



Colony in dead willows, Wainono Lagoon, South Canterbury. Image: Mary Thompson

Results of Royal Spoonbill Colony and Nest Census, 2013/2014

Royal Spoonbill (*Platalea regia*) is an Australian species that has successfully naturally colonised New Zealand since the 1950s. The Ornithological Society has been involved in studying spoonbills for several decades. The number of Royal Spoonbills in New Zealand has increased markedly over the last few decades from only 26 in 1979 to 2,360 in the 2012 winter census. It is likely that much of this growth is due to increased breeding in New Zealand, although further influxes of Australian birds cannot be ruled out.

During this last 2013/2014 breeding season *Birds New Zealand* undertook the first systematic, co-ordinated count of all the Royal Spoonbill colonies and active nests in New Zealand. The survey methodology was approved by the OSNZ Scientific Committee and was supported by grants from the OSNZ Project Assistance Fund. Many of the colonies are in fairly inaccessible places so a good deal of planning logistics and perseverance was needed by members to get to the colonies. Walking and all kinds of water transport – canoes, kayaks, inflatables, dinghies – as well as aeroplanes, were employed. Our thanks go to private landowners and Department of Conservation for facilitating access to some locations.

The total number of colonies now stands at 19 (see graph). The new colonies are at Porangahau River Mouth (Hawke's Bay), Havelock Harbour (Marlborough), Lake Ellesmere (Canterbury), False Islet (The Catlins), and two on islets in Bluff Harbour and at Waituna Wetlands (Southland). Earlier small colonies at Parengarenga (Far North) and Heyward Point (Otago) do not appear to have persisted. The newly-discovered colonies are surprisingly large, which suggests that they may have existed unnoticed for several years prior to this census. The large one at Lake Ellesmere was first seen the previous season. The only known colonies in the North Island are on the northern tip of Kapiti Island in the scrub between Okupe Lagoon and the sea, and on a small island in the Porangahau River estuary on the east coast of Hawke's Bay.

The total number of nests counted in the 2013/2014 breeding season was 614 (see table). This is probably a minimum number as the number of nests at some colonies could only be estimated because of difficulty of access or to avoid disturbance of the birds. Most of the previously known colonies have increased in size since they were first observed. The original colonies in the Wairau Lagoons were on islands in the lagoons and often associated with Pied Shag colonies – they even used old shag nests. Now the main colony is on an island in the middle of the Blenheim Oxidation Ponds and is the second largest in New Zealand.

The largest colony is now at Lake Ellesmere with 134 nests counted this season. Nesting occurred over a prolonged period as pairs were sitting on eggs while others had already fledged chicks in mid-November. There were at least twice as many birds in the area as those involved in breeding.

The first nests at Wainono Lagoon were found in 2003 on maimais – one maimai had seven nests. An Otago Branch field trip in November 2013 discovered another colony in dead willows overhanging the Hook Stream where it enters the lagoon, although there are still nests on the maimais and on isolated willows at the northwest end of the lagoon.

The large colony in the wetlands of Waituna/Awarua Bay, Southland was found from an aerial survey of the area on 22nd December 2013; an early Christmas present for the Southland Branch. This colony cannot be accessed by foot or boat! A Black-backed Gull colony was nearby.

From this census it is clear that Royal Spoonbill colonies are invariably located in sites particularly inaccessible to humans and so would experience very little disturbance. They are usually surrounded by or above water. They are on islands, small islets, rock stacks off the coast, islands within river estuaries, or deep within wetland areas, including the dense kahikatea swamps of Westland.

The colonies are often associated with Black-backed Gull colonies (Porangahau, Kapiti, Blenheim, and Waituna) and it is of interest whether the gulls offer some sort of protection or are actually predators of eggs and chicks. Some colonies have Stewart Island Shag colonies nearby (Maukiekie, Green Island), and at Wainono two Glossy Ibises in breeding plumage were present at the colony.

The site of the nest ranges from on the ground to many metres high in trees. The type of nest ranges from simply flattened grasses without much nest material to large loose constructions of interwoven sticks and twigs. At Lake Ellesmere and Havelock many nests were on the ground on flattened tussocks or rushes, and some built a nest, making a mound of sticks directly on the ground, or placed on driftwood. At Kapiti Island the nests are hidden among low scrub, *Coprosma prostrata* (mingimingi) and *Muehlenbeckia complexa* (pohuehue). On the rock stacks off the

▣ Nest in taupata canopy, Taieri Island. Image Philip Pointon.



Otago coast there are patches of 1-2.5 m high *Coprosma repens* (taupata) and large stick nest were built about a metre below the canopy of these trees. At Wainono the nests were built in willows at sites from 0.5 to 5 m above the water.

It is intriguing to speculate about what has contributed to the recent successful expansion of the number and size of colonies in New Zealand. From 1949 until 1980 the only known breeding colony of Royal Spoonbills in New Zealand was at Waitangirotu near Okarito, alongside the White Heron colony. It is presumed that the breeding colony at Okarito established following persistent arrival of vagrants from Australia, yet this colony has remained small and no more colonies became established in New Zealand until 1980. Richard Holdaway discovered the first nests away from Okarito on islands in the Wairau lagoons near Blenheim in the 1979/1980 breeding season. Since then the number of colonies has steadily increased, with most of them being located on the east coast of the South Island. Were the first of the new colonies founded by birds from Okarito or from new influxes of Australian birds? What changes have occurred since 1980 that would favour Royal Spoonbills and contribute towards the expansion that we have witnessed? In contrast to the success of Royal Spoonbills, White Herons still breed only at one location - Okarito, despite regular influxes from Australia. And Cattle Egrets, which have essentially colonised most of the world, have not succeeded in New Zealand as far as we know, despite being scarce winter visitors from Australia.

It will be interesting to see whether the Royal Spoonbills continue to extend their breeding areas. It is puzzling why breeding colonies have not yet established in the north of New Zealand, which is where 80% of the birds spend the winter. Why do birds spend winter in the far north but return in summer to southern areas to breed, rather than breeding in northern areas? One small colony was found at Parengarenga in 1992, but this does not appear to have persisted. There are many extensive harbours with infrequently visited inlets remote from human habitation so there may be colonies we are unaware of. We received a photograph of a Royal Spoonbill carrying sticks between pine trees on Rabbit Island, Nelson, so this will be a location to investigate next season.

MARY THOMPSON and PETER SCHWEIGMAN
Co-ordinators of the census

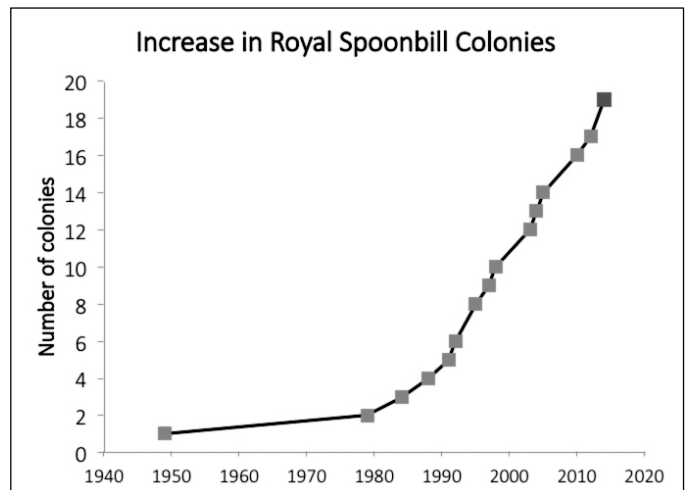
Location	Number of nests 2013/2014 season	Number of nests when first established
Porangahau River Estuary *	8	
Kapiti Island	(20)	3
Blenheim Sewage Ponds	64	5
Havelock Harbour*	5	
Okarito	(7)	2
Lake Ellesmere*	134	84
Wainono Lagoon (Sth Cant.)	34	14
Maukiekie Island	30	7
Taiaroa Head	28	3
Green Island	37	4
Taieri Island	(15)	25
Nugget Point	22	4
False Islet*	25	
Rainbow Isle	5	4
Omaui	18	25
Bluff Harbour-Tikore Island*	40	
Bluff Harbour-islet*	17	
Waituna wetlands*	60	
Pig Island-Riverton	(45)	2
Total number of nests	614	

Key:

* recently discovered colonies;

data from Schweigman P. (2006) Southern Bird 27: 10-11;

Counts in parentheses denote conservative estimates.



Graham Turbott

Many congratulations to Graham Turbott, who recently celebrated his 100th birthday. Brian Gill and Roy Clare (director of Auckland Museum) visited him recently to wish him many happy returns on reaching his century.

- Graham Turbott (left) with Roy Clare, director of Auckland Museum, nine days after Graham's 100th birthday. Roy is holding the card signed by Her Majesty The Queen. Photo by Brian Gill.



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