Southern Oceans Seabird Study Association Inc.

" Wildlife Research "



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** CONTENTS **									
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Page	2	Contents							
Page	2	Editorial Lindsay E. Smith Editor							
Page	3	Five Islands Report Michael Jarman, Paul Boyer, Robert Webb.							
Page	3	The Little Penguins In Strife							
Page	3	Cuttle Fish							
Page	4	"Shore Lines"							
Page	4/5	Marine Habitat Report March 1996 - Tony Ashby							
Page	5	Sandra " K " Boat Trip Dates							
Page	5	Captain Carl's Bit							
Page	6	News From South Australia - Report From Richard Swanson							
Page	7	Letters To The Editor							
Page	7	Joke Of The Day							
Page	7	Sponsors & Outstanding Donations							
Page	8	Visitors To The SOSSA Hilton							
Page	8	New Members 96-97 New Additional Memberships							
Page	8	Next Newsletter Should Be Out In November 96							
Page	8	Next SOSSA Meeting Saturday 27th July 96							
Page	8	News Flash Bobby Bass Released							
Page	9/10	Seabird Sightings Sheet Is Attached At The Back							
Page	11/12	Pink Membership Form							

EDITORIAL

A vote of thanks to the many members for your support over the past two years. It is very pleasing to see SOSSA growing, with the interest and awareness, extended.

The correspondence has been excellent. "Correspondence means Communication". We believe that Communication is the Key to all things.

Congratulations to Richard Swanson and the members of the Kangaroo Island Albatross Study Group. An outstanding effort this year, keep up the good work.

Ross Payton from Dunsborough, must have the best spot on the West Coast for watching Indian Ocean birds. (*I am only a tad envious*).

Congratulations to The Brisbane Seabird Study Group on the publication of their first Annual Field Report, "The Petrel". The Brisbane group has set the example. It is hoped that this will encourage the other groups to produce similar reports for their areas.

Lindsay E. Smith

Editor

FIVE ISLANDS REPORT

Winter 1996- Paul Boyer,

Monday 10th June 1996. What a beautiful day for our first trip (without supervisision) to Big Island, a gentle breeze 4-5 knots from the South East and a low swell. After retrieving the various parts to the boat from all over the Illawarra. We, Rob Webb, Michael Jarman and myself set off from Fisherman's Beach for the Islands. At first I thought that it was Mick, so excited at the prospect at not having the Grizzly, Grey-haired Grumpus along (Lindsay), that he had disgraced himself by piddling against my leg, but no, it was just another hole in our already very leaky boat!

On arrival on the island we checked the shed, (The Five Islands Hilton) and made a list of repairs required before the onset of the coming season. Thankfully the Volunteer Coast Guard at Hill 60 have been very vigilant and the repairs required are relatively minor, few a new boards on the decking, repairs to the roof support beams including rust removal and repainting. With the necessary shed survey done, it was time to inspect the breeding sights of the Little Penguins, in preparation for our project for this coming season. Rob and I are hoping to monitor the growth rates of the Penguin chicks. This is to be conducted on Big Island. The purpose of which is to acquire some base line data, against which future changes or trends can be measured.

Being able to tour the islands without a million screaming seaguils raining "Pooh" on us was sheer Bliss. Mick was pleased to note two pairs of Sooty Oystercatchers on the northern side of No 2 Island. Also on No 2 were approximately 100+ pairs of Australian Pelicans sitting on eggs, most of which appeared quite fresh. A small colony of Pelicans were also observed on Martin Island though it was not possible to determine the number of pair breeding there.

The wind had risen to over 20 knots from the south, and the sea was also rising quickly, we decided to leave the Island before conditions became too rough for our "Outboard powered Sieve". It was at this point that Rob received some extensive bruising to his Butt, when the boat climbed rapidly over an incoming wave, as Rob had one foot in the boat and the other still on the beach.

THE LITTLE PENGUIN STRIFE

Lindsay E. Smith

Since May this year we have had an unprecedented number of penguin deaths occurring locally. Although the birds are not dying in their hundreds, it is still a matter for concern. The principle cause of death appears to be starvation, with some birds coming ashore weighing as little as 360 grams. The reason for this lack of food is not fully understood, though we have been concerned with the amount of Bait fish being taken from the local waters in the past few years. This over fishing of the local stocks may be contributing to the loss of birds, as most of the dying birds have been reported between the northern beaches of Sydney south to about Crookhaven Heads.

Many of the birds reported have been immature, and may be dying from inexperience. Unusual oceanographic currents occurring inshore over the continental shelf may also be responsible for the lack of food, though this is still unclear.

CUTTLE FISH

Lots Of Cuttlefish Have Been Noticed Rising To The Surface This Year The Increased Numbers Here Off Wollongong Give Us Hope That It Will Be A Super Year For Birding, Including Albatrosses And

4

Others. We Have Been Asked By The French Scientist To Assist Them With Work On The Cuttlefish Which Would Be A Collaborative Project And Good For The Science World.

"SHORE LINES"

Ross Payton from Dunsborough W.A. Must have one of the best shore based sea-birding spots in the whole of Australia. Certainly makes us East Coast birder's envious. Ross has agreed to give us monthly reports from Dunsborough, these will be included on the Boat Trip data sheets at the back of the Newsletter. Please note that the sightings from Dunsborough are for the period of the whole month, not a day list as is the case with the boat trips.

Further news from John Izzard of Ballina on the north coast of NSW.

Once again, it shows the importance of studying the weather patterns before setting out to do any sea watching. The synoptic chart for Feb 13th 1996 indicated that a Low of 1000 Hpa in the Coral sea was in a good position, but virtually stationary, with a High of 1026 Hpa centred off the East coast of Tasmania. I felt that because it was too early for migration, it may not be as good as it looked. Besides seeing the species that I would have expected, the surprise was c.105 Streaked Shearwaters moving south on February 14th. I only watched for 2 Hrs and the 105 Streaked S/W were seen from 17:55 - 19:20 Hrs when bad light stopped play.

Coffs Harbour, the evening of May 2nd was potentially the best day with wind gusts to 51 knots. I spent 12 hours 55 minutes sea watching over the period 3rd - 5th of May 1996, an estimated 802,028 short-tailed shearwaters + x Sooty shearwaters moving north, two Streaked shearwaters, one Male greater and 11 Lesser Frigate birds, 20 White-tailed Tropicbirds, 4 Red tailed Tropicbirds, c 6 White Terms, 13 Sooty Terms, 6 Buller's Shearwaters, 1 Brown Booby 2 Hutton's Shearwaters and only one Jaeger (a dark phase Arctic).

SEABIRD SIGHTINGS SHEET IS ATTACHED AT THE BACK

Great to see a report from Mike Carter for the Portland trip in June. There was some concern that they may not be able to charter a suitable craft to do the trips. The trip report is on the back page of this newsletter.

MARINE HABITAT REPORT

Tony Ashby

THE SHELF

The term "out to the shelf", has unfortunately become the standard saying for describing a sea trip out and beyond the edge of the continental shelf. In fact when the boat leaves the harbour it is over continental shelf waters. These shallow waters continue out typically on the east coast to somewhere between 15 and 40 kilometres. The grade of the seabed then increases in the region described as the continental slope. The continental slope, which is where the fall off of land-resourced sediments sitting on the edge of the continental shelf stream out over the abyssal plain of the ocean floor.

LAND

SEA LEVEL

CONTINENTAL SHELF



The diagram on the previous page shows a typical section of the seabed off the east coast of Australia and this shows the major elements of the seabed floor. It is suggested that the more correct term "out beyond the shelf" be adopted as the standard for describing a trip out to the continental slope waters.

Another event attributed to the continental shelf is that there is usually an accumulation of birds taking advantage of up-wellings caused by the change of slope at the shelf edge. This is a seabirder's myth as quite special meteorological conditions are required to produce up-wellings. These are rare at the shelf edge and up-wellings are just as likely to occur at other locations over the continental shelf. In some 30 + boat trips that I have taken where, due to the availability of GPS, I have been able to locate the edge of the shelf, I have not observed any accumulation of seabirds. Several other experienced seabirder's were interviewed and their observations add support to this hypothesis.

What I believe happens is that on a typical sea trip we see a fair number and variety of birds on the near-shore shelf and these numbers and in particular diversity falls away in the generally less productive waters of the off-shore shelf.

Over the slope waters a different ecological zone usually exists, often due to the effect of off-shore currents, and in this niche other species of birds appear and so rekindle our interest. These birds are in fact not concentrated over the shelf edge but are probably fairly evenly distributed over the continental slope waters. In summer months this off-shore habitat can often extend in-shore over the deeper part of the continental shelf as the movement of the sun into the southern hemisphere provides more energy to drive and to widen off-shore currents.

SANDRA " K "

SEABIRD WATCHERS BOAT TRIP DATES ARE:

THE 4TH SUNDAY EACH MONTH
25th August 96, 22nd September 96, 27th October 96, 24th November 96
COST: \$ 45.00 PER PERSON

Boat Trips For 1997

PLEASE PUT THESE DATES IN YOUR DIARY

26th January 97, 23rd February 97, 23rd March 97, 27th April 97, 25th May 97, 22nd June 97, 27th July 97, 24th August 97, 28th September 97, 26th October 97, 23rd November 97.

Captain Carl's Bit

Whales (cetaceans fish birds etc). Boat trips, other than organised bird watching trips Carl at PO. Box 148 Fairy Meadow NSW. 2519 or Mobile Ph: 018-423 555

Slow start to the Molly season and not many trips out due the westerly winds in this area.

Hump-back and Southern Right whales have already moved through to the North. Killer Whales recorded 40 miles east of Kiama eating tuna that were hooked on a long-line.

NEWS FROM SOUTH AUSTRALIA

Report on the 1995-96 Albatross season from Richard Swanson

Another albatross season has just finished in South Australia (Kangaroo Island, Victor Harbour). With excellent results on Molly (small albatrosses) banding. A total of 140 birds were tagged over a seven month period, from November 1st 1995 to the 31st of May 1996, this is the South Australian Lobster season.

Of the 140 birds tagged for the season 85% were Yellow-nosed Albatrosses, *D. chlororynchos bassi*, breeding in the South Indian Ocean. The remaining 15% were a mix of Black-brows (*melanophris* and *impavida*) Shy albatrosses *D. cauta cauta*. Southern Giant Petrel and one Wandering Albatross *D. exulans*, race not confirmed.

Numbers of most birds were up this year on the previous two years, since this study began. The most dramatic increase being in the Yellow-nosed albatrosses. The reason for this increase, in my view was due to the massive influx of baitfish into the whole area. These being the largest concentrations dispersed throughout Kangaroo Island waters, that I have seen for many years.

gannets and terns. The general pattern of feeding for mollys was sit directly over or on the fringe of the shoal, which had been herded from beneath by the dolphins and seals into a tight ball, which erupted at the surface into a boiling mass of fish leaping out of the water and falling easy prey to the waiting albatrosses. The majority of the birds captured this season regurgitated these fish, which were of two different species. (These have been kept for identification).

On many occasions we observed albatrosses feeding on these fish in association with dolphins, seals,

Opposing the increase of Yellow-nosed Albatrosses was a relative decline in Black-browed Albatross numbers. The reason for this is not clear at this stage, however in the past the Black-browed Albatrosses have shown a tendency to move into the area with the onset of colder westerly weather, which had been non-existent up until the end of May. More work is required here with these birds. A trip or two during the winter months may be due. (If it is not too cold!!).

Wandering Albatross numbers were up this year with two or three sightings on most days, while we were on the edge of the continental shelf, though sightings were very limited over the shelf waters. These birds varied enormously in moult stages, and rarely came in close to the boat, even while we were baiting the water with the shark livers. We were successful however in capturing and tagging one Wandering Albatross, this being a first for us in South Australia.

Other birds encountered during this pass season included, Fleshy-footed Shearwater, which are the most common bird throughout the season. Fluttering Shearwater, large numbers appear around April. Wilson's Storm-petrels and Great-winged Petrels appearing around the same time (April). White-headed Petrel (*Pterodroma lessoni*) observed on shelf break waters, (January- February). Short-tailed Shearwaters, White-faced Storm-petrels, skuas, jaegers and Australasian Gannets

Unusual sightings for the season. included a Chatham Island Shy Albatross (*D.c.erimita*). Which tended to manage to stay out of hoop net range, and the mandatory "NO FILM" in the camera. Sooty Albatrosses were observed on several occasions, But once again, proved very elusive to the ne

Sooty Albatrosses were observed on several occasions, But once again, proved very elusive to the net. One white phase Giant Petrel was observed but not captured.

Once again it was an interesting and successful season south of Kangaroo Island, South Australia. I hope to carry on (with help!) the work which the late A.F.C. Lashmar, with help from my father Nils Swanson, began in the early 1970's. A special vote of thanks goes to Max Waterman of Adelaide, for his help and support in getting this study up and running. If the numbers we have encountered this season are any indication of the number of birds heading for the Australian east coast, then Capt. Carl and his crew are in for one busy year.

Cheers from South Australia! Richard.

are present most of the season. (Nov- May)

LETTERS TO THE EDITOR

Dear Lindsay.

Just a comment further on Collecting Beach washed specimens etc.

Indeed our SOSSA sea birds are masters of the Southern Ocean weather extremes and many observers have pondered why the seabirds appear on the shore after a storm event.

Raymond Murphy in a thesis Beach washed Antarctic and sub-antarctic seabirds in southern Australia and South Africa: Institute of Antarctic and Southern ocean Studies Uni of Tasmania 1993.

Reviewed reports of seabird wrecks and it does appear that sick. injured and already dead birds are transported shorewards by the wind induced surface current.

Examination of some beach washed birds has raised some questions on the levels of pollution in the ocean by mans activities and their effects on sea and birds.

Many are found to have ingested plastic particles and it is thought that this restricts food intake leading the birds vulnerable in extreme conditions.

There is a need for greater research into the deaths of seabirds Chris Gray

Dear Lindsay,

Just a short note to tell you that a green molly was sighted 5 miles (8 kilometres) east of Terrigal on June 2nd 1996. We have not seen any Wanderers as yet this season. Not as many molly's this season as last, first one sighted on April 11th 1996, Two Giant Petrels have turned up in the last fortnight.

Again 1,000s of adult Australasian Gannets in May and June, feeding on spawning Pilchards. Not uncommon to see many rafts of several hundred birds in one day. Pilchard schools, spawning seem to be back to normal size, as seen in past years.

Cheers

Michael Kilp.

Dear Mick

The molly with the green dye was captured and banded at sea east of Wollongong on June 1st 1996. It was amongst the first birds banded locally, so far this season.

Great to hear that pilchard schools appear normal again this season. Keep up the good work Mick! Ed.

JOKE OF THE DAY

Q. What's the definition of mixed emotions?????

Your Mother-in-law going over a cliff on your Harley!!!

(2) 5.0) \$ 201; (2) \$5.0) \$ 1.0) \$ (2) \$ (

Donation Of A Lap Top Computer From Russell Hales, It May Be An Old One But We Will Find It Very Useful For Data Collecting And Statistics, (Thanks Heaps Russell!!!!)

Michael Carter has kindly donated seabird slides for the SOSSA library and we are grateful for any donation. Thank very much Michael !!!!.

DAMIÉN, AKA, MR WONDERFUL GETS A MENTION AGAIN FOR HIS DONATION OF A RED TAIL TROPIC BIRD THAT FLEW INTO HQ ON 25TH JULY 96 AND VERY NICE IT IS TOO. DAMIEN LOVES TO SEE IS NAME IN PRINT AND WE ARE HAPPY TO WRITE IT UP AS HE DOES ALL THE TAXIDERMY FOR SOSSA AT NO CHARGE.

GREAT STUFF DAMIEN (PLEASE EXCUSE THE PUN).

VISITORS TO THE SOSSA HILTON

Queensland Crew are upon us,

Tony Ashby (Northern Regions Representative) and Paul Walbridge (Brisbane Boat Trip Co-ordinator) have landed at the SOSSA Hilton on Thursday 25th July till Monday 29th July. The boys came down to go out on the on the Wollongong boat trip. Lindsay said this Paul is a bad man who likes a whisky or five?? and needless to say he lead Lindsay astray.

1996-1997 MEMBERSHIP FEES DUE 1ST JULY 96 (It is a vellow one this year so look for it please)

NEW MEMBERS 96-97 new memberships only

Llewellyn Perry from QLD. Fred Armbrust from QLD, & Ross Hunter from Sydney

Thanks To All The Members Who Have Sent Their Membership In. You Know Who You Are!! Thank You And Welcome Back For Another Year With The Team.

NEXT NEWSLETTER SHOULD BE OUT IN NOVEMBER 96?

Till then Keep Well & Be Happy.

This is the same line:

If you have something to add to the newsletter, then please post or fax it. Better still on disk using Word for Windows (I will return your disk), this would save Janice lots of typing.

NEXT SOSSA MEETING Saturday 24TH August 96
Held At SOSSA HQ 7.30 pm at 10 Jenkins Street, Unanderra NSW.
We will provide Tea, Coffee & Biscuits only, the rest is up to you.

*****ENCLOSED*****

96-97 MEMBERSHIP RENEWAL

(The pink one as we are out of yellow paper at the moment), Yes Some Got Through That Are White Forms, As We Ran Out Of Yellow Paper. Treasurer's Report from June-AGM for Members.

NEWS FLASH

BOBBY BASS HAS BEEN RETURNED TO THE CREEK FROM WHERE HE WAS CAPTURED 2 YEARS AGO AND HAPPILY KEPT IN CAPTIVITY IN HIS VERY OWN 6 FOOT TANK. WE HAD TO KEEP HIM BY HIMSELF AS HE WOULD EAT ANY VISITORS TO HIS TANK. HE WAS STUDIED AND FED ON LIVE FOOD (COCKROACHES, SMALL FISH Etc.), AND GREW WELL. HE WAS RELEASED ON THURSDAY EVENING 28TH JULY 96 IN THE COMPANY OF LINDSAY SMITH, PETER ANDREA, SHARRY AND THE YOUNG GIRLS ALANA AND LAUREN, YES THEY HAD FUN TOO!!!.

BOAT TRIP DATA SHEET - DSOSSA-BTDS-V1.5-04011996

SOSSA - 042 - 716 004 - Fax: 042 - 724 626. PO. Box 142 UNANDERRA NSW 2526

Date:	Data recorded by:	
Counting Method (circle): 360° 180° stern	180° bow Other (specify):	
Location: (enter name):		
Air temp:	Water temp:	
Air pressure:	Cloud cover:	
Wind speed and direction:	Sea conditions:	

Seabird Records 1996	1996 WOLLONGONG BRISBANE PORTLAND SYDNEY BUSSEL										TON				
		Brisbane Wollongong Portland Syd									dney Busselton				
Species month →	May	Jun		May	Jun]	Jun		Jun	<u> </u>	May				
Little Penguin, Eudyptula minor			1	1-			6	+-	1	1	1-	 	+		
											1		+-		
Common Diving Petrel, Pelecanoides urinatrix									1				1		
Southern Giant-Petrel, Macronectes giganteus							1					1			
Northern Giant-Petrel, Macronectes halli							2					1			
Southern Fulmar, Fulmarus glacialoides															
Cape Petrel, Daption capense					1		15		2						
Blue Petrel, Halobaena caerulea				<u> </u>											
Great-winged Petrel, Pterodroma macroptera		1		<u> </u>			6		15+		69	12			
White-headed Petrel, Pterodroma lessonii			L	1							346	181			
Providence Petrel, Pterodroma solandri	┵—	40		20+	1				50+						
Tahiti Petrel, Pseudo bulweria rostrata		1		<u> </u>			<u> </u>	<u> </u>							
Kermadec Petrel, Pterodroma neglecta	 			<u> </u>	ļ			<u> </u>	L						
Herald Petrel, Pterodroma arminjoniana				<u> </u>											
Kerguelen Petrel, Lugensa brevirostris		L		<u> </u>					<u> </u>		3	463			
Soft-plumaged Petrel, Pterodroma mollis	-			<u> </u>			L	<u> </u>	<u> </u>			20			
Mottled Petrel, Pterodroma inexpectata	—			ļ	<u> </u>			<u> </u>	<u> </u>						
Juan Fernandez Petrel, Pterodroma externa	↓			L	ļ			ļ		<u> </u>					
White-necked Petrel, Pterodroma cervicalis	┼			<u> </u>			L	↓	<u> </u>	<u> </u>	<u> </u>				
Black-winged Petrel, Pterodroma nigripennis	-			ļ				<u> </u>	ļ				1		
Cook's Petrel, Pterodroma cookii	┿-		ļ	ļ				ļ	ļ		L_		<u> </u>		
Gould's Petrel, Pterodroma leucoptera				 				<u> </u>	<u> </u>	ļ			ļ		
White-chinned Petrel, Procellaria aequinoctialis				[_	Ĺ.,		ļ			11	34	<u> </u>		
Westland Black Petrel, Procellaria westlandica	╂				1			1	1	<u> </u>	<u> </u>	ļ	↓		
Black Petrel, Procellaria parkinsoni				! ! -				-	 	<u> </u>	<u> </u>	<u> </u>	↓		
Grey Petrel, Procellaria cinereus Streaked Shearwater, Calonectris leucomelas	+				ļ			 	 	ļ	69	129	↓		
Wedge-tailed Shearwater, Puffinus pacificus	1	5	-	ļ				-	 	ļ	2		ļ		
Buller's Shearwater, Puffinus bullerii	1	3		-	1			╄	-	-	 -	 	 		
Flesh-footed Shearwater, Puffinus carneipes	+			-				 		-	1.5	ļ	 		
Pink-footed Shearwater, Puffinus circulars	+						-		 	ļ	142	 	 		
Sooty Shearwater, Puffinus griseus	+			-	1		1	 	4	-			-		
Short-tailed Shearwater, Puffinus tenuirostris	1			20+	-		1	├	10+	 		 	-		
Fluttering Shearwater, Puffinus gavia	3	9		15+	8		1	-	5+	├	-	20	├		
Hutton's Shearwater, Puffinus huttoni	+	1		H				 	3"	 	 	20	-		
*Fluttering/Hutton's	4	-						 -		 			┼		
Manx Shearwater, Puffinus puffinus	+							-	 		-		-		
Audubon's Shearwater, Puffinus Iherminieri	1							 	 				┼		
ittle Shearwater, Puffinus assimilis	1-1	_						 		 			 		
Antarctic Prion, Pachyptila desolata	+								 				-		
Blender-billed Prion, Pachyptila belcheri	1						1		 	-	-		┼─		
Sairy Prion, Pachyptila turtur	1-		-	12+	20+		1		10				-		
Salvins Prion Pachyptila salvini							1	-	 				┼		
Vandering Albatross, Diomedea exulans	1 1				1	- 	1	 	1				 		
loyal Albatross, Diomedea epomophora							2			-			 		
Black-browed Albatross, Diomedea melanophrys				10+	10+		18		5+		2	1	 		
hy Albatross, Diomedea canta				1	1		30	-	2						
brey-headed Albatross, Diomedea chrysostoma							2						-		
ellow-nosed Albatross, Diomedea chlororhyncus	1		$\neg \neg$	50+	50+		4		120+		93	228	\vdash		
uller's Albatross, Diomedea bulleri			$\neg \neg$	1					-				 		
ooty Albatross, Phoebetria fusca													 		
ight-mantled Albatross, Phoebetria palpebrata													_		
	1								<u> </u>		full	month	-		

	Brisbane		e	Wollongong			Portland		Svdnev		В	n	
Species month →	May	Jun		May	Jun		Jun	1	Jun		May	Jun	
Wilson's Storm-Petrel, Oceanites oceanicus	5			<u> </u>				<u> </u>		_		-	
Grey-backed Storm-Petrel, Nereis garrodia	 			\vdash		 	8	<u> </u>					-
White-faced Storm-Petrel, Pelagodroma marina				\vdash	1	-	 				-		-
		-	•	 		1		†	1	-			-
Black-bellied Storm-Petrel, Fregetta tropica White-bellied Storm-Petrel, Fregetta grallaria		 	 	 		-	 	-			 		
Fregetta sps.	 	2	_	\vdash	-		 	-					
Australasian Gannet, Morus serrator	40	6	1	10	10+	-	20+	 	30+	-	839	1602	
Brown Booby, Sula leucogaster	 ~	1	-	1-5	120	-	-	<u> </u>	-		-	1002	
Masked Booby, Sula dactylatra	 	 	-	╁	-			 	-	 	-		
Red-tailed Tropicbird, Phaethon rubricauda	 	1		 	-	 	 	 	 	-	-		
White-tailed Tropicbird, Phaethon lepturus	╂		-	├			 		 		-		
Winte-taned Propicolid, Phaethon tepturus	+-		-	-	 -				<u> </u>				-
Great Skua, Catharacta skua	-	-	-			 	4	<u> </u>	-		4	11	<u> </u>
	-	-		-		├	-	├		<u> </u>	-	11	
South Polar Skua, Catharacta maccormicki	1	-	-	-	 	-	 	├	 		1	1	ļ
Arctic Jaeger, Stercorarius parasiticus	+-	-	├—	₩		-	 		 -		1	1	
Pomarine Jaeger, Stercorarius pomarinus	 —			 	-	 		 	ļ		1		ļ
Long-tailed Jaeger, Stercorarius longicauda	↓						 	ļ	 		ļ		<u> </u>
City City City City City City City City	7	34	-	350	150+			ļ	150.		ļ		
Silver Gull, Larus novaehollandiae	↓ ′	21	<u> </u>	250		<u> </u>	1	-	150+		ļ	ļ	ļ
Kelp Gull, Larus dominicanus	ļ		<u> </u>	5+	8	<u> </u>		-	<u> </u>		ļ	ļ 	-
Sabine's Gull, Larus sabini	—	ļ	<u> </u>					ļ	<u> </u>				<u> </u>
Pacific Gull. Larus pacificus	↓		<u> </u>	1	ļ		4	ļ	<u> </u>				<u> </u>
	ļ		ļ			ļ		<u> </u>	ļ				
White-winged Tern. Chlidonias leucoptera	ļ			<u> </u>				ļ					
Common Tern, Sterna hirundo	<u> </u>			ļ			<u> </u>						
Roseate Tern, Sterna dougallii	<u> </u>				<u> </u>	ļ		<u> </u>					
Arctic Tern, Sterna paradisaea	<u> </u>												
White-fronted Tern, Sterna striata				2	2		1		2				
Black-naped Tern, Sterna sumatrana				<u> </u>			<u> </u>						
Sooty Tern, Sterna fuscata	<u> </u>					<u> </u>	<u> </u>						<u>.</u>
Bridled Tern, Sterna anaethetus													
Crested Tern, Sterna bergii	2	13		5	10+		17		5+				
Grey Ternlet. Procelsterna cerulea													
White Tern, Gygis alba													
Caspian Tern, Sterna caspia		1											
Little Tern, Sterna albifrons													
Lesser-crested Tern, Sterna bengalensis													
												· · · ·	
Common Noddy, Anous stolidus		2					İ					-	
Black Noddy, Anous minutus							<u> </u>	<u> </u>					
Lesser Noddy, Anous tenuirostris													
,,													
Little Pied Cormorant, Phalacrocorax melanoleucos	 			2					1			2	
Black-faced Cormorant, Phalacrocorax fuscesens							70						
Pied Cormorant, Phalacrocorax varius		7		·2		_						-	
Little black Cormorant, Phalacrocorax sulcirostris		2					\vdash						
Great Cormorant, Phalacrocorax carbo				 					2		\vdash		<u> </u>
Civil Colinolant, 1 hadaci ocol at carbo				\vdash					-			-	
Australian Pelican. Pelicanus conspicillatus	 			6	1		\vdash						
				H		ļ			 				\vdash
Great Frigatebird, Fegata minor Lesser Frigatebird, Fegata axial	\vdash		-	$\vdash \vdash$							 		
Lesser Frigatebird, Fegata ariel	-			\vdash			<u> </u>				Full	Month	
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