

SOUTH COAST SHOREBIRD RECOVERY NEWSLETTER

Sharing the shoreline



April 2005

Season Tern Out

For threatened shorebirds breeding on the southern coastline of NSW, the 2004/2005 season was one of mixed results. All four species endured both new threats and challenges and revisited others. Temperamental weather conditions, including a hailstorm and torrential downpours, caused numerous nests to be inundated - a threat which was almost forgotten during the prevailing drought conditions of the past two years. Predation by foxes, Australian Ravens and especially Silver Gulls was also frequent. Nonetheless, the assiduous recovery efforts of volunteers, council rangers, Rural Lands Protection Board Rangers and NPWS staff saved many a nest from such fates.

This season, Little Terns gathered en masse at sites within the Far South Coast Region and managed to raise a total of 68 fledglings, with the bulk originating from the consistently successful Bega Rivermouth colony. The majority of the Hooded Plover fledglings similarly resulted from one nesting site. Six of the overall fourteen were nurtured on Dawsons Beach in Murramarang National Park, as the pair occupying this breeding territory honed their exceptional



All in a days work! Volunteers (from right) Ron Smith, Glenys Lambert, Sarah Smith, Darryl McKay and Derek Lambert feeling wet and cold after torrential downpours hit during a site visit. Wallagaoot Lake. Photo: J. Keating

parenting skills! South coast beaches and estuaries continue to provide a thriving breeding ground for Pied Oystercatchers, with this season's overall result of 35 fledglings from 44 breeding pairs representing the best on record!

On the publicity front, there has been a lot of interest in the South Coast Shorebird Recovery Program this season. An article in the Birds Australia magazine 'Wingspan,' and the use of the program as a case study for reviews by both WWF and NPWS on shorebird conservation and volunteer involvement, has contributed greatly to raising the profile of our threatened shorebirds and efforts to save them. ♦

Hooded Plovers

A total of 25 pairs of Hooded Plovers were monitored between Jervis Bay and the NSW/VIC border this season with 22 attempting
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Summary of Hooded Plover breeding activity on the NSW South Coast during the 2004-2005 season

Site	Pairs	Nests	Eggs	Chicks	Fledglings	Main Fate(s)
Bherwerre Beach	1	1	~2	1+	1	1Fl
Cudmirrah Beach	1	0	0	0	0	N
Berrara Beach	1	1	2♦	2	0	U(C)
Inyada Beach	1	3	3	2	1	1Fl
			3	0	0	F
			3♦	0	0	A(H?)
Rennie's Beach	1	1	3♦	3	0	R
Bullpup Beach	1	1	3	0	0	I
Butlers Lagoon	1	1	2♦	2	0	U(C), H
Dawson's Beach	1	2	3	3	3	3Fl
			3♦	3	3	3Fl
Durras Lake	1	2	3♦	3	0	R
			3♦	0	0	SC
Bogola Head Beach	1	3	3	3	2	2Fl
			2♦	0	0	U
			1♦	0	0	I
Tilba Lake and Beach (1080)	1	0	0	0	0	N
Wallaga Lake and Camel Rock Beach	1	0	0	0	0	N
Murrah Beach	1	1	3♦	3	0	U(C)
Aragunnu Beach	1	3	3♦	0	0	I
			2♦	0	0	I
			3♦	0	0	NV
Middle Beach	1*	3	~2	1+	0	U(C)
			2♦	2	0	U(C)
			2♦	0	0	NV
Tommys Beach		1	2	0	0	R
Gillards Beach		1	3♦	0	0	A
Wallagoot Beach	1	1+	~2	2+	2	2Fl
North Long Beach	1	1	2	2	0	U(C)
Quondolo Point/ Long Beach	1	1	2	0	0	U
Saltwater Creek	1	2	3	2	2	2Fl
			3	2+	0	U(C)
Wonboyn Beach	1	0	0	0	0	N
Jane Spiers Beach	1	0?	0?	0?	0?	N?
Newtons Beach	1	1	2?	0	0	U
Nadgee Beach	1	0?	0?	0?	0?	N?
Nadgee Lake Beach	1	0?	0?	0?	0?	N?
Cape Howe Beach	1	0?	0?	0?	0?	N?
Total	25	30	73	36	14	

N = no nesting recorded
 A = abandoned
 I = inundated
 F = fox predation
 U(C) = unknown chick loss
 * = same pair

H = human disturbance
 NV = eggs not viable
 SC = sand covered
 R = Raven predation
 Fl = fledged
 ♦ = caged nest

to breed. Fourteen fledglings have been added to the adult population, eight of which originated from the South Coast Region (Sussex Inlet to Batemans Bay). These figures are similar to previous years i.e. 11 and 13 fledglings were produced by 22 monitored nesting pairs during the 2003/2004 and 2002/2003 seasons respectively and nine fledged chicks from 15 monitored pairs the previous year. In terms of distribution, there seems to be a gradual shifting of pairs from beaches in the Far South Coast Region to the South Coast Region, with no obvious explanation.

For the first time in many years a pair of Hooded Plovers were seen on **Bherwerre Beach** in Booderee National Park (ACT Territory). According to the literature, this is the northern distribution limit for the Hooded Plover in Australia with birds being occasionally sighted at places such as Shoalhaven Heads and Windang. A single bird was also noted a couple of years ago in Queensland. The staff at Booderee National Park conduct a thorough fox control program within the park, which obviously paid off, as a pair of Hoodies with a fledgling was sighted in early December near Sussex Inlet by keen birdwatcher, Alistair Smith based at HMAS Creswell.

Just south at **Cudmirrah Beach** a pair of Hooded Plovers was reported by local resident Bernie Clarke. Bernie has been involved for many years in the fight to save and improve the few natural assets remaining in Botany Bay. He now lives on the south coast and has taken a keen interest in the Shorebird Recovery Program. No nests were recorded for this pair this season but hopefully they will nest here in the future.

What used to be our most northern pair of Hooded Plovers at **Berrara Beach** were not successful at fledging any chicks this season. Last year they fledged three chicks, which was a magnificent result after a long period of failure. This season only one nest was found within the fenced area near the entrance to Berrara Creek. Both eggs hatched and the chicks were recorded for two weeks until they disappeared. Domestic dogs continue to be a problem at Berrara with some holiday makers and residents ignoring the 'Dogs Prohibited' signs and running their canine companions on the beach.

The resident pair of Hooded Plovers on **Inyada Beach** had an eventful season to say the least. Half way through October two fluffy chicks were spotted on the beach. Hatched from an undetected nest, they were regularly seen for several weeks before both disappeared to an unknown cause. A second breeding attempt followed in early December, with a three-egg nest located near the creek entrance. Two days later with cage in hand the nest could not be found. All that remained were a series of fox tracks around the scrape where the eggs once rested instilling the necessity to carry nest cages in the back of the ute at all times. Meanwhile, reports of a newly fledged chick on Inyada Beach provided hope that one of the original chicks had beaten the odds and made it into the air.

Additional sightings confirmed the presence of the survivor adding one extra Hooded Plover to the population. Despite this success, the pair had a third attempt at nesting, with another three-egg nest found closer to the beach on December 15. A cage was placed over the nest and all was progressing well until New Year's festivities, including a bonfire on the beach and a procession of exploding fireworks excluded the birds from incubating their eggs and the nest was abandoned.

Only one pair of Hooded Plovers were discovered just south of Warden Head in Ulladulla this season, whereas two pair were located during 2003/2004. Perhaps the second pair had relocated to the more northern beaches where two new pairs were found. Such cases highlight the need for future colour banding to determine the movement of these birds. A single nest was found on **Rennies Beach**; a very popular beach for swimmers and dog walkers. The nest was caged, signposted and in an attempt to prevent inundation, relocated several metres up the beach away from the high tide mark and elevated. High seas lapped around the nest but the eggs survived to hatch. Tragically a visit to the beach a couple of days later revealed no Hooded Plover chicks. In their place was a family of ravens and well-worn tracks around the cage implying that these predatory birds may have had an easy meal as the chicks left the safety of the wire enclosure.

An early nest was reported by a visiting birdwatcher on **Shell Beach** in Kioloa but could not be found on a visit a few days later. A second nesting attempt, about 2km to the north of this site on **Bull Pup Beach**, by the same pair delighted keen shorebird supporters, Pat Walker and Cecilia Bradley who have been watching the birds on this beach for many years. Armed with fencing material and a cage, an expedition out to the beach ended in vain when all that was found was a washed out nest. Not to be discouraged, the Hoodie pair then moved to nearby **Butlers lagoon** for another go at raising a family this season. A two-egg nest, found by Steve and Robyn Berkout and



One of the proud parents of six Hooded Plover fledglings, Dawsons Beach. Photo: I. Vandyke

family was promptly fenced and caged. Not to be caught out by big seas this time the pair sensibly laid high in the dunes. The incubation period progressed without a hitch, and it wasn't until a phone call from local NANA wildlife carers informing us that they had what looked suspiciously like a Hooded Plover chick, did the alarm bells go off. It became apparent that despite ample signage alerting beach-users of their presence, a well-meaning tourist found the chick on the beach (obviously the 'freeze and pretend to be a lump of sand' strategy did not work!) and handed it in to the caravan park managers who in turn called the native animal network, NANA. It was then ferried to Ulladulla and onto Sussex Inlet. Local shorebird volunteer Robyn, collected the chick the following morning and released it on the beach, however sadly it died soon after. Since this tragic event the caravan park managers have been supplied with posters and pamphlets describing the plight of the Hooded Plover and other shorebirds in the area, and have been asked to return any chicks to the beach if such a situation arises in the future.

The 'doom and gloom' stories from the north were offset by an amazing result from the most productive Hooded Plovers in the state, with a massive six fledglings reared from two nests. The pair, which holds a breeding territory in Murramarang National Park, has consistently produced fledglings over the last four years. Factors that work in their favour include the relative inaccessibility of **Island Beach** which requires a 45 minute hike to reach, boulders at either end of the beach providing cover for the chicks and the thorough fox baiting campaign conducted by the RLPB in the area. Add to this an experienced pair of adults and we have a recipe for success. It is interesting to watch the birds in action from a vantage point, especially when ravens settle on the beach. Without hesitation the chicks are escorted to a safer location. This is a remarkable result, but makes you wonder what may happen to the gene pool of Hooded Plovers in the north of their range if this pair continues to be successful.

For the first time since the start of the recovery program a pair of



Dawsons Beach's Happy Hoodie Family; both parents and three of their six fledglings, Dawsons Beach. Photo: I. Vandyke

Hooded Plovers attempted to nest at the entrance to **Durras Lake** much to the delight of the Friends of Durras who have been working hard at raising the profile of the area as a nesting site for Threatened shorebirds including a productive pair of Pied Oystercatchers. John Perkins reported the first nest high in the sand dunes in an old fire place complete with broken bottles. The pair diligently incubated the eggs until they hatched four weeks later. Unfortunately a family of ravens had been watching the whole proceedings and made an easy meal of the chicks as they left the safety of the cage. This was despite John spending most of the daylight hours watching over the birds and chasing off any ravens in the area. A second nest this time in the middle of the sand spit didn't stand a chance against fierce north easterly winds and was buried about two weeks into incubation.

Despite the intermittent recording of individuals on Nangudga, Pooles, 1080(Tilba), Wallaga and Camel Rock Beaches by Patricia Latimer during her fortnightly 'strolls' from Narooma to Wallaga Lake, no nests were located. This was very strange as in other breeding seasons up to four breeding pairs have resided on this enormous stretch of coastline. The **Bogola Head** Hooded Plovers did, however, ensure that two juveniles were added to the population from this area. These resulted from their first three-egg nest laid in late August, leaving ample time to try again and augment their little family. Unfortunately both the December and January breeding attempts failed during the incubation period, with the first being lost to an unknown cause and the second inundated by large sea swells. Nonetheless, this pair has continued to prove their reliability as parents this season, with a little help from an effective fox baiting campaign by the RLPB and George Hogge's brand new electric fence, which now keeps the Hoody's bovine 'friends' at bay!

Sue Swenson's discovery of a three eggs on the **Murrah** sand spit in early October marked the first shorebird nest for the season at this site. A predator-exclusion cage was promptly placed over the nest and three chicks hatched out a month later. Sue's delight rapidly turned to dismay when none could be located during a site visit on November 12. The cause of this loss remains unknown and no further nesting attempts were recorded.

After losing their first two nests to inundation from large sea swells, when a 2.03 metre tide was scheduled for early January and the **Aragunnu Hoodies** chose a third vulnerable position for their eggs, the only option was to go up! A total of six sandbags were used to raise the then single egg and a cage was added for protection against prowling gulls and ravens. The pair laid another two eggs on the caged mound and started incubation soon after...and sat...and sat.... for at least 40 days; 12 more than the usual incubation period. This was an exasperating result for all who had closely monitored and contributed to the intense management of this nest. Elsewhere in Mimosas National Park, although nests were recorded on three different beaches, these were attributable to one pair moving between adjacent breeding areas. A total of 11 eggs were laid on

Gillards, Tommy's and Middle Beaches with no fledglings eventuating. The eggs met varied fates including raven predation, abandonment, hatching, unknowns (of course!), and as seen on Aragunnu, a fruitless incubation period, which in this case lasted more than 50 days! The most interesting event in this section of coast was the pair's decision to relay inside the cage on Middle Beach! Following the loss of their chicks three weeks prior, the pair were regularly sighted hanging around in the fenced compound near the cage, which had not yet been collected. Sure enough on January 27 one of the parents was seen darting from the cage in which it had been incubating another two eggs!

Last season, ravens and foxes caused havoc on the section of coast from Wallagoot to Short Point with a single pair enduring the hardship of five failed breeding attempts. Monitoring efforts were not as rigorous in this area during the 2004/2005 season and we were unsuccessful in locating any nests. However, a visit to **Wallagoot Beach and Lake** by Ron Smith in January revealed two Hooded Plover fledglings and an adult near the entrance to the lake. Over the proceeding weeks the juveniles were regularly observed mingling with the Red-capped Plovers and Little Terns within the lake and it is presumed that they originated from the pair which held this breeding territory last season.

Robyn Kesby and Barbara Jones located a two-egg nest on **North Long Beach** in late October during the statewide 'Beach-nesting Shorebirds' Survey. A male Hooded Plover was also seen attempting to court and copulate with a female on **Terrace Beach**, however her disinterest in such activities may explain the lack of nests recorded on a site visit the following month. Neither the North Long nest, or one found on **Quondolo Point/ Long Beach** on February 23 were successful and once more the beaches in North Ben Boyd National Park remained devoid of Hooded Plover juveniles.

Along with the pairs occupying Island and Bogola Head Beaches, the **Saltwater Creek** Hooded Plovers have successfully reared fledglings over the past few seasons. This season was no exception and by early December two juveniles were already spotted taking their first flights in between darting amongst the beach wrack snapping at flies. When these offspring dispersed, a re-nesting attempt in the southern hind dunes followed in late January. Although at least two chicks hatched, no additional fledglings resulted, with the chicks frustratingly disappearing not long before their anticipated fledging date.

A survey of **Nadgee Nature Reserve** in late February by Martin Schulz yielded disappointing results. Although pairs of Hooded Plovers were recorded on most of the 'usual' beaches (namely **Wonboyn, Newtons, Nadgee, Nadgee Lake and Cape Howe Beaches**), no fledglings were apparent. Earlier success may have meant that the juveniles had already 'flown the coop', highlighting the need for more regular surveys of the area. The pair recorded on **Jane Spiers Beach** earlier in the season by ranger Lyn Evans was not seen during his trip and has not been documented since. A follow-up trip, particularly to check on a nest on Newtons Beach,



After being banded by Darryl and some soothing stroking this Little Tern chick seemed more than relaxed, Bega Rivermouth, Mogareka. Photos: G. Whitley

TERN ME OVER!

Bird banding is an excellent tool for figuring out information such as the age and sex of individuals, and tracking their movements between breeding and non-breeding sites. Over the past decade Little Tern banding has formed an important part of recovery efforts in NSW and we now know that adults do move between nesting colonies and breed within areas other than the site where they hatched. This season, Darryl McKay, the state's most dedicated tern bander, visited the Murrah, Mogareka and Wallagoot Lake colonies and metal banded a total of 63 chicks. He also trapped 5 adults on the nest and included both a metal band and colour flags as leg accessories. Two of these were metal banded as chicks at Lake Conjola and The Entrance colonies during the 2002/2003 breeding season. Birds have a unique combination of coloured leg flags, which enables them to be readily identified through binoculars or sometimes with the naked eye. These flags can only be placed on adults, as chicks' legs still need time to finish growing.

Although adults are sometimes seen immediately flying over to the water where they splash around in the shallows to rid themselves of human 'germs', Little Terns are generally unperturbed by the banding process. Several volunteers witnessed this during one of Darryl's visits to the Mogareka colony, when one small chick was so comfortable sprawled on its back in his hand and soothed by the gentle stroking of its head that it did not want to move. Essentially hypnotised, the little bird maintained this position even when placed back on the sand and had to be gently nudged to take refuge in the nearest clump of vegetation! ♦



The Little Tern chick decides that hanging out in the shade of a sea rocket plant can be equally relaxing and much cooler. Bega Rivermouth, Mogareka.. Photo: D. Gallan

was cut short when an extreme weather warning was issued. Predicted 6m sea swells and gale-force winds of up to 110km/hr created inhospitable conditions and although Newtons was checked before abandoning the mission, only a single adult was located. ♦

Little Terns

Although south coast Little Terns utilised seven breeding sites between Wollongong and the NSW/ Victorian border this season, breeding efforts were concentrated in the Far South Coast Region with the largest colonies established at the entrances to the Murrumbidgee and Bega Rivers and Wallagoot Lake. A plethora of threats, some new, and others revisited, minimised success and 68 fledglings eventuated, compared to 153 and 182 during the previous two breeding seasons. However, this result is still positive when viewed in the context that before the 2002/2003 season, no more than 60 fledglings were recorded in a breeding season on the south coast. It is also to be expected that a 'downturn' in productivity would follow two consecutive boom seasons.

Despite intensive fox control efforts at Lake Conjola, Comerong Island and Lake Wollumboola, all terns except one pair avoided these areas and nested at **Windang** at the entrance to Lake Illawarra instead. Here they were exposed to a suite of threats including foxes, Silver Gulls, inundation and domestic dogs. Nevertheless, at Windang, Little Terns receive ample media attention, and once again the residents of the Illawarra went on a journey with the Little Tern as they attempted to nest at this location for the second time in 40 years. The humble Red-capped Plovers were first to try their luck on the expansive Windang sand spit, with nests located by Ian Shaw and Chris Brandis in early October. It wasn't until December that the Little Terns began to deposit eggs within scrapes spread over the shell bed. With many terns fluttering above the sand spit, Windang was promising to be strong contender for the season. That was until a flock of Silver Gulls decided to roost on mass in the middle of the nesting area. A visit to the site to celebrate the start of the season with media in tow found eggs splattered on the sand and only one remaining nest. Cages, placed around this nest and several Red-capped Plover nests, proved successful at deterring these avian scavengers and a further nine nests were found and caged over the next few weeks. However disaster struck again when just hours before the first eggs were due to hatch a fox entered the colony and consumed every egg, digging under all the cages in the fenced compound. With this blow the nesting birds vacated the premises and although at times settled on the sand flats did not risk laying any more precious eggs. The Lake Illawarra Authority and Wollongong City Council have been keen to help out this season with the erection of a substantial fence around the nesting area and promised funding for future fox control in the form of soft jaw trapping. Wollongong Council has supplied signs prohibiting dogs in the fenced area.

Meanwhile at **Lake Wollumboola**, a single pair of terns nested at this once thriving site. Not much hope was held for the isolated pair



Adult Little Tern in flight, Bega Rivermouth, Mogareka. Photo: D. Gallan

but persistence by local volunteer Francis Bray paid off when a single fledgling took to the skies. The nest was caged and fenced resulting in two healthy chicks seen running between clumps of Spinifex. Unfortunately one of the chicks disappeared just a few days before fledging and may have been taken by a domestic dog. Further south, eight Little Terns were seen frolicking in the waters of **Lake Conjola** in November however no nests were located on the sandspit.

For the past three seasons **South Tuross Head** has been the first stopover site for south coast Little Terns. However this was not the case this season as four birds never actually left! The late re-nesting event at Mogareka during the 2003/2004 breeding season meant that four fledglings were not ready to partake in the transequitorial migration and instead remained here and patiently awaited the return of their friends. Throughout the autumn and winter months they were periodically recorded at sites such as Middle Beach and Wallagoot Lake.

Apart from the occasional sighting of small groups of birds, Tuross remained very quiet on the tern front this season. Activity was also minimal at the other site in Eurobodalla National Park during the early stages. Once again the breeding habitat appeared ideal at **Brou Lake**, however the birds did not arrive in substantial numbers until late November when 31 were spotted scouting the site from above. Eight days later over 50 adults occupied the site and 9 nests collectively containing 16 eggs dotted the sprawling mudflats. Despite the huge area of habitat available for breeding it seems two birds were convinced they had found the exact same perfect spot with the discovery of a nest with one Little Tern egg and two Red-capped Plover eggs in it! Sadly we were not to discover the identity of the impostor/cuckoo parent as less than a week later the heavens opened. Bodalla received 161mL of rain within a 24-hour period. Brou Lake subsequently rose by over 2 metres and all nests, including

the bizarre hybrid one, met a watery demise. Our site clean-up consisted of carefully navigating the lake by boat and fishing out the stakes and signs which had once formed the protective fence.

Fears that the Little Terns would not return to last season's ill-fated **Wallaga Lake** were alleviated on November 13 when Heinz and Regina Guenther observed more than 40 flying above the sand spit during their morning walk. Site preparations, including an enormous string fence, shorebird signs and a buffering ring of Bega Valley Shire Council (BVSC) 'Wildlife Protection Zone' signs, began as it seemed the birds were here to stay when numbers escalated to 70 individuals. The commencement of nesting coincided with the arrival of similar numbers of ravens. So early on November 25, the morning following the discovery of three nests, we returned to the sand spit, cages in hand, only to find that these predatory birds had beaten us to it. Deterred by this early onslaught, the Little Terns abandoned the site and immediately relocated to the Murrah Rivermouth.

For the first time on record, Little Terns bred in significant numbers on the sand spit at the entrance to the **Murrah River**. Prior to this season a maximum of four nests per breeding season had been documented at this site. By November 10 sixteen birds were already diving in the estuary's waters in between creating nest scrapes. Several weeks later the flock exceeded 90 individuals and over 130 eggs dotted the sand spit and the swales flanked by sand dunes. Apart from a small strip of Crown Land, the Murrah sandspit is surrounded by private property and hence access for both monitoring and habitat protection is difficult. However Sue and Carl Swensson rose to the challenge and went on many a mission with multitudes of signs and fencing materials strapped to their kayaks to expand the ever increasing fenced compound. As so often happens with endangered shorebirds, scores of chicks were darting amongst the dune vegetation and all was on track for this new south coast tern

site until...a fox came on the scene. Initially we were unsure as to why the numbers of eggs and chicks were dropping so rapidly, but a visit on January 12 revealed fresh canid tracks weaving through the colony between sites where eggs had previously laid. Of the total 60 chicks, only one remained. Fortunately, the eight fledglings which resulted from early nesting attempts provided some compensation for this devastating loss. In the event that the terns choose to nest at the Murrah again next season, preparations are already in place. The Crown Land adjoining the site will be incorporated into the fox control program conducted by the Rural Lands Protection Board (RLPB).

Early in the season, the numbers of Little Terns flying above the sand spit adjoining the **Bega Rivermouth** fluctuated dramatically. Over the winter months, relatively steady rainfall caused the river to rise and on November 22 it needed to be once again opened by 'Crackers', BVSC's dozer driver. The birds seemed suitably impressed by the corresponding barrage of tiny fish and sand islands now exposed. Adult numbers stabilised and breeding commenced several days later. Nesting activity continued to increase over the proceeding month and by December 23, 43 nests containing 95 eggs and 27 chicks were being tended to by over 120 adults. Unfortunately the Christmas/ New Year period 'terned' out to be not so merry for the Little Terns when a very intense and localised hailstorm hit Mogareka on December 27. As seen at Windang and Victorian colonies in past years, the adults fiercely defended their nests from the hailstones; however the carnage still amounted to the death of one adult, at least 14 chicks and nine punctured eggs. The birds soldiered on to meet their next challenge. Volunteers alerted NPWS in late January to the vicious onslaught of two rogue Silver Gulls which appeared intent on both eating hatchlings on their first ventures out of nest cages and ruthlessly killing advanced runners



Three of the advanced Little Tern runners who were savagely attacked by rogue Silver Gulls at the Bega Rivermouth colony.

Photo: J. Keating



Bega Rivermouth volunteers Joan Ennis (right) and Jill Whitley celebrate the success of the Little Tern colony at the 'End-of-Season Ternout' BBQ. Tathra Lions Park, Photo: R. Kesby

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Where are all the Fairy Terns? New Zealand researcher Marleen Barling searches a Victorian beach. Photo: J. Peace

A FAIRY-TERNING TALE... by Marleen Barling

The fairy tern (*Sterna nereis* spp.) is found mainly in three countries; Australia, New Caledonia and New Zealand. The Australian fairy tern breeding population is the largest, followed by populations in New Caledonia, and finally New Zealand (NZ). They might be the more common small tern in Australia, but here in NZ we have about 40 of them, with a total of 10 breeding pairs this season (2004/05). This species has the lowest number of breeding birds in NZ. Undoubtedly we are quite concerned about our terns and with a Recovery Plan at hand, there has been great efforts from the public and government (NZ Department of Conservation) to manage the breeding sites by using predator control operations, fencing and public education.

We have also been keeping track of the NZ fairy terns as much as we can, including individually colour banding almost all of the birds. But there are still some odd ones that disappear for a few years, presumed dead, and then surprise us by appearing again one day! So we have all been asking the same questions; where do they go, what do they do when they get there, and do they breed with the Australian fairy terns? These are some of the reasons why a project looking at the fairy terns' genetic relationship was commenced in 2004. Part of this study requires me to collect feathers from these birds for DNA analysis, and so I had the great opportunity to visit the different locations where the fairy terns were nesting.

My colleague and I visited the Southern Lagoon of New Caledonia in September 2004, and found two colonies of nesting fairy terns. One immediate feature that we noticed about them is that all the breeding terns have a distinctive black tip on their bill. These birds lay their eggs on different substrate types, from white sand to pure dead coral. The chicks had light-grey downy feathers, which grow to runners with the typical orange-brown and black feathers.



Fairy Tern adult and chick roosting amongst the rocks! Rottnest Island, W.A.. Photo: M. Anderson

Parents with chicks are extremely aggressive; with constant attack threats by swooping towards the head of the person (quite often attacks are face to face!) that ventures too close to their elusive chick. These birds were recorded missing from the lagoon in 1993 to 1996, and it seems like their numbers are slowly increasing again, with up to 24 nests seen during our visit.

In December 2004 – January 2005, we visited the south-western and south-eastern parts of Australia in search of fairy tern nests. We were amazed with the numbers, variation in colours and behaviour of the Australian fairy tern compared to ours. A NZ fairy tern “colony” may consist of up to 3 pairs nesting on bare shell grit sand. Quite a big difference to Australian colonies, where we saw up to 200 pairs! NZ fairy tern nests are 50m to several kilometres apart, whereas nests in Australia were found only 30cm to 5m apart! One of the reasons for this is because NZ fairy tern pairs are territorial, where at least one of the pair (the guarding parent) will attack anything that comes close (within 50m) to their egg or chick, including another fairy tern. NZ fairy terns will also threaten or attack people at 100-500m away from their nest. We also noticed that some Australian fairy tern chicks are darker, with brown-black spots and streaks in their downy feathers, which we do not see here in NZ!

There is definitely quite interesting and sometimes subtle differences between these countries, but along with all these observations, we have managed to collect all the feathers we need. We are hoping to get some results for this study sometime this year. All the current and hopefully continuing support from all countries will enable us to learn more about these beautiful swallows of the sea. ♦



A New Caledonian Fairy Tern incubates its eggs amongst bleached coral rubble. Photos: M. Barling

which were unpalatable due to their size. The two birds were completely disinterested in attempts to decoy them from the colony with burley, and culling was the only remaining option to end the killing rampage. Nonetheless, the Mogareka Little Terns overcame these hardships and once again emerged as the most productive south coast colony with 45 fledglings resulting. The consistent success of this colony is attributed to the vigilance and dedication of over 40 local volunteers (especially Ron Smith and Gary Whitley), an effective fox baiting campaign by the RLPB and support from BVSC rangers in minimising dog disturbance. If you were a tern wouldn't you repeatedly return to such a site?

The earliest sightings of small terns this season originated from **Wallagoot Lake**, however not all were of the Little variety. Twenty pairs of Fairy Terns formed a dense breeding colony atop the highly vegetated Bird Island whilst the contiguous sprawling mud and sand flats formed the substrate for more sparsely located Little Tern nests. This 'turned out to be' disadvantageous for the latter endangered population as many eggs were lost to the rising lake levels which followed heavy rainfalls in early December. Some birds successfully combated this by rolling their eggs away from the watermark and expanding their nests, many of which were exceptionally decorated by tiny white pipis. Cold and harsh weather conditions later that month are suspected as contributing to further losses; however a group of marauding gulls also wrecked havoc on the colony and consumed many eggs and chicks. Predator control efforts by NPWS rangers only partially eliminated this problem and overall of the 171 Little Tern eggs laid, between 45 and 90 hatched and only 14 chicks went on to fledge. ♦

Summary of Little Tern breeding activity on the NSW South Coast during the 2004-2005 season

Site	Pairs	Eggs	Fledglings	Main Fate(s)
Windang Beach	12	30	0	F/ S
Shoalhaven Heads	0	0	0	N
Lake Wollumboola	1	3	1	Fl
Lake Conjola	0	0	0	N
South Tuross Head	0	0	0	N
Brou Lake	9	16	0	I
Wallaga Lake	3	5	0	R
Murrah Lagoon	46	132	8	F
Bega Rivermouth	55	168	45	Fl/ S/ Ha
Wallagoot Lake	65	176	14	S/ I/ U
Total	193	523	68	

N = no nesting recorded
 R = raven predation
 I = inundation
 U = unknown egg/chick loss
 F = fox predation
 S = Silver Gull predation
 Ha = hailstorm
 Fl = fledged

Pied Oystercatchers

Pied Oystercatchers continue to flourish on the southern coastline of

the state. The past four nesting seasons have yielded productivity rates of greater than 0.8 fledglings per breeding pair and the actual breeding population has increased dramatically in size. This season, the efforts of 45 pairs resulted in 37 fledglings taking to the skies whereas in 2001/2002, 17 monitored pairs fledged 14 chicks. The increase in the number of breeding pairs is largely due to increased effort and greater skill in finding the birds.

The resident pair of Pied Oystercatchers at **Shoalhaven Heads** once again attempted to nest twice on the sand spit adjacent to Comerong Island this season. Fox control on the island consisted of trapping and shooting by a local contractor whereby 12 foxes were sent to fox heaven. This was a great result with no fox tracks seen on the sand spit for the entire season. Taking advantage, the resident oystercatchers deposited two eggs on a sand hill taking turns at incubating until they hatched. The electric fence provided protection from marauding dogs but did not shield the chicks from ravens who made a quick meal of the newly hatched chicks. A second nest was attempted but the eggs disappeared after 36 days, also suspected as being taken by a raven. The electric fence energiser also disappeared thanks to a visitor that couldn't resist temptation.

A visit to **Bherwerre Beach** in Booderee National Park late in the season with park manager Martin Fortescue yielded a massive 18 Pied Oystercatchers foraging for pipis on this vast expanse of beach. Three of these birds were recently fledged from two separate nests indicating that the dunes behind the beach may be an important breeding site for this vulnerable species. A comprehensive fox control program within Booderee National Park has obviously paid off.

Down at **Lake Conjola** a single nest did not last long on the sand spit due to a resident fox that has eluded all attempts at capture so far... At **Durras Lake** the resident pair of Pied Oystercatchers once again produced a fledgling, adding to their success last season. A phone call by local wildlife carer Marian Andrews revealed that a pair successfully hatched two eggs on a very busy sand bar on the northern side of **Batemans Bay** near the bridge. They had come to Marian's attention when somebody found one of the chicks trying to cross the Princes Highway. The chick was caught and handed in to WIRES. Fortunately Marian took the chick straight back to the parents on the western side of the bridge who readily accepted their youngster back. Sadly the chick was not seen again at this location. **Budd Island**, within the Bay was also surveyed late in the season after a report of a potentially nesting pair of Pied Oystercatchers. The pair was sighted roosting and foraging on the sandy island's edge, however there were no accompanying fledglings.

The pair that has previously nested on the **Moruya** Airport runway sensibly remained clear of their metal flying counterparts this season and bred within the estuary itself. At least two breeding pairs were recorded; one fledged a chick from Quondolo Island and the other

selected their (un)usual nest site on the rockwall to lay two eggs. Although the latter was unsuccessful, the nest-site selection of this pair is considered so peculiar that it has been documented in the Handbook of Australian and New Zealand Birds (HANZAB).

Following their retrenchment as Little Tern wardens, George Rayner and Bill Nilsen filled the tern void with weekly surveys of **Tuross Estuary** and charted the progress of five pairs of breeding Pied Oystercatchers. Scattered amongst the full spectrum of available habitats within the estuary (sandflats, mudflats, rocky islands and 'sandbag plateau' courtesy of the 'Tuross shorebird franchise'), each pair had one nesting attempt and fledged at least one chick apiece. Three of the pairs raised two chicks to the fledgling stage, once again deeming this site an Oystercatcher haven. Their most extraordinary achievement this season was revealed when Bill found a nest containing three chicks and one egg! Four-egg nests are an extremely rare occurrence and to our knowledge, there has only been one other record of such an event!

This season at **Brou Lake** two pairs of Pied Oystercatchers nested on the muddy sandflats dotted with samphire vegetation before the torrential downpours of December 7. One pair had two unsuccessful attempts and the other hatched two chicks. It was thought that the adults might have relocated the chicks to the northern sand dunes after the heavy rains, however sadly no fledglings were recorded on later visits. The group of 30+ Pied Oystercatchers that had been congregating at the lake for over a year also disbanded and dispersed to other sites after the rain. Large numbers were recorded later in the season in estuaries such as Baragoot Lake, Tuross and the Bega River for the first time ever.

Pied Oystercatcher nests were also noted on busy **Dalmeny Beach** near the entrance to Mummaga Lake and on the sand island within **Wagonga Inlet**. Although the single Dalmeny egg was found broken apart by an avian predator a week later, one chick fledged from the latter nest. Within the southern section of Eurobodalla National Park, two of the islands in **Corunna Lake** accommodated breeding pairs of Pied Oystercatchers. Whilst one nest met an unknown fate, the second pair hatched both eggs and then fed and protected one chick until it developed primary feathers. Two airborne juveniles were similarly recorded on **Tilba (1080) Beach**, however close monitoring of this area by Patricia Latimer indicated that they had originated from elsewhere. Despite two breeding attempts on the edges of **Tilba Lake**, within weeks of the nests appearing the site was devoid of all activity.

A first time paddle around **Merimans Island** on October 20 revealed three pairs of Pied Oystercatchers. Managed by Merimans Land Council, this duck-shaped island, which lies

Summary of Pied Oystercatcher breeding activity on the NSW South Coast during the 2003-2004 season

Site	Breeding Pairs	Nests	Eggs	Chicks	Fledglings	Main Fate(s)
Shoalhaven Heads	1	2	2	2	0	R(E)
			2	0	0	R(C)
Bherwerre Beach	2+	1	2	2	2	FI
			1	2	1+	1
Lake Conjola	1	1	2	0	0	F
Durras Lake	1	1	2	1	1	FI
Batemans Bay	1	1	2	2	0	U
Moruya Estuary	2+	2+	2	1+	1	FI
			2	0	0	2U
South Tuross Head	5	1	2	1	1	FI/ I
			2	2	2	FI
			4	3	1	U/ FI
			2	2	2	FI
Brou Lake	2	2	2	0	0	U(E)
			2	0	0	U(E)
			1	2	2	0
Dalmeny	1	1	1	0	0	Av
Wagonga Inlet	1	1	2	1+	1	FI
Corunna Lake	2	1	2	0?	0	U(E/C)
			1	2	2	1
1080 Beach	1	1?	2	2	2	FI
Tilba Lake	1	2	2	0	0	U(E)
			2?	0	0	U(E)
Merimans Island, Wallaga Lake	3	1	2	2	2	FI
			2?	1+	0	U(C)
			2?	?	0	U
Wallaga Lake	2+	1	2?	1	0	U(C)
			2	0	0	I
Bermagui	1	1	2	0	0	U(E)
Cuttagee Lake	1	1	2	2	2	FI
Murrumbidgee Beach	2	1	2	0	0	I
			2	2	1	FI
Aragunnu	1	1	2	1+	1	FI
Bithry Inlet	1	3	2	0	0	U(E)
			3	0	0	U(E)
			2	0	0	U(E), I?
Middle Lake	1	1	2?	1+	1	FI
Cowdroys	1	1	2	1+	1	FI
Nelsons Beach	1	1	2	2	2	FI
Mogareka	3	1	2	2	2	FI
			2	2	2	FI
			2	0	0	U(E)
Wallagoot Beach/Lake	4	2	2	2	2	FI
			3	0	0	U(E)
			2	0	0	U(E)
			2	2	0	U(C)
			2	2	0	U(E)
Wonboyn Beach	•2+	1	1	0	0	U(E)
			1?	2?	1+	1
Newtons	•1	1?	2?	1+	1	FI
Total	45	52	106	51	37	

I = inundated

NV = eggs not viable

F = eggs depredated by fox

FI = fledged

A = abandoned

D = eggs depredated by dog

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

• = unknown nest origin



Just hatched Pied Oystercatcher chick patiently awaits the arrival of his/her sibling, Bega Rivermouth, Mogareka. Photo: N.Spicer

within the backwaters of Wallaga Lake, provides ideal breeding habitat as it is protected from foxes, dogs and humans. One pair successfully raised two chicks and the family was regularly seen foraging on the adjacent shoreline not long after their first flight to the mainland. Near the lake's entrance, December's rainfall and increasing water levels coincided with the diminishing of the once expansive sandflats. For one resolute Oystercatcher pair, the atrocious weather conditions left them unfazed as they sat on the nest until less than a tissue-boxed size square of sand remained exposed. Yet the waters continued to rise and shortly after both eggs were flooded.

Early in the season, you could once again spot **Bermagui's** infamous pair of Pied Oystercatchers incubating their eggs on the grassed cliff all of 2m away as you drove over the bridge in the centre of town. According to the local postman, the birds have been breeding here for near ten years. Surely after failing for at least half of these you would try a different tactic?! Fortunately, for the **Cuttagee Lake** pair, their breeding spot of choice presents a much safer option. Protected from foxes and the numerous dogs and people that utilise this beautiful estuary, they fledged two chicks from the nest laid on their favoured sand island. Sue and Carl Swensson closely monitored the activities of two Pied Oystercatcher pairs within the **Murrah Estuary** during their paddles to the shell-covered sand spit to check on the Little Tern colony. The successful fledgling of one chick by the pair sharing this spit offset the inundation of the nest situated on the samphire flats further upstream.

Unlike the Hooded Plovers, the breeding efforts of **Aragunnu Beach's** pair of Pied Oystercatchers paid off. The position of their nest behind the foredune was well away from lapping waters and one fledgling resulted from this site. 'Pegleg', was once again determined

to breed at **Bithry Inlet** and tended two sets of two eggs and one three-egg nest this season. He persistently hopped over to the nest at parent changeover time, but sadly no chicks are known to have hatched. In contrast, at least two chicks did hatch out from Oystercatcher nests on the vegetated island within **Middle Lagoon** and those laid on **Cowdroys** and **Nelsons Beaches**. A total four fledglings were produced from these sites and continued the success story for Mimosa Rocks National Park.

Before the flourishing Little Tern breeding season commenced, the Oystercatcher pair which habitually nests on the **Mogareka** sand spit did so once more, as did the pair on one of the sand islands within the Bega River. A site visit to the sand spit on November 11 revealed a newly hatched chick and a cheeping egg, which also hatched later that day. The siblings both took to the skies about six weeks later. Fears that the 'island chicks' had disappeared were abated when Derek Van Bruck discovered that their parents simply fancied a spot of golf. After being relocating to hole 2 of the Tathra Golf Course, both chicks went on to fledge. A third nest was found further south on Tathra Beach, however the eggs were lost to an unknown cause the following day. Despite the lack of success on the tern front, **Wallagoot Lake** provided an Oystercatcher oasis this season, with at least four pairs breeding within its confines and on the adjacent beach. Several pairs that nested too close to the Little Terns endured constant harassment by the smaller shorebirds, however four chicks progressed to the fledging stage from the total 13 eggs laid.

In the far south of the state, Steve Burrows noted a single Pied Oystercatcher egg at **Wonboyn Lake** entrance on November 17. Two weeks later we inspected the site to ensure this nest would be unaffected by the impending lake opening, only to find the area devoid of all breeding activity. This nest is the only confirmed attempt for Nadgee Nature Reserve this season. Fledglings were seen on south Wonboyn Beach, as well as **Newtons Beach** in the wilderness area, however their nesting origin remains unknown. ♦

Sooty Oystercatchers

Sooty Oystercatchers were documented on six offshore islands and three islands located closer inshore this season. Single visits were made to most sites. Although this painted a relatively detailed picture of nesting attempts, increased effort needs to be invested in following up these visits to determine fledgling success as only limited information was gathered on productivity this season. In terms of numbers, 26 nests were found throughout the season on various islands up and down the coast. A number of the islands had low numbers of nests compared to previous seasons, as large sea swells at the end of November wiped out many, especially those located just above the high tide mark.

A trip to the Five Islands with SOSSA resulted in the location of 11 eggs on Flinders Island, a traditional Sooty Oystercatcher nesting

island devoid of Silvergulls. Seven eggs in four nests were also found on Big Island. In Jervis Bay, Bowen Island suffered from the big seas in early November with only one nest documented on the southern end of the island. Further south on Brush Island no nests at all were found after the large storm but fifteen pairs were recorded holding territories around the island's perimeter. No nests were found on Wasp Island by John Perkins this season where three nests have been recorded in the past. A trip to the Tollgate Islands on November 4 revealed six nests, all of which were way above the high tide mark. A pair of Sooties was seen acting suspiciously on Snapper Island within Batemans Bay late in the season, but no eggs or chicks were seen.

Montague Island was 'thoroughly' searched when wild weather in December turned a daytrip into a three-day mission which ended with a helicopter flight back to the mainland. At this time the majority of pairs were tending to newly hatched chicks, one of which was found huddled under a rock shelf with its surrogate Little Penguin mother during a fierce rainstorm. This trip also confirmed that twelve breeding pairs are occupying territories around Montague's rocky perimeter.

This season a number of "Claytons" offshore islands were explored for Sooty Oystercatcher breeding activities with some success. "Claytons" islands are those islands that are not really islands as they are connected to the mainland usually by a sand spit or a small rocky reef exposed during low tide. Being connected to the mainland they are visited by predators such as cats, foxes and dogs as well as people.

Peter Simmons witnessed a pair of Sooty Oystercatchers accompanied by a fledgling on **Green Island**. Although this island is connected to the mainland at low tide, it still has a number of nesting seabirds including Penguins, Shearwaters and Storm-petrels warranting further survey work in the future.

Jill Whiter has been watching the beaches in Geurilla Bay for close to 25 years and it has only been in the last two that she has noted Sooty Oystercatcher behaviour that suspiciously resembles breeding. On February 17 a pair of adults was seen feeding a juvenile; the exact same scenario as had been recorded almost a year prior to the day! Based on the size of the youngster and observations of the adults earlier in the season, it is strongly suspected that nearby **Half Island** was the nest site. Surveys were also undertaken on nearby Barlings

and **Broulee Islands**, however despite the latter providing ample foraging grounds, there was no evidence of Sooty Oystercatcher breeding at these locations.

Summary of Sooty Oystercatcher breeding activity on the NSW South Coast during the 2004-2005 season

Site	Pairs	Eggs	Chicks	Fledglings	Main Fate (s)
Big Island, Five Islands	4	7	?	?	U(E/C)
Flinders Island, Five Islands	6	11	?	?	U(E/C)
Bowen Island	2	4	2	?	U(C)
Green Island	1	2?	1+	1	FI?
Brush Island	15	0	0	?	I?
Tollgate Islands	6	11	?	?	U(E/C)
Snapper Island	1	?	?	?	N
Half Island, Geurilla Bay	1	2?	1+	1	FI
Montague Island	12	10	6	1+	U(C)/ FI
Total	48	~47	~10	~3	

N = no nesting recorded

I = inundation

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

FI = fledged



A pair of breeding Sooty Oystercatchers noisily defending their nest. Tollgate Islands. Photo: I. Vandyke

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