

SHORT NOTE

Sightings and dispersal of red-billed gulls (*Chroicocephalus novaehollandiae scopulinus*) banded at Kaikōura, New Zealand, 1959–1970

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Red-billed gulls (tarāpunga, *Chroicocephalus novaehollandiae scopulinus*) occur around the coasts of New Zealand. They are described as “Least concern” by BirdLife International (2022), who merge them with the Australian silver gull (*C. n. novaehollandiae*). However, the New Zealand subspecies was listed as “At risk: Declining” under the New Zealand Threat Classification (Robertson *et al.* 2021). Frost & Taylor (2018) reported a national survey undertaken in 2014–16 which indicated that the population had declined by 33% since 1965. The Kaikōura Peninsula colony, the subject of this note, declined by 51% between 1993 and 2003 (Mills *et al.* 2008) and more through to 2014 (Mills *et al.* 2018). In contrast, numbers in Otago increased since the early 1990s (Lalas *et al.* 2022).

Summaries of banding activities in New Zealand from 1951 show that Brian Bell probably banded the first red-billed gulls at Kaikōura Peninsula, 889 in 1958–59 (Kinsky 1959). In 1959–60 birds were banded at Kaikōura Peninsula by Brian Bell (809 birds), L.K. Clark (700 birds) and Ken Rowe (711 birds) (Kinsky 1960). This early banding at Kaikōura progressed into a study by Jim Mills that is continuing through to the present day (Mills 1970; Mills *et al.* 2018).

From 1959 to 1970, 11,797 birds (11,563 chicks and 234 adults) were banded at Kaikōura under the

permits of Ken Rowe. Aluminium size E bands were used until 1967, monel bands in 1968 and stainless steel in 1970. Butt closure was the main band style used except for 2,500 size H lock bands used in 1959 to 1961. The aluminium bands were susceptible to wear by movement against legs, abrasion by particles, and corrosion in salt water (Mills 1972). Band loss occurred after 4 years for butt-to-butt bands and after 6 years for lock bands (Mills 1972) which limits reliable re-sighting duration estimates unless birds were re-banded with stainless steel bands.

Higgins & Davies (1996) reported that most birds dispersed from their colonies in the non-breeding season, although some were sedentary. This note reports sightings, including those found dead, of Kaikōura chicks banded by Ken Rowe. Data used are from paper recovery slips sent to Ken Rowe by the precursors to, and from, the Department of Conservation (DOC) Banding Office that have not been lost through many household shifts, or from files sent to the author from DOC.

In the DOC database, location coordinates were rounded down to 10', i.e. 42°25'S, 173°42'E was coded as 422S 1734E, which leads to an inherent error in distance up to ± 23 km. Directions in the database are recorded to ±11.25°, e.g. as NNE etc., which equates to an arc of about ±20 km at 100 km distance from Kaikōura Peninsula. Therefore, defining the exact location of sightings from the database

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also has this potential inaccuracy to consider. There were 4,060 sightings of birds recorded 0 km to 19 km from the banding site (Table 1). The great majority of these would have been at the colony and included many dead chicks; there would have been some a short distance off the colony; however, the records that I have cannot distinguish them.

Of the 4,060 sightings of Kaikōura red-billed gulls, 994 were of dead birds. Most were listed as “dead” but included many chicks that died of unknown causes before fledging, and birds that were depredated or died of unknown causes. Sight readings of bands, 3,116, would have included birds with worn aluminium bands that were re-banded with stainless steel bands, including the addition of unique colour combinations from 1968-69 (Mills 1970, 1972; author *unpubl. data*) and observations of breeding birds by Jim Mills and a few experienced ornithologists.

There were 2,969 sightings of birds at distances given as >19 km from Kaikōura (Table 1). A sample of 199 recovery slips from DOC still held by the author showed the types of sightings away from Kaikōura were: sight including of breeding birds at colonies away from Kaikōura (95); unspecified “found dead” (72); there were 32 only with known causes of death as shown in Table 2. Very few recovery slips listed colour combinations, suggesting sight recoveries were of birds caught and released with the band number recorded, or unspecified sight recoveries.

Two observations were “at sea”, one being 80 km east of Kaikōura and the other 90 km out in the Tasman Sea off Greymouth. The longest distance recovery was aluminium band E33985 found in 1995 at the Chatham Islands (795 km ESE). This was reported as “band only”, and so the time between banding, 23 Nov 1963, and the bird’s demise cannot be determined. However, there is no reason to doubt the location as red-billed gulls can travel large distances, having been reported as stragglers to the Kermadec and Lord Howe Islands (Checklist Committee 2022), a Kaikōura bird was found in Australia in 2017 (Mills *et al.* 2020), and there are breeding colonies at the Chatham Islands (Mills 2013).

Dispersal from Kaikōura Peninsula within New Zealand ranged from E19245 at Kaipara Harbour, 644 km N, to H12082 at Stewart Island, 667 km SW. These are at the top end of recoveries reported in New Zealand, Kaikōura to Point Chevalier, Auckland by H6612 at 625 km (Kinsky 1962) and Lake Grassmere to Mullet Bay near Bluff by E6254 at 715 km (Kinsky 1963); Mills (2013) generalised maximum dispersal at 650 km. The northernmost sighting, Kaipara Harbour, was one of six Kaikōura Peninsula birds sighted in Auckland Province (Table 1). Sparse sightings in Hawke’s Bay (six), in Taranaki (seven), and those outside of a 30 km radius of Wellington City (35) make a total of 64 in the provincial North Island, 1.8% of all sightings outside of Kaikōura.

Table 1. Localities where red-billed gull chicks banded at Kaikōura Peninsula from 1959 to 1970 were sighted. Wellington City and Christchurch are birds found within 30 km of the city centres.

Area	Total	Live	Dead
At sea	2	1	1
Chatham Islands	1	0	1
Auckland	6	3	3
Hawke’s Bay	6	5	1
Taranaki	7	4	3
Wellington	35	27	8
Wellington City	439	380	59
South Island West Coast	6	6	0
Nelson	69	60	9
Marlborough	91	56	35
Inland from Kaikōura	29	27	2
Kaikōura + 19 km	4060	3116	944
North Canterbury	7	3	4
Christchurch	2024	1933	91
South Canterbury	131	109	22
Otago	108	87	21
Southland	7	2	5
Stewart Island	1	1	0
Total	7029	4730	1209

Table 2. A sample of the types of sightings (and cause of death) of red-billed gulls away from Kaikōura.

Sighting	Number
Sight	80
Sighting breeding birds	15
Unspecified “found dead”	72
Vehicle	18
Powerline	1
Plough	2
Shot	3
Aircraft	1
Fishing line/net	7
Total	199

Only eight of these sightings were on the east coast, none was reported inland, and the rest were on the west coast. Within a 30 km radius of Wellington City centre, 439 more sightings were reported. Those in the outskirts of the Wellington City grouping were generally on the west coast north to Porirua (about 20 birds); however, as the majority were reported as “Wellington”, it is not possible to define the individual localities given the distance and direction constraints.

In the South Island, few birds were found on the West Coast (6), although a bird banded at Kaikōura Peninsula was reported at Charleston (Kinsky 1962), and 29 were reported about 90 km west from Kaikōura centred on Hanmer, the only area in New Zealand where significant numbers of Kaikōura birds were reported inland. Coastal Nelson (69) and Marlborough (91) were regions north of Kaikōura with multiple sightings. There were seven sightings from north Canterbury and 2,024 within 30 km of Christchurch City centre. South of Christchurch, there were 131 sightings in South Canterbury, 108 in Otago, seven in Southland, and one at Stewart Island. Sightings were predominantly in, or at coastal sites, near the main cities, with those from Nelson, Blenheim, Christchurch, Timaru, Oamaru and Dunedin making up 88.8% of sightings outside Kaikōura. Sightings at Christchurch were particularly high, mainly because R.J. (Dick) Jackson made extensive sightings throughout the area over a number of years, including 1971–74.

There were 3.5 times as many sightings of birds to the south of Kaikōura compared to the north. Repeat sightings showed that birds that headed north or south tended to always do that. However,

there were about 50 instances where a bird was seen both to the south and to the north, e.g. in Christchurch and Wellington in different years. Birds were sighted as soon as 67 days after banding in Wellington, and at 74 days in Christchurch; one bird was sighted in Dunedin at 62 days.

There were 15 instances of Kaikōura birds seen by Dick Jackson breeding in the Christchurch area (Table 3). While changing colonies is not the norm (Higgins & Davies 1996; Mills 2013), one reported instance of a red-billed gull nesting at a colony other than where it was bred was a Kaikōura bird at Taiaroa Head Otago Peninsula, (442 km SW of Kaikōura), from 2004–07 (Perriman & L alas 2012). Mills (1970) reported birds banded as nestlings at Kaikōura have been seen breeding at Lake Grassmere (85 km N of Kaikōura), Nelson (130 km NNW), Kapiti Island (300 km NNE) and the Waitaki River mouth (350 km SW). The furthest sighting of a bird from Kaikōura breeding away from its natal colony was E102951 at Lake Rotorua in 1982 and 1983 (G. Taylor *pers. comm.*; DOC FALCON database).

Table 4 lists recoveries of red-billed gulls banded as chicks and recovered more than 15 years later. Many of these were of uncertain age as they were

Table 3. Observations of Kaikōura banded red-billed gulls breeding in the Christchurch area made by R.J. Jackson in 1971–74; each number is a given nest. * signifies the same bird in consecutive years.

Site	Number of eggs in nests	Number of chicks in nests	Age of known adult (years)
Little Port Cooper	1,2		11,9
Whitewash Head	2,2,1		7*,8*,3
Whitewash Head		1,1,2,2,2	10,9,10,9,9
Sumner Head	1,2,2		11,6,6
Sumner Head		3,2	12,9
Total nests	8	7	15

Table 4. Ages of oldest sightings of red-billed gulls banded at Kaikōura 1959–1970.

Band Number	Band Material	Age (years)	Comments
E43328	Aluminium	46.2	Band only - date of death uncertain
E33985	Aluminium	38.0	Band only - date of death uncertain
E41137	Aluminium	35.5	Band only - date of death uncertain
E95481	Stainless steel	~28.8	Dead – day & month uncertain – year known
E95194	Stainless steel	28.2	Dead
H11144	Aluminium	24.2	Skeleton under house – date of death uncertain
E75452	Monel	17.9	Alive
H11838	Aluminium	17.9	Leg only - date of death uncertain
E43599	Aluminium	17.3	Dead
E38000	Aluminium	15.9	Alive
E75791	Monel	15.6	Dead
E47088	Aluminium	15.1	Band only - date of death uncertain

reported as a band only, leg only, and a skeleton of unknown age. The most reliable age was 28.2 years from a bird found dead at Kaikoura, E95194 with a stainless-steel band. This recovery is older than other specific individual ages that I found in the literature and provides context for the order of generalised longevity of 30 years in Mills (2013) and 28 years in Heather & Robertson (2005). The oldest sighting of a bird with a monel band was E75452 alive at 17.9 years, and for a bird with an aluminium band (and that had not been re-banded) the oldest recovery was E38000 seen alive at 15.9 years; this is very high as Mills (1972) reported loss of aluminium bands through abrasion after about 4 years. The oldest recovery of a bird with an aluminium lock band and that was not re-banded was H7943 seen at Little Port Cooper on a nest with one egg 10.9 years after banding; Mills (1972) reported band loss of aluminium H-bands from about age 7 years. Thus, unless re-banded, it is likely that many birds lost their bands while still alive.

In summary, this note has shown red-billed gulls from Kaikōura dispersed widely, up to 667 km, both north and south, and lived up to 28 years-old.

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