



SOUTH COAST SHOREBIRD RECOVERY NEWSLETTER Sharing the shoreline

2007/08 Season

This Season in Shorebirds

This season the shorebirds had to deal with some extreme weather events, most notably on the Far South Coast. With the breaking of the El Nino, this summer was quite wet and wild at times. Dangerous surf conditions were the norm for most of January and February along with torrential rain, high tides and flooding. Differences in the timing of breeding of the colonies and pairs along the coast meant such conditions had varying impacts on the shorebirds. However, the combined effects of this weather led to the loss of many nests and newly hatched chicks particularly at Mogareeka (Bega Rivermouth) Little Tern colony.

Many of the shorebirds proved their ability to fledge chicks despite these erratic climatic conditions. Approximately 188 Little Terns pairs chose to breed across seven sites in Southern NSW, collaboratively fledging 118 chicks. This represents approximately 43% of the total estimated population for NSW (based on 437 breeding pairs reported in Little Tern Recovery Plan 2003). The endangered Hooded Plover had one of the most productive year since monitoring commenced in 2000, with seventeen breeding pairs and a total of 58 individuals located from Jervis Bay to the NSW/VIC border. This population estimate suggests a slight increase for Hooded Plovers this season in comparison to all those since 2000 (i.e. 55, 47, 52, 46, 48 &

51 individuals respectively). From these at least thirteen chicks were fledged to boost population numbers.

At the beginning of the season Pied Oystercatchers gathered at many sites in large, boisterous groups. When they knuckled down to breed thirty four fledglings were produced from fifty one pairs. Their cousins, the Sooty Oystercatchers, were present on many off shore islands as with previous years. Seventy nine pairs of Sooty Oystercatchers were seen on eight islands with 57 eggs, 14-19 chicks and at least six fledglings sighted. A further two pairs nested on the mainland in Murramarang National Park with four eggs and fledging one chick!

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Hooded Plovers

A minimum of 13 Hooded Plovers were fledged this year from 17 pairs breeding from Jervis Bay to the NSW/Vic border. These 13 were of known parentage, however an additional 2 fledglings were sighted in the region, but their source was unknown (Wallaga Lake and Jane Spiers Beach). Compared to previous years this is quite a good year, but not the best yet as we have had 14, 10 & 13 fledged in previous the 3 seasons.

In the **South Coast Region** the usual eight breeding pairs were present with the odd single hanging around. Nests were found for seven of these pairs and a total of seven fledglings were recorded. Most pairs managed one fledgling each. However the most urban Ulladulla pair fledged two with a lot of hard work and running around distracting beach-goers and dogs, while the most remote pair down past Pretty Beach failed to fledge a chick from three nesting attempts! This is attributed to the high number of Ravens in the area.

Our northern-most pair were discovered at Marys Beach, Jervis Bay with a chick in tow in late October. Sadly the little one had a busted leg which he dragged along behind as he hopped like mad to keep up with the parents. Despite the bung leg, off-leash dogs, fishing vehicles and the beach becoming the containment line for a fire, this chick managed to fledge in late November. He should be easy to recognize around the region! The pair re-nested in the same area with a 3 egg nest found in January by the local ranger. In early February one chick was spotted with the parents however the fate of the other two is unknown. This chick survived for a few weeks then he too disappeared.

Further south at **Berrara Creek** the Hoody pair started early with a 3 egg nest in late August. All 3 chicks hatched in late September and hid among the grass behind the fenced off nesting area. Slowly chick numbers dwindled 'til there was just one left. This little one was found on the wrong side of the creek when water levels rose and was trapped between the headland and creek with not much cover to hide from dogs, Ravens, Foxes and other locals. I managed to relocate him to the 'right' side of the creek, however the parents berated me for quite some time. A week later he successfully fledged! In mid December the pair laid another two eggs inside the fenced area. These hatched in mid January and one chick disappeared right away and the other survived for a couple of weeks before being lost.



Hooded Plover chick hiding under driftwood at Narrawallee Inlet. *Photo: Jodie Dunn*

The resident pair at **Conjola Spit** also started nesting quite early with a 3 egg nest at the start of September. All three hatched out and slowly disappeared until all were gone by mid October. The October long weekend was a difficult time for our 'Hoodies' with the influx of people on the beach.

This pair is suspected of relocating to Inyadda Beach a few kilometers north to try again. A 3 egg nest was discovered in November. However a dog had picked up one of the eggs, chipping it and dropped it a few metres from the nest. Mike Jarman returned this egg to the nest and we waited for them to hatch. In early December two chicks were spotted, however the third egg did not hatch and was abandoned. Both chicks survived until late December when one was lost to unknown circumstances. The remaining chick fledged in early 2008. This pair nested a third time with a two egg nest in February. However torrential rains quickly raised the creek level and despite Mike's efforts at raising the nest on sand bags it was too late. The adults did not return to the nest.

At Narrawallee Inlet this season we were excited to discover a pair of Hoodies with two chicks in early October at the northern end of the beach. At first I was hoping this was a new breeding pair however the Rennies Beach pair did not show up this season so I suspect they relocated to this more tranquil location away from the people and dogs of Rennies. Despite the tranquility the two chicks were lost within a week, probably to the Fox frequenting the area. The pair moved down to the spit area and re-nested with two eggs laid in late October. Both chicks hatched, however one was quickly lost to the Fox. The remaining chick fledged in early January.

Hooded Plover breeding activity in the NSW South Coast & Far South Coast Regions — 2007/08 season

Site	Pairs	Nests	Eggs	Chicks	Fledglings	Main fate	
Marys Beach (Jervis Bay)	1	2	?	>1	1	U	_E
			3	>1	0	U	ion datio dator
Berrara Creek	1 bp + 1 ind	2	3	3	1	Uc/FI	D = dog predation G = goanna predation AP = avian predator
			2	2	0	Fx	log p goanr avia
Inyadda Beach to Conjola	1	3	3	3	0	U	D = α G = β AP =
Beach			3	2	1	D/Uc/FI	
			2	0	0	I	
Narrawallee Inlet	1	2	?	2	0	Fx	I = inundated by floodwaters/tides KS = kangaroo stomp
			2	2	1	Fx/FI	aters
Racecourse Beach	1 bp + 1 ind	3	3	3	0	U	dm
			3	0	0	I	by fle
			2	2	2	FI	I = inundated by flood KS = kangaroo stomp
Wairo Beach	1	?				N?	nund = kar
Bullpup Beach	1	1	3	3	1	R	I = j KS:
Dawsons Beach	1	3	3	0	0	KS/HI	
			3	0	0	R	
			3	3	0	R	rence
Bogola Head	1	3	3	0	0	Α	F1 = fledged HI = human interference
			3	0	0	Α	ged nan in
			3	0	0	Α	Fl = fledged HI = human
Tilba to Wallaga Lake	1	5	?	?	1	FI	FI =
			3	0	0	U	
			1	0	0	Α	
			3	0	0	AP	
			3	3	0	AP	andoned /en predation
Aragunnu Beach	1 ind	0				N	lonec
Bengunnu Point	1	1	?	2	2	FI	A = abandoned R = raven predat
Middle Beach	1 bp + 4 ind	3	3	3	2	FI	A = , R = 1
			3	2	0	U	
			4	0	0	I	
Turingal Head to Short Point	1	0				N	
Haycock Point	1	1	3	0	0	U	
North Long Beach	1	1				N? scrapes	N? = nesting suspected Fx = fox predation
Nullica River /Boydtown Beach	1	1				N? scrapes	suspe
Saltwater Creek	1	3	3	0	0	Fx? Or wild dog?	sting pred
			3	0	0	U	= nes = fox
			2	0	0	U	RX.
Wonboyn—nth & sth beaches	1 ind	0				N	
Merrica River	1	1	?	?	1	FI/U	sso
Jane Spiers Beach	1 bp + 1 ind	1	?	?	2	FI	Abbreviations N = no nesting recorded U(c/c) = unknown egg or chick loss
Newtons Beach	3 ind	0	1			N	id or ch
Nadgee River Beach	1	0	1			N	corde
Little River	1	0				N	ng rec
Nadgee Lake Beach	1	0	1			N	iatior nestii = unk
Cape Howe Beach	1	0	1			N	= no =/c) =
Totals	17 BP + 24 Ind	36	>87	>41	13 (15 sighted)		Ab N:: U(0



Seven Hooded Plovers on Racecourse Beach in February, five adults and the two fledglings bringing up the rear. What a beautiful sight! *Photo: J.Dunn*

At Ulladulla's Racecourse Beach nesting began in late August with a 3 egg nest. All eggs hatched and the three chicks were spotted in early October. These chicks quickly disappeared on this busy beach, the October long weekend and school holidays was not a good time to hatch out. The pair re-laid in late October in exactly the same spot which was inside a protective nest cage (keeps out foxes, dogs and ravens but lets in birds). Very well trained! However disappointingly the seas and swell rose quickly and the nest was inundated. The pair relocated further along the beach and tried again with a two egg nest. I wasn't taking any chances this time and the nest got the works—signs, fence, nest cage and raised on sand bags. Both chicks hatched in mid December and survived peak tourist season! They were often seen crouching in the vegetation behind the fenced nesting area seeking refuge from the crowds. Both fledged in late January. Later in the season up to seven Hoodies were seen on Racecourse Beach. A promising sight!

The pair of Hoodies that have nested intermittently between Wairo and Willinga Lake, at sites such as Meroo Lake, Tabourie Beach and Willinga Lake were seen at the northern end of Wairo beach early in the season. However despite these sightings, no nests or chicks were found. Hopefully next season I can work this pair out!

The **Kioloa** Hooded Plovers were seen together on Racecourse beach early in the season and we were hopeful of a nest, but they came and went and split up and then were gone. Then in mid November a 3 egg nest was found on **Bullpup Beach** in Murramarang Aboriginal Area. With all the ravens and a fox hanging around, the nest immediately had a protective cage added and in early December all the chicks hatched out. A week later there was only one left, and I found this one found circled by Ravens. I put him in a good

little rock crevice to hide and he successfully grew past Raven tid bit size to fledge in January!

Down at **Dawsons Beach** just south of Pretty Beach the resident pair faithfully returned with three eggs laid in early September. Disappointingly a couple of weeks later it appeared that the nest was stomped on by a kangaroo. One egg remained in the nest but an Outdoor education group camped on the beach the following week and the birds abandoned the nest altogether. Three eggs were laid again in mid October and a couple of signs were put up at this remote site to warn passers-by. However Ravens took all the eggs. In early November a third attempt and another three eggs! All chicks hatched out but were quickly taken by the Ravens. The pair did not return after this. Avian Predator Control is definitely needed for next season.

In the **Far South Coast region** a total of 10 pairs were reported breeding this season, with an additional 20 non-breeding individuals sighted. Admittedly some of these 'non-breeding' birds may have actually attempted to breed. The infrequent monitoring, particularly in the more remote regions such as Nadgee Nature Reserve, influencing the paucity of breeding activity sightings in such areas. Six chicks definitely fledged from the FSC region, with an additional 2 fledglings sighted within the region, although their origins were unknown (1 Wallaga Lake, 1 Jane Spiers Beach).

Intensive monitoring occurred at many sites in the FSC region, with **Bogola Head** in **Eurobodalla National Park** being the location for the northern-most pair. At this secluded beach the resident pair had 3 nesting attempts. However, all eggs were abandoned during incubation and disappointingly some only a few days prior to hatching. Foxes repeatedly circling the nest site are suspected to have influenced the abandonment of these nesting attempts.

One pair of Hooded Plovers moved between **Tilba** and **Wallaga Lake** this season. From late August onwards this pair were accompanied by one fledgling, if this fledgling was indeed their own this pair would have begun breeding in June/July, representing one of the earliest records of Hooded Plover breeding in NSW. The fledgling moved between Tilba and Wallaga Lake with the adults and stayed during all four proceeding breeding attempts which all took place on the shoreline of Wallaga Lake. Six chicks were hatched out here from the safety of the cage, however all were quickly taken by the resident aerial predators (Blackshouldered Kites, Ravens, Swamp Harriers, Whistling Kites) when they ventured outside.

In Mimosa Rocks NP one Hooded Plover made sporadic appearances at Aragunnu, but with no nesting recorded there this season. However around the corner at Bengunnu Point the resident pair decided to wait until early January to actually breed, which was a great tactic as they successfully fledged two chicks in March. Up to 6 adult Hooded Plovers at a time huddled together on Middle Beach, however only one pair actually bred there near the lagoon. Their 1st nesting attempt in mid August was the most successful with two fledglings produced. Their second attempt saw the chicks taken. The third clutch of eggs were actually laid inside the protective wire nest cage left on the site (another well trained pair!), but was inundated by rising lake levels.

The beaches from **Turingal Head** to **Short-Point** in **Bournda NP** just north of Merimbula were very wavecut this season and this may have influenced the infrequent visits and lack of nesting by one individual, who was only occasionally joined by a second adult.

One nest discovered in a remote section of the beach between Haycock Point and North Long Beach in Ben Boyd NP appeared to be the perfect setting for the resident pair to breed. However, huge waves unfortunately reached up into the section of the dunes where the eggs were laid. As with previous years, the nesting attempts of this and the second resident pair were all unsuccessful.

Two adults were sighted just down from the Nullica River mouth in mid October with scrapes in the nearby dunes. However, frequent surveying failed to find eggs laid into any scrapes. Instead the pair 'disappeared' and searching of surrounding beaches including Whalers Beach failed to locate the pair, with only incidental reports occurring of these Hooded Plovers.

At **Saltwater Creek** in **Ben Boyd NP** the resident pair laid three times with all nests lost during incubation to an unknown predator. Although caging can be a useful strategy to protect the eggs from predation this pair have exhibited a distinct dislike for cages. This contrasts to other pairs that seem to prefer to re-lay within the cage!

The **Wonboyn area** (north and south of the river) was surveyed numerous times this season. Whilst there were occasional sightings of Hooded Plovers, no nesting activity or fledglings were reported.

The annual shorebird survey of Nadgee Nature Reserve was conducted in the first week of March. Prior to this there were sightings of Hooded Plovers by Lyn Evans (NNR Ranger), and bushwalkers on many of the beaches in Nadgee. One sighting reported by Simon Loschiavo (NNR Field Officer) in early February 2008 identified one fledgling at Merrica River with its attending parents. Our survey in March increased the number of fledglings for Nadgee with two additional fledglings sighted on Jane Spiers Beach. One of these fledglings however did not appear to be part of the 'family', as it sat further down the beach and did not socialise. Perhaps it was the result of an earlier breeding attempt on this beach or fledged from one nearby. Another pair were sighted at Little River though they did not have any accompanying fledglings. Bushwalkers and NPWS staff reported many additional pairs this season at Newtons, Nadgee River Beach, Nadgee Lake beach and Cape Howe.

All in all it was quite a good season for the Hooded Plovers with at least 13 fledglings across the South Coast and Far South Coast and possibly up to 15 with the two unexplained fledglings. Hopefully we will see our NSW population growing with four good seasons in a row and a total of 50 fledglings!



Left to Right: The beautiful rugged Nadgee Wilderness Area coastline; Steve and Amy looking for Hooded Plovers; finally the intrepid threesome reach the Victorian border! Jodie takes a well earned rest after the 22km walk to the border and back. *Photos: J.Dunn and Amy Jorgensen*

LIttle Terns

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It was a mixed season for the Little Tern Recovery Program. The best season on record for the South Coast Region and one of the worst for the Far South Coast due to heavy rains, stormy weather conditions and rising lake/river levels. Overall it was quite a good result for the program with 118 fledglings from 188 breeding pairs distributed in seven colonies from Wollongong to the Victorian border. The Recovery Plan aims for 0.5 fledglings per breeding pair, so we still easily managed that with 0.6 across the two regions!

On the **South Coast** the Little Terns were first sighted in late October, and throughout early November the migrating shorebirds dispersed down the coast and soon afterwards three colonies were well established at Windang, Lake Wollumboola and Lake Conjola. Later in November a total of 96 breeding pairs busily started laying eggs.....

It was a very exciting year for the **Windang** Little Tern colony at the entrance to Lake Illawarra. This was the first season after the disruptive building of the northern breakwall and dredging of the entrance channel. Part of the deal for disturbing their breeding habitat was for the Lake Illawarra Authority to build an exclusive 'Bird Island' using the dredge spoil. The LIA did a great job even saving the shell grit, which the terns love for their nests, for the top layers of the island.

Nesting began in mid November with about 13 Little Terns hanging out on the 'Bird Island'. The first two nests were lost in this busy area before any fencing and signs could be erected. Soon afterwards more nests followed and the fences and signs were quickly in place. Local volunteer, Ian Shaw, diligently checked on the birds each day and by mid December there were 8 nests containing 23 eggs and up to 26 adults present. In early January chicks were running around on the island and hiding in the sea rocket plants that had already become established. Ian also put half buried plant pots covered with sea weed out as chick shelters.



Just hatched Little Tern chicks huddle together on the 'Bird Island' Windang. *Photo: J.Dunn*

The exclusive 'Bird Island' constructed by the Lake Illawarra Authority for the endangered Little Terns. *Source: LIA*

Little Tern breeding activity in the NSW South Coast & Far South Coast Regions—2007/08 season

Site	Pairs	Eggs	Chicks	Fledglings	Main Fate
Windang Beach	14	40	29	14	FI/Uc+e
Lake Wollumboola	50	164	102	62	FI/Uc/F
Lake Conjola	32	104	71	33	FI/A/Uc/F
Congo Creek	2	3	0	0	Α
Tuross Lake	57	127	20	9	Ue/c, SG
Wallaga Lake	10	6	0	0	А
Bega Rivermouth	23	43	5	0	I (Big seas + tides)
TOTAL	188	487	227	118	

Abbreviations

N =no nesting recorded

Fl = fledged

U(E/C) = unknown egg or chick loss

N? = nesting suspected

I = inundated by floodwaters/tides

Fx = Fox predation

A = abandoned

SG = Silver Gull predation

R = Raven predation



Little Tern chick about 2 weeks old hiding in the Sea Rocket at Lake Wollumboola. *Photo: Kerry Darcovich*

In late January another 6 nests were laid and chicks from the previous round began to take their first flights. Ian battled with people who insisted on walking over to the island at low tide despite the signs, one group of children even collected eggs in a bucket and put them under a bush. Luckily Ian could see the incident from his window and rushed down to redistribute the eggs to the nests. These chicks did hatch but we did not seem to get any additional fledglings. The grand total for Windang 'Bird Island' was 14 fledglings. An excellent result for their first year on the island.

Further south at **Lake Wollumboola** nesting began a bit later on the 20th of November with about 40 adults around, however this first nest was lost to a sandstorm. There was no more nesting until the 29th when all of a sudden everyone started laying eggs and the colony just grew and grew. Two weeks later there were 39 active nests and about 100 adults!

The nesting area was huge and the Nowra staff erected an amazing 8 strand electric fence to keep the eggs safe from fox predation. The volunteers visited the colony daily and installed nest cages, undertook sandbagging and extended the string fence around outlying nests and chick creching areas. This huge colony was very high maintenance and spread over a large area with a total of 164 eggs laid during the season.

Luckily most of the eggs had hatched and chicks were mobile when torrential rains in February raised the lake level and half the nesting area went underwater. An abrupt end.

This season was a huge effort by everyone involved and resulted in an amazing 62 fledglings recorded! This is a record for this site in the decade of monitoring.

Líttle Tern Conservation Program Wins National Trust Award!

The Lake Wollumboola Colony was used as a case study to demonstrate the success of Little Tern conservation on the South Coast. The combined efforts of DECC, Shoalhaven City Council, Southern Rivers Catchment Management Authority and the community shorebird volunteers was recognised through a National Trust Award in Conservation Landscape Heritage. This prestigious award generated media attention and raised public awareness of the plight of our endangered Little Tern. It also gave us an opportunity to recognise the hard work that everyone has contributed to Little Tern conservation through nest protection and monitoring, feral pest control and public education. Thank-you, especially to all the shorebird volunteers!



Frances Bray, Leo Cimador, Thomas Kaar and Michael Abramowitz (L to R) raising nests on sandbags at Lake Wollumboola Little Tern colony. *Photo: K.Darcovich*

Congratulations to the Lake Wollumboola shorebird volunteers and the Nowra area DECC staff for all their hard work!

Down at Lake Conjola near Ulladulla the Little Terns began nesting in mid November. Slowly at first with about 30 adults flying around doing courtship displays and feeding each other fish, then all of a sudden there were 14 nests with 28 eggs. Luckily most terns chose to nest in the small dunes and vegetation. However a few pairs still persisted in nesting on the low lying spit which had been washed over only weeks earlier. These nests were quickly raised on sandbags in preparation for the summer high tides.

More adults showed up and further nests were laid. By mid December chicks were beginning to hatch out and the nest tally was up to twenty eight! Col, Eric, Keith and I were madly putting up electric fences, extending the string fence and caging nests. There was a fox around who we suspect had already taken some chicks and furthermore the tourist season was about to be upon us. The Little Terns needed all the protection we could give them at this popular site.



Eric, Keith and Col (L to R) keep an eye on the Little Tern colony at Lake Conjola. *Photo: J.Dunn*

It was great news when the RLPB ranger, Andrew, removed the fox only a few days before Christmas! Just in time for most of the chicks to start running around outside the fenced area. But just when we thought it was safe the big Christmas high tides combined with southerly swell washed over the spit, even topping some of the sandbags and washing away a few eggs and chicks. Col madly rebuilt nests and rescued chicks and Eric helped out with more sandbagging.

A second round of nesting took place in early January with a further 15 nests. This may have been an influx of pairs from the far south coast where the weather had taken its toll on colonies. Fledglings from the first round of nesting began to gather on the beach, taking their first wobbly flights, waiting for returning parents to feed them and even having a go at diving in the shallows for fish themselves.

Everything was great at Lake Conjola until of course another fox turned up. This fox went straight through the electric fence, pushed nest cages over and took at least 3 nests that were just about to hatch. From looking at the tracks we believe he also took chicks. Further nests were abandoned and the site became very quiet. It was an abrupt end to Lake Conjola's colony. Despite sour ending this season turned out to be one of the best on record with 33 fledglings!

Overall it was an excellent season for the South Coast with a total of 96 breeding pairs, 308 eggs, 202 chicks and 109 fledglings! Well done everyone.

However it was quite a different story on the Far South Coast where the weather and ocean conditions were a lot worse......

Little Terns started arriving from the 22nd of October 2007 onwards in the **Far South Coast Region**, with the first pair sighted by Patricia Latimer at the entrance to Wallaga Lake. Sightings rapidly followed at both Tuross Lake and Mogareeka (Bega River Mouth) in

early November. Whilst present at all three locations, numbers grew most rapidly at Tuross Lake with up to 60 adults estimated within the lake in late November, whilst Mogareeka and Wallaga supported only 15 to 20 adults during the same period.

Nesting commenced first at **Tuross Lake** on the 20th November with two eggs sighted by Bill Nelson and George Rayner on the large flat sand island near the eastern perimeter (this being the site of last season's colony too). Days later breeding was well and truly underway in the colony with 27 eggs laid. The dedicated Tuross Lake Shorebird Volunteer Team went to work and erected the protective 'people' fence around the island to prevent disturbance from boat-goers and fishermen/women. More Little Tern adults arrived and more eggs were laid with 114 eggs laid by the 12th of December and an estimated 120 Little Tern adults present, with at least 2 pair of Fairy Terns amongst the group.

With the lake entrance open this season the island was subject to inundation by king high tides, so again the volunteer team set to work sandbagging all nests at risk of inundation during the incubation period. A site visit in the boat by Amy during a peak high tide on the 27th



Top: One of the first Little Tern chicks to hatch out at Tuross Lake this season. **Bottom:** Little Tern adult incubating eggs upon the 3-story sandbag tower at Tuross Lake. *Photos: A.Jorgensen and Bill Nelson.*

of December showed how effective the sandbagging was with the incubating adults sitting high and dry on their sandbag towers and chicks creching together on vacant towers and areas of higher sand. However the season ended rather abruptly, and the site was literally abandoned on the 9th of January with only a small group of 16 adults and fledglings present within the estuary. In the end only a9 chicks were actually sighted fledging from this large colony. We hope there were more.

A huge thank you to Bill Nelson for the use of his boat at Tuross this season and to Peter & Trish Christie for preparing such a fantastic end of season feast for all the Tuross Volunteers!

For the first time in over a decade Little Terns bred at the entrance of Congo Creek, just east of the township of Moruya. The discovery of these nests only occurred due to a group of very observant children. These children, who regularly camp at Congo Creek, always help protect the resident Red-capped Plover nests from trampling by placing a barrier of short sticks around each new nest. However, they noticed three 'different' eggs that did not look like typical Redcapped Plover eggs. Kerry, the local camp-fee collector alerted NPWS that they may infact be Little Tern eggs, having erected protective cages around both nests. Incredibly they were Little Tern eggs, having been laid in the busiest week at Congo (1st week in January) right where most visitors had been walking! Whilst one nest was abandoned just after laying, the second was incubated for approximately one week before also being abandoned.

Little Terns were present at **Wallaga Lake** from October onwards, however the first nest was not discovered until the 3rd of December on the entrance sand spit. This was unfortunately lost to a fox, with a second egg



Wallaga Lake with its extensive sand spit and sand islands. Photo: A.Jorgensen



Patricia Latimer helping with nest caging at Wallaga Lake. *Photo: A.Jorgensen.*

laid quickly afterwards being caged but later abandoned. Up to 20 adults then just 'hung about' in the estuary with no more nesting attempts occurring until a week of warm weather at the beginning of January (the same week that nesting commenced at Congo Creek). This time it looked like the majority of nesting was going to occur on a sand island near the entrance away from any threat of fox predation, however a few nests were located and lost before they could be caged on the entrance sand spit. All hopes for the colony were dashed with the loss of all eggs to an unknown predator (taken from inside the cages) and the site apparently being disturbed by beachgoers resulting in the complete abandonment of the site only one week later.

The southernmost Little Tern colony this season was again located at **Mogareka** (**Bega Rivermouth**). Little Terns arrived within the estuary from the 7th of November onwards, although numbers remained relatively small compared to previous years (<40). Breeding began on the 13th of December with a single egg found by two of our newest shorebird volunteers, Lois and Dan Katz. Ironically this egg had been laid outside the massive fenced area provided for the terns. The fence was widened to include this initial nest, though unfortunately it was later abandoned and was not followed by any further nesting attempts until the 28th of December.

Similar to the Wallaga Lake and Congo colonies, nesting was well and truly underway in this first week of January 2008 with 19 nests and 33 eggs laid very syn-



The single LT runner at Mogareka. *Photo A.Jorgensen*

chronously. Incubation was going along nicely until the untimely coincidence of king high tides and dangerous surf conditions from the 19th of January, which progressively removed

over one-third of the sand spit. With all our Little Terns still on eggs, their previously 'safe' nests located over 15 metres from the shoreline were being undermined and subjected to wave surges. Gary Whitley sounded the alarm that a major sandbagging effort was required and the troops gathered together making pro-

tective 'bunkers' and sandbag 'towers' for the vulnerable nests. Incredibly despite the waves crashing around nests a small number of adults kept up their incubation and chicks were sighted soon after.

Disappointingly the site was progressively abandoned and only one adult pair remained attending their single



Clockwise from top left: Waves inundating the Mogareka Little Tern colony; taking down the fence at Mogareka are Ernst Zekorn, Derek Lambert, Rita Bonetti & Karen Scott; the three musketeers—Norm Austwick, Gary Whitley & Peter Hill; Joan and Graeme Ennis on their last day of 'official' duty at Mogareka in 2008; volunteers put in a tremendous effort to save the LT nests, here Amy works hard with Gary & Tim Morgan; sandbag 'bunkers' created to protect nests. Photos: A.Jorgensen & Jill Whitley. (Thanks Jill for all the photos!)

runner on the 25th of January. High hopes were held for this Little Tern Family that they may fledge their single chick, but lady luck was not on our side this season and the heavens opened over Tathra in the first week of February with over 100mm of torrential rain falling at the site. The Little Tern family was not sighted again after the rain ceased and it is likely that the poor little runner perished in the terrible conditions (although we would like to think that by some miracle the little guy found his wings in time).

After many years of active volunteering with the Shorebird Program at Mogareka it was very sad to see Joan and Graeme Ennis move out of the region. We will miss them dearly but wish them all the best in their new Victorian home. Also a big thanks to Jim Kelly for helping out with coordination of the roster and updating the contact list for Mogareka this season.

Overall between the South Coast and Far South Coast we fledged 118 chicks despite the crazy weather! This is a great effort and a big contribution to the recovery of this endangered species.

Baby terns eat only baby-sized fish!

The diet of Little Tern chicks was studied by four Italian researchers in order to analyze their prey choice. Chicks less than 5 days old were fed with thinner fish than chicks older than 10 days. The average prey size was smaller for younger chicks. Prey left uneaten by chicks included larger, bulkier fish, shrimps and potentially poisonous fish. The parents select prey according to the chicks' ability to swallow, and a further selection is accomplished by the chicks themselves.



o: A.Jorgen

Pied Oystercatchers

This gregarious species gathered in groups of up to 40 individuals in the winter months at numerous locations within the South Coast and Far South Coast regions (Bhewerre Beach on the SC and Merimbula estuary and Brou Lake were FSC Pied hotspots). Although



Pied Oystercatcher hug! Photo: J.Dunn

most groups disbanded to start breeding at least a dozen non-breeding individuals remained at Brou Lake (just north of Narooma) throughout the season, keeping company with 4 breeding pairs. Over 50 pairs were monitored this breeding season between both regions, with a total of at least 34 chicks fledged collaboratively. Since 2000, over 169 Pied Oystercatcher chicks have fledged from both regions, many of these undoubtedly due to the efforts of the recovery program and its many volunteers.

In the **South Coast** region ten breeding pairs laid 24 eggs, hatched out eighteen chicks and fledged at least twelve of these. A great result for the region, as we find out where more and more of these Pied Oyster-catchers are nesting.

Up at **Shoalhaven Heads** the resident pair took their time deciding where to nest with numerous scrapes throughout September. Finally on the 24th the pair decided to nest with two eggs laid in the same area as the previous season. Rex Worrell diligently looked over the pair, fencing off a large area in the dune system for their exclusive use and even erecting a small electric fence. Everything was fine until just days before the nest was due to hatch. Fox prints were found alongside the electric fence, then one egg was rolled out of the

nest. Rex returned this egg but disappointingly only one of the two eggs hatched and the other disappeared mysteriously?? The little chick was taken deep into the lagoon, then over to Comerong Island where he fledged in early December.

Down at **Bherwerre Beach** on the southern side of Jervis Bay, numerous Pied Oystercatchers were seen on the beach, however no nests were found. The numbers tend to dwindle during breeding season, and we suspect that many of the birds disperse to nest in nearby Sussex Inlet and St Georges Basin. However this is yet to be explored. Further south at **Berrara** a pair scraped inside the Hoody fenced off breeding area on multiple occasions in October and November but no eggs were laid. Perhaps they decided to nest further up the creek or in Swan Lake.

Down at Lake Conjola Spit the resident pair of Pied Oystercatchers started early with two eggs at the start of September. However one of these had a leaky dent and both soon disappeared to a roaming fox. Only a week later the pair nested again with two more eggs. Both eggs hatched in late October. During the day the family mostly stayed up in the dunes to avoid all the people but early in the morning or in the late afternoon they could be seen feeding along the edge of the lake. One chick was kept very well hidden and we thought we had lost him but in early December both chicks fledged successfully!

Another pair of Pied Oystercatchers was found by Mike and Jill further up **Lake Conjola** on a small sand island. This pair had one small chick in mid November, however no further visits were made so we can only hope he made it. Further inspections are planned next season if time permits, as we suspect there is also a third pair somewhere on the islands.

Further south at **Narrawallee Inlet** the Pied pair laid two eggs in mid September. Then in early October we thought the worst as one egg had a dent, however a few days later both chicks had hatched out. Later that month both chicks disappeared, probably to the roaming fox in the area. The pair persisted with another two egg nest in late November. Just after Christmas one chick hatched out and the second egg was abandoned. The chick was sighted for a couple of weeks then again fell victim to the fox. Despite extensive trapping and shooting operations this wiley fox eluded all attempts at control. Hopefully we can remove this predator before next season.

Two pairs of Pied Oystercatchers were monitored on the banks of **Burrill Lake**. The first nest was discovered on the southern side of the lake, near 'Pelican Island' in November. However this one egg was inundated just days later. The pair continued to hang around and we suspected another nest, but the wide open area made sneaking up impossible. In late December local resident Peter Lymbery was kayaking on the lake and sighted the pair with two small chicks in tow! A couple of weeks later the two chicks were almost the size of the parents and soon after were seen fledged on Racecourse Beach feeding with the parents.

On the opposite banks of the lake another pair of Pied's with two chicks were reported in early November by a lakeside resident. This family were often seen feeding on the banks of the lake behind the Glass-blowers shop and both chicks successfully fledged in early December.

Further south at **Meroo Lake** a pair of Pied's were seen making nest scrapes in early October on the beach. However no nests were found. The pair probably decided to nest in a quieter location further up into the lake.



L to R: Narrawallee Inlet—Col the retired builder is great at hammering in the signs; Maureen puts the string on for the fence; the Pied nest at the beautiful Narrawallee Inlet; the cute little chicks just after hatching *Photos: J.Dunn*

Pied Oystercatcher breeding activity in the NSW South Coast & Far South Coast Regions — 2007/08 season

Site	Pairs	Eggs	Chicks	Fledglings	Main Fate
Shoalhaven Heads	1	2	1	1	FI,A
Lake Conjola Spit	1	2	0	0	F
		2	2	2	FI
Lake Conjola Islands	1	?	1	?	U
Narrawallee Inlet	1	2	1	0	F
		2	2	0	F
Burrill Lake North	1	?	2	2	FI
Burrill Lake South	1	1	0	0	1
		2	2	2	FI
Durras Lake Entrance	1	2	2	2	FI
Durras Lake	1	?	2	2	FI
Bateman's Bay North	1	2	2	0	U
Bateman's Bay South	1	2	1	1	FI,A
Moruya River—Quandolo Island	1	2	2	1	FI
Tuross Lake	4	2	2	1	FI, U
		2	1	1	FI,U
		2	0	0	U
		?	1 (min)	1	FI
Brou Lake	4	2	0	0	Fx
		2	0	0	Fx
		3	0	0	Fx
		?	1 (min)	1	FI
Mummaga Lake	1	?	2	1	FI
Wagonga Inlet	4	2	2	2	FI
		2	0	0	U
		2	0	0	U
		?	0	0	N?
Tilba Lake	1	3	0	0	Fx
		3	3	0	Fx?
Corruna Lake	2	?	1 (min)	1	FI
		?	1 (min)	1	FI
Wallaga Lake	5	3	2	1	FI, U
		2	0	0	U
		?	2	1	FI, U
		?	?	1	FI
		2	2	0	U
Cuttagee	1	1	1	0	U
Murrah	2	2	0	0	Fx
		1	0	0	Fx
		1	0	0	Fx
		2	2	1	FI, U

Site	Pairs	Eggs	Chicks	Fledglings	Main Fate
Bengunnu Point	1	?	?	1	FI
Bithry Inlet	2	2	2	0	R?
		1	1	0	R?
Middle Beach	2	2	0	0	U
		?	2	1	FI
Nelsons Beach	1	2	2	0	U, possibly A
Mogareka	2	2	2	2	FI
		?	2	2	FI
Wallagoot Lake	2	?	1 (min)	0	U
Bournda Lagoon	1	2	1	0	Exposure possibly
		2	0	0	U
		1	0	0	U
Barmouth Beach	1	1	0	0	U
Haycock Point	1	3	1	1	FI, U
North Long Beach	1	3	2	1	FI
Saltwater Creek	1	3	0	0	U
		2	0	0	U
Wonboyn	1	3	?	?	U
Totals	51	108	60	34	

Abbreviations

N = no nesting recorded

Fl = fledged

U(E/C) = unknown egg or chick loss

N? = nesting suspected

I = inundated by floodwaters/tides

Fx = Fox predation

A = abandoned

G = goanna predation

R = Raven predation

At **Durras Lake Entrance** the resident pair of Pied Oystercatchers laid two eggs in September. Their nest was fenced off and signs erected and the two little chicks hatched out in mid October. The parents quickly moved the chicks further up along the banks of the lake away from the dog walkers and beach goers. The family was often seen by local volunteer John Perkins as they fed along the lake edge. Both chicks successfully fledged in mid November.



Happy Pied Family at Durras Lake! Photo: J.Dunn.

Another pair of Pied's with two chicks was reported further up into **Durras Lake** by Depot Beach NPWS Field Officer Roger Dunn. Roger has seen the pair nesting in the area from his kayak over the last few years. This is quite a remote spot and so the family was safe from disturbance by people. Both chicks fledged successfully in November. Roger also noticed in February/March that there were around ten Pied's feeding on the sand flats throughout Durras Lake. This could be a another favorite flocking and feeding site outside of breeding season!

A new pair of nesting Pied Oystercatchers were reported on the northern banks of Batemans Bay. The pair were sitting on a two egg nest that hatched in late October. Disappointingly both chicks were gone by mid November, possibly to the raptors seen frequenting the area or a goanna who the parents had scolded just days earlier.

The resident pair on the southern banks of **Bateman's** Bay laid a two egg nest in early September. Disap-



L to R: The Pied Oystercatcher nest in the bottom left corner and their breeding and feeding area that will be dredged for the marina development; The little chick - a bit wobbly just after hatching; finally flying five weeks later—parent on the left and fledgling on the right. Photos: J.Dunn & M.Hannan

pointingly just before hatching one egg rolled from the nest. Local resident Meryl returned the egg to the nest but only one chick hatched out and the other egg disappeared. This little chick hid amongst the rocks on the creekline at this busy site beside the road. As the chick grew the family was often seen foraging in the small mangroves along the creek and out onto the sand flats. The chick fledged in mid November.

This is a great result for this pair who had three failed nesting attempts last season! With the impending Marina Development threatening their habitat it is great to see them breeding successfully. Hopefully the developers will set aside their nesting spot and sufficient feeding area so that the pair can continue to fledge chicks.

In the **Far South Coast** region 41 breeding pairs were monitored this season. All larger estuaries and lakes appeared to support at least 2-3 breeding pairs, with most beaches and smaller estuaries/creeks having one resident pair. The breeding season commenced in early August this season at Wallaga Lake, with many pairs on eggs by early September (12 pairs).

Tuross Lake was again a significant Pied Oyster-catcher breeding site this season with 4 breeding pairs. The first pair to breed chose the favoured 'Rocky Island' a tiny exposed island near the western shoreline, with two chicks hatched out here within their dried seagrass nest.

In the ensuing weeks nests followed at 'west bank' (a large sand island within the lake), and amongst the fore dunes of the entrance sand spit. One chick also hatched out from the former nest site, however the sand spit nest was lost to ravens within the week of laying. It has been long suspected by Bill Nelson and George Rayner that 'Reedy Island' in the upper reaches of the lake was host to a breeding pair and this season they victoriously identified a chick near fledging age with its parents on the island.

Brou Lake was host to up to 38 Pied Oystercatchers this season. Their energetic behavioral displays and musical calling was fantastic to watch. The large social gathering included flagged and colour-banded birds from Victoria. Four pairs bred, mainly along the northern shoreline of the lake, however the resident foxes quickly snapped up all eggs along the shoreline soon after laying. The only successful nest site was on a tiny sand island protected from any fox predation.

Beautiful **Wallaga Lake** was a perfect location for Pied Oystercatcher nesting this season with the entrance open until late spring and the low water level providing a vast shoreline area for breeding. Two pair bred on 'Honeysuckle Island' in the centre of the lake, whilst three pairs chose the entrance sand spit. The initial pair to breed were successful in hatching out their chicks on the sand spit, however a second pair breeding a few weeks later lost their eggs to an unknown predator. When a third nest appeared on the sand spit soon after (possibly a re-nesting attempt by the second pair) a decision was made to cage the nest.

The parent Pied's happily incubated their eggs from the safety of the cage and successfully hatched out two



Big seas cut away a lot of beaches this season , including Middle Beach in Mimosa Rocks NP. *Photos: A. Jorgensen*.



Pied Oystercatcher chick huddled beneath fore dune vegetation. *Photo: A. Jorgensen.*

gorgeous chicks. These chicks were found all over the lake on subsequent visits, including on the opposite shoreline to which they hatched out having swum over 150 m to get there. The swimming efforts of these champion chicks with their tiny little legs surely rivaled that of Kieran Perkins. Unfortunately one chick was later found dead with no signs of predation and the second went missing before fledging age.

Much to the dismay of Sue Swennson, who keeps a vigilant watch over the Pied Oystercatcher at the **Murrah River entrance**, three early nesting attempts by the resident Pied's were unfortunately lost to foxes. A later forth attempt was quickly caged and RLPB Rangers increased the intensity of Fox baiting in the surrounding area. The Pied Oystercatcher parents successfully incubated their eggs without predation and their chicks were found in the first week of January. One chick later fledged in late February.

One pair of Pied's at **Mogareeka** chose a great spot to breed this season, inside the massive fenced area erected in anticipation of the Little Terns commencing breeding. They, and their two little chicks, had the entire sand spit to themselves for most of the season as the Little Terns did not begin to breed on the spit until late December.

Thirty four fledglings from fifty one pairs is a great effort for the program, particularly on the Far South Coast which appears to be a stronghold for this threatened shorebird.

Sooty Oystercatchers



This season a thorough survey was conducted of eight offshore islands for Sooty Oystercatchers. This included Brush, Belowla, Grasshopper, Wasp, Tollgates (both islands), Snapper and Montague Is-

land as well as the semi-attached Green Island. All islands were visited in November and some also received a January/February visit in an effort to gain a better understanding of the fate of each nest and the possible number of fledglings produced. Additionally the semi attached Green Island in the South Coast region was visited and two nests were also found on the mainland in Murramarang National Park.

Sooty Oystercatcher breeding activity in the NSW South Coast & Far South Coast Regions — 2007/08 season

Site	Pairs	Eggs	Chicks	Fledglings	Main fate
Murramarang National Park	2	4	2	1	R, Uc, Fl
Green Island	0	0	0	0	N
Brush Is	32	9	1-2	?	U
Belowla Is	10	2	0	?	U
Grasshopper Is	8	11	1-2	?	U
Wasp Is	9	14	1-2	?	U
Nth Tollgate Is	2	0	3	?	U
Sth Tollgate Is	4	3	2-3	?	U
Snapper Is	2	2	1-2	?	U
Montague Island	12	16	5 sighted	6 (minimum)	FI, Ue/c
Total	81	61	16-21	7 (minimum)	

Abbreviations

N = no nesting recordedU(e/c) = unknown egg or chick loss A = abandoned Fx = Fox predation Fl = fledged R = Raven predation Green Island was visited in December and did not have any Sooty Oystercatchers nesting this season, however due to public access and disturbance issues on this semi attached island the Sooty's may have already vacated the area. Earlier surveys are planned for 2008/09 season here and at Stokes Island further to the south.

All seven **South Coast** region islands were surveyed on the 12th and 13th of November. Despite a high number of breeding pairs on **Brush** and **Belowla Islands** there were only a few one egg nests and a couple of chicks. This was very strange. Conversely on **Wasp, Grasshopper, the Tollgates** and **Snapper Islands** every breeding pair had either a nest with eggs or was hiding chicks.

Brush Island has a history of poor breeding success and it was suggested that the islands introduced Black Rat's may be predating on eggs. Consequently in the winter of 2006 an extensive baiting program was undertaken and all rats were removed from the island. Now we expected excellent nesting success on Brush, however disappointingly there must be another cause. The presence of smashed egg shell on both Brush and Belowla indicates another predator such as Ravens or a Raptor.

A second visit to Brush later in November was undertaken just in case the nesting was late, however again there were more than 30 breeding pairs but only a few one egg nests. Eleven Ravens were seen and on past visits Swamp Harriers, Nankeen Kestrels and Sea Eagle have been reported. Brush and Belowla are both very open flat and exposed islands where as interestingly on other islands such as Wasp many nests were under ledges, in rock crevices and between boulders. Perhaps better hidden from the eyes of avian predators flying above......



Clockwise from top left to centre: Amy with the first Sooty chick we found on Montague Island this season; only just hatched chick; beautiful camouflage eggs; Jodie - happy to see her first Sooty chick on the Tollgates; little chick with his dinner leftovers of limpet shells and crab claws; fluffy chicks on the mainland near Durras; what a view from this nest on Montague; protective Sooty parents. Photos: *J.Dunn, A.Jorgensen and John Perkins*

Another visit to Brush in February just revealed a few pairs but mostly single birds now as the breeding season was over and as I suspected no young adults or fledglings. This issue needs further investigation.

The early visit to the southern islands - Wasp, Grasshopper, Tollgates and Snapper, revealed much more nesting success with 25 breeding pairs, 30 eggs and 9-14 chicks. Every pair was associated with eggs or chicks. Disappointingly the 2nd visit did not eventuate due to bad weather and poor sea conditions. But based on the early success I hold out hope that a number of chicks fledged. Further investigation next season!

It was very exciting to discover two pairs of Sooty Oystercatchers nesting on the mainland in **Murramarang National Park**. Maybe they were fed up with the poor nest success on Brush and Belowla! Anyway the first pair near Pretty beach lost both eggs to the marauding Ravens in the area while the second pair down past Durras hatched out both chicks and successfully fledged one of these in January. Strange and very exciting for the Sooty!

Montague Island was first visited on the 29th & 30th of November. The survey found 39 adults on the south island alone. However of this large number of adults, only 10 pairs were breeding (ie. had eggs or chicks). The eldest chick found during this visit was 7 to 14 days old, with its parents estimated to have started breeding around the 18th of October. On Montague Island breeding pairs of Sooty Oystercatchers have relatively large territories (minimum of at least 50 m of shoreline) in comparison to islands such as Wasp and Grasshopper where nests can be as close as 3 metres (just pecking distance apart). The south end of Montague Island is a hot-spot for Sooties and it appears that breeding commenced earlier here as the majority of pairs had chicks. One pair came so close to us during our monitoring that we discovered that Sooty Oystercatchers have bright orange toe-nails! All up we found 10 nests that included 4 chicks and 11 eggs.

The second visit to Montague Island occurred on the 19th & 20th of February, with a total of 5 fledglings and amazingly 1 chick found during the visit. The chick was approximately 14 to 21 days old and should've been flying in the very near future. He looked well fed and the huge shell midden surrounding the nest site verified this. Shell middens were also found at many other sites where previous eggs had been located, indicating many more chicks actually hatched out and possibly fledged from Montague. Thereby, the six fledglings this season is a minimum estimate.

SOUTH COAST SHOREBIRD VOLUNTEERS RECOGNISED AS LOCAL HEROS

In December 2007, NPWS Shorebird Recovery Coordinators nominated many of our dedicated shore-bird volunteers for:

LANDCARE AUSTRALIA 'COASTCARE LOCAL HERO AWARDS'

In recognition of their dedication and commitment to the South Coast Shorebird Recovery Program. Many individual volunteers & volunteer groups were awarded a medallion and congratulatory letter for their incredible efforts. Those receiving awards included:

- Ian Shaw, Windang
- Rex Worrell, Shoalhaven Heads
- · Lake Wollumboola Shorebird Recovery Group
- Frances Bray, Lake Wollumboola
- · Col Ashford, Lake Conjola
- John Perkins, Durras Lake
- Meryl Hannan, Batemans Bay
- · Tuross Lake Shorebird Recovery Group
- Mogareka Shorebird Recovery Group
- Friends of Brou Lake Shorebird Recovery
 Group
- Patrícía Latímer, Tílba

CONGRATULATIONS TO YOU ALL



Joan Ennis accepted the medal on behalf of the Mogareka Shorebird Recovery Volunteer Group. *Photos: J:Whitley*







Jodíe and Amy would like to express a huge thank you to all our wonderful shorebird volunteers who worked so hard this season to help the shorebirds. We have had our triumphs and tragedies this season but through it all you were such great team players! We are hoping you will all come back next season to help us.....

SAVE THE SHOREBIRDS!

Shorebirds 2020 – Birds Australia

A new shorebird conservation program has been recently launched by Birds Australia in conjunction with the AWSG, WWF & and the Australian Governments Natural Heritage Trust called 'Shorebirds 2020'. This program aims to increase shorebird monitoring, education and awareness. The below site is a fantastic resource for all those interested in shorebirds. There is an incredible amount of information listed on this site so have a look at their website! http://www.birdsaustralia.com.au/our-projects/shorebirds-2020.html

Hooded Plover stickers available now.

Support your local Threatened Shorebirds and help raise awareness







Stickers are available from Nowra, ulladulla, Narooma & Merímbula NPWS offices, or from the Shorebird Recovery Coordinators:

Jodie Dunn PO Box 72 ulladulla 2539

Amy Jorgensen PO BOX 282 Narooma 2546

If you would like to be taken off or added to the mailing list or.....

* If you have received this newsletter by mail and would prefer to save paper by receiving an electronic version next season please email me at jodie.dunn@environment.nsw.gov.au

