-1999	2001-2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Sum
Australian Painted Snipe	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	0	**1**
Banded Stilt	-	-	334	56	333	15	1,127	-	80	-	-	-	-	-	-	0	**1,945**
Bar-tailed Godwit	-	1,400	3,071	349	284	262	10	178	139	195	24	49	101	-	5	11	**6,078**
Black-fronted Dotterel	-	-	1	-	-	-	-	-	-	-	-	4	-	-	-	0	**5**
Black-tailed Godwit	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	0	**1**
Black-winged Stilt	-	-	21	-	2	-	5	-	2	-	-	-	6	26	-	0	**62**
Broad-billed Sandpiper	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	0	**1**
Common Greenshank	-	-	65	-	-	-	-	4	2	-	-	1	-	-	-	328	**400**
Curlew Sandpiper	-	-	1,874	411	53	284	504	446	649	389	434	274	370	172	92	3	**5,955**
Double-banded Plover	-	-	237	11	38	73	18	129	75	24	60	82	10	12	16	0	**785**
Far Eastern Curlew	-	-	36	-	44	18	-	4	-	-	-	-	3	-	-	0	**105**
Great Knot	-	-	116	-	4	5	-	2	-	2	-	1	1	-	-	0	**131**
Grey Plover	-	-	43	-	2	-	-	10	5	4	2	-	6	-	-	0	**72**
Hooded Plover	-	-	5	2	7	1	6	13	16	22	21	7	2	12	9	10	**133**
Latham's Snipe	-	-	-	-	-	-	-	-	13	43	97	35	14	8	-	0	**210**
Little Stint	-	-	2	-	1	-	-	-	-	-	-	-	-	-	1	0	**4**
Masked Lapwing	-	-	29	-	1	2	-	2	3	-	-	3	-	-	-	0	**40**
Oriental Plover	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	0	**1**
Pacific Golden Plover	-	-	31	-	2	1	-	-	3	-	-	-	-	-	-	0	**37**
Pied Oystercatcher	589	1,456	1,761	79	177	309	222	168	178	75	89	12	16	7	15	46	**5,199**
Red Knot	-	-	1,399	21	50	80	4	21	74	48	41	13	2	-	9	0	**1,762**
Red-capped Plover	-	-	61	7	7	22	4	21	45	22	1	4	3	-	4	0	**201**
Red-kneed Dotterel	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	0	**1**
Red-necked Avocet	-	-	56	-	-	201	83	200	180	-	-	15	1	5	-	874	**1,615**
Red-necked Stint	66	29,956	48,324	1,797	2,768	2,224	2,525	2,425	4,031	2,488	2,292	406	748	617	720	0	**101,387**
Ruddy Turnstone	-	2	2,535	585	755	326	574	661	507	301	468	422	567	76	170	263	**8,212**
Sanderling	-	-	2,318	366	489	489	250	211	85	30	143	6	112	-	122	323	**4,944**
Sharp-tailed Sandpiper	-	-	3,155	12	120	102	141	108	575	40	34	480	132	103	99	0	**5,101**
Sooty Oystercatcher	68	395	817	68	8	66	40	41	49	19	14	4	2	1	2	15	**1,609**
Terek Sandpiper	-	-	4	-	-	-	-	-	-	-	-	-	-	-	1	0	**5**
Whimbrel	-	-	29	-	-	2	-	-	-	-	-	-	-	-	-	0	**31**
Sum	**723**	**33,209**	**66,327**	**3,765**	**5,145**	**4,482**	**5,513**	**4,645**	**6,711**	**3,702**	**3,720**	**1,818**	**2,096**	**1,039**	**1,265**	**1,873**	**146,033**

Table 9 Waders leg-flagged in South Australia

Species	1993	1995	1996	1997	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Sum
Banded Stilt	-	-	-	-	-	-	-	-	-	-	-	334	-	-	-	56	333	12	1,025	-	-	-	-	-	-	-	-	-	**1,760**
Bar-tailed Godwit	-	-	-	3	-	-	-	3	-	8	-	-	-	-	-	-	-	12	6	-	-	-	-	-	-	-	-	-	**32**
Broad-billed Sandpiper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	**1**
Curlew Sandpiper	-	-	-	-	-	-	-	-	11	3	125	12	30	38	1	4	18	-	7	8	-	2	3	-	-	-	-	-	**262**
Double-banded Plover	-	-	-	-	-	-	-	-	-	-	-	30	2	-	1	5	30	12	-	3	-	-	-	-	-	-	-	-	**83**
Great Knot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	2	-	-	-	-	-	-	-	-	**6**
Common Greenshank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	2	-	-	1	-	-	-	-	**7**
Grey Plover	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	5	4	2	-	-	-	-	-	**21**
Hooded Plover	-	-	-	-	-	-	-	-	-	2	-	-	2	-	-	2	5	1	6	13	16	18	13	7	2	11	9	10	**117**
Masked Lapwing	-	-	-	-	-	-	-	-	4	2	2	4	2	-	-	-	1	-	-	-	3	-	-	-	-	-	-	-	**18**
Pacific Golden Plover	-	-	-	-	-	-	-	-	1	-	16	14	-	-	-	-	2	1	-	-	1	-	-	-	-	-	-	-	**35**
Pied Oystercatcher	-	-	-	-	2	-	-	-	6	3	-	4	1	-	7	5	5	15	11	10	3	9	6	10	4	6	5	5	**117**
Red-capped Plover	-	-	-	-	-	-	-	-	1	-	9	15	1	-	4	2	3	8	-	17	20	14	1	-	1	-	3	-	**99**
Red-necked Stint	1	116	34	53	66	396	16	-	165	106	205	520	58	99	202	238	445	99	417	390	121	166	18	69	218	-	42	210	**4,470**
Red Knot	-	-	-	-	-	-	-	-	-	1	-	12	-	-	-	-	-	1	-	1	-	-	20	-	-	-	-	-	**35**
Ruddy Turnstone	-	-	-	-	2	1	-	-	60	214	113	403	137	215	201	204	400	71	215	323	254	104	127	83	175	76	102	131	**3,611**
Sanderling	-	-	-	-	-	-	-	-	5	107	326	300	724	372	172	348	489	487	250	211	85	30	143	6	112	-	-	188	**4,355**
Sharp-tailed Sandpiper	-	-	-	-	-	-	-	-	5	73	28	21	-	15	-	-	81	41	1	23	5	-	-	2	-	-	-	-	**295**
Sooty Oystercatcher	-	-	-	-	-	-	-	-	1	-	-	-	-	-	4	1	-	2	8	3	-	-	1	3	2	1	1	-	**27**
Sum	**1**	**116**	**34**	**56**	**70**	**397**	**16**	**3**	**259**	**519**	**824**	**1,669**	**957**	**739**	**592**	**865**	**1,812**	**766**	**1,946**	**1,019**	**515**	**347**	**334**	**181**	**514**	**94**	**162**	**544**	**15,351**

VWSG Fieldwork Programme
July to December 2023

DATE	*PLACE AND OBJECTIVES*	Tide time and height (m)	
Thurs 6 July	**Flinders** Sooty Oystercatcher	1428	1.77
Wed 19 July	**Stockyard Point** Pied Oystercatchers or Bar-Tailed Godwit Subject to transport availability	1229	2.91
Thurs 3 August	**Barry Beach** Pied Oystercatchers	1412	2.48
Sat 26 August	**A.G.M.** Details to come.		
Thurs 28 to Fri 29 September	**Corner Inlet Flag sightings** (Need to be on the mudflat at least two hours before high tide)	1031 1139	2.36 2.30
Mon 6th to Mon 13th November	**South Australia, Carpenter Rocks** Retrieve and deploy geolocators on Ruddy Turnstone. Sanderling trackers and flagging. The 6th and 13th are travelling days to and from S.A.	0855 1258	0.86 0.81
Tues 14 November	**Mud Islands** Caspian Tern chicks banding and Crested Tern adults	0721	0.78 (low)
Tues 21 to Wed 22 November	**Yallock Creek** Red-necked Stint, Curlew Sandpiper and Sharp-tailed Sandpiper. Set net Tues around 2pm. Catch early Wed.	0802 (sunrise approx 0600)	2.80
Mon 27 November to Wed 6 December	**King Island** Retrieve and deploy geolocators on Ruddy Turnstones.	1157 to 1752	1.38 to 1.28
Thurs 7 December	**Mud Islands** Caspian & Crested Tern chicks banding	1304	0.61(low)
Thurs 21 December (Dependent on breeding attempts)	**Nobbies, Phillip Island** Crested Tern chick banding	1340	0.64(low)
TBA. Dependent on breeding attempts. Probably late December or early January	**Corner Inlet** Caspian & Crested Tern chicks banding		
TBA AT SHORT NOTICE if small waders are found roosting at WTP.	**Western Treatment Plant (Werribee S.F)** Red-necked Stint, Curlew Sandpiper and Sharp-tailed Sandpiper		

Please Note:

Additional fieldwork may be added for this period and you will be advised accordingly

Participant arrangements:

The meeting time is normally 5 hours before high tide.

Please try and let **Penny, Mem** or **Rob** know, by email or by phone, several days before each fieldwork activity if you are planning to participate. This greatly helps reduce the number of phone calls which organizers have to make to complete a satisfactory team for each activity.

Penny Johns	pjohns297@gmail.com 0419 366 507
Mem Smith	smithmarkmem@gmail.com 0410 073 541
Rob Patrick	rob@farmingminds@gmail.com 0408 429 944

ABBBS Recovery Reports Received 1 July 2022 – 30 June 2023

Mem Smith

Recovery reports refer to birds that are seen in the field and reported to the Australian Bat and Bird Banding Scheme (ABBBS). The ABBBS forwards to the VWSG these reports which provide lots of details about each bird including band number, description of any engraved leg flag, where the bird was seen, whether it was alive, injured or dead, location of first banding and age at the time of banding. These reports do not include recoveries reported directly to VWSG via the BirdMark portal. Refer to 'Sightings – Birds seen in 2022/23 and reported to BirdMark' elsewhere in this Bulletin.

Caspian Tern
There were two Caspian Tern recoveries. Both were banded as chicks at their breeding colony on Mud Islands, Port Phillip Bay. Both were alive in the wild on Mud Islands; one was seven and the other six years old.

Crested Tern
There were 10 Crested Tern recoveries and all were found dead in the wild. All but one were banded as nestlings; six were banded on Mud Islands and the rest at The Nobbies, Phillip Island. One bird was found tangled in fishing line at East Devonport, Tasmania, and was mercy killed; it was 19 years old.

The oldest bird recovered was found on the beach at Apollo Bay; it was 23 years old! This bird was banded on December 6, 1999, at Mud Islands.

Common Tern, Fairy Tern, Little Tern, Whiskered Tern, White-winged Tern
There were no recovery reports of Common, Fairy, Little, Whiskered or White-winged Terns in this 12-month period.

Oystercatchers

Table 1: Number of recovery reports from each state, July 1, 2022 – June 30, 2023.

Species	Victoria	King Island	New South Wales	South Australia	Tasmania	Total
Pied Oystercatcher	11	0	11	1	4	27
Sooty Oystercatcher	3	0	0	0	0	3
Total	14	0	11	1	4	30

Table 2: Pied Oystercatcher recoveries 2022 – 2023

Recovery Date	Location of Recovery	Banded			Time Between Recovery & Banding Y/M	Dist. Km
		Date	Location	Age		
1/11/2022	Lawlers Creek, Dalmeny NSW	24/04/2012	Roussac's Farm, near Foster, Corner Inlet Vic	4+	10.6	450 km
11/11/2022	Anniversary Bay, Rocky Cape National Park, Tas	18/05/2014	Barry Beach, Corner Inlet, Vic	1	8.5	253 km
24/12/2022	Quarry Beach, Mallacoota, NSW	14/08/2010	Barry Beach, Corner Inlet, Vic	4 +	12.4	316 km
23/07/2022	Sisters Beach, Tas	18/05/2014	Barry Beach, Corner Inlet, Vic	1	8.2	254 km
26/01/2023	Georges Bay, St Helens, Tas	30/04/2017	Barry Beach, Corner Inlet, Vic	2	5.8	331 km
22/04/2023	Stockyard Pt, Jam Jerrup, Vic	19/07/2012	Fairhaven, French Is, Vic	4+	10.9	22 km
20/12/2022	Port Fairy, Vic	17/05/2011	Lang Lang, Western Port, Vic	3	11.7	288 km
5/05/2023	Betka River, Mallacoota, Vic	23/06/2013	Manns Beach, Corner Inlet, Vic	4+	9.10	282 km
25/03/2023	Werribee, Vic	4/02/2006	Manns Beach, Corner Inlet, Vic	3+	17.1	204 km
20/12/2022	Shoalhaven, NSW	20/06/2012	Off Manns Beach, Corner Inlet, Vic	1	10.6	550 km
25/01/2023	Beowa Nat Park, NSW	28/06/2014	Off Manns Beach, Corner Inlet, Vic	1	8.6	331 km
26/04/2023	Batemans Bay, NSW	27/05/2013	Roussac's Farm near Foster, Corner Inlet, Vic	2	9.10	488 km
30/01/2022	Sandbar, Smiths Lake, NSW	12/08/2014	Roussac's Farm near Foster, Corner Inlet, Vic	2	7.1	908 km
22/02/2022	Bagot Point, Dolphin Sands, Tas	24/07/2017	Roussac's Farm near Foster, Corner Inlet, Vic	4	4.6	409 km
2/02/2023	Coila Lake, Tuross, NSW	18/08/2011	Roussac's Farm, Foster, Corner Inlet, Vic	4+	11.5	460 km

25/02/2023	Port Fairy, Vic	18/08/2011	Roussac's Farm, Foster, Corner Inlet, Vic	2	11.6	343 km
20/01/2023	Shelley Beach, Port MacDonnell, SA	08/04/2001	Stockyard Point, Lang Lang, Western Port Bay, Vic	2	21.9	427 km
9/04/2023	Callala Bay, NSW	22/04/2017	Stockyard Point, Lang Lang, Western Port Bay, Vic	1	5.11	594 km
23/12/2022	Clonmel Island, Nooramunga Coastal Park, Vic	12/08/2014	Roussac's Farm, Foster, Corner Inlet, Vic	3+	7.4	47 km
23/12/2022	Clonmel Island, Nooramunga Coastal Park, Vic	12/08/2014	Roussac's Farm, Foster, Corner Inlet, Vic	2+	7.4	47 km
23/12/2022	Manning River, Harrington, NSW	12/08/2014	Roussac's Farm, Foster, Corner Inlet, Vic	3	7.7	965 km
23/12/2022	Dream Island, Nooramunga Coastal Park, Vic	28/06/2014	Manns Beach, Corner Inlet, Vic	4	7.5	2 km
24/06/2022	Dream Island, Nooramunga Coastal Park, Vic	28/06/2014	Manns Beach, Corner Inlet, Vic	4	8.5	6 km
23/12/2022	Clonmel Island, Nooramunga Coastal Park, Vic	25/05/2013	Roussac's Farm, Foster, Corner Inlet, Vic	1	8.6	47 km
14/05/2023	Wallaga Lake, NSW	26/04/2008	Barry Beach, Corner Inlet, Vic	1	15.0	417 km
25/02/2023	Port Fairy, Vic	18/08/2011	Roussac's Farm near Foster, Corner Inlet, Vic	2+	11.6	343 km
19/06/2023	Shoalhaven Heads, NSW	20/06//2012	Off Mann's Beach, Corner Inlet, Vic	1+	10.11	550 km

Sooty Oystercatcher

Three recovery reports were received for Sooty Oystercatchers (Table 1). One was banded at Sandy Point near Corner Inlet, Victoria and the others at Flinders Ocean Beach, Victoria. All were alive in the wild. The two birds from Flinders were at least 19 years old and were reported in the same area as they were banded. These are exceptionally long-lived birds.

Pied Oystercatcher

Pied Oystercatcher recoveries ranged from Harrington near Port Macquarie, NSW to NW Tasmania. Table 2 sets out the locations of reports and banding. All the birds were banded in Victoria, most around Corner Inlet. The oldest bird reported was at least 21 years 9 months old. It was banded at Stockyard Point, Victoria and recovered at Port MacDonnell, SA; 427 km from where it was banded. This is an exceptionally long-lived bird.

Sanderling

Eighteen recoveries were received for Sanderling (Table 3). Two were banded near Port MacDonnell, SA and the rest in western Victoria near Port Fairy. One was seen in Mertasari Beach near Denpasar in Bali, Indonesia. It was at least five years old and was 4149 km from where it was banded near Port MacDonnell, SA. Another bird was recovered at Broome, WA

which is 2866 km from where it was banded near Port MacDonnell. The other recoveries were at locations close to where the birds were banded. The oldest Sanderling recovered was at least 16 years old.

Table 3: Sanderling Recoveries 2022 – 2023

Recovery Date	Location of Recovery	Banded			Time Between Recovery and Banding Y/M	Distance Km
		Date	Location	Age		
22/03/2023	Waratah Beach, Sandy Point, Vic	11/04/2022	Danger Point, Brown Bay near Port MacDonnell, SA	1	0.11	469 km
12/09/2022	Mertasari Beach, Denpasar City, Bali, Indonesia	16/03/2017	Danger Point, Brown Bay, near Port MacDonnell, SA	1	5.5	4149 km
25/02/2023	Port Fairy, Vic	3/12/2021	Yambuk Estuary, Vic	2+	1.2	22 km
25/02/2023	Port Fairy, Vic	3/12/2021	Yambuk Estuary, Vic	2+	1.2	22 km
30/04/2023	Broome Bird Observatory, WA	16/03/2013	Danger Point, Brown Bay, nr Port MacDonnell, SA	2+	10.1	2866 km
30/03/2023	Skenes Creek Beach, Vic	16/12/2022	Killarney Beach, Vic	2+	0.3	126 km
04/02/2023	Port Fairy, Vic	16/12/2022	Killarney Beach, Vic	2+	0.1	4 km
04/02/2023	Port Fairy, Vic	16/12/2022	Killarney Beach, Vic	2+	0.1	4 km
04/02/2023	Port Fairy, Vic	16/12/2022	Killarney Beach, Vic	2+	0.1	4 km
25/02/2023	Port Fairy, Vic	16/12/2022	Killarney Beach, Vic	2+	0.2	4 km
25/02/2023	Port Fairy, Vic	16/12/2022	Killarney Beach, Vic	1+	0.2	4 km
25/02/2023	Port Fairy, Vic	16/12/2022	Killarney Beach, Vic	2+	0.2	4 km
18/03/2023	Port Fairy, Vic	14/12/2022	Killarney Beach, Vic	2+	0.3	4 km
18/03/2023	Port Fairy, Vic	16/12/2022	Killarney Beach, Vic	2+	0.3	4 km
18/03/2023	Port Fairy, Vic	16/12/2022	Killarney Beach, Vic	2+	0.3	4 km
04/02/2023	Port Fairy, Vic	03/12/2021	Yambuk Estuary, Vic	2+	0.2	22 km
25/02/2023	Port Fairy, Vic	03/12/2021	Yambuk Estuary, Vic	2+	1.2	22 km
25/02/2023	Port Fairy, Vic	03/12/2021	Yambuk Estuary, Vic	2+	1.2	22 km

Ruddy Turnstone
Studies have found that turnstones have strong site loyalty, being known to return to the same beach each summer. It is not surprising that two of these four reports were of birds seen close to where they were banded (Table 4). One bird was recovered at Foul Bay, WA which is 2621 km from where it was banded on King Island. The oldest turnstone recovered was at least 13 years old.

Table 4: Ruddy Turnstone Recoveries 2022 – 2023

Recovery Date	Location of Recovery	Banded			Time Between Recovery and Banding Y/M	Distance Km
		Date	Location	Age		
23/03/2023	Port Clinton Beach, SA	4/12/2016	Bald Hill, SA	2+	6 3	13 km
23/09/2022	Port Neill, SA	15/04/2014	Beachport, SA	1+	8.5	497 km
5/09/2022	Hamelin Beach, Foul Bay, WA	30/03/2017	Manuka, North Bay, King Island, Tas	2+	5.5	2621 km
9/05/2023	Flinders Ocean Beach, Vic	17/04/2010	West Head Flinders Beach, Vic	1+	13.0	2 km

Curlew Sandpiper
One Curlew Sandpiper was recovered in the last 12 months. It was seen at Western Treatment Plant (WTP), Point Wilson, Victoria. The bird was at least three years old.

Double-banded Plover
Three Double-Banded Plovers were recovered in the last 12 months. All were banded and recovered at Flinders, Victoria. The birds were at least six years old.

BirdMark Bird Sightings, January – December 2022

Mem Smith

BirdMark has now more than 600,000 observations in its the entire database.

Close to 2,000 birds banded by the Victorian Wader Study Group were sighted in Australia and reported to BirdMark in 2022. Ruddy Turnstone (539) and Australian Pied Oystercatcher (530) were the most reported.

Birds sighted in countries other than Australia totalled 348. The most sighted were Bar-tailed Godwit in South Korea.

Table 1 VWSG Banded Birds Seen in Countries Other than Australia, 2022

Species	China	Hong Kong	Japan	New Zealand	South Korea	Taiwan	Philippines	Total
Bar-tailed Godwit	8	0	2	61	173	0	0	**244**
Curlew Sandpiper	3	0	0	0	0	9	0	**12**
Far Eastern Curlew	1	0	0	0	1	0	0	**2**
Great Knot	1	0	0	0	0	0	0	**1**
Red-necked Stint	2	0	0	0	0	0	1	**3**
Red Knot	4	0	0	53	0	0	0	**57**
Ruddy Turnstone	13	0	1	0	0	15	0	**29**
Total	**32**	**0**	**3**	**114**	**174**	**24**	**1**	**348**

Bar-tailed Godwit HSA sighted on South Korean southern coastline. Photo Andres Kim

Tern Breeding and Banding Report July 1, 2022 – June 30, 2023

Mem Smith

1. Victoria

Phillip Island
In the past VWSG has banded Crested Tern on The Nobbies; however the colony sometimes moves to Seal Rocks. Late 2022 rangers from Phillip Island Nature Park reported seeing 418 Crested Terns near the board walk at The Nobbies and 476 on the rock platform: a total of 894 birds. There were no breeding terns on Seal Rocks.

During recces carried out between February 26 and March 9 at Observation Point, Rhyll, in preparation for a catch, a variety of birds including 17 Caspian Tern and varying numbers of Crested Tern, were consistently observed. However, none were caught at the catch on March10.

Stockyard Point
During a recce on February 22, in preparation for a catch on February 23, over 500 birds including Crested Tern, Caspian Tern and a Gull-billed Tern were seen. No terns were caught at this catch, but surprisingly a flagged Little Stint was caught. The Little Stint was banded in China with black over white colour flags and a blue flag below the metal band on the upper leg. VWSG rarely catches overseas birds.

Little Stint. Photo Thomas Verzonden

Mud Islands – Greater Crested Tern
VWSG went to Mud Islands on November 11, 2022, to count the Crested Tern colony and band any advanced Caspian Tern chicks. There were large numbers of Crested Tern breeding. The colony had moved closer to the boat landing area, in front of the island signage board. It extended approximately 400 metres along the sand hills to the west. The team hoped that this new location would not be disturbed by boats or people and their dogs moving through the colony.

No Crested Tern chicks were banded on this trip; however 217 Crested Tern bands were read. The colony numbered 3,750 breeding pairs. Last year they numbered 2,675, so the colony is doing very well.

The next field trip on December 16 was very successful with 1,184 chicks banded. The colony had grown since November and extended to the east as well as the west of the sign. The area to the west had large chicks with some almost ready to fledge, so these were

banded. To the east many Crested Tern were still sitting on eggs, some had smaller newly hatched chicks. It appeared that the nests seen close to the high tide line in November had been inundated and these birds had nested again further to the east on higher ground. Some nests were very close to the high tide line so further inundation may be a problem. Approximately one third of the colony was banded by slowly moving the mobile chicks into corrals. After each chick was banded and placed outside the corral, a parent quickly shepherded it away from the banding area.

Mud Island tern colony near information sign, close to the landing area.
Photo Stephen Tuohy

Mud Islands - Caspian Tern
When VWSG visited Mud Islands on November 11, the Caspian Tern colony was doing well with quite advanced chicks. The colony was in its usual place about halfway around the island from the boat landing point. The team counted 27 breeding pairs and banded 13 chicks. They did not walk through the colony as they were worried that the Silver Gulls may predate on any small chicks and eggs; they saw three eggs in nests and one small chick. There were probably more as birds appeared to be sitting on nests.

Mud Islands - Fairy Tern
Unfortunately, Fairy Tern were not observed on Mud Islands during the visits towards the end of 2022. Previously they have nested near the Caspian Tern colony at the opposite end of the island from the Crested Tern colony.

Corner Inlet – Fairy Tern
The Phillip Island Nature Park rangers reported plenty of Fairy Tern activity at Corner Inlet. There was a mixed colony of Fairy Tern and Little Tern on Clonmel Island as well as a potential mixed colony establishing on Sunday Island.

Table 1: Tern report summary data, Mud Islands, November 2022

	Number adults	Pairs	Chicks	Comments
Caspian Tern	54 (Counted)	27	13 1	Banded Small and not banded Three eggs in nests
Fairy Tern	0			No sign of a colony
Crested Tern		3,750		No Crested Tern chicks banded, some hatched, most nests had terns sitting on eggs

2. King Island, Tasmania

Greater Crested Tern

The main Greater Crested Tern colony had moved from Burgess Bay to a small island just offshore at South Manuka. There were an estimated 2500 pairs of Crested Tern nesting. Due to the difficult access, no attempt was made to read bands on the adults. Another colony of 600 pairs was seen at the end of Millers Road on another small offshore island; Millers Road is close to the mouth of the Ettrick River.

Part of Manuka South Crested Tern colony. Photo Roz Jessop

3. SE South Australia

Greater Crested Tern

Greater Crested Tern didn't breed on the islet in Little Dip Conservation Park this season. They breed every year on Penguin Island, Beachport, but this area is difficult to access.

Fairy Tern

There were breeding events at two sites this year. On February 9 one chick at Cowrie Island, Beachport and four chicks at Foster Islands, Lake George were banded. Foster Islands is a new site and a further seven chicks were banded there on February25.

Table 2 Fairy Tern report summary data, SE South Australia July 1, 2022 –June 302023

Date	Location	Notes
18/11/2022	Cowrie Is	About six terns observed
02/01/2023	Cowrie Island	About six terns observed
20/01/2023	Foster Point Cowrie Island	Up to 15 adults &one fledgling observed. A great deal of activity including terns copulating & carrying fish. About 20 Fairy Tern observed on Foster Isl.
24/01/2023	Obelisk Robe	No terns observed.
31/01/2023	Lake George	About 200 Fairy Tern observed flying around and landing on Foster Island.
01/02/2023	Cowrie Island	Terns observed.
09/02/2023	Cowrie Island Foster Islands	Ten adults, ten eggs, two small fledglings were observed. One tern was banded. 250 adults and 38 eggs were observed, four chicks were banded.
24/0220/23	Cowrie Island	Small number of Fairy Tern. Two observed swooping a Sooty Oystercatcher.
25/02/2023	Foster Islands	150 adults were observed nesting, mainly on N end of low islet. A total of 31 nests counted. Nests scattered, some on top of rocks and in depressions. Most nests had one egg. After overnight rain some eggs and chicks were in water; nine dead plus two nearly dead chicks observed and one egg was collected for the museum. A total of seven chicks were banded; one near fledgling was not caught and one very small chick not banded.
17/03/2023	Cowrie Island Foster Islands	No terns flying. Four adults and two (just) fledged observed. No nests/eggs observed. Ten very small chicks counted, a DNA sample collected for the museum. About 50 Fairy Tern, one Gull-billed and at least six Whiskered Tern observed flying in from the S.

Aerial View Foster Islands

VWSG Duck Catching for the Game Management Authority 2023

Robyn Atkinson

For a second year, a small team from the VWSG has been involved with helping the Victorian Game Management Authority (GMA) catch ducks at the Western Treatment Plant (WTP) for their waterfowl wound monitoring program.

The results from last year's efforts are available in a report on the GMA website. Below is a summary taken directly from the GMA website.

"Waterfowl Wounding Monitoring Program"

The GMA is conducting research to monitor trends in wounding of game ducks from duck hunting.

The Waterfowl Wounding Monitoring Program began in 2021 with a pilot study to determine the most appropriate methodology for the program.

In 2022, the GMA introduced the use of both cannon-netting and cage trapping to increase the number of ducks captured and assessed. A total of 596 ducks were captured and x-rayed for embedded shotgun pellets.

The results of the 2022 program show that 3.4 per cent (20) of the captured game ducks carried embedded pellets. Immature (first year) ducks were shown to have almost three times the infliction rate of adult ducks (7.5 per cent and 2.6 per cent, respectively).

These results provide a wounding index only, not the actual wounding rate. The wounding index will be used to monitor trends in wounding over time.

This research is a key action in Victoria's Sustainable Hunting Action Plan 2021-24 (SHAP), which commits to monitoring waterfowl wounding to measure the success of the Waterfowl Wounding Reduction Action Plan.

The Waterfowl Wounding Monitoring Program will take place each year, following the annual duck season.

For more information, read the 2022 Waterfowl Wounding Monitoring Program report.

2023 Duck Catches (June).

This year's catching attempts were not very successful due to an unfortunate lack of ducks, probably due to the abundance of water inland this year. The original plan was to attempt two catches at the WTP, then move to The Heart Morass at Sale for another three catches.

Feeding began at WTP, and although there were not the high numbers of ducks feeding on the grain as last year, there appeared to be enough for our purposes. There were also hundreds of Eurasian Coot in the area. This had not been a problem last year.

Duck feeder – WTP

Eurasian Coots at WTP

On the morning of the first catch there were only a small number of ducks feeding. Using our infra-red binoculars in the low pre-dawn light it was difficult to pick the ducks from the huge numbers of Eurasian Coots. When we thought we had the maximum number of ducks in the catching area we fired, and then watched as dozens of Coots ran out from under the net. In the end we caught 38 Chestnut and Grey Teal and one Pink-eared Duck. It was lovely to hold it in the hand and see the beautiful markings up close.

The VWSG Geolocator program 2022-23

Ken Gosbell, Robyn Atkinson, Roz Jessop, Ila Marks, Maureen Christie, Simeon Lisovski, Marcel Klaassen

Introduction

We were pleased to return to a more 'normal' program after the Covid disrupted years. The following is a brief resume of our activities during the 2022/23 season in relation to our geolocator program – this being our 14th year.

It must be noted that these outcomes have only been possible through the dedication and generosity of the VWSG (including SA) field teams and supporters who have volunteered so many days under sometimes difficult conditions, to deploy and retrieve these loggers.

Deployment and retrievals of geolocators by VWSG

The Table below shows the summary of deployments and retrievals by the VWSG since 2009 in which a total of 1,347 geolocators have thus far been fitted to shorebirds expected to migrate to the northern hemisphere to breed. In summary, 892 geolocators have been deployed on Ruddy Turnstone (66% of the total deployed and 76% of those retrieved), 68 on Sanderling, 23 on Eastern Curlew,187 on Red-necked Stint (15% of all deployed and 10% of those retrieved) and 177 on Curlew Sandpiper (14% and 8% respectively). From the start of the program, we have concentrated on Ruddy Turnstone. Notably the focus on this species on King Island has contributed to a longitudinal study spanning 13 years to date. It is of interest that we now have over 300 viable tracks for Ruddy Turnstone showing indications of changing migratory behaviour in the face of the changes along their flyway.

Over the past year there were two visits to King Island, one in December and one in March. A total of 20 geolocators were retrieved during these visits. These were again replaced with new geolocators. Additionally, a further 21 geolocators were placed on birds which had not previously carried them, thus 41 geolocators in total were deployed. It was pleasing to see our retrieval rate return to more normal levels at this location.

Although our geolocator program in Victoria for Red-necked Stint and Curlew Sandpipers at Yallock Creek has finished (for that story see https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2656.13393), we did retrieve three geolocators for each of these species during our normal cannon-netting program.

The SA team assisted by a Victorian contingent was again very active and retrieved five geolocators (one of these being a King Island bird) while deploying another 18. Among those retrieved there was a special bird that provided the sixth geolocator! This still awaits downloading to enable an analysis of its latest track.

The South Australian team achieved a great effort in deploying 30 geolocators and retrieving two from Ruddy Turnstone. A team from Victoria assisted the SA group in April 2022.

Geolocators deployed/ retrieved each year by VWSG in SEA to 05/2023													
Year	Ruddy Turnstone		Sanderling		Eastern Curlew		Red-necked Stint		Curlew Sandpiper		TOTAL		% retrieved by year
	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	
2009	8	4									8	4	50
2010	75	33									75	33	44
2011	46	13	24	1	23	3					93	17	18
2012	32	12	44	16		5					76	33	43
2013	69	23		1							69	24	35
2014	60	22									60	22	37
2015	107	34					61				168	34	20
2016	88	52						14			88	66	75
2017	86	31						4	60		146	35	24
2018	79	41					60	1	60	10	199	52	26
2019	30	23					50	9	41	8	121	40	33
2020	83	9					16	12	9	7	108	28	26
2021	70	7							7	5	77	12	16
2022	59	25						3		3	59	31	53
TOTAL	892	329	68	18	23	8	187	40	177	33	1347	431	34
%		37		26		35		21		19			

Setting the net in a small bay at Manuka Central (Photo Roz Jessop).

Porky Beach Recce (Photos Roz Jessop).

The Future

Following the initial geolocator deployments in 2009, the successful retrievals provided, for the first time, a picture of the migration tracks of Ruddy Turnstone. We had little idea then of the scale that the program would develop into and the incredible amount of information it would provide across several species. Fourteen years later the VWSG can be very proud of the leadership in this technology that it has provided and the valuable results it has recorded and published.

Although our geolocator program in Victoria has ended at this stage, the deployment of geolocators on Ruddy Turnstone will continue at King Island and in SE of SA as these provide important data for longitudinal and local studies enabling, for instance, any impact from climate change and/or habitat changes to be observed. In addition, these instruments provide one of the only means of assessing the incubation characteristics of these species when on the breeding grounds (see for example https://www.nature.com/articles/nature20563). These days there are several alternative tracking devices, some of which are relatively smaller, and which can transmit data to mobile networks or fixed receivers. Some of these options we are currently trialling on Sanderling, but geolocators for now remain the workhorse to give us detailed insights in shorebirds' adventures when travelling up and down the East Asian Australasian Flyway.

Red-necked Stint with geolocator at Yallock Creek (Photo: Ken Gosbell)

Costs

The geolocators have been purchased at an average cost of close to $230 each. With 1300 units deployed over the last ten years this equates to a cost of around $360,000.

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). We also acknowledge the contributions by the Norman Wettenhall Trust and Xenia Dennett to VWSG and Australian Research Council and Australian Geographic Society to Deakin University collectively enabling this program. Moreover, friends of Shorebirds SE (FoSSE) has contributed $52,000 from sources including Nature Foundation of SA, Kimberley Clark Aust P/L, Department of Environment and Water (DEW) and Limestone Coast Landscape Board and the Newbery Park Primary School. 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.

Conclusion

The VWSG's geolocator program commenced 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. VWSG members are to be congratulated and thanked for the dedication and perseverance they have demonstrated through many hours of intensive field work which has enabled the deployment of over 1,300 geolocators at five sites in south eastern Australia and such a satisfactory retrieval rate to be achieved. This has led to so much significant information on migration and other characteristics being obtained. Particular thanks to the field team leaders and Ila and Eric for the work they do in mounting the geolocators on leg flags.

No Cannon Net catches by the VWSG at the Western Treatment Plant December 2022 - January 2023.

Ila Marks.

It is almost unbelievable that over the summer of 2022/2023 there was no banding of waders or terns by the VWSG at the Western Treatment Plant (WTP), Pt Wilson, Victoria. The VWSG has been conducting fieldwork and banding waders and terns at the WTP for over 40 years. It is a major study site.

Many recces over the summer proved that waders were not roosting at the WTP on hightide. They preferred to roost at the abandoned Avalon Salt Works, 15 kilometres to the south, or on the North Spit. Both sites are not suitable for cannon netting. In recent years cannon netting at the WTP has become problematic. Pond 5 Western Lagoon, in the past a popular high tide roost for Red-necked Stint and Curlew Sandpiper, is now open to the sea and covered with water at high tide. The T Section Lagoon and the Pond W85, sometimes referred to as the Shelduck Pond, have been old favourites, but rain and/or evaporation can make adjusting the water levels difficult. Also weed growth at the T Section Lagoon make it a less desirable roost.

When Danny Rogers undertook his shorebird and duck counts in early December, he noted that it was ‘a funny year with many species absent or in remarkably low numbers because of the extensive inland flooding’. Early in December there were 1000 Curlew Sandpiper and 4000 Red-necked Stint at 85 WC at high tide, but as the water dropped there were not as many.

To assist with recces, the WTP placed cameras at the T Section Lagoon to monitor the pond. We were hoping that with water at the preferred level the waders would roost there at high tide.

We optimistically went ahead with our programmed catching days between Christmas and New Year 2022 and a very patient team spent two days at the T Section Lagoon watching mostly Red-necked Stints walk past our net in feeding mode, in numbers too small to fire and too far outside the catching zone.

On many subsequent recces we closely observed the behaviour of the waders for several hours at the T Section Lagoon and the W85 Pond. Again the birds were not in high numbers. At the T Section Lagoon generally there were around 300 waders, mostly Red-necked Stint, with about 40 Curlew Sandpiper and at Pond 85W there were approximately 500 waders, mostly Red-necked Stint. On both ponds the birds were spread out feeding and walking across shallow water at all tide times with some small roosts (10 to 20 birds) in uncatchable areas. Without the birds roosting catching was impossible and after cancelling two scheduled catches we decided the WTP was not suitable for cannon netting over the summer of 2022/23.

Sharp-tailed Sandpiper, usually a reliable catch at the WTP, were almost entirely absent. Danny Rogers found only five or so birds in his December count (compared with counts of over 7000 in the past 2-3 years). As it was such a wet year Sharp-tailed Sandpiper had many alternative places to choose to spend their southern summer.

We thank the Western Treatment Plant for assisting us with our field work, particularly Cody McCormack and Suelin32 Haynes. Working with the WTP has been a long and successful partnership with a small catching glitch in 2022/23.

Patiently Waiting - Werribee 28 December 2022. Photos Ila Marks

VWSG King Island Report 7 - 16 December 2022

Roz Jessop, Robyn Atkinson and Rob Patrick

The Victorian Wader Studies Group (VWSG) has been visiting King Island once or twice per year since March 2007. The prime interest has been the Ruddy Turnstone population which spends its non-breeding season there. This is the 16th year and 26th visit of this long-term study. The team of nine members, together with King Island local team members, aimed to achieve the following objectives:

1) to carry out a population count of Ruddy Turnstone on the complete west coast of the island.

2) to evaluate the breeding success of Ruddy Turnstone in the 2022 Arctic breeding season by measuring the percentages of juveniles in catches.

3) to retrieve and deploy geolocators on Ruddy Turnstone.

4) to facilitate Deakin University's research project on sampling of birds for the presence of avian diseases.

5) To investigate the movements on King Island and across Bass Strait, and population structure of Australian Pied Oystercatcher and Sooty Oystercatcher.

Cape Wickham from the air (Photo Roz Jessop)

1. Population count

As in previous visits, a complete population count of the west coast was carried out on the first day during the high tide period. All known sites along the west coast of the island at which Ruddy Turnstone are regularly present were visited. The total count of 444 individuals continues the decrease in population seen during the previous count in March 2022. The North Manuka/Whalebone Bay flock was not seen in the area during our visit, although a small flock was seen in a bay further north.

Detailed results of the counts since 2008 are shown in Table 1 and Fig 1. No counts were able to carried out in November 2020 and 2021 due to pandemic travel restrictions.

Fig 1: Population counts of Ruddy Turnstone on King Island's west coast in the November/December period 2013-2022.

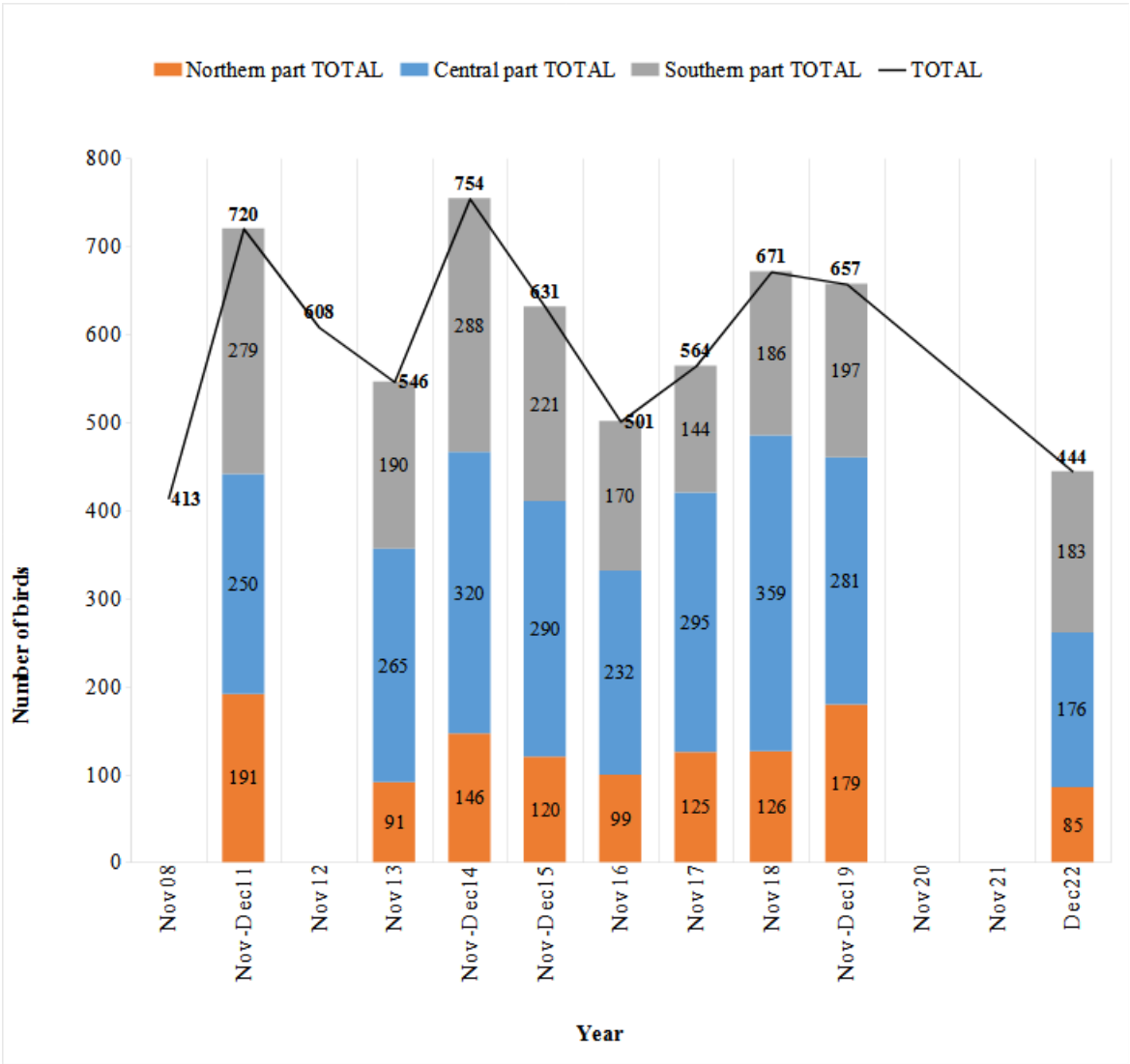


Table 1: Counts of Ruddy Turnstone on the west coast of King Island: Nov-Dec only.

West Coast	1985[1]	Nov-08	Nov-Dec 11	Nov-12	Nov-13	Nov-Dec 14	Nov-Dec15	Nov-16	Dec-17	Dec-18	NovDec-19	Nov-20	Nov-21	Dec-22
The Springs	-	-	61	-	55	3	25	28	45	45	60	-	-	24
Whistler Point	106	-	0	-	36	112	95	71[2]	80	0	0	-	-	0
Duck Bay, Green Island Point, South Whistler	260	-	130	-						81	119	-	-	61
Northern part TOTAL	**366**	**-**	**191**	**-**	**91**	**146**	**120**	**99**	**125**	**126**	**179**	**-**	**-**	**85**
Unlucky Bay	20	-	60	-	11	20	13	0	60	50	13	-	-	16
South Porky	28	-	0	-	37	20	0	5	8	50	20	-	-	19
Manuka – North (Whalebone)	-	-	5	-	88	145	127	35	27	59	84	-	-	0
Manuka - Central	67	-	60	-				50	25	30	40	-	-	42
Manuka - South	-	-	0	-				13	25	60	39	-	-	47
Currie Harbour	-	-	0	-	n.c.	n.c.	n.c.	0	0	0	0	-	-	0
Currie Golf Course (Burgess Bay)	330	-	35	-	69	80	90	69	80	50	47	-	-	7
Dripping Wells	-	-	90	-	60	55	60	60	70	60	38	-	-	35
Central part TOTAL	**445**	**-**	**250**	**-**	**265**	**320**	**290**	**232**	**295**	**359**	**281**	**-**	**-**	**176**
Seal Bay, Black Point	-	-	200	-	n.c.	n.c.	150	27	18	32	34	-	-	-
Surprise Bay (including Denby Beach)	-	-	12	-	125	182	1	113	55	130	74	-	-	115
Stokes Point to Surprise Bay	-	-	67	-	32	32	10	0	6	0	58	-	-	51
Stokes Point	-	-	0	-	33	74	60	30	65	24	31	-	-	17
Southern part TOTAL	**0**	**-**	**279**	**-**	**190**	**288**	**221**	**170**	**144**	**186**	**197**	**-**	**-**	**183**
TOTAL	**811**	**413[3]**	**720**	**608[3]**	**546**	**754**	**631**	**501**	**564**	**671**	**657[4]**	**n.c.[5]**	**n.c.[5]**	**444**

1 – Count data by D.B. Whitchurch
2 – plus 48 at Bungaroo Bay
3 – No details available
4 – 232 birds were counted at the southern part on 3-Dec-19
5– No count due to Covid pandemic restrictions

2. Catching

As in March, we had difficulty catching as there seemed to be no feeding hot spots which would normally be where we set the net. The absence of a flock at North Manuka, which is often our largest catch, made it more difficult.

Fourteen whale carcasses were spread from Central Manuka to North Manuka following a Sperm Whale stranding in September. This resulted in many Pacific Gulls, Northern Giant Petrels and many more Australian Pied Oystercatchers than we normally see. A flock of 35 oystercatchers was seen at North Manuka. Was the presence of Pacific Gulls and Giant Petrels the reason there was no flock at North Manuka?

Dead whales at Manuka central and Northern Giant Petrels offshore (Photo Roz Jessop)

Nets were set each day and six catches were made resulting in 75 Ruddy Turnstone and 17 Australian Pied Oystercatchers being caught. (Table 2).

Catches were made at Surprise/Teal Bay, the Manuka area and Porky Beach. Geolocator deployment has been concentrated primarily in the Manuka area with some deployment in the Burgess Bay/ Dripping Wells area. Catch sizes were between eight and 31 birds.

Teal Bay net set (Photo Roz Jessop)

Australian Pied Oystercatcher and Sooty Oystercatcher have now been added to our permits as study species with the aim of gathering information on their movements on King Island and across Bass Strait (off shore wind farm development) and population structure. When turnstone failed to move into the catching area we were able to make two catches of oystercatchers.

Flagged Pied Oystercatcher (Black flags for King Island – shared with South Australia) (Photo Roz Jessop).

This visit brings the total number of Ruddy Turnstone caught on King Island since VWSG's first visited in 2007 to 4039 individuals (with 277 individuals of other wader species caught) (Table 3). A total of 153 catches has been made with an average catch size of 26 birds.

Table 2: VWSG Catch Details: King Island Visit 7 - 16 December 2022

DATE	LOCATION	SPECIES	NEW	RETRAPS	TOTAL	JUV	JUV%	GEOLOCATORS
8 Dec 2022	Surprise Bay	Australian Pied Oystercatcher	8	0	8	0		
11 Dec 2022	Central Manuka	Ruddy Turnstone	13	7	20	8	40.0	5 geos retrieved and replaced
12 Dec 2022	Porky Beach	Ruddy Turnstone	11	20	31	6	19.4	8 geos retrieved and 7 replaced
14 Dec 2022	South Manuka	Ruddy Turnstone	7	2	9	3	37.5	
14 Dec 2022	North Manuka	Australian Pied Oystercatcher Sooty Oystercatcher	7 2	0 0	7 2	0 0		
15 Dec 2022	Teal Bay	Ruddy Turnstone	12	4	16	1	6.3	
		Total Ruddy Turnstone	43	33	76	19	24.0	

Note: 13 geolocators retrieved and 12 were replaced with new geolocator

Table 3: Catches on King Island 2007-2022

DATE OF VISIT	CATCHES	TOTAL TURNSTONE CAUGHT	TOTAL BIRDS CAUGHT
March 2007	7	241	307
March 2008	8	419	434
March-April 2009	6	223	223
March 2010	8	211	217
November 2010	3	71	71
April 2011	8	197	211
November-December 2011	3	115	117
April 2012	7	118	118
November 2012	5	132	132
March-April 2013	10	255	285
November 2013	2	54	55
March 2014	6	173	181
November-December 2014	6*	147	151
February 2015	5*	119	154
November-December 2015	5	120	158
February 2016	4	74	78
November 2016	4	112	114
March-April 2017	7	218	229
December 2017	5	123	128
March 2018	9	149	160
December 2018	5	191	193
March 2019	10	249	252
November-December 2019	4	132	133
March 2021	4	64	66
March 2022	6	57	58
December 2022	6	75	92
16 years (26 visits)	**153**	**4039**	**4316**
Average individual catch size:		**26**	**28**
Average catch total per visit:		**155**	**166**

*Excludes 2 catches of Silver Gulls.

26 visits - 15 in February-April 11 in November-December

3. Percentage Juveniles

Eighteen juveniles were among the 75 turnstones caught (24%), indicating a slightly above average breeding season for Ruddy Turnstone in the Arctic summer in 2022.

Table 4 gives the percentage of juveniles over the past 12 years. Only data from the November-December visits are included. The average juvenile percentage for November-December period was 16%.

Table 4: Juvenile proportions in turnstone catches on King Island in Nov-Dec period each year 2010 to 2022.

Year	New	Retrap	Total	Juv.	% Juv.
2010	47	24	71	13	18.3%
2011	49	66	115	11	9.6%
2012	62	70	132	3	2.3%
2013	31	23	54	23	42.6%
2014	76	71	147	26	17.7%
2015	53	67	120	2	1.7%
2016	45	67	112	23	20.5%
2017	61	62	123	7	5.7%
2018	124	67	191	78	40.8%
2019	63	69	132	22	16.7%
2022	42	33	75	18	24.0
TOTAL	**653**	**619**	**1272**	**226**	**16.0**

Note: Only includes Nov-Dec catches, **not** Feb-Apr catches.
Poor Arctic breeding years were 2012, 2015 and 2017.
Very good Arctic breeding years were 2013, 2016, 2018 and 2022.
No catches were possible in 2020 and 2021 due to pandemic restrictions.

4. Geolocators

A total of 13 geolocators were retrieved and 12 were replaced during this visit. Excluding these 12 newly deployed, a total of 540 geolocators have now been deployed on turnstone on King Island, with 234 retrieved (43.3%)

5. Flag sightings

Flag sightings were made whenever the opportunity arose during the count, recce visits, and in between catches. Flag sightings are an important part of the visit as the data is used to calculate long term survival without the need to catch the birds.

Table 5: Flag sightings King Island, December 2022.

Species	Location of sightings	Comments	Number of individuals
Hooded Plover	Surprise Bay and Teal Bay	Seen in flock of 11 adults and 2 juveniles.	1
Australian Pied Oystercatcher	Burgess Bay 3 Central Manuka 2 North Manuka 1 Porky Beach 1 Stokes Point 1 Unlucky Bay 1 Surprise Bay 2 South Manuka 1	Bird at Unlucky Bay from Barry Beach Corner Inlet Vic., banded 14/08/2010	10
Ruddy Turnstone	Burgess Bay 3 Porky Beach 23 South Manuka 14 Springs 5 Stokes Point 4 Surprise Bay 27	76 sightings	60
Sooty Oystercatcher	Duck Bay 1 Surprise Bay 1		2

6. Deakin University Studies on Avian Pathogens

As per other years, Deakin University collected faecal swabs and blood for the presence of avian diseases or their antibodies. No avian flu virus of the lineage 2.3.4.4b) high pathogenicity avian influenza (HPAI) H5 currently circulating globally was detected. Michelle Wille and Marcel Klaassen have prepared a short paper on all samples taken by them this season from inbound migratory waders and a pre-print is available at https://www.biorxiv.org/content/10.1101/2023.02.06.527378v1

7. Crested Tern Colony

This year the main Crested Tern colony had moved from Burgess Bay to a small island just off shore at South Manuka. There was an estimated 2500 pairs of Crested Tern nesting. Due to the difficult access no attempt was made to read bands on the adults this year. Another colony of 600 pairs was seen at the end of Millers Road on another small off shore island. (Millers Road is not far from the mouth of the Ettrick River.)

Part of the Manuka South Crested Tern colony (Photo Roz Jessop)

8. Acknowledgements

The VWSG thanks the following for their contribution towards another successful visit to King Island. King Island locals Graeme and Margaret Batey and Lizzie Cambra for their invaluable help and much needed local knowledge. Margaret Bennett and Gary Baker for very kindly allowing us to store our field equipment in their shed. Heather and Roger Cam for very generously allowing us the use of their house in Naracoopa as our base for this visit.

9. Future

It is planned to continue November/December and March/April visits to King Island into the foreseeable future.

The December 2022 King Island Team was:

Robyn Atkinson, Steve Atkinson, Sally Leonard, Ila Marks, Eric Miller, Rob Patrick, Roz Jessop, Toby Ross, Michelle Willie, and local King Island participants, Graeme and Margaret Batey, and Lizzie Cambra.

VWSG King Island Visit Report, March 21 – 30 2023

Robyn Atkinson, Roz Jessop, Ila Marks, Eric Miller and Rob Patrick

Since 2007 the Victorian Wader Study Group has been visiting King Island, Tasmania once or twice a year as part of a long-term study of the Ruddy Turnstone *Arenaria interpres* population on the west coast of the island. This visit, during March 2023, a total of eighty-eight Ruddy Turnstone were captured, seven geolocators were retrieved and a further twenty-nine deployed. The population count of the west coast was the lowest since the counts began in 2007.

The objectives for the trip were:

1. To carry out a population count of Ruddy Turnstone on the entire west coast of the island.
2. To evaluate the breeding success of Ruddy Turnstone during the 2022 Arctic breeding season by measuring percentage of juveniles in catches.
3. To deploy and retrieve geolocators on Ruddy Turnstone.
4. To facilitate Deakin University's research project on the presence of avian diseases.

It is intended that the twice-yearly visits (November/December and March/April) be continued into the future to extend our current seventeen-year dataset on the Ruddy Turnstone of King Island.

Flying out from Moorabbin – dawn March 21, 2023 (photo Roz Jessop).

Cape Wickham – arrival King Island (photo Roz Jessop).

1. Population Count

All the known locations for Ruddy Turnstone along the west coast of King Island were counted over the high tide period on March 21, 2023. A total of 378 birds were observed during the count. This is the lowest count recorded in our 17 years of visits. It continues the sharp decline in observed birds since the high count in 2019. The low numbers for this count in March 2023 may in part reflect the weather conditions on the day. The weather during the count was unusually calm, with no wave action, allowing some birds to remain out on rocks and not be seen from shore. The weather conditions were unusual for King Island and were related to the three successive years of La Nina weather conditions which ended in March 2023. Slightly larger counts were obtained later in the trip on some beaches but, as no systematic recount could be done, the total on March 21 is used. Results of the counts since 2008 are shown in Table 1 and Figure 1.

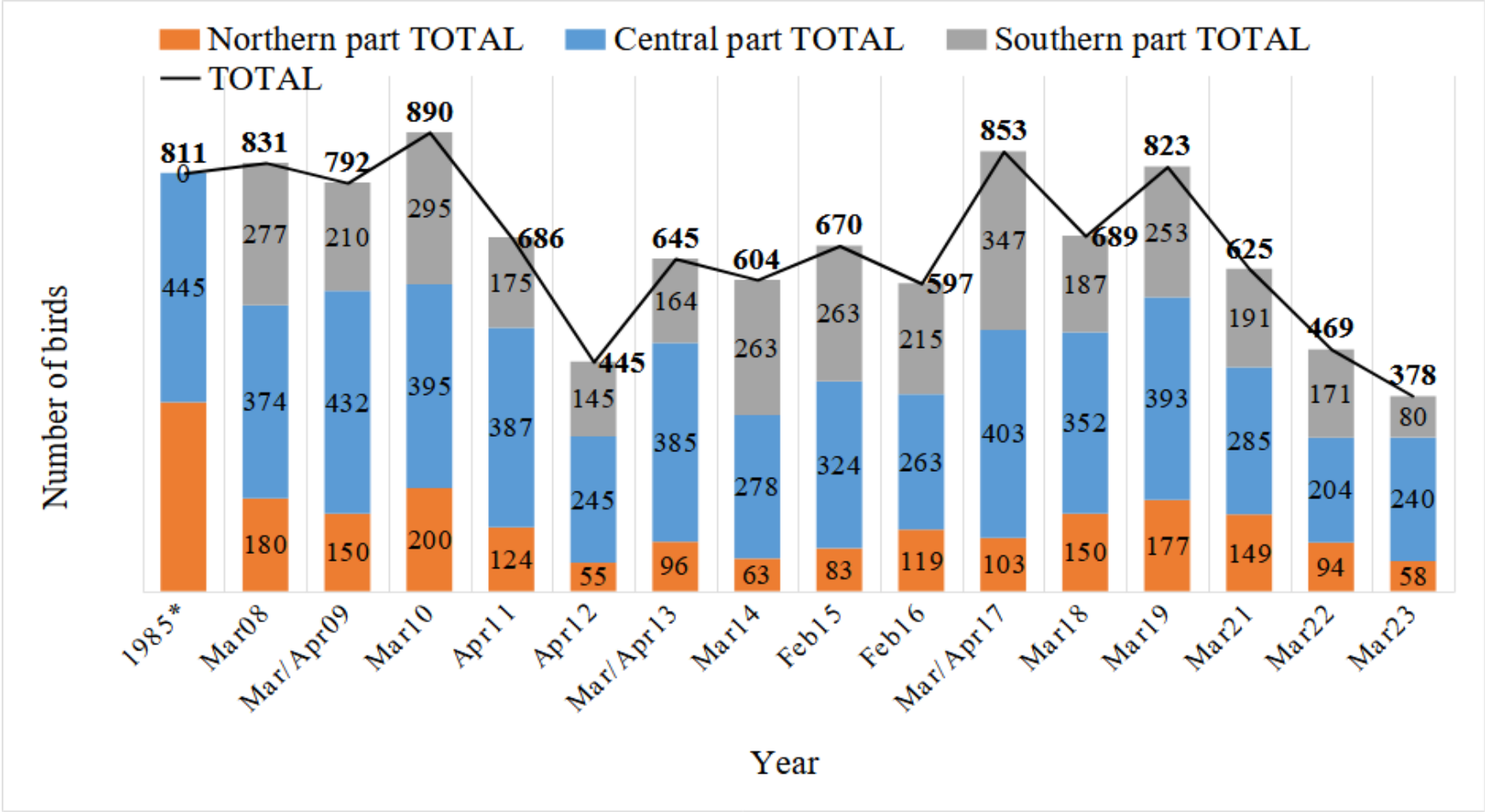

Northern part TOTAL
Central part TOTAL
Southern part TOTAL
TOTAL
Number of birds
Year
1985*
Mar08
Mar/Apr09
Mar10
Apr11
Apr12
Mar/Apr13
Mar14
Feb15
Feb16
Mar/Apr17
Mar18
Mar19
Mar21
Mar22
Mar23
811
831
792
890
686
445
645
604
670
597
853
689
823
625
469
378
0
445
277
374
210
432
295
395
175
387
145
245
164
385
263
278
263
324
215
263
347
403
187
352
253
393
191
285
171
204
80
240
180
150
200
124
55
96
63
83
119
103
150
177
149
94
58

Table 1: Counts of Ruddy Turnstone on the West Coast of King Island; 2008 to 2023

West Coast of King Island	1985*	Mar08	Mar/Apr 09	Mar10	Apr22	Apr22	Mar/Apr 13	Mar14	Feb15	Feb-16	Mar/Apr 17	Mar-18	Mar-19	Mar-21	Mar-22	Mar-23
The Springs	-	n.c.	n.c.	45	50	20	26	28	23	24	30	50	64	42	31	21
Whistler Point	106	180	55	40	4	0	0	0	0	42	2	45	0	13	8	0
Duck Bay, Green Island Point, South Whistler	260	180	95	115	70	35	70	35	60	53	71	55	113	94	55	37
Northern Part TOTAL	366	180	150	200	124	55	96	63	83	119	103	150	177	149	94	58
Unlucky Bay	20	n.c.	20	10	48	15	25	15	19	1	40	28	7	0	14	1
South Porky	28	n.c.	40	0	9	40	25	0	38	35	70	65	35	68	52	34
Manuka – North (Whalebone)	-	220	65	15	60	35	30	60	63	33	60	32	116	47	40	30
Manuka - Central	67	220	68	150	50	50	70	50	84	58	54	36	39	29	0	77
Manuka - South	-	220	67	10	45	35	65	40	24	6	55	39	82	48	10	4
Dirty Bay	-	n.c.	22	30	13	n.c.	0	n.c.	0	0	0	8	n.c.	n.c.	n.c.	28
Currie Harbour	-	114	14	25	15	0	20	26	0	0	39	30	15	12	0	0
Currie Golf Course (Burgess Bay)	330	114	96	90	85	30	75	42	66	65	25	64	49	35	12	30
Dripping Wells	-	40	40	65	62	40	75	45	30	65	60	50	50	46	76	36
Central Part TOTAL	445	374	432	395	387	245	385	278	324	263	403	352	393	285	204	240
Seal Bay	-	20	n.c.	60	n.c.	n.c.	12	43	77	56	68	5	48	0	18	n.c.
Surprise Bay (including Denby Beach)	-	187	80	105	75	70	80	106	71	90	116	43	89	102	70	42 **
Stokes Point to Surprise Bay	-	70	40	110	70	25	12	52	66	29	91	67	84	50	46	24
Stokes Point	-	70	90	20	30	50	60	62	49	40	72	72	32	39	37	14
Southern Part TOTAL	0	277	210	295	175	145	164	263	263	215	347	187	253	191	171	80
TOTAL COUNT	811	831	792	890	686	445	645	604	670	597	853	689	823	625	469	378

* Count by D.B.Whitchurch; n.c. = not counted

** Count of Surprise Bay on 27/03/2023 = 97 Ruddy Turnstone

2. Catching

The weather was again remarkably calm for most of the duration of our stay with very little wave action on many days. Perhaps with the end of the La Nina we will see a return to the usual windy conditions on the island with wave action driving the turnstones onto the beach rather than loafing on rocks out to sea. For another year there was little kelp on the beaches as evident from the lack of kelp at the kelp factory and the small number of “kelpers” still working on the island.

Net set Dripping Well – note huge amount of algae (photo Roz Jessop).

With the lack of kelp there was still plenty of seaweed on the beaches and clouds of hatching flies and hoppers for turnstones to feed on. Over the field trip we set ten nets and spent a lot of time waiting for birds to come ashore. On some occasions they simply failed to do so. Six nets were fired on small flocks catching a total of 88 Ruddy Turnstone, 17 Double-banded Plover, eight Red-necked Stint and one banded Silver Gull. We also retrieved seven geolocators and deployed another 29 new geolocators. Table 2 summarises the catch details and locations.

Table 2: VWSG Catch Details: King Island Visit 21-30 March 2023

Date	Location	Species	New	Retrap	Total	Juv	Juv%
23 Mar 2023	Whalebone Bay North Manuka	Ruddy Turnstone 12 geolocator deployed. 3 geolocator retrieved	5	10	15	3	20.0
24 Mar 2023	Manuka Central	Ruddy Turnstone 2 geolocators deployed	6	2	8	5	62.5
25 Mar 2023	Whalebone Bay North Manuka	Ruddy Turnstone 8 geolocators deployed.	9	9	18	2	11.1

Date	Location	Species	New	Retrap	Total	Juv	Juv%
		2 geolocator retrieved. Red-necked Stint Double-banded Plover	 8 12		 8 12		
26 Mar 2023	Porky Bay	Ruddy Turnstone 7 geolocators deployed.	3	10	13	1	7.7
27 Mar 2023	Dripping Wells	Ruddy Turnstone Double-banded Plover	17 5	3	20 5	1	5.0
28 Mar 2023	Burgess Bay	Ruddy Turnstone Silver Gull	6 0	8 1	14 1	1	7.1
		Total Ruddy Turnstones	46	42	88	13	14.8

Setting the net Porky Beach, King Island (Photo Roz Jessop).

3. Percentage Juveniles

For the Feb-Apr 2023 period the number of birds caught was less than 100 (88) and thus too low to be statistically reliable, but from these we obtained a percentage juvenile of 14.8. Interestingly, a flock of 30 Ruddy Turnstone was seen on Porky Beach in early June. This is an unusually large flock of presumably juveniles for this time of the year. Table 3 shows the percentage juveniles caught from 2006-07 to 2022-23 in the February-April period.

For southeast Australia, combining Ruddy Turnstone from all locations, 30.4% were juvenile, indicating an above average breeding season in the Arctic in 2022 (25 year average 15.4%) (Jessop et. al. 2023).

Table 3: Juvenile proportions in Ruddy Turnstone catches on King Island in the Feb-Apr period

Year	Total Caught	% Juveniles
2006-07	241	0

2007-08	419	17.7
2008-09	223	0
2009-10	211	14.2
2010-11	197	14.7
2011-12	118	15.3
2012-13	255	1.2
2013-14	173	30.6
2014-15	119	14.3
2015-16	74	1.4*
2016-17	218	31.2
2017-18	149	2.7
2018-19	249	25.3
2019-20	0	-
2020-21	64	9.4*
2021-22	57	8.9*
2022-23	88	14.8*
TOTAL	2855	

*Approximate % juvenile. High degree of error in calculation due to insufficient total number of birds caught.

4. Sex Ratio

The ratio of males to females can be determined during a March/April visit because the birds are already showing much of their breeding plumage and there are distinct differences between that of the male and female birds.

In almost all years there is a slight predominance of females in the population caught. This year there was a larger predominance of females than usual although similar percentages were seen in 2014. There were 48 females and 28 males (Table 4).

Table 4: Sex ratios of Ruddy Turnstone catches on King Island in Feb-Apr period 2007 to 2023

Year	Male	Female	Total Adult	% Male
2007	126	116	241	51.9
2008	181	163	344	52.6
2009	103	120	223	46.2
2010	90	91	181	49.7
2011	80	88	168	47.6
2012	43	57	100	43.0
2013	118	134	252	46.8
2014	46	74	120	38.3
2015	-	-	-	-
2016	19	28	47	40.3
2017	70	79	149	47.0

Year	Male	Female	Total Adult	% Male
2018	59	86	145	40.7
2019	82	104	186	44.1
2020 (Covid)	-	-	-	-
2021	25	27	64	48.1
2022	24	26	52	46.1
2023	28	48	75	37.3

5. Weights

As discussed earlier, although there were only small deposits of kelp washed up on the beaches, there was plenty of seaweed and thus plenty of hoppers and flies. Each year there is usually a difference in adult mean weights between the different catching sites. This year there was little difference between the average weights for each site. The heaviest Ruddy Turnstone this year was caught at Whalebone Bay, North Manuka, weighing 176g. Table 5 shows the mean weights of the four different catch sites.

Table 5: Comparison of mean weights of adult Ruddy Turnstone at each catch site

Site	No of Adults	Mean Weight of Adults (g)
Burgess Bay	13	157
North Manuka	28	152
Porky Beach	12	155
Dripping Wells	19	156

6. Geolocators

A total of seven geolocators were retrieved and these were again replaced with new geolocators. Additionally, a further 22 geolocators were placed on birds which had not previously carried them. A total of 41 new geolocators were deployed during the November and March catches.

7. Flag-sightings

We try to record engraved leg flags whenever possible. This trip we were much less successful, possibly due to the lack of young energetic participants with good eyesight, and the birds staying on the rocks offshore. Thirty-two sightings of Ruddy Turnstone and one Pied Oystercatcher were made, some were multiple sightings of the same individual.

Table 7: Details of Ruddy Turnstone sightings

ELF	Location Seen	Date Seen	Location Banded	Date banded	Comments
TZZ	Porky Beach	26/03/2023	Manuka	23/03/2023	Seen Whistler Pt
UBC	Manuka Central	29/03/2023	Manuka	12/09/2018	Seen Burgess Bay, Dirty Bay
UBU	Dripping Wells	26/03/2023	Manuka	9/12/2018	Seen Dripping Wells 2022
UCC	Burgess Bay	29/03/2023	Manuka	09/12/2018	Seen Burgess Bay 2019, Jiangsu China 2020, Burgess Bay 2022

ELF	Location Seen	Date Seen	Location Banded	Date banded	Comments
UJN	Burgess Bay	29/03/2023	Manuka	25/03/2022	Seen Whalebone 2019, Manuka 2022
UJR	Manuka South Gate	29/03/2023	Manuka	23/03/2019	Seen Manuka, 2021,22
ULY	Burgess Bay	29/03/2023	Whistler Point	27/03/2019	Seen Springs 2019, Duck Bay 2019, Springs 2021
UPN	Manuka Central	29/03/2023	Currie	28/03/2019	Seen Dirty Bay 2022
UTV	Manuka central	29/03/2023	Manuka	26/11/2019	Seen Central Manuka 2022
UTV	Manuka central	29/03/2023	Manuka	26/11/2019	Seen Central Manuka 2022
UTV	Manuka central	29/03/2023	Manuka	26/11/2019	Seen Central Manuka 2022
UTV	Burgess Bay	29/03/2023	Manuka	26/11/2019	Seen Central Manuka 2022
UYL	Burgess Bay	29/03/2023	Currie	29/11/2019	Seen Burgess bay 2022
UZE	Dripping Wells	26/03/2023	Manuka	27/11/2019	Seen Dripping Wells 2022
VBA	Manuka South Gate	29/03/2023	Currie	18/11/2016	Seen Burgess Bay 2017, Manuka, 2018,19,22
VCC	Burgess Bay	29/03/2023	Manuka	19/11/2016	Seen Manuka 2018, Ocean Beach Davenport, Tas 2018, Manuka 2019
VEJ	Dripping Wells	26/03/2023	Dripping Wells	12/11/2016	Seen Dripping Wells, 2017,18,22
VHP	Dripping Wells	26/03/2023	Manuka	29/03/2017	Seen Wu Jiang 2021, Dripping Wells 2018, 22
VJN	Manuka Central	29/03/2023	Manuka	30/03/2017	Seen Dripping Wells 2017, Manuka 2018,19,22
VJZ	Porky Beach	26/03/2023	Porky Beach	31/03/2017	Seen Hanpou China 2018, Porky Bay 2019, Hanpou China 2021, Porky 2022s
VKD	Manuka Central	29/03/2023	Manuka	30/03/2017	(first sighting)
VKK	Dripping Wells	26/03/2023	Dripping Wells	31/03/2017	Seen Dripping Wells, 2017,18,22
VLZ	Burgess Bay	29/03/2023	Manuka	06/04/2017	Seen Burgess Bay 2017, 19,21,22

8. Deakin University study on Avian Pathogens.

As in other years, Deakin University again collected faecal swabs and blood samples to test for the presence of avian diseases or their antibodies**.**

9. The March 2023 King Island Team

Robyn Atkinson, Steve Atkinson, Roz Jessop, Steve Johnson, Marcel Klaassen, Ila Marks, Eric Miller, Rob Patrick, Mem Smith and local King Island participants, Graeme and Margaret Batey, Lizzie Cambra and Jenny Thorne.

10. Acknowledgments

The VWSG would like to thank the following for their contribution towards another successful visit to King Island: King Island locals Graham and Margaret Batey and Lizzie Cambra for their invaluable support and local knowledge without whose help it would be extremely difficult to organize the visit; Heather and Roger Camm for very generously allowing us to use their house in Naracoopa as our base for this visit; Margaret Bennett and Gary Baker for very kindly allowing us to store our field equipment in their shed again.

VWSG Expedition SE South Australia and SW Victoria October 2022

Thomas Cansse

For this expedition, there were two target species. The first was Ruddy Turnstone, to capture birds carrying geolocators and recover and replace these. The second was Sanderling, to deploy GPS loggers to unravel how they use Discovery Bay over the course of the Australian summer.

October 19: Turnstone were the target for our first day, with the flock at nearby Blackfellows Caves having at least six individuals carrying geos, including one deployed on King Island. When we arrived at Blackfellows Caves a flock of around 40 turnstone was on the beach, feeding on beach wrack. In addition, a fair number of Red-necked Stint were present. These last named demonstrated repeatedly that, whilst they were first to move into the catching area, they were also happy to feed in the danger zone, which would repeatedly prevent us firing the net on subsequent catching days.

The net was set where the turnstone had been feeding upon our arrival. Subsequently, we moved into position to twinkle the birds closer to the net as the tide came in. But neither the birds nor the tides co-operated. The tide did not come in as far as we hoped. This left rocks exposed and the turnstone chose to roost on these rather than move higher up the beach to forage. Eventually we had to pull the plug as the tide started to fall. As a result, the first catching day turned into an excellent day to practise net setting.

Waiting for the birds to trickle into the catching area at Blackfellows Caves (Photo: Jenny Hiscock).

October 20: As the Sanderling transmitters had now arrived, we decided to target Sanderling at Green Point. When we arrived, turnstone was the only target species present, so the net was set to target them, and a team was sent to find Sanderling. While setting the net, we discovered that there were three Davids/Daves in the team. To avoid potential confusion, each of them was given a clear role. Western Dave was sent west to look for birds and similarly Eastern Dave was sent east. Lastly, Fire Dave operated the firing box.

Eastern Dave located a flock of Sanderling at Stony Drain, but these were not interested in moving west to the net. However, there were turnstone right next to the catching area. Some successful twinkling ensued and our first successful catch, consisting of stint and turnstone, was made.

While processing, we discovered that a very high proportion of the birds we caught were juveniles. While it is still too early in the season to make any generalisations, we thought it might indicate a highly successful breeding season. Encouraged by our successful catch, we decided to move to Glenelg west to attempt a second catch for the day. There we caught 11 Bar-tailed Godwit and five Curlew Sandpiper. All of these were juveniles. (Seven of these godwit had been resighted by mid-November.)

Flock of Bar-tailed Godwit at Glenelg west (picture: Zebedee Muller). Godwit HSU was found again in Beachport 10 November (Picture: Maureen Christie).

October 21: We travelled again to Green Point, as we wanted to target the Sanderling which had been found the day before by Eastern Dave. Once again, the Sanderling departed further to the east, so it was decided to again target turnstone. With the net set further west than it was yesterday, the team hid in the dunes immediately behind the net. A brief twinkle and the net was fired. The team emerged from the dunes like a bunch of ninjas, reaching the net in record time. While 33 stint were caught, the turnstones were missed as the (extremely long) peg of the right jump rope came out of the sand during the net firing.

In the afternoon it started to rain, so we decided to do a bit of birding at Pick Swamp, Piccaninnie Ponds Conservation Park. This is an important site for Australasian Bittern. Unfortunately, none were seen either today or on subsequent visits. The journey home took us past Mount Schank, its lava bubbles and Little Blue Lake. In the evening we gathered for a flag-making party, to ensure we had a sufficient supply for the upcoming days.


Flock of Red-necked Stint at Green point (Picture: Zebedee Muller). After catching all birds are banded and measured (picture: Zebedee Muller).

October 22: We went back to Blackfellows Caves where we hadn't been successful on our first day. Catching a particular individual always raises the level of difficulty. Today, with a higher tide, turnstone were happy to move into the catching area, but the geolocator birds were rather reluctant. However, eventually enough geolocator birds were in the catching area, and the net was fired.

Nineteen turnstone were caught, including three geolocator birds. Much to the delight of members of the King Island team, one of the geos was 'theirs'. All geolocator birds received a new geolocator, and the team members who had caught their first turnstone got a nice turnstone pin from Maureen to celebrate this fact. After this successful day, with some geolocators in the pocket, we could shift our focus back to catching Sanderling.

October 23: With strong onshore winds and rain predicted, today was to be a recce and some flag reading on Piccaninnie Ponds beach. Unfortunately, the wind was far too strong on the ocean beach, so we continued to Nelson, where we hoped to find some Sanderling sheltering in Glenelg estuary. No Sanderling were found, but we enjoyed looking at the other waders present, scrutinising the godwit and oystercatchers for flags. We then sojourned to Christina's home where some of us enjoyed morning tea whilst overlooking the estuary, whilst others were, once again, unsuccessful in finding an Australasian Bittern.

With no real hopes of locating Sanderling, we decided to drive along the Glenelg River for a bit of birding, with Gang-gang Cockatoo and Red-tailed Black-Cockatoo as main target species. Zebedee acted as our professional guide, and we quickly located a group of gang-gangs. While we did not find Red-tailed Black-Cockatoo, we did see a variety of birds, turning this rainy day into a nice outing.


One of the observed Gang-gang Cockatoo near Nelson (Photo: Thomas Cansse), some of the team enjoying the excellent weather at the Glenelg River (Photo: Jenny Hiscock).

October 24: Bad weather continued, so we split in teams to do some recces to find the Sanderling. At least 200 Sanderling were found near Donovan's Drain, feeding quite high on the beach, so this looked like a promising location for catching in the upcoming days.


A Curlew Sandpiper caught some days earlier was resighted at Donovan's Drain (Photo: Thomas Cansse). Ruddy Turnstone TCZ with geolocator (Photo: Jenny Hiscock).

October 25: We all went to Donovan's Drain, and with the practice of the previous days all team members were getting quite experienced at setting the nets. So, it was decided to set both the four-cannon net and the two-cannon net to increase our chances of having birds in a catching area.

While Sanderling and Red-necked Stint were present on the beach, they were not quite acting as we had observed the previous day. The reduced swell and higher pressure resulted in a lower high tide compared to the previous day, and birds did not come up as high on the beach as we had anticipated. Some Sanderling did move to the right height to be in a catching area, but decided to stop next to it, and even started feeding there, carefully avoiding the catching area. Repeated attempts were made to encourage them to move into the catching area, but eventually we had to pull the plug in the late afternoon as the tide started to recede too far.

In the evening, we gathered for a talk by Abel on the Southern Bent-winged Bat, which was recently elected as Australian mammal of the year. Abel gave an interesting talk, with an

overview of the current research activities at the Naracoorte Caves, one of the few breeding locations of the species.

Plenty of Sanderling near Donovan's Drain (Photo: Thomas Cansse)

October 26: We returned to the same location as the previous day, again setting both nets. Taking on board lessons learnt on the previous day, and results of survey calculations made by Steve, the nets were set lower on the beach. Unfortunately for us, the Sanderling were still very successful in avoiding the catching area. Once again, the tide did not reach the predicted height and, once again, we had to pull the plug on this catching day as well.
In the evening, Maureen showed us the video "Wrack or Ruin" by Jenny Hiscock and discussed the effects of beach wrack harvesting on shorebirds. This successful campaign illustrates how data collected over the years by the VWSG and FoSSE directly contributed to the conservation of shorebirds.

October 27: This was the last catching day. We could not realistically target the same flock of Sanderling for a third day in a row, so the decision was made to try to catch some extra geolocator turnstone at Blackfellows Caves. The net was set up, and birds were moving into the catching area eagerly. However, they were a bit too eager to do so, and large numbers of stints and oystercatchers were feeding in the danger zone. The jiggler did not encourage them to move out, and eventually we decided to cover part of the danger zone with rocks to discourage them from using this area. This partly worked, but not sufficiently.

Eventually Maureen decided to cover up the entire danger zone with covering material to keep the stint and oystercatcher out. I should admit I was doubtful we would manage to catch anything, but eventually the net was fired. While the targeted geolocator bird somehow avoided being caught, some turnstone and stint were caught, which was a rather nice way to end this expedition after two days without a catch.

Setting the net at Blackfellows Caves (Photo: Thomas Cansse). Sally fencing the Hooded Plover nest (Photo: Maureen Christie)

Beach nesting birds

During the expedition, three species of resident shorebirds were found to be nesting. A Hooded Plover's nest in Red Rock Bay was fenced. At Donovan's Drain, a pair of Pied Oystercatcher was found nesting. We tried to band an oystercatcher chick at Pebbly Beach, Gerloff Bay, but we failed to locate it. However, while on our way to find the oystercatcher chick, a Sooty Oystercatcher was found to be nesting on a rock stack in Gerloff Bay.

Conclusion

Overall, we managed to capture some of the Turnstone we targeted, and while we did not succeed on the Sanderling aim, we certainly learnt a lot about Sanderling behaviour. We had all put in our best effort in the attempt to catch them. I think all participants enjoyed the days spent in the field, as well as the hospitality of Maureen who was so kind to offer all of us a place to stay at her house. For everyone looking for a fun and slightly active holiday, I can only encourage joining future expeditions. Whether you enjoy banding and learning about birds, bird photography (flag reading), doing long walks on the beach (recceing/twinkling), playing with seaweed (camouflaging the net), building sandcastles (setting up the cannons) or working on your tan (being in the firing position), I'm sure there is a task for everyone's liking. And, most importantly, you are actively involved in collecting valuable data that contributes to the conservation of shorebirds!

Participants: Robyn Atkinson, Steve Atkinson, Nicholas Bonney, Thomas Cansse, Phil Cole, Jeff Campbell, Sarah Campbell, Maureen Christie, Jenny Hiscock, Roz Jessop, Dan Lees, Sally Leonard, Zebedee Muller, David "Eastern Dave" Nichols, Adam Pannell, Gavin Prentice, David "Western Dave" Williams, David "Fire Dave" Wilbraham, Abel Zevenboom. Others who contributed by undertaking recces: Cath Bell, Peter 'Cookie" Cook, Paul Feast, Christina Loras, Barry Schriever.

Catch details

VICTORIA						
Date	Location	Species	New	Retrap	TOTAL	Juv
20.10.2022	Glenelg West	Bar-tailed Godwit	11	-	11	11
		Curlew Sandpiper	5	-	5	5
	Victoria totals		16		16	
SOUTH AUSTRALIA						
Date	Location	Species	New	Retrap	TOTAL	
20.10.2022	Green Point	Red-necked Stint	13	-	13	13
		Ruddy Turnstone	16	3	19	4
21.10.2022	Green Point	Red-necked Stint	33	-	33	27
22.10.2022	Blackfellows Caves	Red-necked Stint	23	-	23	22
		Ruddy Turnstone	15	4	19	13
27.10.2022	Blackfellows Caves	Red-necked Stint	5	2	7	3
		Ruddy Turnstone	1	1	2	-
Summary of SA catches						
		Red-necked Stint	74	2	76	65
		Ruddy Turnstone	32	8	40	17
SA TOTALS			106	10	116	

Engraved Flag Sightings

Bar-tailed Godwit	flagged this expedition	2
Curlew Sandpiper	flagged this expedition	1
Ruddy Turnstone	inc. 12 with geolocators	37
Sanderling		20
Pied Oystercatcher		10
Hooded Plover		5

VWSG South Australia and South West Victoria Expedition 4-14 April 2023

Maureen Christie and Jeff Campbell

The stated aims of the expedition were to 'retrieve and deploy geolocators on Ruddy Turnstone and collect percent juvenile on Ruddy Turnstone and Sanderling in South Australia. Targeting Sanderling and flag reading in Victoria'. Prior to field work commencing, these aims were amended in the light of catching earlier in the season. A statistical sample of Sanderling had already been achieved with 101 caught at Killarney, Vic and 39 at Danger Point, SA. But only three geolocators had been retrieved/deployed. The retrieval/deployment of geolocators became our main aim.

Reccies in the preceding week had not been very promising with the one bright spot being that the turnstone we had the most migration tracks for – VAZ, had been seen at Nene Valley.

Photo: Maureen Christie. VAZ Nene Valley 4 April

Day 1. Wednesday 5 April Nene Valley (just east of town).
The three cannon, small mesh net was set high for a dry catch over a favoured feeding spot. The two cannon, large mesh net was set low. Hopes were high, with 30 turnstone, including four with geos, in the general area. But it was not to be. With both nets switched in and all eyes focused on the safety zone and catching area, an approaching car sent all birds flying.

Day 2. Thursday 6 April Nora Creina.
With both turnstone and Sanderling on the beach, a midday tide meant that we had little time to waste. The two cannon, large mesh net was quickly set to try and catch on the incoming tide. We arrived at 9 am, the twinkle began at 10 am, and we lost the net to the tide at 11 am! The net was reset much higher up, further along the beach to catch on the falling tide.

A small catch of ten turnstone and seven Sanderling, was made. Sadly not one of the five geos that Mary-Ann had counted. We deployed five geos.
Day 3. Friday 7 April Nene Valley (just east of town).
Early morning reccies were discouraging, but there was a small group of turnstone with maybe two geos where we had attempted to catch on our first day. We set the three cannon small mesh in a similar spot. All twinklers were very conscious that it was Easter Friday and it was likely that other beach users could appear at any time. By the time the net was set, all turnstone had departed to the beach west of town. Despite their best efforts, Jenny and Phil were unable to persuade them to fly east. So, we picked up the net, and moved west, hoping to catch on the falling tide. Net set, turnstone twinkling nicely and almost in, when they were spooked by a radio call and departed the beach.

Day 4. Saturday 8 April Gerloff Bay.
Yesterday Sally had found at least 69 turnstone feeding in front of Lorraine's former home, very early in the morning. Today there were 90. The beach had huge piles of weed, but there was a width of sand between the piles and low water mark. The two cannon net was set to catch over this sandy section. Safety was viewed from an elevated access track. Turnstone were on the piles of weed, feeding in mucky patches. A slow, careful twinkle by Eric quickly had the turnstone in front of the net. With the turnstone quickly into keeping boxes, we retreated to a house to process. One stint, 40 turnstone. One geo retrieved. Six geos deployed. During the morning there had been a strong SW wind which grew stronger as the day went on. The team went out again in the afternoon and found 90 turnstone on the Nene Valley west beach, but it was too late to try for another catch.

Day 5. Sunday 9 April Nene Valley.
Whenever we plan a catch in the Nene Valley area, it is standard procedure for Maureen to check the beach to the west and Jeff to check the beach starting at Nene Valley township. It paid off this morning, because the turnstone were all back at their favourite spot just east of the town. The three cannon net was quickly set for a dry catch. Today the challenge was to find a window of opportunity when there were no stint in the safety zone! Finally, with one geo seen in the catching area, and stint nearing the safety zone, a catch was made. As it was very windy on the beach the processing team set up in the road verge in the shelter of the scrub.

Photo: Eric Miller

The catch was predominately stint with 100 caught and five turnstone. Incredibly, geo VAZ and one other. So, two geos retrieved and four deployed. The fifth turnstone was a juvenile.

In the afternoon we returned to Nene Valley west where we found 90 turnstone feeding. The two cannon net was set to catch on the falling tide. The turnstone had departed whilst we were setting the net. By the time we managed to get a few back the tide was far too low.

Day 6. Monday 10 April Nene Valley west.
By now it was matter of, where will the turnstone be today? 90 feeding on the rocks at Livingston Bay, but they gradually dispersed without going onto the beach to feed. Plenty of footprints in front of the pebbles at Blackfellows Caves, but no turnstone. Finally, footprints where we had set yesterday afternoon, and 34 turnstone further around the bay. The two cannon net was set by noon. Disappointingly, it proved to be another day that we did catch.

Day 7. Tuesday 11 April Nora Creina.
With 50 turnstone and a good flock of Sanderling present, hopes were high. As always, the decision as to where to set the net, is the difficult one. There was evidence of feeding everywhere! Finally, once the twinkle had begun, it was quickly obvious that the four cannon net set high on the beach was just too high! We quickly set the two cannon net lower on the beach and managed to get sanderling 'almost' catchable.

Day 8. Wednesday 12 April Blackfellows Caves.
With strong winds in the morning expected to strengthen to gale force in the afternoon, this was always going to be difficult, but with 70 turnstone present it was judged to be worth a try. The two cannon net was set at the base of the pebbles, with the cannons dug into the pebble bank. We did manage to get turnstone near the net, but we finally gave up with the wind at 48km/hr. Back to the house for a bacon and egg lunch. After which everyone went on their separate ways. Eric, Mary-Ann and Maureen went to east, first of all to check out the shorebird display at the Port MacDonnell Maritime Museum, and then to reccie along the coast to Danger Point. At Danger Point we found a flock of 1000 Sanderling roosting in the shelter of the weed, but occasionally lifting before settling down again.

Photo: Mary-Ann van Trigt.

It was so windy that it was impossible to set up a scope but Mary-Ann was able to take photos from which we managed to read 25 ELF's. Despite having to remain in the car, we were well within 100 metres of the flock, so were disappointed we did not pick up any of the trackers. It was only later we learnt that you needed to be closer than 20 metres!

Day 9. 13 April Nora Creina.
Our last catching day. Once again there were 50 turnstone and a good flock of Sanderling. And, once again, it was difficult to select a site to set the net. It was hard to judge where the tide would come, and difficult to identify a feeding hot spot as feeding was obvious all along the beach. Finally, a decision was made and the three cannon net was set high on the beach. The turnstone proved unpredictable, either in front of the net, but too low, or running up high behind the net. So, the two cannon net was set further down the beach. Only to have the turnstone run up between the nets. They also retreated out of sight to the south several times. We managed to retrieve them twice, but when they departed for a third time it was time to pack up. A frustrating day, especially as we had to pass up several opportunities of a Sanderling catch in the hope of retrieving geos.

Catch details

Date	Location	Species	New	Retrap	Total
6/04/2023	Nora Creina	Ruddy Turnstone	10	1	11
		Sanderling	6	1	7
8/04/2023	Gerloff Bay	Red-necked Stint	1		1
		Ruddy Turnstone	27	13	40
9/04/2023	Nene Valley east	Ruddy Turnstone	2	3	5
		Red-necked Stint	95	5	100
	Total		141	23	164

Three geolocators were retrieved from Ruddy Turnstone, and 15 deployed.

Flag reading was hampered by the constant strong winds.

FLAGS SIGHTINGS	Total Sightings	Total individuals
Hooded Plover	1	1
Pied Oystercatcher	18	7
Sooty Oystercatcher	1	1
Ruddy Turnstone	95	58
Sanderling	63	57
Total	178	124

Field Trip Participants
Nicholas Bonney, Jeff Campbell, Sarah Campbell, Phil Cole, Maureen Christie, Jenny Hiscock, Vivien Holyoake, Roz Jessop, Tessa Lamin, Sally Leonard, Raechel Lewis, Eric Miller, Graham Parkyn, Mary-Ann van Trigt, Django Westmorland, Abel Zevenboom. Participants on any one day ranged from seven to 13. Peter Cook (Cookie) and Barry Schriever undertook regular reccies and Barry also contributed leg flag sightings.

The team was based at Maureen's home at Carpenter Rocks.

Thank you to everybody who participated in what was a period of cold and windy weather.

South Australian Team Sanderling catching 2022-23

Maureen Christie and Jeff Campbell

The need to deploy trackers, download data using the Ectopia App and read engraved flags, dominated our season. Four catches were attempted.

Come early December 2022, there was still only one tracker deployed. Despite 35km/h winds from the south east, a strong team of enthusiasts were out every day recceing. All possible catching sites were searched, Tyrendarra, Yambuk, the abalone farm at Port Fairy, Killarney, the SA section of Discovery Bay. Nothing. Then, on Friday 9th, 50 at Killarney and Saturday 10th a flock at Green Point. Sanderling are notorious for being mobile, so recces were continued all week. The Sanderling at Green Point were consistently at the water's edge and were deemed uncatchable. The Sanderling at Killarney were roosting up high on the beach, sheltering amongst small piles of weed. And so the decision was made to catch at Killarney. Before we went out Dan deployed two more trackers using noose mats.

Killarney December 16, 2022

Despite there being no Sanderling on the beach when we arrived, Dan and Dave where able to point out where the roost had been and careful searching found a patch of footprints. Finally, after much dithering, we set the net to catch over these footprints. Sanderling were already moving back to the beach as we began to set the net! Net set, twinklers in position, and the Sanderling began running up the beach immediately. Perhaps 50 metres east of the net. A short twinkle and Sanderling began roosting between the 4m-8m mark! And then, near disaster, the firing box would not arm! Fortunately Jeff had a jump starter that we could use. The delay had meant that the Red-capped Plover that had been playing in the safety zone had disappeared, and a second group of Sanderling had arrived and moved up to join the roost. A text book catch. In setting the net, Jeff had made allowance for the strong wind and the net went out perfectly square.

Photo: Dave Nichols.

We banded 103 Sanderling (23 juveniles) and four Red-necked Stint (two juveniles), and seven trackers were deployed. Moults were interesting, with many of the adults about

halfway through primary moult. The buff fringes of the juveniles were easy to pick, but the two juveniles that had already started primary moult caused discussion.

Photo: Nicholas Bonney.

All efforts to find trackers in the field, and download data with the Ectopia App, failed. Apparently the trackers were not robust enough to survive the tough marine conditions! Our remaining ten units were replaced come March. By now time was running short to get them deployed with sufficient time to use data before migration.

Danger Point Friday March 10, 2023

A low pressure system and days of gale force winds had pushed the tide almost to the top of the beach on Thursday. So, where would the tide come to today? Theoretically the tide should come higher than yesterday, but we were all aware that that would not be the case today. So, the net was set below yesterday's tide to catch over the 'hot spot' of the last two days. Unfortunately the Sanderling favoured a spot halfway around d the bay. They ventured to the Point several times, and at one stage we had stint - and one Sanderling - catchable. But, before we could discuss whether one Sanderling was better than none at all, they flew! Having had 400 Sanderling and 200 turnstone present during the day it was extremely disappointing not to catch.

Killarney March 27, 2023

With time running out, all possible catching sites were being regularly checked. Although they weren't settled at a particular site, 150 Sanderling in the Killarney area was deemed worth a try. The day was miserable, cold with intermittent drizzle. Worse still, no Sanderling. With memories of Sanderling arriving as we set the net on our last visit, we crossed our fingers and set the net in a similar spot. Twinklers were deployed. Gavin found Sanderling further south, but they all by-passed our beach without a sideways glance. With the drizzle becoming rain and no realistic hope of Sanderling arriving on our beach, we gave up at 3 pm. Thank you to the team who stoically stuck it out, despite being cold and wet!

Danger Point March 31, 2023

On the 30 March, as Dan was deploying a tracker at Little River Beach, Port Fairy, Jeff and Sarah found 400-500 Sanderling feeding high on the beach between Danger Point and Hitchcox Drain. We set the net to catch over scattered sand where the Sanderling had been feeding when we first arrived. A dodge tide meant that, whilst there was no danger that we would have a wet catch, neither could we expect any help from the tide. Fortunately the Sanderling preferred feeding mid beach, and we soon had a small, mixed flock in front of the net. The catch consisted of 39 Sanderling (seven retraps), nine turnstone (three retraps) and 11 stint. All nine trackers were successfully deployed. Thank you to the team for coming out at such short notice and persevering despite the inclement weather.

The Processing team (Photo: Tania Rajic).

And so, the season ended with all 20 trackers having been deployed. Thank you all. The pressure to deploy the trackers was relentless and involved many hours of recceing and catches that were called at short notice in miserable weather.

Friends of Shorebirds SE

South Australian Team Report
1 August 2022 – 31 July 2023

Maureen Christie and Jeff Campbell
Friends of Shorebirds SE Inc.

The Glenelg Estuary and Discovery Bay Ramsar Site Sanderling Project
This has been promoted to top billing in this report as the need to catch Sanderling to deploy trackers, download data using the Ectopia App and read engraved flags, dominated our season. Four catches were attempted - see elsewhere in the Bulletin for a full report.

Local team catches, geolocators and VWSG visits
VWSG expeditions were based at Carpenter Rocks in November and April. We finished the season with 18 geolocators deployed and six retrieved. The most noteworthy retrieval was that of VAZ/ATZ. We already have six northward migrations and five southward migrations and there is the potential for additional multiple journeys from this geo.

Whilst the local team were ultimately successful in deploying all of the Sanderling trackers we were allocated; we were not successful in any of our attempts to catch turnstone. Attempts during winter have concentrated on trying to retrieve the geolocator from TCY which was already putting on weight when the geo was deployed, so we do not know why it is overwintering here rather than going north to breed.

Photo taken on 18 May 2023, Nene Valley west. The flock regularly numbers between 60 – 80 but are feeding along a 3km long section of beach! There is also a flock of about 100 at Beachport. (Photo: Maureen Christie)

Beach Nesting Birds
We continue monitoring and protecting nests where possible. The Hooded Plover pair at Woolwash, Port MacDonnell laid five clutches this year, a total of 12 eggs, with three chicks known to have hatched, but with none surviving.

This year we banded four Hooded Plover chicks, two Pied Oystercatchers, two Red-capped Plovers and 12 Fairy Terns. The Hooded Plover chicks are already providing interesting

data. All were fledged at, or relatively near, Robe. To date there have been sightings of three of these.

HU seen on a saline area along the Old Coorong Road in May after spending time at Nora Creina in April.
(Photo: G. Moore)

HV and HR have moved to Nene Valley. The Coorong sighting is approx. 100km north of the natal site, and Nene Valley is approx. 100km south. It will be interesting to see where their breeding territories will be.

A flock of 12 Hooded Plover seen on Nene Valley beach on 27 July included both HV and HR, along with three other fledglings.

As part of our Enviro Fund Project we have up-dated our Hooded Plover breeding Territories map Kingston SE through to the Victorian border.

We have also created a set of flip cards showing stages of growth of Hooded Plover, Red-capped Plover and Pied Oystercatcher chicks. It is planned to issue both aids to our beach nesting team volunteers.
(Photo: John Scanlon)

Talks and excursions
Once again we gave a talk to Year 5 students from St Martins Lutheran College at their annual visit to Piccaninnie Ponds/Pick Swamp.
We hosted Milly whilst she was in the South East and helped with moves between aerodromes. We were rewarded with Holly flying with Milly on the Robe – Mount Gambier leg and Maureen on the Mount Gambier – Warrnambool leg.

Met with District Rangers from around the state at Lake George and gave a shorebird talk.
Full Throttle into Wattle – walk at Lake George 20 January for Wattle Range promotion.
A Vanners (Caravan Group) excursion to Lake George.
Portland Field Naturalists excursion to Pick Swamp.
Talk to Limestone Coast Landscape Board Youth Environment Council at Carpenter Rocks.
A successful outing with South East Home Schoolers was held in Robe in February.
Everyone had good views of the Long Beach pair of Hooded Plover with their three fledged chicks, all staying within, or near, their roped enclosure.

Long Beach Robe (*Photo: Roxanne Pittard).*

Enviro Fund Grant
This project officially came to an end on 31 May. See elsewhere in the Bulletin for a report by Tania Rajic, the Project Co-ordinator. Thank you to Tania for her dedication in successfully completing this project despite many challenges. And for undertaking to lead the project going forward in her role as a FoSSE volunteer! Thank you, too, to all of the volunteers involved in the project.

Our Coorong / Our Coast
There has been a flurry of activity over the last twelve months as this five year project draws to a close. FoSSE was both a partner and a contractor in the project. The Limestone Coast Landscape Board celebrated the achievements of all its NLP2 projects, including OC/OC, on 31 July with a luncheon in Naracoorte. Project Co-ordinator, Robbie Andrew, has had his contract extended by a few months and is working on an application for the next round of funding.

We attended both the Migratory Shorebird Site Action Plan Implementation Workshop and the Shorebird Workshop held in Robe 6 & 7 May.
We presented at the successful 'Farewell to Shorebirds' which was held in Robe late March. Children had a great time painting additions to the ever growing 'Flock'.

(Photo Robbie Andrew)

Healthy Coorong / Healthy Basin
Apart from being involved in public consultation on the project, our role centres around Lake Hawdon North and the proposal to investigate putting in a regulator on Drain L to increase shorebird habitat in Lake Hawdon North. Once again we assisted Nature Glenelg Trust complete a waterbird census of the lake in November. It is our understanding that we can expect an announcement from the Minister of the Environment and Water, 'soon' on whether or not this project will go ahead.

Conservation
Beach driving - a topic that FoSSE is constantly making comment on in one way or another. And progress is finally being made. It has been announced in the press that there will be an overall speed limit on beaches – 40km/hr, down from a default of 100km/h, and 25km/h when people are present. FoSSE is still requesting that the 25km/h should also apply if there is signage advising that breeding birds are present. We also understand that multi-year trials will commence of vehicle bans on a number of beaches.

The Department of Environment and Water review of the management of SE Coastal Lakes that are not protected by SA's protected area system continues. FoSSE has made formal comment on the draft proposals and encouraged members to comment as well. Birds SA are leading a group of conservation groups to raise concerns directly with the Minister. FoSSE has signed the joint submission, and also signed a letter to the local papers expressing our belief that the lakes face serious threats that need to be managed proactively.

Regulations governing the harvesting of beach-cast marine algae (beach wrack) continue to be under review, with PIRSA undertaking a review of the Ecologically Sustainable Development Risk Assessment of the industry. A FoSSE representative joined Ross

Anderson in attending a workshop in Adelaide. The granting of a permit to allow heavy machinery on a section of beach north of Kingston SE is a major concern for FoSSE and represents a watering down of the commitment by PIRSA at the Administrative Appeals Tribunal hearing in 2016.

The review of the Lower Limestone Coast Water Allocation Plan is continuing, with FoSSE being involved whenever there is an opportunity. The urgency of guaranteed increased water allocations is witnessed by the current parlous state of Piccaninnie Ponds. It is now closed to all water activities, and underwater visibility has been so compromised that it no longer meets minimum distances set out in the site's Ramsar charter. FoSSE sent a letter to the Minister, with copies going to various other politicians. This resulted in our local member, Troy Bell, asking questions of the Minister in parliament.

There are several proposed off-shore wind farms in state waters and the federal government is proposing that an area from Warrnambool to Port MacDonnell be approved for the development of offshore wind, wave or tidal generation projects. We have attended information days in Nelson and Kingston SE and will continue to circulate information as it comes to hand, but FoSSE has limited ability to make informed comment about this extremely complex matter.

We signed the joint follow-up letter to the Minister on the Toondah Harbour Campaign in October. We supported the purchase of the property known as Smith's Swamp located at Eight Mile Creek east of Port MacDonnell.

Port MacDonnell Maritime Museum
The museum permanent Shorebird display is 99% complete.

Photo: Maureen Christie/Jenny Hiscock)

General
We continue to be involved in various counts and projects. Hooded Plover were counted from The Granites to the Victorian border in November and April. Summer and winter counts of our traditional sites of Port MacDonnell, Carpenter Rocks and Lake George were all successfully completed. Lake Bonney SE was counted in summer, and the winter count is

planned for 2 August. Once again, we assisted in Latham's Snipe counts and the state-wide spring Wetlands and Waterfowl Survey. Members assisted with the summer Coorong count.

Jeff continues as both the count and the Beach Nesting Birds Co-ordinator. Obligations under the Our Coorong / Our Coast project has meant that these co-ordinator roles involve much more reporting than we have needed to do in the past.

There have been several interviews on local ABC radio, and occasional articles in the local press. A 'Shorebirds Notes' column is contributed to the Birds South East quarterly newsletter and regular contributions are made to 'Word about the Hood'. Occasional newsletters plus items of interest have been passed on. Sadly, regular 'Dollies Days' have been discontinued after almost 20 years.

Vale Lorraine Moore: Friend, colleague, and fellow Dolly, Lorraine, died on 31 January 2023, after a short illness. She was a valued member of the VWSG/FoSSE team. A founding and much-loved member of 'The Dollies', there was always laughter in the camp when Lorraine was with us.

Thank you to Jeff and Sarah for hosting a successful AGM at their home. We were given a very informative talk on the *Protecting Hooded Plovers by controlling beach weeds on the Limestone Coast* Project by Project Co-ordinator Tania Rajic. Tania informed us of the progress of the project thus far and what still needed to be undertaken to complete it.

(Photo: Maureen Christie)

Congratulation to Ross Anderson, our Community Liaison Ranger, who was awarded the Leadership in Conservation Award for South Australia. Ross was nominated by FoSSE and the Friends of Mount Gambier Area Parks.

Thank you to the members of the group who have worked hard to produce these results. Thank you too, to the Our Coorong / Our Coast team and other members of Limestone Coast Landscape Board and the Department of Environment and Water, who have provided encouragement and practical help. Ross Anderson deserves special mention for all the support he gives us, both as our Community Liaison Ranger and as a member.

SOUTH AUSTRALIAN TEAM CATCHES 01.08.2022 TO 31.07.2023

DATE	PLACE	Bar-tailed Godwit	Ruddy Turnstone	Red Knot	Sanderling	Red-necked Stint	Sharp-tailed Sandpiper	Curlew Sandpiper	Pied Oyster-catcher	Sooty-Oyster catcher	Banded Stilt	Grey Plover	Red-capped Plover	Double-banded Plover	Hooded Plover	Other	Terns	TOTALS
31.3.2023	Danger Point area		12		39	11												62
Resident Permit	Various by hand								1				2		4			7
Resident Permit	Cowrie & Foster Islands																12	12
SA team this period			12		39	11			1				2		4		12	81
B/F SA team	26.11.00 – 31.7.2022		694	13	106	544	107	18	77	12	1773	0	48	25	114	3	1320	4854
SA TEAM TO DATE			**706**	**13**	**145**	**555**	**107**	**18**	**78**	**12**	**1773**	**0**	**50**	**25**	**118**	**3**	**1332**	**4935**
Unsucsessful attempts were made Danger Point 19.9.2022 & 10.3.23; Wright Bay 11.10.23; Nene Valley 18.4.2023; Nene Valley west 24.5.2023 & 26.7.2023.																		
SA Team catches in Vicoria																		
16.12.2023	Killarney				103	4												107
27.3.2023	Killarney - no catch																	
SA team Vic catches	migrant only				103	4												107
special geo trips	excluding catches in Vic																	
19-27 Oct 2022	multiple net sets SA only																	
20.10.22	Green Point		19			13												
21.10.22	Green Point					33												
22.10.22	Blackfellows Caves		19			23												
27.10.22	Blackfellows Caves		2			7												
geo trip this year	migrant permit only		40			76												116
B/F geo trips	23.4.2009 - 31.7.2022		557		648	380	82	13	3	5			3			1	7	1699
GEO TRIPS TO DATE			**597**		**648**	**456**	**82**	**13**	**3**	**5**			**3**			**1**	**7**	**1815**
Thompson Beach		**18**	**31**	**21**		**61**	**42**	**1**	**6**			**21**	**10**			**13**	**31**	**255**
Eyre Peninsula			**68**		**262**	**393**	**23**	**8**	**12**	**4**	**15**		**21**			**2**	**1**	**809**
GRAND TOTAL SA TEAM	**excluding April expeditions**	**18**	**1402**	**34**	**1055**	**1465**	**254**	**40**	**99**	**21**	**1788**	**21**	**84**	**25**	**118**	**19**	**1371**	**7814**

TOTAL TO DATE - TERNS

	SE	Yanerbie	T.Beach	Totals
Crested	1010	1	1	1012
Fairy	304		5	309
Caspian	1		11	12
Whiskered	6		14	20
Little	18		.	18
TOTAL TERNS	1339	1	31	1371

2022 Bulletin tern table did not include the 59 Fairy Terns caught Jan 2022

TOTAL TO DATE - OTHER

	SE	Yanerbie	T.Beach	Totals
Black-fronted Dotterel	3		.	3
Pacific Golden Plover	1		1	2
Broad-billed Sandpiper		1	.	1
Common Greenshank	.		7	7
Great Knot	.		6	6
TOTAL OTHER	4	1	14	19

SOUTH AUSTRALIAN TEAM CATCHES - Month Waders Caught 26.11.2000 TO 31.07.2023

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	TOTALS
Ruddy Turnstone	6		28	266	48	16	46	90	98	1	107		706
Red Knot				1		12							13
Sanderling		17	41	82				5					145
Red-necked Stint		34	52	107	4	20	49	94	122	43	7	23	555
Sharp-tailed Sandpiper									6	101			107
Curlew Sandpiper						2	7	6		3			18
Pied Oystercatcher	29	5	1	1	1			2	1		10	28	78
Sooty Oystercatcher	3		2	4	2						1		12
Banded Stilt	208	173	12	351		54	429	520				26	1773
Red-capped Plover	6	5	10	6				9	1	7	2	4	50
Double-banded Plover			4	7		4		10					25
Black-fronted Dotterel			3										3
Hooded Plover	33	8	17	9	2			2	5	7	19	16	118
Little Tern	29	1											30
Fairy Tern	118	172	2										292
Crested Tern	1010												1010
TOTALS	1442	415	172	834	57	108	531	738	233	162	146	97	4935

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

Project update – Protecting Hooded Plovers by controlling beach weeds on the Limestone Coast.

Tania Rajic

During most of the 22/23 financial year FoSSE volunteers were busy delivering some of the on-ground components of this Australian Government funded project. The project had a number of deliverables, summarised as follows:

- Acquisition of aerial photography capturing 250km of coast from Kingston SE to the SA/Vic border. This imagery was then utilised to undertake a process of "machine learning", using artificial intelligence to map 4 key coastal weed species.
- Undertake trial weed control.
- Collection and propagation of spinifex seedlings to revegetate treated areas.
- Revegetation.
- Preparation of a long-term beach weed control plan for the Limestone Coast.

The target weed species for this Limestone Coast study were Beach Daisy (*Arctotheca populifolia*), Sea Wheat-grass (*Thinopyrum junceiforme*), Sea Spurge (*Euphorbia paralias*) and Pyp Grass (*Ehrharta villosa*). These weeds are relatively recent introductions to South Australia, mostly arriving in the 1970's and 80's. They were either accidental introductions via ships' ballast in other states or were planted as sand stabilisers (or both!). The impacts of beach weeds have been well documented, particularly in relation to Hooded Plovers. They tend for form dense swards with deeper rhizomatous root systems and outcompete native species such as Spinifex. As they are tolerant of sand and salt water inundation, they build steeper dunes, closer to the high water mark. They are also not preferred as nest sites by Hooded Plovers because they obstruct views of predators, making the nests more vulnerable to predation.

Sea Wheat-grass infested dune at Beachport showing the resultant steeper dune, closer to the high water mark. When impacted by high seas and swell, large "chunks" of dune shear off, leaving a steep dune face which blocks Hooded Plover chicks' retreat from the beach in the case of high tides or storm events. Native Spinifex tends to have shallower root systems across the top of the dune which allows for seasonal sand movement, resulting in more gently sloping dunes.

Results – Mapping beach weeds

While there were some promising results from the AI process utilised to map the beach weeds, particularly in relation to Beach Daisy, it became apparent that if we couldn't pick the weeds on the aerial imagery it wasn't likely that we were going to be able to "teach the machine" to identify these weeds across the capture area. Volunteers attended workshops to learn about the target weeds followed by collective hours in the field collecting images using phone apps which recorded their location. This was used, together with visual observations

of the aerial imagery, to identify at least 250 points for each target species as well as sand, rock, Spinifex and Marram Grass. Despite all the ground work it proved challenging to confidently identify Spinifex, Sea Wheat-grass and Sea Spurge on the aerial imagery. Beach Daisy proved easier, however despite this, when the model was run under various scenarios we found that Beach Daisy was over-predicted with infestations appearing in areas we knew for certain it did not occur. While there was some frustration with this process there were learnings for any future work. In addition to our trial areas we also identified and treated the northern-most and significant infestation of Beach Daisy at Nora Creina as well as complementary works at Hutt Bay, near Port MacDonnell, where Nature Glenelg Trust volunteers had hand pulled Beach Daisy from a section of the bay.

Weed control trials

The project set a target of 1km of weed control over four sites, i.e. each treatment was over a 250m length of beach and was paired with a 250m control. Once again FoSSE volunteers rallied, assisting with pre-treatment monitoring.

Rosey Pounsett and Paula Tsernjavski assisting with pre-treatment monitoring at Rivoli Bay (Beachport) treatment site.

We were fortunate to be able to engage Limestone Coast Landscape Board officers to undertake the spraying which was undertaken to a high standard. Follow up spraying has been organised for Spring 2023. All weeds sprayed twice still showed high levels of seedling recruitment, especially Beach Daisy. Sea Wheat-grass rhizomes under dead foliage were still active so there is no easy fix for this weed and coastal weeds generally. Treatment is a long term proposition although work CSIRO is currently undertaking trialling a fungal pathogen to control Sea Spurge is welcome.

The Piccaninnie Ponds treatment site showing how Sea Wheat grass has contributed to the creation of a steep incipient dune in front of the main dune. Landscape Officers worked carefully to spray weeds while avoiding Spinifex. Photo: Tania Rajic)

Longer term, with ongoing treatment, it will be interesting to monitor the impact weed control has on the dunes' shape/steepness and in the case of Piccaninnie Ponds, FoSSE volunteers will be interested to see if breeding pairs return to the area.

Spinifex propagation and revegetation

Spinifex propagation proved to be a challenge despite success on the Fleurieu Peninsula. Despite this we managed to grow sufficient seedlings for our treatment sites. Temperature and humidity were two critical factors and a positive project outcome is that we now have the facilities to continue with propagation. An enclosed poly-tunnel and a heat bed seem to be the critical factors so we are looking to undertake more propagation in 2024, working collaboratively with TAFE horticulture and conservation teaching staff and students.

Jeff Campbell (L) and Sarah Campbell and NPWS Ranger, Leah Williams were some of many volunteers that assisted with Spinifex cutting collection.

The 1350 Spinifex seedlings were planted over three days. Once again we had great support from volunteers and TAFE students. Without the need for guarding, and planting into sand, it was relatively easy work and we look forward to checking on seedlings to monitor progress in this dynamic coastal environment.

Thanks to the great crew of volunteers that assisted with field data collection, gathering of spinifex cutting material and revegetation; Jeff and Sarah Campbell, Paula Tsernjavski, Rosey Pounsett, Maureen Christie, Helen Bawden, Christina Loras, Mary Styles, Deb Lang, Kathy Bell, Josie and Graeme Doyle and Holly Prest.

VWSG Award Presentation and Equipment Day May 2023

Ila Marks

The nets went unrepaired on our equipment day in May; it was too wet to spread them out on the tennis court. There were still lots we could do under the cover of the carport and fortunately the rain held off for most of the day. We achieved much in addition to socialising with friends old and new. We undertook a stocktake of equipment, bands and engraved leg flags, repaired the keeping cages, mended the wind breaks, cannon rubbers were made and much more.

The highlight of the day was the presentation of the Minton Medallion to Roger Standen and the awarding of Life Memberships to Penny Johns, Rob Patrick, Moira Longden, and Irma Kluger. The awards were announced at the 2022 AGM in October last year, but, due to Covid restrictions, were presented at our Equipment Day in May 2023.

Marcel Klaassen gave an interesting presentation on Avian Flu, its disturbing spread across the globe and the implications for birds in the wild.

Morning tea and lunch were the usual scrumptious spreads. Thanks to Pat Minton and Roger Minton for hosting the day.

Minton Medallion Awarded to Roger Standen

Roger Standen has been a member of the VWSG for over 30 years and over that time he has made an enormous contribution. As an A Class Cannon Licence holder he has played a major role in the group's field work activities.

He made a huge contribution to the group by stepping up to administer the banding and flagging data bases after the death of Heather Gibbs in 2012. It was a difficult task as the data base had been continuously adapted and had no operation manual. Roger accepted the challenge of this immense task. By the time he handed over the administration of the data base in 2016, the system was operating efficiently.

He stepped up once again to take on the role of Chair of the VWSG when Clive Minton stood aside. When the group's banding permits were cancelled by the ABBBS in 2019 Roger agreed to stay on as Chair for another 12 months, while the issues were worked through. These included a review of all our field practices and procedures.

Roger showed exemplary leadership again in another difficult time following the death of Clive Minton when many matters, including masses of paperwork and files pertaining to the VWSG, had be dealt with. Over the years he has tackled many of complex administrative issues such as sorting out our insurance cover (with BirdLife), identifying catching/research priorities, working with Roz Jessop on Risk Matrices and identifying lines of command for our field work.

In 2008 he initiated and commenced work on a VWSG Cannon Netting Manual, and has since made regular up-dates. This Manual has become primary resource material for the group.

In 2015 he interviewed Clive Minton and authored the book - *The Father of Wader Studies – Tales of C.D.T. Minton.*

As mentioned above, he participated in field work where he was a capable leader of Victorian, King Island and South Australian expeditions. He also was involved in oystercatcher data analysis.

Roger has been actively involved in all aspects of VWSG work and has never stinted in giving of himself to help the group work through some of its most difficult challenges. He is a worthy recipient of the Minton Medallion.

Life Memberships

Life membership is an honour bestowed on individual VWSG members whose exceptional, loyal and outstanding service and contribution has provided measurable benefit to the VWSG over an extended period of time. Life memberships were presented to **Penny Johns, Rob Patrick, Moira Longden, and Irma Kluger.**

Penny Johns is a long-standing member of the VWSG. She holds an A Class Cannon Licence and enthusiastically leads field work at Flinders. The raffles she has coordinated over many years at our AGMs are excellent fundraisers as well as lots of fun. She is part of the team that coordinates our fieldwork program and cheerfully relates to everyone who comes to our catch days.

Rob Patrick has been a member of the VWSG for over 15 years. After joining it did not take him long to become a productive and active member. He has an A Class Cannon Licence. He took on the role of Field Work Operations Officer where he kept track of equipment when we were in the field. With Penny he was part of the team coordinating our field work program.

Moira Longden has been a member of the VWSG for over 35 years, she was a pioneer of the group. She undertook tasks easily overlooked by others such as laundering the bird bags after each catch.

Irma Kluger is another pioneer of the group, with over 35 years membership. She has been a keen participant in fieldwork in Victoria and South Australia.

Steve Atkinson presenting Roger Standen with his Minton Medal

Wader Breeding Success in the 2022 Arctic Summer, Based on Juvenile Ratios of Birds which Spend The Non-breeding Season in South-east Australia

Roz Jessop, Rob Patrick, Robyn Atkinson, Maureen Christie AND Ila Marks

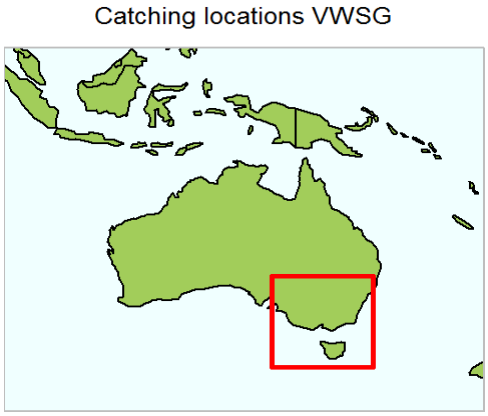
ABSTRACT

Overall, for south-east Australia, wader breeding success in 2022 Arctic summer was above average compared to the long-term averages (21-25 years) for the species successfully monitored: Red-necked Stint (33.6%), Curlew Sandpiper (41.7%), Sanderling (21.7%), and Ruddy Turnstone (30.4%). Insufficient Bar-tailed Godwit, Sharp-tailed Sandpiper and Red Knot were caught to make an assessment.

INTRODUCTION

Each year wader banders in Australia attempt to collect 'percentage juvenile' data to measure the annual breeding success of wader populations which spend the non-breeding season in south-east Australia. The Victorian Wader Study Group (VWSG) aims to monitor breeding success for seven species. All birds are caught by cannon netting between mid-November and March/early April (depending on the species) on the Victorian coast, on coasts in the south-east of South Australia (around Port MacDonnell to Nora Creina) and on the Bass Strait island of King Island, Tasmania.

Figure 1



(source https://www.birdmark.net/bm_overviewBandingDataVWSG.php)

In south-east Australia (SEA), birds are caught at a range of sites, mostly the same sites each year. Bar-tailed Godwit and Red Knot were difficult to catch due to ongoing changes in beach morphology – especially sandbars where birds roost meant no data were collected for Bar-tailed Godwit and Red Knot. Sharp-tailed Sandpiper did not flock at suitable sites – perhaps due to the La Nina weather conditions offering better feeding options on freshwater sites inland.

METHODS

Sampling took place between mid November 2022 and early April 2023. The usual techniques for catching/ageing birds etc. were employed (Minton *et al.* 2005). A sample of between 100 and 220 birds is the minimum used for percentage juvenile figures, this gives a juvenile fraction error range of 0.1 to 0.15 (Rogers & Standen 2019).

RESULTS & DISCUSSION

South-eastern Australia (SEA)
A total of 992 birds, for four of the seven species targeted for annual monitoring were caught in SEA in the sampling period (Tables 1 and 2). As usual, Red-necked Stint topped the species catch total with 663 individuals caught during the monitoring period.

The percentage of juvenile Red-necked Stint (33.6%) was higher than last year (10.8%) and is similar to the last "above average" breeding season in 2016/17(31.3%) than the long term average (17.6%) (Tables 1 and 2). It should be noted that the catches used in this estimate, as for 2020 and 2021, catches were made at Yallock Creek in Victoria, a location where juveniles are known to be at higher numbers than other sites usually sampled (VWSG unpublished data). Due to changes in habitat management at the other major catch site (the Western Treatment Plant) no significant catches of Red-necked Stint were made. This site typically has less juveniles than Yallock Creek (VWSG unpublished data).

Curlew Sandpiper (41.7%) had an above average breeding success in 2022 compared to the long-term average breeding success of 16.9% (Table 1) and is similar to the last "above average" breeding season in 2016/17 (47.6%).

Sanderling (21.7%) was above the long-term average of 14.6% and is the similar to 2010/11 and 2013/14 and 2016/17.

A total of 115 Ruddy Turnstone were caught during the sampling window. The breeding season appeared to be above average (30.4% Table 1) compared to the long-term average of 15.4% and follows last year's below average breeding success for this species (8.7%; Table 2). It is similar to the last above average breeding season in 2018/19.

We always find Red Knot the hardest species to catch and monitor and in the 2022/23 non-breeding season we were not able to catch enough birds in the VWSG field sites. Similarly, we did not catch enough Bar-tailed Godwit or Sharp-tailed Sandpiper to report on percentage juveniles in the populations.

Overall, for south-east Australia, wader breeding success in 2022 Arctic summer was above average compared to the long-term averages (21-25 years) for the species successfully monitored: Red-necked Stint (33.6%), Curlew Sandpiper (41.7%), Sanderling (21.7%), and Ruddy Turnstone (30.4%). Insufficient Bar-tailed Godwit, Sharp-tailed Sandpiper and Red Knot were caught to make an assessment.

ACKNOWLEDGEMENTS
All the relevant wildlife authorities are also thanked for granting ethics, scientific and banding permits in Victoria, South Australia and Tasmania. The Australian Bird and Bat Banding Scheme issued a project permit and supplied metal bands.

VWSG acknowledge the Traditional Owners of the land on which we conduct field research and pay our respects to Elders past and present.

REFERENCES
Minton, C., R. Jessop, P. Collins & K. Gosbell. 2005. Monitoring Wader Breeding Productivity by the proportion of first year birds in wader populations in S.E. Australian non-breeding areas. *In:* Straw, P. (Ed.) Status and Conservation of Shorebirds in East Asian-Australasian Flyway. Proceedings of the Australasian Shorebirds Conference, 13–15 December 2003, Canberra'. (Ed. P. Straw.) Wetlands International Global Series 18, International Wader Studies 17, pp. 73-86 (Wetlands International: Canberra.).

Rogers, D. & R. Standen. 2019. VWSG Scientific Advisory Committee Research Priority Review, July 2019. Victorian Wader Study Group Bulletin: 42: 75-92.

Table 1. Percentage of juvenile (first year) waders in cannon-net catches in South-east Australia 2022/23

Species	**No. of catches**			**Juveniles**		**Long-term average***		**Assessment of 2022 breeding success**
	Large (>50)	**Small (<50)**	**Total caught**	**No.**	**%**	**% juvenile (no. years)**		
Red-necked Stint *Calidris ruficollis*	3	5	663	223	**33.6**	17.6	(25)	Above average
Curlew Sandpiper *C. ferruginea*		4	108	45	**41.7**	16.9	(24)	Above average
Bar-tailed Godwit *Limosa lapponica*				-	-	-	-	(not assessed)
Red Knot *C. canutus*				-	-	-	-	(not assessed)
Ruddy Turnstone *Arenaria interpres*		7	115	35	**30.4**	15.4	(25)	Above average
Sanderling *C. alba*	1	2	106	23	**21.7**	14.6	(22)	Above average
Sharp-tailed Sandpiper *C. acuminata*							(22)	(not assessed)

All birds cannon-netted in the period 2 November to 25 March except Sharp-tailed Sandpiper (December only), Curlew Sandpiper to 5 March and some Ruddy Turnstone and Sanderling to early April and one Sanderling catch in late April (2015) *Includes the 2022/23 figures.

Table 2. Percentage of juvenile (first year) waders in cannon-net catches in South-east Australia 2022/23.

Species	1998/99	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	12/03	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	*Average*	Years	
Red-necked Stint *Calidris ruficollis*	32	23	13	35	13	23	10	7.4	14	10	15	12	20	16	22	17	19	6	31.3	3.8	9.5	24.3	18.5	10.8	33.6	17.6	25	*
Curlew Sandpiper C. ferruginea	4.1	20	6.8	27	15	15	22	27	4.9	33	10	27	(-)	4	3.3	40	5.1	1.9	47.6	5.4	9.9	25.0	18.2	16.9	41.7	16.9	24	*
Bar-tailed Godwit *Limosa lapponica*	41	19	3.6	1.4	16	2.3	38	40	26	56	29	31	10	18	19	45	15	26.7	12.5	20.4	3	(-)	(-)	(-)	(-)			
Red Knot *C. canutus*	(2.8)	38	52	69	(92)	(86)	29	73	58	75	(-)	(-)	78	68	(-)	(95)	(100)	(100)	90.3	33.3	(-)	(-)	(-)	(-)	(-)			
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	38	17	2.3	28.6	7	25.7	17.4	13.0	8.7	30.4	15.4	25	*
Sanderling *C. alba*	10	13	2.9	10	43	2.7	16	62	0.5	14	2.9	19	21	2	2.8	21	14	6.8	17.5	(-)	11.6	(-)	(-)	12.9	21.7	14.6	22	*
Sharp-tailed Sandpiper *C. acuminata*	11	10	16	7.9	20	39	42	27	12	20	3.6	32	(-)	5	18	19	16	8.9	(-)	27.8	45.9	2.0	10.2	17.7	(-)	18.7	23	

- Above average

VWSG Paper of interest

Abstract Title:

Are wastewater treatment plants a viable alternative habitat for migratory shorebirds?

Authors:

Tobias A Ross, Junjie Zhang, Tonje G. Skaalvik, Michelle Wille, Tomasz Maciej Ciesielski, Alexandros G. Asimakopoulos, Prescillia Lemesle, Tonje G. Skaalvik, Robyn Atkinson, Roz Jessop, Victorian Wader Study Group, Veerle L. B. Jaspers, Marcel Klaassen

Abstract:

The prime threats perceived to contribute to the global decline of shorebirds include climate change and habitat loss. Whereas the rate of destruction of natural wetland habitats has been particularly rapid over the past decades, artificial wetlands, including wastewater treatment plants, have seen an increase over this time. These new habitats, in turn, pose a pollution risk to wildlife. Here we compare exposure to metals, other elements and per/polyfluoroalkyl substances (PFAS) pollution, with avian influenza prevalence, oxidative stress and local survival in two long-distance migratory shorebird species, Curlew Sandpiper (*Calidris ferruginea*) and Red-necked Stint (*Calidris ruficollis*). We study birds when using two contrasting habitats while on their Australian non-breeding grounds: a natural wetland and a putatively more polluted artificial wetland at a wastewater treatment plant. We show only minimal difference in pollution between each habitat, and negligible site effects on local survival. Our findings suggest that wastewater treatment wetlands, if managed properly, may provide an alternative habitat to these migratory species. In the face of widespread habitat destruction, these artificial wetlands may prove critical in curbing the decline of shorebird populations.

Tobias A. Ross[1], Junjie Zhang[2], Tonje G. Skaalvik[2], Michelle Wille[3,4,5], Tomasz Maciej Ciesielski[6], Alexandros G. Asimakopoulos[2], Prescillia Lemesle[2], Robyn Atkinson[7], Roz Jessop[7], Victorian Wader Study Group[7], Veerle Jaspers[6], Marcel Klaassen[1, 7]

[1] Centre for Integrative Ecology, School of Life and Environmental Sciences, Deakin University, Geelong, VIC, Australia
[2] Department of Chemistry, Norwegian University of Science and Technology (NTNU), Trondheim-7491, Norway
[3] Sydney School for Infectious Diseases, School of Life and Environmental Sciences and School of Medical Sciences, The University of Sydney, Sydney, New South Wales, Australia.
[4] Department of Microbiology and Immunology, at the Peter Doherty Institute for Infection and Immunity, The University of Melbourne, Melbourne, Victoria, Australia.
[5] WHO Collaborating Centre for Reference and Research on Influenza, at the Peter Doherty Institute for Infection and Immunity, Melbourne, Victoria, Australia.
[6] Department of Biology, Norwegian University of Science and Technology (NTNU), Trondheim 7491, Norway
[7] Victorian Wader Study Group, Melbourne, VIC, Australia

E-mail contact: t.ross@deakin.edu.au

Synopsis: Negligible difference in pollution, disease and survival in birds using wastewater treatment plants versus natural coastal wetland.

VWSG Treasurer's Report 2022-2023

Tessa Lamin

Well it seems that Covid 19 is not really an issue any more with our activities, although it is still very much around in the community.

Our total income was down from last year's spike, but still very healthy. Many members have included a welcome donation with their membership fees. Not obvious from the financial statement is the huge amount of time and effort given by many people, and this is acknowledged with great appreciation.

The VWSG T shirts continue to be popular.

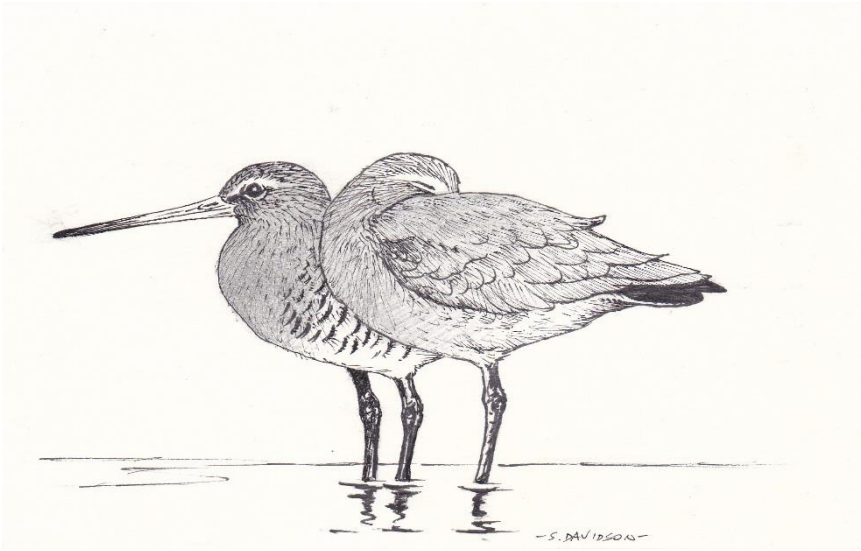
The grant money of $3000, for the ongoing Sanderling Project, was from the Southwest Environment Alliance and Glen Hopkins Catchment Management Authority. We also received $9,000 from the Game Management Authority for the monitoring of ducks after the duck hunting season.

Our Term Deposit was renewed at a better interest rate, and the Cash Reserve Account was increased with a transfer of $20,000 from the Cheque account. We will have a look at alternative accounts with better interest rates, now that they are going up.

The usual expenses of Engraved Leg Flags, equipment maintenance and boat hire are evident. Our main donation this year was $5,000 to the Painted Snipe Project through Murray Wildlife.

The accommodation expenses for King Island trips and Western Treatment Plant were paid by Deakin University and Melbourne water respectively, as is normal.

Our reserves continue to be healthy. The main expense expected soon will be for a new trailer to carry our equipment.



S Davidson

Income and Expenditure Year Ended 30 June 2023

OPENING				**$ 102,957.05**
BALANCE 1/7/2022				
INCOME				
	Membership	4835.00		
	Donations	3806.00		
	VWSG T Shirts	765.00		
	Bulletin Postage	256.00		
	Interest Term Dep	133.50		
	Interest Cash Reserve	322.69		
	Stickers	2.00		
	Melb Water acc refund & KIsland	8093.34		
	Sanderling Project	3000.00		
	GMA Process Game Ducks	9000.00		
	General Income	110.00		
	TOTAL INCOME			30,323.53
EXPENDITURE				
	Incorporation Fee	61.20		
	Trailer Registration	0.00		
	Engraved Flags	4056.51		
	General Exp - Equip Upkeep	1476.25		
	T Shirts	664.98		
	BirdMark website	144.00		
	Accommodation, Werribee & Kisland	8093.34		
	Boat Hire mud islands	450.00		
	Postage	575.55		
	Stickers	0.00		
	Donations	5000.00		
	TOTAL EXPENDITURE			20,521.83
	Balance at end of year			$ 112,758.75
BANK				
RECONCILIATION				
	Bank balance as per Statement			$ 29,904.44
	Less unpresented cheques			$ -
				$ 29,904.44
	BALANCE at 30 June 2023			
	Westpac Cheque Account	29904.44		
	Westpac Cash Reserve	38048.40		
	Westpac Term Deposit	44805.91		
	Total	112758.75		

VWSG Membership 2023

Allen	David Charles & Jocelyn
Allen	Malcolm
Anderson	Mark
Andrew	Debbie
Arney	Max
Atkinson	Robyn & Steve
Bamford	Amanda & Mike
Beal	Graham & Jenny
Beaver	Penny
Bellchambers	Keith
Bennett	Margaret
Bennett - Buchanan	Andy Bennett, Kate Buchanan
Billinghurst	David
Brady	Felicia
Brend	Stephen
Brinkman	Robert
Broadway	Annie
Brown	Malcolm
Buchhorn	Paul & Anna
Cairns	Ian
Campbell	Jeff & Sarah
Cansse	Thomas
Cawthorn	Susan
Chappel	Mervyn & Ann
Christie	Maureen
Clarke - Reni	Allan Clarke & Marj Reni
Clements	Prue
Clifford	Bretan &Diane
Connor	Mike
Constantinou	Andrew
Counilh	Aurore
Cruise	Tahlia
Dargaville	Jackie & Richard
Dawkins	Michael
Dawson	Bob
De Almeida	Nicolas
Dennett	Xenia
Drake	Alice
Driessen	Joris
Emslie	Dianne
Enriquez	Maria Paula
Fallaw- Haywood	Jon Fallaw, Becky Hayward
Fitzgerald	Maureen & Robin
Freestone	Chrissy, Hannah Ammer, George Appleby
Gorringe-Smith	Kate
Gosbell	Ken & Carlene
Gourley	Olivia
Grenfell	Nicole
Gunn	Jim & Surong
Guthrie	Susie
Gutowski	Angie
Hanke - Scholz	Petra Hanke & Chris Scholz
Hansen	Birgita
Harris - Tate	Susan & Geoff
Hiscock - Cole	Jennifer & Philip
Hodson	Trevor & Ros
Hohmann	Andrej
Hollands	David
Holyoake	Vivien
Ireton	Tania
Jessop	Roz
Johns	Penny & Murray & Hannah
Johnson	Sue M
Johnson	Steve
Johnstone	Peter
Jones	Keith Geoffrey
Klaassen	Marcel
Kluger	Irma
Kristiansen	Alix M I
Lam	Karen Yi
Lamin - Duell	Tessa, Graeme Duell
Lawson - McGuire	John Lawson, Claire McGuire
Leonard	Sally
Lilleyman	Amanda
Limb	Janet
Little	Judith & Greg
Longden	Moira
Low	Gabrielle W
Matthews	Gary
Macwhirter	Pat
McFarlane - Vaughan	Rod, Helen
McMillan	Anne
McQueen	Alexandra
Miller - Marks	Eric Ila & Heidi
Minton	Pat
Muller	Zebedee
Museums Victoria	
Newman	John
Nichols	Belinda & Dave
O'Neill	Maureen, Paul & Jordan
Osler	Geoff
Parkyn	Graham & Vicki
Patrick	Rob & Linda
Pedler	Reece
Phillipps	Hugo
Phillipson	Jim, Heather
Pilkington	Alan & Wendy
Preeston	Mike
Putt	Thomas
Reside	Jim & Jenni
Richards	Roger & Annabel
Robertson	Bruce
Rogers	Danny
Ross	Tobias
Rowe	Graeme & Margaret
Sarrailhe	Liz
Silveira	Charles
Smith	Mark & Mem
Smith	Hannah
Snow	Bell & Bailey
Spiers	Andrew & Family
Standen	Roger
Stevenson	Jonathon
Stevenson	Ian
Stewart	Iain & Sandra
Stockton	Jim
Stoney	John
Swindley	Bob
Takeuchi	Naoko
Tan	Laura
Taylor	Christine
Taylor	Mattea
Thomas	Derryn & Peter
Tipton	Amy
Trudgen	David & Wendy
Valtheim	Inka
Van Trigt	Mary-Ann
Veryser	Thomas Henrik Carlos
Wakefield	Michael
Weston	Mike
Wilbraham	David
Wille - Meric	Michelle & Guillerme
Williams	Louise
Winterbottom	Jack
Winters	Bob & Dianne
Woodend	Sharon
Wright	Prue
Zajicek	Vivian

Bulletins are sent within Australia to:

Australian Bird and Bat Banding Scheme
Australasian Wader Studies Group
Birdlife Australia
Broome Bird Observatory
Coastcare
CSIRO Library, ACT
Dept of Environment, Land, Water and Planning (Vic)
Dept of Environment and Energy
Dept of Natural Resources (SA)
Eyre Bird Observatory
Melbourne Water
National Library, Australia
Parks Victoria
(Foster, French Island, Queenscliff, Wonthaggi)
Phillip Island Nature Park
State Library, Victoria
Victoria Museum
Victorian Ornithological Research Group
Wader Study Groups (NSW, NWA, Qld)

And overseas to:

Alaska: Shorebird Working Group
China: National Bird Banding Centre of China
Chongming Dongtan National Nature Reserve
Institute of Biodiversity Science
Hong Kong: Hong Kong Birdwatching Society
Mai Po Nature Reserve
Indonesia: Wetlands International
Japan: Bird Migration Research Centre
Korea: National Institute of Biological Resources
New Zealand: New Zealand Wader Study Group
Russia: Zoology Museum of Moscow University
Singapore: Sungei Buloh Wetland Reserve
United Kingdom Highland Ringing Group
Wash Wader Ringing Group

And a number of individuals who advise leg flag sighting

Journal of the Victorian Wader Study Group
Bulletin Number 46 2023

Vignettes by S. Davidson