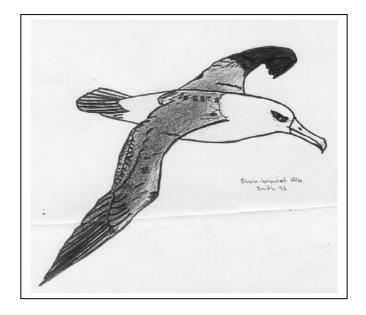
Southern Oceans Seabird Study Association Inc. " Wildlife Studies "



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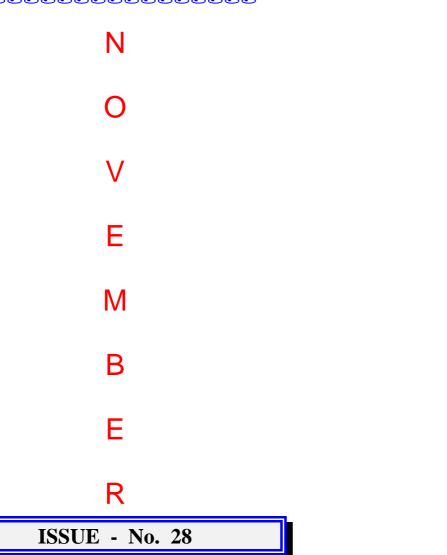
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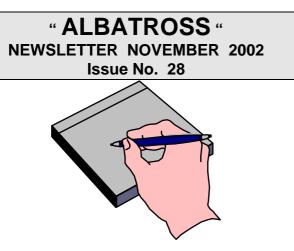
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A NOTE FROM THE EDITOR

It is important that members and non-members be aware, that it is their support for the Wollongong Pelagic Trip that allows SOSSA to continue our "**At Sea**" studies, into our local marine environment and it's unique inhabitants. With your continued support, it is hoped that we can run these pelagic trips more frequently and thus gain even greater understanding.

There have been some very interesting observation's of interesting cetaceans including those encounters mentioned here. The report on the Pygmy killer whales by Simon Mustoe gives some us an insight as to the importance of these observation's at a national and international level. So rarely are these animals observed anywhere! No issue of the Albatross would be complete without an article from the legendary "Game Fisher" Ross, (Marlin) Hunter and I thank him for those gems included.

Nicholas Carlile gives us an interesting insight to working with the Buller's Albatrosses nesting on Solander's Is a remote wind buffeted island of NZ.

Wedge-tailed Shearwater At Sea Project

This summer with the assistance of patrons of the Wollongong Pelagic trips, the SOSSA's at sea study team have been focusing their attention on our local population of Wedge-tailed Shearwaters.

Wedge-tailed-Shearwaters began returning to local waters in good numbers by mid August. Large numbers were observed on Sunday the 24th although conditions were not suitable for banding. A research trip was held on August 31st in an effort to band returning birds. This proved to be very successful with a total of 98 individuals being caught, 18 of which had been previously banded.

Of the 18 re-traps, 17 were originally banded at the Five Islands Nature Reserve. One bird had been banded elsewhere but at present we don't know where.

The eldest known-age bird was 15 years old and had been banded as a chick on February 14th 1987 at Big island No1 at the Five Islands NR.

FIVE ISLANDS REPORT Lindsay E Smith

With the assistance of Volunteer Coast Guard personnel, Harry Battam and Lindsay E Smith returned to the Big island No 1 on August 26^{th.} 2002 to conduct repairs to the Consett Davis Hut. They also upgraded the solar electrical system to produce enough eco-friendly power to transmit pictures and additional data from the Islands to shore.

Michael Jarman, Geoff Ross, Nicholas Carlile and Jillian Keating of the NP&WS marked out quadrants for the up coming Silver Gull Survey.

This season we were again targeting Wedge-tailed Shearwaters for study. The new moon of October

6th allowed us the opportunity to band a significant number of new birds and recapture many birds that we had previously tagged.

Many thanks to Harry Battam, Ben White, Keiran Ashead, and Noel Linehan (Ireland).

The introduced Kikuyu Grass is causing serious problems for the Wedge-tailed Shearwaters. During two recent surveys of our study sites on Big Island we found 16 adult birds dead, as a result of entanglement in the introduced grass, Of these 8 had been previously banded by SOSSA on Big Island..

> Killer Whales Off Wollongong Lindsay E Smith 8th July 2002



Photos by Dave Mitford. Taken 8th July 2002

On July 8th 2002 we headed out to sea aboard the Sandra K to conduct a SOSSA research trip. We departed Wollongong Harbour at 0800hrs. The day was planned to catch albatrosses as part of our ongoing studies.

As we neared the continental shelf break in 90 fathoms (180 meters) of water we came across a pod of (9) Killer Whales (*Orcinus orca*). The pod consisted of mainly females and calves and was attended by one large male, which appeared to be mating with a lone female approximately two hundred meters distant from the main pod.

As we approached to within 300 metes of the slow moving pod, the boat motor was stopped and we drifted slowly taking in the amazing spectacle of the whales frolicking in the calm conditions.

Suddenly, much to our surprise, a young male? female? surfaced within meters of the boat, swam around and under the vessel, snapping at an Indian yellow-nosed albatross sitting on the water as it passed.

The whale appeared very curious and swam directly up behind the stern of the boat, to within a few meters before diving and swimming under the full length of the boat. The whale then swam around the boat a couple of times before spy-hopping, at about 100metres distant before swimming off to join the now departing pod.

This fantastic close encounter with one of natures truly magnificent creatures, left all on board in total awe of the amazing spectacle that we had just witnessed.

Killer Whales Orcinus orca

According to most field guides are believed to be quite common in Australian waters, however in over 200 pelagic trips east of Wollongong in the past 17 years, Killer Whales have been recorded on only three occasions. This would suggest that the species is far from common in N.S.W. waters.

Pygmy Killer Whales off Wollongong

Regulars of the SOSSA birding pelagics will know Pygmy Killer Whale *Feresa attenuata* has been frequently sighted on pelagic trips in recent years. Last year these diminutive beasts were observed on most trips between August and February.

The first group this year (2002) was observed on the 31st of August. Outside the New South Wales offshore area the species is only sporadically recorded and generally poorly known. They are relatively abundant off Sri Lanka, are frequently observed in Hawaii and infrequently observed in South Africa and the Gulf of Mexico.

As there have been few offshore cetacean surveys in Australia, most oceanic cetaceans are recorded solely from strandings. Pygmy Killer Whales have been recorded stranded only once in New South Wales (single animal 1976) and once in Western Australia (no details) so their distribution, abundance and conservation status is unknown. According to the Birding-aus listserver archives, the average pod size off Sydney / Wollongong is 18.8 (sample number = 13), with a maximum recorded of 50 and a minimum of three. Sightings off Wollongong represent practically all we know about this species in Australia. These sightings are nationally and perhaps even internationally significant.

The Australian Cetacean Network

The Australian Cetacean Network (AUSCETNET) was established "to provide a forum for sharing knowledge of cetaceans and discussing cetacean related issues". The AUSCETNET website:

http://www.ecology-solutions.com.au/auscetnet/

includes information on how to subscribe to the AUSCETNET listserver (a free email group), a sightings submission form and details of recent monthly sightings. For more information on AUSCETNET contact:

simonmustoe@ecology-solutions.com.au



Pygmy Killer Whales off Wollongong, August 2002. This photo shows the extensive white markings around the lips and face.



The

Illawarra

Naturally

INTERNATIONAL NEWS Eruption of Torishima Volcano

On August 11th, 2002, one of the most undesirable natural events took place on Torishima, the main nesting site for the endangered Short-tailed Albatrosses. The volcano erupted! --- But fortunately, it's scale at present is not big enough to destroy the nesting grounds. We have to watch further on the volcanic activities because no one can predict the behaviour of the volcano.

It was very lucky too that the eruption took place outside the breeding season when the albatross are away from the island.

When the Torishima volcano erupted on August 7-9, 1902 all the islanders were killed and the landscape of the island was altered dramatically. The volcano erupted again from August to December of 1939. This eruption is though to have exerted a significant impact on the very small population of the Short-tailed Albatross (probably less than 100 birds at that time) by ejecting a large amount of lava and ash over the nesting areas.

The Short-tailed Albatrosses, however seem to, have overcome the severe trials of mass killing by humans and the volcano's eruptions; so I am hoping they again will survive by spending their life at sea until the volcanic activities cool off in the future. Since the average annual mortality rate is estimated to be about 4. 5% for the Torishima population, the present size of 1400 birds would not decrease to less than 1000 even within 7 years. They will revive after the volcano's cool-off.

During this period, the Senkaku Islands population would increase in numbers up to about 400-450 birds.

Of course, I hope the early cool-off of the Torishima volcano, but the present eruption was not a big shock for me unless Torishima itself does not disappear under the sea! We made our best for the conservation of this species during the past decades in anticipation of the eruption.

In the late October to early November when the albatrosses would have returned to Torishima, I would like to do an aerial observation on them from an aircraft supported by one of the major newspaper companies in Japan.

Hiroshi Hasegawa

SOLANDER'S ISLAND New Zealand Nicholas Carlile

I have just read your latest newsletter and I thought I would send you some details of a trip David Priddel and I did to Solander island off NZ to work with Bullers Albatross. I thought SOSSA people might be interested to read about it...

Flung off the southern end of New Zealand's South Island are a range of islands big and small. The more famous is Stewart Island, but to the west are couple of lumps of rock that greet the blasts from the southern oceans. Solander Island and it's side-kick, Little Solander, lie some 40km off the New Zealand's south-west wilderness (that includes Fiordland National Park). Access is only by helicopter launched from a small base 1.5 hours drive west of Invercargall.

The most famous residents of this outpost are Buller's Albatross. Thalassarche bulleri. This is one of only three places where you can see these spectacular birds on land. The Snares and Chatham Islands (also NZ) being their only other nesting places. David Priddel (from NPWS) and I were invited to help out with a project run by the National Museum of New Zealand (Te Papa) that has been running of five years. Much of the work has been on breeding biology and movements through satellite tracking. Our 10-day visit in July 2002 was for the banding of chicks before fledging, retrieval of satellite packages from immatures and the capture, colour marking and recapture of non-breeders (to look at their feeding intervals in comparison to what is now known for breeders).

Being the middle of winter, the days at these latitudes are short, however, we made-up for that with fairly intensive efforts when in the colony. The birds breed in a loose colony with nests well spread out in suitable habitat. One surprising aspect was finding many nests within tall scrub. The adults would land outside the area and walk in. Occasionally there were sites with a hole in the canopy. In these instances the adults would do a number of passes in the air before taking the plunge through the hole, wings swept back, to affect a landing. Unlike the larger albatross. Buller's do not need a great deal of wind to take off and will do so from a standing position. It is just as well as the colony sites were very steep, tussock and rock strewn.

Finding an open area for a run-way would be nearly impossible.

The island abounds with other wildlife, the principle being New Zealand Fur Seals.

Negotiating the haul-out sites and pup feeding areas daily was always an experience. Being seal-aware helped to not get the bejizzlies scared out of you from accidentally coming upon a bull seal who took exception to you passing too close to them for comfort. During the pupping summer months the beaches are apparently out of bounds for researchers as bull seals earn their tag of 'Beach Masters' appropriately.

A small number of Fiordland Penguins were beginning to come ashore for courtship during our visit. These magnificent animals were stunning to behold with their bright yellow crests and orangered beaks.

Due to the introduction of the Stewart island Weka some years back most other seabirds no longer nest on the main island, preferring the sanctuary of Little Solander Is. The odd Broadbilled and Fairy Prion that does make Solander it's home does so at the risk of ending up a meal to the Weka. From the carcasses found during our stay, this is obviously still a common occurrence.

Despite camping in the teeth of an occasional gale and living in rock shelters ankle-deep in mud and seal excrement the place has a real charm. The privilege of seeing Buller's albatross flying from dawn to dusk (along with an assortment of other petrels, large and small, immediately offshore) and giving their 'electric-planer' calls in constant courtship, was a source of wonder and amazement. Jean-Claude Stahl, the fellow who has run the project on Solander for the Museum, is among the toughest of the tough for what he puts up with to do his research. Being a veteran of many seasons on the Crozets and Kerguelen Islands the current locality is almost tropical to him. Having arrived there from Rarotonga in the Cook Islands a few days earlier, David and I assured him that it was not!

Cheers, Nicholas

Nicholas Carlile Seabird Project Officer Biodiversity Research and Management Division NSW National Parks and Wildlife Service

ALBATROSS - NSWASG Report Harry Battam

Just three Diomedea, two *D. gibsoni*, one *D. exulans* were encountered off Bellambi this year. Dead and dying cuttlefish, *Sepia apama* were abundant over the period early July - late August, but these albatrosses preferred to forage elsewhere. Over this same period, we usually experienced an influx of black-browed albatross *Thalassarche melanophris*. Some did arrive, but significantly less than usual. Rafts of 30+ (just 2-3) were observed, rather than the more usual rafts of 100+ (several). The weather systems this year, over the Australian continent, were not kind to albatrosses. Throughout July, stable high pressure systems maintained strong westerly airflows across the lower half of the continent, where the more usual pattern is a succession of lows and highs. The winds associated with lows give Diomedea an easy ride to Bellambi, and the calm conditions under the highs gives us the opportunity to catch them.

In 2001, a large pool of warm water (20-24 deg C) persisted off the coast, and suppressed the usual cold water upwellings experienced during winter (15-17 deg C). Off the continental shelf, the lower edge of this warm pool lay at a depth of 450m. As a result, very few albatrosses were observed off Bellambi-Wollongong.

Over the 46 years of the study, this is our first experience of two successive years where albatross numbers have been exceptionally low.

The Ross Hunter Report Broadbill Charters

"A killer whale experience"!

This season as been a boomer for whale observation. We have conservatively seen 500 humpbacks travelling both northward and then back to the south on their migratory return journey. The whales heading south traveled quite close to shore in thirty and forty fathoms and on many occasion we had them around and under our boats whilst at anchor, the closest encounters of all.

This brings me to the law of getting too close to our cetacean friends so the dept. of wildlife tell us." So what do we do when they get too close to us such as rubbing their backs against our boat whilst at anchor. Fortunately our boats are 15 tone in weight and the experience is never dangerous and is always an encounter that leaves you realizing that you really are surrounded by some pretty special creatures that we share this planet with.

During their northern migration up 1000 whales were recorded passing Botany Bay and that was only the whales that could be observed by binoculars from a vantage spot from land. So how many more were there that went past in the dark and out of range of the observer?. I think it is safe to say that our humpbacks are back with a vengeance since we stopped whaling. I love to see whales and as the season closes we have had encounters with Sperm, Minke, Southern right, Long finned pilot and Hump backed whales.

The most exciting was last week when we spotted a couple of Wandering albatross and a Giant petrel tearing at what looked like a piece of whale blubber on the surface in 75 fathoms. I commented to my crewman that it looked like the remains of big squid or piece of whale blubber.

We trolled around the area for a while and the mystery unfolded as two Killer whales, a large male and a mature female came to the surface 50 meters in front of us. On further observation the whales had chunks of either whales tongue or blubber in their mouths. To the north a huge pod of hump-back whales were unusually heading northward and appeared distressed, as was evident by their excessive blowing and surface activity.

The Orca's had killed a baby whale and it had sunk so they were diving down and tearing massive slabs off it and bringing it back the surface the eat. I ask this question, with the increase in whale numbers in our waters will we see more of their natural predators, the killer whales? I would hope so. I guess that's how nature works.

A special day when the birds came from nowhere.

We were at sea recently, It was a blustery south west wind, that had set a three meter sea against a still rolling north east swell making conditions considerably rough. We pushed southward heading to the Stanwell canyons a few miles beyond the continental shelf. There was a lot of deep water hatch in 75 fathoms, this had attracted a host of Fluttering Shearwaters, Prions and Wilson's Storm-petrels. Around the edges of the hatch, Gannets plummeted into the depths catching Sauries (King Garfish) that were also there feeding on the microscopic plankton.

If Sauries are present in the spring generally the albatrosses will not be far away. As we beat into the seaway the birds seemed to appear from nowhere Wanderers of all vintages from brown juveniles to snow white adults. With giant 3metre+ wingspans, they reveled in the blustery conditions. A cheeky Shy albatross hung in the wind eyeballing the big fishing lures that trolled behind the boat. A huge Royal Albatross passed cautiously by as it soared over the chopped up ocean. Only half a meter above, yet never touching it's surface. Several more Wanderers visited us along with Black-browed and a swag of Yellow-nosed albatrosses.

We trolled into the south wind making it easy for the Shys, Black brows and Yellow-nosed to follow in almost hover positions they watched the big lures fizzing on the surface. The Wanderers and were not interested in such child's play, instead they soared low over the water looking for that unsuspecting Saurie.

We then spotted a Grey-headed albatross, followed by a Buller's. As they disappeared, a couple of Cape Petrels replaced them with a Giant Petrel bringing up the rear. Every Shearwater you could think of was now feeding on the hatch amongst them were Wedge-tailed, Fleshy footed, Fluttering and others that I could not identify. I needed Capt. Carl or "Birdbrain" himself, Lindsay Smith to "Edjamacate" me. Around lunch time we turned back for shore as conditions had deteriorated to the point where "Terra – Firma" was looking real good.

As we crossed Botany Bay, Homeward bound, I thought to my self, that in one day I had pretty much spotted nearly every albatross that we see in our waters with the exception of the Light-mantled and Sooty albatrosses, It certainly was a great bird day !!

Footnote: We went back to the same area on a beautiful calm sea, 3 days later barely a bird was seen. Capt. Ross (*Marlin*) Hunter

VISITORS to SOSSA

Noel Linehan (Ireland)

Noel is an enthusiastic and passionate Irish sea birder with an insatiable appetite for pelagic trips. During his stay with us he attended several trips and managed to observe many interesting species. He also assisted us on surveys of the Five Islands helping out with the Sooty Oystercatcher, Wedgetailed Shearwater and Little Penguin projects.

His discovery of a Canada Goose (*Branta canadensis*) at Shoalhaven Heads certainly created some excitement, with birder's coming from far afield to see it.

We sent him to Lord Howe Island for a week before he headed off to Tasmania.

Caught up with Noel last night. A lovely fella. He had a great time in Tassy. he sold his car OK and was quite pleased with the whole outcome. I took him home and we had a few beers and a munch. showed him my Den which is of course choc a bloc with stuffed critters. Blew him away. I have a few things to post up to you and will do so later on when I get around to it.

Noel flies out to Sydney today and then on to London. He reckons he may return one day. Loves the place and the lifestyle. As I said a really nice bloke. And pretty smart too. Anyway, catch up with you guys later. Cheers George

NEXT SOSSA MEETING

25th January 2003 held at HQ. – 7.00 pm 10 Jenkins Street - Unanderra. NSW. We only supply the Coffee or Tea!!!



NEW MEMBERS

Hans Beste Emmalee Tarry Simon Mustoe Jane Taylor Judy Beste Noel Linehan Jim Keski-Nummi Athol Sneesby

Whale And Sea Monster Watching Trips



The MV 'Sandra K' leaves Wollongong Harbour every month on the fourth Saturday at 7.00 am & returns about 4.00pm.

Spend a full day watching whales, dolphins, albatrosses, seabirds & other creatures.

Booking contacts

SOSSA	02 4271 6004
	<u>sossa@ozemail.com.au</u>
Peter Milburn	02 6249 4326(W)
	peter.milburn@anu.edu.au
Captain Carl Loves	0427 423 500
fishing@wollor	ngong.hotkey.net.au

Depending on numbers, there is often a Sunday trip as well and cost could be a little higher if less than 15 people. Boat trips may be cancelled or postponed if weather is bad.

Additional research and/or private game fishing charter trips regularly depart. Places are often available. Contact Captain Carl Loves for details.



Tentative 2002-2003 dates

	28 December 2002
25th January 2003	9 th / 22 nd February 2003
22nd March 2003	26th April 2003
24th May 2003	28th June 2003
26th July 2003	23rd August 2003
27th September 2003	25th October 2003
22nd November 2003	27th December 2003

BOAT TRIP CONTACTS AT AUSTRALIAN LOCATIONS

BOAT TRIP CONTACTS AT AUSTRALIAN LOCATIONS										
Wollongong	02 4271 6004									
SOSSA Lindsay Smith	<u>sossa@ozemail.com.au</u>									
or Peter Milburn	02 6249 4326(W)									
	peter.milburn@anu.edu.au									
Sydney	02 9900 1678 (W)									
Tony Palliser	02 9411 5272 (H)									
	mobile 0416 095 875									
	tony <u>p@bigpond.net.au</u>									
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Port Fairy	03 9787 7136									
Mike Carter	pterodroma@bigpond.com									
Perth	08 9386 5694									
Frank O'Connor	foconnor@iinet.net.au									
Eden	02 6495 7390									
Barbara Jones	<u>dbjones@acr.net.au</u>									

Newcastle	02 4959 0212
Richard Baxter	mobile 0412 540 212
	randrbaxter@yahoo.com

Pelagic trip reports are available at http://users.bigpond.net.au/palliser

http://www.sossa-international.org



NEWSLETTER CONTRIBUTIONS

All are invited to contribute to our newsletter 'Albatross'. We do prefer electronic copies of any material. send it by email to

sossa@ozemail.com.au

Alternatively mail it to us on a disk, which we will return.

NEXT NEWSLETTER February 2003 (providing there are no major hold ups)

Due to the fact that the membership fees are still SOSSA's unchanged, though cost have increased greatly across the board. We would really appreciate that little bit extra with your donation from those whom may be able to afford it.

Thanks again for your support!!

DONATIONS Of \$2.00 and OVER TO SOSSA ARE TAX DEDUCTIBLE!!

SOSSA - Pelagic Trip data - 2001/02 i004 Fax: 02 4272 4626 PO Box 142 Unanderra NSW 2526 email: SOSSA@ozemail.com.au

Phone: 02 4271 6004

				email: SOSSA@ozemail.com.au Brisbane Eden Newcastle Perth Port Fairy Wollongo														14/ 11				
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5 Little Penguin, Eudyptula minor								1			1			1	2	1	1				1	12
85 Common Diving Petrel, Pelecanoides urina	trix														1							
929 Southern Giant Petrel, Macronectes gigant								2		4	1	10	5	1	1	1		1	1			
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77 White-headed Petrel, Pterodroma lessonii		-								1					Ŭ	8	8	_			· ·	
971 Providence Petrel, <i>Pterodroma solandri</i>		36	6	25						50	75					, , , , , , , , , , , , , , , , , , ,	Ű	9			12	
922 Kermadec Petrel, Pterodroma neglecta		3	2	20			1			00	10							Ū			12	
921 Herald Petrel, <i>Pterodroma arminjoniana</i>		1	-																			1
935 Kerguelen Petrel, <i>Lugensa brevirostris</i>												2	1									
76 Soft-plumaged Petrel, Pterodroma mollis												50+	40+									
918 Cook's Petrel. Pterodroma cookii											1	501	401				1					
78 Gould's Petrel, Pterodroma leucoptera							1				2						16					
915 White-chinned Petrel, Procellaria aequinod	tialic						-	-			2				1		1					
775 Barau's Petrel, <i>Pterodroma barau</i> i	ualis																1					
942 Slender-billed Prion, Pachyptila belcheri								3	6	20		9		10								
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Prion, <i>Pachyptila</i> Spp. 82 Broad-billed Prion, <i>Pachyptila vittata</i>		4						31														
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83 Fairy Prion, Pachyptila turtur		7	8					20	50	40	1	1	•	6	80	2	1000+		2			
941 Salvin's Prion, Pachyptila salvini									-			1	3									
0 Jouanin's Petrel, Bulweria fallax																					1	
917 Black Petrel, Procellaria parkinsoni	,																					1
853 Streaked Shearwater, Calonectris leucome			407	4.4.0	110		1		-	000	1000		•					500	15	15	00.	500.
69 Wedge-tailed Shearwater, Puffinus pacific	us		187	140	112	32	890		2	200	1200		3					500+	45	45	60+	500+
975 Buller's Shearwater, Puffinus bullerii				_							1											
72 Flesh-footed Shearwater, Puffinus carneip	es			5	10	5	2			20	75					6	3	2			3	1
70 Sooty Shearwater, Puffinus griseus									2	1	100		1	1			2	1	1	1000	1	2
71 Short-tailed Shearwater, Puffinus tenuiros	ris					46	3		2000000++	50	100			1	600	30	1000+	11	30	1000+	320+	1500+
914 Manx Shearwater, Puffinus puffinus		_																				1
Fluttering/Hutton's Shearwater		2	4																			
68 Fluttering Shearwater, Puffinus gavia			3							50	100			3	100	6		250+	150+	500+	200+	1500+
913 Hutton's Shearwater, Puffinus huttoni		3	97	3	1					10	5		35	1				500+	31	200+	4	5
67 Little Shearwater, Puffinus assimilis									1				1									
86 Wandering Albatross, Diomedea exulans								1			5			2	1	2						
846 Antipodean Albatross, Diomedea antipode	nsis									1												
847 Gibson's Albatross, Diomedea gibsoni			1							6				1			1+	19	2	1		1
973 Northern Royal Albatross, Diomedea sanfo														1	1							
88 Black-browed Albatross, Thalassarche me			2					1		15	5	5	1	90	6	1	15	32	11	1	7	
859 Campbell Albatross, Thalassarche impavio	а							3						2				2	1	1	2	
931 Buller's Albatross, Thalassarche bulleri						I		1										ļ				
91 Shy Albatross, Thalassarche cauta						I		100	70	1		2	1	40		40	20	1	1		1	
861 White-capped Albatross, Thalassarche ste	adi								ļ									1	3	1	18	1
862 Salvin's Albatross, Thalassarche salvini						I			1								1	ļ			6	
864 Indian Yellow-nosed Albatross, Thalassarc								6	1	6		150+	80+	28	6	4	11	1	2		12	
93 Light-mantled Albatross, Phoebetria palpel																1						
63 Wilson's Storm Petrel, Oceanites oceanicu		1	5	1	8						100	2	2		1	30	1				1000+	9
64 Grey-backed Storm Petrel, Nereis garrodia									1					1	2	1					1	
65 White-faced Storm Petrel, Pelagodroma m										20	5		21			6					23	
66 Black-bellied Storm Petrel, Fregetta tropica		1		1	2						2+											
944 White-bellied Storm Petrel, Fregetta grallar		_									1											
104 Australasian Gannet, Morus serrator		8	2	7		1		10	6	50	10	200+	18	500		70	60	4	6	8	23	11

	Brisbane						Eden		Newcastle		Perth			Port Fairy			Wollongong					
Speno Species	Jul-02	Aug-02	Sep-02	0ct-02	Nov-02	Dec-02	Jul-02	Sep-02	Sep-02	Oct-02	Jun-02	Aug-02	Aug-02	Oct-02	Nov-02	Dec-02	28Sep-02	29-Sep-02	26-Oct-02	27-Oct-02	Nov-02	
102 Brown Booby, Sula leucogaster						1																
100 Little Pied Cormorant, Phalacrocorax melanoleucos							1	3									1		1	1	1	
98 Black-faced Cormorant, Phalacrocorax fuscesens							1	1							2	6						
99 Pied Cormorant, Phalacrocorax varius			1			1					1						2		2	1		
97 Little black Cormorant, Phalacrocorax sulcirostris			1														6	6	6	4	4	
96 Great Cormorant, Phalacrocorax carbo							1	6							1		1	1	1	1		
106 Australian Pelican, Pelicanus conspicillatus							4	5									6	7	6	8	7	
980 Great Skua, Catharacta sku a		2					6	1		1	10	6	1				3	2		3		
945 Pomarine Jaeger, Stercorarius pomarinus				1	5	7			1											7	22	
128 Arctic Jaeger, Stercorarius parasiticus	1									2					2				3	5	1	
933 Long-tailed Jaeger, Stercorarius longicauda																2				3	4	
126 Pacific Gull, Larus pacificus							8	4														
981 Kelp Gull, Larus dominicanus													14	6	6	6	2	7	12	10	5	
125 Silver Gull, Larus novaehollandiae	12		1	20			present				1	2	2	2	25	70	100+	600+	60+	120+	180+	
115 Crested Tern, Sterna bergii	25	8	42	41	10	41	8	5	20	10	18	6	80	62	8	3	37	36+	16+	20	16	
114 White-fronted Tern, Sterna striata								2	5				1					41	1	4		
953 Common Tern, Sterna hirundo				1						1								6	1			
952 Arctic Tern, Sterna paradisae a															2							
117 Little Tern, Sterna albifrons			8	4																		
118 Fairy Tern, Sterna nereis											10											
120 Sooty Tern, Sterna fuscata		36		1		18				1											1	
110 Whiskered Tern, Chlidonias hybridus														4				1				
122 Common Noddy, Anous stolidus	1		1																			