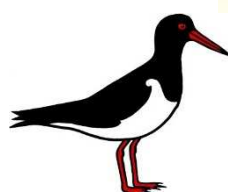
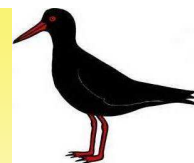


SHOREBIRD RECOVERY NEWSLETTER south coast



Sharing the shoreline



2017/18 Season

This Season in Shorebirds

The South Coast Shorebird Recovery Program continues to monitor and protect endangered nesting shorebirds along our beaches, train and support volunteers along the south coast and obtain funding to undertake comprehensive fox control and community education programs. The program has been running now for almost 20 years and the ongoing support on the south coast is inspiring!

This season the **amazing 92 volunteers** monitored a total of 118 endangered shorebird nests between Gerroa and Batemans Bay and recorded 3563 volunteer hours. Their passion and dedication to shorebird recovery keeps the program running and has immeasurable effects through their links into the local community. These birds nest right on our beaches so raising awareness, improving knowledge and local community support are extremely important for their survival into the future.

However, despite these efforts, critically endangered **Hooded Plover** numbers took a slight downturn this season from 13 to 11 breeding pairs (41 to 37 adults). The weather was not kind this year. The breeding season was short, plus eggs and chicks were lost to storms and inundation. Overall there were only 4 fledglings for 2017/18. This is disappointing after the steady increase and overall doubling of the south coast population in the last decade. Hopefully fledging success will improve next season.

The endangered **Little Terns** also had a difficult season. It was shaping up to be a big colony at Lake Conjola, but

early raven predation dispersed the nesting birds across five sites. The volunteers really stepped up to the challenge and we achieved at least 20 fledglings for 2017/18.

The endangered **Pied Oystercatcher** breeding pair numbers were similar to last season, 27 pairs were monitored with nests. A few more breeding pairs are quite remote, so there were likely a few additional nests that were missed. But we will get better with time and more vols! Overall the Pied Oystercatchers fledged 17 chicks this season.

Thanks to Saving our Species, Crown Lands and the National Parks and Wildlife Service our **comprehensive fox control** program was maintained in 2017/18 to reduce predation of shorebird eggs and chicks. The Local Land Services and Holiday Havens funded yet another awesome season of **community shorebird education** programs.

The ongoing support for our local shorebird recovery program is integral to it's success and very much appreciated! Thank-you :)



Critically endangered Hooded Plover - Racecourse rocks. Photo: Leo Berzins

Hooded Plovers



Hooded Plover numbers in NSW have taken a slight downward trend this season, with the loss of a number of breeding adults. A lack of good fledgling numbers over the past few seasons means that there are fewer single birds to replace these losses.

Six of last seasons thirteen breeding pairs lost a partner this season. Four pairs started the season without their partner and either quickly found a new partner to nest with (Kioloa/Bawley, Dawsons), found a new partner later in the season and didn't nest (Narrawallee) or did not find a new partner (Hammerhead). The loss of this last pairing is very disappointing as it was the very exciting northward range expansion of the Hooded Plover population beyond Jervis Bay in 2015/16. The final two pairs who lost partners did start the season to nest with their original partner, but they were lost mid season and the birds re-partnered to nest again (Caves, Tabourie). Thankfully due to significant population increase over the last decade, there were single birds available to fill the gaps, however our supply is now down due to recent low fledgling numbers.

As a result of these losses only 11 pairs nested this season on the south coast, the lowest breeding pair numbers since 2010/11 season. Another 2 pairs did make scrapes and held territory but nests were never found. Let's hope they nest next season to bolster our dwindling population. Overall 37 adults were sighted over the season, but due to significant losses and low fledgling numbers, the population is expected to be much smaller next season. This is disappointing as 41 adults were recorded last season.

Similar to last season, most pairs did not start nesting until October, with renests throughout November and December. Due to the late start and most pairs only having laid 2 or 3 nests by the new year, we had expected nesting to continue at least for the remainder of summer. However in mid January a big storm and high seas washed away all current nesting, 6 eggs and 7 newly hatched chicks. Thankfully some chicks were bigger from earlier nests and survived to fledge. After this storm only one pair renested but it was abandoned after another bout of bad weather. Consequently 2017/18 was another short nesting season,

with low fledgling numbers. Details of each nesting are summarised in the following pages.

At **Hammerhead** a single bird (D3) was sighted in October, and tracks were also recorded on a few visits, however her partner (L4) was not sighted anywhere on the south coast this season and seems to have been lost. As mentioned above, this is a sad blow to our Hooded Plover recovery efforts. The program had been doing extremely well with a noticeable increase in Hoodie numbers starting around 2010/11, finally in 2015/16 a pair (L4/D3) finally took the leap north over Jervis Bay and nested at Hammerhead on Warrain Beach (between Culburra and Curra-rong). The nest was inundated but the pair still incubated and hatched one chick, however this chick was quickly lost to Ravens. The pair nested again last season, but a fox got the eggs. Hopefully D3 will find another partner and try again north of Jervis Bay.

The Hoodie pair (C7/M9) were sighted on the beach throughout August and September but it wasn't until October that the pair finally made a nest in the foredune and laid one egg. The egg was recorded by the volunteers on the 19th, but sadly by the 22nd it had disappeared to an unknown fate. A few days after the nest was lost the pair also disappeared. C7 was sighted intermittently on nearby Bherwerre Beach but M9 was not seen again.

In December C7 returned to Caves Beach with a new partner, E6. By the 11th of December this new pairing already had a 3 egg nest in the foredune mid-beach. With the summer holiday crowds about to hit the south coast, the local Booderee NP rangers installed temporary beach signage to keep people away from the nest site. Thankfully most beach goers set up near the main access track at the western end of the beach. In the new year king tides and southerly swell almost inundated the nest. The Booderee rangers built a small arc of sandbags around the seaward side of the nest to protect the eggs from incoming surges.

The nest survived and chicks began hatching on the 7th of January. An adult Hoodie was observed taking the egg shell to the waters edge. By the 8th two chicks were beginning to venture away from the nest chaperoned by their parents. Any sign of threats and the chicks would retreat into the foredune vegetation. On the 9th the parents aggressively defended the site from lapwing intrusion, and



Caves Beach Hooded Plovers mating—a good sign! *Photo: Chris Grounds*

Hoodie parent with 2 newly hatched chicks on Caves. *Photo: C. Grounds*

Hooded Plover breeding activity in the NSW South Coast Branch (northern region) - 2017/18 breeding season

SITE	PAIRS	NESTS	EGGS	CHICKS	FLEDG-LINGS	EGG FATE	CHICK FATE
Caves Beach	C7/M9	1	1			Ue	
	C7/E6	1	3	2		2H / 1nV	SG / In
Bherwerre Beach	K1/N5	susp	Sighted: A2/E6, B4/M4, M9/C7, D3, K9, H0, J7, N2, 2ub				
Berrara Beach	N2/ub	4	3			R	
Monument Beach			3			snake?	
Berrara Beach			2			Ab (HI/Dg)	
			3 #			In	Sighted: E1, D3
Inyadda Beach	E1/L7	3	1			Fx	
			3			Fx	
			3 #			Ab (HI/Dg)	Sighted: K9, D6
Buckleys Beach	B2/J8	3	2			RP	
			3 #			nV (R)	
			3 #			In	Sighted: K9
Narrawallee Inlet	M0/L9	susp					
Rennies Beach	A8/C9	2	1			RP	
Pockets Beach			3 #	3	1	H	2Fx / FI
Racecourse Beach	J1/D4	2	3 #	3	2	H	2FI / Dg?
			3 #			Ab (BW)	
			Sighted: A8/C9, B4, L9, B0, 2ub				
Wairo Beach/Pt NE	A4/M5	2	3 #	3		H	2BW / Fx
			3 #			Ab (PP?)	Sighted: J7, B0
Lake Tabourie	E8/C5	1	3 #			2R / SB	Sighted: J7, 2ub
	E8/ub	1	2 #	2		H	In
Termeil Lake	M2/E2	2	3 #	1		2Ab / H	Uc
			3	3		H	In / Ex
Murramarang Beach	B0/J7	3	2			Fx	
Avenue Beach			3 #			BR?	
Racecourse Beach			2			Fx	
Dawsons Beach	H7/M4	2	3			Fx	
			3	3	1	H	2Uc / FI
TOTALS 2017/18	11	27	70	20	4		

Abbreviations

H = hatched
Ab = abandoned
Ex = exposure
FI = fledged

U(e/c) = unknown egg or chick loss
SB = sand buried
In = inundation
PP = parent predation

Fx = fox predation
Dg = dog predation
HI = human interference
susp = suspected nesting

R = raven predation
BR = bush rat predation
SG = sea gull predation
= nest caged

on the 10th were seen chasing off a sea gull. However only one chick remained now, with the sea gull suspected of taking the other chick. The following day no chicks could be seen, and the dead chick was found on the tide-line, drowned? The 3rd unhatched egg was also removed. A sad end to this promising nesting.

Interestingly C7 and E6 had nested together on Bherwerre Beach in 2014/15. M9 was hanging out at Mary's Bay (near Caves) with B1 and was suspected of nesting. However in 2015/16, B1 was single on Bherwerre again and C7 left E6 to pair with M9 on Caves Beach. C7 and M9 had 2 nests each season (2015/16, 2016/17) and produced one fledgling. E6 was suspected of nesting with C8 and A2 on Bherwerre but no eggs were found. This season after the loss of C7's one egg nest and M9 this season, E6 quickly paired again with his old flame! Let's hope this pair get a chance to fledge chicks next season.

Bherwerre Beach is the south coast 'wintering' hotspot for Hooded Plovers, with up to 11 birds sighted outside breeding season along this 7km stretch of remote beach in Booderee National Park (Parks Australia). During breeding season numbers significantly reduced with 3-5 birds usually sighted and suspected pairings of K1/N5, E6/A2, M4/B4, D3/K9. Only one nest scrape was found on top of the dune early in the season with K1 and N5 nearby, actively defending the site, but no eggs were found. Despite these suspected pairings, no nests were found over the 2017/18 breeding season, probably due to the ravens frequently patrolling the beach. Increasing vehicle traffic also continues to be a problem on this apparently remote beach. Other birds sighted on Bherwerre during 2017/18 include

B4, M4, H0, J7, N2, 1 unbanded and Caves pair M9/C7. Bherwerre Beach is south facing and very exposed to storms and big swells. Over the last few winters the beach has been significantly eroded by the east coast lows, and has not built back to its original level. Consequently most of the beach is quite narrow and backed by high sand cliffs, not good Hoodie nesting habitat. There are a few areas wider area, more suitable for nesting, mostly dune blowouts or the northern end of the beach. Perhaps this beach is more important to the Hoodies as a feeding and meeting place?

Further south at **Berrara Beach** (Conjola National Park), the resident Hoodie pair (N2/ub) were sighted with nest scrapes in late August and finally laid a 3 egg nest in early September. Due to the risk of raven predation it was decided to not fence the nest (which highlights the location to ravens), but to just use a few signs to direct beach walkers down by the shoreline as they pass the nesting area. Frustratingly the eggs still disappeared in less than a week with ravens tracks at the nest.

The pair relocated to **Monument Beach** and renested with 3 eggs on the 2nd of October. Again only signs were used, but this time it appears that a snake took the eggs in a matter of days. The nest was right at the back of the beach close to the vegetation and the area is known to have a healthy population of diamond pythons. Plus check out the photo, it definitely looks like a snake track leading down to the nest.

The diligent pair tried yet again later in October, on the ledge at the back of the southern end of the Berrara Beach.



top to bottom: The 3 egg Hoodie nest on Berrara Beach and shorebird volunteers, Rose and Margaret, installing signage. *Photos: Mike Clear*

The Monument Beach Hooded Plover empty nest, showing snake track coming down from the vegetation behind. *Photo: Mike Clear*



KeepGuard

11-20-2017 09:05:47

Ravens circling the Buckleys Hoodie nest cage Photo: Scoutguard



The big washover of the Buckleys Hoodie nest Photo: Jodie Dunn

Again within days the eggs were lost, with human and dog tracks within a metre of the scrape. One last time the pair nested further north along the beach on New Years Eve. With the summer holiday season at it's peak, this nest got the works with fencing and signage plus due to the constant losses to predators, the nest was caged. The pair were not incubating the nest consistently, and then a king tide and big swell combination in mid January inundated the nest despite the volunteers amazing sandbagging efforts. A disappointing end to the Berrara season after four nesting attempts and a lot of hard work by the volunteers.

At southern **Inyadda Beach** the hoodie pair (L7/E1) were sighted around their usual nesting area at the creek during October. A couple of nest scrapes were found with lots of fox and raven tracks around them, maybe eggs had been lost. Finally on the 17th, a one egg nest was found on top of the dunes 50m north of the creek. After only a couple of days, the birds and egg disappeared. The fox shooter shot a pair of foxes at the site, but just a little too late.

Late in November the pair nested back at their old haunt along the western side of the creek. Within days there were 3 eggs in the nest and caging was considered due to fox tracks in the area, but decided against. Two weeks later the nest was predated by foxes, with tracks everywhere. The fox shooter suggested by the amount of tracks and behaviour that this was a pup from the pair removed in October.

In mid December the fox pup was also removed by the shooter and a third nesting attempt was located at the base of the dunes northeast of the creek. No chances were taken with this one, and it was caged. Plus with the beach holiday season about to start, so the fence was extended and more signs installed. However with high tides and big swells, beach goers and dog walkers needed to walk high on the beach causing significant disturbance to the nesting birds, resulting in the abandonment of the nest on the 6th of January. Another disappointing result for the Hoodies.

The **Buckleys Beach** (Narrawallee Creek Nature Reserve) pair (J8/B2) returned to the northern end of the beach with

the first egg found in a scrape at the back on the beach on the 12th of October. A few days later the second egg was reported and the pair were incubating. A week later the eggs were gone, and ravens suspected.

The pair renested right in the northern corner of the beach later that month. By early November there were 3 eggs in the scrape and the area was fenced and signposted and nest caged for protection. Raven tracks were noted around the cage, so a motion sensing camera was installed to monitor the predators lurking about. Ravens were caught on camera circling the nest cage. The hoodies could not consistently incubate their nest with all the raven harassment and the nest failed. The eggs were removed at 2 weeks overdue, one was opened for inspection and it had not developed at all due to the lack of incubation.

This diligent pair tried yet again at the end of December, with another 3 egg nest, which was quickly caged again. This time the nest was lower on the beach and possibly vulnerable to inundation. The weather had been quite benign so the hoodies had become complacent. In mid January a big south swell was forecast so an arc of sandbags was constructed in front of the nest. On the next inspection, the surge had just topped the sandbags but had not quite made it to the nest. We thought we had a win, but an updated swell forecast revealed a much bigger swell coming the following day. We added another layer of sandbags and hoped for the best, but that swell was huge. Nothing could have saved those eggs. The sandbags were washed around, a big branch was speared through the nest cage and surges came all the way to the back of the beach.

Further south along the beach at **Narrawallee Spit** (Narrawallee Creek Nature Reserve) only one bird (M0) from the resident pair was sighted throughout spring, indicating J0 had been lost over the winter. In November L9 began hanging around and appeared to be paired with M0. This new pairing made nest scrapes but no eggs were located. Hopefully next season.

The **Bommie - Rennies Beach** pair (A8/C9) nested on Rennies Beach in mid October, with only one egg so far.

The nest was quickly fenced and sign posted, however within days the eggs disappeared, probably to the Ravens seen hanging around in the fenced area afterwards.

The pair relocated to Pockets Beach and laid a 3 egg nest in late October. Again the site was fenced and sign posted, and the nest was promptly caged. All 3 chicks hatched out and the little fluff balls were sighted hiding amongst the seaweed and a nice big log washed up on the beach. On the first night, one of the chicks disappeared, probably to a fox. Then a week later a second was taken. However, the last remaining chick survived, probably due to a lot of hard predator distraction work undertaken by the parents! This chick fledged in early January. Finally success for the Hoodies!

At **Racecourse Beach** the local Hoodie pair (D4/J1) were sighted with nest scrapes throughout September and October. Despite these well used scrapes no eggs were found, probably due to the foxes, ravens and even feral cats whose tracks were seen inside the fenced nesting area. A protective cage was placed over the nest scrape in mid October and finally in early November the birds were reliably sitting on the nest scrape, and appeared to be incubating something? 3 eggs were confirmed in the nest a week later. All 3 eggs hatched on the 3rd of December and the family began to roam the beach, looking for food amongst the seaweed and along the shoreline. Sadly a chick was lost in mid December, possibly to one of the many off leash dogs on this on leash beach. Amazingly the remaining 2 chicks survived to fledge in the new year!

The pair renested in early February with 3 eggs near on the south side of the lagoon. The nest was quickly fenced, sign posted and caged. However later in the month a cold front brought wind and rain, terrible weather for incubating a nest on the exposed beach. First the female (D4) disappeared, then a couple of days later her partner (J1) abandoned the nest. Sadly the chicks were left half developed inside the eggs. Hopefully we have not lost the female bird permanently, and the pair returns to nest next season.

Down at **Point Northeast** (north Wairo Beach) the Hoodies (A4/M5) nested in late September. All 3 eggs hatched, however the weather turned bad and 2 chicks were lost in the first couple of days, probably to exposure due to rain and winds, or washed away by the big seas. The last chick survived until 3 weeks old and was also lost, most likely culprit was the fox in the area. The pair renested with another 3 eggs in early December. The nest was going well until A4 disappeared later in the month and M5 was observed near the nest but not incubating. One of the eggs cracked open in the heat with a well developed chick was inside. Sadly all of these almost hatching age eggs, were abandoned and died. It seems that we may have lost A4?

Further south at **Lake Tabourie** the local Hoodie pair (E8/C5) were sighted on and off around the lake entrance area through August then moved further north along the beach in September. Finally the pair settled and nested further



The Pockets Beach Hooded Plover fledgling; the Racecourse Beach nesting pair D4 and J1; the three tiny Racecourse Hooded Plover chicks; one of the RC chicks and the three just hatched Pt NE Hoodie chicks
Photos: John Smith, C. Dove and Cathy Stapleton

along the beach in October, about 1km north of the lake. The nest was caged and area fenced and signposted. The pair continued laying eggs inside the cage with a final tally of 3 eggs. Sadly on the 27th of October the nest was empty and abandoned with no birds in sight. The volunteers later dug around in the scrape and found an egg and shells, plus C7 never returned and must have been lost resulting in the abandonment of the nest.

The remaining partner (E8) was sighted around the lake entrance and quickly picked up a new unbanded partner. The pair made nest scrapes, then after a month of practicing finally laid 2 eggs in mid December. The chicks hatched in January, but were lost to high seas. It seems the flightless chicks became trapped between the sand cliffs and the ocean as the family made their way north along the eroded Wairo beach.

Down at **Termeil Creek** (Meroo National Park) the Hoodie pair (M2/E2) who previously reliably nest at Willinga Lake, Bawley Point each season, gave us the run around last season with no nests found. Finally this season the pair settled at Termeil Creek. The 2 egg nest was quickly fenced and caged on the 21st of October, but the 3rd egg was not laid for a week. Raven tracks were noted around the cage, so perhaps the raven harassment had scared them off the nest. After a few days, the ravens must have realised they could not access the eggs and took off, so the Hoodies finally laid their 3rd egg. On the 24th of November a chick hatched out and a bird was still incubating the remaining 2 eggs. However after a few days these eggs were abandoned and the pair concentrated on raising their chick. Sadly this lone chick disappeared at only a week of age.

The pair renested a little further south of the original nest, but still inside the fenced area. The nest cage was relocated over the new one egg nest, and within a week there were 3 eggs in the scrape. The 3 chicks hatched in mid January, but within a few days there was only one remaining and then a few more days and no chicks left. Possibly due to the ravens in the area.

Down at **Kioloa/Bawley Point area** the young female J7 (fledgling 2015/16) returned with a new partner, B0. Her partner from last season, H3 was not seen this season and likely died over the winter. The new pair favoured Racecourse Beach in early September and even made nest scrapes, but then relocated to Murramarang Beach to scrape. Later in the month they also made short scrape visits back to Racecourse and even Bullpup Beach. Finally after 10 days of scrapes on Murramarang they nested with 2 eggs on the 11th of October. A line of signs were placed at either end of the nesting area to encourage dog walkers to stay down by the water. Sadly after only 2 weeks a fox found the nest and took the eggs.

Three weeks later the pair settled on Avenue Beach and in a few days there were 3 eggs in the scrape. This time a protective cage was installed over the nest. However frus-



The Kioloa/Bawley Point Hooded Plovers numerous nest scrapes really gave the local volunteers the runaround *Photos: Robin Berkhout*

tratingly, despite the cage, the eggs were again predated. Shell fragments in the scrape and the fact that the predator had to be small to get inside the cage indicate that it was likely a bush rat. The pair returned to Racecourse Beach with another 2 egg nest in mid December. The nest was not caged due to ravens being in the area. The volunteers observed from a distance, not wanting to show the ravens exactly where the nest was located. The nest progressed well for 2 weeks then a fox found the eggs on Christmas night. A disappointing result after 3 attempts and amazing efforts from the local volunteers.

At **Dawsons Beach** in Murramarang National Park, the far south coast fledgling (P7) who paired with our south coast male (H7) last season, did not return. Instead H7 paired with M4 who had been observed earlier in the season on Bherwerre Beach, and appeared to be paired with B4! Anyway this new Dawson's pair (H7/M4) nested in mid October with 2 eggs in the nest when it was found on the southern embankment alongside the creek. A few days later there were 3 eggs and fox tracks noted. The ranger came the following day to install fox baiting stations and reported that the nesting area was covered in fox tracks. Sadly the eggs had been taken.

Two weeks later, another 3 egg nest. This time the eggs were well camouflaged in the washed up pumice on top of the embankment. A motion sensing nest camera was installed to monitor predators. Strangely two wedge tail eagles were caught on camera right around the nest. But



KeepGuard

11-13-2017 09:19:49

Wedge tail eagles at the Hooded plover nest *Photo: Scoutguard*

thankfully the nest survived and the chicks hatched out in early December. One chick was lost quickly and the second at around 2 weeks of age, but the third survived. It was last sighted at just over 5 weeks of age, but then disappeared. We assume it had started flying as this usually occurs at around 4 weeks, however it is puzzling that it left so quickly. Let's hope this young one returns to nest next season.

Overall during the 2017/18 south coast breeding season eleven pairs of Hoodies were monitored and incubated 27 nests containing 70 eggs. At least 20 chicks hatched out but only 4 of these chicks fledged.



The Dawsons Beach Hooded Plover parent and chick of almost fledging age
Photo: R. Berkhout

Little Terns



The first Little Terns were reported on the south coast at Lake Wollumboola on the 20th of October. However they did not hang around, but continued south with numbers remaining low at this site. Further south at **Lake Conjola** numbers began to build. From just 3 Little Terns sighted overhead on the 25th of October, increasing within a week to 40 birds fishing, courting and making nest scrapes.

The first egg was laid on top of the dunes at Lake Conjola on the 8th of November. By the 13th there were 4 nests containing 6 eggs in the dunes, and 50-60 Little Terns flying around. The colony was a hive of activity, indicating it could be a big season for Conjola. However that morning ravens took all the eggs! The colony was in disarray and the terns began to disperse. The following day the contract shooter was on site to target the predators responsible, however due to the people in the area, he couldn't operate and we had to watch the ravens continue to patrol the dunes for new nests, scaring off the tiny Little Terns.

Amazingly around 20 persistent Little Terns were still active at Lake Conjola, but had moved out along the western side of the spit. A few more nests were laid in mid November but these were quickly found and predated by the ravens. Now the terns completely deserted the site and

dispersed to nearby sites, Lake Wollumboola and Lake Tabourie, then Point Northeast and Shoalhaven Heads. A sad end to a promising start at Lake Conjola. This site has been amazingly successful in past seasons, and it was frustrating that we could not do anything to help these endangered birds.

Up at Lake **Wollumboola** Little Tern numbers increased rapidly with 54 birds fishing and roosting on the mudflats on the 19th of November. The first egg was laid on the 21st, with a second egg laid on the 23rd. Sadly the nest was sand buried the following day by a strong north easterly wind at this exposed site. Three more pairs of terns were making nest scrapes but no eggs were found and the flock departed, many birds likely to have moved up to Shoalhaven Heads where a colony began to establish soon after.

South of Lake Conjola at **Lake Tabourie** 20 Little Terns were reported on the 19th of November and the first nests were found on the northern side of the lake entrance. The volunteers quickly caged the nests due to the ravens sighted in the area. However despite the cage, one of the nests disappeared and disappointingly there were footprints right up to the cage indicating people had taken the eggs. The other caged nest was abandoned a few days later, possibly due to constant disturbance from passers by heading down to the beach.

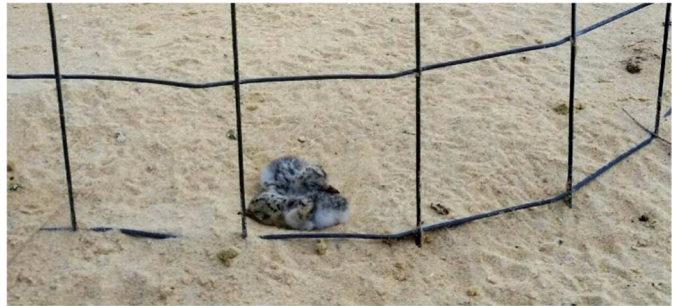


Little Tern in flight at Lake Conjola Photo: C. Dove



Little Tern nest at Lake Conjola Photo: J. Dunn

A new nest was found on the southern side of the lake entrance on the 23rd of November and a new fence installed to protect this nest but no cage. Within a few days there were 3 eggs in this nest. However over the previous week the total Little Tern numbers had dwindled and now there were only the pair remaining to tend this last nest. The lone pair did well and all 3 chicks hatched out in mid December. Despite the craziness of the summer holiday season with lots of beach goers and off leash dogs in the area, all three chicks survived to fledge in the new year! A great effort by the local volunteers.



Point Northeast just hatched Little Tern chicks Photo: J.Dunn

Further north of Lake Tabourie, along Wairo Beach at **Point Northeast**, Little Terns began to be sighted in late November, probably the birds that had moved on from nearby Lake Tabourie. On the 28th there were nest scrapes and 6 birds. It was very strange as this site was not at a lake entrance as is usually favoured by Little Terns but at the back of a beach, on the foredune, with a small rarely opening creek/drainage line along the southern boundary. But despite these apparently sub optimal conditions, within a few days there were 10 birds and the first 2 nests were found containing 3 eggs. By the 4th of December there were 2 more nests, each with 2 eggs, but the original nest #2 had disappeared to an unknown fate. Little Tern numbers continued to build and by mid December

there were 6 active nests containing 11 eggs.

Frustratingly on the 18th of December a fox went through the colony and took 4 nests. Only two nests remained plus a new nest bringing the tally to 6 eggs. A small electric fence was installed to deter the fox from returning for these remaining nests. It appeared to be working and a few days later two more 2 egg nests were laid, outside the electric fence of course! These nests were actually lower on the beach and possibly vulnerable to inundation. On the 27th of December the 2 nests that survived the fox attack, hatched. The tiny chicks began hiding in the vegetation and were very difficult to see. A week later another nest hatched and one of the newer nests was washed away as we had suspected.

Little Tern breeding activity in the NSW South Coast Branch (north region)—2017/18 season

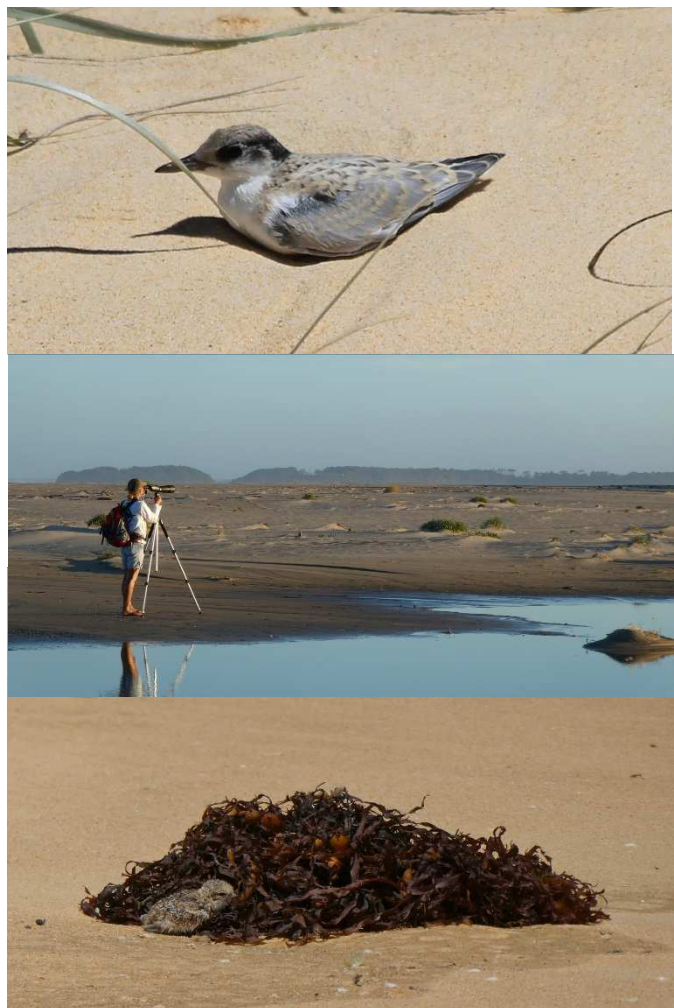
Site	Shoalhaven Heads	Lake Wollumboola	Lake Conjola	Point Northeast	Lake Tabourie	TOTALS
Nest start	25/11/17	21/11/17	8/11/17	1/12/17	19/11/17	8/11/17
Nest finish	23/01/18	24/11/17	23/01/18	21/01/18	3/01/18	23/01/18
Max Adults	36	54	60	20	24	194
Breed Pr	18	1	12	10	3	44
Nests	18	1	19	10	3	51
Eggs	33	2	29	19	5	88
EGG FATE	Fox			7		7
	Raven		10			10
	Human Inter				1	
	Inundation	14		2		16
	Sand buried		2			2
	Rolled out (wind)	1				
	Abandoned	2			1	3
	Non Viable	1				1
	Unknown		9	2		11
	Hatched	15	0	10	3	36
CHICK FATE	Fox					0
	Raven					0
	Exposure (storm)	7	1			8
	Inundation					0
	Abandoned		3			3
	Dead near nest		1	2		3
	Unknown	1	1	1		3
	Fledged	7	0	5	3	20

The defensive dive bombing behaviour of the adults indicated that the chicks were still hiding amongst the dune vegetation. The last nest hatched in mid January but a few days later these chicks were found dead. Thankfully most of the remaining chicks survived and the first fledglings were recorded on the 17th of January with 2 more flying the following day. When the colony departed at the end of the month, a total of 5 fledglings had been observed. A great result for an unexpected colony!

North of Lake Wollomboola at **Shoalhaven Heads**, a Little Tern nest was reported on the 25th of November, probably the birds that had passed through Lake Wollomboola on their way north from deserting Lake Conjola. Bird numbers began to build and by the 5th of December there were 12 terns and 7 nests containing 12 eggs. The following day high tides and big swell washed away 5 nests, leaving only the first 2 nests. Despite this loss, more Little Terns arrived and some possibly re-nested, with 8 nests on the ground by the 14th of December. The nests were spread over the large expansive sandflat area at the old river entrance. Local volunteers and NPWS staff worked tirelessly extending string fences, installing nest cages for raven protection, sandbagging nests threatened by inundation and installing small electric fences around parts of the colony for fox protection.

The first chicks hatched out from the original first 2 nests on the 23rd and 24th of December, then a week later the second round began hatching and by the 4th of January there were 14 chicks on the sandflat. A few days later the first fledgling was recorded and 2 days later, two more fledglings. Five more nests were laid in early January, and the colony appeared to be progressing well. However in mid January, storms with rain, strong winds and big seas took their toll on the colony. Many of the newly hatched chicks were lost, probably to exposure, and many of the new nests were washed away. Thankfully some of the chicks were big enough to survive the terrible weather and 4 more fledged by the 23rd of January. Bird numbers dwindled in the aftermath of the storm and by early February the site was deserted. A total of 19 nests containing 32 eggs hatched 15 chicks and fledged 7!

Back at **Lake Conjola** a few Little Terns returned to the site in early December despite the multiple raven attacks, with 6 sighted on the 7th of December and a nest scrape reported on the ocean side of the dune. A few days later there were 2 new nests containing 3 eggs, and a few more days and there were 10 Little Terns with 5 nests containing 8 eggs spread across the spit and dune. Numbers continued to increase and by the end of the month there were 20 Little Terns on site with 9 nests containing 15 eggs. The first chick hatched out on new years day but sadly it was found dead 2m from the nest. On the 6th of January 6 more chicks hatched out, and a few more nests disappeared, possibly hatched?



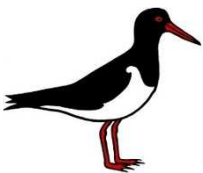
Top to bottom: Point Northeast Little Tern chick at fledging age; amazing Shoalhaven Heads volunteer, Sally Leonard watching over the tern colony; chick 'hiding' at Lake Conjola. *Photos: Cathy Stapleton and J. Dunn*

Due to the low Little Tern numbers and the huge expanse of dune vegetation that the nest were spread through, it was very hard to locate chicks or even get a feel for how well the colony was progressing. Generally during the day the parents were out fishing while the chicks hid amongst the plants. Further chicks hatched out and were recorded still in the nest scrape in mid January. Towards the end of the month the colony dwindled even further and 5 fledglings and almost fledglings were finally sighted on a calm evening as they waited along the beach berm for their parents to return with their fish dinner. It is a beautiful sight to watch the parents come in to feed their endangered young. By early February these little ones began heading north and the colony was completely deserted. The last few nests had disappeared.

Overall it was a difficult season for the Little Terns on the south coast, and everyone who was trying to protect them! In total 44 Little Tern breeding pairs incubated 51 nests containing 88 eggs across 5 nesting sites. From these nests 36 chicks hatched and at least 20 chicks fledged for 2017/18.

Pied Oystercatchers

On the south coast this season a 27 pairs of Pied Oystercatchers were monitored nesting around our coastal lakes and estuaries and on beaches, comparable to last seasons 28 pairs monitored.



Long standing local shorebird volunteers have reported an increase in the number of Pied Oystercatchers and multiple breeding pairs are now monitored in areas such as Shoalhaven Heads and Durras. This indicates some degree of local recovery for this endangered shorebird. However, as the Pies can nest in remote areas around lake shores and islands, it is very difficult to get reliable monitoring at these sites. A boat, SUP or a kayak is a pre-requisite! So compared to Hoodies and Little Terns which are all monitored quite frequently, there are some Pied pairs that we are still only just learning about and which need more regular monitoring.

At **Gerroa** the Pied pair fledged one chick this season. Down at **Shoalhaven Heads**, 2 pairs fledged 3 chicks between them while the 3rd pair was unsuccessful. Further south in **Comerong Island Nature Reserve** a pair nested unsuccessfully on the beach while the breakwall pair fledged a chick. Gerroa site coordinator, Sally Leonard, has written a great article detailing their local Pied Oystercatcher protection program for 2017/18. Thanks Sally!

At **Lake Wollumboola** this season a pair of Pied Oystercatchers were observed mating throughout Spring however no nest was found until the 11th of December. The pair nested on the southern side of the old lake entrance area (Jervis Bay National Park) again. The lake was closed this season so the saltmarsh nesting area was accessible for monitoring, but consequently also subject to frequent disturbance from beach goers.

Despite the protective electric fence, a fox got into the nesting area and took an egg on new years eve. Thankfully it did not return and the second egg hatched in early January. The chick was doing well, but this was peak holiday

beach goer season plus there was disturbance from crabbers by day and prawners by night. Illegal campers may have been the cause of it's demise on the 26th of January. Local volunteers believe it was left exposed due to the disturbance and possibly taken by a raptor.

On **Beecroft Peninsula** Defence land, three pairs of Pied Oystercatchers nested again this season. The **Green Island** pair were the first to nest with 2 eggs found in mid September. One chick hatched out, however the second egg was not viable (undeveloped) and didn't hatch. The chick was lost a few weeks later, probably to a raptor or raven seen frequenting the area.

The **Cabbage Tree Beach** pair nested in late October at the back of the narrow beach. The nest was vulnerable to inundation and the possibility of sandbagging was discussed. However sandbags can also highlight a nest to predators so we held off and watched the tides and swell forecast. The nest was lost to a fox anyway and the area was inundated the following day. Not a good nesting spot!

At **Long Beach South** the usually successful pair nested twice unsuccessfully. The area was fenced by defence rangers as people and vehicles frequent this beach due to the boat ramp access. However, the first 2 eggs were probably lost to a raven and the second one egg nest inundated.

Pied Oystercatchers nest on 2 islands on the northern side of **St Georges Basin**. The **Garden Island** pair attempted nesting twice but all eggs were lost for unknown reasons. Despite the island being under Aboriginal Land Claim with no access, there was a woman with 2 dogs camped on the island and kayakers sighted walking around the shore. The local Jerrinja Aboriginal group have been consulted in the hope that we can work together on improving awareness of the endangered nesting shorebirds on the island. On nearby **Sepulchre Island** the 2 egg nest failed to hatch and was abandoned after 35 days.

On the southern side of St Georges Basin, Pied Oystercatchers also nest on **Oaky Island**. A one egg nest was found in mid September and hatched a month later. The chick was observed from the mainland by the local volun-



The Pied Oystercatcher nest at Lake Wollumboola. Photo: Frances Bray



Pied Oystercatcher family with chick on Oaky Island Photo: Brett Davis

Pied Oystercatcher breeding activity in the NSW South Coast Branch (northern region) — 2017/18 season

SITE	PAIR #	NESTS	EGGS	CHICKS	FLEDG-LINGS	EGG FATE	CHICK FATE
Gerroa	1	1	2	1	1	H / SB	FI
Shoalhaven Heads (rivermouth) (comerong) (dune/berm)	1	1	2			Fx	
		2	2	2	2	H	FI
	2	1	2			Fx	
		2	2	1	1	H / Ab	FI
	3	1	2			Ue	
		2	1			Fx	
		3	2			Fx	
Comerong Is Midway	1	1	2			Ue	
Crookhaven Breakwall	1	1	2	2	1	H	Uc / FI
Lake Wollumboola	1	1	2	1		Fx / H	HI (AP?)
Cabbage Tree Beach	1	1	2			Fx	
Green Island	1	1	2	1		H / nV	AP?
Long Beach South	1	1	2			RP	
		2	1			In	
Garden Island	1	1	2			Ue	
		2	1			Ue	
Sepulchre Island	1	1	2			Ab	
Oaky Island	1	1	1	1	1	H	FI
Bherwerre Beach	1	1	1			Fx?	
		2	2			Ue	
	2^	2	1			Ue	
	3	1	1			Ue	
	4	1	2			Ue	
(Sussex Inlet)	2^	1	1			RP	
Berrara Creek	1	1	2	2	1	H	Uc / FI
Conjola Islands (east)	1	1	2	2		H	Uc
Conjola Spit (dunes)	1	1	3	3	1	H	Uc/ Fx/ FI
(Cunjurong Pt?)	1	1	2*	2	2	H	
Narrawallee Inlet	1	1	2			Fx	
		2	2	2	2	H	FI
Burrill Lake (R'man Cr)	1	1	2			Ue	
Island Beach	1	1	2			Ue	
		2	2			Fx	
Duras Lake entrance	1	1	2	2	1	H	Uc / FI
	2	1	2	2	1	H	Uc / FI
Batemans Bay Marina	1	1	3	3	3	H	FI
TOTALS	27	37	68	27	17		

Abbreviations

H = hatched
In = inundation
R = raven predation

Ab = abandoned

Fx = fox predation
SB = sand buried

* = nest not observed - assumed 2 eggs based on average clutch size

FI = fledged

nV = not viable
AP = avian predation

U(e/c) = unknown egg or chick loss

HI = human interference

^ = same pair

Gerroa and Shoalhaven Heads Pied Oystercatchers 2017/18

by Sally Leonard

Gerroa was off to an early start with KW and his partner producing the first of 2 eggs on the 21st of August. The eggs were disturbed twice during incubation, once separated by another POC the other time rolling out of the scrape. The eggs were replaced and their viability questionable. The birds sat through very windy weather and unfortunately one egg was lost and buried 6 days prior to hatching.

The final egg hatched and the tentative parents chaperoned their chick through the usual hoards of tourists, the Adani protest and a volleyball competition. A fox was also regularly visiting the site and a second electric fence was installed to provide a larger night roosting and refuge area for the family. The fox shooter was unable to operate due to members of the public on the beach at night so the local NPWS ranger fumigated a nearby fox den. Despite all of these threats, the chick finally fledged in early November.

Later in the season the female also became entangled in fishing line with a seagull. She had the hook in her foot and the line was around both birds. Luckily a member of Wildlife Rescue caught the birds, removed the hook and sent her on her way.

Further south at Shoalhaven Heads foxes predated four of the six Pied Oystercatcher nests despite protective electric fences.

Rex's #1 original rivermouth pair's 2nd nest survived inundation on a small island and fledged both chicks. Rex Worrell has been observing this girl since 2002. Comerong island #2 pair fledged 1 chick from their 2nd nest. A new #3 pair nested very close to the rivermouth pair. This pair was easily disturbed and often off the nest, perhaps young and inexperienced. All three of their nests were lost. Despite nearby baiting programs and fox shooting operations, fox tracks continued to be observed daily and both fox and a wild dog were captured on a motion camera.

Even further south along the beach, 2 eggs were found on the Crookhaven Breakwall. A flagged bird '35' with no left foot, and her partner successfully got 1 chick off the breakwall and raised it about 200m north on the beach using a sand den as shelter.

Another nest with 2 eggs was also found on the beach to the north, between the heads and breakwall. Unfortunately these eggs disappeared very quickly, prior to being fenced off.

We fledged a total of 5 POC chicks in the 2017/18 season and on Feb 28th there was a flock of 32 POC's at the Shoalhaven rivermouth as well as many beautiful migratory shorebirds!





Pied Oystercatchers on Bherwerre Beach Photo: B. Davis



One egg Pied Oystercatcher nest on Bherwerre Beach Photo: B. Davis

teers using a scope. The chick was not sighted for a few weeks in early December but on further inspection by wading out to the island, the family was found together on the lagoon beach. A second pair of Pies were observed (6L + ub) on NW tip of the island but a nest was never found.

On **Bherwerre Beach** in **Booderee National Park** (Parks Australia) a few pairs of Pied Oystercatchers nested in the along this long 7km stretch of beach. Due to the long remote nature of this beach only weekly surveys were conducted. The first nest of one egg was found on the 1st of October, however 3 weeks later the nest was empty and fox predation suspected. Two new nests were found during this survey. However, the one egg nest was quickly lost and gone a week later while the 2 egg nest survived for a few weeks longer. One of the eggs was missing on the 1st November survey and by the 21st the remaining egg was also gone. Again another 2 new nests were found in this survey, with the one egg nest lost in a week and the 2 egg nest gone by the 7th of December. Due to only weekly surveys and the high number of threats present including foxes, ravens and vehicles, it is very difficult to determine the reason for each nest loss here.

The Pied Oystercatcher pair again nested on the far southern tip of Bherwerre Beach, along **Sussex Inlet**. The local volunteer paddled over and found a one egg nest in the same low dunes near the Bay of Plenty Lodges (BOP). A few days later volunteers installed a protective fence around the nesting area in preparation for the busy holiday season. BOP staff and visitors were again supportive and interested in the endangered beach nesters. However on the 28th of September only shell fragments and Raven tracks remained.

At **Berrara Creek** the Pied Oystercatcher nested with 2 eggs found in mid September. Both chicks hatched and were regularly sighted either in the fenced area or feeding further up the creek with their parents. Disappointingly one chick was lost at around 10 days old. The family with their remaining chick then moved along the beach to the southern end near Mermaid Rocks. But after a few days they came back to the safety of their fenced area and the creek. Off leash dogs continue to be an issue on this dogs prohibited beach and probably caused significant disturbance and distress to the flightless chick and the protective parents.

Thankfully the chick survived to fledge in late November. Down at **Lake Conjola spit** the two local Pied Oystercatcher pairs were sighted on and off throughout August and early September. Finally the pair with one metal banded bird nested with 3 eggs in the dunes. The second pair with one yellow engraved leg flagged '1P' bird had disappeared? The local volunteer installed fencing and signage, and even a small electric fence to protect the nest from the fox still frequenting the area. Nearby baiting and trapping programs had not managed to remove this fox yet. But finally in late September the fox tracks stopped, just in time for the chicks to hatch!

The 3 fluff balls began roaming the beach with their parents, often one parent had one chick and the other two, while they foraged in the intertidal area and the dunes. Sadly at about a week old one chick was lost. The remaining 2 chicks were often seen on a sand bank along the edge of the lake, hiding and well camouflaged in an old washed up branch, while the parents were feeding nearby and keeping a close eye on them. When the chicks were about 3 weeks old, the whole family disappeared and new fox tracks were sighted in the dunes. We thought the worst. Then a couple of weeks later the family appeared again, but with only one almost fledged chick left. They must have lost a chick to the fox and moved further down the beach for a while. Thankfully this final chick survived to fledge.

Meanwhile the yellow flagged pair which had disappeared



Lake Conjola metal banded Pied Oystercatcher pair Photo: C. Dove

in early September, turned up with 2 tiny chicks only a few days old. The local volunteer was on the spit and saw a little Pied chick and parent, followed by 2 off leash dogs and their owner crossing the shallow entrance channel. The spit is dogs prohibited, so the volunteer spoke to the dog owner and encouraged them to return to the northern 'doggy' side. The Pieds were much safer on the spit! The next day the Pied family was sighted with a second chick in tow. It must have been hiding somewhere and eventually made it's way across the water onto the spit as well. We assume this pair nested at Cunjurong Point on the northern side of the entrance channel somewhere, possibly west of the boat ramp? Hopefully they won't do that again!

This Pied family generally foraged and rested out on the extensive sandflats just inside the entrance of Lake Conjola. The sandflats are almost joined to the northern 'doggy' side and so were frequented by dog walkers with off leash dogs. We almost lost the chicks in the first few days while installing signs and trying to educate the sandflat dog walkers. It was a trying time, but amazingly both chicks survived and went on to fledge in December.

On the **islands in Lake Conjola** only one of the usual three Pied pairs was actually observed nesting this season. On the island near the Annie street boat ramp the regular scrape at the base of the Casuarina was cleaned out and made ready, but no eggs were seen. However the islands are only surveyed monthly. The eastern island (south of Chinamen's Island) pair had a scrape then a 2 egg nest in mid September. One small chick was sighted on the 17th of October on the little beach on the NE side of the island. One of the volunteers was SUPing and confirmed 2 chicks soon after. However, a few weeks later there were no chicks left.

Further south at **Narrawallee Inlet** (Narrawallee Creek Nature Reserve) a one egg Pied Oystercatcher nest was found on the 1st of September and a few signs installed to keep people away from the area. Disappointingly fisherman pulled their canoes up in between the signs later in the day, but thankfully they did not actually squash the egg! The next day a second egg was recorded in the nest. But then a couple of weeks later a fox took both eggs.

Baiting and trapping removed a few foxes and the Pieds nested again with 2 eggs in early October. This nest went on to hatch and fledge both chicks! The chicks spent a lot of time hiding in the mangroves inside the inlet and the only hiccup was when local boys vandalised the fencing and signs in November, but thankfully the nest had already hatched and the family was mobile. The Pied family can still be seen hanging out on the spit together.

At **Burrill Lake** only one nest was found this season from the Rackerman Cres pair. The 2 egg nest was located on the small island just off the mudflats in mid September. One egg disappeared in early October, the second in mid October and no chicks were sighted at all. There was very

little monitoring of this area so it is difficult to know the fate of these eggs. There were no nests recorded for the two Pied pairs on the private land Peninsula just west of the Rackerman mudflats or the pair that frequents the reedbeds and mudflats behind the Bottleshop just NW of the Burrill bridge. However as monitoring was sporadic, nests may have been laid and lost quickly. There were definitely no successful chicks fledged.

At **Island Beach** (Murramarang National Park) the Pied Oystercatchers which had nested for the first time last season, returned to try again. Their first nest was at the back of the beach near the creek line in late August. They successfully fledged 2 chicks from this nesting site late last season. However this time the eggs disappeared just before hatching, possibly to the fox whose tracks were frequently sighted in the area. Frustratingly the baiting program had not yet started along this stretch of coastline.

The pair relocated to the northern end of the embankment and tried again with another 2 eggs in mid October. The fox baiting program had just started, however it failed to remove all foxes by egg hatching time. In their last 24 hours inside the egg, the chicks begin to chirp and if a fox is in earshot, the eggs are basically "sitting ducks". Fox tracks were observed at the empty nest scrape this time, and the Pied pair did not renest.

At **Durras Lake entrance** the resident pair nested with 2 eggs in their usual spot in the low dunes on the southern side of the lake entrance in late September. The nesting area was quickly fenced including a protective electric fence as foxes were active at this site. Then a second Pied Oystercatcher pair nested nearby with another 2 egg nest in mid October. This nest was protected from the fox using the human hair trick (which deters foxes from the area) and also free feeding further south along the beach. We have never had 2 Pied nests so close together at Durras Lake. This second nest was probably the pair who have nested on the northern side of the lake entrance in recent years.



Durras Pied Oystercatchers make a nest scrape Photo: John Perkins (Reconyx)

Both chicks hatched from the first nest in late October, however within a week one of the chicks was lost, probably to the foxes. Frustratingly one of these foxes was shot just after the chick was lost. The second nest hatched both chicks in mid November. This pair swam their chicks over to North Durras boat launching area, which is frequented by vehicles, dog walkers and off leash dogs. Much to the dismay of the local volunteer.

All three chicks were doing well, with the South Durras pair beating up Masked Lapwings invading their territory and thankfully managing to avoid a new fox in the area. Their chick fledged in mid December. Sadly around this time one of the North Durras chicks was lost. Their remaining chick fledged in late December thanks to the amazing efforts of the local volunteer.

At **Batemans Bay Marina** the Pied Oystercatchers began making nest scrapes in mid August. A 3 egg nest was found later in the month and quickly fenced off, including a protective electric fence to keep the fox frequenting the area away from the nest. Fox control is difficult at this urban site and one did jump the fence in early September. So a 4th and 5th strand were added to the electric fence to increase the height. It worked well and all 3 chicks hatched out later in the month. The family were frequently sighted feeding around the sandflats and all 3 chicks fledged in mid November. However in December other Pies started coming into this families territory and there was a lot of loud calling and fighting. Up to 10 Pies were seen fighting on the Marina sandflats. Sadly one of the fledglings was found dead on the sand in mid December, thought to have been killed by these invading Pies. Very sad. The remaining two fledglings were fine.

Overall during the 2017/18 nesting season, 27 pairs of Pied Oystercatchers were monitored on the south coast and incubated 37 nests containing 68 eggs. From these nests, 27 chicks hatched out and 17 fledged.



Durras Pied chicks just hatched; family foraging on the lake shore; Marina nest; the 3 Marina fledglings with parent. Photo: J. Perkins + Meryl Hannan

Sooty Oystercatchers



The south coast Sooty Oystercatcher nesting islands were surveyed for breeding during the identified peak nesting period, late October to early November. Thankfully the weather and swell conditions were favourable in early November. Volunteers in the Jervis Bay area also surveyed Beecroft Peninsula regularly throughout the season.

In late October a survey of **Green Island** (Beecroft Peninsula) revealed a 2 egg Sooty nest on the southern side of the island near the mainland. Throughout November a parent was sighted incubating the nest, and Raven presence was noted. Sadly on the 19th of November the eggs were reported as lost, possibly to the ravens? The pair renested with another egg 2 weeks later. The nest was



Sooty Oystercatcher chick with limpet + crab claw dinner Photo: J.Dunn

high up in the grassy area. However this nest also disappeared, possibly to the birds of prey noted.

At nearby **Bhindijine Beach** a one egg nest was found in mid November, and the next survey revealed 2 eggs in the nest. Both chicks hatched out in December, and kids from the nearby camping area “rescued” the chicks to return them to their nest. Beecroft Ranger, Holly, retrieved the chicks and returned them to their parents out on the rock platform. One chick was sighted at 6 weeks age and was witnessed fluttering over the rocks but not quite flying and appeared quite small compared to the parents. On the next survey the family had moved on and it was assumed that the almost flying chick had fledged.

The southern Sooty Islands were surveyed on the 3rd of November by boat from Batemans Bay. Just off Durras on **Grasshopper Island** there 7 breeding pairs with 7 nests containing 12 eggs plus another pair that did not have a nest. On nearby **Wasp Island** there were 7 pairs with nests containing 11 eggs plus another pair without a nest. Further south the 3 islands in the mouth of Batemans Bay were surveyed. The northern **Tollgate Island** had 2 breeding pairs with nests containing a total of 3 eggs and a solo adult with no nest, while the southern island had 4 pairs with nests containing 8 eggs, and 2 more pairs without nests. Back close to the boat ramp, **Snapper Island** was also surveyed but there was only no Sooties and no signs of nesting.

Further north off Kioloa, **Brush Island** was surveyed on the 10th of November. Of the 42 adults sighted on the island, only 6 pairs had active nests containing 10 eggs while the remaining 14 pairs and 2 solo adults were not currently breeding. There was evidence of nest loss due to recent inundation with some broken eggshells found, and also some new nest scrapes indicating pairs may be about to nest or re-nest. Just to the south, **Belowla Island** was surveyed on the 13th of November. There were 5 breeding

pairs with nests containing 8 eggs, but one of these nests had 2 broken eggs in it. There were also 5 breeding pairs not currently breeding and another 3 solo adults.

The total south coast Sooty population surveyed for the 2017/18 surveys was 33 breeding pairs, 23 non breeding pairs and 6 individuals giving a total of 118 adult birds sighted. There were 34 nests containing 57 eggs, however due to the lack of follow up surveys on the islands, little is known about their breeding success this season. Only two chicks and one fledgling were monitored at mainland nesting sites on Beecroft.

The last surveys of all seven south coast islands were undertaken each season from 2007/8 to 2011/12. Over these five breeding seasons the total pairs on the islands ranged from 63 to 67 pairs, however this season only 54 pairs were sighted on the islands. Island surveys should be a high priority next season to determine if this number represents a decline in the Sooty population on the south coast or is just an anomaly due to other factors such as many pairs having just lost nests or not nesting yet due to weather and being on the mainland feeding at the time of survey.



Sooty oystercatcher breeding pair Photo: J. Dunn

Sooty Oystercatcher breeding activity in the NSW South Coast Branch (northern region) — 2017/18 season

	BP	Non BP	Solo Adult	Total Adult	Nest	Egg	Chick min	Chick max	Fledg-lings	Main Fate	survey date
Brush Island	6	14	2	42	6	10	?	?	?	?	10/11/17
Belowla Is	5	5	3	23	5	8	?	?	?	?	13/11/17
Grasshopper Is	7	1		16	7	12	?	?	?	?	3/11/17
Wasp Is	7	1		16	7	11	?	?	?	?	3/11/17
Tollgate Nth	2		1	5	2	3	?	?	?	?	3/11/17
Tollgate Sth	4	2		12	4	8	?	?	?	?	3/11/17
Snapper Is	0			0	0	0	0	0	?	?	3/11/17
Island Beach	0			0	0	0	0	0	0	?	season
Green Is	1			2	2	3	0	0	0	RP/ In	season
Bhindijine Bch	1			2	1	2	2	2	1	Uc / Fl	season
Totals	33	23	6	118	34	57	2	2	1		

Abbreviations

Fl = fledged

Uc = unknown chick loss

RP = raven predation

? = unknown

Hooded Plover Banding + Genetics Report

The Hooded Plover Banding Project continues with most of the SC and many FSC Hoodies now banded with a black leg flag and unique ID code. Resightings of banded Hoodies in 2017/18, along with estimates of remaining unbanded adult numbers brings total NSW adult population estimate up to around 75-80 Hoodies, an increase of 25-30 adults since 2007/08 surveys, but sadly a slight decline since last seasons estimate of 80 birds.

Most breeding pairs are monogamous and nest at the same site with the same partner each season, however after the loss of a partner another quickly steps in and nesting continues. As long as there are single birds available.

A far south coast 2015/16 fledgling 'P7' was sighted on the south coast last season, finally settling at Dawsons Beach in Murrumbidgee NP with our own 'H7'. The pair nested together, although unsuccessfully. This interbreeding further confirms the link between the SC and FSC populations despite 100's of km's of unoccupied and unfavourable coastal line.

The genetics study of our Hoodies is underway and will reveal more details!



LLS Community + School Education Grant

The Local Land Services have again funded a shorebird summer and school education program over the 2017/18 nesting season.

The summer program included shorebird education stalls at local markets such as Kioloa Fair, Mollymook Beach Markets, Gaia Market, Manyana Market and Huskisson Seaside Scavenge. 'Kids activity' sessions were also undertaken at a number of coastal caravan parks near key nesting sites along the coast.

To reach schools a "Beach in a Box" education resource was developed with the assistance of graphic designers, educators and artists. There will be 5 hand crafted wooden boxes circulated throughout schools along the coast and inside these boxes will be an introductory powerpoint presentation, teachers notes and lesson plans for our 2 shorebird books, The Birds, the sea and me and Letters to the family as well as instructions and materials for making a shorebird nesting diorama, masks for a shorebird role play drama, the shorebird snakes and ladders board game plus the 2 education kits we have developed which are full of fun curriculum based activities for the classroom. It's awesome to maintain connections with these local schools.



Summer Holiday Education Program 2017/18

Thanks to ongoing sponsorship from the Shoalhaven Holiday Haven Tourist Parks, the shorebird recovery program was able to once again undertake a summer holiday shorebird education program. Over 8 event days the education team set up morning 'shorebird education stalls' at beach reserves near nesting sites along the south coast, then in the afternoon 'kids activity' sessions were undertaken in the nearby Holiday Haven Tourist Park.

'Shorebird Education Stalls' include nest displays, photos, leaflets, stickers, free dog leashes, plus two rangers to speak to beach goers and dog walkers about local shorebirds. 'Kids activity' sessions involved an introductory shorebird presentation, painting calico bags, playing the shorebirds snakes and ladders floor mat game and colouring in shorebird postcards. It is estimated that these events reached around 600 people during the summer holidays.



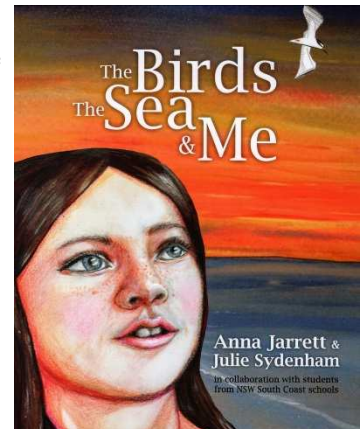
"The Birds, the Sea and Me" Kids Story Book

The creation of "the Birds, the Sea and Me" was funded by an Environment Trust grant in 2015/16. Writer, Anna Jarrett, oversaw the amazing process of running creative writing and art workshops in south coast schools with artist Jules Sydenham. Then the creative pair incorporated the school kids words and artworks into a beautiful storybook that captures the essence of the south coast and its endangered beach nesting birds.

The story follows 10 year old Rikki as she explores the beaches and learns about the shorebirds nesting there, while her Dad goes surfing. The Hoodies, Pies and Little Terns all feature in the story as well as their important nesting sites such as Shoalhaven Heads, Lake Wollumboola and Narrawallee Inlet. Every one of the 123 students involved in the project have at least one artwork incorporated into the book.

Books were donated to all south coast schools and libraries.

Additional copies are available for \$20 each from jodie.dunn@environment.nsw.gov.au



SoS Fox Control Program to help our Shorebirds

Funding from the Office of Environment and Heritage 'Saving our Species' Program is used to undertake a comprehensive landscape scale cross tenure multi-faceted fox control program for the protection of shorebird nesting sites. This program includes fox baiting, trapping, shooting and den fumigation.

All coastal National Parks estate are regularly baited from September to December by NPWS staff. The SoS funding has allowed us to engage a contractor to start baiting earlier in July and August. This timing is integral to reduce fox densities before the endangered shorebirds begin nesting, while the ongoing NPWS program maintains the lower fox densities through the core nesting season.

This baseline baiting program is supplemented by targeted fox trapping operations close to shorebird nesting sites on NPWS estate. Soft jaw leg hold traps were installed over twenty four nights on the south coast.

In addition, reactive fox shooting is undertaken on the beaches in response to shorebird volunteers reporting fox tracks at nesting sites. Crown Lands funds a large portion of the public lands program as the owners of most south coast beaches and SoS supplements this to extend the program onto NPWS estate and private lands. It is very important to maintain these connections with the local landholders who are keen to protect local wildlife from fox predation. Thank-you for your support.

We are getting closer to landscape scale cross tenure fox control. Very important!



Shorebird Volunteer Communication Workshop

In mid June, our most dedicated south coast and even a few far south coast shorebird volunteers gathered at Ulladulla to undertake "Open Door" Communications Training with Bega councillor and facilitator, Edward Hills. This training will improve our positive interactions with beach goers and dog walkers for the greater good of the long term shorebird recovery program, plus also help us avoid those potentially negative interactions with "difficult" beach goers. Great tools for next season on the beach!

The volunteers heard the results of our 2017/18 south coast shorebird nesting season, Paul Mahon presented the statewide shorebird recovery data and Simon Tedder filled us in on what he is up to now post shorebirds. Our amazing, most dedicated volunteers were rewarded for their hard work with a delicious gourmet lunch at Cupitts Winery.

The workshop was funded by the OEH volunteering unit.



South Coast Shorebird Murals



Beach toilets and Surf clubs



.....even in the Schools!



Thank you to the awesome artists Jules, Bob, Nicole, Terry, Kane, Robyn + the schoolkids

Saving our Shorebirds



South Coast Shorebird Recovery Program Registered Volunteers 2017/18

Durras / Batemans Bay	<u>John Perkins</u> Meryl Hannan Joslyn van der Moolyn Paul May	Berrara / Cudmirrah	<u>Mike + Rose Clear</u> Margaret Webber Sue Tolley + Ronnie Kroon Denise Dent Pam McGilvery + Anne Finlayson Brett + Deb Stevenson Peter Garbett
Bawley / Kioloa	<u>Marg Hamon</u> (Bawley) <u>Robin Berkhout</u> (Kioloa) Maggie Mance Steve Berkhout Sybille + Don Davidson Neil Brown + Judith Carroll Eve Jenkins Robin McTavish Debbie Andrews Cecelia Bradley Helen Nelson	St Georges Basin / Jervis Bay South	<u>Stan Brown</u> + Susan Garside-Brown Karen + Brett Davis Norm + Maureen Webb Barbara Liddle + Rob Dunn Robyn Hill + Doug Hargrave Yolande Cozijn Ian Brown Chris + Marly Grounds Wendy Hartman
Tabourie	<u>David Swarts</u> Kaye Milsom Joan Loneragan Cathy Stapleton Natasha Pritchard	North Jervis Bay	<u>Wendi Johnson</u> + Michael Jones Diana Lindsay Les Lawrenson Anne Norton + Jack Middleton Jane Mussett Christin Sylva
Burrill / Racecourse	<u>Chris Brandis</u> Bob Rusk Peter Lymbery Charles Dove Abi Cambridge	Wollomboola	<u>Frances Bray</u> Michael Abramowitz Thomas Kaar Narelle Wright
Rennies	<u>Barbara</u> + John <u>Smith</u> Geoffery Brown Sarah Thayer	Shoalhaven Heads	<u>Nicole Ison</u> Rex Worrell Teena, Harry + Joseph Bronzino Pat Tedder Graeme Searle
Conjola / Narrawallee	<u>Col Ashford</u> Neal Cameron Sandra Dodimead Dominique Toldi Jackson Rutter	Gerroa	<u>Sally Leonard</u> Barbara Haase Kim Leonard Jackson Booth Maggie Paton
Inyadda	<u>Terry</u> + Carol <u>McBride</u> Jorj Lowrey Neil McGuckin Peter + Sue Buckley		

Thank-you to the amazing shorebird volunteers!

