





This Season in Shorebirds

The **South Coast Shorebird Recovery Program** (Wollongong to Batemans Bay) continues to grow, with the 100 strong local volunteer base concentrating on the on -ground protection of nesting shorebirds, while the wider program expands into significant community education and predator control projects. Many volunteers have now been with the program for 3 years and have gained valuable training and knowledge through the intro workshop, 2 day conference advanced workshops as well as experience in the field. Local groups are working together under the guidance of site coordinators and the shorebird recovery program coordinator to develop a strong base for shorebird protection in their local community.

The program continues to be successful in gaining grants with a 2015 **Environmental Trust Education Grant** allowing us to build on the **Community Education Grant** 2014 school program, as well as undertake the school holiday activities and education tent program for the third year running. The **Local Land Services Enhanced Fox Control Grant** and **Crown Lands Fox Control Funding** are helping improve our fox baiting, trapping and shooting program around shorebird nesting areas and across the wider landscape. With fox predation increasing, this extra support for shorebird protection is much appreciated.

This nesting season the breeding success of our critically endangered **Hooded Plovers** improved, with 6 chicks fledged from the 14 breeding pairs monitored. Twice as many fledglings as last season, however still not the numbers we would hope for with the doubling in breeding pairs over the last 6 years. Perhaps still too many young and inexperienced nesters! Nest numbers were also low this season, probably due to the shorter summer and high storm activity.

The Hooded Plover Banding Project continues with volunteers and members of the public reporting flag codes. Nearly all south coast Hoodies are banded, giving interesting insights into their mate choice (and some partner swapping!), movements and breeding biology.

The **Pied Oystercatchers** had great success this season with 21 chicks fledged from the 22 breeding pairs monitored around south coast lakes and estuaries. Volunteers are noticing local increases in their breeding population, a good sign of recovery for these endangered birds.

Thank-you to all the amazing south coast volunteers who helped protect endangered shorebird nests this season. It was a challenging year, but overall the recovery program and shorebirds are doing well. We all appreciate your hard work, passion and dedication. Thank-you :)



A Little Tern chick being fed at Lake Conjola Photo: Charles Dove

Hooded Plovers



In overall numbers of breeding pairs (BP's) the critically endan-

gered Hooded Plovers of the south coast are still doing very well, with fourteen BP's monitored this season and another two or three pairs suspected of nesting. The population for the region is estimated at 38 adult birds which is twice the 2007/08 estimated population size.

In terms of breeding success, this season was much better than last season, however we still did not meet the expected fledgling numbers for the number of BP's monitored. **Overall 6 chicks fledged,** all late in the season, from the 64 eggs laid in 26 nests. This was only two thirds the number of nests monitored last season, but produced twice as many fledglings. Which is a good improvement on breeding success.

The **low nest number** may have been due to difficult weather conditions with a relatively short warm summer period and numerous storms with lots of heavy rain. Not very favourable beach nesting conditions. Many pairs only had one or two nests monitored, compared to the usual three, four or even five nests over the season.

The Hoodie pair at the northern extent of the NSW range went largely unmonitored this season. The pair usually nest at **Mary's Bay**, however access is restricted through the local aboriginal community at Wreck Bay. Booderee National Park (Parks Australia) rangers must be relied on for monitoring. There was one report on the 18th of November of the pair (B1 + M9) on the beach but no nesting. The previous pairing was H6 and M9, however H6 has not been sighted this season and was replaced by B1 from nearby Bherwerre Beach. Hopefully the pair will nest next season.

On **Bherwerre Beach** (Booderee NP, Parks Australia) this season only 3 Hooded Plover nests were located. On the 2^{nd} of October Booderee National Park ranger, Tony Carter, reported a 2 egg nest on the north to mid section of the 7km beach (J3 + ub), another 2 egg nest just south of the middle of the beach (K1 + N5) and a 3 egg nest further



Hooded Plover sitting on nest Photo: Graham Morgan



Hooded Plover mating display. Photo: Chris Grounds

south (E6 + C7). Follow up monitoring by the local volunteer group failed to locate any of the eggs, however the middle nest scrape did have raven tracks around it indicating predation. The cause of the loss of the nests to the north and south are unknown.

In addition to these three nesting pairs, numerous surveys over the season also sighted additional birds including the fledgling from last season (L4). The Hoodie pair who nested on Bherwerre Beach last season (E7 + A3) were not sighted again after the 29th of July. Another pair frequently sighted further south on Cudmirrah Beach during the breeding season (C8 + D3) were also sighted on Bherwerre Beach early and late in the season, probably before and after their nesting attempts.

In addition, numerous Ravens were also sighted on this beach with 44 reported on the 18th of November, the most likely cause of frequent nest losses. Fox tracks were also noted. Big swell and high tide combinations resulted in a narrower than usual beach with high levels of beach erosion and 2 metre cliffs behind much of this stretch of beach. High tides and waves often washed all the way to the base of the cliff leaving few spots wide enough for Hoodie nesting.

In September a pair of Hooded Plovers were sighted on northern **Cudmirrah Beach** (C8 + D3), then interestingly one disappeared and was replaced by a juvenile bird (L4). In early October the pair (C8 + D3) were regularly seen around the middle of the beach and in the dunes near the S4 emergency sign. One bird was reported as sitting, possibly on a nest in the dunes while the other was often patrolling the beach nearby. This was observed for almost a week then the pair disappeared. There were lots of tracks in the dunes and a definite scrape indicating it may have been a nest but no eggs were confirmed. Human and dog tracks were close by and ravens were frequently seen patrolling the dunes

Later in the month the pair turned up at the northern end of the beach and one egg was found in a nest scrape in the dunes north of the surf club on the 29th of October. By the 4th of November a reinspection of the scrape found recent Hooded Plover tracks but the eggs were gone, raven tracks indicating the culprit. In early November the pair were Hooded Plover breeding activity in the NSW South Coast Region - 2014/15 breeding season

Site		Nest	Eggs	Chicks	Fledge	Fate of Eggs	Fate of Chicks
Marys Bay	B1/M9	susp				Lgg5	Officia
Bherwerre Beach	J3/ub	1	2	0		Ue	
	K1/N5	1	2	0		RP	
	E6/C7	1	3	0		Ue	
Cudmirrah Beach	D3/C8	1	1	0		RP	
Monument Beach	C4/N2	1	3	2	0	1Ab+2H	U(WBSE)
Inyadda Beach	D5/L7	1	3	0		RP	
		2#	2	0		HI (Ab)	
Manyana Beach/ Conjola Spit	A9/E1	susp					
Buckleys Beach	J2/B8	1	2	0		Fx	
		2	3	0		RP	
		3	3	0		1U + 2Ab	
		4	2	0		In	
Narrawallee Inlet	M0/J0	1	2	0		Ue	
		2	2	2	2	Н	FI
Mollymook Beach	A4/M5	1	3	3	0	Н	Uc
Bommie Beach	A8/C9	1	3	0		HI	
		4	2	0		RP	
Pockets Beach		2	3	0		Fx	
Rennies Beach		3	2	0		In	
Racecourse Beach	J1/D4	susp					
Burrill Spit	Y8/B0	young					
Lake Tabourie	E8/C5	1#	2	0		HI	
		2#	1	1	1	Н	FI
Willinga Lake	M2/E2	1	3	0		RP	
Bullpup Beach	H3/ub	2#	3	1	0	1H + 2Ab	RP
Racecourse Beach	1	1	3	0	1	RP	
Kioloa Beach	K0	alone					
Dawsons Beach	L5/H7	1	3	0		Ab (BW)	
		2	3	0		Ue	
		3	3	3	3	Н	FI
	14	26	64	12	6		

 $\frac{Abbreviations}{H = hatched}$

Ab = abandonedFl = fledged

Fx = fox predation In = inundation U(e/c) = unknown egg or chick loss

RP = raven predation HI = human interference ^ = same BP as above

BW = bad weather WBSE = sea eagle # = nest caged

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seen mating, indicating that they may nest again however no nest was found. The pair was regularly sighted at the north end of the beach or back down around the S4 sign area for the remainder of the season.

At **Berrara Beach** this season the resident pair (N2 + C4) were regularly sighted either at the creek area or on the southern end of the beach as the middle section was very narrow and eroded. The pair were also reported at Monument beach further south. In early October the pair seemed to have settled at the creek entrance with multiple scrapes on the southern side. However a storm and washover of the area resulted in the pair abandoning the site. During the remainder of October and November the pair were unsettled with solo Hoodies (K3, B0) visiting on a number of occasions.

Finally in mid December the pair were located with a 3 egg nest in the spinifex just north of Nerindillah Creek on Monument Beach. The nest was fenced and sign posted to alert beach walkers to stay clear of the area, and keep dogs away (despite this being Conjola NP, dogs are often brought in from North Bendalong). On the 6th of January a chick was reported as hatching. On further inspection the volunteers found that 2 eggs had hatched but the third was still in the nest, but they did not sight the chicks. However, they did note that the Hoodie pairing had changed with C4 being replaced by K3. On the 9th of January the hoodies had abandoned the site indicating that the chicks had been lost. The only possible threat was a white bellied sea eagle seen cruising. The abandoned egg was removed and found to be fully developed. Later in the month the pair returned (N2 + K3) and looked like they might nest, but no more eggs were found and C4 has not been sighted since.

At **Inyadda beach** the resident Hooded Plover pair (D5 + L7) were at their usual nesting site at the southern end of the beach near the creek entrance in mid-September with a possible nest scrape. However they continued to move around and were sighted at the northern end and in the middle of the beach throughout October. Finally a 2 egg nest was found at the far northern end of the beach in mid-November, with a third egg laid a couple of days later. The site was quickly fenced and sign posted as it was near a busy walkway. Within a week the nest disappeared with human and dog tracks within metres of the nest inside the fencing. However the volunteers suspect ravens to be the cause of the nest loss.

It appeared they may try again only days later with a decent nest scrape at the same site, within metres of the original nest, however the birds then disappeared and abandoned the site. The pair were sighted up and down the beach again and seemed unsettled, then finally in late December another 2 eggs were found in their usual nesting site at the southern end of the beach. The fence and signs were reinstalled and this time the nest was caged to protect the eggs. Despite the fencing and signage people entered the nesting area, and the volunteers had a frustrating discussion with an antagonistic beach goer determined to go inside the fence. The volunteers noted lots of footprints inside the fence between Christmas and New Years then



Top to Bottom: The Monument Beach Hooded Plover nest—well hidden amongst the washed up seaweed and pumice, new sign used in place at the nesting area, the usual Berrara breeding pair N2 + C4,. the intruder— Hoodie K3. *Photos: Mike Clear, Sue Tolley and Joan Dawes*



Hoodie fledgling getting ready for take off Photo: Michael Toms

The unexpected Mollymook Beach chicks Photo: Cameron Mance

on the 3rd of January they saw an adult with 3 kids at the nest cage. The nest was subsequently abandoned and the birds completely disappeared from the beach for the busy month of January. No more nesting was reported.

The new pair that nested at **Manyana Beach** last season (A9 + E1) were sighted on and off at Manyana Beach, Conjola Spit and Conjola Beach. Nest scrapes were observed at Conjola Spit, with a well formed scrape being washed away in mid-October. But no eggs were recorded this season.

At the northern end of **Buckleys Beach** the resident pair of Hooded Plovers (J2 + B8) nested in late October with 2 eggs on the fore dune about 200m south of Buckleys Rocks. However within a few days one egg had mysteriously disappeared, then the following day the second had also disappeared. Probably to the ravens in the area? A couple of weeks later a new 3 egg nest was found on the embankment at the back of the wider north end of the beach. This nest was well camouflaged amongst washed up seaweed and pumice, however ravens were known to be in the area. Two weeks later the nest was gone and raven tracks indicated the predator.

In early December the pair made a third nesting attempt with 2 eggs right at the north end of the beach. The nest was progressing well with raven control removing their resident predator and the nest remained unfenced in this quiet national parks estate area. However a well-meaning person who saw the nest put sticks around it, obviously so no one would step on it, but these sticks were too close and obstructed the view of the incubating bird who soon abandoned the nest in late December. Their fourth and final attempt with a 2 egg nest at the back of the beach (below the embankment) on a slight mound only just escaped inundation in the big swells and tides on the 19th of January. However in the following days the tide levels rose and the swell direction changed, hitting the beach straight on, washing away the eggs. A frustrating end to the four nesting attempts, after fox and raven control had reduced predation pressure.

Further south along the beach at **Narrawalle Inlet**, the resident pair (M0 + J0) nested inside the fence near the Pied Oystercatcher nest in early October. Later in the month the eggs disappeared mysteriously and the pair appeared to be acting like they had chicks, however it was a week too soon for hatching. The pair stayed at the spit and were seen chasing away a Kookaburra who was scouring the dunes for food. Another possible predator? Due to the behaviour of the parents we continued to wonder if they had chicks.

Finally on the 8th of December a new nest was located outside the fence in a spot where they have never nested before. The nest was fenced and hatched only days later, explaining the nesty behaviour of the adults over the last month. Their unfenced nest must have been nearly stepped on or washed away many times! The two little chicks started to roam the spit and venture further north along the beach. Both were seen flying on the 13th of January.

In mid-December 2 Hooded Plovers (A4 + M5) were reported on **Mollymook beach** by a member of the public. Then on the 5th of January there was a second sighting of one Hoodie foraging alongside the creek. To everyone's surprise it turned out that this pair must have had a nest, as on the 10^{th} of January one of the volunteers nephews sent through photos of 3 tiny just-hatched chicks near the creek at southern Mollymook Beach. A site inspection on the 12^{th} revealed the pair still on site but there were no chicks to be found on this busy beach. A very unexpected nesting and the first record of a nest on Mollymook Beach.

In early September the resident pair of Hoodies at the **Bommie Beach** (A8 + C9) were seen mating and also making nest scrapes, which are pretty good indications that eggs will be coming soon. On the 16^{th} of September the first egg was laid, and by the 22^{nd} the nest contained 3 eggs. Only days later the eggs were almost washed away, but managed to survive this incident plus all the off leash dogs and people on the busy surfing beach. Sadly at the end of the month the eggs disappeared with the only indication as to the fate being human footprints leading right up to the nest, indicating they had been taken. The pair

then relocated to the southern end of the beach and looked very nesty, making scrapes and sitting behind the council dune fencing on the slope where they had eggs last season. However no eggs were confirmed and the pair relocated yet again.

A week later a three egg nest was found on the embankment at the back of **Pockets Beach**, it was well hidden amongst spinifex and washed up seaweed, sticks and other debris. However within the week the nest disappeared with fox tracks indicating the culprit. The pair moved further south onto **Rennies Beach** and in mid-December laid a 2 eggs at the southern end of the beach. Inundation was noted as a definite risk. The nest was quite low lying, being on the flat beach below the higher grassy area and within a week the nest was washed away.

The pair had one fourth and final nesting attempt in early January back at north **Bommie**, another 2 eggs in the same area as their first nest. But there was a big storm and heavy rain on the 10^{th} of January and the nest disappeared. The hard wet sand could not hold tracks and any pre rain tracks were washed away. However, raven tracks all over the nest area the following day indicated that this was most likely the predator, come back to look for more eggs.

Down at **Racecourse Beach** in Ulladulla the same pair of young Hooded Plovers that made nest scrapes last season (D4 + J1), were again regularly sighted at the northern end of the beach beside the lagoon with more nest scrapes. The area was fenced early in the season in anticipation of the pair finally laying eggs. However the outcome was the same as last season with the pair making nest scrapes inside of and in front of the fence, then relocating to Burrill spit, then returning to do it all again. Fox tracks were seen inside the nesting area, and raven activity was again high. There were suspicions that the pair had laid eggs but ravens quickly predated them. Predator control is difficult at this busy town beach.

Numerous other Hooded Plovers also visited the favoured feeding and congregation site along the northern rock ledge at Racecourse Beach, especially outside the breeding season. Birds recorded from May to Sept 2014 included B0, C8, A4, H7, C9, K3, A8, N5, M5, K0 and K1 as well as the far south coast fledgling from Wallaga, Y8.

At Burrill Lake entrance, in addition to the Racecourse Beach pair visiting the spit regularly, a young pair of Hooded Plovers looked like they may take up residence and nest (B0 + Y8). Both juveniles are 2013/14 season fledglings from Bherwerre Beach and Wallaga Lake respectively. However after being sighted regularly at Burrill lake entrance area together throughout September, October and early November, Y8 returned the far south coast and B0 began moving around between Tabourie and Kioloa. Y8 was reported on the far south coast at Coila Lake entrance (13/11/14), Tuross lake entrance (15/11/14) and Bengello beach (16/11/14), but then the bird was photographed back at Burrill again (1/12/14) and still present a week later (8/12/14). However there have been no reports of Y8 in the region since, perhaps returned to the FSC. A long way to travel in such a short time.



Racecourse Beach young Hooded Plover pair (J1 + D4) looking nesty, probably sitting in one of their numerous practice scrapes; feeding on the Racecourse rock ledge over winter; stand off at the start of the breeding season (note B0 2013/14 fledgling still has white feathers in hood); Hooded Plover far south coast juvenile (Y8) at Burrill Lake entrance . *Photos: Charles Dove and Chris Brandis*

The departure of Y8 was disappointing after the hope that this pairing would confirm the link between the south coast and far south coast populations. At least these short visit indicates that it is possible for the birds to move between the 100's of km of vacant habitat from Dawsons Beach south of Kioloa (SCR) to Wallaga Lake just south of Narooma (FSCR), quite quickly and possibly back and forward multiple times.

Hooded Plover tracks were observed on the northern end of **Wairo Beach** (Point Northeast) but the pair (A4 + M5) were not sighted til late October. This site is only surveyed every 2-4 weeks due to remoteness and lack of nesting over the last decade of the program. The pair were again sighted in January and February after their unsuccessful nesting attempt at Mollymook Beach in December. Despite Point Northeast being very remote, there are ongoing issues with raven predation and vehicles on the beach.

At **Lake Tabourie** the resident Hoodie pair (C5 + E8 or Elizabeth and Charles) were regularly sighted. On the 10th of October the fence was installed as the pair were making nest scrapes on the northern side of the lake. Less than a week later the council opened the lake due to high rainfall and the fence was moved slightly to accommodate the works. Later in the month after the weather settled, the pair were again making nest scrapes, and on the 4th of November the first egg was laid and caged to avoid predation from the ravens in the area. On the 6th the second egg was laid. However, disappointingly a few days later the eggs disappeared from inside the cage with no sign of digging or predation, only human tracks right up to the cage.

The pair laid a third egg nearby on the 10^{th} (the final egg of this single nesting) and the cage was moved over it. The pair did not incubate the egg for almost a week but were seen copulating, indicating they may lay again. But there were no more eggs and on the 18^{th} they finally started to sit on their single egg. The chick hatched in mid December and the pair soon took it further north along Wairo beach to avoid the busy lake entrance area. The family was often seen feeding up to 1km north of the lake and on the 20^{th} of January the chick was confirmed as fledged.

Throughout September and October the **Willinga Lake** Hoodie pair (M2 + E2) were sighted on and off, and sometimes alone, then finally on the 24th of October a 3 egg nest was located in their usual dune nesting area. The area was quickly fenced and sign posted but in a matter of days the eggs were taken by ravens. The pair then disappeared for most of the remainder of the season but were reported sporadically on both Termeil and Cormorant Beach (not Meroo), however no nests were located.

On **Racecourse Beach** in August and September the unbanded Kioloa bird (fledgling from 2012/13) was sighted on and off with the **Butlers Creek** male (H3). This male had been making nest scrapes at Butlers Lagoon with his usual partner (K3), but in late September he started making nest scrapes with the unbdanded bird high up on the dune just north of Racecourse Beach caravan park. On the 28th of September this pair laid their first egg and the area was fenced and sign posted. Two more eggs were laid in the nest over the next few days but then quickly taken by a raven on the 4^{th} of October.

Yet again this male (H3) returned to his usual partner (K0) at Butlers Lagoon to make nest scrapes, but also made forays to visit the other female (ub) on Racecourse Beach, all three were even sighted together vying for attention. Then in late November a 2 egg nest was found on **Bullpup Beach** just north of Racecourse Beach with 2 eggs (H3 + ub). The nest was fenced and a third egg laid in the scrape on the 4th of December. The pair did not appear to be incubating the nest very well and were often seen off the eggs or were very easily disturbed from the nest and stayed away for lengthy periods of time. Ravens and professional fisherman with vehicles on the beach caused significant disturbance. A sandbag wall was installed to protect the nest from forecast big swells/tides due to the exposed south facing nature of this small beach.

Despite the disturbances and apparent lack of incubation, the first chick hatched out on the 28th of December. But the pair appeared to abandon the remaining 2 eggs. Observations indicate they did not incubate these eggs but still continued to visit and inspect the nest regularly, especially when people were nearby. Ravens were regularly sighted and the chick disappeared in a matter of days. A third



The Tabourie nesting: incubating the nest inside the protective cage, just hatched Hoodie chick under the watchful eye of dutiful parents, finally fledging, first take off. *Photos: C. Grounds and Ron Aggs*

Hoodie was sighted in the area (B0) at this time, first visiting K0 at Butlers Lagoon but then at Bullpup disrupting the already difficult situation. Just when the eggs were thought to be too far gone and abandoned, the pair began incubating again and one of the chicks started to hatch on the 3rd of January. At this time B0 and ub were together and H3 had disappeared. A chick hatched but died in the scrape. H3 was sighted a few days later back at Butlers with K0! A strange love triangle or possibly quadrangle happening down here at Kioloa.



Lonely Hooded Plover (K0) at Butlers Lagoon, Kioloa *Photo: Robyn McTavish*

Líttle Terns



Little Terns returned in good numbers to Lake Conjola and Lake

Wollomboola this season. Last season had a good fledging rate and the birds remembered, with more than 100 breeding pairs nesting this season at the huge Wollumboola colony, and another 70 pairs at the Lake Conjola colony. However after a great start to the season with almost 200 breeding pairs on the south coast, including a small colony at Shoalhaven Heads, big swells and king tides plus avian and fox predation all but decimated the colonies, resulting in **only 29 fledglings for the south coast.**

Yet again at **Windang** no Little Tern nesting was recorded this season. Small numbers of Little Terns passed through the site, feeding and resting.

At **Shoalhaven Heads** there was again a late start to the nesting season, and in early January Little Terns were observed actively defending the open sandbar area. Further inspection revealed 3 nests, one with 2 eggs and two with

Further south at remote Dawsons Beach, a pair of Hoodies were sighted in late September however it was not the same pairing as last year (L5 + L6), with L6 being replaced by H7. L6 and their 2013/14 fledgling D7 were not sighted all season, despite being seen regularly late last season. In early October the pair (L5 + H7) laid a 3 egg nest on the embankment just south of the creekline. It was well hidden in washed up seaweed, sticks and pumice. Heavy rainfall in the coming weeks seems to have caused the abandonment of this nest. A new 3 egg was laid on the northern side of the creekline, but this nest disappeared, possibly to fox or raven in the area. A final nesting attempt was discovered in early December with 2 eggs closer to the beach, just north of the creekline. A third egg was soon added to the nest. All three chicks hatched in early January and survived to fledge in early February.

This season on the **south coast a total of fourteen Hooded Plover breeding pairs incubated 26 nests containing 64 eggs, hatching 12 chicks and fledging 6 of these chicks**. Reduced nest and egg numbers resulted from unfavourable weather and a short breeding season. The Hoodies were particularly unsettled and most pairs only had one or two nests, while a few pairs had no nests found at all.

one egg. The following day the site coordinator found a fourth nest and then on the 7th of January the local ranger recorded 11 nests in total containing 18 eggs and more than 30 adults defending the site. The area was fenced and all nests marked with numbered stakes. A couple more new nests were found and the fence extended. The colony now had at least 30 adult Little Terns defending 13 nests containing 23 eggs.

But then sadly on the 14th of January high winds meant the Little Terns were finding it hard to sit on or defend their nests. Many eggs were buried by the moving sand and a gull was witnessed being chased off by the terns as it was trying to take eggs. By the 17th of January only 4 nests remained with 2 eggs in each, with 9 nests being lost to the winds and sand, and some of these may have been predated by the gull. The last few nests were washed away in the king tides and big swells on the 19th of January bringing an abrupt end to the nesting season for the Shoalhaven Heads colony.

The first sighting of Little Terns at **Lake Wollumboola** was on the 14^{th} of October. Numbers quickly increased with more than 100 birds present and spectacular courtship dis-

Little Tern breeding activity on the NSW South Coast Regions-2014/15 season

Site	Pairs	Nests	Eggs	Chicks	Fledglings	Main Fate
Shoalhaven Heads	13	13	23	0	0	SB + In
Lake Wollomboola	110	168	378	34	7	AP + Fx + In + Ab + Fl
Lake Conjola	70	70	147	88	22	ln + Fx + Fl
Grand Total	183	251	548	122	29	
$\begin{tabular}{c} \hline Abbreviations \\ Fl = fledged & In = in \end{tabular}$	undated	AP = avian pred	ation	Fx = fox predation	Ab = abandoned	SB = sand buried

plays. The first nest was found on the 14th of November and the colony continued to increase in size. By the end of the month there were more than 200 terns on site with 51 nests containing 117 eggs, including one 4 egg nest. The main colony was located on the southern sandbar area between the lake and the sea, with nests also found on sandy patches in the salt marsh and lake bed. The entire nesting area was fenced off and sign posted, with adjustments as the colony grew, then on the 19th and 20th of November local NPWS staff installed the 8 strand electric fence to protect the main colony from fox predation.

The first chicks hatched out in early December, and more nests continued to be laid as the colony increased in size. All was well in early December with the colony peaking at 78 active nests containing an amazing 205 eggs and 8 just hatched chicks. Only 15 eggs had been lost, ten eggs abandoned, 2 eggs to an unknown cause and 3 eggs flooded by the lake. But by the time the volunteers got on site the following day, numerous nests had mysteriously disappeared. A total of 32 nests were predated, with no definable tracks indicating the culprit. A few faint or partial tracks pointed to an avian predator, but most nests must have been taken on the wing without landing it seemed.

Australian kestrel, swamp harrier, sea eagles and a black winged kite were all observed over the sandbar, however none of these raptors except the swamp harrier are known to take eggs, as raptors hunt live prey. On the far south coast a kestrel is suspected of taking Hooded Plover eggs (NPWS Amy Harris, pers comm) and also in Victoria (Birdlife Renee Mead, pers comm), however neither had confirmation it was the eggs that were predated. A swamp harrier is on camera taking Sooty Oystercatcher eggs on Brush Island in 2012. However at Wollumboola even after nest cages were introduced, the avian predation continued, indicating that this was the work of a small raptor such as the kestrel or other unknown predator. Swamp harriers are too large to fit inside the cage.

Avian predation continued throughout December and into January with a total of 139 eggs lost to the unknown avian predator, a lot of eggs for one small raptor such as a kestrel to take. Ravens have predated Little Tern nests in the past and can devastate a colony when present in numbers, however they were rarely observed at the nesting area. The fate of these eggs remains a mystery, however the kestrel is currently the most likely culprit. Nest cameras will be used next season to attempt to identify and manage any unknown nest predators.

Despite this avian predation the terns continued to lay eggs, with birds renesting and a total of 168 nests containing 378 eggs laid on the sandbar in November and December, with the last couple of desperate attempts in January. Not only did the colony have this avian predation to contend with but on the 12th of December a rogue wave washed over the nesting area washing away 16 nests containing 43 eggs. Wash overs and lake level rise resulted in the loss of 72 eggs over the season. Later in the season the fox went through the electric fence while the battery was down after a washover event. Fox predation continued despite the fence being repaired. In total the fox took 73 eggs. A further 30 eggs were abandoned over the season and 29 lost to unknown causes, likely the avian predator.

Of the 378 eggs laid, only 34 are known to have hatched. From these hatchlings, one chick was found dead in the scrape for unknown reasons and only 7 are known to have survived to fledge. The remaining 26 unaccounted chicks are suspected of being predated by the fox. The chicks moved outside the electric fence into the salt marsh and dune areas to hide in vegetation where fox tracks were observed and wings were even found. By early January little remained of the thriving Little Tern colony. There were two desperate nesting attempts a week after the last eggs had disappeared. These nests were quickly lost to the avian predator and the colony finished on the 10th of January. This was a disappointing result from a record breaking number of nests.

The Little Terns were first sighted at **Lake Conjola** on the 6th of October with a pair out on the sand islands in the lake, and sightings of small numbers feeding, courting and resting throughout October and November. The first nests were found on the 8th of December and a string fence was installed to protect the nesting area. Numbers quickly built up and within a week there were 22 nests. Twenty of these nests were out on the spit, which was particularly low lying this year and very vulnerable to wash over. Only 2 of the nests were up on the much higher dune. On the 14th of December 9 new nests were washed out and the eggs were moved about 3-4m out of the path of the water. Only one of these was abandoned and another totally inundated



Little Terns mating at Lake Wollumboola Photo: Duade Paton,

A Little Tern chick at Lake Wollumboola. Photo: Derek Wilcox

beyond salvage. The remaining seven nests were raised on sandbags on the 22nd of Dec along with another new nest that was also extremely vulnerable to wash over, in preparation for the upcoming king tides.

By Christmas day there were 27 active nests on the dunes containing 65 eggs, and around 80 Little Terns on site. Interestingly the next 3 nests laid after the 14th December wash over, were all up in the dunes. The first chicks began to hatch on the 27th of December, and new nests continued to be laid. The colony was increasing in size by the day. By the 6th of January there were 38 active nests containing 80 eggs and more than 100 adult Little Terns on site. Twenty chicks had hatched so far and were hiding in the dune vegetation or in plant pots and wooden chick shelters installed on the exposed spit. There were no signs of fox or raven presence and the colony was progressing well.

However on the 19th of January increasing tidal heights and a huge swell combined to wash over most of the spit area. Volunteers were on site well before peak tide, but the volume of water rushing over the spit was already knee high in some places. Nests, chicks and sandbags were all washed away in the fast moving water. The last survey on the 15th had found 30 active nests containing 50 eggs and 73 chicks hatching out so far. Many of these eggs and chicks were on the spit and inundated. Twenty five active nests were washed away leaving only 5 nests containing 9 eggs. Of the 78 chicks that were expected on site, 5 fledglings were observed plus another 18 runners and chicks including 8 that had been retrieved from the waters, dried and warmed up. These chicks were left huddled together in the plant pot shelters. Another five little chicks hatched out during in the wash over, huddled in their nest scrapes or raised up on sandbags.

The site was all but devastated, with many adults abandoning the colony, but there were a few more chicks hiding in the dune vegetation as shown by their defensive parents. More fledglings were sighted over the following week and on the 27th of January around 50 adults and 22 fledglings were counted gathered along the beach berm and in the sandspit nesting area. Sadly though after two seasons of fox absence, a fox began visiting the site nightly and all remaining unfledged chicks and runners were predated. Fox tracks and signs of running and chasing were all over the spit and all that was left of the chicks were their tiny wings. A final wash over on the 30th of January finished the colony with just 20 adults and 6 fledglings remaining. Soon after all the birds moved north.

In total 147 eggs were laid at Lake Conjola in 70 nests, 88 chicks hatched out and 22 fledged.

Little Terns didn't nest at Burrill Lake or Lake Tabourie this season, although birds were sighted around the lakes.

In total in the **south coast region 183 breeding pairs incubated 251 nests containing 548 eggs, but hatching only 122 chicks and fledging 29 of these chicks.** A disappointing result after such an amazing start to the season. The stormy weather, high rainfall and big swells took their toll on the Little Tern nesting colonies along with foxes and an unidentified avian predator.



Little Tern nesting at Lake Conjola: tiny chicks hatching out, adult incubating nest atop a sandbag tower, unexpected visitor—a Diamond Python in one of the chick shelters, the January washover of the colony, one of the surviving almost fledged chicks with fish dinner. *Photos: C. Dove.*

Pied Oystercatchers

Twenty two breeding pairs of endangered Pied Oystercatchers were monitored around the lakes and estuaries of the south coast, including the usual

strongholds in the larger river systems at Shoalhaven Heads, Lake Conjola, Burrill Lake and Durras Lake.

On the south side of the **Lake Illawarra entrance**, the Pied Oystercatcher pair were observed on and off over the season, however no nesting was recorded.

The resident **Shoalhaven Heads** number one pair were closely watched for a month before they finally laid 2 eggs in early October. In a matter of days the newer number two pair also laid their first egg for the season, followed the next day by the second egg. Both nests were fenced, sign-posted and even had small electric fence installed around their nesting area to protect the eggs from fox predation. Both nests were progressing well with the odd dog disturbing incubation in this dogs prohibited area or a horse, quad bike or surf club vehicle venturing too close. Then in mid-October high tide and swells combined to almost wash away the nests. A little shovel and hoe work diverting some of the water and the eggs were fine.

In early November the second pairs nest hatched and the family were seen feeding together along the edge of Comerong Island. Number one pair continued to sit well beyond the usual hatching date (30-32 days), with suspicions the eggs had been inundated by the sea or blown around by the wind as they seem to have moved, and ongoing concerns that this female was now beyond optimal breeding age (Rex monitoring this pair for 15 years = female at least 20 years old). NPWS staff and the site coordinator finally decided to remove the eggs on day 44, but the site was abandoned and eggs gone.

The pair number two chicks continued to be sighted throughout November. In early December pair number one nested again. Another 2 eggs on the 2nd but by the 14th both eggs were protection form the electric fence. There were no tracks or evidence as to the cause due to high winds. The pair did not nest again this season. However pair number two's chicks survived and successfully fledged in mid-December.

At **Lake Wollumboola** on the 4th of October the first egg of a Pied Oystercatcher nest was found and fenced. A few days later the second egg was laid and local NPWS staff installed a small electric fence to protect the eggs from fox predation. A couple of weeks later big swells and king tides threatened to wash away the eggs, but again the local NPWS ranger was on site and installed an arc of sandbags to divert any water from the nesting area. Fox tracks were noted around the nesting area and even entering the electric fence on one occasion, but the eggs were not taken. A kestrel was also seen perching on the fence posts, but after a slight entanglement in the electric fencing it did not return. Other disturbances included bird photographers who kept the adults from incubating the nest and an interested



The two egg Pied Oystercatcher nest with Lake Wollomboola in the background, the little chicks take their first steps *Photos: Narelle Wright*

beach stone curlew that was chased away by the parents.

Despite these potential predators, both chicks hatched successfully on the 10th of November and were quickly moved into the salt marsh vegetation further around the southern shores of the lake. The chicks were difficult to observe in the vegetation and over the next week only one chick was reliably seen, giving rise to suspicions that one had been lost to the fox roaming the area. This early loss was confirmed in January when only one chick fledged successfully. Although Pieds have nested at Lake Wollumboola before, this is the first known hatching of chicks and successful fledging since monitoring began in 2000.

With no nesting Pied Oystercatchers around the Callala, Myola Spit or Red Rocks areas, the volunteers focussed on **Beecroft Peninsula** (Defence Australia managed). In late September a 2 egg Pied Oystercatcher nest was located on **Green Island**, with the Pieds actively chasing a pair of Sooty Oystercatchers from the island. Over on Long Beach a second Pied pair was seen mating, however de-

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Pied Oystercatcher breeding activity in the NSW South Coast Region — 2014/15 season

spite this usual indication of impending nesting, no eggs could be found. On the 19th of October the Green island chicks had hatched and were first observed. In the meantime Beecroft ranger, Vanessa Lipianin, fenced off the previous seasons nesting site for the **Long Beach** Pieds to encourage them to settle and nest. Within two weeks the pair laid their first egg right inside the fenced area.

The Green Island chicks were growing fast, but in mid November only one was sighted giving rise to fears the second chicks had been lost. The Long Beach Pieds laid a second egg in the nest, however it was less than a metre inside the fence and beach goers sat between the signs and fence giving the Pieds little space. The fence was quickly extended to give them more protection from the disturbance of vehicles and people on the beach launching their boats and enjoying the sun. Meanwhile both Green Island Pied Oystercatcher chicks were sighted and fledged in early December.

On the 18th of December the Long Beach Pied eggs disappeared but the parents were present and acting defensive, a good indication that the chicks were around. The next day both chicks were sighted feeding on the rocks about 50m from their nesting site. Beecroft peninsula is generally a pretty quiet area as it is defence land and a bombing/firing range. However the site is cleared and opened up most weekends and during school holidays, and is very popular for visitors and Currarong locals. The concerned volunteers spent many hours talking to beach goers and boat launchers on this beach where vehicles are allowed.

The Pied Oystercatcher pair were obviously unphased by all the people and wandered between them with their chicks feeding and resting. The combination of volunteer wardening and beach goers seeing these endangered chicks was great for public education. Many people were very interested and proceeded to be careful around the chicks, especially with vehicles.

It was even suggested that people presence was great protection from other predators, such as a sea eagle that was seen circling the chicks on the 11th of January. Perhaps this pair has learnt to use people to their advantage. Both chicks survived and were flying on the 23rd of January.

In **St Georges Basin** Pied Oystercatchers are known to nest on three islands. In late October there was a pair of Pieds on each of **Sepulchre and Garden Island** on the northern side of the basin. However no nesting was observed. These islands are Jerrinja Aboriginal land and landing is prohibited, consequently limited monitoring is undertaken from boats and kayaks. For the rest of the season Pieds were reported on and off however no nesting was confirmed.

On the southern side of the basin at **Oaky Island** a pair of Pied Oystercatchers were reported with one chick at the western end of the island in early November. Later in the month a second pair with a similar aged chick was noted on the little embayment in the middle area on the southern side of the island. Both chicks were observed flying and reported as fledged on the 7th of December.



The Long Beach Pied Oystercatcher nest, the two chicks around 2 weeks old. *Photos: Wendi Johnson*

On the 2nd of October Booderee National Park ranger, Tony Carter, reported a 1 egg Pied Oystercatcher nest on **Bherwerre Beach** just south of the middle of the beach. However follow up monitoring by the local volunteers failed to locate the nest on the 14th of October. The reason for its loss is unknown. A few other Pied Oystercatchers were observed on Bherwerre Beach during the breeding season but no more nests found.

Numbers peak in the non-breeding time when birds from surrounding nesting sites come in to feed. Twenty Pieds were recorded in late January including two fledglings, possibly those from nearby Oaky Island.

Additional Pied Oystercatchers were also sighted and reported around the southern shores of Jervis Bay including Myola Point, Moona Moona Point and Plantation Point but no nesting recorded.

A pair of Pied Oystercatchers nested on the southern side of **Berrara Creek** this season. Nest scrapes were noted in early October, the first egg laid on the 12th of October and the second egg laid the following day. However a major flood event with extremely high rainfall (177mm in 24hours) a few days later resulted in the nest being washed away, despite the volunteers installing a sandbag wall and



Oaky Island Pied Oystercatchers with their chick Photo: Sue Tolley

digging a trench to divert water flow.

The pair returned and nested again in mid-November with 2 eggs again. Only one bird was often seen at the nest while the other was feeding elsewhere, giving rise to concern that one of the adults had been lost. However with the impending hatching the partner returned and both chicks hatched out in mid December. At this busy time of year disturbance was frequent with off leash dogs, people swimming in the creek and 2 boys even chasing the chicks on the 5th of January and even picking one up. Thankfully a visitor called out to the boys and they dropped it. Only days later, one chick was lost, possibly due to human interference or dogs. The Pied family ventured further up the creek to avoid the busy beach area and the remaining chick fledged successfully on the 8th of February.

Further south at **Nerindillah Creek** (Monument Beach, Conjola NP), a two egg Pied Oystercatcher nest was sighted on the 29th of October with one parent in attendance incubating the nest. The nest was located in the south-western corner of the embankment in front of the creek. Further inspection by the local volunteers could not locate the nest and it was confirmed as lost on the 12th of November, however the cause is unknown.

On the **islands of Lake Conjola** a survey on the 24th of November found a Pied Oystercatcher incubating a 2 egg nest on the **eastern island** and another Pied with a 1-2 week old chick on the **western island**. There were no birds or signs of nesting on the two small islands near the Aney St boat ramp. On the 3rd of January an extra adult Pied pair with a fledgling were reported at Conjola spit, possibly the eastern island pair had fledged their November chick. A further inspection of the islands in January found no Pieds, chicks or eggs remaining on the islands.

On **Conjola Spit** two pairs of Pied Oystercatchers nested in the dunes. In early September the first egg was found at the northern end of the dunes and quickly fenced. One bird of this pair has a metal band on its leg. The second egg was laid on the 12^{th} of September and incubation began. The second pair laid their first egg that same day and the fence was extended to encompass their nest further south along the dunes. One bird from this pair has a yellow engraved leg flag (1P). By the middle of the month both nests had 2 eggs. The pairs worked together to chase off sea eagles, swamp harriers and a kite. The first nest hatched 2 chicks on the 13th of October and just 2 days later the second pairs nest also hatched both chicks. However, now the pairs became quite territorial, and in particular the metal banded pair were very aggressive.

The '1P' pair quickly lost one chick and took their remaining chick out onto the spit. It was also noticed that the metal banded pair had seemed to lose a chick, despite their being no sign of predators, with no raven activity or fox tracks. On the 12th of November an inspection of the fenced area found a dead chick approximately 2 weeks old assumed to belong to the metal banded pair, with no tracks around except those of Pied Oystercatcher. Predators generally take the whole chick or only leave wings and feet. Then on the 24th of November the metal banded pair was seen aggressively attacking the '1P' pairs remaining chick, giving rise to concern that the pairs had killed one of each of the others chicks in territorial aggression. Again the '1P' pair fled onto the spit. Both pairs managed to keep a chick each and they fledged in late November.

The first nest of the Pied Oystercatcher pair at **Narrawallee Spit** was found in mid-September with two eggs. The fence was immediately installed. The eggs disappeared in early October and the parents were very aggressive indicating that chicks were present. One chick was fleetingly sighted in mid-October as it dashed for cover. Later that month the Pied Oystercatchers disappeared and we hoped they had taken their chicks up into the mangroves along the creek, a good hiding spot to avoid people in busier times.

The pair soon returned to the fence area and ended up making another nest indicating that the chicks had been lost. Two eggs were laid in early November inside the fence, and one was seen hatching out on the 8th of December. The Pied parents with their two chicks roamed the spit area and further north along the beach feeding throughout December. Then on the 9th of January one of the chicks was seen taking its first low short flights. In a matter of days both chicks were proficient fliers and successfully fledged.

There was no nesting of Pied Oystercatchers at the entrance area at **Burrill Lake** again this season. The small grassy sand island used previously has been washed away leaving



The Berrara Creek Pied Oystercatcher family Photo: Joan Dawes

Conjola dune Pied Oystercatcher nest hatching out Photo: Col Ashfiord

lower sandflats only suitable for feeding and often busy with people and dogs.

However further up in the lake four pairs were regularly sighted during September at the usual nesting sites, behind the bottleshop, on the mudflats beside Rackham Cres and 2 pairs in the area of the privately owned peninsula with the lagoon further west. One bird of each of these latter pair has a yellow engraved leg flag (3D + L9). No nest was ever confirmed for either of these pairs as the peninsula is privately owned and therefore observations are undertaken by boat, kayak or stand up paddle board. Although the Pieds appeared to be guarding something, there was only one sighting of two large chicks on the 3rd of November, and no other nesting or fledglings could be confirmed.

Back at the reed bed behind the bottle shop a 2 egg nest was found in mid October, but when the volunteer returned a week later, as expected the eggs were cold and deserted, inundated by the high tide. The pair nested again on the 29th of November. On the 10th of December water was lapping around the edge of the nest, so the eggs were raised on more reeds to avoid inundation again. Disappointingly a few days later one egg had rolled out and the eggs were cold. On the other side of the lake on the mudflats alongside Rackham Cres, a two egg nest was found on the 3rd of November on a samphire island. Two chicks hatched later in the month, but by the 5th of December only one was sighted. This chick survived a couple more weeks, but also disappeared.

A pair of Pied Oystercatcher were sighted scraping and suspected of nesting on Island Beach (just north of Pretty Beach), however no eggs were found.

In late September the resident Pied Oystercatchers laid a 2 egg nest in the dunes on the southern side of **Durras Lake** entrance. There was also a sighting of another pair in the backwaters of Durras Lake with 1 egg on a low lying finger spit, very vulnerable to inundation if any waves were caused by passing boats. A few days later a second egg was laid in the scrape. On the 1st of October a 3 egg nest was found on the north side of the lake entrance. Both entrance nests were quickly fenced and sign posted. A fox trapper also worked for 2 weeks on a fox frequenting the dunes on the southern side, but he was unsuccessful in trapping it.

In mid October the southern entrance eggs disappeared with only Pied tracks in the area, and no fox tracks sighted recently, so probably taken by the ravens recently seen. The 3 egg nest on the north side of the entrance progressed well and all chicks hatched on the 20th of October. A couple of days later a second 2 egg nest was laid by the southern entrance pair. This time on the open spit area and a lot more exposed and vulnerable. Dogs became an issue for the Pied Family with the 3 chicks at north Durras. Despite this area being NPWS estate, locals and visitors bring their dogs onto the beach and lakeshore. The ranger patrolled the area and spoke to local caravan park owners who allow dogs.

In late October another pair of Pieds appeared on the northern side of the lake entrance with young chicks of similar age to the original pair. Their nest location is unknown but must have been close by. There was now 2 Pied pairs with 5 Durras Lake 2 egg nest, and north Durras 3 chicks *Photos: John Perkins*

chicks at north Durras!

In mid November the eggs hatched on the south side of the lake entrance and the family moved up into the safety of the dunes. However fox tracks were soon sighted again, and the parents swam the 6 day old chicks across the lake to join the other Pied families on the north side. Around this time the Pied family with the 3 chicks at north Durras went missing, the other north-side pair moved their 2 chicks further north up the beach to Calm Cove and the pair in the backwaters had renested with 2 new chicks were sighted.

However by the 1st of December these chicks had disappeared in the backwaters of the lake, the 2 new south side chicks were still roaming the north side and were almost 2 weeks old and the 2 Calm Cove chicks fledged. The north Durras family with the 3 chicks had still not been resignted but then a couple for weeks later a pair reappeared with one fledgling of the expected age for these chicks, likely the remaining chick after they had lost two to an unknown cause (probably the reason for the families mysterious disappearance).

As the school holidays started and busy Christmas period approached the area became busier and dogs an increasing issue for the young flightless south Durras chicks, still sighted at north Durras. Frustratingly even the Pieds started attacking each others chicks, with the local volunteer having to fend off 4 rival Pieds mauling one of the unfledged chicks that ended up on its back. Thankfully in early January these last 2 chicks fledged, bringing the total up to 5 successful Pied Oystercatcher fledglings for Durras Lake this season. The volunteer believes this is the most pairs, nests and fledglings he has had in twenty years of monitoring. A good indication of recovery in the Durras population.



The **Batemans Bay Marina** Pieds nested early in September with 3 eggs in the northern breakwall. However, disappointingly a few weeks later the nest was gone with only a little egg shell remaining. The pair nested again in October with only one egg, again in the breakwall. The local volunteers met with Eurobodall Shire Council (Paul Martin) to discuss the issue of off leash dogs and vehicles accessing the breakwall. A chain was installed across the breakwall along with a sign to stop access from the eastern end (via Hanging Rock boat ramp). This helped reduce disturbance to the nesting area and the chick hatched on the 9th of November. Off leash dogs remained a problem for the Pied

family with dog walkers accessing the area from other points. Despite this continued disturbance and threat from off leash dogs, the Pied chick fledged in late November.

In addition to this breeding pair of Pied Oystercatcher, numerous Pieds were sighted at Cullendulla Creek on the northern side of Batemans Bay.

In total the **twenty two monitored pairs of Pied Oystercatchers in the south coast region incubated 29 nests containing 58 eggs, hatching thirty six chicks and fledgling 21 of these chicks.** A great result, averaging almost one fledgling per breeding pair!

Sooty Oystercatchers



The southern Sooty Oystercatcher nesting islands were surveyed during peak nest-

ing this season, however frequent bad weather and swells meant the northern islands were not surveyed again this season. Data from complete surveys in 2006/07 to 2012/13 indicates a stable population on the south coast of around 70 breeding pairs. Plus we also had a couple of mainland nests this season.

In September on **Green Island** (Beecroft Peninsula) the Sooty Oystercatchers were getting chased off by the nesting Pieds. However the Sooties returned and managed to nest in mid November with 2 eggs. Nearby at **Bhindijine Beach** another pair of Sooties also had a one egg nest. However over the next couple of weeks both nests disappeared to unknown fates. The Green Island pair nested again with another 2 eggs but these eggs also disappeared after a few weeks to an unknown cause.

The southern islands were surveyed on the 7th of November, during peak nesting time. On **Grasshopper Island** there were 8 breeding pairs with 8 nests containing 14 eggs. There was also an additional non-breeding pair and 2 individual birds. On **Wasp Island** there were 7 breeding pairs with 7 nests containing 12 eggs and an additional 3 pairs holding territory and 1 lone bird. On the **Tollgate Island** there were 6 breeding pairs with 6 active nests containing 9

eggs and 4-6 chicks estimated, plus a non breeding pair. **On Snapper Island** there were 2 breeding pairs with 1 active nest containing 2 eggs and 1-2 chicks.

The northern islands, Brush and Belowla, were unable to be surveyed due to frequent big swells, storms and generally unsuitable weather and sea conditions.

In total for the southern islands there were 25 breeding pairs and another 5 non breeding pairs sighted, along with the estimated 35-40 pairs on the northern islands, this brings the island population up to 65-70 pairs, typical of surveys conducted 2006/07 to 2012/13.



Sooty Oystercatchers feeding. Photo: Brian O'Leary

Sooty Ovstercatcher	breeding activity in	the NSW South Coast	Region — 2014/15 season

Site	Breed Prs	Non BP	Nests	Eggs	Chicks	Fledglings	Main fate	
Brush + Belowla Is	Una	Unable to survey due to unfavourable weather and sea conditions						
Grasshopper Is	8	1	8	14	0		Unknown	
Wasp Is	7	3	7	12	0		Unknown	
Tollgate Is's	8	1	6	9	4-6		Unknown	
Snapper Is	2		1	2	1-2		Unknown	
Green Is	1		2	4	0		Unknown	
Bhindijine Beach	1		1	1	0		Unknown	
Total	27	5	25	42	3-8	0	Unknown	

FNPW Hooded Plover Banding Project Report

The Foundation for National Parks & Wildlife Hooded Plover Banding Project has resulted in the colour marking of 58 adult Hooded Plovers in NSW plus 5 fledglings in 2012/13 and 7 fledglings in 2013/14. Resightings of banded Hoodies, along with estimates of remaining unbanded adult numbers brings total NSW adult population estimate up to around 70 Hoodies, an increase of 20 adults since 2007/08 surveys.

In the south coast region local volunteers are getting to know their resident breeding pairs and diligent monitoring is showing more partner swapping and sadly more adult loss than we had expected. Most breeding pairs are monogamous and appear to nest at the same site with the same partner each season, however after the loss of a partner it ap-

pears another is quickly taken on and nesting continues. However, in a strange love triangle, Kioloa's 'H3' has turned out to be a player, ditching his long time partner 'K0' for the younger unbanded female nearby, but then returning to 'K0' in between unsuccessful nesting attempts with unbanded!

Interestingly a far south coast 2013/14 fledgling 'Y8' was sighted at Burrill Lake early this season with a south coast's 'B0'. This confirmed our hopes of a link between the SCR and FSCR populations despite 100's of km's of unoccupied and some pretty unfavourable coastal line. Sadly 'Y8' did not stay to nest with 'B0' and returned to the far south coast in December.



CEG Community + School Education Grant

The SCSRP recently completed this grant, undertaking community and school education in the Shoalhaven throughout the 2013/14 nesting season and 2014 school year. 'Dogs breakfast' education tents were set up at beach reserves near shorebird nesting sites on ten mornings throughout the 2013/14 January holidays, while in the afternoon 'kids activity' sessions ran in the nearby tourist park or at the local beach reserve.

Following on from the holiday program, **school shorebird workshop days** were offered to south coast schools. The full day workshop involved a short shorebird presentation, trip to the beach with scoping, tracking, nesting, habitat and shorebird food sessions, volunteer dress up and 'a day in the life of a hood-ie' drama role play, meet the scientist Q&A session and then wrapping it all up with badge making. This is where the kids get to combine everything they have learnt into a colourful shorebird badge to take home.

Milton, Jervis Bay, St Peters and St Georges Basin schools were undertaken in early 2014, and Huskisson, Shoalhaven Heads, Vincentia, Culburra, Sussex Inlet and Ulladulla public schools in late 2014. A total of 15 days across 10 schools reaching 1000 kids! It was great fun for us all and awesome to work with the local kids.



Summer Holiday Education Program 2014/15

Thanks to a 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 tents' 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 Tents' involved shorebird nest displays, leaflets, stickers, free dog leashes and treats plus two rangers on site to speak 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.



South Coast Shorebirds Book + Education Grant

The SCSRP has just received an Environment Trust grant to continue our community education programs plus create a south coast shorebirds book with the local schools. The summer education program will be expanded to not only include shorebird nesting site education tents and kids activity sessions in caravan parks, but also evening slide show presentations and discovery ranger education sessions at nesting sites. Plus we will be working with 6 local communities to paint shorebird murals in public spaces.

To continue our link with local schools we will be running a series of creative writing and art workshops with year 5 to produce beautiful pieces about shorebirds. These words and pictures will then be woven into a book about the south coast shorebirds by our local story teller and educator, Anna Jarrett. Anna will be assisted by a team of local artists who will work with 6 south coast schools throughout the 2015/16 shorebird nesting season.



LLS 3 year Enhanced Fox Control Grant

Through the Local Land Services 'Realise the Potential of Wetlands' grants, the shorebird recovery program was successful in gaining 3 years of funding to enhance fox control on the south coast. This funding will assist in the protection of threatened shorebird nests and chicks around identified priority wetlands. With fox predation of eggs and chicks on the rise, this extra control work is greatly needed.

The project includes improving the baiting program - increasing the duration, adding extra stations and using temporary beach stations (NPWS estate) to target problem foxes plus extra trapping and shooting nights, and working with private landholders for better land-scape scale coverage in the fox control program. In our first season of fox control a total of 5838 Ha's were under fox control within the 4km buffers designated around the priority wetland shorebird nesting sites. This project is a cooperative cross tenure program with funding contributions from Crown Land and NPWS as well.

The program included the addition of 22 extra bait stations (52 existing) on NPWS estate plus extending all coastal baiting programs by at least 2 months for pre season fox control, and adding 9 temporary beach baiting stations for 9 weeks. The contract trappers undertook 159 trap nights with 7 foxes trapped, the shooters spotlighted 478 Ha's of public land over 28 nights and shot 4 foxes while on private land 28 properties were spotlighted over 15 nights and 33 foxes were shot. With two more years of this enhanced control, fox predation pressure will hopefully be reduced on our endangered nesting shorebirds.



Shorebird Volunteer Workshop + BBQ 2015

In early March, 40 south coast shorebird volunteers gathered at the Ulladulla Civic Centre to hear the overall results of our 2014/15 endangered shorebird nesting season, plus an update on grants and Hoodie banding. Next Anna Jarrett spoke about the exciting south coast shorebirds book project she will be over seeing with local schools. Then 5 of our local volunteers spoke about their shorebirds and experiences on the recovery program.

Brett Davis recounted the logistics of surveying remote 7km Bherwerre Beach and kayaking St Georges Basin, Marg Hamon spoke about the strange love triangle of Hoodies at Kioloa and the 2013/14 nesting at a 'dog off leash' beach, John Perkins discussed lessons learnt after 15 years of shorebird recovery and the increasing Pied population at Durras, Chris Brandis gave a quick workshop on ID'ing shorebirds and Charles Dove presented a DVD of his beautiful photography of threatened shorebirds.A great mix of very professional talks, followed by a yummy gourmet BBQ lunch from Citrus Catering!



Thanks to the OEH for funding our end of season get together.



South Coast Shorebird Recovery Program Registered Volunteers 2014/15

Durras / Batemans	John Perkins		Maree Menzies
Bay	Meryl Hannan		Sue Tolley + Ronnie Kroon
	Carmel Cox	Denis Dent	
	Barry Hart		Pam McGilvery + Anne Finlayson
Bawley / Kioloa	<u>Marg Hamon</u> (Bawley) <u>Robin Berkhout</u> (Kioloa) Maggie Mance Steve Berkhout Sybille + Don Davidson	St Georges Basin / Jervis Bay South	Brett + Deb Stevenson <u>Stan Brown</u> + Susan Garside-Brown Karen + Brett Davis Norm Webb Barbara Liddle
	Neil Brown + Judith Carroll Eve Jenkins Chris Louis Robynne Murphy Robin McTavish Tristan Napper Dabhia Androuys		Robyn Hill + Doug Hargrave Ian Brown Judy + Graeme Watson Kerry Thompson Wendy Hartman Dean Pickering
Tahaunia	Debbie Andrews Cecelia Bradley Helen + John Nelson	North Jervis Bay	Wendi Johnson + Michael Jones Diana Lindsay Les Lawrenson
Tabourie	David Swarts Kaye Milsom Joan Lonergan Cathy Stapleton Natasha Pritchard	Wollomboola	Anne Norton <u>Frances Bray</u> Michael Abramowitz Thomas Kaar Narelle + Alan Wright
Burrill / Racecourse	<u>Chris Brandis</u> Bob Rusk Peter Lymbery Chris + Jeannie Martin Jenny Bryant + John Olsen		Graeme Gibson + Meg Bishop Rick + Elly Kyoptke Duade Paton Matt Jones
Rennies	Tim Jamison + Barbara Evans <u>Ken</u> + Kay <u>Smith</u> Barbara + John Smith Jensen + Linda Ruehle	Shoalhaven Heads	Nicole Ison Rex Worrell Peter Ward Teena + Joseph Bronzino Barry Virtue
Conjola / Narrawallee	<u>Col Ashford</u> + Maureen Deigan Eric Hardinge Carol Hodgetts		Carla Jackett Pat Hall Sally Leonard
	Charles Dove Sandra Dodimead Robyn Kerves Neville + Maxine Esau	Windang	<u>Paul Nesbitt</u> Ian Shaw Terrill Nordstrom Tim + Patricia Billington
Inyadda	<u>Terry</u> + Carol <u>McBride</u>		
Berrara / Cudmirrah	<u>Mike</u> + Rose <u>Clear</u> Margaret Webber		r your passion + support 🏊 🐄 Dunn NPWS Shorebird Recovery Coordinator

