

THE POPULATION STATUS OF THE KELP GULL *Larus dominicanus* IN VICTORIA

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Kelp Gulls *Larus dominicanus* were first reported in Victoria in 1953 in Port Phillip Bay and currently occur around Port Fairy and Lady Julia Percy Island in western Victoria, Phillip Island and Port Phillip Bay in central Victoria and Wilsons Promontory and Lakes Entrance in eastern Victoria. Breeding of Kelp Gulls was first recorded in Victoria at Seal Rocks, near Phillip Island, in January 1971 and by December/January 2002–03, the breeding population in Victoria was c. 84 birds at three sites; 29 at Lady Julia Percy Island, 51 at Seal Rocks and four at Phillip Island. The overall rate of increase between 1970 and 2003 is estimated at 10.3 percent per annum. The implications of the expansion of Kelp Gulls in Victoria for the maintenance of local populations of Pacific Gull *L. pacificus* are unknown and require attention.

INTRODUCTION

The Kelp Gull *Larus dominicanus* is found in South America, South Africa, New Zealand, most sub-Antarctic islands and the Antarctic Peninsula (Blakers *et al.* 1984; Higgins and Davies 1996; Barrett *et al.* 2003). It has established colonies and increased in number and range in New Zealand since European settlement (Robertson 1974; Higgins and Davies 1996) and, in Australia over the past 60 years, notably in south-eastern Tasmania (Coulson and Coulson 1998) and in coastal parts of the Illawarra Region of New South Wales (Battam 1970; Murray *et al.* 1989).

In Victoria, Kelp Gulls were first reported in Port Phillip Bay in March 1953 (Wood 1953, 1955). Wheeler (1967) stated that the Kelp Gull was first reported in Victoria in Port Phillip Bay in February 1954 but no other details were given. The origin of Wheeler's (1967) report was likely to have been McGill (1955) who implied that the first record in Victoria was of a bird identified by P. J. Wood on February 28, 1954 at Avalon on Corio Bay. Surprisingly, Wood (1955) does not mention a sighting from February 1954. Wood (1955), in describing the first three apparent Victorian sightings, in March 1953, November 1954 and March 1955, noted somewhat erroneously of a Kelp Gull seen at Queenscliff that "It lacked the rounded plumpness of *pacificus*, and the strawberry flush at the point of the upper and lower mandibles was more extensive and deeper in colour than in that species." This comment by Wood (1955) engenders some uncertainty about the identification of birds he reported as "Kelp Gulls" in Port Phillip Bay.

Currently, Kelp Gulls occur along much of the Victorian coast with concentrations of sightings around Port Fairy and Lady Julia Percy Island in western Victoria, Western Port, Port Phillip Bay, Wilsons Promontory and Lakes Entrance (Atlas of Victorian Wildlife 2003; Dann *et al.* 2004). Breeding by Kelp Gulls in Victoria was first recorded at Seal Rocks in January 1971 (Warneke pers. comm.) and the species has extended its breeding range to the western end of Phillip Island (this study)

and Lady Julia Percy Island (Dann *et al.* 2004) (Fig. 1). In addition, breeding has been suspected in the past at Corsair Rock off Point Nepean in Port Phillip Bay (Garnett *et al.* 1986). This paper reviews the current status of Kelp Gulls in Victoria and presents results of a census of birds at their three known breeding sites in Victoria between December 2002 and January 2003.

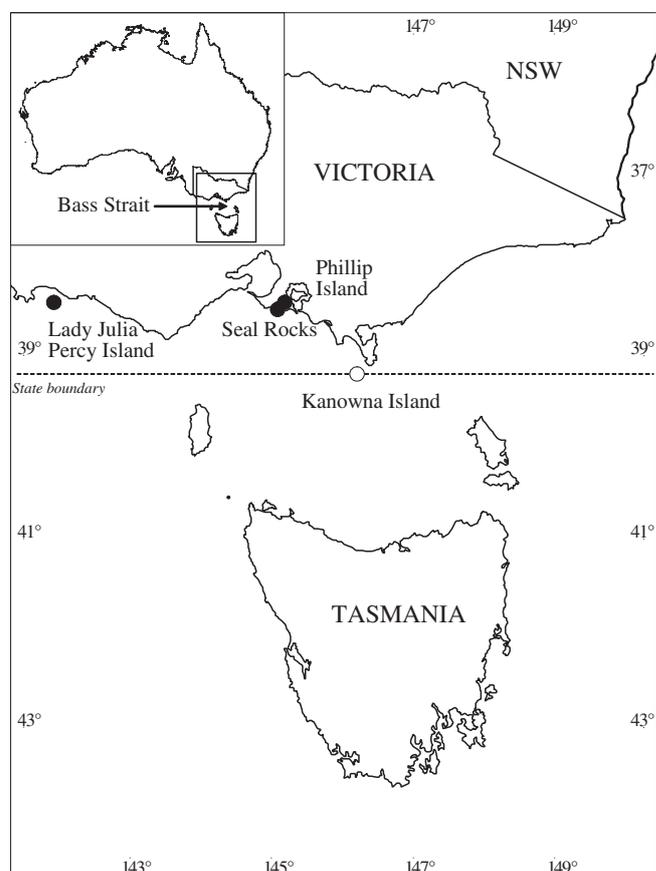


Figure 1. Locations of known Kelp Gull breeding locations in Victoria. Tasmanian colonies are not shown.

HISTORY OF OCCUPATION AND BREEDING

Seal Rocks – 4 km west of Phillip Island (38°32'S, 145°06'E), 8 hectares.

Single adult Kelp Gulls were seen at Seal Rocks in August 1968 and March 1969. A pair arrived in December 1970 and nested in the following January and nested in all subsequent summers to 1979, when they were joined by two additional pairs (Warneke pers. comm.). Further counts were not made until irregular visits began in February 1997 and continued up to January 2006. Forty-one counts of Kelp Gulls on Seal Rocks between 1997 and 2006 recorded a mean (\pm s.e.) of 31.8 ± 2.57 . Maximum counts of adults (determined from plumage – see Higgins and Davies 1996) occurred in December/January and coincided with the period when most birds were tending chicks. Laying dates varied from 28 October (estimated) to 13 January (observed), with most eggs being laid in the first half of November (Warneke and Dann unpub. data). Consequently, December/January counts have been used to show the trend in annual breeding numbers at Seal Rocks (Fig. 2). These were available only in 2000, 2002 and 2006 between 1997 and 2006. The counts were conducted from a central vantage point on the top of the South Plateau (south of the hut) with 10 x 40 binoculars. All areas, with the exception of the southern side of Black Rock, could be clearly observed from this point. There were 51 adults counted on the Rocks on 27 December 2002. Breeding on Seal Rocks is limited to sites on the sides and edges of cliffs where the 3–8 000 resident Australian Fur Seals *Arctocephalus pusillus doriferus* (Kirkwood *et al.* 2005) have no access. Pacific Gulls now occur on Seal Rocks in small numbers (1–5) occasionally whereas 40 years ago they were usually present and in larger numbers (Warneke and Dann unpub. data). There are no records of them ever having bred there.

Phillip Island (38°31'S, 145°08'E), 10 000 hectares.

Kelp Gulls have nested on the Summerland Peninsula at the western end of Phillip Island (and two kilometres east of Seal Rocks) from December 1995 to January 2006 and raised several young there. Another pair has nested on a rock stack near 'The Blowhole' at the Nobbies on the Summerland Peninsula every year since November 2002 and a third pair started nesting on a granite rock stack adjacent to Pyramid Rock on the south coast of Phillip Island in November 2005. The majority of the coastline of Phillip Island has been surveyed for gulls five times a year and breeding sites noted. Large numbers (200–300) of Pacific Gulls occur around the coast of Phillip Island particularly along sandy beaches and areas adjoining mudflats. They are less abundant along the rocky shores where most Kelp Gulls occur. Pacific Gulls do not breed on Phillip Island.

Lady Julia Percy Island (38°42'S, 142°00'E), 150 hectares.

The first available evidence of Kelp Gulls breeding at Lady Julia Percy Island was an observation of several birds behaving territorially on the island in January 1995 (Farnes pers. comm.). Three nests were found in January 2000 (two with one egg and one with two eggs) as well as five young (Dann *et al.* 2004). In January 2003, 29 adults were seen on the island on two consecutive days, as well as eight fledged young and two birds in their second year. There were also two nests with two eggs and one with one egg, and one brood of two chicks less than one week old. Maximum counts of adults were made by traversing

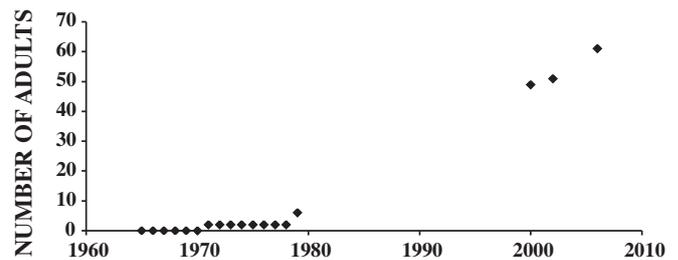


Figure 2. The maximum number of adult Kelp Gulls counted on Seal Rocks in December/January between 1965-1979 and 2000-2006 (Warneke and Dann unpub. data). Note that 51 birds were taken as the number of birds breeding on Seal Rocks for the 2002-03 breeding estimate.

the whole island several times in January 2000 and January 2003 and 26 and 29 birds were recorded respectively (Dann *et al.* 2004). The seals appeared to provide the main source of food for Kelp Gulls there and extensive observations over three days in January 2000 revealed that, at that time, adult gulls rarely fed on anything other than squid remains regurgitated by seals (Dann *et al.* 2004). Pacific Gulls are uncommon at this site and only occasional sightings are made (Dann *et al.* 2004).

BREEDING POPULATION IN VICTORIA

It is considered that the Victorian breeding population in 2002–03 was c. 84 birds comprising 29 at Lady Julia Percy Island, 51 at Seal Rocks and four at Phillip Island. There is also an unknown number of pre-breeding individuals associated with each of these sites. It seems likely that breeding also occurs on islands around the southern tip of Wilsons Promontory, as there have been reports of Kelp Gulls in that area for 50 years. Wood (1955) reported a single bird flying past a ship near Wilsons Promontory in November 1954. Birds were seen on three occasions between 1964 and 1973 during monthly surveys around Wilsons Promontory (Cooper 1975), more frequently at sea around the southern part through the 1980s (Reid *et al.* 2002) and were frequently recorded in the area in the 1990s and early 2000s (Atlas of Victorian Wildlife 2003; Barrett *et al.* 2003). All the known breeding sites in Victoria are located near colonies of Australian Fur Seals and there are several seal colonies around Wilsons Promontory (Kanowna Island, Rag Island, West Moncoeur Island – Kirkwood *et al.* 2005), which may have the potential to be breeding sites in the future. Fur seals provide a significant source of food for Kelp Gulls through regurgitated food remains, which may attract the gulls to breed in these locations. For example, on Seal Rocks, Kelp Gull diet consists largely of squid (*Nototodarus gouldii* and *Sepia sp.*) and fish vomited by seals, fresh seal placentae, and, occasionally, fresh seal carcasses (Warneke and Dann unpub. data).

Victorian Kelp Gull breeding sites differ from those in southern Tasmania (Brothers *et al.* 2001) in that they are not related to human refuse disposal sites (Coulson and Coulson 1998), do not have breeding Pacific Gulls and are associated with seal colonies. The role of refuse sites in Victoria is unlikely to be as important in the spread of Kelp Gulls in Victoria as it seems to have been in Tasmania (Coulson and Coulson 1998), as they are now being closed or managed in a manner that reduces avian access substantially.

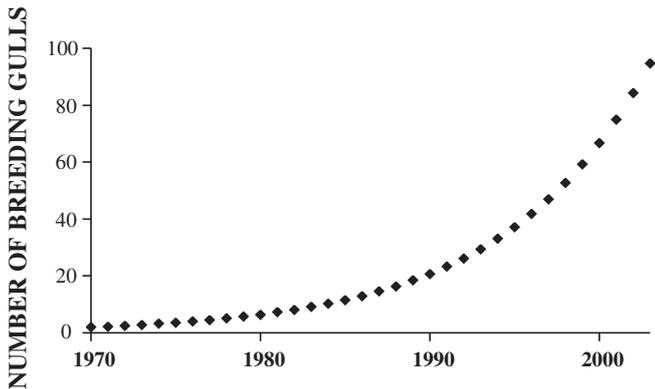


Figure 3. Estimated exponential growth curve (10.3 percent annual increase) of breeding Kelp Gulls in Victoria since 1970.

POPULATION TREND IN VICTORIA

The number of breeding Kelp Gulls in Victoria has increased from two in 1970 to c. 84 in 2003, an annual growth rate of 10.3 percent if an exponential function is assumed (Fig. 3). A logistic growth curve would be a more appropriate function relating population size to time but it is not known at what point resources are likely to become limiting in this case. The number of breeding locations has increased to at least three over the past 30 years, and as additional nesting sites seem limited at Seal Rocks (the main breeding site) (pers. obs), an increase in the number of new breeding sites seems likely. At some stage in the future, the rate of growth would be expected to be tempered by intraspecific competition for nest-sites and food. Interspecific competition with Pacific Gulls may also play a part in determining the rate of population growth once the two species start breeding sympatrically in Victoria.

It is recommended that monitoring of Kelp Gull abundance in Victoria be maintained. The implications of the expansion of Kelp Gulls for the local population of Pacific Gulls are unknown and require urgent attention. In particular, it is important that the extent of competitive interactions between Kelp and Pacific Gulls is evaluated to determine whether any effects on Pacific Gulls, if detrimental, require management.

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