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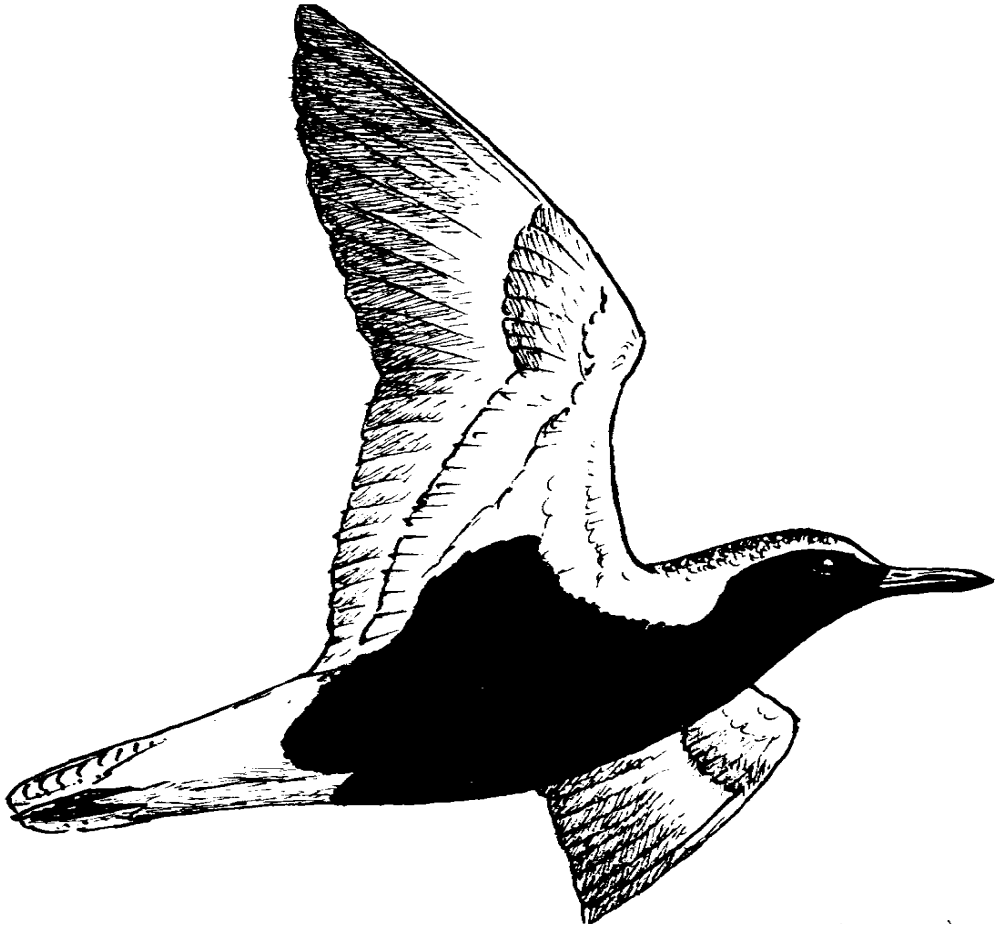

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VICTORIAN WADER STUDY GROUP INC.

MISSION STATEMENT

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

The back page Index for Volume 41 (2018) contained many page number errors. A revised page is included with this issue should you wish to replace it.

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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 http://vwsg.org.au

Our web site is maintained by Birgita Hansen

To report Leg Flag sightings. Send to flagging@awsg.org.au including details on:
· Species · Date of observation · Observer · Location and coordinates · Flag colours · Flag Engraving
For multiple sightings, please contact for a spreadsheet.

Chairman's Report

Well how can one describe a year like this one has been?

We started last field season without permits but they gradually came on board with Tasmania's coming in time for the late-spring King Island expedition, which produced terrific results in terms of numbers of Ruddy Turnstone geolocators deployed and retrieved. This component of the VWSG studies continues to prove fruitful, both within the traditional population dynamic monitoring and migration studies, and through the capacity to study disease movement in birds and long-term changes related to climate modification.

However, before the team departed for King Island, the totally unexpected happened when we lost Clive, our esteemed leader for over 40 years, in a car accident while he was returning from a holiday with his wife Pat and good friend Irma. This clearly rocked the group, but when the memorial service was held in early December, the VWSG was already moving toward 'life after Clive' as field work had recommenced and planning for the summer was activated. I am sure Clive would have been impressed with what was being done. Clive's memorial service was attended by around one hundred people in-person and it was live-streamed around the world. The video of the service was available for many people to view after the event and remains so (https://www.belindajanevideo.com/client-video/clive-minton/ [password is Minton]). I was very privileged to facilitate the service and speakers Roger Minton, David Hollands, Humphrey Sitters, Brett Lane, Roz Jessop, and Pat Minton told of his life throughout the years and across the globe, and regaled tales of inspiration, resilience, improvisation, friendship, and discovery of new knowledge. It was filled with humour and some sadness, but generally with thanks for a such a life to have been lived. The Minton family, VWSG and the broader wader world is the poorer for having lost Clive, but his legacy lives on in the various organisations he was instrumental in setting up.

Fortunately for the VWSG, Clive had relinquished his active role in the organisation and running of the group a couple of years ago. This has meant that many people are now aware of all the goings on within the group and are sharing the load of taking the group forward, which augers well for the future.

Whilst the King Island expedition went ahead, all Victorian and South Australian permits were still to be finalised. The delay in gaining approval to access Mud Islands led to most of the Crested Tern chicks having fledged before we were able to get out to the colony. This, combined with the Phillip Island colony again nesting further out on the inaccessible Seal Rocks and the Corner Inlet colony inactive this last season, meant terns were a very limited part of our program. As has happened in recent years, the numbers of terns on King Island were high and this may account for the somewhat reduced activity on the Victorian coast.

Victorian-based migratory wader studies commenced with the Werribee Western Treatment Plant session between Christmas and New Year. However, not only did new accommodation need to be found due to Melbourne Water's new offices not being available, again the Red-necked Stint refused to roost in accessible ponds. Fortunately, Ila and Prue's team made a very good catch of Sharp-tailed Sandpipers there, taking the pressure off having to try and catch them somewhere else. Some rethinking of pond management and the timing of catching will be needed to make the most of opportunities at Werribee.

Corner Inlet again proved to be very difficult logistically and the first attempt had to be called off as a catching event, but there was a late substitute flag reading day held in its stead. The second attempt was completely washed out at the Manns Beach entrance. Not only was the net completely swamped but the base of the hide was completely underwater with some broken support poles to be mended. The third attempt was also cancelled, unfortunately after team members had arrived, as Robyn and Steve's recce that morning showed that there was just no place to set a net that could catch godwit. This left us without a catch of godwit for the year. Thanks must again be given to Parks Victoria for their generous support of our program by provision of boats (not only at Corner Inlet) - and Swampy to drive them. The practicalities of catching at Corner Inlet have proven very challenging for some years now and this part of the program also requires careful review.

What did prove successful however, was the retrieval and deployment of many geolocators on both Red-necked Stint and Curlew Sandpipers at Yallock Creek. Results of these retrievals can be found elsewhere in the bulletin. Thanks to Marcel Klaassen for the provision of the geolocators and to Damian Costello and Chris Priestley for allowing access to their farms. The value of recces was made very clear when, Jono, with his own boat, gave us access to Barrallier Island for the recce, where we found very few small waders. This led to a quick look at Yallock Creek where good numbers were found at the usual site. Redirection of the team for the next day saw a successful catch made at Yallock Creek, the first of our successes there for the season.

The South Australian permit for catching Ruddy Turnstone and beach nesting residents came through late in the season. But before the expedition could be held, we had the introduction of restrictions that came into effect to address Covid 19. We decided to cease all field work for a time period until it was considered safe to recommence. We have an ageing membership and many of our field operatives are in the high-risk group related to this virus. At the time of writing, interstate borders were still closed, with Victoria under lockdown for the second time so the field activities were stopped. It is to be hoped the management of the virus will allow for some field work to be conducted next summer, to at least allow the population studies (percentage juveniles/recruitment and retraps/survival) to be measured for the core group of species (turnstone, stint and the sandpipers) and there are more geolocators to be retrieved.

South Australia was the place of inspiration for Andrew Darby's book "Flight Lines" that I attended the Melbourne launch of on VWSG's behalf. Andrew was very effusive in his praise of the dedication of our group when talking about the Grey Plover, the central hero of his interesting book that tracks their migration through satellite recording and his own travels to their stopover and breeding grounds.

With Clive's passing, there is a need to find a new home for all the group's equipment, but the Group's organising team, operating under a series of sub-committees, is working towards finding that home.

Marcel and Aaron have done a great job in drawing all the data from the banding and flag sighting databases from not only the VWSG, but also the AWSG and GFN, under the one web-based umbrella. This new system, financially supported by the Wettenhall Small Grants fund, is under trial by several people and hopefully will go public and take over as the sole repository of all that data before too long, allowing for the many different Access databases to become redundant. The data that can be synthesised from this new system is really enlightening as Marcel has already demonstrated through a series of graphical displays he has developed. See the revamped (thanks to Birgita and Scott) VWSG website

https://vwsg.org.au/resources/publications-documents/ . The future looks great to enhance the usefulness of the vast databank held by the VWSG and others.

The inaugural recipient of the Clive Minton Memorial Medal was Roz Jessop. Roz has clearly made an enormous contribution to the VWSG's achievements and was a very worthy winner of this award. It was fantastic that Clive was present at the AGM last August and was able to award Roz the medal in person. It is unclear how the AGM will the run in this year of such difficult times, but it is hoped that the next recipient of this award will receive it from a member of Clive's family.

For personal reasons, I resigned from the role as Chair of the VWSG in April, which left the group for a period without a Chair, a situation I hope has been rectified by the time this Bulletin has been produced. My time as chair of the VWSG and before that picking up the pieces of the old flag sighting database, has been very challenging but rewarding in having been able to make such a contribution towards the conservation of these fascinating birds. The Group's work is not finished by a long way and I wish it all the best for the future.

Roger Standen

August 2020.

Our sincere thanks go to Roger for his time as chair in most difficult circumstances. I think this is best summed up in the note to Roger from Meg Macmillan.

Hi Rog, This is a personal note to tell you what a wonderful contribution you have made to the VWSG and others, but especially to my continued interest in the amazing life of our birds. Clive is one of my rare role models of the environmental world, and to find it continued and the foundations so beautifully in place gives me great joy. I especially hold dear your first AGM after Clive stepped down and then again at Clive's funeral. No one could have been more gracious and wiser as you at these special times. Now, as I spend many hours walking the beaches wherever I am I ponder on your and Clive's deep love of the natural world. I am indeed so fortunate to know you both.

VWSG: Total Number of Waders Caught, by Species, 2019

	New	Retrap	Total
Latham's Snipe	11	3	14
Bar-tailed Godwit	91	9	100
Eastern Curlew	2	1	3
Ruddy Turnstone	317	246	563
Great Knot	1	0	1
Red Knot	2	0	2
Sanderling	98	14	112
Red-necked Stint	580	262	842
Sharp-tailed Sandpiper	124	8	132
Curlew Sandpiper	257	104	361
Pied Oystercatcher	13	3	16
Sooty Oystercatcher	1	1	2
Black-winged Stilt	6	0	6
Red-necked Avocet	1	0	1
Grey Plover	6	0	6
Red-capped Plover	2	1	3
Double-banded Plover	9	1	10
Hooded Plover	2	0	2
18 Species	**1523**	**653**	**2176**

Table prepared by Helen Vaughan

The number of species and individuals caught was again reduced in 2019. A notable exception was the catches of Ruddy Turnstone and Sanderling, which were in line with totals caught in normal years; it is welcome news as these species are the focus of collaborative work with Deakin University.

VWSG: Total Waders Caught, by Species

1975 to December 2019

Species	New	Retrap	Total	% retrap
Latham's Snipe	528	37	565	7
Australian Painted Snipe	1	0	1	-
Black-tailed Godwit	4	0	4	-
Bar-tailed Godwit	5965	831	6796	12
Short-billed Dowitcher	1	0	1	-
Whimbrel	49	6	55	11
Eastern Curlew	875	90	965	9
Marsh Sandpiper	2	0	2	-
Common Greenshank	542	64	606	11
Terek Sandpiper	37	1	38	3
Grey-tailed Tattler	38	3	41	7
Ruddy Turnstone	6897	3844	10741	36
Great Knot	704	89	793	11
Red Knot	5366	746	6112	12
Sanderling	5991	2158	8149	26
Little Stint	9	0	9	-
Red-necked Stint	132564	35812	168376	21
Long-toed Stint	1	0	1	-
Pectoral Sandpiper	2	0	2	-
Sharp-tailed Sandpiper	11378	487	11865	4
Curlew Sandpiper	28535	5421	33956	16
Cox's Sandpiper	1	0	1	-
Broad-billed Sandpiper	7	0	7	-
Red-necked Phalarope	1	0	1	-
Sth Island Oystercatcher	1	0	1	-
Pied Oystercatcher	3543	1761	5304	33
Sooty Oystercatcher	1120	422	1542	27
Black-winged Stilt	59	0	59	-
Banded Stilt	2112	8	2120	-
Red-necked Avocet	923	132	1055	13
Pacific Golden Plover	270	26	296	9
Grey Plover	201	33	234	14
Red-capped Plover	804	188	992	19
Double-banded Plover	4169	1044	5213	20
Lesser Sand Plover	115	11	126	9
Greater Sand Plover	31	3	34	9
Black-fronted Plover	61	4	65	6
Hooded Plover	109	12	121	10
Red-kneed Dotterel	136	11	147	7
Masked Lapwing	200	5	205	2
40 Species	**213352**	**53249**	**266601**	

Table prepared by Helen Vaughan. This table now includes Latham's Snipe data collected as part of a collaborative project commenced in 2015 with Federation University Ballarat.

VWSG: New and Retrapped Waders Caught Each Calendar Year

Calendar Year	New	Retrap	Total
* 1975	9	0	9
* 1976	616	4	620
* 1977	482	12	494
* 1978	1296	42	1338
1979	7436	486	7922
1980	6121	1206	7327
1981	4561	869	5430
1982	3774	796	4570
1983	2875	628	3503
1984	4272	1045	5317
1985	4073	1051	5124
1986	7144	2057	9201
1987	5350	1559	6909
1988	8019	2697	10716
1989	5437	1584	7021
1990	4094	1950	6044
1991	3224	850	4074
1992	4652	861	5513
1993	8831	2588	11419
1994	4839	1753	6592
1995	2708	625	3333
1996	5263	1035	6298
1997	4366	1050	5416
1998	8083	1408	9491
1999	6515	1591	8106
2000	10350	2594	12944
2001	4839	1320	6159
2002	10421	2162	12583
2003	8495	2854	11349
2004	5110	1224	6334
2005	6320	1893	8213
2006	6676	1467	8143
2007	4689	924	5613
2008	4611	1317	5928
2009	3965	831	4796
2010	3006	759	3765
2011	4291	830	5121
2012	3598	869	4467
2013	4404	1084	5488
2014	3704	1008	4712
2015	5924	1176	7100
2016	3092	839	3931
2017	2672	1053	3725
2018	1622	645	2267
2019	1523	653	2176
Totals to end 2019	**213352**	**53249**	**266601**

The total of 1523 birds caught in the calendar year is the lowest since the VWSG formed in 1978. Annual catch totals have declined in recent years, in part because the catching program has been reduced to more focussed targets, and in part because declining numbers at several sites have made catching more difficult. The proportion of retrapped birds (29.9%) was the highest annual proportion ever recorded, greatly exceeding the long-term average of 19.8%.

Average annual total for 1979-2019=6498*excluded. This table now includes Latham's Snipe data (2015 to present) collected in a collaborative project with Federation University Ballarat. Table by Helen Vaughan.

VWSG: Total Waders Caught Each 6 Months 1979 - 2019

Calendar Year	January to June	July to December	Total
1975			9
1976			620
1977			494
1978			1338
1979	4289	3633	7922
1980	4127	3200	7327
1981	2113	3317	5430
1982	2394	2176	4570
1983	2882	621	3503
1984	2654	2663	5317
1985	3972	1152	5124
1986	5000	4201	9201
1987	3135	3774	6909
1988	5235	5481	10716
1989	3854	3167	7021
1990	1661	4383	6044
1991	2376	1698	4074
1992	3357	2156	5513
1993	5287	6132	11419
1994	2789	3803	6592
1995	1521	1812	3333
1996	1802	4496	6298
1997	1913	3503	5416
1998	5568	3923	9491
1999	4142	3964	8106
2000	5987	6957	12944
2001	3851	2308	6159
2002	8174	4409	12583
2003	3033	8316	11349
2004	1288	5046	6334
2005	5003	3210	8213
2006	5192	2951	8143
2007	3646	1967	5613
2008	3812	2116	5928
2009	2726	2070	4796
2010	2136	1629	3765
2011	1967	3154	5121
2012	3199	1268	4467
2013	3270	2218	5488
2014	2768	1944	4712
2015	4651	2449	7100
2016	1988	1943	3931
2017	2880	845	3725
2018	1480	787	2267
2019	1907	269	2176
Totals to end 2019	**139029**	**125111**	**266601**

In general, the VWSG catches more birds in the first 6 months of the year than in the last 6 months. This is because the largest catches are made in the mid to late summer in order to assess age ratios. In 2019, the number of birds captured in the period June-December was particularly low, in large part because catching at the Western Treatment Plant proved to be so difficult; traditionally large catches at this site are made between Christmas and New Year.

Table prepared by Helen Vaughan

This table now includes Latham's Snipe data (2015 to present) collected in a collaborative project with Federation University, Ballarat.

Location of Waders caught in Victoria, South Australia, Tasmania & Australian Capital Territory.			
	To Dec 2018	**2019**	**Total**
Werribee	74821	133	74954
Western Port/Flinders	71577	1022	72599
Queenscliff/Swan Bay	31975	0	31975
Corner Inlet	33091	107	33198
Anderson Inlet (Inverloch)	22319	0	22319
Sandy Point/Shallow Inlet	2788	0	2788
Laverton	956	0	956
Mud Islands	757	0	757
Killarney Beach	512	0	512
Port Fairy	141	0	141
Barwon Heads	845	0	845
Other	628	0	628
South Australia	20284	515	20799
Tasmania	3772	385	4157
ACT	49	14	63
Total	264515	2176	266698
Other includes Geelong (Point Henry/Belmont), Bendigo Sewage Farm, Seaford Swamp, Braeside/Croyden, Gippsland Lakes and Toowong.			
This table now includes Latham's Snipe data (2015 to present) collected in a collaborative project with Federation University, Ballarat.			

Catch numbers were moderate in Victoria in 2019. In the summer of 2019/20, CoVid19 restrictions forced the cancellation of some scheduled late-summer catches (notably at Corner Inlet). All winter 2020 catching attempts for oystercatchers were cancelled for the same reason.
Achieving catch targets in summer at the Western Treatment Plant has become difficult in recent years. Roosting behaviour of the shorebirds that forage at the WTP has changed, and many of them now leave the treatment at high tide to roost at sites elsewhere (Pt Wilson or Avalon Saltfields) where cannon-netting is not viable.

Number of birds processed by the VWSG each month to December 2019													
	J	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**TOTAL**
Latham's Snipe	90	50	0	0	0	0	0	0	115	158	107	87	607
Australian Painted Snipe	0	0	0	1	0	0	0	0	0	0	0	0	1
Short-billed Dowitcher	0	0	0	0	0	1	0	0	0	0	0	0	1
Black-tailed Godwit	1	0	0	0	0	1	0	0	0	1	1	0	4
Bar-tailed Godwit	938	1513	831	99	24	842	292	286	77	335	294	566	6097
Whimbrel	3	2	41	0	0	1	0	0	1	4	3	0	55
Eastern Curlew	26	181	24	0	24	18	21	76	175	149	180	100	974
Common Greenshank	69	135	123	0	0	0	0	0	0	41	178	60	606
Marsh Sandpiper	0	0	0	0	0	0	0	0	0	0	0	2	2
Terek Sandpiper	17	2	1	1	2	0	1	1	0	1	1	12	39
Grey-tailed Tattler	31	0	1	3	0	4	0	0	0	0	1	1	41
Ruddy Turnstone	441	785	3565	2305	39	23	77	103	138	216	1733	1093	10518
Great Knot	198	87	26	0	0	30	21	6	16	118	78	131	711
Red Knot	930	418	317	216	47	491	479	139	96	1012	566	318	5029
Sanderling	376	1654	2229	883	0	0	1	5	0	265	893	725	7031
Little Stint	2	2	0	0	0	0	0	0	0	0	1	4	9
Red-necked Stint	3296	1931	7313	3049	546	749	1097	988	1140	2144	3733	4338	30324
Long-toed Stint	0	0	0	0	0	0	0	0	0	1	0	0	1
Pectoral Sandpiper	0	2	0	0	0	0	0	0	0	0	0	0	2
Sharp-tailed Sandpiper	1863	1158	268	3	0	0	0	16	635	564	748	3583	8838
Curlew Sandpiper	1827	1726	2003	289	223	128	335	528	348	1140	943	1869	11359
Broad-billed Sandpiper	1	2	0	0	0	0	0	0	0	0	0	3	6
Red-necked Phalarope	0	0	0	0	0	0	0	0	0	0	0	1	1
Pied Oystercatcher	170	268	417	648	827	1053	887	517	235	41	43	71	5177
Sooty Oystercatcher	23	110	87	220	255	386	312	144	0	1	8	3	1549
Black-winged Stilt	6	9	0	0	0	0	1	12	0	4	2	24	58
Banded Stilt	107	50	12	41	59	0	0	0	15	0	0	162	446
Red-necked Avocet	345	0	0	0	14	0	26	78	279	171	47	89	1049
Pacific Golden Plover	40	27	62	2	0	0	0	0	0	28	66	65	290
Grey Plover	38	14	15	7	0	9	0	0	2	102	44	5	236
Red-capped Plover	46	90	70	124	210	110	77	35	12	25	41	50	890
Double-banded Plover	0	4	262	375	757	984	1165	1032	1	0	0	0	4580
Lesser Sand Plover	54	5	13	7	3	2	2	0	0	1	15	12	114
Greater Sand Plover	21	3	6	0	0	1	1	0	0	0	1	0	33
Black-fronted Dotterel	0	7	5	0	11	16	7	9	2	0	4	8	69
Hooded Plover	14	3	12	5	2	15	0	0	0	2	7	4	64
Red-kneed Dotterel	0	10	0	20	0	44	11	17	12	8	23	1	146
Masked Lapwing	5	11	93	17	5	13	4	1	1	5	21	19	195
Cox's Sandpiper	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	10978	10259	17796	8315	3048	4921	4817	3993	3300	6537	9783	13406	97153
Table prepared by Helen Vaughan													
"Processed " means that two or more of the following were recorded for a bird : bill length, total head length, wing length, weight or primary moult.													
This table now includes Latham's Snipe data (2015 to present) collected in a collaborative project with Federation University, Ballarat.													

Numbers of Waders Leg-flagged by VWSG

	1989-2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019		Total
Latham's Snipe	278	0	0	0	0	0	13	42	86	29	11		459
Australian Painted Snipe	0	0	1	0	0	0	0	0	0	0	0		1
Black-tailed Godwit	4	0	0	0	0	0	0	0	0	0	0		4
Bar-tailed Godwit	3162	308	243	207	10	153	87	191	14	47	91		4513
Whimbrel	44	0	0	2	0	0	0	0	0	0	0		46
Eastern Curlew	552	0	38	9	0	4	0	0	0	0	2		605
Marsh Sandpiper	2	0	0	0	0	0	0	0	0	0	0		2
Common Greenshank	456	0	0	0	0	4	2	0	0	1	0		463
Terek Sandpiper	13	0	0	0	0	0	0	0	0	0	0		13
Grey-tailed Tattler	5	0	0	0	0	0	0	0	0	0	0		5
Ruddy Turnstone	2673	348	455	170	317	375	259	131	259	256	315		5558
Great Knot	385	0	4	5	0	2	0	2	0	1	1		400
Red Knot	3818	17	50	75	4	20	73	27	39	13	2		4138
Sanderling	2652	277	439	280	159	179	78	26	128	5	97		4320
Little Stint	6	0	1	0	0	0	0	0	0	0	0		7
Red-necked Stint	59968	1496	2043	497	1943	1856	991	1054	875	66	125		70914
Pectoral Sandpiper	1	0	0	0	0	0	0	0	0	0	0		1
Sharp-tailed Sandpiper	5479	11	110	99	135	106	553	14	39	473	123		7142
Curlew Sandpiper	10504	382	47	235	381	120	575	292	371	213	257		13377
Cox's Sandpiper	1	0	0	0	0	0	0	0	0	0	0		1
Broad-billed Sandpiper	3	0	0	0	0	1	1	0	0	0	0		5
Red-necked Phalarope	0	0	0	0	0	0	0	1	0	0	0		1
Black-winged Stilt	26	0	2	0	5	0	2	0	0	0	6		41
Banded Stilt	152	54	332	15	1097	53	74	0	0	0	0		1777
Red-necked Avocet	140	0	0	199	63	169	105	0	0	14	1		691
Pacific Golden Plover	64	0	2	1	0	0	3	0	0	0	0		70
Grey Plover	107	0	1	0	0	10	3	4	1	0	0		126
Red-capped Plover	108	5	7	21	4	19	28	23	1	3	2		221
Double-banded Plover	424	11	37	72	17	121	75	13	52	71	9		902
Lesser Sand Plover	55	0	0	0	0	0	0	0	0	0	0		55
Greater Sand Plover	16	0	0	0	0	0	0	0	0	0	0		16
Hooded Plover	2	1	7	0	3	8	7	9	11	5	0		53
Black-fronted Dotterel	2	0	0	0	0	0	0	0	0	4	0		6
Red-kneed Dotterel	3	0	0	0	0	0	0	0	0	0	0		3
Masked Lapwing	37	0	1	2	0	1	3	0	4	0	0		48
Total	91142	2910	3820	1889	4138	3201	2932	1829	1880	1201	1042		115784

Table prepared by Helen Vaughan

This table includes all waders leg-flagged by the VWSG in Victoria, South Australia, King Island and the ACT since leg-flagging commenced.

VWSG: Waders by Species Leg-flagged in South Australia (orange/yellow)

Species	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Latham's Snipe	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Grey-tailed Tattler	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Bar-tailed Godwit	0	0	0	3	0	8	0	0	0	0	0	0	0	12	6	0	0	0	0	0	0	29
Common Greenshank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	1	0	7
Ruddy Turnstone	234	226	73	193	76	141	74	258	84	141	96	109	268	45	117	322	254	103	72	48	122	3056
Great Knot	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0	0	0	0	0	6
Red Knot	0	0	0	0	0	1	0	11	0	0	0	0	0	1	0	1	0	0	19	0	0	33
Sanderling	63	420	2	315	328	76	220	250	506	244	87	261	439	268	159	211	85	29	129	5	97	4194
Red-necked Stint	126	383	22	319	163	93	174	465	54	90	179	208	356	92	369	390	124	166	17	66	125	3981
Sharp-tailed Sandpiper	0	2	0	27	7	73	27	21	0	15	0	0	74	40	1	23	5	0	0	2	0	317
Curlew Sandpiper	24	11	0	190	13	2	103	8	21	33	1	4	15	0	7	8	0	0	3	0	0	443
Broad-billed Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Banded Stilt	0	0	0	0	0	0	0	334	0	0	0	54	332	12	998	53	0	0	0	0	0	1783
Pacific Golden Plover	0	2	0	0	1	0	16	13	0	0	0	0	2	1	0	0	1	0	0	0	0	36
Grey Plover	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	5	4	1	0	0	20
Red-capped Plover	0	0	1	7	5	0	7	4	1	0	0	2	3	8	0	18	14	14	1	0	0	85
Double-banded Plover	0	0	4	5	1	0	0	27	2	0	1	5	29	12	0	3	0	0	0	0	0	89
Black-fronted Plover	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Hooded Plover	0	0	0	0	1	0	0	0	1	0	1	1	5	0	3	14	12	20	3	5	0	66
Masked Lapwing	0	0	0	0	4	2	2	4	1	0	0	0	1	0	0	0	3	0	0	0	0	17
Total	**447**	**1045**	**106**	**1062**	**599**	**396**	**623**	**1395**	**670**	**523**	**365**	**644**	**1524**	**495**	**1660**	**1060**	**505**	**336**	**245**	**127**	**344**	**14171**

Table prepared by Helen Vaughan and Maureen Christie

Note: All field work is dependent on Covid-19 restrictions. Please contact Penny or Rob before the event.

VWSG FIELDWORK PROGRAMME
June to December 2020

DATE	*PLACE AND OBJECTIVES*	**Tide time and height (m)**
Mon 22 Jun	**Rhyll** Overwintering Bar-tailed Godwit	1400 (3.02m) sunset 1708
Tues 21 July	**Stockyard Point** Pied Oystercatchers	1327 (2.93m) sunset 1724
Tues 18 Aug.	**Rhyll** Pied Oystercatchers or Bar-tailed Godwit	1146 (2.68m) sunset 1745
Sat. 19 Sept.	**Stockyard Point** Pied Oystercatchers	1407 (2.89) sunset 1814
Mon 21 to Wed 23 Sept.	**Corner Inlet** Flag Sightings (subject to PV boat availability)	1505 (2.51m) 1650 (2.66m)
Saturday in October to be announced	**VWSG** **AGM**	
Tues 27 Oct to Tues 3 Nov	**South Australia** Retrieval of geolocators from Ruddy Turnstone and percent juvenile data Tues 27 Oct and Tues 3 Nov are travelling days to and from Victoria	
Thurs. 5 Nov.	**Mud Island** Caspian and Crested Tern chicks (subject to PV Boat availability)	0942 (0.60m)
Mon 9 Nov. to Tues. 10 Nov.	**Yallock Creek.** Retrieval of geolocators from Red Neck Stint and Curlew Sandpiper and percent juvenile data. Set net Sun 8 Nov. Stay Sunday and Monday night at Harewood House.	0717 (2.86m) 0756 (2.76m) sunrise 0605

Sun 15 Nov.	**Flinders** Ruddy Turnstone flagging and percent juvenile data Meet at 0730 at Mushroom Reef Beach.	1203 (1.40m)
Mon 30 Nov.to Tues. 8 Dec.	**King Island** Retrieval of geolocators from Ruddy Turnstone and percent juvenile data.	
Fri 4 Dec	**Mud Island** Caspian and Crested Tern chicks (subject to PV boat availability)	0919 (0.92m)
Thurs. 17 Dec.	**Corner Inlet** Caspian and Crested Tern chicks (subject to PV boat availability)	

Sat 19 Dec	**The Nobbies** Crested Tern chicks	0947 (0.57m)
Mon. 28 Dec. to Wed. 30 Dec.	**Western Treatment Plant (Werribee S.F)** Red-necked Stint, Curlew Sandpiper and Sharp-tailed Sandpiper (Accommodation to be resolved).	1320 (0.80m) 1502 (0.80m)

Note:

Coronavirus (COVID-19)

We ask that you continue to follow public health measures and stay informed here www.vic.gov.au/coronavirus

Requirements:

- You must now pre-register to attend field work.
- If you can, avoid carpooling with people from outside your household. This will further minimise the risk of prolonged exposure to the virus.
- Follow the 1.5 metre social-distancing requirements at all times.
- You will need to provide your full contact details on the day to comply with contact-tracing.
- Bring your own hand sanitizer
- Please consider downloading the CORVIDSAFE app before attending a field trip.

  https://www.health.gov.au/resources/apps-and-tools/covidsafe-app

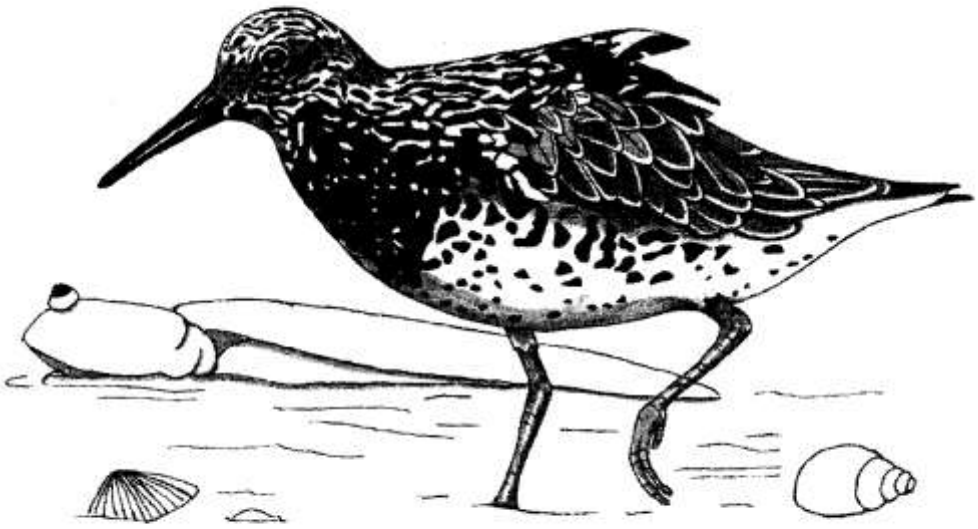
- Additional fieldwork will be considered for this period and you will be advised accordingly.

PARTICIPATION ARRANGEMENTS

The meeting time is normally 5 hours before high tide.

Please try and let **Penny 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	pennyjohns@hotmail.com 0419 366 507
Rob Patrick	rob@farmingminds.com.au 0408 429 944



Sightings of Waders Leg-flagged in Victoria, South Australia and King Island, Tasmania in 2019/2020

Joris Driessen

Introduction

This year's report contains a near-comprehensive set of flag sightings from all known sources. Flag sightings come in from a range of regular reporters, plus individuals who incidentally record flagged birds. A huge thank you goes out to all those who continue to send in sighting reports.

The tables present all reported sightings of birds flagged in VIC, SA and TAS (plain flags and engraved leg flags or ELFs) that were seen between July 1, 2019 and June 30, 2020.

Because resightings are received until well after the end of the annual report, the tables should not be interpreted as a definitive set of sightings for the season. Given past experience with annual resighting rates it is considered the vast majority of data has been received for 2019/2020. Note that many of the sightings are of the same birds many times over, particularly in areas where dedicated wader watchers are active.

A total of 1,274 resightings were processed for this report, significantly lower than has been the norm over the past five seasons (highest number 2,161 in 2017/18). This downturn is largely due to Covid-related restrictions which both affected effort within Australia as well as overseas (in particular Bohai Bay where the usual expedition had to be cancelled).

Victoria

A total of 683 VIC-flagged resightings were reported, of which 318 observations involved birds seen overseas. As in previous years, Bar-tailed Godwit, Curlew Sandpiper and Red Knot make up the bulk of overseas observations (Table 1), largely as a result of efforts in mainland China (SBS Team), South Korea (Andreas Kim, Ju Yung-Ki) and New Zealand (Adrian Riegen, Tony Habraken *et al.*). A total of 366 observations were reported from within Australia, 234 of which were recorded in Victoria (Table 2).

Table 1. Sightings of Victorian flagged waders seen overseas and across Australia

Species	Australia	Japan	Mongolia	New Zealand	PR China	Russia	South Korea	Taiwan	Thailand	Total overseas	Total sightings
Bar-tailed Godwit	98	1		70			102			173	271
Curlew Sandpiper	131				11			9	1	21	152
Double-banded Plover	3			1						1	4
Far Eastern Curlew	1						1			1	2
Great Knot	23					4				4	27
Red Knot	12			13	85	15				113	125
Red-necked Avocet	27									0	27
Red-necked Stint	4		1		1	1				3	7
Ruddy Turnstone	29									0	29

Species	Australia	Japan	Mongolia	New Zealand	PR China	Russia	South Korea	Taiwan	Thailand	Total overseas	Total sightings
Sanderling	1	1								1	2
Sharp-tailed Sandpiper	36									0	36
Whimbrel	1									0	1
Total	**366**	**2**	**1**	**84**	**97**	**20**	**103**	**9**	**1**	**318**	**683**

At 70 and 13 records respectively, Bar-tailed Godwit and Red Knot resightings from New Zealand were the lowest seasonal tallies in the past 4 years.

At 97 reported sightings from Bohai Bay, where a stand-in team covered part of the usual expedition timeframe, the annual tally is much lower compared to previous seasons. A total of 27 Red-necked Avocet resightings is above average but significantly lower than 2017/2018 at 70 sightings – the species remains unpredictable.

A resurgence of resighting effort in South Korea by Andreas Kim and Ju Yung-Ki yielded a lot of great records this past season, culminating in over 100 records (and a number still to be added to the database).

Outside Victoria, the vast majority of resightings were received from Queensland (QWSG via Phil Cross) (Table 2).

Table 2. Sightings of Victorian flagged waders seen within Australia

Species	NSW	QLD	SA	Vic	WA	Total Australia
Bar-tailed Godwit	4	71	2	19	2	98
Curlew Sandpiper	1	3		123	4	131
Double-banded Plover				3		3
Far Eastern Curlew		1				1
Great Knot		21		1	1	23
Red Knot	3	5	1	3		12
Red-necked Avocet			1	26		27
Red-necked Stint	1		1	2		4
Ruddy Turnstone			4	25		29
Sanderling			1			1
Sharp-tailed Sandpiper	3	1		32		36
Whimbrel		1				1
Total	**12**	**103**	**10**	**234**	**7**	**366**

The past season resulted in a number of highlights for VIC-flagged birds, the main ones of which are summarised below.

Japan

Kato Takumi knocked it out of the park with capturing sufficient photos of the metal band on a Victoria-banded Sanderling at Nishiashiarai beach, Japan in August 2019. Banded in 2006 at Sandy Point, age 1, this bird was 14 years old at the time of sighting.

Bar-tailed Godwit Orange CCH was recorded on Sanitsu Beach, Japan in April 2020, four years after it was last reported from Rhyll, Phillip Island, and six years since it was banded there as an adult.

Mongolia

An exciting record was received from Phillipe Dubois who recorded a Red-necked Stint with plain orange flag near Khalkhgol in Mongolia in July 2019.

New Zealand

One plain VIC-flagged Double-banded Plover was reported from New Zealand: Steve Couper spotted the bird on 12 October 2019 at the Tucker Beach Wildlife Management Reserve on the South Island.

Bar-tailed Godwit Orange AU was once again seen in New Zealand, where it has been recorded every year since 2013. Last recorded this past season in March 2020 by Sue Cook and Marie Ward at Omaha, North Auckland, at the time of writing Adrian Riegen reported the safe arrival of AU at the same location on 21 September 2020.

The oldest godwit reported from New Zealand this season was Orange A8, banded age 1 in June 2009 in Corner Inlet. Seen by David Melville at Waimea Inlet in December 2019 this bird was 11 years old at the time.

PR China

Few records were received from China this past season, though of particular note is the sighting of female Curlew Sandpiper Orange JDD at the Prison Ponds, Bohai Bay, on 22 May 2020 carrying a geolocator. JDD was banded at Yallock Creek in March 2018 as an adult and was previously seen at the same site in Bohai Bay in May 2018.

Russia

Records from Kamchatka were mostly of Red Knot, including Orange AC and A2. Although AC was only banded in April 2017 at Yallock Creek (age 1), it has already clocked up reports from New Zealand (March 2018, January 2019) and the Khairusova and Belogovaya Rivers estuary in Kamchatka where it was recorded seven times between 5 and 20 July 2019.

Another exciting record was of Orange A2 whose flag-carrying days originated at the Barwon Heads roost. Banded there in January 2012 (age 2) it was reported annually from Kaipara Harbour (NZ) between 2014 and 2017 by Adrian Riegen, seen in Bohai Bay in May 2018 (Chris Hassell) and was present at the Khairusova and Belogovaya Rivers estuary between 9 and 19 July 2019.

South Korea

A fantastic observation was sent in by Ju Yung-Ki, who recorded Eastern Curlew Orange 51 at Janghang-tidal, South Korea in March 2020. 51 was banded in January 2019 at Yallock Creek, age 2+.

It is always exciting to get a report of a bird that you have seen yourself somewhere along the flyway. Andreas Kim recorded Bar-tailed Godwit Orange CSE in April 2020 at Aphae Island, after resightings at Rhyll Inlet in 2018 (Joris Driessen) and 2016 (Sharon Woodend). Previously Andreas recorded CSE at Aphae in 2015 and 2016. Originally this bird was banded in August 2006 at Stockyard Point and retrapped twice at Rhyll – the last time in early 2015 when it was equipped with engraved flag CSE. At the time of the sighting in South Korea this bird was 16 years old.

In truly spectacular fashion Andreas Kim also managed to photograph the metal band inscription on a Bar-tailed Godwit at Aphae Island in April 2020. Godwit '07280733' was first banded at age 1 in Corner Inlet on 24 June 2001, making the bird 20 years old at the time of sighting!

Taiwan

All nine reports from Taiwan involved Curlew Sandpipers. The oldest of the bunch was Orange 4K, originally banded in January 2014 on Barralliar Island (age 1), retrapped in 2018 at Yallock Creek and previously seen twice in Taiwan (2016-2017) and at the Western Treatment Plant (2018).

Curlew Sandpiper Orange RP was reported from Taiwan in August 2019, its first overseas sighting after having been recorded at the Western Treatment Plant six times between 2016 and 2019 by Maarten Hulzebosch. Age 2+ at the time of banding in January 2015 this bird was at least six years old when seen in Taiwan.

Thailand

Records from Thailand are few and far between making the report of Curlew Sandpiper Orange JBK of particular value. JBK was seen at Kok Kham, Samut Sakhon by Suwanna Mookachonpan in December 2019. Banded as an adult in March 2018 at Yallock Creek this is the bird's first resighting.

Within Australia

A record 36 resightings of Sharp-tailed Sandpipers with engraved flags were reported, mostly by Maarten Hulzebosch and Paul Dodd at the Western Treatment Plant.

Another year, another batch of Red-necked Avocet flags - out of the 29 records received 22 were from two dates at Stockyard Point. Most flagged birds in the same flocks were also caught together at the time of banding, possibly an indication of a measure of flock fidelity. The oldest avocet recorded this season was Orange ABJ, first banded age 1 in January 2012 at Yallock Creek and subsequently retrapped at Stockyard Point in 2014. ABJ was seen in Jones Bay, Gippsland Lakes by Grant Griffin in February 2020.

South Australia

A total of 363 SA-flagged resightings were reported, of which 11 observations (Table 3) were reported from overseas.

Table 3. Sightings of SA-flagged waders seen overseas and across Australia

Species	Australia	Japan	New Zealand	Russian Federation	Taiwan	Total overseas	Total sightings
Bar-tailed Godwit	1					0	1
Curlew Sandpiper	4					0	4
Red Knot	2					0	2
Red-necked Stint	5					0	5
Ruddy Turnstone	274	2	1		1	4	278
Sanderling	66	3		1	3	7	73
Total	**352**	**5**	**1**	**1**	**4**	**11**	**363**

Japan

Five observations were received from Japan, three Sanderling and two Ruddy Turnstone. The oldest bird among these was Sanderling Orange/Yellow ABZ, first banded in April 2015 at Brown Bay (age 2+).

Orange/Yellow WUL was recorded by Hitoshi Osuga in August 2019 on Hiraiso Beach and clearly made it safely to Australia as it was seen near Carpenter Rocks (SA) in January 2020 and again in early April 2020. Coincidentally – WUL was recorded again at Hiraiso Beach in August 2020 by Hitoshi Osuga!

New Zealand

Turnstone are among the world's most incredible long-distance migratory shorebirds. Ruddy Turnstone Orange/Yellow BEE is a prime example of 'flying as far as possible' as it was observed at Invercargill – the very southern tip of New Zealand's South Island - in mid-February 2020 by Glenda Rees. This record is the first resighting of BEE, banded as an adult in September 2018 at Port MacDonnell, SA.

Russia

Piltun Bay on Sakhalin Island is regarded as a key location for SA-flagged Sanderling sightings, but in the past season yielded only one single observation: Peter van der Wolf and Dmitry Korobov recorded Sanderling Orange/Yellow ACZ. This bird migrated successfully as in April 2020 ACZ was seen by Maureen Christie near Carpenter Rocks (SA).

Taiwan

As reported on last season - Sanderling Orange ELF/Yellow (Left) 6L continues to be incredibly faithful to Taiwan where it was seen twice in late August 2019 in the Tao-Yuan county coastal area. First banded in November 2011 at Yanerbie Beach as a 2+ year-old, 6L has now been reported 13 times from overseas - exclusively from two locations in Taiwan and Japan.

Tasmania

A total of 227 TAS-flagged resightings were reported. The vast majority of these involved birds recorded on the main banding site (King Island), were collected by Katherine Leung, Olivia Gourley and Maureen Christie.

Table 4. Sightings of King Island (TAS) flagged waders seen overseas and across Australia

Species	Australia	Japan	South Korea	Taiwan	Total overseas	Total sightings
Ruddy Turnstone	223	1	1	2	4	227
Total	**223**	**1**	**1**	**2**	**4**	**227**

Of the birds recorded abroad the Japanese record of Orange/Blue YLX was the first sighting for this bird since banding in 2013; Orange/Blue UEB seen in Taiwan in August 2019 was seen two months later by Andrew Brooks near Davenport (SA) and Orange/Blue UEP – caught in the same batch as UEB – was seen in South Korea in May 2020 (first record).

Orange/Blue ZPR has an interesting past. Banded as an adult in April 2012 Dripping Wells, King Island this bird was subsequently seen in Taiwan in 2015, retrapped at the same location on both 2016 banding expeditions to the island, and again seen in Taiwan on southbound migration in September 2017 by Jimmy Choi. Three months later Katherine Leung spotted ZPR at Dripping Wells, after which the bird was promptly caught again a few days later. Since then the bird has been seen at the same location on King Island in 2017 and 2018. The sighting from Taiwan in September 2019 reported here is the latest in ZPR's reporting history.

At the other end of the spectrum there are birds like Orange/Blue 4P. Banded at Whistler Point in 2008 and retrapped at the same location in 2010, 4P was not seen until December 2019 when Katherine Leung spotted it at Duck Bay, King Island.

Sightings of Waders Leg-flagged elsewhere and then seen in Victoria, South Australia, or Tasmania in 2019/2020

Joris Driessen

A total of 82 birds banded overseas or interstate were recorded across VIC (23), SA (54) and Tas (5), compared to 159, 97 and 98 in the past three seasons.

Five of the VIC sightings were of interstate birds and 18 were flagged overseas (Table 1).

Table 1. Sightings of overseas-flagged and interstate-flagged waders in Victoria

Species	China	Hong Kong	Taiwan	Unknown	Total overseas	Australia		Total AU	Total
						Tas	SA		
Curlew Sandpiper	6	3			9			0	9
Common Greenshank	1				1			0	1
Red-necked Stint	5				5		2	2	7
Ruddy Turnstone					0	1		1	1
Sanderling					0		2	2	2
Sharp-tailed Sandpiper	1		1	1*	3			0	3
Total	**13**	**3**	**1**	**1**	**18**	**1**	**4**	**5**	**23**

*Origin of Sharp-tailed Sandpiper unknown, seen with plain white flag, presumably lost rest of flag combination

Despite the small number of reports received this past season the Werribee Treatment Plant provided the most interesting sightings as per usual with the following birds: Chongming Dao-flagged Greenshank 'AE' (Karen Weil), Hong Kong-flagged Curlew Sandpiper 'LA' (Maarten Hulzebosch, 3 records) and Taiwan-flagged Sharp-tailed Sandpiper '4L' (Nalini Scarfe). Greenshank 'AE' is a long-term visitor to the site, having been seen annually for the past 5 years.

South Australia

Forty-one of the SA sightings were of interstate-flagged birds, with the remaining 10 flagged overseas (Table 2). As is now customary, nearly half of all birds across both categories were reported by Andrew Brooks from the Ceduna region, yet another great effort by Andrew!

Table 2. Sightings of overseas-flagged and interstate-flagged waders in South Australia

Species	China	Russia	Total overseas	Australia		Total AU	Total
				Tas	Vic		
Bar-tailed Godwit			0		2	2	2
Great Knot	2		2			0	2
Red Knot			0		1	1	1
Red-necked Avocet			0		1	1	1
Red-necked Stint	2	1	3		1	1	4
Ruddy Turnstone	6		6	31	4	35	41

Sanderling	2		2		1	1	3
Total	**12**	**1**	**13**	**31**	**10**	**41**	**54**

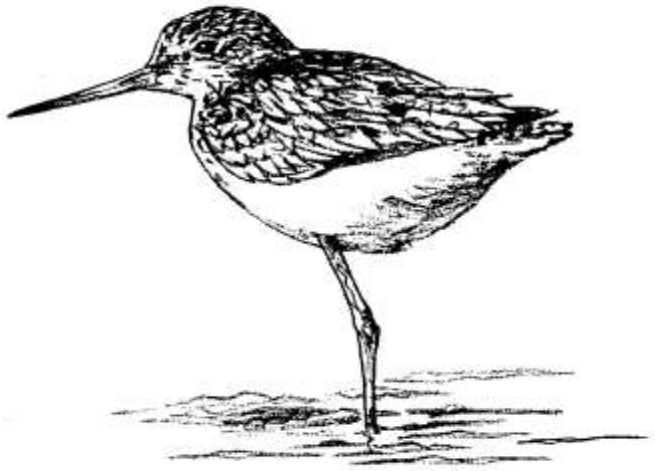
Of particular interest were observations of Red-necked Stint with Blue/Yellow flags (Bohai Bay, 2) and Black/Yellow flags (Kamchatka, 1). Birds banded in Jiangsu (northern China) featured again this year with observations of Ruddy Turnstone and Sanderling with plain Green/Blue flags) in the Ceduna area and in south east South Australia respectively (Andrew Brooks, Maureen Christie *et al.*).

Tasmania

Five sightings in Tasmania were of a Red-necked Stint (Yanerbie, South Australia) and four Ruddy Turnstones (Jiangsu, China; Western Australia; South Australia (Table 3). The Red-necked Stint with Jiangsu (China) flags is the first sighting of that region in Tasmania. An equally exciting resighting was of Ruddy Turnstone Orange/Yellow ACU, first banded at Carpenter Rocks (SA) in February 2008 (age 2+), retrapped at the same location in April 2008. ACU had not been recorded since!

Table 3. Sightings of overseas-flagged and interstate-flagged waders on King Island (Tasmania)

Species	**China**	**WA**	**SA**	**Total**
Red-necked Stint			1	1
Ruddy Turnstone	1	1	2	4
Total	**1**	**1**	**3**	**5**



Recovery Reports 2019/20
Ila Marks, Rosalind Jessop

Recovery Reports are birds that are seen in the field and reported to the Australian Bat and Bird Banding Scheme (ABBBS), who then notify the VWSG with a Recovery Report. These reports contain the band number, where the bird was seen, if it was injured or alive, when and where the bird was banded, and age at the time of banding.

This year there has been a problem with the ABBBS and the reporting of Recoveries from New South Wales and Queensland. Consequently a full report for 2019/2020 Bulletin is not possible. A final report for Crested and other Terns recoveries for 2019/20 will be produced for our 2021 Bulletin.

C**aspian Tern**

There were four Caspian Tern Recovery Reports this year (six in 2018/9). All were banded as chicks at their breeding colonies in Victoria. Three were banded Off Manns Beach at Corner Inlet and the other was banded at Mud Island in Port Phillip Bay. Two of the birds from Corner Inlet were reported from Flannagan Island, Gippsland Lakes in May. The other from Corner Inlet was reported from Bribie Island, Queensland in September. This bird now aged four was also seen at Bribie Island the previous year. The bird banded at Mud Island was the only one to travel west and was reported at Eumerella River mouth, Yambuk, just west of Port Fairy, Victoria.

We are investigating purchasing slightly thicker Engraved Leg Flag (ELF) material, the same thickness used in Europe, as the late Clive Minton suspected some strong billed Caspian Terns are removing their ELF's.

Crested Tern

Last year we received 323 Recovery Reports for Crested Tern. This year we have received just six. Five Victorian-banded birds were found dead along the Victorian coast and one South Australian chick was found dead close to where it was banded three months previously at Little Dip Conservation Park. No Recovery Reports were received from New South Wales or Queensland. (As mentioned above there are problems with the ABBBS and Recovery Reports that need to be resolved.)

Common Tern, Fairy Tern, Little Tern, Whiskered Tern, White-winged Tern

We have had no Recovery Reports for Common, Fairy, Little, Whiskered or White-winged Terns this year.

Recoveries of Oystercatchers Leg-flagged in South Eastern Australia 2019/20
The Recovery Reports from the ABBBS for Oystercatchers are fewer than in previous years, with 11 reports of Pied Oystercatchers and no Sooty Oystercatchers. The bushfires and the Corona Virus have made it difficult for people to be out reading leg flags.

Table 1. Sightings of Victorian-flagged Oystercatchers seen in SE Australia 2019/20
(This table may be amended in the 2021 Bulletin if we receive more reports when the present reported problems are resolved)

Species	Victoria	King Island	New South Wales	South Australia	Tasmania	Total sightings
Pied Oystercatcher	6		5			11
Sooty Oystercatcher						
Total	6		5			11

Australian Pied Oystercatchers
Five reports from New South Wales were of birds seen from September 2019 to January 2020 and ranging from Merimbula to Ballina. Three birds were seen at Thurra River, near Hicks Point, Victoria in October and one on Port Phillip Bay in February. The most exciting recovery was a bird found dead on the Inverloch foreshore aged 33+. It was banded in Inverloch on the 15th of May 1988 by Brenda, Mick and Roz, aged 2+. It is the oldest recorded Australian Pied Oystercatcher. See a detailed article elsewhere in the Bulletin.

Sooty Oystercatchers
There were no Recovery Reports from the ABBBS for Sooty Oystercatchers in the past year.

Other Recovery Reports

Ruddy Turnstone
This year we have three Ruddy Turnstone Recovery Reports. A bird banded at Surprise Bay King Island was recovered dead at Momskiy District, Knonu, Yakutia, Russia, having been attacked or taken by a wild bird, five months 20 days after banding. This is a rare recovery from the breeding grounds in Siberia and particularly exciting as, deduced from our geolocator analysis, this is the main breeding area. Another King Island bird was sighted at St Andrews Ocean Beach in Victoria nearly 6 months after banding. This was a first year bird. The last Recovery Report is for a South Australian bird banded at Canunda National Park and reported from Beachport SA.

Bar-tailed Godwit
A report was received for a Bar-tailed Godwit banded off Manns Beach at Corner Inlet and seen at Toorbul Esplanade, Queensland, aged 6+ years.

Sightings of Oystercatchers Leg-flagged in Victoria, South Australia and King Island, Tasmania in 2019/2020

Joris Driessen

Introduction

The tables present all reported sightings of all three oystercatcher species flagged in VIC, SA and TAS (individual colour bands and engraved leg flags) that were seen between July 1, 2019 and June 30, 2020.

After three successive seasons of record-breaking oystercatcher sightings it took an extended bushfire season and a pandemic to halt observers' momentum. Although far below previous seasons (389, 440 and 528 respectively), given the circumstances a tally of 351 sightings is certainly respectable. Of these, 304 engraved flags or colour band combinations were actually read in the field! Special mention needs to go to Maureen Christie (40), Maarten Hulzebosch (24) and Jeff and Sarah Campbell (21) for their efforts this season. Grainne Maguire and Amy Adams (BirdLife Australia) provided 107 flag sightings collected during ongoing seasonal surveys of beach-nesting birds in Corner Inlet.

Victoria

A total of 251 observations of VIC-flagged Pied and Sooty Oystercatchers – and the famous 'Syd the SIPO' (South Island Pied Oystercatcher) - were reported from across SE Australia (Table 1).

Table 1. Sightings of Victorian flagged Oystercatchers seen in SE Australia

Species	Victoria	King Island	New South Wales	South Australia	Tasmania	Total sightings
Pied Oystercatcher	202	14	16	5		237
Sooty Oystercatcher	8	1			2	11
South Island Pied Oystercatcher			3			3
Total	**210**	**15**	**19**	**5**	**2**	**251**

Pied Oystercatcher

The season's furthest observation west of a VIC-flagged Pied Oystercatcher came from Brownlow Beach on Kangaroo Island: Yellow LV was recorded there by John Hodgson on 22 June 2020. This bird was first recorded on Kangaroo Island by Jean Turner in August 2018 – approximately 875 km from the banding location in Corner Inlet. The latter record continues to be the longest known westward movement by a Pied Oystercatcher banded in Corner Inlet.

The season's furthest movement south was clocked up by the 14 Pied Oystercatchers recorded from King Island, of which Red J6 is the most exciting - banded in April 2008 at Stockyard Point, and seen there once a few months later, J6 had not been reported to us for over a decade until seen by Katherine Leung. No sightings were received from mainland Tasmania.

The most easterly record was sent in by Sally Leonard of Pied Oystercatcher Yellow JZ seen near Gerroa, NSW, just over 700km from its Corner Inlet banding location.

Some of the oldest known Pied Oystercatchers in the state have either passed away (famous Blue A4 was found dead in 2019, its last sighting in late 2018 making it at least 32 years old at the time) and others such as Yellow KZ and Red 91 have not been reported for several years.

That individually marked birds of a sedentary shorebird species can go undetected for a long time – even in well-birded areas – was shown once again by the discovery of Pied Oystercatcher YNG/GGM at Moolap Saltworks by Craig Morley and Jeff Dagg in January 2020. This oystercatcher was banded in Corner Inlet in June 1996, age 3+, and had not been recorded since 1997! At the time of sighting in 2020 it was at least 27 years old.

Sooty Oystercatcher

Eleven resightings of Sooty Oystercatchers were reported in the past season, mostly from Flinders (VIC), the Furneaux Islands group and Wilson's Promontory. The standout observation came yet again from Eric Woehler – after last year's 20+ year-old Sooty Oystercatcher sighting from Flinders Island, Yellow J9 was recorded by Eric, Laura Smith, and Hannah Willis from Cape Barren Island in January 2020. First banded at Roussac's Farm, Corner Inlet in July 2005 as 3+ year-old it had not been reported since.

South Island Pied Oystercatcher

South Island Pied Oystercatcher Red 1N ("Syd the SIPO") was reported on three occasions between July 2019 and January 2020 at Stockton Spit and Worimi Conservation Lands.

South Australia

A total of 82 observations of SA-flagged Pied (72) and Sooty (10) Oystercatchers were reported respectively (Table 2).

As seems to be the norm, almost all SA oystercatchers involved local breeding birds and were recorded within the state, with the exception of Pied Oystercatchers C6 and R6 (Bridgewater Bay, SW VIC) seen by Nita Tonkin in August 2019.

Table 2. Sightings of SA-flagged Oystercatchers seen in SE Australia

Species	**South Australia**	**Victoria**	**Total sightings**
Pied Oystercatcher	70	2	72
Sooty Oystercatcher	10		10
Total	**80**	**2**	**82**

Tasmania

A total of 17 observations of TAS-flagged Pied Oystercatchers were reported, of which 16 were seen on King Island and 1 was recorded in Victoria (Table 3).

Black N3 was seen by Graham Beal at Stockyard Point on 28 March 2020. N3 was first banded as an adult near Manuka, King Island in November 2014 and had previously been reported from the same location in mid-2017 and 2018.

Table 3 Sightings of King Island (TAS) flagged Oystercatchers seen in SE Australia

Species	**King Island**	**Victoria**	**Total sightings**
Pied Oystercatcher	16	1	17
Total	**16**	**1**	**17**

Long term Inverloch resident Pied Oystercatcher found washed up on Anderson Inlet beach.

Stephen Johnson

Victoria's, and possibly Australia's, oldest recording of a leg-flagged Australian Pied Oystercatcher (*Haematopus longirostris)* was found dead on 25 September 2019 in high tide beach wash not far from the Inverloch jetty by a local resident exercising their dog. The bird which had spent all its life breeding and existing within Anderson Inlet was collected and placed in storage for a necropsy examination but from all accounts at this stage it appears to have passed by natural causes as it had no visible injuries or trauma. The bird's metal leg band number was forwarded on to the Australian Bird & Bat Banding Scheme in Canberra and their records indicated the significance of this recovery finding. The bird was first captured and banded 100-85114 along with "Green over Green" leg coloured bands on 15 August 1988 at Pt Smythe, Inverloch by the Victorian Wader Study Group. It was classified a 2+ year-old bird at the time and must have enjoyed the Inlet habitat as it was recaptured by the same Group on 11 August 2013, again at Point Smythe. Now a 25+ year-old bird it was reflagged "Blue A4" and became a local celebrity with its story featuring in the Sth Gippsland Sentinel Times newspaper. Its Recovery as a deceased bird on 25 September 2019 identifies its banding to recovery age as 31yrs 4mth 10days, add its 2+yrs at first banding and it is approximately 33yrs old. The oldest banded recording in Australia of a Pied Oystercatcher is 32yrs in Tasmania but whether living or deceased is unknown. Over the past five years I been closely monitoring A4's breeding activity by kayaking across the inlet to Point Smythe each summer. Sadly, its egg clutches had been predated by Red Fox which frustrated data gathering on fertile breeding ages for this species. Nevertheless, this bird's story highlights the fact that Anderson Inlet Inverloch has been for a long time, and still is, a significant shorebird hot spot within Victoria and indeed Australia for both resident and migratory shorebirds and needs careful protection and preservation for generations of shorebirds to come.

A4 Blue photographed by Steve Johnson at Pt Smythe on 18 October 2017.

Pied Oystercatcher Yellow DV
Maureen Christie and Jeff Campbell

On Wednesday 15 January we received an SOS from Parks Vic – an oystercatcher with both legs badly entangled in fine fishing line at Killarney.

A rescue was organised for Friday 17 January. Meanwhile, locals were to keep an eye on DV and its mate to make sure that they did not disappear. Jeff and I went with noose mats, cannon net and dab nets. Vivien joined us from Portland. Toni and Bill from Far West Friends of the Hooded Plover and three Parks Vic staff all helped. But Friday proved to be one of those days that everything that could go wrong, did. With the circuit tester playing up we did not know whether we had a circuit or not. However, the cable had been fine at Clive's Rendelsham send-off, so we gambled. 'Tangles' catchable. 3-2-1 – silence! More work on the cable. Once again, 'Tangles' catchable, 3-2-1 – silence!. More work on the cable, cannons checked – but finally, we gave up. It had been interesting watching the pair – DV struggling to get around but feeding avidly. Its mate sticking around close by.
Saturday was spent working on the cable and sorting the circuit tester. Monday was another day – very windy and threatening rain. Sarah and Helen joined Jeff and me and, despite the lousy weather, we were once more joined by Carly, Robyn, and Dan from Parks Vic. This time the beach was windswept with no evidence of feeding anywhere on the beach. The pair were around the bay sheltering on the sandy point. Closer inspection of where the oystercatchers were roosting found no evidence of feeding. So, we decided to set the net almost exactly where it had been set on Friday. But this time we dragged piles of bull kelp into the catching area to provide shelter. It was not to be smooth sailing. No circuit yet again. We replaced a by-pass ½ chocolate block and we finally had a circuit. Robyn went to the east to hopefully encourage 'Tangles' towards the net.

A brilliant twinkle. A few short flights and 'Tangles' was catchable …… The time from when the twinkle began until 'Tangles' was safely in a bird bag was less than an hour!!!.

From observations it seems that the line was around DV's legs for about a month. It was wound round and round and round, deeply indenting the left leg and breaking the skin on the right leg. With both legs joined together with line, it could only move about with great difficulty.

It was good to see that neither the band nor the flag were implicated in the entanglement.
It was a great feeling to watch DV as it walked away with its mate, having first eaten a large worm!

The known history of the bird, as supplied by the ABBS, is very interesting.

Banding/Recapture DV

18/08/2011 Roussac's Farm near Foster, Corner Inlet (-38.75, 146.20) Australia 10131172 (DV) Aged 2
09/05/2013 Stockyard Pt, Lang, Westernport (-38.37, 145.53) Australia 10131172 (DV) Aged 3+
21/09/2013 Stockyard Pt, Lang, Westernport (-38.37, 145.53) Australia 10131172 (DV) Aged 3+

Resighting DV

27/04/2013 Stockyard Point (-38.37, 145.53)
27/06/2013 Stockyard Point (-38.37, 145.53)
20/12/2013 Nelson's Lagoon, Mimosa Rocks NP NSW (-36.68, 149.12)
20/05/2014 Stockyard Point (-38.37, 145.53)
31/12/2014 Killarney Beach (-38.33, 142.37)
30/10/2015 Killarney Beach (-38.33, 142.37
18/01/2016 Stockyard Point (-38.37, 145.53)
04/01/2017 Killarney Beach (-38.35, 142.33

Photos: Sarah Campbell

Territorial Dispute in Brown Bay, South Australia

Maureen Christie, Helen Bawden and Jean Haywood.

Over the last month or so oystercatchers have been pairing up and establishing territories. One pair, Black C2 and Black R8 have long held a territory around Hitchcox Drain, in Brown Bay just round from Danger Point, where they were banded (C2 band 101 31182 on 9.11.11 and R8 band 10123826 on 26.3.3016).

Late afternoon on 9 September 2020, we observed them feeding at the water's edge near the mouth of the drain. I read one flag, but, before I could read the other, the pair ran, flying off to the west. We continued along the beach for, maybe, five minutes, before returning with hopes of reading the second flag.

We quickly spotted three oystercatchers together, above high tide mark, perhaps 100 metres west of the drain. Suddenly, a fourth bird was seen running very quickly to join the group. The four birds were obviously in dispute, with piping and wing displays. Suddenly two 'shirt fronted' each other and, facing each other all the while, flew straight up for about five metres. On landing, the argument continued, with a second bout of 'shirt fronting' and vertical flying. Finally the banded pair retreated to the east, landing near the waters edge not far from the drain. Suddenly, one of the unbanded pair was flying low and fast, aimed at the banded pair. We were stationed near the drain, and the oystercatcher hurtling towards us looked for all the world like a torpedo! The banded pair had to duck to avoid being hit. They retaliated by flying across to where the other pair were based, some 100 metres from the drain. Once again the argument continued, with more 'shirt fronting' and vertical flights. And, once again, the banded pair retreated to the waters edge. The torpedo attacks from the west continued, with the banded pair needing to crouch or duck to avoid being hit. In one instance one stumbled, or tripped, and almost fell over. It was impossible to judge if both unbanded birds were involved in these attacks, although both were involved in the dispute.

A walker with a very large dog approaching from the west caused a ceasefire, with both pairs retreating a little from the disputed territory – the banded pair back to the drain, and the other pair just a bit further west.

I returned on 14 September to see how the territory had been divided up. Much to my amazement there were no oystercatchers to be seen!

But, come 25 September, C2 and R8 seemed to be in possession, the only oystercatchers present. Feeding along the waters edge, about 100 metres west of Hitchcox drain.

Tern Breeding and Banding Report 2019/20
Ila Marks, Penny Johns, Rosalind Jessop

Tern banding and breeding details are thin on the ground this year due to the horrific summer bush fires experienced in South Eastern Australia and other areas. Understandably it was difficult to get access to the Parks Victoria boats and personnel.

Caspian Tern

Many thanks to Penny Johns who was able to enlist a friend with a boat to do a recce of Mud Islands in December 2019 so that we have Tern Numbers for Mud Islands. She reported seeing two pairs of Caspian Terns with two chicks and one nest with two eggs. We also received a report from Kasen Ekanayake, from BirdLife, who visited Clonmel Island on 2 February where there were 54 adult birds, with 51 still incubating eggs and eight chicks that were about one third of adult size.

South Eastern Australia
Caspian Tern

Location	Breeding Pairs	Chicks Banded
Mud Islands	**2**	**0**
Corner Inlet, West Clonmel	**54**	**0**
Totals	**56**	**0**

Crested Tern

Penny estimated that there were 2,500 breeding pairs on Mud Islands, the same as last year. Again there was no Crested Tern colony at the Nobbies, Phillip Island. However, Crested Tern were seen on nearly Seal Rock with adults flying in and out from the rock, presumably they were feeding chicks. Seal Rock is close to the Nobbies but not accessible for banding activities. There were 2,500 breeding pairs at Burgess Bay, King Island, five hundred more than last year.

A colony of Crested Tern has recently been observed on Kanowna Island located off the southern tip of Wilsons Promontory. The colony of 532 plus or minus 28 is the subject of an unpublished paper by A. Fromant, Y. Eizenberg, R. Jessop, A Lec'hvien, H. Gleeson and J. Arnould.

As the table indicates, the number of Crested Tern banded this year was the lowest for many years. Several attempts were made to organise a boat with Parks Victoria, but personnel and boats were tied up with the catastrophic bush fires. They were able to ferry a team to Mud Islands on 14 January 2020 when 130 chicks were banded. Most of the chicks in the colony were too large and mobile to be caught and banded by the usual method of corralling. Banding at Little Dip Conservation Park in South Australia was more successful with a total of 257 birds banded. The size of the colony was estimated to be 500 pairs in November 2019. See a more detailed report from Maureen Christie and Jeff Campbell in this bulletin.

South East Australia (includes Little Dip NP South Australia and King Island Tas)
Crested Tern

Location	Breeding Pairs	Chicks Banded	Re-trapped Banded Adults
Mud Islands Vic	2,500	130	0
The Nobbies Vic	0	0	0
Seal Rock Vic	N/A	0	0
Clonmel Island Vic	4	0	0
Kanowna Island Vic (off Wilsons Prom.)	532	0	0
King Island Tas	2,500	0	13
Little Dip NP SA	500	257	0
Total	6,032	387	13

Fairy Tern

There were no Fairy Terns nesting on Mud Islands again this year. However we received an exciting report from Peter Dann from the Phillip Island Nature Park informing us that on 24 December 2019 twenty-two adult Fairy Terns were seen at Observation Point and there were at least seven nests with eggs. Peter goes on to say that 'this egg laying was probably the first for many decades at this site … and is due to the efforts of the conservation team in getting rid of foxes, reducing the number of cats (one cat wiped out a whole colony of Fairy Terns in WA) and managing human and dog activity." See a more detailed report from Peter Dann in this bulletin.

More exciting news, this time from South Australia, with Fairy Terns nesting at The Obelisk. In January, observed from afar, it was estimated that there were 20 active nests and three chicks. See a more detailed report from Maureen Christie and Jeff Campbell in this bulletin.

Fairy Tern colony. The Obelisk, Robe. Photo: Phil Cole.

Tern Flag Sighting Report 2019/20

Joris Driessen

Almost all significant movements of terns each year now derive from sightings of engraved flags. Twenty-six tern resightings were received for the 2019/20 season, which is much lower than the 50-60 sightings received in an average year, likely because of a combination of bushfires and travelling restrictions due to the pandemic. Many thanks to all observers involved and to Phil Cross (QWSG) for his diligent efforts to pass on data.

Caspian Tern

There were 23 resightings of orange-flagged Caspian Terns marked at either the Mud Islands or Corner Inlet breeding colonies. Seventeen of these records were of successfully read engraved flags, enabling the birds to be identified individually.

Sightings were predominantly received from Queensland (16), predominantly around Toorbul and Bribie Island and Victoria (6).

For the first time in years the usual Queensland-wintering individuals Orange 37 and 47 were not reported, nor was Orange 28, normally a regular in the Swan Bay area, NSW. In fact, only a single 'old' bird with a two-digit engraved flag was recorded: John Hutchison recorded Orange 97 at Flannagan Island in the Gippsland Lakes on 28 May 2020. This bird was banded in February 2013 as a chick in Corner Inlet and had not been reported since!

The dearth of sightings of 'oldies' in the past season is likely an artefact of travelling restrictions rather than a wholesale disappearance of a generation.

The longest distance movement this season was recorded by a plain Orange Caspian Tern from the colonies in Corner Inlet. On 16 August 2019, this bird was seen by Cecile Espigole at Inskip Point, Rainbow Beach, QLD, over 1,500 km from the banding location.

Gull-billed Tern

A single Australian Gull-billed Tern with a plain orange flag was recorded at Wellington Point, Brisbane (QLD) by Peter Rothlisberg on 19 October 2019.

Common Tern

Steve McBride reported an orange-flagged Common Tern at Kingscliff, NSW, on 18 March 2020.

White-winged Black Tern

Sightings of flagged birds for this species are thin on the ground, and so receiving one from Queensland is quite a boon. Chris Barnes recorded an individual bird with a plain orange flag at the Bundaberg Botanic Gardens on Boxing Day 2019. It is presumed the bird was flagged at the Western Treatment Plant as this is where the vast majority of VWSG-flagged White-winged Black Terns originate from.

Tern Breeding in SE SA Summer 2019/2020

Maureen Christie and Jeff Campbell

Crested Tern Colony Little Dip Conservation Park.

Once again Crested Tern had a successful breeding season at the small islet in Little Dip Conservation Park. They were first sighted by DEW during a routine patrol on Melbourne Cup Day. Then, on a visit to the islet on Wednesday 18 December, breeding was found to be in full swing - maybe 500 nests, with small chicks that were not mobile and eggs still to hatch. Unfortunately, there were also about 60 Silver Gulls on the islet along with 'quite a few' mobile gull chicks. As Silver Gulls can be ruthless predators, especially when feeding young, it was decided to regularly monitor the colony from afar. Tern and gull behaviour was to be observed to see if there were any gulls chasing terns in an endeavour to force them to disgorge their catch. If such behaviour was observed, the islet was not to be approached.

A visit to the colony on 31 December found the numbers of tern much reduced – only about 200, compared to the 500 reported in mid-December. Observations were conducted from the beach opposite the colony. However, four young men walked across and went ashore on the low platform. They did not enter the colony proper but were very close to it. The terns paid no attention! There were also Silver Gulls present, but they did not appear to be causing the terns any problems. One gull was observed chasing a tern carrying a fish, but it did not cause it to drop the fish. Overall there was very little interaction between the gulls and the terns, and no attempts by gulls to predate chicks were seen. We were unable to determine whether any terns were still sitting on eggs, but about 100 mobile chicks were counted.

The South Australian team had no experience with corralling chicks, and so an appeal for help was made. Ila, Eric, and Heidi volunteered, and drove across on Sunday 12 January.

We managed a visit to the colony on Monday morning's low tide, and another on the afternoon tide. A team of seven crossed to the islet in the morning and gathered on the low flat intertidal platform that the terns often roost on. Ila gave instructions on how to corral by herding chicks into a group, encircling them, and lying down. You band whilst lying down, releasing chicks behind you. We completed our first corral on the low platform and were surprised how well it worked. We then moved up to the islet proper. This has very sharp, irregular rock formations to either side of the islet, with a flattish gully running up the middle. We split into teams, with the more agile in the party clambering over the rocks, herding the chicks into the gully. Once again, we formed a circle around the chicks, laid down, and commenced banding! It was soon time to cross back to the beach. One hundred and sixty-two chicks banded. Another 95 chicks banded on the afternoon low tide.

We estimated that there were maybe 450 – 500 chicks on the islet, and 300 – 350 adults. Some of the chicks were already flying short distances. There were Silver Gulls present with well grown chicks. We did not see any interaction between the gulls and the terns. We had hoped to do an accurate count of the dead chicks present in the colony. Unfortunately, we did not manage that.

Crested Tern colony Little Dip Conservation Park

Fairy Tern

In the South East Fairy Tern have a chequered history, with breeding sites changing from year to year, with no breeding discovered at all in some years.

Fairy Tern Cowrie Island
Six were observed at Cowrie Island early in November, but they did not stay to nest.

Fairy Tern No 2 Rocks, Canunda National Park
Then, on 25 November, during the Hooded Plover count, 11 scrapes were found at No 2 Rocks, Canunda along with ~ 25 adults. A check made on 18 December found the site abandoned. Empty scrapes, a single abandoned egg and sparsely scattered whitewash confirmed the site. There were recent vehicle tracks through the site and rocks disturbed, but it was impossible to judge whether they had occurred during nesting, or after the colony was deserted.
A Community Participation grant has been obtained from Coast and Marine, DEW, to erect fencing around this site. Naracoorte and Mount Gambier 4X4 Clubs have volunteered to assist. All materials have been purchased, but first Covid restrictions, then bad weather, mean that we are yet to complete the fencing.

Fairy Tern The Obelisk, Robe
On the same day, 17 Fairy Terns were observed at the Obelisk, Robe. The next day terns were observed coming and going carrying fish. Courting? Feeding young? Observations continued over the following weeks. The VWSG banding team visited the site on 13 January with hopes of banding the chicks. It was very quickly realised that any attempt to catch the chicks was fraught

with danger for both the chicks and the would be banders. The nests were so close to the edge of a high cliff that any chick running the wrong way was in danger of plummeting into the sea with very little hope of being able to survive the fall. We were not even prepared to go close enough to check on the number of eggs. We counted maybe 20 sitting adults and three advanced young. On 9 February there were 13 adults, and 13 young of mixed ages. Some were flapping their wings and appeared close to fledging. By 20 February there were only five adults with one advanced juvenile. Although we do not know if any chicks fledged, it is considered likely that some did.

Breeding attempts are known to occur at the Obelisk on an irregular basis. The first season that we have records for is 2007/2008 when 10 adults and four nests were observed. In 2011/12 on 9 January there were 12 adults, an advanced young and two hatchlings. In 2011/12 on 18 November there were seven adults with a pair observed mating. We have no confirmed records of chicks successfully fledging from these events.

Despite the Obelisk being a 'must see' Robe tourist attraction, the breeding site is now fairly well protected. Because of the instability of the area, vehicles have to be parked at a distance and the cliff top has been fenced off from pedestrian traffic by the Robe District Council. A FoSSE information sign placed there during an earlier breeding attempt, although worn, is still legible. DEW also erected temporary signage during the breeding event.

Fairy Tern at The Obelisk. Photo: Bryan Haywood

Fairy Terns breed successfully on Phillip Island, Victoria for the first time in decades
Peter Dann

Fairy Terns (*Sternula nereis*) were found nesting at Rhyll Inlet on Phillip Island in late 2019 – the first time that this species has bred on the Island in decades. This species is listed as Vulnerable in Victoria and has had mixed fortunes in Port Phillip Bay and Western Port in recent times.

Fairy Tern eggs and young are vulnerable to trampling and predation so Phillip Island Nature Parks staff set up a refuge with roped-off areas, installed cameras and put out signage to increase public awareness and promote appropriate behaviour at the site and the nearest access point. Nature Parks staff also included the access point in patrols and had conversations about the breeding terns whenever the opportunity arose in the vicinity of the site. The breeding site is off-limits to dogs and compliance was extremely pleasing with cameras not detecting any dog activity.

Cats have been found to predate heavily on adult Fairy Terns at night in Western Australia (Claire Greenwell and Nic Dunlop, pers. comm.). Nature Parks staff supported by State and Federal funding through the Port Phillip and Western Port CMA Ramsar Protection Program have removed most of the cats from the 36ha hinterland of the nesting site over the past two years.

It is estimated that at least 31 pairs bred at the site. Fledged young continued to be fed on the intertidal areas adjacent to the breeding area at low tide and from observations made of these fledged birds from mid to late February, a minimum of 49 chicks fledged.

This successful outcome was due to the management efforts of the Phillip Island Nature Parks Environment team and support of the DELWP-funded Fairy Tern Working Group, Birdlife Australia and the Federal funding support through the Port Phillip and Western Port CMA Ramsar Protection Program were significant.

Fairy Tern adult on Phillip Island with egg and newly hatched chick (Photo: Roger Whitelaw, Phillip Island Nature Parks).

The VWSG Geolocator program – The dividends keep coming

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

Introduction

The geolocator program was initiated by the VWSG in 2009 with trials of six geolocators deployed on Ruddy Turnstone at Flinders, Victoria, and two at Carpenter Rocks in South Australia. Since then, some 1,100 geolocators have been deployed by the VWSG on five species in Victoria and South Australia as well as King Island (Tas). The VWSG were among the first in the world to use this instrument on shorebirds while today the technique is used by almost all countries undertaking shorebird studies. We have continued to be leaders in this field through our publications and, in collaboration with Deakin University, developing new analytical techniques which are adding enormously to our knowledge of migratory shorebirds in our flyway. The following provides a snapshot of the nature and extent of our program; it does not attempt to cover in any detail the scientific outcomes of these studies as these are more adequately covered in existing or proposed publications. It must be noted that these outcomes have only been possible through the dedication and generosity of the VWSG 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 VWSG since 2009. In summary, 670 geolocators have been deployed on Ruddy Turnstone, 68 on Sanderling, 23 on Eastern Curlew, 171 on Red-necked Stint and 161 on Curlew Sandpiper making a total of 1,093 fitted to shorebirds expected to migrate to the northern hemisphere to breed. 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 10 years to date. It is of interest that we now have 290 viable tracks for Ruddy Turnstone showing indications of changing migratory behaviour in the face of the changes along their flyway (more on this below).

During the last **two** seasons since our last report, (2018/19 and 19/20) we have deployed 310 geolocators comprising 99 on Ruddy Turnstone, 19 in SA and 80 in King Island. In addition, and importantly within the framework of the collaborative Australian Research Council Discovery Project "*Are pollutants and emerging diseases endangering a global migratory flyway?*" we deployed another 110 instruments on Red-necked Stint and 101 geolocators on Curlew Sandpipers at Yallock Creek.

Retrievals of geolocators during these two years has been a highlight with the King Island teams retrieving 64 geolocators while the SA team retrieved nine. It was especially pleasing to recover another 10 geolocators from Red-necked Stint and 18 from Curlew sandpiper. There were again several cases where the geolocators retrieved provided tracks for two years (or at least part years).

One of the features of our program has been the high retrieval rate, particularly for Ruddy Turnstone; over the last nine years 288 retrievals have been made which is 44% of those deployed. Averaged over all species this is 37% which is high in comparison with many other studies but does reflect the site faithfulness of turnstones (and the tenacity of those in the field).

Geolocators deployed/ retrieved each year by VWSG in SEA to 05/2020

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	20	23					50	9	41	8	111	40	33
TOTAL	**670**	**288**	**68**	**18**	**23**	**8**	**171**	**28**	**161**	**18**	**1093**	**360**	**37**
%		44		26		35		16		15			
Usable tracks		290		19		12		16		13		350	

Several significant outcomes of our geolocator program

Analyses of geolocation data has enabled an extension of our knowledge of migratory tracks, stopover timings and sites, breeding areas and an indication of incubation success on the breeding grounds. In addition, there are two outcomes that further demonstrate the value of this program. These are briefly outlined below, however, further details will be available in material to be published elsewhere.

Firstly, it was well recognised that Clive had a long-held wish to unlock some of the unknown features of our Red-necked Stint and Curlew Sandpiper populations that are found locally. To this end he initiated a geolocator program for these two species based at Yallock Creek, Westernport Bay commencing in 2016. It was pleasing that following retrievals over the last two years, it has been possible to analyse the data retrieved and draw some significant conclusions. Using nifty state-of the-art analysis techniques it has been possible to compare the migration strategies for these two closely related species migrating from the same non-breeding site to similar breeding sites in the high Russian Arctic. It was found that Curlew Sandpipers rely on fewer stopover sites than Red-necked Stint on northward migration, the latter not relying on the Yellow Sea but making more numerous stops. Furthermore, the Curlew Sandpipers appear to make use of ponds and tidal regions in one particular location in the northwest of the Yellow sea in Bohai Bay. These findings are useful in formulating important conservation strategies for this species.

The other development worthy of note here is the increasing value of the longitudinal study arising from the 10 year program of Ruddy Turnstones on King Island. As we know, a number of global and flyway specific changes are impacting on migratory shorebirds. By examining the phenology, tracks and breeding locations and characteristics together with parameters such as timing of snowmelt, we have made an initial evaluation of the carry-over effects of non-breeding and migratory conditions on breeding success. Initial indications show that our King Island birds are departing up to a day earlier than a decade ago. With additional data it is hoped to better understand some of the processes that are taking place and the likely longer-term impact on these birds. A presentation of these interim results was made at the Australasian Ornithological Conference in Darwin last year.

Costs

The geolocators have been purchased at an average cost of close to $200 each. With 1093 units deployed over the last ten years this equates to a cost of around $220,000.

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 almost $42,000 from sources including Nature Foundation of SA, Kimberley Clark Aust P/L, Department of Environment and Natural Resources (DEWNR), South East Natural Resource Management Board, Limestone Coast & Coorong Coastal Management Group and 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.

Publications

The scientific papers published so far based on the results of our geolocator studies are listed at the conclusion of this paper. Further analyses are in train and additional papers will be published in the future. Also listed are the most recent verbal presentations made on our geolocator work.

The Future

When the initial geolocator deployments and successful retrievals were made, these 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. Ten 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.

Future plans for the use of geolocators on other species in southern Australia have limitations due to there being comparatively few migratory waders on which geolocators can be economically and safely be deployed.

Conclusion

The VWSG's move into the field of geolocators in early 2009 has proved to be an astounding success. We were, and still are, one of the world leaders in the use of geolocators to study shorebird migration. 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 almost 1,100 geolocators over 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.

In conclusion, we would like to acknowledge the foresight, drive, enthusiasm, and knowledge of Clive Minton that has made this program so successful.

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Presentations (a sample)

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A review of geolocator studies in Australia, 2009-2016. Where to now? Ken Gosbell.

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

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

EAAF Partnership Meeting, Alaska, June 2013 What we have learnt from Geolocators in Australia about the migration of small waders. Ken Gosbell.

IWSG Conference, Germany, 2013 What we have learnt from six years of deploying geolocators in Australia. Clive Minton

AWSG Conference, Darwin, September 2014

Latitudinal trend in deposition of migratory fuel as driver of trans-equatorial long distance migration in shorebirds. Yaara Aharon-Rotman, Clive Minton, Ken Gosbell and Marcel Klaassen

5 Years on – What have we learned from geolocators deployed in Australia. Clive Minton, Ken Gosbell, Chris Hassell, Maureen Christie and Marcel Klaassen.

Geolocator Studies on Ruddy Turnstone (2009 to 2014) reveals information on migration strategies. Clive Minton, Ken Gosbell and Yaara Rotman

Insights into migration pattern of Sanderlings using geolocators: from raw light data to ecological insights Simeon Lisovski, Ken Gosbell & Clive Minton

Australasian Ornithological Conference, Deakin University, Geelong, November 2017
A review of geolocators studies in Australia, 2009 – 2016. Where to now?
Ken Gosbell1, Clive Minton2, Jon Coleman3, Simeon Lisovski4, Maureen Christie5, Chris Hassell6 , Marcel Klaassen7

Australasian Ornithological Conference, CDU, Darwin, July 2019
Carry-over effects of migration conditions on the breeding performance of Ruddy Turnstone.
Ken Gosbell, Marcel Klaassen, Simeon Lisovski, and Clive Minton

Deploying geolocator on a Curlew Sandpiper at Yallock Creek

Clive Minton – some personal reflections
Hugo Phillipps

An extraordinary man was Clive Minton, with a rare combination of talents and motivation that kick-started large-scale data collection on the migratory waders of the East Asian – Australasian Flyway. Maybe the most important of those talents was the ability to attract, train, lead and retain a team of volunteers – fieldwork on the Victorian coast, with its cold fronts driving in from the Southern Ocean, can be gruelling – and Clive required a core of dedicated and experienced catchers and processors to handle regular large catches. He was also very good with children – encouraging their active participation – some of whom later became professional zoologists. Of course there were regular low-level grumbles about his style of leadership, but such grumbles were usually affectionate, and Clive's ability to get together a scratch team at short notice for an opportunistic catch became legendary. His legacy is forty-years of data and fieldwork experience that have inspired and enabled the formation of similar groups elsewhere, numerous scientific papers on wader biology, greater public and governmental awareness about the birds and the sites they visit, and the establishment of programs and protected areas for their conservation.

I first met Clive around 1982, some four years after he and his family had arrived in Melbourne. I had joined the VWSG, largely to follow the research on waders covered in the *Bulletin*, without any particular intention of getting involved in the fieldwork. However, Brenda Murlis – then the Secretary of the group – called me and persuaded me to attend the AGM at Clive's home in Beaumaris. From then on, I was drawn in by a combination of fascination with the sandpipers and plovers I had only ever seen as flocks of little grey birds in the distance, the instant inclusive camaraderie of the other members, and Clive's charm and talent for extracting the maximum possible utility from his human resources.

The first time I went out wader-catching with the group, Clive picked me up at from my home in Melbourne and, while we headed westwards over the Westgate Bridge towards Werribee, grilled me about my studies and work history regarding any potential talents that might be useful to the group. When I told him I had studied Chinese language and literature in Hong Kong before working as a journalist there – neither of which experiences I thought would be of the slightest use to him – he pondered the matter. 'Chinese, eh? We don't really need a Chinese speaker at the moment, though it may come in useful later. I don't suppose you speak Russian, do you? There's some literature about waders in Russian it would be useful to translate.' I had to disappoint him – although the Chinese *did* come in useful later – on one of the North-West Australia expeditions which had a participant researcher from China who spoke little English.

Clive's own special combination of talents – his energy, enthusiasm, stubborn determination, sharp intelligence and scientific grounding, combined with a love for the birds and his charm and intuition when dealing with people, gave him a certain charisma that won him numerous friends and admirers in the world of wader research. I remember one occasion when this was serendipitously highlighted (literally). It was during that 1990 expedition that Broome Bird Observatory was officially opened (though it had already been operating for a couple of years). There, on a dismal day in the pindan by the red beaches and turquoise waters of Roebuck Bay, a motley collection of expedition participants, government representatives and local notables stood around listening to, or making, speeches in light drizzle. When Clive stood forward to speak – and he was a good extempore speaker – there was a magical moment as the drizzle ceased, a gap in the cloud ceiling appeared, and a narrow shaft of brilliant tropical sunlight illuminated Clive as he addressed the crowd. As soon as he had finished, the clouds closed and rain returned. A damp audience member muttered: 'Yes, *of course* he has friends in high places.'

In September 1989 Clive led a small ten-person, two-vehicle, private expedition into northern South Australia, after heavy rains had soaked the Lake Eyre basin in previous months. This was in order to mist-net and record measurements and nesting details of the birds, mainly passerines, which were taking frantic advantage of the flush of vegetation and its associated insects to breed. Although there was a fair amount of data on the biology of birds in settled coastal regions of Australia, much less was known about those of the interior. We travelled northwards through the Flinders Ranges, along the western side of Lake Eyre, into the Simpson Desert. The wildflowers were spectacular.

Stopping by part-flooded Lake Callabonna on the way, we could see an island about a kilometre offshore where swans were congregated. Clive, of course, wanted to go to the island. The water was heavily saline and murky, with a thick and muddy bottom of uncertain depth. After failing to persuade anyone else to accompany him, Clive waded laboriously to the island, while we watched him through the shimmering heat-haze, wondering what we could safely do if he got bogged. Eventually he returned and triumphantly reported the presence of 89 active swan's nests as well as breeding Silver Gulls.

That stubborn determination was also illustrated by a cannon-netting weekend at Corner Inlet, near Wilson's Promontory. There, on a stormy morning at Mann's Beach, Clive insisted on taking a net, with its cannons and cartridges, in a tinny (small aluminium dinghy) out to one of the islets to try for a catch. Few people were game to accompany him through the wind-whipped waves and rain, accompanied by rolling thunder and flickering lightning, in a small metal boat carrying explosives. However, all returned safely at last.

During 1991 and 1992 I sat with Clive on the government appointed panel of inquiry into the relocation of the chemical storage facility on Coode Island, in the port area of Melbourne, following a major fire, explosion and release of a cloud of toxic chemicals. While I represented the Royal Australasian Ornithologists Union (RAOU) and Clive the VWSG on the panel, we worked closely together as our respective organisations had identical interests – the protection of birds and their habitats. There I saw Clive wearing his corporate and political persona as he wheeled and dealt with other panellists. The preferred position of the RAOU and Clive was to retain the facility at industrial Coode Island as other options involved impacts on wader habit.

There was intense political pressure at the time to relocate the facility somewhere on the north-western shore of Port Phillip, with the main focus being on Point Wilson and Point Lillias, both of which are within the Port Phillip Bay Ramsar Site – recognised as being of international importance for 14 species of waders. Clive was no ideologue; if relocation was inevitable, he argued for much compensatory habitat and resources to be made available in return. Despite our efforts, the final recommendation of the inquiry was for Point Lillias. However, the environmental arguments (along with Aboriginal Heritage issues) led to the state government eventually abandoning the proposed relocation.

Clive moved easily within the corporate and bureaucratic world when he needed to, though it was not his preferred habitat. I never saw him more at peace with the universe than when he was camping on some (often mosquito-infested) coastal mudbank, or by the side of a sewage-treatment pond, dressed in ragged shorts and bird-splattered jumper, having finished processing a successful catch. Relaxing in a canvas chair with a sandwich in one hand, a book of tide-tables in the other, and a flagon of ginger wine beside him, in the company of the members of his team – Clive was a happy man, and one of those few people who had truly discovered the secret of leading a full and meaningful life while making a major contribution to global environmental conservation.

Obituary – Clive Dudley Thomas Minton. 7 October 1934 – 6 November 2019

The following is an extract of a longer obituary by Humphrey Sitters, Jacquie Clark, Nigel Clark, Roz Jessop, Guy Morrison, Danny Rogers, Roger Standen, Daphne Watson from *Wader Study* (127 (2):94-101) the Bulletin of the International Wader Study Group, with permission from the lead author and the Editor. This extract concentrates on Clive's time in Australia. The full obituary can be accessed from https://www.waderstudygroup.org/article/13811/ .

In 1978, Clive Minton, his wife Pat and their sons Roger and Nigel moved to Melbourne, Victoria, Australia, when Clive's employer, Imperial Metal Industries, appointed him to be managing director of IMI Australia. Although his appointment was for a fixed term, very soon he and Pat decided that they loved living in Australia so much that they would not return to the UK. Therefore when Clive's IMI contract expired in 1983, he changed jobs. First he became Human Resources Director at Myer retail stores; then from 1986 to 1988, Deputy Chief General Manager, Director of Policy Programmes with the Health Department of Victoria; and finally Partner and Director of the Melbourne Office of TASA International Executive Search, a position he held until he retired aged 58 in 1992.

Clive's move to Australia in 1978 came at an opportune time, and his impact on wader research and conservation was pretty much immediate. More than a quarter of the world's wader species occur in Australia, but only a few thousand had previously been banded there. Clive quickly joined a group led by David and Minnie Robertson that had recently started mist-netting waders at Werribee in Port Phillip Bay near Melbourne. Soon he had organised the construction of a cannon-net, and the group made its first trial cannon-net catch of eight birds on 31 December 1978. Then there was a concentrated effort over four days in March 1979 when 2,333 waders were caught in five catches, mostly Red-necked Stints (77%) and Curlew Sandpipers (21%). Dick Veitch came over from New Zealand specially to take part and, on his return home he constructed a cannon-net and carried out the first cannon-netting of waders in New Zealand. Then in June 1979, just nine years after the inauguration of the (International) Wader Study Group in the UK, the Victorian Wader Study Group (VWSG) was formed, with Clive and David Robertson as co-convenors. Altogether 7,922 waders were caught in 1979, more than twice the number caught in all previous years combined. David Robertson moved to Adelaide in 1982 and, from then until 2017, Clive remained chair and leader of VWSG, catching an average of almost 7,000 waders per year, comprising a total of over 250,000 of 40 species. Initially most cannon netting was at Werribee, but gradually other sites throughout coastal Victoria were added, and since 1993 the VWSG has also operated in the southeast corner of South Australia in order to increase catches of Sanderling and Ruddy Turnstone. In addition, there were VWSG expeditions farther afield, including New South Wales and Northern Territory, as well as regular catching in Tasmania and on King Island in the Bass Strait. The general focus of the VWSG was on the migratory waders that breed in the northern hemisphere, but there have also been several special projects on Australasian species, including Pied and Sooty Oystercatchers and the Double-banded Plovers that migrate in the opposite direction to breed in New Zealand. In recent years, Clive and the VWSG have been at the forefront of taking advantage of new tracking technology (geolocators and satellite tags) to study the migration of a range of species including Ruddy Turnstone, Eastern Curlew, Grey Plover, Red-necked Stint, Curlew Sandpiper and Latham's Snipe.

Clive's arrival in Australia was also opportune because field surveys for the Royal Australasian Ornithologists Union's (RAOU) Atlas Project revealed enormous numbers of waders along the Broome to Port Hedland coast of northwest Australia (NWA). Moreover the Japan-Australia

Migratory Bird Agreement came into force in 1981, and as a result there was funding to enable the RAOU to launch nationwide wader counts. Therefore there were plenty of opportunities for Clive and his teams to build on the previously sketchy knowledge of waders in Australia – and with his skills, energy and boundless enthusiasm, he ensured that wader study and conservation made a big leap forward in Australia and elsewhere along the East Asian–Australasian Flyway (EAAF).

Clive was also the first chair of the Australasian Wader Studies Group (AWSG) from 1981 to 1985, and thereafter remained active on the committee. In 1981 he co-led an exploratory AWSG expedition to NWA, which confirmed that the region held extraordinary numbers of waders and there was an abundance of potential catching sites. It immediately became one of Clive's favourite places, and he led or co-led annual catching expeditions there for the next 39 years.

The first catch of 778 waders in NWA was made on 30 August 1981 at Quarry Beach, Roebuck Bay. On 3 September, a brief visit was made to Anna Plains Station to count the waders on the northern part of Eighty Mile Beach. As Clive wrote later, 'this was a memorable day because the numbers of waders were greater than any of the team had ever seen anywhere before, including 22,000 Great Knot, more than the previously known world population'. Thereafter most NWA expeditions visited Eighty Mile Beach as well as Roebuck Bay. In the early years, visits were also made to the Cargill Saltworks near Port Hedland, mainly for mist-netting smaller species. There the most successful catch was of 236 Broad-billed Sandpipers in April 1988. However, conditions for waders later deteriorated when the intake ponds were redesigned leaving no exposed mud, and in view of the remoteness of the site (600 km from Broome), there was no catching there after 2001.

Most NWA expeditions involved 20–25 people in the field at any one time, but there were 66 on the third expedition in 1982, and no less than 117 from 17 different countries participated in the largest and longest, 13-week expedition from August to November 1998. Clive used the NWA expeditions to give people from other parts of the EAAF, particularly from east Asia, training in wader study techniques, and thus promote wader research and collaborations throughout the flyway.

Until Broome Bird Observatory (BBO) opened in 1988, there were no luxuries on NWA expeditions, and the teams camped in the bush close to the northern shore of Roebuck Bay and in the dunes at Eighty Mile Beach. Camping was especially uncomfortable during the hot, humid, sometimes wet, and often buggy February–March expeditions. Clive was instrumental in the establishment of BBO and that was a real game-changer. Not only did it provide an excellent – and comfortable – base for expeditions, but with full-time wardens it allowed wader and other bird studies to be carried on throughout the year. Clive also made arrangements with John Stoate of Anna Plains Station for expeditions to be accommodated in station buildings. BBO and Anna Plains Station also facilitated studies of wader foraging and benthic invertebrates in Roebuck Bay and Eighty Mile Beach by the Royal Netherlands Institute for Sea Research, especially after a purpose-built laboratory was added to BBO in 1997.

Frank O'Connor recalls early NWA expeditions: 'Camping on Eighty Mile Beach (who left the shell on the stake when they returned from the toilet over the dunes?); camping on the edge of the Port Hedland Saltworks (with clouds of mosquitoes at dusk); sitting in the hide at 80 MB with 49°C temperatures until the sea breeze came in just before high tide; and sitting in the hide during a torrential downpour as our 'directors chairs' filled with water. Clive said he thought the rain was getting lighter. I replied that the dogs might have stopped but the cats were still falling! We were sitting in four inches of water!'

Altogether, between 1981 and 2019, over 120,000 waders of 47 species were caught in NWA by the expeditions and Broome-based teams (led by Chris Hassell and BBO) that Clive helped to establish. The banding data, flag sightings and tracking results have allowed the migration strategies of a suite of 12 species that occur in both NWA and Victoria to be compared. Also they have provided key information about the lives of several other species, including Great Knot, Greater Sand Plover, Oriental Plover, Grey-tailed Tattler, Terek Sandpiper, Broad-billed Sandpiper and Little Curlew, that can only be caught in substantial numbers in NWA.

As a result of the programs Clive led in Australia, the basic parameters of the migration of Palaearctic-breeding waders in the EAAF are now reasonably well known. Most species have been found to have key staging areas in East Asia, especially on the coast of the Yellow Sea. Although Clive spent little time in the Asian parts of the EAAF, he made a large impact there. He engaged in voluminous correspondence with birders in the flyway who saw the birds his teams had leg-flagged, and strongly supported the participation of Asian volunteers in Australian fieldwork (especially in NWA). Many of the people now most active in wader studies in East Asia were enthused and trained as a result of the friendships and networking that came with participation in Australian fieldwork.

Though best known for cannon-netting and banding, Clive was also a strong supporter of wader counting schemes. In the 1980s, he played a key role in the first complete counts of shorebirds in NWA: 550,000 at Eighty Mile Beach, 170,000 on the northern shore of Roebuck Bay, 100,000 nearby at Bush Point, and 65,000 at Port Hedland Saltworks. He also organised nearly 40 years of annual counts at Corner Inlet, Victoria's premier shorebird location, which is a tricky site to monitor because there are so many channels and islands.

In addition, he found time for other adventures and projects. He was intrigued by the mystery of where Banded Stilts breed and was a driving force behind the first attempts to find and study breeding colonies on remote inland salt lakes, such as Lake Eyre and elsewhere. He instigated studies on the origins and migrations of terns on the sand cays of the Great Barrier Reef. When time allowed, he was a keen photographer, and collaborated with David Hollands on a photographic guide to the waders of Australia, Waders: The Shorebirds of Australia.

Danny Rogers writes: 'Some of my most enduring memories of Clive are from 1994, when he and I joined a joint Swedish-Russian icebreaker-based expedition along the north coast of Siberia, helicoptering into multiple campsites to carry out fieldwork. Even by Clive's standards, he was enthusiastic: it was his first breeding ground experience of many of the species he had spent so much time studying on the non-breeding grounds. On finding a big Ruff lek on Kolguyev Island, he was keen to band the birds and made a valiant attempt to get a helicopter pilot to fly to the icebreaker to fetch a cannon-net. For once his powers of persuasion failed (in his defence, he was communicating by radio with a Russian who couldn't speak English), but he managed to find an old fishing net, tent poles and guys from the campsite, and improvised a clap-net which did the job.'

Clive's South Australian Send-off.

Maureen Christie

On 15 December 2019 we gathered under the vine covered verandah at the Stewart's home in Rendelsham to farewell Clive. When I arrived I found Iain and Nick shucking a bag of fresh oysters from Smoky Bay. Clive would have been in his element! On the table was 'Waders of Australia' and a framed photo of Clive wearing a brightly coloured apron, whisk in hand, as he whisked up a bowl of crayfish mustard. There was also the family guest book with signatures of the team for visits going back to the first one in 1993. Present in the small group were five people who had been at the very first catch of Sanderling in Canunda in 1993 – Sandy and Iain Stewart, Sheila and Noel Boyle and Sarah Campbell (nee Sarrailhe).

Canunda, 1993. Bob Downs, Iain Stewart, Colin Boyle, Sally Stewart, Clive Minton.

Iain spoke on the history of how the initial visit came to be. Then the call : 3…2…1……Fire! A VERY loud bang along with a cloud of grey smoke when we fired off a canon!

The afternoon was spent sharing memories.

Iain read out the following apology:
Much as we would like to, we cannot make the memorial on Sunday. Minnie is 101 and is simply not up to it for the journey. Please pass on our regrets to all concerned.
David and Minnie Robertson**,** Adelaide.

Present
Iain and Sandy Stewart, Noel and Sheila Boyle, Nick Hunt, Pete Collins, Jeff and Sarah Campbell, Helen Bawden, Angela Jones, Lorraine Moore, Maureen Christie.

Apologies
David and Minnie Robertson, Wendy and David Trudgen, Chris Schulz and Petra Hanke, James and Wendy Ferguson, Birgita Hansen, Ross Anderson, Barry Schriever, Adrian Boyle, Kay Muggleton.

Cath Bell rang during the afternoon to report her visit to the Crested Tern breeding colony at Little Dip Conservation Park. Paul Feast had a puncture on his way and did not make it!

Clive Minton Medallion citation

Dr Rosalind Jessop, inaugural recipient 2019

Roz has been an active member of the VWSG for almost as long as it has been in existence.

Whilst Roz's field activities have been reduced in recent years, in the early days of the group she was always in the field. Roz became a qualified cannon-netter very early in the piece and was attending catches regularly for decades. Roz has been leading catches in her own right, leading processing teams and training many people in the appropriate way to handle and measure birds and how to age birds through assessing moult.

Her knowledge on catching and processing waders is enormous, and her insights and experience are often called upon when in the field and she is regularly called on when planning catches. She is happy to share her knowledge and her dry wit makes her a valuable member of any team. Flagging parties were mostly held at her house in the early days with people camped out all over her house for the weekend to get the thousands of flags made that were needed.

Roz has also carried an enormous backroom workload over several decades. These roles have included:

- Committee member since 1993.
- Editor of The Bulletin for 23 years (1994-2017).
- Keeper and maintainer of the oystercatcher database before David Trudgen took it on.
- Since state permits became more complicated over the last ten years, Roz has handled all document preparation, renewal of permits and ensured the VWSG reporting requirements have been met. We have scientific, ethics and public land- owner permits within each of the three states we catch in, plus the project permit with ABBBS and a permit to catch threatened birds listed under the EPBC Act. Without her input to this, we could not have functioned. This has been a huge workload and responsibility that she has carried.
- Roz has been Deputy Chair of the VWSG since 2004 giving stability to the group.
- Regular email communications to members have been channelled through Roz for decades.

Roz has made these significant contributions to the VWSG continuously over the period of her involvement, all the while working full time.

Roz has been a co-author of a myriad of papers and has made many presentations on waders, particularly of oystercatchers, over the years to a range of groups and audiences.

She makes a very worthy inaugural recipient of the Clive Minton Medallion as there is no doubt that she has made an outstanding contribution to the group.

Friends of Shorebirds SE

South Australian Team Report – 1 August 2019 – 31 August 2020

Maureen Christie and Jeff Campbell
Friends of Shorebirds SE Inc.

This is the first FoSSE report since the loss of Clive. Clive was not only in many ways responsible for the formation of the VSWG, but also for the establishment of FoSSE with interest raised following the VWSG visits to SA.

With the VWSG AGM in October this year, instead of mid-August, this report covers 13 months. As we have done very little banding for the season, the tables normally accompanying this report are being held over until next year.

Those of us involved in environmental volunteering always seem to have multiple hats, and sometimes it is a concern to know just which hat you are wearing at any particular time. Now seems to be a good time to give a brief outline of where FoSSE sits.

The VWSG has been coming to SA since 1993 and there has always been a keen local group working throughout the year. FoSSE was formed in 2005 with one of its objectives being to give the VWSG a South Australian presence. All the banding and flagging that we do is conducted as part of the VWSG long term study of waders and terns in Victoria, South Australia, and Tasmania. All of the permits (and there are many) are held by the VWSG. We collaborate with AWSG, undertaking Population Monitoring counts and enter them into Birdata. In our own right we are also heavily involved with protecting beach nesting species of both waders and terns, and this involves co-operation with the BirdLife Beach Nesting Birds program.

Local team catches, geolocators and VWSG visits

With new permits not finalized until January, and with VWSG catching suspended on 19 March, there was a small a window of opportunity for us to band. The only cannon netting we managed for the year was a catch at Killarney, Victoria, of a Pied Oystercatcher which had fishing line wound tightly around both legs. This is discussed in a separate article.

The 25 geolocators purchased for deployment in April remain in the fridge, hopefully to be deployed this coming season.

Our Coorong / Our Coast

Commencing 1 July there has been a state-wide reorganisation of natural resource management. The former Natural Resources Management Boards are no more and have been replaced with Landscape Boards. The Our Coorong / Our Coast project, and our role as a 'Partner', remains unchanged. We have been involved in several meetings with various members of the project team, including a team operations meeting in Kingston. Fox baiting is continuing along the south east coast and in the Coorong with a mix of aerial and ground-based baiting. Zoom meetings, and contributing comment, on Site Action Plans being prepared by BirdLife has been time consuming. One of the more exciting 'actions' proposed is to investigate

putting in a regulator on Drain L to increase shorebird habitat in Lake Hawdon North. There is a possibility that funding could be sourced from the much larger 'Project Coorong - Healthy Coorong, Healthy Basin'.

Conservation
We attended seemly endless meetings and workshops - NRM planning, public consultation on development of the Port MacDonnell Foreshore, a meeting in Adelaide chaired by Stephen Garnett on the 10 year review of IUCN Red List Status, and so the list goes on.

Comment was made on the following:
- Review of SA threatened species schedules
- Parliamentary Off-Road Vehicle Inquiry.
- Management Plans for Little Dip Conservation Park and Coorong National Park
- Draft Planning Code and Design Code for SA
- Independent Review of the EPBC Act
- Proposed listing of Karst Springs under the EPBC Act
- Upper South East Marine Park, Coorong Beach South Sanctuary Zone.

Beachwrack harvesting
A presentation on the Administrative Appeal Tribunal process was made to final year law students at Uni SA.

There continues to be very little evidence of harvesting. Red Algae is being investigated as a stock food supplement, but it is planned for this to be aquaculture based (thank goodness!).

Beach Nesting Birds
The main impact of restrictions on our beach nesting protection and monitoring works has been the social distancing requirement that only members of the same household could travel in a vehicle. There was a short period when we were unable to travel far from home, but we were still able to monitor our main sites by sharing the work around. Unfortunately, Hooded Plover did not have a very successful year, with only five fledged young counted in our April 2020 count.

We are very slowly adding to our tally of beach nesting species banded (predominately Pied Oystercatchers and Hooded Plovers). Details of tern breeding for the season, and details of proposed site protection works, are discussed in a separate article.

Photographed by Barry Schriever at 5 Mile, Beachport Conservation Park, on 30 August 2019, and captioned 'Late or Early?'. Hooded Plover have a full black cap at 9 months, so perhaps hatched February.

South Australian Shorebird Alliance
Unfortunately, this group has not held a meeting for over a year. It still exists as an email tree with the potential to be able to share information amongst those involved in shorebird site management and conservation across the state.

The Glenelg Estuary and Discovery Bay Ramsar Site
Our commitment to this project continues. Unfortunately, restrictions on BirdLife fieldwork caused first by fires and then by COVID have meant that few counts of the whole bay have been completed. Counts in November and December illustrated the importance of doing this count in tandem. In November BirdLife had 'hardly any migratory species', whilst we had 750 – 1000. There was a similar result in December, with 478 at Green Point, but only 15 counted in Victoria.

A Victorian Coastcare Grant application headed by FoSSE for a monitoring program was unsuccessful. The project involved Glenelg Hopkins CMA, Deakin University, Arthur Rylah Institute, BirdLife, VWSG and several other volunteer groups. Support was also provided by DEW and District Council of Grant as land managers in South Australia. The project was to undertake radio-tracking surveys of Sanderling from Cape Northumberland, South Australia to Cape Bridgewater, Victoria, using solar-powered automatic receivers and data-loggers with antennae placed on masts of 8 m height. Fixed station surveys were to be supplemented by hand-held surveys. It is to be hoped that another funding opportunity will present itself! Meanwhile, we will continue counting.

Thompson Beach and Bald Hill, Gulf St. Vincent

Photo: Paul Taylor, Bald Hill, 22 February 2020

Frequent Flyer, Bar-tailed Godwit AKK, has become quite a media star once again being the subject of an article in the Adelaide Advertiser. Regularly seen back in the Gulf St Vincent, it has also been seen passing through Bohai on five out of the six northward migrations made since being originally banded on our first visit to Thompson Beach in November 2012.

Andrew Darby's 'Flight Lines' staring Grey Plovers CYA and CYB was published during the year, introducing a whole new audience to the wonders of shorebird migration. His interview with Richard Fidler on the ABC Conversations program and with Hilary Harper on Life Matters is still online. https://www.abc.net.au/radio/programs/conversations/andrew-darby/12004812 https://www.abc.net.au/radionational/programs/lifematters/drawing-inspiration-from-the-flight-lines-of-ultra

General

We once again assisted with Water Week at Piccaninnie Ponds. 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. A summer count of Lake Hawdon South, summer and winter counts of Lake Bonney SE as well as our traditional sites of Port MacDonnell, Carpenter Rocks and Lake George were all successfully completed. Once again, we assisted in Latham's Snipe counts and the state-wide spring Wetlands and Waterfowl Survey,

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

We have recently been approached by the Port MacDonnell Maritime Museum to assist them in developing a dedicated, permanent shorebird display. After some confusion as to precisely how much input the Museum Committee expects from us, it is hoped that this will result in a thought-provoking display that will appeal to the museum's many visitors.

A very successful AGM was held at the Campbell family home in Mount Gambier in February with Birgita Hansen giving an extremely interesting, and well received, talk on the Latham's Snipe project. Newsletters continue to be issued sporadically .

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 Natural Resources South East/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 of the support he gives us, both as our Community Liaison Ranger and as a member.

SA April 2020 VWSG Expedition – Covid Style

Maureen Christie

On 20 March I received an email advising that VWSG was suspending all field work activities. In SA, the government had restrictions on travel, but they were a bit vague, and I decided that I could safely define beaches between the Cape Banks Lighthouse and Nene Valley as 'local'. The Port MacDonnell area was probably a bit far away, and too populated, with Nora Creina definitely out of bounds. I undertook regular reecies within my bubble, and, commencing the first catching day of the expedition (9 April) until migrants left at the end of April, I made daily visits. I was rewarded with many hours of quietly sitting at the beach watching waders feeding incessantly in preparation for the long journey north. And I managed to read lots of flags. Personal best for a day of 47 flags involving four different species. I never managed to crack 50!

Species	Total flags read	Total individuals	geos
Ruddy Turnstone	377	123	5 white, 6 yellow
Sanderling	65	30	
Curlew Sandpiper	3	2	1 white
Pied Oystercatcher	45	11	
Sooty Oystercatcher	1	1	
Total	**491**	**167**	

The twitcher in me was rewarded with several sightings of a small flock comprising an Eastern Curlew and three Whimbrel. There was hardly a day when I did not see a geo and there were many occasions when we could have had a successful catch. The Cape Banks Lighthouse beach was the most productive site, as, day after day, I watched a mixed flock of waders feeding up high on dry sand. Numbers peaked at about 2,000. The highest count of turnstone was 220, Curlew Sandpiper 20 and Sanderling 120.

And so, to the highlights:

The mixed flock at the Cape Banks Lighthouse usually included 1 or 2 Curlew sands. But on 23 April there were 20. And, to my amazement, there was one with an orange flag and white geo! KJT 042 86982 was banded at Yallock Creek on 1 March 2020. And I was there! The one and only catch I have been to at Yallock Creek.
We have known for a long time that King Island turnstone pass

through the south east of South Australia, but I was surprised at the number of King Island flagged turnstone that I saw and how long they stayed. I managed to read eight flags, the most notable being:

UCL/Blue seen on 10 occasions between 2 -23 April (0528664 Manuka 912.2018).
UDV/B seen five times between 2 – 24 April (05286096 Surprise Bay 10.12.2018).
YJZ – blue missing, but wearing a yellow geo, seen eight times between 28 March - 28 April (05272113 Currie 2.4.3013 and retrapped there 28.11.2014, 19.3.2018, 28.3.2019).

As we rarely see internationally flagged waders in the south east, I was very excited to see a Sanderling flagged Blue/Green- on the right in the flock at the Cape Banks Lighthouse beach. It was seen a total of seven times, 28 March – 26 April. Banded Jiangsu, China. A turnstone with the same combination, but flagged on the left, was seen at Blackfellows Caves 28 November 2018.

The Only Sooty Oystercatcher flag was Black K4, banded aged 4+ at Blackfellows Caves on 15.4.2013.

To round out this report I could not resist including a photo of Pied Oystercatcher Black H9 and mate taken at the Cape Banks Lighthouse beach on 17 April 2020. 100 96925 Banded Barry Beach 29.7.1990 aged 2+. So now 32+. Maybe vying with Steve Johnson's bird for oldest VWSG oystercatcher?

VWSG ” Self-Isolation & Social Distancing “ Field Work!

Graham Beal

On a very pleasant Saturday afternoon I decided that I needed some exercise and a change of scenery as I had been at home for a week due to the Covid 19 restrictions, this was just before stricter ones were implemented! I quickly checked the high tides and decided there was no better place be than somewhere I have spent many pleasant hours with the VWSG, Stockyard Point on Western Port ,Victoria.

After a 45 minute drive and a stroll to the point I arrived at approx. 4.30 pm, an hour before high tide, to be greeted by a flock of over 30 Australian Pied Oystercatchers, approx. 3000 Red-necked Stints , 200 Curlew Sandpipers ,many showing magnificent breeding plumage and a solitary Sharp-tailed Sandpiper .There were also about 40 Double-banded Plovers ,38 Gull-billed Terns , 2 Asian Gull-billed Terns (*affinis*), 20 Caspian Terns and the usual array of Pacific and Silver Gulls.

After edging myself closer and closer to the flocks on this beautiful, sunny, windless afternoon I began to read some engraved flags. Firstly the Australian Pied Oystercatchers of which as I mentioned there was over 30 .There was an assortment of 6 different coloured engraved flags and I managed to read four of them with two red ones unfortunately being unreadable, (Joris informed me that these were probably from a bad batch at the time!), for future reference the rest of the birds were unbanded including a few juveniles!

Amongst this flock was Caspian Tern in non-breeding plumage sporting an engraved orange flag, I also managed to read three of the Curlew Sandpiper flags but a single Double-banded Plover eluded me!

Some fisherman appeared, disturbing the birds briefly but they soon settled again in different positions on the beach. Once again, I edged myself closer and closer to them with Clive’s voice echoing in my head “ they are remarkably settled “!

It was interesting to observe them at close range with the tide ebbing, some continued to sleep while others were preening and bathing. About an hour after high tide they became restless and in the evening light began to take off as some mud had become exposed enabling them to feed again.

I sent the sightings to Joris Driessen who provided me with this interesting information. He was unable to provide me with details of the small waders and the Caspian Tern, however those of the Australian Pied Oystercatchers I thought were interesting.

These first two were first banded at Stockyard Point and had been observed there on several occasions over the years.

Band number: 10134229
White Engraved flag: W6
Date of first banding: 21/09/2013
Age of bird when banded: 3+, now aged 10+

Band number: 10134206
White Engraved flag: T7
Date of first banding: 21/09/2013
Age of bird when banded: 4+, now aged 9+

Band number: 10134321
Yellow Engraved flag: RT
Date of first banding: 24/07/2013
Age of bird when banded: 4+, now aged 10+

Was first banded at Roussac's Farm near Foster, Corner Inlet. Also seen regularly since then at Stockyard Point .

It was nice to see the next one as I was going to be a participant on the King Island trip that was cancelled!

Band number: 10141608
Black Engraved flag: N3
Date of first banding: 25/11/2014
Age of bird when banded: 3+ now aged 8+
Location banded: 800181 MANUKA, KING ISLAND, Australia

The first re-sighting was 02/04/2017 a Stockyard Point and it had travelled a distance of approximately 224 km, with a bearing of 37 degrees, from the marking location. This was the fifth sighting at Stockyard Point.

I am pleased to have been proactive in this difficult time with no VWSG activities happening and as I write an outing scheduled for 21 July to this location has just been cancelled due the Victorian Government's recent introduction of only 10 people at any gathering!

Covid Photographic Challenge

Maureen Christie

In the early days of the pandemic when people were benefiting from not having that rush hour drive to and from work and before they had felt the full impact of having to juggle work, zoom meetings and home schooling, many had time on their hands. Perhaps they would be happy to spend some time searching their photo files for images of Red Knot and Bar-tailed Godwit?

Why, you may ask?

The mystery of which sub-species of Red Knot and Bar-tailed Godwit occur in the Gulf St Vincent has long been a puzzle that the VWSG has been anxious to solve. At the AWSG conference in Adelaide in 2012, Tony Flaherty's reports of several 'good' (1000+) flocks of Red Knot in the Gulf were enough to convince Clive that he should take a team to Thompson Beach. Clive wrote at the time:
we currently have no idea whether they are rogersi from the east Australian/New Zealand non-breeding area population (breeding in Chukotsk in the far north-east of Siberia) or from the piersmai population which occurs in north-west Australia and breeds in the New Siberian Islands, in the Arctic Ocean off the north coast of Yakutia. The only previous banding in that area (800 in one catch in the early 1980s) produced some recoveries but these were not diagnostic concerning the population.*

He went on to say: *With the current extensive network of flag sighters, and the intensive studies of Red Knot at the Bohai stopover site in the Yellow Sea (by Chris Hassell and Adrian Boyle of the Global Flyway Network) we should be able to answer our question relatively easily. Engraved flagged birds are likely to be seen at various locations in the Flyway. And all Red Knot sighted at Bohai are ascribed to a particular sub-species on the basis of their diagnostic breeding plumage.*

How wrong could he be? When we failed to catch Red Knot, we turned our attention to Bar-tailed Godwit. With Tony's help, FoSSE obtained a grant from the Adelaide and Mount Lofty Ranges NRM Board for satellite transmitters. And, once again, we failed. And so we turned our attention to Grey Plover – but that is a different story.

Meanwhile, it had been realised that if you could get a decent view of the rump of a Bar-tailed Godwit, and a Red Knot with a good amount of breeding plumage, you could determine the sub-species. On 24 April, with no real plan of how I was going to make it happen, I sent out an appeal for photos through my email list. This was followed up with a further request published in the winter edition of Birds SA Newsletter. I promised photographers that I would organise an expert to check their photos out. And, having made this rash promise, I had to find an 'expert'. Danny Rogers and Chris Hassell agreed to help.

My appeal caught the imagination of many photographers and was just in time to have several photographers take photos of Red Knot just prior to their departure on migration. And, with people spending more time at home because of COVID restrictions, many searched their photo files as well.

The spread of Red Knot photos were mainly from the Gulf St Vincent, but with some from Ward Spit and Chinaman Wells in Spencer Gulf and a few from the Coorong and lower South East. Both sub- spp were identified at all of the sites where identification could be made.

Photos of Bar-tailed Godwit came from across the state. With proof of both spp occurring at all sites. Philippa Horton has reviewed specimens held in the SA Museum collection and they reinforce what the photos are showing.

Almost inevitably it has been decided that it would be extremely useful to continue collecting, and reviewing, photos for another season.

A census of *Limosa lapponica baueri* was conducted during February 2020, with counts carried out throughout New Zealand and the east coast of Australia. The reviewer of the team's report suggested that the SA data they had included needed to be reviewed in light of the result of our photo project. Even though our findings to-date are tentative and preliminary, I have agreed to assist as it would be a great shame for the paper to contain out-of-date data. It is pleasing that data coming out of a spur of the moment Covid Lock Down project can be used before we are even out of lockdown!

What has been achieved so far would not have been possible without the enthusiasm of the photographers and the diagnostic skills of Danny, Chris and Phillippa. Thank you to all! I look forward to the project continuing into the 2020/21 season.

*this catch was made by Max Waterman on Ward Spit, Spencer Gulf, SA. 3 recoveries from China and 2 from Russia. See Stilt 50 page 270.

Photo of *Calidris canutus rogersi* and *Calidris canutus piersmai* taken by Paul Taylor on 29 May 2020 at Bald Hill

Photo taken by Sally Grundy on 6 October 2014 at Mundoo Island Station, Northern Lagoon, Coorong
Limosa lapponica menzbieri on left and *Limosa lapponica baueri* on right

A new species of godwit? The Two-headed Godwit *Limosa janus.* Photo by Sarah Campbell. Danger Point, South Australia. More details 1 April next year.

A tale of two hoodies
Jeff Campbell

The following life stories of two Hooded Plovers are of interest. Firstly hoodie banded 052 80522 and carrying orange engraved flag AH was caught as a chick by Grainne Maguire on 20 April 2015 at the Abalone Farm near Port Fairy, Victoria. In February 2016 we saw it at Danger Point, east of Port MacDonnell, South Australia. This is a distance of ~ 130 km in a straight line, and ~ 175 km following the coastline. By March 2016 it had paired with another bird and was nesting and in April of that year we caught and flagged one fledgling with colour flags ORYM (Orange/Red/Yellow/Metal). It bred again in the same general area in November 2018, producing one fledgling which was caught and marked with a blue flag engraved EA. It bred again in September 2019, producing one chick, the fate of which was unknown. In February 2020 it nested once again and from three eggs produced one fledgling which was banded but not flagged. Another nesting attempt was made in August 2020, when two eggs in a nest, and another egg around 30 – 40 cm from the nest was located. Mysteriously the third egg was in the nest the next day. It was presumed that someone had placed the egg into the nest. Unfortunately, the nest and eggs had disappeared a week later, presumed to have been washed out after some very rough weather. In late September 2020 copulation was observed near the waters' edge and it had renested near the previous location, with three eggs in a shallow scrape a week later.

The other hoodie is a bird flagged OWYM (Orange/White/Yellow/Metal) which we caught banded 052 59932 and flagged as a fledgling, in January 2015 at Piccaninnie Ponds, east of Port MacDonnell. This bird was seen and photographed on the Sir Richard Peninsula near the Murray mouth in July 2015, having travelled at least 330 km. At that time it was around seven months of age. It was then seen and photographed by Barry Schriever near the Victorian border, not far from its natal area in November 2015, having travelled at least 660 km in total, or 880 km if it followed the coast in both directions. This bird was seen by Barry in the area during most years since then, including when it was breeding near the SA/Vic border in November 2018. In August 2020 it had paired with another bird on Woolwash Beach, Port MacDonnell and was observed making nest scrapes there. This had been the breeding territory of a bird flagged OGYM (Orange/Green/Yellow/Metal) as a breeding adult by Maureen in 2014. This bird attempted, mostly unsuccessfully, to breed at the site every year since then but has not been seen there since early 2020.

WADER BREEDING SUCCESS IN THE 2018 ARCTIC SUMMER, BASED ON JUVENILE RATIOS OF BIRDS WHICH SPEND THE NON-BREEDING SEASON IN AUSTRALIA

Clive Minton, Roz Jessop, Chris Hassell, Rob Patrick, Robyn Atkinson, Maureen Christie & Ila Marks

1

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 Australia. This is usually carried out in two different regions, some 3,000 km apart. In South-east Australia (SEA) the Victorian Wader Study Group tries to monitor breeding success in seven different 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. The other area sampled, by the Australasian Wader Studies Group, is in North-west Australia (NWA) – specifically in Roebuck Bay, Broome, and on the northern parts of 80 Mile Beach and the adjacent grassland plains of Anna Plains Station. Here a minimum of eight species are monitored annually.

In SEA birds were caught at a range of sites, mostly the same sites as in other recent years. No particular problems were experienced this year except that there were so few Red Knots around in the 2018/19 season that it was not possible even to make a catching attempt on them. Weather conditions etc. were also greatly improved in NWA, compared with the previous season, and this enabled all the main species to be successfully caught in adequate numbers.

This note gives the numerical data relating to the relevant catches made in the two regions during the 2018/19 wader non-breeding season. It also categorises the estimated breeding success of each population in the 2018 Arctic summer.

METHODS

There were no significant interruptions in the sampling period in 2018/2019, as there were in the preceding year (when a cyclone considerably disrupted the NWA planned fieldwork programme). The usual techniques for catching/ageing birds etc. were employed in both regions.

RESULTS & DISCUSSION

SEA

A total of 2,125 birds, of the seven species targeted for annual monitoring, were caught in SEA in the sampling period (Tables 1 and 3). As usual, Red-necked Stint topped the species catch total with 655 individuals caught during the mid-November to early April monitoring period. The percentage of juveniles (9.5%) was higher than last year (3.5%) but was still well below the long-term average (14.7%). This is their second consecutive year of poor breeding success. Curlew Sandpipers have also had two successive poor breeding years, though again there was a slight improvement in the most recent year from the 2017/18 season (9.9% juveniles this year compared with 5.4% last year).

By contrast, Sharp-tailed Sandpipers appear to have had an almost miraculously successful breeding year (45.9% juveniles!). This figure may have been affected by the widespread drought conditions being experienced in inland Australia during the last year. It was certainly noticeable that there were far more Sharp-tailed Sandpipers at coastal locations during the 2018/19 season and it may be that these were preferentially (over adults) immature (juvenile) birds which were forced to the coastal regions. This high breeding productivity in the Arctic summer of 2018 means that the long-term average percentage juveniles for Sharp-tailed Sandpipers is now higher than that of Red-necked Stint and Curlew Sandpiper (16.7% compared with 14.7% and 14.5% respectively).

With two good breeding seasons in succession there was a noticeable widespread marked increase in Sharp-tailed Sandpiper summer populations throughout Victoria. By contrast, with two bad years in succession, Red-necked Stints appeared to be scarcer than usual. Surprisingly, Curlew Sandpipers did not appear to be similarly affected by two successive poor breeding years, possibly because they were still benefitting from the exceptionally high breeding productivity of this species in the Artic summer of 2016.

We always find Red Knot the hardest species to catch and monitor and in the 2018/19 non-breeding season we were only able to catch one bird in the VWSG monitoring area. By contrast, we did well for Bar-tailed Godwits (100 caught) which are another species which it is particularly difficult to catch in adequate numbers. Unfortunately, the breeding success of these godwits – which banding/flagging has shown to be almost exclusively from the Alaskan breeding location – was very poor in the Arctic summer of 2018 (only 3.0% juveniles).

Ruddy Turnstone was the outstanding success story of this year's monitoring season. A record 596 birds were caught, mostly on two highly successful visits to King Island and one to the South-east of South Australia. It was also another particularly good breeding season for this species with 25.7% juveniles. This is the second year of particularly good breeding success for this species in the last three years. It should result in a welcome halt to declining populations of this species.

Finally another species, the Sanderling, where catching adequate samples annually seems to be becoming more difficult each year. After the complete failure to obtain a useable sample last year we had one good catch, of 100 birds, this year. They seem to have had slightly below average breeding success in the 2018 Arctic summer.

Overall, for south-east Australia, breeding success in the Arctic summer of 2018 was slightly better than the extremely poor year of 2017. Nevertheless four of the six species which were successfully monitored had breeding outcomes which were below average or worse. It is difficult to explain why, in contrast, Ruddy Turnstone and Sharp-tailed Sandpiper should have had much more successful breeding success than these other species.

NWA

Wader populations which spend the non-breeding season in NWA had breeding outcomes which were generally below those of populations in SEA (Tables 2 and 4). Of the eight species monitored annually (those species shown in Table 2, excluding Ruddy Turnstone, Oriental Pratincole and Oriental Plover) only one (Terek Sandpiper) had an above average breeding success in the Arctic summer of 2018. Outcomes for four species were particular poor, with percentage juveniles in single figures (Table 2). One can only presume that the weather conditions and/or other breeding parameters were poor. Overall 1,561 waders were caught during the breeding success assessments in 2018/19.

Bar-tailed Godwits had a particularly bad breeding outcome (2.0% juveniles) in the 2018 breeding season. This is the second successive year with an extremely low breeding productivity. It was noticeable how relatively few Bar-tailed Godwits were present at high tide roosts, particularly along the area of 80 Mile Beach adjacent to Anna Plains Station. Gone are the days when the instruction to the cannon netting team was to 'avoid catching any more Bar-tailed Godwit'!

Great Knot also had another poor breeding year in 2018 (5.5% juveniles). It is now nine years since the average percentage juveniles was exceeded in this species.

In absolute terms Red Knot fared even worse (1.5% juveniles) during the most recent breeding season. However this species is prone to rather wide fluctuations in breeding success from year to year and it was only two years ago that 21.6% juveniles were present in the summer populations in NWA.

Red-necked Stints in NWA had a second successive poor breeding year, as they have done in SEA.

The string of low annual productivity results continued in the Greater Sand Plover. It is seven years now since the long-term average percentage juveniles was exceeded.

Terek Sandpiper and Grey-tailed Tattler both continued their run of results which can swing quite markedly from year to year. Both had relatively good breeding success in 2018.

It is interesting that although the sample of Ruddy Turnstone was only small (16) in NWA they appeared to have had good breeding success in 2018. Similar high breeding success figures were also obtained for this species in SEA in the 2018/19 non-breeding season.

Figures are also included for Oriental Pratincole and Oriental Plover, two grassland species at Anna Plains/80 Mile Beach which are not usually caught in sufficient numbers each year to be part of the regular monitoring programme. Both seem to have had relatively poor breeding success in 2018, but the norm for each species is of course not known at the present time.

We hope for a repeat in the 2019/20 season of the good catching opportunities we had for such species in NWA in breeding success.

CONCLUSION

It was disappointing that the overall breeding success results in the 2018/19 season were not a lot better in either SEA or NWA than the very poor results experienced in 2017/18. We will continue to monitor 'percentage juveniles' in the usual way in the 2019/20 non-breeding season. Let us hope this brings a significant improvement in the 2019/20 year.

ACKNOWLEDGEMENTS

As usual, the results are dependent on the fieldwork efforts of the Victorian Wader Study Group and the Australasian Wader Studies Group (especially the NWA 2019 Expedition). Their perseverance, often in adverse weather conditions, continues to be key to obtaining adequate data for an accurate assessment of annual breeding success.

All the relevant wildlife authorities are also thanked for granting ethics and banding permits in Victoria, South Australia, Tasmania, and Western Australia.

The financial assistance provided by the WA Parks and Wildlife Department was greatly appreciated. The Global Flyway Network is thanked for supporting Chris Hassell.

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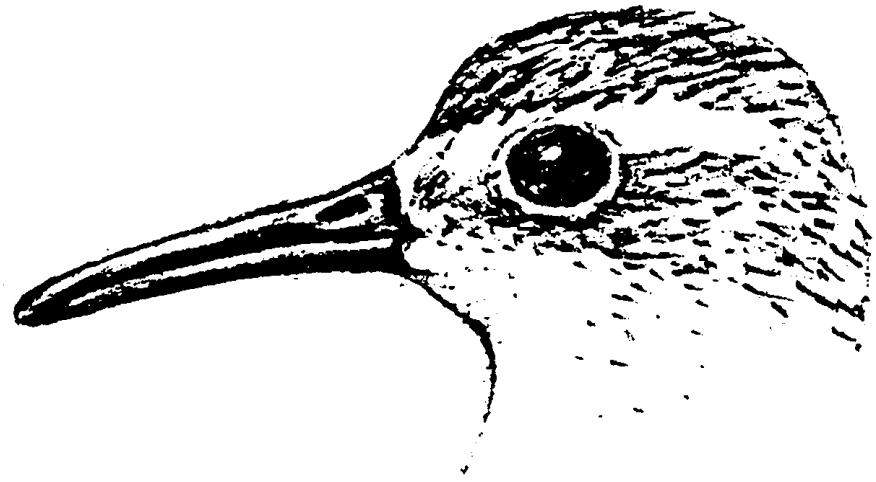

Table 1. Percentage of juvenile (first year) waders in cannon-net catches in south-east Australia 2018/2019.

Species	No. of catches		Total caught	Juveniles		Long-term average* % juvenile (years)		Assessment of 2018 breeding success
	Large (>50)	Small (<50)		No.	%			
Red-necked Stint *Calidris ruficollis*	2	7	655	62	**9.5**	14.7	(41)	Poor
Curlew Sandpiper *C. ferruginea*	2	2	395	39	**9.9**	14.5	(39)	Below Average
Bar-tailed Godwit *Limosa lapponica*	1	0	100	3	**3.0**	20.9	(30)	Very Poor
Red Knot *C. canutus*	0	1	(1)	1	**-**	54.4	(20)	-
Ruddy Turnstone *Arenaria interpres*	3	21	596	153	**25.7**	16.3	(29)	Very Good
Sanderling *C. alba*	1	3	112	13	**11.6**	14.4	(27)	Below Average
Sharp-tailed Sandpiper *C. acuminata*	1	2	266	122	**45.9**	16.7	(35)	Exceptionally Good

All birds cannon-netted in the period 2nd November to 25th March except Sharp-tailed Sandpiper and Curlew Sandpiper to end February only and some Ruddy Turnstone and Sanderling to early April and one Sanderling catch in late April (2015) . *Includes the 2018/2019 figures.

Table 2. Percentage of juvenile (first year) waders in cannon-net catches in north-west Australia 2018/2019.

Species	No. of catches		Total caught	Juveniles		Long-term average* % juvenile (years)	Assessment of 2018 breeding success
	Large (>50)	Small (<50)		No.	%		
Great Knot *Calidris tenuirostris*	4	2	758	42	5.5	10.5 (21)	Poor
Bar-tailed Godwit *Limosa lapponica*	1	2	103	2	2.0	9.8 (21)	Very Poor
Red-necked Stint *C. ruficollis*	0	6	118	10	8.4	18.3 (21)	Poor
Red Knot *C. canutus*	0	4	66	1	1.5	15.1 (20)	Very Poor
Curlew Sandpiper *C. ferruginea*	0	8	58	8	13.8	17.2 (21)	Below Average
Ruddy Turnstone *Arenaria interpres*	0	1	16	4	(25.0)	-	(Probably Very Good)
Non-arctic northern migrants							
Greater Sand Plover *Charadrius leschenaultii*	1	9	225	34	15.1	21.4 (21)	Below Average
Terek Sandpiper *Xenus cinereus*	0	7	34	9	26.5	13.2 (20)	Very Good
Grey-tailed Tattler *Heteroscelus brevipes*	0	7	45	7	15.7	18.7 (20)	Average
Oriental Pratincole *Glareola maldivarum*	1	2	113	7	6.2	-	Poor?
Oriental Plover *Charadrius veredus*	0	6	25	1	(4.0)	-	(Poor?)

All birds cannon-netted in period 1 November to mid-March *Includes the 2018/19 figures

Table 3. Percentage of juvenile (first year) birds in wader catches in south-east Australia 1998/1999 to 2018/2019.

Species	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	***Average (last 21yrs)***
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	7.0	25.7	*15.1*
Red-necked Stint *Calidris ruficollis*	32	23	13	35	13	23	10	7.4	14	10	15	12	20	16	22	17	19	6.0	31.3	3.8	9.5	*16.6*
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	*16.5*
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	*19.9*
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	*14.9*
Red Knot *C. canutus*	(2.8)	38	52	69	(92)	(86)	29	73	58	(75)	(-)	(-)	78	68	(-)	(95)	(100)	(100)	90.3	33.3	(-)	*58.8*
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	3.0	*22.5*

All birds cannon-netted between 15th November and 25th March, except Sharp-tailed Sandpiper and Curlew Sandpiper to end February only and some Ruddy Turnstone and Sanderling to early April and one Sanderling catch in late April (2015). Averages (for 21 years) exclude figures in brackets (small samples) and include 2018/2019 figures

Table 4. Percentage of juvenile (first year) birds in wader catches in north-west Australia 1998/1999 to 2018/2019

Species	**98/99**	**99/00**	**00/01**	**01/02**	**02/03**	**03/04**	**04/05**	**05/06**	**06/07**	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**	**12/13**	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**18/19**	**Average (last 21yrs)**
Red-necked Stint *Calidris ruficollis*	26	46	15	17	41	10	13	20	21	20	10	17	18	24	15	19	10	11.1	17.2	6.8	8.4	*18.3*
Curlew Sandpiper *C. ferruginea*	9.3	22	11	19	15	7.4	21	37	11	29	10	35	24	1	1.9	23	18	0.7	40.3	8.1	13.8	*17.2*
Great Knot *C. tenuirostris*	2.4	4.8	18	5.2	17	16	3.2	12	9.2	12	6	41	24	6	6.6	5	6	5.7	9.0	2.6	5.5	*10.5*
Red Knot *C. canutus*	3.3	14	9.6	5.4	32	3.2	(12)	57	11	23	12	52	16	8	1.5	8	13	2.7	21.6	5.4	1.5	*15.1*
Bar-tailed Godwit *Limosa lapponica*	2.0	10	4.8	15	13	9.0	6.7	11	8.5	8	4	28	21	8	7.6	17	5	10.3	11.0	3.0	2.0	*9.8*
							Non-arctic northern migrants															
Greater Sand Plover *Charadrius leschenaultii*	25	33	22	13	32	24	21	9.5	21	27	27	35	17	19	28	21	20	10.5	12.4	13.2	15.1	*21.4*
Terek Sandpiper *Xenus cinereus*	12	(0)	8.5	12	11	19	14	13	11	13	15	19	25	5	12	15	12	9.2	5.8	3.8	26.5	*13.2*
Grey-tailed Tattler *Heteroscelus brevipes*	26	(44)	17	17	9.0	14	11	15	28	25	38	24	31	20	18	16	19	8.9	14.5	7.3	18.7	*18.7*

All birds cannon-netted in the period 1 November to mid-March. Averages exclude figures in brackets (small samples) but include 2018/2019 figures.

WADER BREEDING SUCCESS IN THE 2019 ARCTIC SUMMER, BASED ON JUVENILE RATIOS OF BIRDS WHICH SPEND THE NON-BREEDING SEASON IN AUSTRALIA

ROZ JESSOP, ROB BUSH, ROB PATRICK, ROBYN ATKINSON, MAUREEN CHRISTIE & ILA MARKS

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 Australia. This is usually carried out in two different regions, some 3,000 km apart. In south-east Australia (SEA) 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. The other area sampled, by the Australasian Wader Studies Group (AWSG), is in north-west of Western Australia (NWA) – specifically Roebuck Bay, Broome, and the northern parts of 80 Mile Beach and the adjacent grassland plains of Anna Plains Station. Here a minimum of eight species are targeted for monitoring annually.

In SEA birds were caught at a range of sites, mostly the same sites each year. The bushfires and weather in Victoria in 2019/1920 negatively impacted on the field season and no data was collected for Bar-tailed Godwit and Red Knot as it was not possible to make field trips to the sampling locations due to entry restrictions to bushfire affected areas and the need for Parks Victoria staff to fight the bushfires (not available for boat transport duties). In addition, a new breeding colony of the endangered Fairy Tern (*Sternula nereis*) prevented cannon netting at one of the usual Bar-tailed Godwit catch sites. Travel restrictions brought in by Australian state governments to combat the Coronavirus disease (CORVID-19) pandemic prevented the usual March field trip to King Island, Tasmania and to South Australia to sample Ruddy Turnstone. In NWA samples of the main species were successfully caught in adequate numbers during the AWSG NWA2020 Expedition (February-March 2020).

This note gives the numerical data relating to the relevant catches made in the two regions during the 2019/2020 wader non-breeding season. It also categorises the estimated breeding success of each population in the 2019 Arctic summer.

METHODS

There were significant interruptions in the sampling period in 2019/2020, in SEA due to the extensive bushfires and associated weather, travel restrictions, availability of boat transportation and restrictions relating to the CORVID-19 pandemic. In NWA sampling was carried out between 7 February and 1 March 2020 during the planned fieldwork programme. The usual techniques for catching/ageing birds etc. were employed in both regions. Methods are outlined in Minton et al. (2005). A sample of between 100 and 220 birds gives a juvenile fraction error range of 0.1 to 0.15 (see Rogers & Standen 2019).

RESULTS & DISCUSSION

SEA

A total of 1,067 birds, of the seven species targeted for annual monitoring were caught in SEA in the sampling period (Tables 1 and 3). As usual, Red-necked Stint topped the species catch total with 714 individuals caught during the mid-November to early April monitoring period. The percentage of juveniles (24.5%) was higher than last year (9.1%) and above the long-term average (17.1%) (Minton et al. 2020). This was an improvement after two consecutive years of poor breeding success. However, it should be noted that the four catches used in this estimate 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 fire and heatwave entry restrictions and 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 Sandpipers (25.0%) also had above average breeding success (16.9%) after two successive poor breeding years (Minton et al. 2020).

Sharp-tailed Sandpipers (2%) appear to have had very low breeding success following on from last year's successful breeding year (45.9% juveniles – Table 3) (Minton et al. 2020). Sharp-tailed Sandpipers were again present in numbers in coastal areas of SEA and may have been affected by the widespread drought conditions that continued throughout the year in inland Australia that meant inland wetlands remained dry. The good numbers of Sharp-tailed Sandpipers present in SEA can be attributed to both the drought and the previous two good breeding seasons.

We always find Red Knot the hardest species to catch and monitor and in the 2019/2020 non-breeding season we were not able to catch enough birds in the VWSG field sites. Similarly, we did not catch enough Bar-tailed Godwits or Sanderling to report on percentage juveniles in the populations.

Ruddy Turnstone had an average breeding year. A total of 132 birds were caught in December 2019 on King Island. The field trips in March to King Island and South Australia were cancelled due to Australian state government travel restrictions for the CORVIS-19 pandemic. The breeding season appeared to be average (17.4%) and follows last years of good breeding success for this species (25.7% – Table 3) (Minton et al. 2020).

Overall, for south-east Australia, breeding success in the Arctic summer of 2019 was average or above average for all but one of the four species successfully monitored had low breeding success.

NWA

Of the five wader populations which breed above the Arctic Circle and spend the non-breeding season in NWA two species had low breeding outcomes, one below average and one average. Insufficient Curlew Sandpipers were caught to determine percentage juveniles.

For the three species that breed below the Arctic Circle, Greater Sand Plover had an average breeding season, Terek Sandpiper below average and Grey-tailed Tattler a particularly good breeding season (Tables 2&4).

Overall, 2,125 waders were of the eight species were caught during the period for breeding success assessments in 2019/2020.

Bar-tailed Godwits has second bad breeding outcome (2.0% juveniles) in the 2019 breeding season. This is the third successive year with an extremely low breeding productivity. It was noticeable how relatively few Bar-tailed Godwits were present at high tide roosts.

Great Knot also had another poor breeding year in 2019 (2.1%) following on from 2018 (5.5% juveniles) (Minton et al. 2020). It is now 10 years since the average percentage juveniles was exceeded in this species.

In comparison Red Knot fared better in 2019 (12.7%) which was close to the long-term average of 14.9% (Table 4). This species is prone to rather wide fluctuations in breeding success from year to year and in 2016/2017 21.6% juveniles were present in the summer populations in NWA (Table 4).

Red-necked Stints in NWA had a slightly lower (13.8%) breeding season compared to the 22-year average of (18.2%) (Table 2). This percentage of juveniles is lower than that recorded in SEA, however this may be due to SEA samples being all from a site with known higher number of juveniles (VWSG unpublished data).

Greater Sand Plover had an above average breeding season with 26.9% juveniles which is slightly above the long-term average of 21.5%. 2019 produced the highest number of juveniles in the population since 2012/2013 (Table 4).

Grey-tailed Tattler had a very good breeding year with 30.8% juveniles recorded, well above the long-term average of 19.4%. Terek Sandpiper had an above average breeding season 19.3% compared to the long-term average 13.3%, this is the second year of above average breeding success (Table 4).

Insufficient Ruddy Turnstone were caught to comment on breeding success.

CONCLUSION

Breeding success results were mixed for 2019/2020. Non-Arctic migrants had average or slightly above average success whereas Arctic species were less successful.

ACKNOWLEDGEMENTS

We acknowledge the work of Dr Clive Minton, who was killed in a car crash in late 2019. As usual, the results are dependent on the fieldwork efforts of the Victorian Wader Study Group and the Australasian Wader Studies Group (especially the AWSG NWA 2020 Expedition members). Their perseverance, in tropical weather conditions, continues to be key to obtaining adequate data for an accurate assessment of annual breeding success.

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

The financial assistance provided by the Western Australian Department of Biodiversity, Conservation, and Attractions for the NWA202 expedition is greatly appreciated.

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

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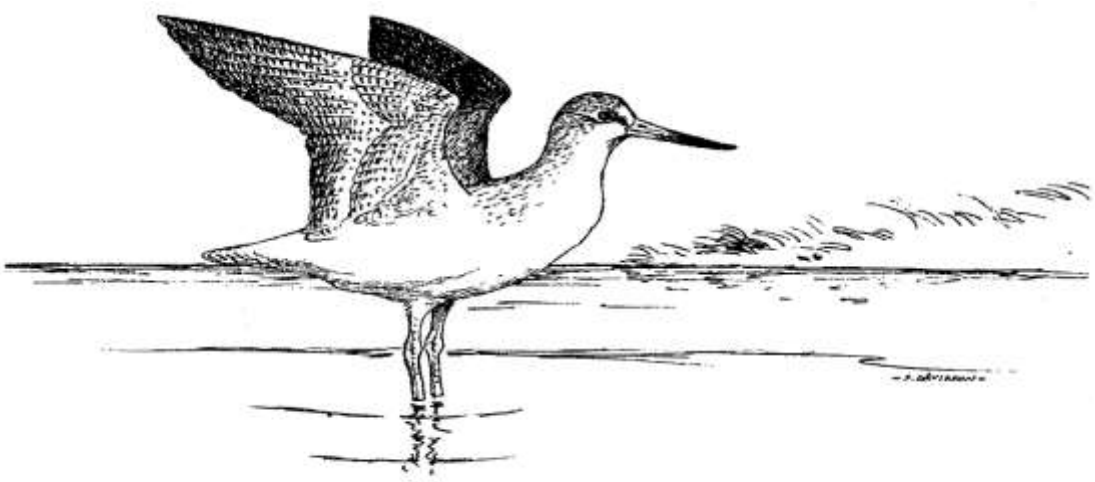

Table 1. Percentage of juvenile (first year) waders in cannon-net catches in south-east Australia 2019/2020

Species	**No. of catches**			**Juveniles**		**Long-term average***		**Assessment of 2019 breeding success**
	Large (>50)	**Small (<50)**	**Total caught**	**No.**	**%**	**% juvenile (no. years)**		
Red-necked Stint *Calidris ruficollis*	4		714	175	**24.5**	17.1	(22)	Above average
Curlew Sandpiper *C. ferruginea*		5	113	27	**23.9**	16.9	(21)	Above average
Bar-tailed Godwit *Limosa lapponica*			0					
Red Knot *C. canutus*		1	1					
Ruddy Turnstone *Arenaria interpres*	1	3	132	23	**17.4**	15.1	(22)	Average
Sanderling *C. alba*			0					
Sharp-tailed Sandpiper *C. acuminata*	1		99	2	**2.0**	19.2	(21)	Low
All birds cannon-netted in the period 2 November to 25 March except Sharp-tailed Sandpiper and Curlew Sandpiper to end February only and some Ruddy Turnstone and Sanderling to early April and one Sanderling catch in late April (2015).								
*Includes the 2019/2020 figures.								

Table 2. Percentage of juvenile (first year) waders in cannon-net catches in north-west Australia 2019/2020.

Species	No. of catches		Total caught	Juveniles		Long-term average* % juvenile (no. years)	Assessment of 2019 breeding success
	Large (>=50)	Small (<50)		No.	%		
Great Knot *Calidris tenuirostris*	4	5	331	7	2.1	10.0 (22)	Low
Bar-tailed Godwit *Limosa lapponica*	1	5	98	2	2.0	9.4 (22)	Low
Red-necked Stint *C. ruficollis*	1	8	203	28	13.8	18.2 (22)	Below average
Red Knot *C. canutus*	1	7	150	19	12.7	14.9 (21)	Average
Curlew Sandpiper *C. ferruginea*		4	21	1	(4.8)	17.0 (22)	-
Non-arctic northern migrants							
Greater Sand Plover *Charadrius leschenaultii*	6	3	951	256	26.9	21.5 (22)	Average
Terek Sandpiper *Xenus cinereus*	1	69	176	34	19.3	13.4 (21)	Below average
Grey-tailed Tattler *Heteroscelus brevipes*	2	5	195	60	31.0	19.4 (21)	Very good

All birds cannon-netted in period 9 February to 1 March 2020

*Includes the 2019/2020 figures

Table 3. Percentage of juvenile (first year) birds in wader catches in south-east Australia 1998/1999 to 2019/2020.

Species	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Average (last 22yrs)
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	7.0	25.7	17.4	*15.1*
Red-necked Stint *Calidris ruficollis*	32	23	13	35	13	23	10	7.4	14	10	15	12	20	16	22	17	19	6.0	31.3	3.8	9.5	24.5	*17.1*
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	23.9	*16.9*
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	*19.2*
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	(-)	*14.9*
Red Knot *C. canutus*	(2.8)	38	52	69	(92)	(86)	29	73	58	(75)	(-)	(-)	78	68	(-)	(95)	(100)	(100)	90.3	33.3	(-)	(-)	*58.8*
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	3.0	(-)	*22.5*

All birds cannon-netted between 15th November and 25th March, except Sharp-tailed Sandpiper and Curlew Sandpiper to end February only and some Ruddy Turnstone and Sanderling to early April and one Sanderling catch in late April (2015). Averages (for 22 years) exclude figures in brackets (small samples) and include 2019/20 figures

Table 4. Percentage of juvenile (first year) birds in wader catches in north-west Australia 1998/1999 to 2019/2020

Species	**98/99**	**99/00**	**00/01**	**01/02**	**02/03**	**03/04**	**04/05**	**05/06**	**06/07**	**07/08**	**08/09**	**09/10**	**10/11**	**11/12**	**12/13**	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**	**18/19**	**19/20**	**Average (last 22yrs)**
Red-necked Stint *Calidris ruficollis*	26	46	15	17	41	10	13	20	21	20	10	17	18	24	15	19	10	11.1	17.2	6.8	8.4	14	*18.2*
Curlew Sandpiper *C. ferruginea*	9.3	22	11	19	15	7.4	21	37	11	29	10	35	24	1	1.9	23	18	0.7	40.3	8.1	13.8	(4.8)	*17.2*
Great Knot *C. tenuirostris*	2.4	4.8	18	5.2	17	16	3.2	12	9.2	12	6	41	24	6	6.6	5	6	5.7	9.0	2.6	5.5	2.1	*9.6*
Red Knot *C. canutus*	3.3	14	9.6	5.4	32	3.2	(12)	57	11	23	12	52	16	8	1.5	8	13	2.7	21.6	5.4	1.5	12.7	*14.9*
Bar-tailed Godwit *Limosa lapponica*	2.0	10	4.8	15	13	9.0	6.7	11	8.5	8	4	28	21	8	7.6	17	5	10.3	11.0	3.0	2.0	2.0	*9.4*
Non-arctic northern migrants																							
Greater Sand Plover *Charadrius leschenaultii*	25	33	22	13	32	24	21	9.5	21	27	27	35	17	19	28	21	20	10.5	12.4	13.2	15.1	26.9	*21.5*
Terek Sandpiper *Xenus cinereus*	12	(0)	8.5	12	11	19	14	13	11	13	15	19	25	5	12	15	12	9.2	5.8	3.8	26.5	19.3	*13.4*
Grey-tailed Tattler *Heteroscelus brevipes*	26	(44)	17	17	9.0	14	11	15	28	25	38	24	31	20	18	16	19	8.9	14.5	7.3	18.7	30.8	*19.4*

All birds cannon-netted in the period 9 February to 1 March 2020. Averages exclude figures in brackets (small samples) but include 2019/2020 figures.

Victorian Wader Study Group Inc **ABN 12 724 794 488**

Income and Expenditure Statement for the year ended 30 June 2020

Income		Expenditure	
Subscriptions	3045.00	Printing of Bulletin	2794.00
Donations:		Secretarial Assistance	3013.20
Jim, Jenni Reside	1000.00	Incorporation Fee	59.20
Other members	1540.00	Website	95.40
Minton Memorial Project	900.00	Trailer Registration	60.50
Coastcare Grant	5500.00	King Island accommodation	1800.00
Interest, cheque account	12.99	Meeting Venue	90.20
Interest, cash reserve	94.74	Airfare (ABBBS meeting)	512.09
Interest, term deposit	559.96	Minton medallion	961.10
		Promotional Banner	99.00
		Database development	9000.00
Sub-total	**$ 12652.69**	**Sub-total**	**$ 18484.69**
Provision of tern data	600.00	Black Powder	525.00
Refund, KI accomm. deposit	610.00	New boxes (for black powder)	177.85
Guided walks (Flinders)	160.00	Net bags	47.45
Speaking engagement	50.00	Keeping cage repairs	44.46
At AGM:		Carry crates	84.00
Excess, meals	38.05	Rubber	42.70
Sale, jams	44.00	Circuit testers	23.90
Raffle	470.00	Miscellaneous	85.79
David Wright linocut	500.00		
Sub-total	**$ 2472.05**	**Sub-total**	**$ 1031.15**
TOTAL INCOME	**$ 15124.74**	**TOTAL EXPENDITURE**	**$ 19515.84**

Cash balance at 01/07/2019		Cash balance at 30/06/2020	
Westpac Cheque Account	12770.31	Westpac Cheque Account	7664.51
Westpac Cash Reserve	22611.04	Westpac Cash Reserve	22705.78
Westpac Term Deposit	38357.42	Westpac Term Deposit	38917.38
Petty Cash	40.90	Petty Cash	100.90
GRAND TOTAL	**$ 73779.67**	**GRAND TOTAL**	**$ 69388.57**

VWSG Membership August 2020

Bev & Geoff Abbott	Bob Dawson	Tania Ireton	Rowan Mott	John Stoney
Charles & Jocelyn Allen	Xenia Dennett	Penny & Murray Johns	Graham & Vicki Parkyn	Bill Steele
Mark Anderson	Jenna Diehl	Steve Johnson	Ian Pascoe	Deb Sullivan
Basil Artimedes	Joris Driessen	Keith Jones	Rob & Linda Patrick	Naoko Takeuchi
Robyn & Steve Atkinson	James Dunlop	Greg Kerr	Reece Pedler	Christine Taylor
Alex Barisic	Dianne Emslie	Debbie King	Hugo Phillipps	Susan Taylor
Graham & Jenny Beal	Jon Fallaw, Becky Hayward	Marcel Klaassen	Alan & Wendy Pilkington	Deryn Thomas
Robert Brinkman	Maureen & Robin Fitzgerald	Steve Klose	Mike Preeston	Lyne Thomas
Andy Bennett, Kate Buchanan	Brett Gardner	Irma Kluger	Thomas Putt	Claire Tingate
Margaret Bennett	Kate Gorringe-Smith	Tessa & Angus Lamin	Ann Renkin	Amy Tipton
Rob & Gail Berry	Ken & Carlene Gosbell	Brett Lane	Jim & Jenni Reside	David & Wendy Trudgen
David Billinghurst	Andrew & Kath Gosden	Bruce Lavender	Laura Rhodes	Mary-Ann Vantrigt
Stephen Brend	Olivia Gourley	John Lawson	Roger & Annabel Richards	Helen Vaughan & Rodney McFarlane
Malcolm & Judy Brown	Doris Graham	Hannah Lee	Don & Jude Ripper	Inka Veltheim
Andrew Browne	Nathan Gregory	Sally Leonard	Bruce Robertson	Doug Watkins
Sue Bryceson	Jim & Surong Gunn	Amanda Lilleyman	Danny Rogers	Mike Weston
Paul & Anna Buchhorn	Susie Guthrie	Janet Limb	Toby Ross	David & Jean Wilbraham
Jeff & Sarah Campbell	Angie Gutowski	Moira Longden	Graeme & Margaret Rowe	Michelle Wille
Mervyn & Ann Chappel	Petra Hanke & Chris Scholz	Gabriel Low	Liz Sarrailhe	Jennifer Williams
Smathie Chong	Birgita Hansen	Meg Macmillan	Charles Silveira	Ross Williamson
Maureen Christie	Susan Harris	Alex McQueen	Sue & Rod Slater	Annette Willis
Allan Clarke & Marj Reni	Jenny Hiscock	Pat Macwhirter	Hannah Smith	Jack Winterbottom
Rob Clemens	Trevor Hodson	Ila Marks, Eric Miller & Heidi	Mark & Mem Smith	Sharon Woodend
Bretan Clifford	David Hollands	Gary Matthews	Roger Standen	Prue Wright
Mike Connor	Vivien Holyoake	Pat Minton	Jonathon Stevenson	
Julian Correia	Andrej Hohmann	Lorraine Moore	Iain & Sandy Stewart	

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 sightings