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https://www.facebook.com/QueenslandWaderStudyGroup/

Observations of Queensland Leg Flagged Red-Necked Stint

by Arthur Keates

The Red-necked Stint (*Calidris ruficollis*) is the smallest of the most common shorebird species found in Australia with an estimated population of just under 356,000 of the total estimated population in the East Asian-Australasian Flyway of 475,000. The Red-necked Stint breeds in north-eastern Siberia and northern and western Alaska migrating south through Japan and Korea arriving in Australia in August-September. In Australia, it is found in a vast range of wetland habitats. In March-April it returns to the breeding grounds.

QWSG's banding team has fitted an engraved leg flag (an ELF) to c 600 Red-necked Stint, the first on 10 November 2007. A large catch of shorebirds at the Manly Boat Harbour roost on 12 March 2017 resulted in 136 birds being fitted with an ELF. However, following observations of some birds clearly showing signs of discomfort caused by the ELF, the decision was taken in the interests of the welfare of the birds to discontinue fitting ELFs and revert to fitting a plain leg flag (a PLF) to the species. No reports are known of similar behaviour indicating a leg flag fitted to the species causes aggravation. Furthermore, the Victorian Wader Study Group has fitted a Geolocator as well as a leg flag to Red-necked Stint with no reports of discomfort to the birds.

At the end of March this year, QWSG's leg flag database had over 1770 reports of observations of Red-necked Stint fitted with an ELF or PLF. Of these, c 110 reports relate to observations of PLFs. However, because the engraving on the older ELFs fade and get dirty, it is possible some of these reports actually relate to ELFs. In addition, c 50 reports relate to unread, misread or partially read ELFs. Overseas and interstate observations account for less than 20 reports.

The observations of most interest are those of **SF**, aged 2+, when banded at Manly Boat Harbour on 12 October 2014. The last observation of it in Qld was prior to northern migration on 31 January 2015 at the banding site. On 16 May 2015, Zhang Lin, the dedicated shorebird enthusiast and author, observed **SF** on northern migration at Rudong, Jiangsu Province, China. That excellent report was followed up by the irrepressible Clare and Grant Morton observing and photographing **SF** at Cable Beach, Broome, WA on 16 September 2015. Clare and Grant observed **SF** a further 4 times, the last on 1 October 2015 and indeed the last ever observation of it. I recall Clare mentioning at the time that she had reported over 7000 leg flags but had not previously seen a Qld flagged bird in WA.

Two other individuals, both banded on 4 October 2015, were observed in Jiangsu Province, China: **H3** on 18 August 2016 and **Z5** on 24 May 2016. Unfortunately, those are the last known observations of them.

One of the most frequently reported birds, **2P**, was observed on the mid-eastern coast of Taiwan on 31 July 2019. Banded on 12 March 2017, aged 2+ years, **2P** has been observed at least 42 times at the Manly Boat Harbour roost, Wynnum foreshore and Wellington Pt, the last time on 7 April 2020. Two other ELFs have been observed at Tainan City, Taiwan: **VT** on northern migration on 11 May 2019 and **XZ** on southern migration on 29 August 2019.

Of the 5 confirmed observations in Japan, **V8** is the only ELF reported. It was observed on 28 May 2016 on the northern island of Hokkaido. Unfortunately, **V8** has not been reported since then.

The only observation in Russia, is of a PLF on 29 July 2012, between the mouths of the Khairusovo and Belogolovaya Rivers, western Kamchatka Peninsula, still c 1,500 km south of the breeding grounds for the species.

Apart from **SF** observed at Broome, WA, the only other interstate report is for an observation of a PLF at South Ballina, NSW, on 26 October 2012.

Unsurprisingly, given observer site selection and effort, the vast majority of reports for Qld relate to observations in Moreton Bay with only 4 reports of observations outside the Bay: 1 just north of Townsville, 1 in the Gladstone region and 2 on the sandbanks at the mouth of the Noosa R.

The leg flag database shows that 7 birds fitted with an ELF have each been observed over 20 times in Moreton Bay. Of these, **ZZ** and **Z2** have been reported over 60 and 40 times respectively. However, because of the difficulty in reading an ELF on our smallest shorebird (especially when a bird is feeding) and, as can be seen by the photo of **Z2** below, the similarity between the letter "Z" and the number "2", there is the possibility of an ELF being misread.

Red-necked Stint Z2. Photo: A Keates

So far as longevity of the species is concerned, at least 12 individuals fitted with an ELF are known from observations to be at least 7 years old when last observed, including previously mentioned **VT**, **ZZ** and **Z2**. The following table shows the ages, when last observed, of individuals older than 8 years (all of which were aged 2+ years when originally banded):

ELF	Original Banding Date	Last Observation Date	Age at Last Observation Date
JL	17 Dec 2011	12 Nov 2020	10+ years
JZ	17 Dec 2011	12 Nov 2020	10+ years
K7 (previously LB)	12 Feb 2012	14 Apr 2020	10+ years
PC	16 Dec 2012	12 Nov 2020	9+ years
TP	12 Oct 2014	12 Nov 2020	8+ years
VL	12 Oct 2014	26 Jan 2021	8+ years
VT	12 Oct 2014	11 Dec 2020	8+ years

The oldest of these birds would have flown about 200,000 km on migration alone since banding; simply extraordinary for a bird weighing in at 25-40 g with a body the size of a hen's egg.

Again, I thank those who report their observations of leg flags and Phil Cross for his diligence in recording them in QWSG's leg flag database.

Can Queensland's Coastal RAMSAR Sites Help to Protect Migratory Shorebirds as the Climate Changes and the Sea Level Rises?

QWSG received funding support from the Queensland Government's Community Sustainability Action grant program. The project commenced in December 2020 and will run for almost 2 years. We are conducting field work in three Ramsar sites – Bowling Green, Great Sandy and Moreton Bay. Our findings will begin to inform future conservation for shorebirds in coastal Ramsar sites as the climate changes.

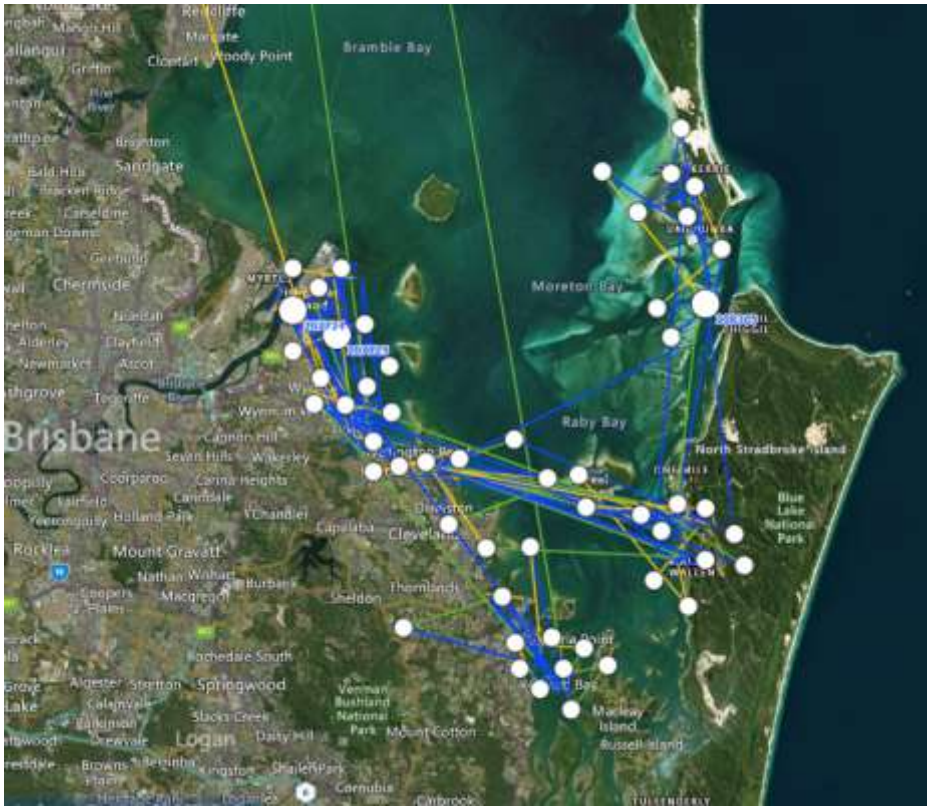
At Bowling Green south of Townsville, the first of two arial and ground surveys was conducted in March by a team from Brisbane, local birdwatchers and land and sea rangers from the Gudjuda Aboriginal Reference Corporation. At Alva claypan, which is part of the Ramsar site, the survey team found the highest abundance was Red-necked Stint (n=3672), Sharpe-tailed Sandpiper (n=1500), and most interestingly, Marsh Sandpiper (n=491). Migratory Shorebirds were also in abundance outside the Ramsar protected zone around the mouth of the Burdekin River. All seven species listed as threatened under the EPBC Act (1999) were present in numbers at the Ramsar site including Greater Sandplover (n=1981), Great Knot (n=1981), and Curlew Sandpiper (n=941).

At Great Sandy on the Fraser Coast, we have completed the initial ground observations that will allow us to undertake a catching program at the Ramsar site for the first time. When green 'lettered' leg flags are attached to migratory shorebirds at Great Sandy later this year, local birdwatchers will be able to record observations of movements across one of the most important shorebird sites in Australia for the first time. These records will help us understand how shorebirds use the protected area for feeding and roosting, enabling modelling of future risks and protentional risk mitigation.

In Moreton Bay we have spent this last summer season placing small satellite transmitters on Bar-tailed Godwits in the central and southern parts of the Bay. The six tagged Bar-tailed Godwits have already provided us with new insights about their movements. Whereas the Bar-tailed Godwits' site loyalty was thought to be quite restricted, based on previous flag sightings, at least some of the recently satellite tagged birds have been moving more extensively along the coastline between Cleveland and the Port of Brisbane. Bar-tailed Godwits roosting along the Cleveland shore are also foraging on mudflats along the western side of North Stradbroke Island. It's early days, but it could be that these more extensive movements are those of younger birds. Over the next year, the collection of flight tracks will inform a more complete analysis of how these endangered birds use foraging and roosting environments in Moreton Bay.

Thank you to the core investigation team Brad Woodworth, Robert Bush, Jon Coleman and Peter Driscoll along with Arthur Keates who joined the Bowling Green Survey team. Thanks also to the many local birdwatchers at all three study sites, the QWSG catching team and Indigenous Rangers.

Satellite tagged Bar-tailed Godwit at the Manly Harbour Roost site (Photo by Arthur Keates)



Early Bar-tailed Godwit tracks in Moreton Bay and one of

Media Release - Minister Ley - NATIONAL STRATEGY TO PROTECT THREATENED SPECIES [SEC=OFFICIAL]

THE HON SUSSAN LEY MP
MINISTER FOR THE ENVIRONMENT
MEDIA RELEASE

Friday, 21 May 2021

NATIONAL STRATEGY TO PROTECT THREATENED SPECIES

The Morrison Government has released a ten-year blueprint for protecting Australia's biodiversity, establishing a national prioritisation framework for threatened species that targets a broader range of species, focusses on key native habitat, and drives the development of new technologies.

The Threatened Species Strategy 2021-2031 draws on the lessons of the 2019-20 Bushfires to identify and adapt to sudden threats from an increase in natural disasters, calls for a more coordinated approach to culling feral pest animals and weeds that are pushing species to extinction and plans for the deployment of new monitoring technologies including drones and environmental DNA.

In addressing adaptation and resilience, the strategy considers identifying and conserving potential future places of refuge that species might migrate to and strategies for 'assisted colonisation' for populations whose local environments are impacted by changing climate.

Minister for the Environment Sussan Ley said the Threatened Species Strategy 2021-2031 will be the guiding light for threatened species investment including $57.1 million of new funding for threatened species.

This includes Federal Budget announcements of $18 million for targeting marine species and $29.1 million for addressing threats from invasive pests and weeds. The Minister today announced a further $10 million for an open grants round for projects tied to the release of the first action plan.

“Our human footprint, feral pests and weeds, our changing climate and biosecurity hazards present an enormous threat to a growing range of native species and this strategy is at the heart of caring for our country, for its biodiversity and for our future,” Minister Ley said.

“The new strategy identifies both species and ‘places’, with an expanded focus on the protection of a more diverse range of species, including reptiles, amphibians, freshwater species, marine species and all of the incredibly unique environments in which they are found.

“The strategy has been developed with environmental scientists, threatened species experts, environmental groups, landholders and Indigenous groups.”

National Priority species will be selected according to six prioritisation principles:

- Risk of extinction (Prioritising species and places under severe and imminent threat)
- Multiple benefits (Prioritising species and places where recovery action will benefit other species)
- Feasibility and effectiveness (Prioritising species and places where action can make a difference and is cost-effective)
- Importance to people (prioritising people and places of cultural significance)
- Uniqueness (Prioritising species and places that are unlike any other)
- Representativeness (Achieving balance in selected species and places)

The new 10-year strategy will be underpinned by two five-year action plans identifying specific targets across four direct action areas:

- Mitigating new and established threats
- Conserving, restoring and improving habitat
- Emergency preparedness and response
- Climate change adaption and resilience

The first action plan will be released after stakeholder consultation in the second half of the year, and is expected to identify up to 100 priority species and 20 places with specific targets to focus recovery actions to 2026.

“The first ever Federal Government Threatened Species Strategy (2015-20) was a ground-breaking approach to ensuring the protection of threatened species and the mitigation of threats was on the national agenda,” Minister Ley said.

“Much has been gained, from the establishment of environmental safe havens, to the creation of better technologies to control incredibly damaging pests like feral cats, improved trajectories for multiple species, and much more detailed knowledge about helping our unique biodiversity has been learned as we move forward.

"This is also a plan that will help coordinate the efforts of the Federal Government, states, natural resource managers, scientists, traditional owners and community groups.”

Over the coming months, Australians will be able to provide their input to these plans, and lend support to the selection of priority species, places and key actions.

Further details: environment.gov.au/biodiversity/threatened/publications/strategy-home.

PBPL Results Table 2020 in IOC Taxonomic Order

No count was conducted by the QWSG team on the 29 March. Photographs were taken at some ponds (not all) by a Port of Brisbane staff member and counts were extracted from those photographs. The low wader counts

***Species* / For 2020**	**19.01**	**16.02**	**15.03**	**29.03**	**10.05**	**07.06**	**26.07**	**23.08**	**20.09**	**18.10**	**08.11**	**06.12**
Pied Oystercatcher	145	126	No	108	No	40	62	3	36	29	15	78
Sooty Oystercatcher	3	-	Count	-	Count	-	-	-	-	-	-	-
Pied Stilt	213	35	Due to	18	Due to	88	10	21	6	21	24	47
Red-necked Avocet	20	69	Covid-	-	Covid-	-	-	-	-	2	-	-
Masked Lapwing	6	5	19	3	19	7	6	4	2	3	2	7
Red-kneed Dotterel	-	-	Port	-	Port	-	-	-	-	-	-	-
Pacific Golden Plover	402	354	Closed	1	Closed	9	12	4	90	140	165	359
Grey Plover	41	29		3		-	-	-	30	49	14	15
Red-capped Plover	106	56		19		132	67	49	73	72	46	45
Double-banded Plover	-	-		-		17	37	6	-	-	-	-
Lesser Sand Plover	803	577		-		228	75	-	4	69	326	2053
Greater Sand Plover	25	140		-		10	19	-	1	-	32	305
Black-fronted Dotterel	-	-		-		-	2	-	-	2	-	-
Eurasian Whimbrel	50	113		17		-	-	-	49	43	45	1
Far Eastern Curlew	207	83		-		-	-	69	61	80	-	246
Bar-tailed Godwit	1572	621		299		64	-	-	450	1064	1109	1075
Black-tailed Godwit	3	-		-		-	-	-	-	-	2	-
Ruddy Turnstone	41	163		-		-	7	2	1	26	14	46
Great Knot	191	113		7		-	-	-	-	54	317	406
Red Knot	5	-		-		-	-	-	31	26	43	-
Broad-billed Sandpiper	2	6		-		-	-	-	-	8	1	7
Sharp-tailed Sandpiper	511	212		101		-	-	18	93	79	361	182
Curlew Sandpiper	432	141		118		2	108	452	1822	369	1415	1991
Red-necked Stint	523	808		69		304	494	153	1577	1186	1681	1296
Sanderling	-	-		-		-	-	-	-	-	-	-
Terek Sandpiper	-	1		-		17	-	-	-	2	-	-
Wandering Tattler	-	-		-		-	-	-	-	-	-	-
Grey-tailed Tattler	781	480				102	-	2	121	867	1050	900
Marsh Sandpiper	-	-		-		-	-	-	-	-	-	-
Common Greenshank	-	1		-		1	-	-	-	1	2	2
Unidentified wader	-	-				-	9	-	-	30	-	-
Total Wader Species	**22**	**21**		**12**		**14**	**13**	**12**	**17**	**22**	**20**	**19**
Total Wader Numbers	**6082**	**4133**		**763**		**1021**	**908**	**783**	**4447**	**4222**	**6664**	**9061**

that day is reflected in the fact that the complex was not totally covered and is not representative of a normal monthly count.

Port of Brisbane Count Results 2020 by Linda Cross

In total, 18 years of extensive counting has been conducted by the QWSG for the Port of Brisbane Pty Ltd (PBPL) at the Port of Brisbane complex. As with previous years, the counts were conducted the day after the scheduled monthly count set for the QWSG count programme.

The methodology for the counts has continued as before with numbers being listed under the appropriate habitat the birds were observed using: dry open area, wet margin, broken ground and bund wall. The overall count for the complex in 2020 was 38,084 waders, 5,756 terns/gulls and 1,515 waterbirds/raptors which do not include the figures for the Visitors Centre Lake (23 waders, 6 terns/gulls and 717 waterbirds/raptors). However, these figures of course are not the number of birds using the site at any one time, but the aggregate of the monthly totals. Two counts were scheduled for March (15 and 29) the latter being selected as a replacement for an early April count that clashed with the Easter long weekend. However, no counts were conducted by the QWSG team for March, April or May due to the complex being closed due to Covid-19. The figure shown in the March column is derived from photographs taken at some ponds (not all) by a Port of Brisbane staff member on 27 March and counts were extracted from those photographs. The low wader counts that day is reflected in the fact that the complex was not totally covered and is not representative of a normal monthly count. The inability to conduct extensive counts for 3 months of 2020 is also reflected in the overall totals shown in both tables below.

The wader count for July and August (except for June 2018) were the lowest winter counts during the last 18 years.

The following table provides the total migratory and resident waders recorded at the complex over the last 18 years. Note: These figures do not include the Visitors Centre Lake site.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
2020	6082	4133	763	N/c	N/c	1021	908	783	4447	4222	6664	9061	38084
2019	8137	5641	5357	4108	1814	1458	N/c	1358	4908	5577	7599	9029	57085
2018	9969	4727	5899	4670	1825	864	1145	1110	4551	N/c	8867	7626	51253
2017	8825	12479	7291	2000	2373	1392	2003	2179	4459	N/c	8187	10697	61885
2016	5913	6386	6528	2793	4103	N/c	1532	1356	4581	7544	8287	4911	53934
2015	9132	9233	14299	5618	3380	1737	2089	3352	7460	9994	9653	9953	85900
2014	8701	7673	6520	4809	1075	1022	1513	1839	7007	8145	7329	5567	61200
2013	N/c	5897	7377	4312	4553	3989	2709	2934	4089	7793	7331	6506	57490
2012	6214	6676	6476	1335	1624	N/c	1098	1267	2862	9461	10029	8389	55431
2011	N/c	10173	N/c	8108	2112	1552	1236	1488	2004	5430	8738	N/c	40841
2010	7345	7099	6709	2864	1256	2145	1648	2568	5205	6942	5904	N/c	49685
2009	10072	13243	7192	2293	N/c	1200	1245	2439	4372	6478	6182	8003	62719
2008	5179	8935	4394	4204	2202	2793	2700	2724	5468	4069	6617	8286	57571
2007	8853	5264	8307	1120	1989	1543	1752	1629	3885	7609	6165	5664	53780
2006	12323	10573	7055	4230	2142	1969	2250	2635	5296	8051	8995	7514	73033
2005	4751	5609	3572	3317	2162	3034	2436	2096	3790	6173	6745	7731	51416
2004	11650	4528	7398	1607	2416	1617	1328	2410	2974	6026	5976	8194	56124
2003	7445	6922	6126	4021	2286	2107	2041	1720	4466	4118	8054	7996	57302

The following table provides the numbers for migratory and resident waders, terns, waterbirds and raptors for the complex and Visitors Centre Lake each month for 2020.

2020 Month	Port Waders	Port Terns/ Gulls	Port Waterbirds /Raptors	Lake Waders	Lake Terns/Gulls	Lake Waterbirds/ Raptors	Totals
January	6082	862	130	3	4	444	**7525**
February	4133	1687	93	0	0	220	**6133**
15 March	No count	No count	No count	No count	No count	No count	**No count**
29 March	763	278	162	No count	No count	No count	**1203**
April	No count	No count	No count	No count	No count	No count	**No count**
May	No count	No count	No count	No count	No count	No count	**No count**
June	1021	77	130	0	0	408	**1636**
July	908	96	144	2	0	395	**1545**
August	783	71	72	2	2	474	**1404**

September	4447	181	192	3	0	413	**5236**
October	4222	535	187	3	0	1134	**6081**
November	6664	523	213	2	0	363	**7765**
December	9061	1446	192	8	0	717	**11424**
Totals	**38084**	**5756**	**1515**	**23**	**6**	**4568**	**49952**

A table showing wader species and numbers at the complex during 2020 (except for the Visitors Centre Lake), has been included in this newsletter. Many other waterbirds were also recorded using the sites but lack of space in the newsletter does not allow their inclusion.

Birds notably missing from counts in the second half of the year included Pied Stilt, Red-necked Avocet, Australian Tern and many waterbirds which was probably due to rainfall in inland Australia with birds re-locating to take advantage of suitable breeding conditions.

R3 – This riverside paddock was the second most productive site within the complex for 2020 producing the highest count for waders, terns and gulls for 4 months of the year. The September count of 3,402 waders equated to 76% of all waders within the complex for that month which included 1,790 Curlew Sandpiper and 1,490 Red-necked Stint. Grey Plover were recorded 5 months in the year with the lowest count of 6 in February and the highest count being 48 in October. Other species attracted to the site include Bar-tailed Godwit with 1,064 recorded in October, 540 in November and 1,075 in December along with Great Knot having both highest counts for the year of 257 in November and 406 In December. Other high species counts include 362 Sharp-tailed Sandpiper in January, 1,490 Red-necked Stint in September, 41 Red Knot in November and 244 Far Eastern Curlew in December, which was the highest count in 2020 for this species.

C2 – This pond is virtually all sand and wader numbers continue to decline with only 75 waders being recorded on site for the whole of the year.

C3 – As in 2019, the central pond was the most productive (only marginally compared to R3) within the complex. Equalling site R3, this site recorded the highest wader count for 4 months of the year, with 2 of those being during the winter months. The highest wader count for the year (4,999) within the complex came from this site in December, accounting for 55% of all birds and was made up of 1,953 Curlew Sandpiper, 305 Greater Sand Plover, 1,948 Lesser Sand Plover and 719 Red-necked Stint. A favoured site for sand plovers, the smaller of the 2 (Lesser) was recorded on site 8 months of the year with the highest count in December as mentioned above. The Greater Sand Plover was recorded for 7 months and December produced the highest count of 305 birds. Other impressive counts during the year included 378 Pacific Golden Plover in January, 63 Ruddy Turnstone in February and 932 Red-necked Stint in October. Double-banded Plover was recorded using the site in June (16), July (24) and August (6).

C4 – This is a newly formed bunded area that was completed at the end of March, being created from a portion of the FPE Outer. The site did attract the second highest wader count (177) within the complex in June and the second highest count of terns/gulls (118) in December but has attracted little else.

BS1 – The second least productive pond within the complex that has declining bird numbers with the site attracting only a handful of birds.

BS2 – Wader numbers doubled at this site in 2020 which was due to a large increase of birds on site in January (1,165) and February (1,178), which was also the highest count within the complex for the month. The February count included 305 Pacific Golden Plover and 109 Greater Sand Plover. A total of 45 Ruddy Turnstone were recorded on site in February and in June, 1 Double-banded Plover was recorded followed by 13 in July.

BS3 – Nearly double the number of waders were recorded for the site compared to the previous year which was primarily due to attracting more birds in February and December. Just under half of the February count included 456 Grey-tailed Tattler that decided to use this site instead of the FPE Outer and most of the December count included 350 Pacific Golden Plover and 510 Red-necked Stint. In January, 33 Grey Plover were recorded during the count and 22 in February. Interestingly, 6 Broad-billed Sandpiper were recorded on site for both February and December counts.

BS4 – Even with the exclusion of 3 months of counts, there has been more than 86% decline in the number of waders using the site. The highest wader count recorded was 196 in January, of those, 142 were Pied Oystercatcher which was also the highest count for the species in 2020.

FPE Outer – The largest of the sites within the complex, with an expansive area of water, had an increase in wader numbers mainly during January, November and December. Pied Oystercatcher was recorded 7 months of the year, although in much lower numbers than previous years due to the species using other adjacent ponds. Grey-tailed Tattler have continued to use the site favouring the rock walls on the outer edge with counts of 781 in

January, 742 in October, 1,050 in November and 900 in December. Other counts of interest include 30 Ruddy Turnstone in January, 15 Red Knot in September, an unusually high number of 17 Terek Sandpiper in June and 801 Curlew Sandpiper in November. The only record for Sooty Oystercatcher (3) came from this site in January.

PLDE (Lucinda Drive drain east) – this drainage section does not have suitable wader habitat and the only wader recorded on site were 2 Black-fronted Dotterel in July. A handful of waterbirds (cormorants, darters and egrets) were also recorded using the area in July.

PBAR (Artificial Roost) – This site failed to attract many waders in 2020 with the highest count being 564 in November, of which, 435 were Bar-tailed Godwit. The highest Broad-billed Sandpiper count (8) for the year was at this site in October and for 7 months of the year recorded the second highest waterbird/raptor counts within the complex, however, the numbers failed to exceed 180 on any given month.

FICP (Claypan) – There was a slight decline in waders at this expansive claypan compared to the previous year with the highest count being 1,049 in February from 11 species. The site was still favoured by Far Eastern Curlew for 4 months during the year with the highest count being 207 in January and Eurasian Whimbrel also preferring this site with the highest count being 113 in February. Additional high counts were 142 Pied Stilt in January and 743 Red-necked Stint in November. Unusual sightings included 3 Black-tailed Godwit and 2 Broad-billed Sandpiper in January.

FIVC (Visitors Centre Lake) – Just 23 waders (Pied Stilt, Masked Lapwing and Black-fronted Dotterel) were recorded for the whole of the year. In total, only 6 terns (all Whiskered) were recorded in 2020, however, the site continues to draw waterbirds with breeding records for Pacific Black Duck, Chestnut Teal, Black Swan, Magpie Goose, Dusky Moorhen and Australasian Swamphen being recorded. High counts for species, breeding records and other interesting sightings for this site appear further down in this article.

Leg flag sightings:

There was a total of 13 green leg-flagged birds (Pied Oystercatcher, Pied Stilt, Pacific Golden Plover, Red-capped Plover, Bar-tailed Godwit, Broad-billed Sandpiper and Curlew Sandpiper) seen during the counts, which is 8 less than seen in 2019. As these birds have been flagged by our group in Moreton Bay and have not travelled any significant distance from the banding site, they have not been included. Five other leg-flagged and banded birds were seen at the complex during the 2020 counts as follows:

February	Yellow flag (C4) on Pied Oystercatcher (flagged NSW)
November	Blue flag over yellow flag right tibia on Red Knot (flagged Bohai Bay, China). White engraved flag right tibia on Red Knot (flagged in New Zealand). Blue flag left tarsus on Bar-tailed Godwit (flagged Torinoumi, Japan). Orange engraved flag right tibia and geolocator left tibia on Curlew Sandpiper (flagged Victoria).

Breeding records:

Pied Stilt	1 bird recorded possibly nesting in the Artificial Roost in October and confirmed with the sighting of 4 young birds on site in December.

Some other interesting sightings (not waders) during the counts were:

January	140 Silver Gull in BS1 – 1 Pacific Reef Heron (chased off a Little Egret twice) in PBAR – 58 Whiskered Tern in FICP – 160 Black Swan and 6 Magpie Goose in FIVC
February	400 Little Tern in BS2 – 256 Crested Tern and 466 Silver Gull in PFPE
June	44 Black Swan (unusually high count within reclamation area) in R3 – 1 Swamp Harrier over PLDE
July	107 Royal Spoonbill and 1 Mallard in FIVC
August	1 Swamp Harrier over BS4 – 93 Australian White Ibis, 193 Pacific Black Duck and 2 Whiskered Tern in FIVC
September	2 immature Black Swan with 2 adults in R3 which suggests breeding within reclamation area – 1 Black Swan on a nest and 3 immature, 7 Great Cormorant and 116 Royal Spoonbill in FIVC
October1	Pacific Reef Heron landed on the floating roost in PBAR – 240 Pacific Black Duck and 518 Magpie Goose (including 1 on a nest) in FIVC
November	225 Silver Gull in R3
December	929 Little Tern and 328 Silver Gull in R3 – 119 Black Swan, 52 Australian White Ibis and 268 Magpie Goose in FIVC.

QWSG would like to sincerely thank the PBPL for their ongoing support to the group and supplying their staff and vehicles during the counts. Craig Wilson, Environment Manager, for the PBPL, Michael Linde, Senior Environment Advisor, Jessica Rudd, Sustainability Lead and Penelope Webster, Graduate Environment shared the role in looking after our welfare and needs during the counts.

We must also sincerely thank the following committed regular counters and other members for helping us obtain the results for the PBPL and the QWSG database in 2020. Without people like these this would not have been possible. My apologies if I have omitted anyone from the list.

Robert Bush, Deirdre Chrzescijanski, Rae Clark, Ken Cowell, Linda Cross, Phil Cross, Leonie Davies, Peter Davies, David Edwards, Sandra Harding, Chloe Hockley, Lenn Isidore, Micha Jackson, Gary Kane, Arthur Keates, Sheryl Keates, Penn Lloyd, Ian Parsons, Scott Pascoe, Eva Plaganyi-Lloyd, Gordana Pozvek, Peter Rothlisberg, Floss Wainwright, Jimmy Wheeler and Melissa Whitby.

The contract with PBPL continues throughout 2021/22, and a report compiled by our Database Manager Peter Driscoll has recommended that the monitoring of shorebirds within the complex continue with the same intensity. Given this recommendation, we seriously need a boost in the number of people to help spread the workload. We welcome all QWSG and BQ members to join us (particularly during the spring and summer months). As the PBPL insurance only covers their employees you will need to be either a QWSG or BQ member to attend these counts, so their liability insurance will cover you. Please also note that these counts are not recreational outings, but we are always looking for committed counters to join our team. The dates and meeting times for the counts are listed at the back of this newsletter. If you would like to participate, contact details are below.

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Healthy Land and Water Bay-wide Census

by Linda Cross

The Healthy Land and Water (HLW) bay-wide census was conducted during the weekend of 13 and 14 February 2021. As with the National Summer count the previous month, the counts were conducted on a higher tide than we would normally select but choices were limited. In total, 106 sites were surveyed and all (except for 7 sites) were completed on Saturday 13 February. Two sites were completed on 12 February, 4 on 14 February and 1 was completed on 15 February. The survey area covered extended from the Gold Coast to Noosa on the Sunshine Coast.

In the table below are the results for the HLW bay-wide census. Species are listed as per IOC checklist January 2021.

Species	SC	NMB	CMB	SMB	GC	Totals
Bush Stone-curlew	-	3	5	-	-	8
Beach Stone-curlew	4	3	-	1	-	8
Pied Oystercatcher	24	390	204	235	8	861
Sooty Oystercatcher	4	2	3	-	-	9
Pied Stilt	2	332	372	220	-	926
Red-necked Avocet	-	-	124	-	-	124
Masked Lapwing	4	89	79	11	-	183
Pacific Golden Plover	144	157	647	90	-	1038
Grey Plover	-	48	32	-	-	80
Red-capped Plover	31	47	180	26	-	284
Lesser Sand Plover	-	74	722	284	-	1080
Greater Sand Plover	-	128	68	36	-	232
Black-fronted Dotterel	-	9	1	5	-	15
Eurasian Whimbrel	54	944	392	512	74	1976
Far Eastern Curlew	66	1009	309	1530	64	2978
Bar-tailed Godwit	49	5259	819	3019	62	9208
Black-tailed Godwit	-	-	537	11	-	548
Ruddy Turnstone	-	15	215	71	-	301
Great Knot	-	151	81	20	-	252
Red Knot	-	1	2	-	-	3
Broad-billed Sandpiper	-	-	2	1	-	3
Sharp-tailed Sandpiper	-	30	866	207	-	1103
Curlew Sandpiper	3	85	1033	182	-	1303
Red-necked Stint	-	887	1759	592	-	3238
Sanderling	-	82	-	-	-	82

Latham's Snipe	-	-	4	-	-	4
Terek Sandpiper	-	193	-	22	-	215
Wandering Tattler	2	-	-	-	-	2
Grey-tailed Tattler	-	411	-	1185	-	1596
Marsh Sandpiper	-	18	75	2	-	95
Common Greenshank	-	22	13	28	-	63
Unidentified Knot species	-	-	-	3	-	3
Unidentified small wader	1	-	-	65	-	66
Unidentified wader	-	-	-	30	-	30
Total Wader Species	12	26	25	23	4	31
Total Wader Numbers	388	10389	8544	8388	208	27917

SC – Sunshine Coast – Caloundra, Maroochy River and Noosa River (10 sites)

NMB – North Moreton Bay – Moreton Island, Redcliffe, Deception Bay, Bribie Island, Toorbul and Pumicestone Passage (40 sites).

CMB – Central Moreton Bay – Port of Brisbane, St. Helena Island, Luggage Point, Kedron Brook and Pine River (13 sites)

SMB – Southern Moreton Bay – Tuleen Island SandSpit, South Kangaroo Island, Dinner Island, Victoria Point, Thornlands, Cleveland, South Stradbroke Island, North Stradbroke Island, Cassim Island, Wellington Point, Thorneside, Manly and Lytton (29 sites).

GC – Gold Coast – Currigee South Stradbroke Island (Brown Island), Gold Bank and Wave Break Sand Island (3 sites).

It should be noted that the Port of Brisbane complex consists of 14 sub-sites. Counts of Pied Oystercatcher, Red-capped Plover, Eurasian Whimbrel, Bar-tailed Godwit, Great Knot, and Red-necked Stint have been adjusted in North Moreton Bay (NMB) to reflect movement between the Caboolture River mouth and Deception Bay claypan.

In the table, 22 migratory and 9 resident species were recorded during the count. In total, there were 25,403, migratory waders, 2,418 resident and 96 unidentified waders. Migratory waders accounted for 91% of the count. Of those, 36% were Bar-tailed Godwit and the Red-necked Stint count was nearly 13%. Resident wader numbers were <1% of the count with Pied Stilt accounting for 38% and Pied Oystercatcher >35% of the total. North Moreton Bay sites recorded 37% of the total count followed by central and south Moreton Bay, both with 30% each; the remaining 3% were recorded in Sunshine Coast and the Gold Coast combined.

With northward migration already underway in February, quantities for some species were expected to be lower. However, there were surprisingly high counts for Black-tailed Godwit and Far Eastern Curlew. Extracts for some of the higher totals for species appear below.

Pied Oystercatcher: Sand Bank Toondah Harbour (220), Port of Brisbane complex (180)
Pied Stilt: Kedron Brook Wetlands (184), Clontarf West claypan (182)
Red-necked Avocet: Gregory Rd Hay's Inlet (124)
Masked Lapwing: Kedron Brook Wetlands (36)
Pacific Golden Plover: Port of Brisbane complex (361), Luggage Point (282)
Grey Plover: Mirapool beach Moreton Island (47)
Red-capped Plover: Port of Brisbane complex (70)
Lesser Sand Plover: Port of Brisbane complex (722) East Geoff Skinner Reserve (248)
Greater Sand Plover: Mirapool Beach Moreton Island (128)
Eurasian Whimbrel: Goat Island (280), Cassim Island (200)
Far Eastern Curlew: East Geoff Skinner Reserve (595), Swan Bay Nth Stradbroke Island (464)
Bar-tailed Godwit: Dead tree beach Moreton Island (1,610) Kakadu Beach Bribie Island (1,530), Reeder's Point Moreton Island (1,331) and Manly Harbour (1,131)
Black-tailed Godwit: Pine Rivers Wetland Reserve (536)
Ruddy Turnstone: Port of Brisbane complex (215)
Sharp-tailed Sandpiper: Port of Brisbane complex (506), Luggage Point (215)
Curlew Sandpiper: Port of Brisbane complex (840)
Red-necked Stint: Reeder's Point Moreton Island (702), Luggage Point (683), Port of Brisbane complex (612)
Sanderling: Mirapool beach, Moreton Island (82)
Terek Sandpiper: Glass Mountain Ck tree roost (136)
Grey-tailed Tattler: Manly Harbour (657), Cassim Island, Cleveland (500) Goat Island (327)
Marsh Sandpiper: Pine Rivers Wetland Reserve (47)

Breeding records:

Beach Stone-curlew: Noosa River mouth sandbanks (1 advanced immature offspring) with adults. This is the first successful breeding of this species at Noosa in over 15 years.

Pied Stilt: Clontarf West claypan (3 birds sitting on nests). Kedron Brook Wetlands (approximately 100 nests; some with eggs, c10 young just out of nest and 40 immature). Dohle's Rock's Road Pond (2 chicks). Manly Harbour (6 fledglings).
Red-capped Plover: Kakadu Beach Bribie Island (1 chick).

Other interesting sightings included:

Greater Crested Tern:	Jumpinpin Bar Bay (South Stradbroke Island tip) (473)
Lesser Crested Tern:	Reeder's Point Moreton Island (11)
Common Tern:	Maroochy River sites (1,260), Sandbank No. 2 Caloundra (1,300)
White-winged Tern:	Jumpinpin Bar Bay (South Stradbroke Island tip) (17)

HLW and QWSG sincerely thank Queensland Parks and Wildlife for supplying vessels and staff enabling surveys to be conducted in north, central and southern Moreton Bay. Without their assistance it would not have been possible to survey difficult to get to sites. Additional thanks to Moreton Bay Regional Council (MBRC) which had contracted Biodiversity Assessment and Management Pty Ltd (BAAM) to conduct counts and mapping in the region and aligning them with the HLW census on that weekend.

HLW and QWSG thank everyone involved during the count weekend. Participants for the survey are listed below. My apologies if I have omitted anyone.

Survey Participants:

HLW: Liz Gould
QPWS: Rohan Couch, Josh Hansen, Robert Longford, Andrew Lowe, Wayne Matthews, Richard Orchard, Troy Plint and Natalie Sands
MBRC: Corinna Byrne and Jessica Mowat
Port of Brisbane Pty Ltd: Craig Wilson
QWSG: Mary Barram, John Bloomfield, Michele Burford, Robert Bush, Vicki Campbell, Deirdre Chrzescijanski, Rae Clark, Jon Coleman, Judith Coles, Barbara Collyer, Ken Cowell, Gary Cox, Linda Cross, Phil Cross, Gus Daly, Leonie Davies, Peter Davies, Peter Driscoll, David Edwards, Paul Finn, Karen Hedstrom, Josh Hill, Richard Howard, Andrew Jensen, Gary Kane, Arthur Keates, Sheryl Keates, Robert Kernot, Elliot Leach, Judy Leitch, Penn Lloyd, Gillian Matthews, Joel Moore, Jane Morton Colbert, Kristy Murray, Gordana Pozvek, Virginia Ridgley, Peter Rothlisberg, Ross Smith, Nicola Udy, Floss Wainwright, Dez Wells, Melissa Whitby and Brad Woodworth
Gold Coast Shorebirds: Judy Leitch, Jane Morton Colbert and Bob Westerman.

Double trouble for the Double-banded Plover

By BirdLife International - 9 Mar 2021

A south Pacific shorebird with a very unusual migration pattern, the Double-banded Plover faces different threats whichever route it chooses.

Double-banded Plover © Agami Photo Agency / Shutterstock

The Double-banded Plover *Charadrius bicinctus*, which was up-listed from Least Concern to Near Threatened in this year's Red List update, is one of the more unusual migratory shorebirds of the south Pacific. Instead of migrating to Australia for their summer, flying south each year from breeding grounds in the Northern Hemisphere, it is unique in that it breeds in New Zealand during the southern summer and then flies west across the Tasman Sea to visit Australian shores in the autumn and winter months.

At least, part of the population does that – those birds that breed in the upland rivers of New Zealand's South Island – while those that breed elsewhere in the Shaky Isles make local movements, and do not cross the Tasman.

Like most shorebirds, Double-banded Plovers nest on the ground, laying their eggs in a scrape in the sand on coastal beaches or, further inland, among pebbles on shingle banks in braided streams. Birds which breed in either habitat each face their own set of threats. Those plovers which nest on coastal beaches face the threats faced by so many beach-nesting birds, with disturbance near the top of the list. Incubating birds are readily disturbed by beachgoers or their dogs walking too close by; the eggs are often inadvertently crushed by being stepped on or run over by recreational vehicles, and even if they're not crushed, the eggs or chicks may be left unattended for too long, and left to the mercy of the elements or predators, such as gulls and domestic cats.

Upland-nesting plovers are subject to lower levels of disturbance, but experience more predation, mainly from introduced mammalian predators, including hedgehogs, stoats and cats. In addition, their breeding areas may become overgrown with invasive weeds, such as marram grass on beaches and lupins on river banks, making these sites unsuitable for breeding.

The bird is a target species in the Australian Migratory Shorebird Action Plan, which promotes the protection of wetland habitats.

Odour 'Misinformation' Fools Feral Cats, Ferrets and Hedgehogs into Ignoring Nesting Shorebirds

ABC Science: By science reporter Belinda Smith Posted Thursday 11 March 2021 at 5:00am

The wrybill or ngutuparore is the only species of bird with a beak bent sideways in one direction. It's also highly vulnerable to predation while nesting.*(Getty Images: Imogen Warren)*

Grant Norbury didn't anticipate his ecology career would take him traipsing around river plains in the middle of New Zealand's South Island, squirting blobs of stinky chicken goo from a syringe and spreading it over rocks with a gloved finger.

Key points:

- Migratory shorebirds on New Zealand's South Island are easy pickings for predators
- A new conservation technique uses odour paste, which trains predators to stop associating the smell of birds with a meal
- Shorebirds nesting in odour-treated areas had nearly double the number of successful chick hatchings when compared to control areas
-

"It was quite a bizarre concept, trying to protect birds by smearing smelly Vaseline onto rocks," the New Zealand-based Landcare Research scientist said.

But it worked. The greasy chicken paste, along with a couple of other bird "flavours", tricked predators into ignoring the birds that nest between the rocks each year — at least for a time.

And in a paper published in Science Advances today, Dr Norbury and his crew from Australia and New Zealand found the "chemical camouflage" doubled or even tripled the odds of a chick successfully hatching.

Odours of mass deception

The South Island's Mackenzie Basin - a wide valley surrounded by towering peaks and criss-crossed by shallow rivers - is a nesting spot for a number of migratory birds, including the double-banded plover (*Charadrius bicinctus*), wrybill (*Anarhynchus frontalis*) and South Island pied oystercatcher (*Haematopus finschi*).

Each year the birds arrive to lay their eggs among rocks alongside rivers in the basin. But, being ground-nesting, the birds and their eggs are easy pickings for introduced species such as feral cats, hedgehogs and ferrets.

The wrybill, a small, plump bird whose beak bends to the right, is rated as vulnerable on the IUCN's Red List of Threatened Species. And shorebird numbers in the area are dwindling overall, despite efforts to trap and kill predators.

The 'braided' rivers of the Mackenzie Basin are shallow, and allow predators to easily move around the area.
(Getty Images: David Clapp)

Dr Norbury encountered a new approach that might help the birds bounce back during a post-conference chat in an airport lounge with the University of Sydney's Peter Banks and Catherine Price. They had run a study to see if they could use odour to fool rats into ignoring the smell of quail eggs, which rats liked to eat.

Dr Price's PhD project, which was supervised by Professor Banks, first involved sprinkling quail poo in bushland around Sydney.

The idea was that rats would initially be attracted by the smell and investigate the area, thinking there was an easy meal to be had. But once they sniffed around and realised that there were no eggs, the rats would become disinterested in the smell and learn to ignore it.

After a week of scattering quail poo, the pair put out real quail eggs in fake nests and monitored them. "We found an increase in egg survival by about 65 per cent — it was massive," Dr Price said. "This suggested that the rats learnt very quickly that smell doesn't lead to food, and so they stopped using it to find food and go and search for other things. So, we had this proof of concept that it could work with [rats], and there was no reason to think it wouldn't work with other predators that used smell too."

Goo in lieu of poo

Dr Norbury and Dr Price suspected similar "misinformation" tactics may help protect birds that nest in the Mackenzie Basin. By spreading the birds' smell around their nesting site in the weeks before nesting season, the researchers hoped local predators would come and investigate, but learn that the smell didn't mean there was a meal waiting for them.

The problem was collecting enough "material" to generate the smell of shorebirds, especially the rare ones. Dr Price got her quail droppings from a farm, but it wasn't possible to collect enough shorebird droppings or somehow use the shorebirds to produce the odour.

That's not to say they didn't try.

"We even tried rubbing some [of the birds] on towels! But they weren't very smelly," Dr Price laughed.

The South Island pied oystercatcher or tōrea breeds on New Zealand's South Island.
(Getty Images: Thomas Wong)

So, in the end, the team decided to investigate a slightly different angle. Instead of getting predators used to the smell of the specific shorebird species, could they habituate them to the smell of birds in general? To find out, the researchers made up three separate odour pastes from chicken, quail and culled, wild kelp gulls. This involved placing the feathers or carcasses in a glass container, topping it up with a solvent, then swishing it around for half a day.

Once the remaining solids were removed and the solvent evaporated away, the researchers were left with a thick goo: deep orange for chicken, greyish for the gull and in the case of the quail, brown. The bird goo was mixed with warm Vaseline and sucked into syringes, ready to be smeared onto rocks.

Predators fall for 'misinformation'

The team set out to the Mackenzie Basin in August 2016. They "treated" two areas by randomly smearing the different bird-odour pastes onto 300 to 400 rocks, while leaving another two control sections alone.
This was repeated the next year, but with treated and non-treated sites switched.

The paste was smeared in the weeks leading up to the birds' arrival in early to mid-September, then during nesting until November. Motion-triggered cameras spotted cats and ferrets which were, at first, attracted by the odour pastes; that interest declined after a few weeks. By the time the shorebirds arrived, cats and ferrets were investigating the fake bird odours at only around 5 to 10 per cent of their initial levels.

Hedgehogs were a little different; their timeline was shifted forward a few weeks, perhaps because they emerged from hibernation — and were particularly hungry — a month into the study.
Over 25 to 35 days, nests in paste-smeared areas had an average 1.7-fold increase in successful chick hatchings when compared to control areas. But the effect wasn't permanent.

"Predators eventually work out they're being conned," Dr Norbury said. "Once they see a bird and eat it, it's game over for that predator."

It took about 66 days before the jig was up, but that was long enough to see an increase in chicks.

The double-banded plover or tuturiwhatu can migrate to Australia, New Calendonia, Fiji and other tropical countries for winter.*(Getty Images: Kahj19)*

And when the researchers predicted what effect odour habituation may have on double-banded plover populations over the next 25 years, their model showed plover numbers increasing steadily.

Without the odour intervention, the plover population continued its descent.

An Australian application

Richard Fuller, a professor in conservation and biodiversity at the University of Queensland who was not involved in the study, said the work was "innovative" and "a totally different way of solving a really old problem. Predation by cats and foxes has been one of the main drivers of extinction in Australia," he said.

"I think anyone who can come up with new ways of addressing that problem is well worth listening to."

He said rare native birds that are vulnerable to predation may benefit from such odour habituation techniques. For instance, the golden-shouldered parrot, plains-wanderer and night parrot are all listed as endangered (critically so, in the case of the plains-wanderer). And while they're not technically migratory, they do travel between breeding and non-breeding seasons.

"But the challenge is that they don't have predictable seasonality, a time when they're predictably absent," he said.

That's the time needed to habituate predators to the odour "misinformation".

At the moment, the main way of controlling invasive predators in Australia and New Zealand is by killing them through shooting, trapping or baits.

Using odour to fool a predator could come in handy in situations where you don't want to kill it. It may be a native species, such as dingoes, or something culturally important, Dr Price said.

"Some of the islands in New Zealand have feral pigs eating shorebirds, but the local people want to keep the pigs for cultural reasons and hunting. So they just want to stop the pigs from eating the things that they don't want them to eat."

Habituation also targets the predators that evade lethal control, Dr Price added.

"Baiting often takes out the young and the inexperienced, because they'll go for the easy food. "The savvy ones might have learnt not to take the bait, or they might have had a sublethal dose earlier, so they avoid it."

As to whether predators will continue to be fooled in the long-term, Dr Norbury isn't sure. In the meantime, though, he is looking for ways to refine the technique. Instead of spending hours cooking up concentrated bird goo, scientists might be able to isolate the odour-producing molecules and make them in the lab.

Drones, too, could make odour distribution faster and cheaper. That also means no more walking, at the mercy of the elements, while smudging smelly paste on rocks for seven hours a day.

"The country is beautiful," Dr Norbury said "It's really nice to work in and we really enjoyed it, but only on good days. And yeah, the weather can get pretty bad."

An Article from Queensland Wader Issue 021 - Spring 1997

After all these years so much stays the same, though the Port of Brisbane is now one of the major sites in Moreton Bay. However, it is a business and will be filled in one day.

In May, 1997, when it seemed there would be no opportunity for a representative to participate on the Gateway Ports Reference Group, Sandra Harding (Conservation Officer for AWSG, current QWSG Committee Member and past QWSG Conservation Officer), prepared the following document, highlighting QWSG's Issues of Concern.

Over the last 20 years the Port of Brisbane has been developing and expanding into the Ramsar area of Moreton Bay. Recently a Gateway Ports Project has been unveiled that significantly expands the area likely to be influenced by industrial development at the mouth of the Brisbane River.

Our major concern is the security of high tide roosts in Moreton Bay. There have always been a number of high tide roosts in the vicinity of the Brisbane Port. As the Port has developed the birds using the Fisherman Islands area have had to move to new roost sites. This is not satisfactory and a proper investigation should be conducted to decide the best areas for wader roosts and these areas should then be protected and enhanced accordingly. There may well be a number of other roost sites affected by the Gateway Ports project depending on its extent. This whole area is of major significance in Moreton Bay.

Watkins (1993) lists Moreton Bay as the third most important site in Queensland for waders and it is arguably the second most important site. QWSG has been lobbying to protect high tide roosts in Moreton Bay since 1993. The management plan to provide the protection for Moreton Bay warranted by its listing under the Ramsar Convention, (Convention on Wetlands of International Importance especially as Waterfowl Habitat) is still awaited. During this time QWSG has provided input on the Moreton Bay Zoning Plan, Port of Brisbane Land Use Plan, Coastal Protection Bill and the Wetland Strategy reminding the Queensland Department of Environment of the need to protect wader roosts. The long-awaited Zoning Plan for the Bay has not been finalised.

Coastal development continues to threaten wader roosts in the whole of Moreton Bay. While Moreton Bay remains unmanaged, QWSG has carefully investigated high tide roosts, including a study into the construction of artificial roost sites and securing Coastcare funding for development and maintenance of high tide roosts. QWSG also maintains ongoing monitoring of wader populations in Moreton Bay and elsewhere along the Queensland coastline.

The Ramsar listing of Moreton Bay does not even include the critical areas for roost sites as these areas are above high tide or are freehold. However, waders at these sites should also be protected through JAMBA (Australia - Japan Migratory Bird Agreement) and CAMBA (Australia - China Migratory Bird Agreement).

There is still no zoning or management plan for Moreton Bay to ensure wise use of this Ramsar site. The Gateway Ports project is now being worked up without the needed environmental framework to appropriately guide the development. It is questionable whether, the State Government can make sensible decisions concerning Moreton Bay without first establishing the parameters within which decisions can be made. It would appear that the State Government is not willing to recognise the environmental values of the area for the sake of having no restrictions on future development potential and overlooking environmental impacts.

In addition to the main issue of high tide roosting areas, other environmental impacts, the effect of which are still unknown, have not been investigated but will affect wader habitat. These include polluted runoff, (particularly considering that the Moreton Bay Water Quality Management Strategy is still in its early stages) and loss of feeding areas through land reclamation and filling of wetlands.

The Commonwealth Government is remiss in not being more vigilant and taking a leading role on the appropriate status and management of Australia's Ramsar sites.

Reference
Watkins, D (1993) A National Plan for Shorebird Conservation in Australia. Australasian Wader Studies Group, Royal Ornithologists Union and World Wide Fund For Nature, Victoria.

These next articles are not wader based but cover interesting aspects of migration.

Discover the Fascinating Science Behind Bird Migration Bottlenecks

By James Lowen - Birdlife 26 Apr 2021

One of the wonders of the natural world, migration “bottlenecks” occur where vast clouds of large soaring birds – especially raptors – concentrate at narrow land passages. Get a bird’s eye view on the science behind the world’s largest bird migration congregations.

Aggregations of birds soaring upwards on thermals are known as "kettles" © Christian Gelpke

After successive damp days in central Colombia’s Andes, the November morning has delivered rain-free warmth. And how the Swainson’s Hawks, *Buteo swainsoni* are responding. Flanking a mountain ridge swathed in tropical forest, hundreds of broad-winged, spread-tailed forms are swirling upwards. Their simultaneous release of pent-up migratory urges manifests itself as a fairground helter-skelter in reverse.

Harnessing a column of rising air, the migrants ascend hundreds of metres into the sky until they have gained sufficient altitude to relax into an energy-saving glide towards a distant mountain ridge. Here they will repeat the trick, each successive rise and fall forming another vital step in their 9,000km journey from North American breeding grounds to Argentina’s pampas grasslands. For me, however, the show is over: I can finally exhale.

The experience is thrilling – but so too the underlying science. Travelling vast distances costs migratory birds much energy. Although New World raptors and songbirds migrate between roughly the same places, their strategies differ radically. Songbirds power flight through rapid wingbeats, mainly travelling at night to avoid both predators and overheating. Broad-winged birds of prey, however, journey by day, conserving fuel by soaring.

RAPTORS EMERGE FROM THE MIST AS THEY GLIDE HIGHER AND HIGHER © LARS SOERINK

Using air currents, they gain lift before cruising onwards, preserving fat stores by minimising flapping. Sometimes the raptors 'slope soar', riding winds pushed upwards over mountain sides – famously so at the well-named Hawk Mountain, which straddles a 500km long ridge bracketing the US states of New Jersey and Pennsylvania. Such helpful updrafts happen when the wind blows. Calm conditions, however, demand an alternative approach. Birds circle upwards on 'thermals' – pockets of warm, ascending air generated when the sun differentially heats the land surface – before motoring away with nary a wing flap.

These aggregations of soaring birds are known as 'kettles', as if the protagonists were steaming upwards from an imaginary container's spout. Although the cluster seemingly behaves as a single entity, appearances are deceptive. Raptors are typically solitary creatures for which co-operation makes little ecological sense. The spectacle derives from coincidence, not co-ordination: birds independently following the migratory path of least resistance while scrutinising the sky for individuals that have already discovered the next free ride.

Whereas songbird migration routes typically follow straight lines – the imperative being to fly the shortest distance possible – geography governs raptors' routes, thereby chivvying them into concentrations. Famous migratory bottlenecks often result from the opportunities offered by mountain passes or gorges such as Organbidexka in the French Pyrenees, where currents funnel avian travellers through a confined airspace.

RAPTORS CONGREGATE IN THE SKIES ABOVE PANAMA CITY © ALVARO MOISES

But geography can also present barriers to raptor migration – and none is mightier than the open sea. Water bodies release heat slowly and evenly, preventing thermals from forming above them. Without aerial assistance, raptors must power themselves to the next landmass. This is not only energetically costly but inherently perilous: running out of energy means drowning. Accordingly, birds of prey hug coastlines to benefit from land-generated thermals for as long as possible. This can result in gatherings of raptors in ostensibly surprising places – witness the 2.1 million birds counted over the land bridge of Panama City on 2 November 2014 – as well as at famous promontories either side of sea crossings such as Europe's Strait of Gibraltar.

Where sea and mountains are juxtaposed, the mother of all migratory bottlenecks may be created. Pinched between the Sierra Madre mountains and the Gulf of Mexico, the world's greatest raptor flyway lies in the narrow coastal plain of Mexico's Veracruz. Between September and November, some five million birds of prey pour south along this corridor in a spectacle known as the 'River of Raptors', including pretty much the entire global population of Swainson's Hawks.

The fact that pure physics can create such a miraculous and beautiful sight is just another example of the inspiring way birds adapt to the challenges of survival.

These next two articles or not wader orientated but highlight factors relating to migration. We need to remember that hunting is a large factor in the demise of waders in the East Asian Australasian Flyway.

Despatches from the bird migration battlefront

28 Apr 2021

With millions of birds illegally killed each year, working to protect them can seem like an overwhelming battle. That's when inspirational, heart-warming success stories are needed. We hear first-hand accounts from conservation's 'frontline' in Malta, Hungary and Lebanon.

Gábor Deák with Falco, the anti-poisoning sniffer dog © Szilard Morvai / BirdLife Hungary

By BirdLife International

When photojournalist David Guttenfelder covered the slaughter of songbirds in the Mediterranean for National Geographic in 2013, he said it was like covering a war. Every year, over 25 million birds are illegally killed as they fly in waves from northern Europe over the Mediterranean and the Caucasus. Like a war, it's a tragic manifestation of how we, humans, are capable of the most senseless destruction. Fortunately, however, humans are also capable of love, bravery and altruism. BirdLife Partners demonstrate this through the exceptional work they do every day to protect our feathered friends.

Launched two years ago in this magazine, Flight for Survival is an international awareness-raising campaign aiming to end the illegal killing crisis. So far, it has had over 128,000 unique visitors to its website and millions of impressions on social media. The campaign lays bare the many dangers facing migratory birds, and also helps raise money for our Partners' critical conservation work in the field. Here's a snapshot of their work – just a few beautiful stories of humanity at its best.

No more callers: citizen engagement tackles Malta's illegal killing

Mark Sultana, CEO of BirdLife Malta

Trapped Golden Plover © BirdLife Malta

Malta, in the middle of the Mediterranean Sea, is an important stopover site for migratory birds. Unfortunately, the illegal killing of birds is a widespread problem here, even for protected species. But at BirdLife Malta, we're taking action.

In 2019, BirdLife Malta launched #NoMoreCallers: a people-powered campaign to fight the illegal use of electronic bird calling devices, mobilising citizens to report such devices across the country. A bird caller can be anything from a small hand-held device to an intricate system of car batteries, a digital playing device and speakers. They are often hidden in stone walls, attached to trapping hides or even bolted within concrete structures, making them hard to remove. Callers attract birds down to trapping sites peppered throughout the countryside in Malta and Gozo. They are often used to trap Eurasian Golden Plover *Pluvialis apricaria* and other protected birds.

#NoMoreCallers was a resounding success, with an extraordinary response from the public: throughout the campaign, we received over 600 reports with details and GPS co-ordinates. The large amount of reports allowed us to insist once more to both the local government and the European Commission that Malta is failing to control this illegality. One has to keep in mind that the illegality of electronic callers is mainly linked with trapping. Trapping is not allowed by the EU Birds Directive, but Malta grants exemptions, and tries to justify it as a traditional pastime. We will remain adamant that none of the exemptions applied by Malta are justified.

The number of reports proved that the use of electronic lures is widespread across the Maltese archipelago. But the level of public engagement with this campaign proved something else: there is a strong movement to protect birds within our society.

Sniffing out poison: how dogs are saving birds in Hungary

Gábor Deák, Dog Unit Leader, BirdLife Hungary

Falco finds a dead Imperial Eagle © Gábor Deák

If you are wandering around in Hungary, you don't have to worry about running into wide mist nets with songbirds struggling in them. You will not see birds trapped in glue sticks either. Storks don't have to worry about bullets. Illegal killing in Hungary is much less obvious. It's silent. Discreet. Vicious. But just as deadly. The killer's name? Poison.

The situation is dire, but at BirdLife Hungary we're lucky enough to have four-legged superheroes to help us. That's right: we've got dogs. But not just any dogs. They can sniff out poisoned bait or carcasses. Falco, a German shepherd, was the first dog in the anti-poison unit that underwent extensive training with the Hungarian National Police.

Falco's first field search was a bittersweet success: he found twelve Western Marsh-harriers *Circus aeruginosus*, one Eurasian Buzzard *Buteo buteo*, four foxes, poisoned bait (eggs) and three Saker Falcons *Falco cherrug* (Endangered) buried in the ground. It was devastating to uncover such death.

Inspired by Falco's success, two more dogs were trained. Now, three dogs (Falco, Carlo and Hella) are fighting the illegal killing of birds in Hungary. And as birds know no borders, we teamed up with Slovakia, Czechia, Austria and Serbia to run the PannonEagle LIFE project together. And now, dogs are saving birds in those places, too.

So far, BirdLife Hungary's dog unit has carried out more than a thousand searches. The task is daunting, and it's not possible without financial support. There are always new ways to kill and new poisons that emerge. But international and interspecies co-operation with Falco and his friends give us reason for hope.

"And I set the blackcap free": a bird-saving mission in Lebanon

Léna Farran, Project Manager, BirdLife Lebanon

I had set my alarm for 5:00 AM. I was so excited I could barely sleep. I was going on my first field mission as a member of the Anti-Poaching unit of the Society for the Protection of Nature in Lebanon (SPNL, BirdLife Partner), alongside the Committee Against Illegal Bird Slaughter (CABS).

We reached the village of Barja near Mount Lebanon at the crack of dawn. Almost every house in Barja is part of a farm, so we first split into two groups, and then explored the town in order to locate illegal mist nets and calling devices among the olive orchards and fruit groves.

After only two hours of patrolling, we uncovered six active trapping sites and calling devices that are used as lures. We reported the findings to the Internal Security Forces, who immediately mobilised and showed up on site. The support of the ISF was much needed, as we couldn't dismantle any mist nests without them. An incredible number of animals were trapped in the nets – moths, butterflies and birds. My heart ached.

While we were dismantling one of the nets, I spotted a struggling Eurasian Blackcap *Sylvia atricapilla*. I jumped out of excitement! Without thinking, I held the trapped bird and stroked it gently so it could feel safe. That was the first time I had ever touched a bird. I called out to the others, as the nets were severely tangled around the frail bird's body. After half an hour or so, we were able to set our feathered friend free.

I spent the rest of the day – and week – thinking about this exceptional experience. I felt that I could really change the life of a helpless creature. I felt hope for birds in Lebanon, as fragile as that hope may be. One thing is certain: in Lebanon, the support offered by the presidential team, ISF and partners from around the world is slowly but surely resisting the illegal killing of birds.

11 Spectacular Bird Migration Bottlenecks from Around the world

Birdlife - 5 May 2021

The Wadden Sea is one of the world's most important migration hubs © travelpeter / Shutterstock

By Dominic Mitchell

Migratory birds move in their countless millions across the Americas, Africa and Eurasia each spring and autumn. These epic journeys often take place on broad fronts, but birds also concentrate at bottlenecks where geographical features funnel them over narrow ocean crossings, or where rich feeding opportunities enable them to rest and build up fat reserves before continuing their journeys. This selection of hotspots underscores the importance of conservation action in the way birds see the world: through flyways.

1. Fraser River Delta, Canada

This vast area near Vancouver is one of Canada's most important ecosystems for waterbirds, yet it is under heavy development pressure. There is no overarching legal framework protecting the area, so Birds Canada and Nature Canada (both BirdLife Partners) are among those fighting plans for a huge trading port. One-day estimates of at least 500,000 Western Sandpipers *Calidris mauri* indicate that much of the global population stops over in spring; high counts of Dunlin *Calidris alpina* and Grey Plover *Pluvialis squatarola* also represent about 8% and 3% respectively of the North American populations. Autumn counts of more than 100,000 waterfowl are made regularly.

Thousands of Western Sandpipers stop at Fraser Delta en route to their breeding grounds © Tom Middleton / Shutterstock

2. Cape May, USA

This New Jersey peninsula is a natural funnel for birds migrating at the junction of Delaware Bay and the Atlantic Ocean. Passage in spring involves more than 100 species and 100,000 birds, and is even more significant in autumn with huge flights of birds of prey – notably Broad-winged Hawk *Buteo platypterus*, Red-shouldered Hawk *Buteo lineatus* and Sharp-shinned Hawk *Accipiter striatus* – as well as numerous shorebirds and seabirds, and impressive waves of warblers, vireos, thrushes, sparrows and other passerine migrants.

3. Veracruz, Mexico

Nowhere on Earth is more spectacular for raptor passage. In autumn up to six million birds of prey from eastern, central and western North America converge en route to winter quarters in Central and South America. Almost the entire world populations of Broad-winged Hawk, Swainson's Hawk *Buteo swainsoni* and Mississippi Kite *Ictinia mississippiensis* – numbering up to two million, one million and 200,000 birds respectively – pass through, along with 1.5 million Turkey Vultures *Cathartes aura* (and many other species) in what has become known as the River of Raptors.

With 200,000 Mississippi Kites, Veracruz is dubbed the "river of raptors" © Dan Rieck / Shutterstock

4. Panama City, Panama
The skyscrapers of Panama's capital provide an incongruous backdrop to the streams of 'kettling' raptors migrating between breeding and wintering ranges. Mudflats near the city are recognised as one of the five most important areas for migratory and wintering shorebirds in the Americas – an estimated 1.3 million pass through in autumn, including globally important populations of Western Sandpiper (32%) and Whimbrel *Numenius phaeopus* (20%), among others. Panama Audubon Society (BirdLife Partner) spearheaded moves to save the bay's wetlands from development, leading to protected status being ratified by the country's Supreme Court.

5. Wadden Sea, north-west Europe
A vast intertidal area shared between the Netherlands, Germany and Denmark, the Wadden Sea is one of the most important hubs for migratory birds in the world, yet it is threatened by fishing, salt mining, gas extraction and climate change. Some 12 million waterbirds breed, pass through or overwinter, including up to 267,000 Red Knot *Calidris canutus* (Near Threatened). Good numbers of Eurasian Spoonbill *Platalea alba* breed, and most migrate to Banc d'Arguin in Mauritania, linking these two UNESCO World Heritage Sites on the same flyway. Vogelbescherming Nederland (BirdLife Partner) is working to ensure protection from disturbance, especially at high tide when birds need to roost safely.


12 million waterbirds can be found at the Wadden Sea © Travelpeter / Shutterstock

6. Mediterranean islands
Migrants crossing the Mediterranean rest on islands such as Malta and Cyprus, where large-scale illegal killing remains an issue. BirdLife Partners work constantly to counter such threats, for example by aligning enforcement of anti-hunting laws in Malta with the migration of European Turtle-doves *Streptopelia turtur* (Vulnerable), a species that has declined by 80% in Europe in the last 30 years, or combating the illegal use of mist nets and limesticks to trap millions of songbirds for the consumption of 'ambelopoulia' – a local delicacy in Cyprus.

7. Middle East
Multiple Important Bird & Biodiversity Areas from the Red Sea north to Lebanon and Syria form part of a vital corridor for vast numbers of migrating birds. As many as 1.2 million occur in spring, including globally significant numbers of European Honey-buzzard *Pernis apivorus*, Black Kite *Milvus migrans*, Levant Sparrowhawk *Accipiter brevipes*, Steppe Buzzard *Buteo buteo vulpinus* and Steppe Eagle *Aquila nipalensis* (Endangered). BirdLife is leading the Migratory Soaring Birds project, working in 11 countries along the flyway to minimise the negative impact of energy infrastructure such as wind turbines and powerlines. Illegal hunting is also a threat in the northern part of this region.

"Kettling" raptors spiral up out of the mist at Batumi, Georgia © Lars Soerink

8. Batumi, Georgia

More than 1,000,000 raptors migrate through the Batumi bottleneck each autumn, over half of them European Honey-buzzards, as well as huge numbers of Steppe Buzzards and Black Kites, among large volumes of other birds of prey. Illegal killing has been problematic but SABUKO (BirdLife Partner) and the Dutch foundation Batumi Raptor Count are deploying various conservation and awareness-raising strategies, including birding tourism.

9. Khao Dinsor, Thailand

Hundreds of thousands of birds of prey of up to 25 species pass through in autumn, making this the premier raptor migration watchpoint in Thailand, and perhaps the entire Oriental region. In autumn 2016, as many as 791,229 raptors were counted. Chinese Sparrowhawk *Accipiter soloensis*, Black Baza *Aviceda leuphotes* and Oriental Honey-buzzard *Pernis ptilorhynchus* are the three commonest species, but Grey-faced Buzzard *Butastur indicus*, Japanese Sparrowhawk *Accipiter gularis* and Shikra *Accipiter badius* can also be very numerous, and other migrants occur.

A depiction of the thriving diversity of shorebirds found at China's mud flats © Richard Allen

10. Yellow Sea coast, China
Most of an estimated 50 million waterbirds depend on the Yellow Sea's coastal wetlands as a stopover site on migration. Tiaozini and Dongsha shoals, part of the Yancheng Nature Reserve, are hugely important for migratory birds on the East Asian-Australasian Flyway. Among many species, they support almost half of the total population of Spoon-billed Sandpiper *Calidris pygmaea* (Critically Endangered) and at least 80% of the world population of Spotted Greenshank *Tringa guttifer* (Endangered). About a sixth of the known global population of Red-crowned Crane *Grus japonensis* (Endangered) also winters at Yancheng, now protected as a UNESCO World Heritage Site, in part thanks to the lobbying efforts of BirdLife and the RSPB (BirdLife in the UK).

11. Beidaihe, China
This famous Important Bird & Biodiversity Area in north-east China has lost much habitat to development, but has a small reserve and remains important to huge numbers of migrants crossing the Gulf of Bohai in spring and autumn. These include Siberian Crane *Leucogeranus leucogeranus* (Critically Endangered) and Red-crowned Crane, Spotted Greenshank and Oriental Stork *Ciconia boyciana* (Endangered). Notable among its concentration of land bird migrants is Yellow-breasted Bunting *Emberiza aureola* (Critically Endangered), much declined as a result of large-scale trapping in rice paddies, a practice now outlawed but still known to occur in the region.

Weighing Tube for Waders

Long legs and necks can be a safety concern and a nuisance when it comes to weighing waders.
A piece of poly pipe with a flat piece of wood as a base is proving to be an excellent tool when it comes to weighing waders. The species we have used it on have all seemed very calm. No bouncing bags on the scales!

The poly pipe comes in several diameters, so you have a choice depending on the species. Plus it can be very easily cleaned after used

Photo by Jon Coleman

Wanted: Volunteers to help run QWSG

The QWSG is needing help from the membership.
We require people to assist or to run some of the roles that make the QWSG the great organisation that it is.
You can join the Committee or help from outside. We will not throw you in at the deep end.
If you want to know more or join contact one of the Committee Members for info.

Count Programme by Linda Cross

A reminder to all counters that the tide heights and times are not conducive to conduct a count in June on the weekends, allowing all of you a rest for the month. The National Summer Count is scheduled for 17 July. Please let me know if you will be unable to conduct your count.

The first arrival of Double-banded Plover was a single bird seen at Lake Samsonvale on 18.03.21 followed by a single bird at Kakadu Beach Bribie Island 10 days later on 28.03.21. Since the end of March, the species has been recorded at 12 other sites. In the table below are the highest counts for the species at those sites.

Site	Date	Qty
Sandbank No 2 Caloundra	09.04.21	1
Caboolture River mouth	09.04.21	1
Cooloola	11.04.21	1
Buckley's Hole sandbar Bribie Island	13.04.21	1
Deception Bay claypan	10.04.21	2
Luggage Point	11.04.21	2 (juveniles)
Kakadu Beach Bribie Island	09.05.21	3
Manly Harbour	08.04.21	5
Gregory Rd Hays Inlet	08.05.21	5
Port of Brisbane complex	11.04.21	20
East & West Geoff Skinner Reserve combined	10.04.21	27
Reeder's Point Moreton Island	14.04.21	95
East Geoff Skinner Reserve	08.05.21	150

The Nordman's Greenshank that has been seen along the Cairns Esplanade was recorded on a count received for 25.03.21 and was still in the area on 25.04.21. The bird may overwinter giving other wader enthusiasts the opportunity to see it. A Pectoral Sandpiper was recorded at East Geoff Skinner Reserve on 10.04.21 and a single bird of the same species remained at Garnet's Lagoon No. 1 in Hervey Bay on 12.02.21. A Common Sandpiper was recorded at Kedron Brook Wetlands on 10.04.21.

Resident waders (Pied Stilt and Black-fronted Dotterel) along with Australian Tern and some waterbirds that have been missing along the coast for months, are now starting to return to count sites.

Pied Stilt was recorded at 29 sites during the last few months. Some of the higher counts include Lytton Claypan No. 1 (922) on 08.05.21, Gregory Rd Hays Inlet (837) on 08.05.21, Kedron Brook Wetlands (224) on 10.04.21 and Maaroom (223) on 10.04.21. More than 100 were recorded at 5 other sites.

Black-fronted Dotterel has been recorded at 17 sites. Most counts were in single digits but 42 were seen at King Street Mudflat Thornlands on 10.04.21, with the next highest counts being 11 at Redcliffe airport north side on 13.03.21 and 10 at Bundaberg Port on 11.04.21.

Extracts from February counts in Moreton Bay for migratory species already appear in the Healthy Land and Water bay-wide census report in this issue of the newsletter. High and interesting counts that appear below have been extracted from March and April counts from all sites within the count programme, including February for those outside of Moreton Bay. Additional extracts (migratory and resident) can be found in the "Interesting wader sightings" section of the newsletter.

Pacific Golden Plover: Port of Brisbane complex (792) on 14.03.21
Grey Plover: Boonooroo section 1 (44) on 13.02.21
Lesser Sand Plover: Port of Brisbane complex (856) on 14.03.21
Greater Sand Plover: Port of Brisbane complex (166) on 14.03.21, O'Reagan's Ck, Hervey Bay W side (150) on 14.03.21 and Boonooroo section 1 (127) on 13.02.21
Eurasian Whimbrel: Mirapool Moreton Island (370) on 14.04.21, Dead tree beach Moreton Island (310) on 14.04.21, Lytton Claypan No. 1 (287) on 10.04.21
Far Eastern Curlew: Cooloola (337) on 11.04.21 and East Geoff Skinner Reserve (280) on 13.03.21
Bar-tailed Godwit: West Geoff Skinner Reserve (1,868) on 13.03.21, Manly Harbour (1,855) on 09.02.21 and Kakadu Beach Bribie Island (1,800) on 14.03.21
Black-tailed Godwit: Lytton Claypan No. 1 (15) on 08.05.21
Ruddy Turnstone: Port of Brisbane complex (205) on 14.03.21, West Geoff Skinner Reserve (161) on 10.04.21
Great Knot: Boonooroo section 1 (518) on 13.02.21 and Maaroom (460) on 13.03.21
Red Knot: Boonooroo section 1 (12) on 13.02.21
Broad-billed Sandpiper: Port of Brisbane complex (76) on 14.03.21 and Manly Harbour (8) on 10.04.21

Sharp-tailed Sandpiper: Lytton Claypan No.1 (770) on 11.04.21, Port of Brisbane complex (215) on 11.04.21
Curlew Sandpiper: Port of Brisbane complex (2,041) on 14.03.21
Red-necked Stint: Port of Brisbane complex (2,843) on 14.03.21, East and West Geoff Skinner Reserve combined (787) on 10.04.21
Latham's Snipe: Garnet's Lagoons No.1, Hervey Bay (5) on 12.02.21 and Kinka Wetlands Yeppoon (2) on 13.02.21
Terek Sandpiper: Manly Harbour (126) on 09.02.21
Grey-tailed Tattler: Manly Harbour (1,295) on 10.04.21 and (959) still on site on 29.04.21
Wandering Tattler: Wickham Point (3) on 22.02.21
Marsh Sandpiper: Maaroom (46) on 10.04.21, Dohle's Rock's Road Pond (45) on 10.04.21

Breeding records:

Beach Stone-curlew: Kakadu Beach Bribie Island (birds possibly doing pre-mating display and very noisy) on 25.04.21.
Pied Oystercatcher: Manly Harbour (2 immature) on 09.02.21, Toorbul (2 immature) on 13.03.21
Masked Lapwing: Kakadu Beach Bribie Island (2 juveniles) on 28.03.21
Pied Stilt: Manly Harbour (adults with 2 recently hatched chicks and adults with 3 chicks about a week old) on 03.02.21, (a pair nesting) on 09.02.21, (4 juveniles and adults attacking observer) on 23.02.21, (pair nesting with 2 eggs in nest) on 02.05.21 and (2 chicks) on 08.05.21. The Crescent Toorbul (behaviour indicates birds nesting at edge of wetland) on 12.02.21. Kakadu Beach Bribie Island (1 chick) on 14.02.21 and (4 chicks) on 09.05.21. Kedron Brook Wetlands (c100 nests, young chicks at foot and other varying ages ranging up to immature) on 10.04.21.
Red-capped Plover: Kakadu Beach Bribie Island (1 chick) on 14.02.21 and (1 chick and 1 juvenile) on 28.02.21.

We would like to remind members that the new counter for Tweed Heads (Erina Forrest) is looking for anyone in the Gold Coast/Tweed Heads area that would be willing to help her conduct the counts. Please contact Erina by email at erina.forrest@gmail.com

Counters not entering their counts online, please continue to send them to me at my email or postal address as follows: xenus69@bigpond.com
Snail mail: 40 Thompson Road, Bellmere. Qld 4510 Phone: 5495 2758 Mobile: 0490 080 340

A reminder that Leg flag sightings must not be entered online during count entry. Please note that you can now enter flagged and banded sightings on the new website. If you prefer, you can still email sightings to his email address phillipcross50@gmail.com. Please contact Phil or myself for the Leg Flag Observation Report Form.

Happy counting.
Linda Cross.

Interesting Sightings

Interesting wader sightings – as per IOC species list January 2021

Beach Stone-curlew: Endeavour River claypan Cooktown (4) on 10.02.21, Point Vernon Hervey Bay (3) on 11.04.21, Boonooroo section 3 (2) on 09.04.21. Other sites also recorded the species but too many to list due to lack of space.
Pied Oystercatcher: Port of Brisbane complex (172) on 14.03.21, Manly Harbour (132) on 02.04.21
Sooty Oystercatcher: Wickham Point (7) on 08.04.21 and (6) on 10.05.21. Port of Brisbane complex (3) on 14.03.21, Kakadu Beach Bribie Island (3) on 28.03.21 and Lillies Island Tweed Heads (2) on 20.04.21
Red-necked Avocet: Gregory Rd, Hay's Inlet (124) on 13.02.21
Masked Lapwing: Cairns Esplanade (46) on 10.0421
Red-kneed Dotterel: Garnet's Lagoon No. 1 Hervey Bay (2) on 13.03.21
Red-capped Plover: Gregory Rd Hay's Inlet (135) on 08.05.21, O'Regan's Ck, Hervey Bay W side, (110) on 11.04.21, Port of Brisbane complex (107) on 11.04.21, Luggage Point (100) on 09.05.21
Comb-crested Jacana: Garnet's Lagoons No.2, Hervey Bay (2) on 12.02.21

Not waders but of interest anyway – as per IOC species list January 2021

Please note: Gull-billed Tern is now called Australian Tern. The old name of Gull-billed Tern now relates to the race *affinis.*

Errata: My apologies for advising in the last newsletter that Pied Cormorant is now called Australian Pied Cormorant and then telling you that it is still listed as Pied Cormorant. When I gave you that information, I had been looking at an older listing. Please note: the correct name is Australian Pied Cormorant.

Magpie Goose: Luggage Point (7) on 11.04.21
Wandering Whistling Duck: Endeavour River mouth claypan Cooktown (2) on 10.03.21
Black Swan: Kinka Wetlands Yeppoon (197) on 13.02.21, with 101 still on site 08.05.21
Raja Shelduck: Luggage Point (2) on 09.05.21
Cotton Pygmy Goose: Kinka Wetlands Yeppoon (2) on 10.04.21
Australasian Shoveler: Kinka Wetlands Yeppoon (2) on 08.05.21
Black-necked Stork: Garnet's Lagoon No. 2 Hervey Bay (2) on 10.04.21, Kinka Wetlands, Yeppoon (2) on 13.03.21, Endeavour River mouth claypan Cooktown (2) on 10.02.21, Redcliffe Airport northside (1) on 10.04.21, Kedron Brook Wetlands (1) on 14.03.21
Australian White Ibis: Redcliffe airport north side (133) on 10.04.21
Straw-necked Ibis: Kedron Brook Wetlands (52 – unusual at site) on 10.04.21
Glossy Ibis: Dohle's Rocks Road Pond (15) on 10.04.21, Nathan Road Wetland, Redcliffe (8) on 10.04.21
Pied Heron: Endeavour River mouth claypan Cooktown (5) on 11.04.21
Pacific Reef Heron: Wickham Point (3) on 13.03.21
Australasian Gannet: Wickham Point (1 imm) on 10.05.21, Amity Point sandbank (1 imm) on 14.04.21
Australian Pied Cormorant: sandbank Amity Point (1,200) on 14.04.21
Buff-banded Rail: Kakadu Beach Bribie Island (9 – includes 2 adults with 3 chicks and 1 adult with 3 half-grown chicks) on 28.02.21, Kedron Brook Wetlands (2) on 10.04.21
Lewin's Rail: Lytton Claypan No. 1 (1 heard) on 10.04.21
Spotless Crake: Luggage Point (1 heard calling from flooded grass area) on 09.05.21
Brolga: Kinka Wetlands Yeppoon (4 – includes 2 recently fledged young birds) on 10.04.21 and (6) on 13.03.21
Silver Gull: Port of Brisbane complex (323) on 11.04.21
Lesser Crested Tern: Reeder's Point Moreton Island (8) on 14.04.21
Little Tern: Port of Brisbane complex (801) on 14.03.21
Common Tern: Sandbank No. 2 Caloundra (c2,500) on 12.03.21, Maroochy River Estuary (1,500) on 15.03.21
Whiskered Tern: Lytton Claypan No. 1 (1) on 08.05.21, Garnet's Lagoon No.1, Hervey Bay (3) on 12.02.21
White-winged Tern: Maroochy River sand bar (97) on 15.03.21 and 12.04.21

Raja Shelduck at Luggage Point Photograph by Gus Daly

Wader Watch by Phil Cross

The updated QWSG website now has a tab to 'report a banded / leg flag sighting' on the main page, you may have to scroll down the page to find it.

GREEN leg flag sightings seen in QLD

A quantity of 3 plain flags, 26 misread, 35 unread and 1095 engraved flags have been added to the database since the last newsletter.
As per the last newsletter a total of 17 different species with a flag were recorded - Bar-tailed Godwit, Black-tailed Godwit, Bush Stone-curlew, Curlew Sandpiper, Eurasian Whimbrel, Far Eastern Curlew, Great Knot, Greater Sand Plover, Grey-tailed Tattler, Lesser Sand Plover, Pacific Golden Plover, Pied Oystercatcher, Pied Stilt, Red-necked Stint, Ruddy Turnstone, Sharp-tailed Sandpiper and Terek Sandpiper.

Thank you to the observers who reported these sightings – Ken Bissett, Adrian Brooks, Michele Burford, Keith Collicoat, Tony Cotter, Yuko Crease, Linda Cross, Phil Cross, Scott Fox, Ricky Goodyear, Renate Hottmann-Schaefer, Roxanne Ives, Arthur Keates, Sheryl Keates, Rob Kernot, Sue Lee, Helen Leonard, Wayne Matthews, Kevin O'Sullivan, Ed Pierce, Cheryl Ponter, Graham Ponter, Karen Rose, Peter Rothlisberg, Brian Russell, Wilmot Senaratne, Michael Strong, Tom Tarrant, Ged Tranter, Daniel Townend, Chris Walker, Dez Wells, Melissa Whitby and Brad Woodworth.

GREEN leg flag sightings seen INTERSTATE

Nil

GREEN leg flag sightings seen OVERSEAS

China

Bar-tailed Godwit

EP on flag – 30.3.20 – Yalu Jiang Nature Reserve China – Zhang Shoudong

Japan

Bar-tailed Godwit

AKY on flag – 12.4.21 – Nobuhiro Hashimoto

Grey-tailed Tattler

ANN on flag – 30.7.20 & 10.8.20 – Koromozaki Isshiki-cho Nishio-shi Aichi-ken – Hideki Kanazawa
ANN on flag – 19.8.20 – Ikutamanoshinden Sengen Isshiki Nishio Aichi – Fusao Kondou
AZK on flag – 2.8.20 – Ano Beach Tokoname-shi Aichi-ken – Takabumi Suzuki
CYJ on flag – 2.8.20 – Nanko Bird Sanctuary Suminoe Osaka – Toshihiro Shimizu
CYJ on flag – 12.8.20 – Yumeshima Konohana Osaka – Tsutomu Kimura
CZM on flag – 10.8.20 – Nakamurahara Warusawa Odawara Kanagawa – Kiyotaka Ishikawa

New Zealand

Bar-tailed Godwit

BJK on flag – 23.1.21 – Clifton Beach Whitford Auckland – Tony Habraken
FCD on flag – 23.3.21 - Matarangi Coromandel Peninsula – Nigel Milius
AJN on flag – 18.12.19 – Miranda Firth of Thames – Amanda Hunt
AJN on flag – 13.12.20 – Miranda Firth of Thames – Adrian Riegen
AJN on flag – 26.01.20 – Miranda Firth of Thames – Adrian Riegen
BDE on flag – 13.1.21 – Miranda Firth of Thames – Ian Southey
BDE on flag – 14.1.21 – Miranda Firth of Thames – Adrian Riegen
FCK on flag – 18.11.20 – Miranda Firth of Thames - Anne Gummer
FJK on flag – 13.2.21 – Miranda Firth of Thames – Adrian Riegen, Janie & Kevin Vaughan
FCF on flag – 23.1.21 – Mangere Sewage Ponds Auckland – Tony Habraken
FPU on flag – 26.2.21 – Tasman Bay Nelson Haven South Island N Z– Peter Field
FPU on flag – 12 & 18.3.21 – Tasman Bay Nelson Haven South Island N Z– Peter Field
ABW on flag – 29 & 31.12.19 – Snells Beach Warkworth N Island - Michele Mackenzie
ABW on flag – 3, 8 & 16.1.20 – Snells Beach Warkworth N Island - Michele Mackenzie
ABW on flag – 19 & 24.1.20 – Snells Beach Warkworth N Island - Michele Mackenzie
ABW on flag – 11.2.20 – Snells Beach Warkworth N Island - Michele Mackenzie
ABW on flag – 3.10.20 – Snells Beach Warkworth N Island - Jonathan Mower
ABW on flag – 27.10.20 – Snells Beach Warkworth N Island - Michele Mackenzie
ABW on flag – 7.2.21 – Snells Beach Warkworth N Island - Michele Mackenzie
ABW on flag – 14 & 26.2.20 – Omaha Sandspit Auckland – Sue Cook & Marie Ward
AHH on flag – 29 & 30.12.19 – Snells Beach Warkworth N Island - Michele Mackenzie
AHH on flag – 19, 24 & 31.1.20 – Snells Beach Warkworth N Island - Michele Mackenzie
AHH on flag – 3.10.20 – Snells Beach Warkworth N Island - Jonathan Mower

AHH on flag – 6 & 27.10.20 – Snells Beach Warkworth N Island - Michele Mackenzie
AHH on flag – 14.2.20 – Omaha Sandspit Auckland – Sue Cook & Marie Ward
AHH on flag – 8.3.20 – Omaha Sandspit Auckland – Sue Cook & Marie Ward
AHH on flag – 7.2.21 – Snells Beach Warkworth N Island - Michele Mackenzie

South Korea

Bar-tailed Godwit - All below seen at Aphae Island (south) by Andreas Kim

BTZ on flag – 8.4.21
DCX on flag – 8.4.21
PR on flag – 10, 11, 13, 16, 17, 18, 20, 23 & 24.4.21
BTF on flag – 13.4.21
EC on flag – 14, 16, 17, 18, 19, 20, 23 & 24.4.21
CDC on flag – 18 & 19.4.21
BCC on flag – 20.4.21

YELLOW (WA) leg flag sightings seen in Qld

Nil

ORANGE (Victoria) leg flag sightings seen in QLD.

Great Knot

Plain flag – 17.1.21 – Thorneside – Wilmot Senaratne
Plain flag – 7.2.21 – Thorneside – Tony Cotter
Plain flag – 4.2.21 – Manly Harbour – Arthur Keates
Plain flag – 5.2.21 – Manly Harbour – Arthur Keates & Melissa Whitby
Plain flag – 23.2.21 – Manly Harbour – Arthur Keates
Plain flag – 6.3.21 – Thorneside – Brian Russell & Chris Walker
Plain flag – 20.3.21 – Thorneside – Tony Cotter
Plain flag – 21.3.21 – Thorneside – Arthur Keates & Tony Cotter

Sharp-tailed Sandpiper

WB on flag – 18.3.21 – Lake Samsonvale – Ged Tranter
Engraved flag unread – 17.2.21 – Lake Murphy Taroom – Cecile Espigole & William Price

Caspian Tern Orange flag (Victoria)

U8 on flag – 13.4.21 -Buckley's Hole Bribie – Dez Wells
T3 on flag – 2.4.21 – Toorbul – Helen Leonard
U0 on flag – 25.4.21 – Kakadu Beach Bribie – Michael Strong
E6 on flag – 25.4.21 – Kakadu Beach Bribie – Helen Leonard
K9 on flag – 2.5.21 – Toorbul – Helen Leonard
Engraved flag unread – 6.3.21 – Toorbul – Helen Leonard

OVERSEAS FLAGGED birds seen in QLD

BLACK over WHITE (Shanghai, China) leg flag sightings

Great Knot

AA1 on flag – 20.2.21 – Manly Lota Esplanade - Tony Cotter
AA1 on flag – 9.2.21 – Manly Harbour – Arthur Keates
AA1 on flag – 31.3.21 – Manly Harbour – Arthur Keates
A94 on flag – 14.2.21 – Bushland Beach Townsville – John Lowry
A94 on flag – 18.2.21 – Bushland Beach Townsville – Ed Pierce
CM8 on flag – 14.2.21 – Bushland Beach Townsville – Ed Pierce
C75 on flag – 18.2.21 – Bushland Beach Townsville – Ed Pierce
J62 on flag – 15.1.21 – Thorneside – Wilmot Senaratne
J62 on flag – 9.2.21 – Manly Harbour – Arthur Keates
J62 on flag – 3.3.21 – Manly Harbour – Arthur Keates & Wayne Matthews
J62 on flag – 20 & 21.3.21 – Thorneside – Tony Cotter
J62 on flag – 21.3.21 – Thorneside – Arthur Keates & Melissa Whitby
J62 on flag – 27.3.21 – Manly Harbour – Arthur Keates & Melissa Whitby
J62 on flag – 30.3.21 – Manly Harbour – Arthur Keates
V74 on flag – 14.2.21 – Bushland Beach Townsville – John Lowry

Curlew Sandpiper

Plain flags L tibia (also blue flag on R tibia) – 5 & 27.2.21 – Manly Harbour – Arthur Keates & Melissa Whitby
Plain flags L tibia (also blue flag on R tibia) – 23.2.21 – Manly Harbour – Arthur Keates

Red Knot

Plain flags – 14.2.21 – Bushland Beach Townsville – John Lowry

WHITE over BLUE (Taiwan, China) leg flag sightings

Lesser Sand Plover

A08 on flag – 14.2.21 – Kakadu Beach Bribie – Michael Strong
718 on flag – 13.2.21 – Urangan boat harbour – Jack Worcester
Engraved flag unread – 31.1.21 – Kakadu Beach Bribie – Michael Strong
Engraved flag unread – 28.3.21 – Kakadu Beach Bribie – Michael Strong

Greater Sand Plover

EP on flag – 22.2.21 – Burdekin River Delta – John Lowry

BLACK over YELLOW (Kamchatka, Russia) leg flag sightings

Great Knot

Y0 on flag – 14.2.21 – Bushland Beach Townsville – John Lowry
L2 on flag – 18.2.21 – Bushland Beach Townsville – Ed Pierce

BLUE (Hokkaido, Japan) leg flag sightings

Grey-tailed Tattler

Plain flag – 4 & 9.2.21 – Manly Harbour – Arthur Keates
Plain flag – 27.2.21 – Wynnum Esplanade – Arthur Keates & Melissa Whitby
Plain flag – 11 & 23.3.21 – Cairns Esplanade – Jun Matsui
Plain flag – 17.4.21 – Wynnum Esplanade – Tony Cotter
Plain flag – 2.5.21 – Wynnum Esplanade – Tony Cotter
Plain flag – 29.4.21 – Manly Harbour – Arthur Keates
Engraved flag unread – 11.4.21 – Toorbul – Helen Leonard
H06 on flag – 20.3.21 – Wynnum Esplanade – Tony Cotter
H06 on flag – 20.3.21 – Manly Harbour – Arthur Keates & Scott Fox
H06 on flag – 29.4.21 – Wynnum Esplanade – Tony Cotter
H06 on flag – 2.5.21 – Wynnum Esplanade – Tony Cotter

BLUE & WHITE (Torinoumi, Japan) leg flag sightings

Grey-tailed Tattler

311 on flag - 1.3.21 – Zilzie Point Rockhampton – Barry Ellis
568 on flag – 9.2.21 – Manly Harbour – Arthur Keates
568 on flag – 3.3.21 – Manly Harbour – Arthur Keates & Wayne Matthews
568 on flag – 27 & 28.3.21 – Manly Harbour – Arthur Keates
568 on flag – 1.4.21 – Manly Harbour – Arthur Keates
568 on flag – 29.4.21 – Wynnum Esplanade – Tony Cotter
568 or 569 on flag – 24.4.21 – Manly Harbour – Arthur Keates
Engraved flag unread – 20.3.21 – Manly Harbour – Arthur Keates & Wilmot Senaratne
Engraved flag unread – 2.4.21 – Manly Harbour – Arthur Keates
Engraved flag unread – 17.4.21 – Manly Harbour – Arthur & Sheryl Keates
Engraved flag unread – 2.4.21 – Toorbul – Helen Leonard

Pied Oystercatcher Yellow leg flag (2 digit) sightings

The following sightings of yellow flagged oystercatchers are not birds flagged in North West Western Australia, as per the flagging protocol. They are another project being run from Victoria and New South Wales. Birds flagged in Victoria will have a yellow flag on the right tibia and inscribed with two digits. New South Wales birds will have the yellow flag on the left tibia and inscribed with two digits.

H1 on flag – 6.12.20 – Tweed entrance south bank – Kathy Wilk
C4 on flag – 20.3.21 – Manly Harbour – Scott Fox

Wader ID Days

No ID days selected nor advertised at present.
Please continue to check the QWSG website – www.waders.org.au

Linda Cross and Arthur Keates

Other Conservation Activities of Interest

QWSG is a special interest group of the Birds Queensland Inc. whose object is:
" To promote the scientific study and conservation of birds by all means possible, with particular reference to the birds of Queensland".
Separate membership is required.

Contacts: President, Stephen Prowse president@birdsqueensland.org.au
Secretary, Janette Thurley secretary@birdsqueensland.org.au
Treasurer, Wayne Lock treasurer@birdsqueensland.org.au

Healthy Land and Water Call to Action

13 May 2021

New survey on environment and liveability of SEQ out for public comment this month

The deadline of 15 June – and the link is https://hlw.org.au/nrmplan/

Your chance to give input which will help drive planning for a healthy environment and long-term liveability for South East Queensland is underway this month. People from across the region are being encouraged to get in have their say.

The 2021South East Queensland Natural Resource Management Plan (NRM Plan) survey was officially launched at Esk last week, with local mayors, community and industry leaders joining the region's leading environmental group, Healthy Land and Water, for the event.

Designed to **highlight a comprehensive body of data on the condition of South East Queensland's natural assets and seek community input to identify any emerging threats** to our future environment and liveability, the interactive, informative and engaging survey has just gone live.

According to Healthy Land and Water's CEO, Julie McLellan, the collated data from the survey will be used to help jointly plan collaborative strategies and actions which produce benefits for the whole community and a desirable future our region. She says the broadest input from across South East Queensland is vital.

"It is important that we hear from as many South East Queenslanders as possible to ensure the plan reflects the most current information and is responding to changing circumstances," says Ms McLellan. "The collated information collected in the survey will be added to the deep dive into the science and data happening concurrently as part of the review. An important part of the review is identifying challenges and priority actions to protect and restore the region's natural assets (e.g. air, water, soil, and native vegetation). This is vital in building the resilience of our future region."

Ms McLellan says participants can also register interest in further engagement about the plan including regionalised webinars, focus group meetings and workshops, and go into the draw to win $250 for their effort.

"If you love South East Queensland, I strongly encourage you to get involved in having a say about its future".

This project is supported by Healthy Land and Water through funding from the Australian Government's National Landcare Program.

About the survey
The NRM Plan survey is being run by the environmental peak group for the region, Healthy Land and Water, which is charged with managing the region's Natural Resources Management Plan (NRM Plan).
The NRM Plan is a living document, which aims to halt and reverse the decline of South East Queensland's natural assets.

QWSG CONTACTS

QUEENSLAND WADER
The Official Quarterly Publication of Queensland Wader Study Group

Website www.waders.org.au
Facebook https://www.facebook.com/QueenslandWaderStudyGroup/

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CHANGE OF ADDRESS Please notify the Membership Secretary as soon as possible of any change of address so that your Newsletter can be dispatched correctly.

SUBSCRIPTIONS Annual subscription rates:
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Forward application to:
Membership Secretary or QWSG Treasurer,
PO Box 3138,
SOUTH BRISBANE,
QLD 4101.

Members are reminded their membership expires on the date shown on the newsletter address label, and the membership joining/renewal form is now on the back page. **Note:** that your subscription will fall due twelve (12) months after date of joining the QWSG or date of renewal, and only one further newsletter will be sent after expiry of your subscription.

Copy Deadline for the next issue of Queensland Wader is **August 14th, 2021**
Contributions should be addressed to:
David Edwards, the QWSG Editor, 54 Elliott Street, Clayfield, Qld 4011
or E-mail to: gouldian6@bigpond.com

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admin@jrdsons.com.au

Count Activities – 2021

QWSG High Tide – Monthly Count Program 2021

NO COUNT IN JUNE

Sat 17th Jul	1.92m at 15:12	**National Winter Count**
Sat 14th Aug	2.00m at 13:44	
Sat 11th Sep	2.17m at 12:32	
Sat 23rd Oct	2.27m at 10:57	
Sat 20th Nov	2.38m at 10:00	
Sat 11th Dec	2.15m at 15:25	

Counters Rockhampton and north – please select a date as close as possible to the count programme day with suitable tides to enable you to complete your counts.

Port of Brisbane Count Dates 2021

Sat 19th Jun	CANCELLED			
Sun 18th Jul	2.03m at 16:24	Meet	15:00	**National Winter Count**
Sun 15rth Aug	2.02m at 14:46	Meet	13:25	
Sun 12th Sep	2.15m at13:24	Meet	12:05	
Sun 24th Oct	2.24m at 11:30	Meet	10:10	
Sun 21st Nov	2.37m at 10:33	Meet	09:10	
Sun 12th Dec	2.05m at 16:23	Meet	15:00	

Because of the ever-present worry of Covid please check to see what Government restrictions apply

MEMBERSHIP/RENEWAL APPLICATION

A reminder to members: please check to see if your renewal is due and please let the Treasurer know if you change your contact details.
I / We wish to join / renew: (Single: $15; Family: $25; Student/Pensioner: $10)
Title:….. First name: …… Surname: ……

Address:…….. Membership: $……
…….. Postcode:……. Donation: $……..
Payment enclosed: $_____

Do you require a receipt? Yes / No

Phone: (Home) …….. (Work) ……(Mobile)……
Email ……..

How did you hear about QWSG?.....
Are you a member of Birds Queensland? .....
What activities do you wish to participate in? (Please circle)
WADER COUNTS, FIELD TRIPS, SCIENTIFIC DATA COLLECTION, SURVEYS, CLERICAL,
OTHER (specify :……..……)

You will receive your newsletter (colour version) by E-mail……

Signature …… Date:……
Please email this form to: membership@waders.org.au
Direct funds transfer to: **OR** **Please post this form to:** QWSG Membership Secretary
Qld Wader Study Group PO Box 3138,
BSB: 313 140 (Bank Australia) SOUTH BRISBANE,
Account number: 08305297 QLD 4101.

PLEASE CHECK TO SEE IF YOUR RENEWAL IS DUE!