

# Southern Oceans Seabird Study Association Inc.

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20<sup>th</sup> February 2006

**David Cunningham**  
Ranger NSW NPWS.  
Ulladulla

## Murramarang and Tollgates Islands Report 2005-2006

David,

This season we had planned to conduct further studies into the breeding populations of several species of sea and shore birds breeding on the Tollgates and Murramarang Islands.

In addition to the annual monitoring of the breeding population of Sooty Oystercatchers. We were hoping to survey the Tollgates and Murramarang Islands to ascertain the current numbers of White-faced Storm-petrel (*Pelegodroma marina*), Wedge-tailed (*Puffinus pacificus*) Short-tailed (*Puffinus tenuirostris*), Sooty (*Puffinus griseus*) Shearwaters, Little Penguin *Eudyptula minor* and the Reef Egret (*Egretta sacra*)

No complete census has been conducted into these species breeding at the Tollgates and Murramarang Islands, the reported numbers of birds breeding on the islands was at best, "likely based on estimations" extrapolated from burrow densities found in accessible areas.

From our recent surveys over the past five years and review of passed records, it would appear that numbers of several species have declined significantly and other species have increased.

The Tollgates and Murramarang Islands remain largely inaccessible, due to their extremely rugged geology and sea conditions, It is unlikely that much of the islands steep cliff faces and inaccessible areas will ever be surveyed. Whilst this in it's self may offer the breeding birds protection from disturbance. It is important to survey colonies, to establish base line data against which change can be assessed.



Access route to top, western side of Nth Tollgates Island. Photos Lindsay E. Smith



Steep cliffs and areas suitable for burrowing Seabirds western side of South Tollgates Island.

In the past our surveys have concentrated on the Sooty Oystercatcher *Haematopus fuliginosus*, with minimal effort spent surveying / banding other species. This has been done consciously, to reduce the disturbance to the breeding birds.

The breeding season for the Sooty Oystercatcher at the Murramarang Islands extends from October to late February. The timing of the breeding season co-insides with the "Spring Tides".



Tollgates: Strait between North & South Island. Photo L.E. Smith

This ensures that the maximum amount of Littoral Zone is exposed to the birds, to forage for food to raise their chicks. Along with the very low tides come very high tides

These combined with Summer storms can prove disastrous for the breeding birds with many eggs and chicks being washed away.

There is little evidence to suggest that the birds will lay a replacement clutch, should the initial clutch be lost.



Sooty Oystercatcher on Snapper Island.  
Photo. L.E. Smith

Our visits to the islands in early November, have been timed to coincide with the peak egg laying period for the Sooty Oystercatcher at the Tollgates and Murramarang Islands.

This has been done to ensure that we record the maximum number of pairs breeding for each season with minimal disturbance to the birds.

The majority of pairs will have eggs, whilst others may have small chicks at this time.

The egg laying period for the White-faced storm-petrel at the Murramarang Islands is not precisely known. From the accounts of Battam et.al 1972 it appears quite protracted, with adults incubating eggs and fluffy chicks being found in December. However, the discovery of eggs in burrows on this visit indicate that it overlaps that of the Sooty Oystercatcher beginning in late September or early October. Storm-petrel chicks fledge in number from the islands in late January or early February. Disoriented chicks being found ashore on local beaches at this time by members of the public and local wildlife carers.

At this time the Sooty Oystercatchers would have chicks large enough to be located and banded.. All three species of shearwater known to breed on the islands Wedge-tailed, Short-tailed and Sooty would also have young in burrows at this stage. This would give us the opportunity to census their numbers and band the chicks of the season. These shearwater chicks do not begin to fledge from the islands till mid April. Thus the impact of disturbance by researchers would be minimal.

## **RESULTS OF PRESENT SURVEY**

### **Belowla Island:**

Tuesday November 10th 2005

Team members, Lindsay E. Smith, Janice Jenkin-Smith & Inger Vandyke SOSSA.

NPWS Shorebird Co-ordinator Michael Jarman was unable to assist due to NPWS / OH&S regulations and insurance requirements in going to the island in a non NPWS boat? Instead he remained ashore to assist the in retrieval of the SOSSA boat on return to the Kioloa boat ramp.



Belowla Island with Brush Island (R) and Bawley Point (L) in the distance as viewed from Kiola Boat Ramp. Photo Michael Jarman.

Landing difficulties would have been far reduced, safer and less difficult with aid of an additional person as planned. This was to have been Michael Jarman. NP&WS Shorebird Co-ordinator.

Time on island was limited to less than two hours, to minimise disturbance to breeding Oystercatchers. Rising seas and predicted strong Southerly winds, assisted in the decision to leave the island.

Known nest sights of Sooty oystercatchers were searched. In total 9 nests containing eggs were found and photographed. An additional two new nests ready for eggs were also located. See Table 1

There were White-faced storm-petrel burrows in abundance situated in low vegetation on top of the island, possibly more than 100 pairs breed on the island.

It is doubtful that present numbers breeding on the island would approach those estimated by H. Battam, R. Bradman and S.G. Lane at over 1000 breeding pairs, on December 17<sup>th</sup> 1972. SEABIRD ISLANDS No.3



A few burrows were checked and near fresh eggs were found in some.

Sooty Oystercatcher's nest and eggs on Belowla Island. Photo L.E Smith

Other burrows appeared complete though no eggs or birds were found in them.



### Little Penguin *Eudyptula minor*

A few Little Penguins were located amongst the rocks on top of the island.



Little Penguin breeding in crevice. L.E Smith  
L.E.Smith inspects a White-faced Storm-Petrel. I. Vandyke

It is doubtful that present breeding numbers would anywhere near approach those estimated by H. Battam, R. Bradman and S.G. Lane at 800-1000 breeding pairs. December 17<sup>th</sup> 1972. SEABIRD ISLANDS No.3

### Other Birds

Noted on this visit include Australian pelican, Little pied cormorant, Great cormorant Silver gull White-faced heron and Masked lapwing.

### Brush Island:



November 2005

Team members, Lindsay Smith, Janice Jenkin-Smith & Inger Vandyke (SOSSA).

We had planned to access Brush Island using the NPWS boat, the "Little Tern" with the assistance of yourself and Shorebird Co-ordinator Michael Jarman as discussed. In order to survey the island for breeding pairs of Sooty Oystercatchers. We were particularly interested to see if the recent Rat baiting programme had resulted in lower predation of eggs this season.

This was to be the first opportunity to survey the island since the baiting programme had been conducted.

Brush Island Photo L.E.Smith

However predicted Strong NW winds 20-30 knots. Meant that, due to "restricted survey" and limited capacity of the "Little Tern" it was not possible to access the island on this visit. A further visit was to be planned over the coming weeks to confirm whether the birds had attempted to breed this season.



Landing site Brush Island Photo Michael Jarman

NPWS Shorebird Co-ordinator Michael Jarman and NPWS Ranger Alan Norman were to survey the Islands later in November whilst most pairs would still have eggs or small chicks.

Landing on Brush Island is difficult.  
Photo Michael Jarman

Unfortunately weather conditions and time restraints did not allow access to Bush Island until early February 2006? Michael Jarman and NPWS Ranger Alan Norman went to the island to remove the remaining bait stations of the recent Rat Eradication Programme.



By this date most surviving chicks would have fledged from the Island to the mainland and disturbance to breeding birds would be minimal. Michael Jarman reported that there was little evidence that the Oystercatchers had bred or had been successful in fledging any chicks this season on Brush island.

However there appeared to be a marked increase in Little Penguin numbers and activity.

We are awaiting the outcome of the Rat Eradication Programme and are hoping that it will have a positive affect on breeding seabirds in the future.

## Tollgates Islands:

Wednesday November 9<sup>th</sup> 2005.

Team members Lindsay Smith, Janice Jenkin-Smith, Inger Vandyke (SOSSA)  
David Cunningham (NPWS) Ulladulla

Landing difficulties Nil

Strong NE wind 20-30 Knots. Seas rising to 3-4 metres.



A search of known nesting territories of Sooty Oystercatchers on the western side of both main islands indicated that 6 pairs were breeding on the islands.

An additional pair were holding a breeding territory on the North Island and may also breed this season.

Sea and weather conditions did not allow for a thorough search of the islands for breeding petrels or Reef Egrets.

Tollgates Islands Photo. Mike Double

## White-faced Storm-petrel *Pelagodroma marina*

White-faced Storm-petrel nesting habitat on the lower slopes of the Tollgates. Photo Lindsay E. Smith.

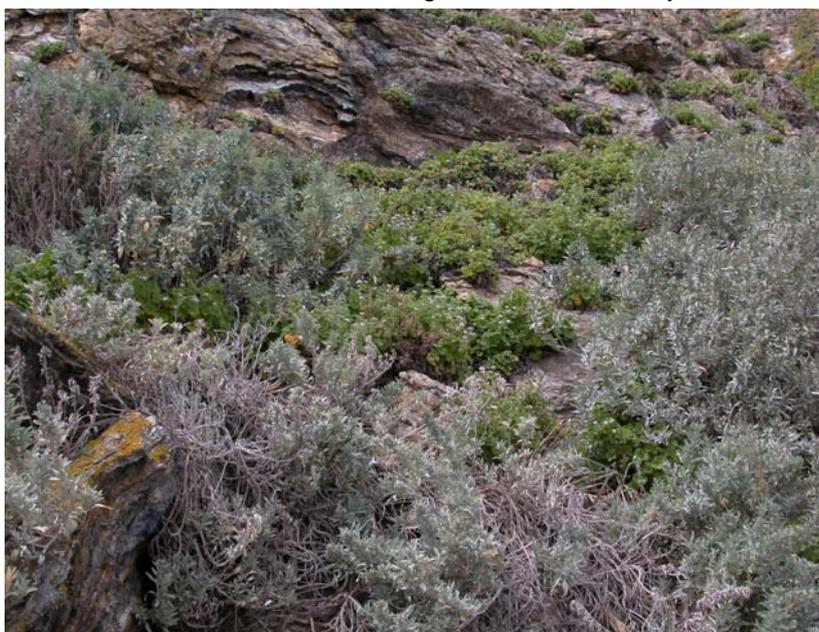
White-faced Storm-petrel burrows were in abundance on lower slopes, above the beaches on both main islands and around the base of the Pinnacle.

Though many burrows had been started, only about 20-25% appeared to be occupied by birds with an egg. This may indicate the protracted nature of the breeding season, some birds had not yet laid.

Due to NPWS / OH&S Insurance requirements?  
Rock-climbing certification and climbing gear.

This along with unfavourable strong N.E. winds meant that it was not possible to access the higher slopes and tops of the islands on this visit. Thus we were unable to determine numbers of breeding Storm-petrels, Shearwaters or Penguins.

**Little Penguins (*Eudpytula minor*)**



Figures quoted in the "Seabird Island series, No42. The Australian Bird Bander Vol 14, No4. J.L. McKean and P.J. Fullargar 1976. Estimated up to 5000 pairs breed on the Tollgates Islands.

These numbers appear very high in comparison to those found by our team. Several nests containing large chicks were located on the western side of both islands.

The current breeding population of Little Penguins appears quite small.

**This would suggest that numbers of seabirds on all islands in Murramarang N.P have declined significantly and require further assessment**

In the past seasons we have banded several adults and chicks on the Tollgates, opportunistically, though no tagged birds were located on this visit.



**The Reef Egret**  
*Egretta sacra*

The Eastern Reef Egret (Dark Morph) is becoming rare in southern NSW and has previously been recorded breeding on these islands.

Time and conditions did not allow a thorough search for evidence of breeding, 3-4 birds were observed on the islands were very active and might well have been breeding.

Reef Egrets are very shy birds particularly when nesting.

Eastern Reef Egret Photo Francis Hawshaw

Nests are often sited in caves or rock crevices, often precariously sited in holes in cliff faces, and are generally well hidden from view.

Other birds recorded on the Tollgates Islands on this visit included Peregrine Falcon, very vocal and active up to five birds, a pair with three chicks, Great Cormorant, Little black Cormorant, Little Grass bird.

## Snapper Island: (Bateman's Bay)

Wednesday November 9<sup>th</sup> 2005.

Lindsay Smith and Inger Vandyke landed ashore by David Cunningham and Janice Jenkin-Smith.

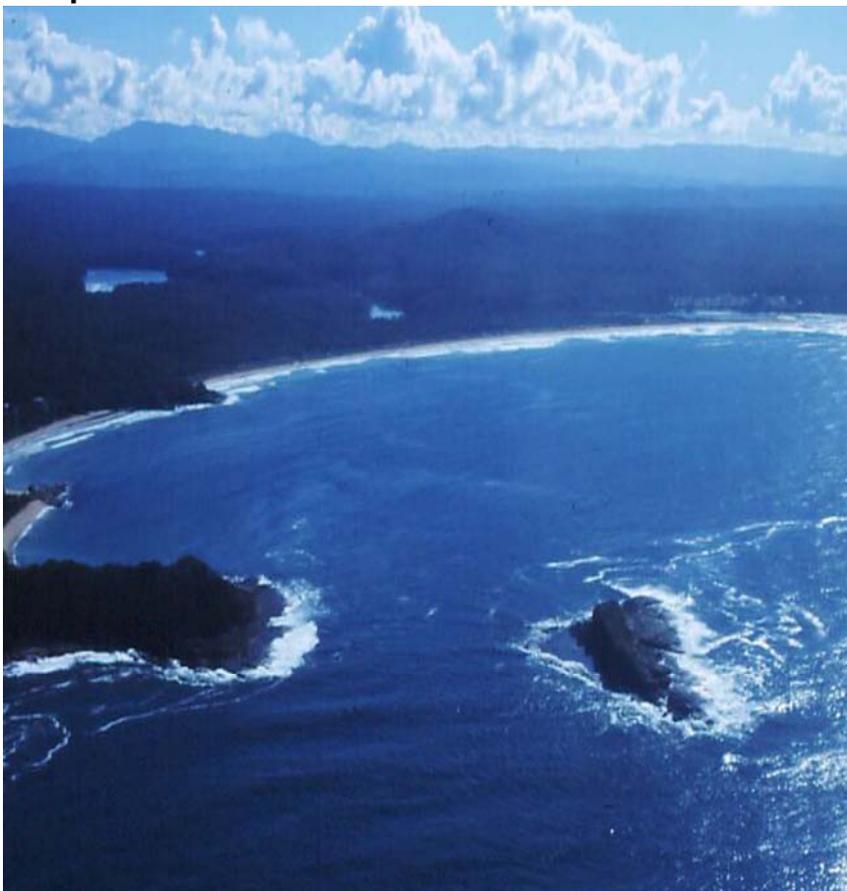
Snapper Island Eastern side. Photo. L.E. Smith



Snapper Island beach looking north east.  
Photos L.E. Smith

Two pair of Sooty oystercatchers were observed on Snapper Island. A pair on the western side of the island had a chick estimated to be about one week old. Though not currently under the NPWS jurisdiction this island is an important breeding site for the Sooty oystercatcher.

## Wasp Island



Unfortunately, due to logistical problems and weather conditions Wasp Island was not surveyed on this visit. Wasp Island holds good breeding populations of White-faced Storm-petrels and Shearwaters, all areas suitable for burrowing are occupied. In some parts of the island burrows are undermining the vegetation and causing erosion.

The island has not been surveyed for breeding petrels since our initial visit.

In the past six pairs of Sooty Oystercatcher have been recorded breeding on the island.

Wasp Island Photo. Mike Double

### **Grasshopper Island.**

Not surveyed on this visit. We have not been able to access Grasshopper Is since our surveys began.

A follow up survey is planned for early in the new year to determine whether any birds had successfully bred this year. Hopefully we will locate some shearwater chicks for banding.

Wasp, Belowla and Brush Islands are to be included in the next survey. Date to be determined. These islands are easily accessed by small boat and can be surveyed by SOSSA if conditions are suitable.



Grasshopper Island from Depot Beach. Inger Vandyke

### **Team Members (SOSSA)**

Lindsay Smith (Leader), Janice Jenkin-Smith (Co-ordinator Field Assistant)  
Inger Vandyke. (Photographer)

### **NSWPS**

Dave Cunningham Ranger  
Michael Jarman (Shorebird Co-ordinator)



Murramarang Island Team De-briefing Photo L.E. Smith

From the left:

Leonard Glasser, Michael Jarman, David Cunningham, Roger Dunn, Inger Vandyke, Janice Jenkin-Smith

The table below shows the distribution of breeding pairs of Sooty Oystercatchers recorded during this survey.

The assistance of the NSWPS in this survey is both welcomed and appreciated. Many thanks and congratulations to all who have assisted in this project.

Yours sincerely

L. E. Smith O.A.M. (conservation of Seabirds) For and on behalf of SOSSA.

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**SURVEY RESULTS OF SOOTY OYSTERCATCHERS BREEDING ON  
MURRAMARANG DISTRICT ISLANDS  
7th to 11th NOVEMBER 2005  
SOSSA / NSW NPWS**

**Table 1**

	<b>Site</b>	<b>Comments</b>	<b>Notes®</b>
	<b>Tollgates Islands</b>	<p>6 pairs with eggs 1 additional pair holding a known nesting territory</p> <p>The Sooty Oystercatcher population at the Toll Gates appears to be quite stable, the birds appear to withstand some breeding attempt failure, as had happened last season.</p>	<p>2 nests on north island beaches contained two eggs. Two nests on the south island contained 2 eggs. One nest contained 1 egg. A third pair were thought to be nesting on the beach west of the Pinnacle. The rock stack, mid way between main islands on western side held two nests each contained two eggs each last season. Conditions were unsuitable to attempt to land. These were not surveyed. On this visit.</p>
	<b>Snapper Island</b>	<p>1 Pair with a chick approximately 1 week old.</p> <p>1 additional pair appeared to be holding a breeding territory on northern side of the Island.</p>	<p>This island had not previously been surveyed. The discovery of two pairs on this island indicate that it is an important site for the Sooty Oystercatcher. Not currently under NSW P&amp;WS Jurisdiction.</p>
	<b>Wasp Island</b>	Not surveyed	Unfavourable weather and sea conditions prevented access.
	<b>Grasshopper Island</b>	Not surveyed	As above unable to land with safety.
	<b>Belowla Island-south point</b>	9 nests containing eggs, a further two new nests ready for eggs.	30 birds present on island, many of which appeared to be holding breeding territories.
	<b>Brush Island</b>	<p>No Survey completed this season to date.</p> <p>Re. Mike Jarman Shore bird Co-ordinator NPWS Ulladulla.</p>	<p>30+ birds present on island, some appeared to be holding breeding territories. breeding attempts. Unknown at present Re. Mike Jarman NPWS.</p>

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**SOSSA South Coast Islands – Species List**  
**Tuesday 08 November 2005**

<b><u>Depot Beach</u></b>	Mereroo Lakes area and road back to Depot
Eastern Yellow Robin x 1	Black Swans
Willie Wagtail x 1	Musk Ducks x 75+
Eastern Spinebills x 3	Chestnut Teal
Crested Pigeon	Little Pied Cormorant
Rainbow Lorikeet	Great Cormorant
Crimson Rosella	White Faced Heron
Galah	Swamp Harrier
Magpie	Superb Fairy Wrens
Red Wattlebird	Hooded Plovers
Little Wattlebird	Pied Oystercatcher
Peregrine Falcon	Satin Bowerbird
White-bellied Sea Eagle	Yellow-tailed Black Cockatoo
Little Lorikeet (less than 10)	Rufous Whistler
Striated Thornbill x 2	Golden Whistler
Brown Thornbill	Eastern Shrike-Tit
New Holland Honeyeater	Brown Thornbill
Superb Fairy Wrens	Little Cuckoo Shrike
Satin Bowerbird	King Parrots
Sooty Oystercatcher	Whipbird
Short Tailed Shearwater x 3 (deceased)	
Silver Gull x 5	
<b><u>Bateman's Bay</u></b>	<b><u>Mammals</u></b>
Pied Oystercatchers (Breeding pair)	Eastern Grey Kangaroo
Pelicans x 6	Swamp Wallabies x 5
Greater Cormorant	Wombat
Silver Gull	
Little Pied Cormorant	<b><u>Reptiles/Amphibians</u></b>
Magpies	Crinea Signifera.
Rainbow Lorikeets	Bleeting Tree Frog
Masked Lapwing	Peron's Tree Frog
Crested Pigeon	Eastern Water Skink
	Water Dragon

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**SOSSA South Coast Islands – Species List Birds**  
**Wednesday 09 November 2005**

<b><u>Depot Beach</u></b>	<b><u>Tollgates and Snapper Island</u></b>
Lewins Honeyeater	Reef Egret
Willie Wagtail x 1	Little Grassbird
Eastern Spinebills x 3	Sooty Oystercatchers
Crested Pigeon	Little Penguin
Rainbow Lorikeet	Black-faced Cuckoo Shrike
Crimson Rosella	Masked Lapwing
Galah	Peregrine Falcons
Magpie	White-faced Storm Petrels
Red Wattlebird	
Little Wattlebird	
Grey Fantail	
White -bellied Sea Eagle	
Little Lorikeet (less than 10)	
King Parrot	
Brown Thornbill	
Fantail Cuckoo	
Superb Fairy Wrens	
Satin Bowerbird	
Wood Ducks	
Gang Gang Cockatoo	
Whistling Kite	
Australian Ravens	
Silver Gull	<b>Mammals</b>
White -faced Heron	Eastern Grey Kangaroo
Little Corella	Swamp Wallaby
	Brush-tailed Possum
	Yellow- bellied Glider
	<b>Reptiles/Amphibians</b>
	Crinia Signifera .
	Bleating Tree Frog
	Peron's Tree Frog
	Eastern Water Skink
	Water Dragon

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**SOSSA South Coast Islands – Species List**  
**Thursday 10 November 2005**

<b><u>Depot Beach</u></b>	<b><u>South Durras Lake</u></b>
Scarlet Honeyeater	Striated Heron
Red Wattlebird	White- faced Heron
King Parrot	Australian Ravens
Rainbow Lorikeet	Pied Oystercatcher
Lewins Honeyeater	Little black Cormorant
Eastern Spinebill	Great Cormorant
Noisy Friarbird	Little-pied Cormorant
Olive-backed Oriole	White -bellied Sea Eagle
Fantail Cuckoo	Eastern Whipbird
Little Wattlebird	
Grey Fantail	
Dollar bird	
Kookaburra	
Purple Swamphen	
Magpie Lark	
Crested Pigeon	
Yellow –tailed Black Cockatoos	
Crimson Rosella	
Willie Wagtail	
Magpie	
Little Pied Cormorant	
Silver Gull	
Galah	
Superb Lyrebird	
Eastern Yellow Robin	
Channel - bill Cuckoo	
King Parrot	
<b><u>Belowla Island</u></b>	<b><u>Mammals</u></b>
Sooty Oystercatchers	Eastern Grey Kangaroo
Little Penguins	Swamp Wallaby
Pelicans x 3	Brush-tail Possum + Baby
Great Cormorant	
White-faced Heron	<b><u>Reptiles/Amphibians</u></b>
	Lamphrolis Delicarta
	Water Dragon (deceased on road)

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20<sup>th</sup> February 2006

## Murramarang and Tollgates Islands Report 2005-2006

Dear David, Tony & Dianne,

Please find enclosed the above report. We have learned a great deal more about the islands and have been captivated by their unique geology and natural history.

We were unable to achieve that which we set out to do on this visit. There is no shame in that! On the contrary. We are now better aware of what is required to perform the task at hand.

We have found that there is a great difference, between surveying the breeding population of Sooty Oystercatchers on the islands and surveying the Islands other breeding birds.

In order to conduct further studies into the breeding populations of birds on the Murramarang and Tollgates islands Will require further planning, investigation and assistance of the Parks Service.

Yours sincerely

Lindsay E. Smith OAM  
SOSSA – President  
For and on behalf of SOSSA

PS. This report has been sent to Tony Fleming Dianne Garrod  
and David Cunningham

\*\*\* Included in the report are the observation list while in the area.