Seabirds Found Dead on New Zealand Beaches in 1994

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ABSTRACT

During 1994, participants in the Beach Patrol Scheme patrolled 3253 km of the New Zealand coastline. 5477 dead seabirds of 55 species, plus 121 individuals of 25 nonseabird species were found. Unusual finds were the first New Zealand record of a Newell's Shearwater (*Puffinus newelli*), one Soft-plumaged Petrel (*Pterodroma mollis*) and one Eastern Little Tern (*Sterna albifrons sinensis*). Large numbers of Kerguelen Petrels (*Lugensa brevirostris*), Flesh-footed Shearwaters (*Puffinus carneipes*) and Buller's Mollymawks (*Diomedea bulleri*) were beach-cast in 1994. Fisheries-related mortality was identified for some seabirds found on beach patrols.

KEY WORDS: Seabird mortality, Newell's Shearwater, Puffinus newelli

INTRODUCTION & METHODS

This paper records the results of the Ornithological Society of New Zealand's Beach Patrol Scheme for 1994. All sections of coast (see Powlesland & Imber 1988) were patrolled, except Outlying Islands. In total, 557 Beach Patrol cards were received by 1 May 1996.

Kilometres 'travelled' are the total distances searched during patrols, whereas kilometres 'covered' are the lengths of coast patrolled monthly. Hence, if the same 1 km stretch of beach is patrolled twice in one month, 2 km have been travelled but only 1 km covered per month. For a detailed description of methods for beach patrolling and of the beach patrol scheme see Powlesland & Imber (1988). The taxonomic nomenclature and sequence are as in Turbott (1990). For the meaning of the abbreviations for each section of coast (e.g. AW = Auckland West), see Table 1. Information from beach patrol cards are stored on the Beach Patrol Database and a database summary table is used to compare the number of birds found in previous years with the number found on 1994 beach patrols.

RESULTS AND DISCUSSION

Recoveries in 1994

In 1994, the total length of coast travelled was 3253 km, along which 5477 seabirds were found by 183 members of the Ornithological Society of New Zealand and their friends. On average, 1.86 birds per kilometre of coast covered were found (Table 1). The total distance travelled was 79% of the average of 4102 km per year

recorded over the past 23 years (1971-1993), while the number of seabirds found in 1994 was only 56% of the annual average of 9786 birds for the same 23-year period. This period is used for comparison because the distance travelled annually was fairly constant, whereas from 1943 to 1970 the distance travelled increased (Powlesland 1990). This is the ninth year in succession that below average numbers of seabirds have been found on New Zealand beach patrols. Table 1 shows the kilometres covered, the number of seabirds per month, and in total, for the various sections of coast, plus the number of birds found per kilometre covered for each coastal section. Coastal and monthly totals for 'uncommon' species (15 or fewer specimens) are given in Table 2, while for 'common' species (more than 15 specimens) coastal totals are presented in Table 3 and monthly totals in Table 4.

Unusual finds

A female Newell's Shearwater (*Puffinus newelli*) was picked up on Dargaville Beach (AW) on 13 November 1994. This is the first record for New Zealand and the southernmost occurrence of this species. Another bird was found alive but injured on Tutuila, American Samoa on 26 January 1993 (Grant *et al.* 1994). These observations suggest that this species, which breeds in Hawaii, may occasionally wander south to tropical or temperate waters of the Southern Hemisphere. The Dargaville specimen has been deposited in the Museum of New Zealand, Wellington (No. 25004). Newell's Shearwaters can be separated from other small *Puffinus* species which occur in the New Zealand region by their dark black upper surface, white underparts and extensive black feathering on the undertail coverts.

A Soft-plumaged Petrel (*Pterodroma mollis*) was found on a Napier beach (EC) on 23 June. The first beach-wrecked Soft-plumaged Petrel recorded on a New Zealand beach was found in the Bay of Plenty in November 1971. Three other specimens have been recorded in the Beach Patrol Scheme. These were found in December 1974 (AE), June 1978 (WS) and November 1984 (BP) (Powlesland 1987). Interestingly, all have been found on beaches along the eastern or southern side of the North Island. The nearest known breeding colony is on the Antipodes Island (Turbott 1990).

An Eastern Little Tern (*Sterna albifrons sinensis*) was picked up on Muriwai Beach (AW) on 1 October. This is the eighth record for the Beach Patrol Scheme. All specimens recovered by beach patrollers have been found between October and April. Four have been picked up on Auckland West beaches, two on Auckland East beaches, one on the Wairarapa Coast and another from Canterbury South.

A Wedge-tailed Shearwater (*Puffinus pacificus*) was found on Muriwai Beach (AW) on 16 February. Thirty-one have previously been recorded by patrollers although only half this number were recovered on mainland beaches. Seventeen were picked up on beach patrols of Macauley Island, one of its breeding islands in the Kermadec group, in 1988 (Powlesland & Pickard 1992).

Six Sooty Terns (*Sterna fuscata*) were found by patrollers in 1994. Four were on Dargaville Beach (AW) on 13 November and two on Wellington West beaches on 14

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No. of birds/km coast covered 2.93 2.71 1.02 1.13 0.96 0.78 0.97 2.16 3.30 1.88 2.34 1.92	Total no. of birds reco	overed		551	639	236	206	150	215	207	101	641	658	775	498		5477	
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DECEMBER 1996 SEABIRDS FOUND DEAD ON NZ BEACHES IN 1994

TAYLOR

Species/ subspecies	No.	Coast(s)	Month(s)
	found	`	
Diomedea spp	7	AW(2) CN SD TA WW(2)	Ian(2) Feb Mar Iul Aug Oct
D.melanophrys	3	AW(3)	Feb Jun Aug
D.ebomobhora	1	WW	Iul
D.cauta subspp.**	3	WS,WW(2)	Jan.May.fun
D.chrysostoma	8	AW(6),TA(2)	Jun(4).Jul.Aug.Oct.Dec
Phoebetria palpebrata	3	AW(2),BP	Aug.Oct.Dec
Puffinus spp.**	6	AW.CN.EC.NC.WS.WW	Jan(3). Feb Sep.Nov
P.pacificus	1	AW	Feb
P.gavia/huttoni	1	WW	Aug
P.newelli	1	AW	Nov
Procellaria cinerea	2	AW,WW	lan.lun
P.parkinsoni	8	AW(3),AE(5)	Feb.Mar.Apr(3).Aug.Oct.Dec
P.westlandica	3	AW,CN,TA	Feb.Mar.Nov
Fulmarus glacialoides	5	AW(4),NC	Jun, Jul, Aug, Sep, Oct
Pachyptila desolata	7	AW(6),TA	Jun(2), Jul(2), Aug, Oct(2)
Pterodroma spp.**	5	AW(4),BP	Jan,Apr(2),Dec(2)
P.pycrofti	1	AE	Aug
P.mollis	1	EC	Jun
Pelagodroma marina	7	AW, AE(4), BP(2)	Jan(2),Feb,Sep,Nov(2),Dec
Megadyptes antipodes	2	NC,SD	Mar,Jun
Eudyptes pachyrhynchus	1	SD	Oct
Phalacrocorax carbo	8	AW(2), BP, EC(4), WW	Jan(4),Feb,Apr,Jun,Oct
P.sulcirostris	4	AW(2),EC,WS	Apr,May,Aug,Dec
P.melanoleucos	4	EC,SD,TA(2)	Jan(2),Mar,Jul
Leucocarbo chalconotus	10	OT(2),SD(8)	Jan, May, Jul(4), Aug(2), Sep, Nov
Catharacta skua lonnbergi	1	AW	Jul
Stercorarius longicaudus	1	AW	Dec
Larus spp.**	3	AW,AE(2)	Jan,Feb(2)
L.bulleri	13	EC(5),SD(7),WW	Jan(2),Feb(2),Apr,Jul(2),Aug,
			Sep(3),Oct,Nov
Sterna caspia	3	AW(2),BP	Jul(2),Aug
S.fuscata	6	AW(4),WW(2)	Nov(6)
S.albifrons sinensis	1	AW	Oct
Total	130		

TABLE 2 - Coastal and monthly distribution of the seabird species rare in 1994 (<15 specimens)

** Species or subspecies was not identifed by the patroller

1994 (>15 specimens)
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TABLE 3

								Coast								Total birde
Species/ subspecies	AW	AE	BP	TA	MM	EC	WA	WS	NC	Ш	N	CS	OT	SD	FD	20110
Diomedea cauta steadi	14	0	0	0	2	0	0	4	С	0	0	0	0	9	0	26
D.bulleri	ŝ	0	0	0	1	0	0	0	0	0	0	0	0	25	0	29
Puffinus carneipes	25	144	ŝ	-	1	0	0	0	0	0	0	0	0	0	0	174
P.bulleri	101	21	0	11	16		0	0	1	0	l	0	0	0	0	152
P.griseus	417	37	1	14	52	,	0	7	S.	0	1	7	4	32	0	572
P.tennirostris	23	12	1	4	13	0	0	0	0	0	0	0	0	121	0	174
P.gavia	90	55	21	80	16	5	0	4	9	0	0	2	0	С	0	201
P.bultoni	12	4	2	0	23	7	,	1	0	0	8	0	1	0	0	54
P assimilts	15	ŝ	0	0	7	0	0	0	0	0	0	0	0	0	0	22
Pelecanoides urinatrix	384	28	37	ŝ	28	0	0	7	ŝ	9	0	0	0	49	0	540
Lugensa brevirostris	226	0	0	10	24	0	0	0	0	С	0	0	0	7	0	262
Daption capense	15	1	1	-	v	0	0	1	0	0	0	1	0	ŝ	0	28
Macronectes spp.**	14	1	I	I	2	0	0	С	С	0	0	0	0	1	0	20
Pachyptila spp.**	50	0	0	7	81	Ţ	0	2	0	0	0		1	2	0	148
P.turtur	201	51	6	15	195	4	0		182	7	0	0	1	22	0	683
P.belcheri	50	0	0	0	~	0	0	0	0	C	0	0	0	1	0	58
P.salvini	14	0	0	0	2	0	0	0	0	0	0	0	0	0	0	16
P.vittata	15	0	4	0	ï	0	С	¢	0	0	Ś	-1	0	67	0	93
IIalobaena caerulea	77	0	1	0	œ	0	0	0	0	0	0	0	0	С	0	86
Plerodroma cookii	7	20	0	0	0	0	0	0	0	0	0	0	0	1	0	28
Pinexpectata	18	0	0	Ś	7	0	0	0	0	0	0	0	0	v.	0	30
P.macroptera	11	27	23	ŝ	, ,	0	0	0	0	0	0	0	\$	0	F	66
P.lessonii	48	0	1	0	2	0	0	0	0	0	0	0	0	0	0	51
Eudyptula minor	340	242	79	11	32	7	Ļ	11	7	0	10	0	ŝ	10	0	748
Morus servator	181	48	6	16	14	7	0	1	73	0	1	0	0	0	0	350
Phalacrocorax varius	\$	17	7	0	1	0	0	0	ı۷	0	7	0	0	0	0	35
Stictocarbo punctatus	Ч	0	0	0	-	1	0	2	1	0	4	4	19	10	0	43
Larus dominicanus	124	38	9	10	38	27	7	251	10	1	9	0	œ	22	0	543
L.novaehollandiae	×	13	~	2	4	1	0	7	0	0	6	0	Ś	16	0	72
Sterna striata	21	. 	0	5	-	4	-	1	1	0	0		0	-	0	40
Total	2513	765	214	124	581	53	ν	290	292	6	47	12	42	399	-	5347

191

** Species not identified by the patroller

TABLE 4 -	Monthly distrib	oution of the seabin	d species commonl	y found in 1994	(>15 specimens)
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Species/ subspecies							Month						Total no. of birds
species/ subspecies	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	or bilds
Diomedea cauta steadi	2	0	1	2	5	2	2	1	3	4	1	3	26
D.bulleri	0	1	0	0	0	I	1	1	9	15	0	1	29
Puffinus carneipes	18	36	2	72	2	3	6	0	4	0	8	23	174
P.bulleri	43	26	8	5	4	2	2	0	0	15	19	28	152
P.griseus	71	51	25	6	15	6	8	6	5	87	202	90	572
P.tenuirostris	21	14	2	2	1	0	0	0	0	66	57	11	174
P.gavia	34	28	13	18	18	7	11	6	8	21	19	21	204
P.huttoni	9	10	0	1	0	1	0	2	I	18	7	5	54
P.assimilis	1	2	0	0	1	0	4	3	3	2	3	3	22
Pelecanoides urinatrix	40	14	1	1	2	4	19	13	323	49	37	37	540
Lugensa brevirostris	0	0	0	0	0	0	3	159	67	31	2	0	262
Daption capense	1	1	1	0	0	0	2	7	2	9	3	2	28
Macronectes spp.**	2	2	0	0	1	2	4	2	1	6	0	0	20
Pachyptila spp.**	12	51	11	0	1	3	10	19	17	7	8	9	148
P.turtur	126	87	2	1	2	3	19	62	50	57	228	46	683
P.belcheri	0	0	1	0	1	1	14	25	8	5	1	2	58
P.salvini	1	0	0	0	0	I	4	3	3	4	0	0	16
P.vittata	5	1	1	0	0	3	7	8	12	35	10	11	93
Halobaena caerulea	0	0	0	0	2	0	3	15	37	27	1	1	86
Pterodroma cookii	0	2	0	17	0	0	0	1	0	2	4	2	28
P.inexpectata	2	3	5	3	0	0	2	0	0	0	10	5	30
P.macroptera	30	7	0	0	5	0	5	6	2	5	1	5	66
Plessonii	0	0	0	0	0	3	1	4	8	12	15	8	51
Eudyptula minor	25	107	41	15	15	9	24	252	31	74	50	105	748
Morus serrator	32	18	17	14	4	73	22	38	22	48	32	30	350
Phalacrocorax varius	2	3	2	1	0	0	1	6	1	4	12	3	35
Stictocarbo punctatus	6	0	1	2	1	3	0	13	5	8	3	1	43
Larus dominicanus	39	151	85	32	59	71	14	25	8	28	20	11	543
L.novaehollandiae	1	10	9	3	7	2	2	8	4	2	4	20	72
Sterna striata	8	2	3	3	1	2	1	2	0	6	5	7	40
Total	531	627	231	198	147	202	191	687	634	647	762	490	5347

** Species not identified by the patroller

TAYLOR

192

NOTORNIS 43

and 17 November. These dates coincided with the finding of the Newell's Shearwater (see above) and suggests that tropical birds were blown south into the Tasman Sea in early November. There have been 44 Sooty Terns recorded in the New Zealand Beach Patrol Scheme. The six birds found in 1994 were the second highest annual total; seven birds were found in 1971.

Wrecks

Three 'common' species were wrecked in greater numbers than usual in 1994. Kerguelen Petrels (*Lugensa brevirostris*) started coming ashore on North Island west coast beaches (AW, TA, WW) in mid-August and the wreck continued until October. A total of 262 specimens were found by patrollers. Only the 600 birds wrecked in 1984 and the 284 birds in 1981 were larger annual totals than the 1994 wreck. However the current wreck lacked the large number of Blue Petrels (*Halobaena caerulea*) and prions (*Pachyptila* spp.) associated with the earlier wrecks of this species.

The locally breeding Flesh-footed Shearwater (*Puffinus carneipes*) also had larger numbers of birds washed ashore than usual. Beach patrollers found 174 birds in 1994, at a rate of 5.95 birds per 100 km covered. Most were recovered between January and April 1994, and 144 came ashore on Auckland East beaches. This was the second largest wreck of this species, exceeded only by the 181 birds found in 1974 (Powlesland & Pickard 1992). That wreck occurred at a rate of 6.79 birds per 100 km covered.

The 29 Buller's Mollymawks (*Diomedea bulleri*) found wrecked in 1994 was the second highest annual total since the start of the Beach Patrol Scheme. There were 54 birds reported in 1985. In 1994, most birds came ashore on Southland beaches in September and October. Large numbers of Buller's Mollymawk fledglings were reported to have been blown inland by southerly storms in early spring and were taken to Department of Conservation offices (L. Esler pers. comm.).

There were also minor wrecks in 1994 of Blue Penguins (*Eudyptula minor*) in August (252 birds), Diving Petrels (*Pelecanoides urinatrix*) in September (323 birds) and Fairy Prions (*Pachyptila turtur*) in November (228 birds).

Band recoveries

There were 34 banded seabirds noted on beach patrol cards. Twenty-seven were Southern Black-backed Gulls (*Larus dominicanus*), 26 of which were picked up on patrols of Petone Beach and Somes Island in Wellington Harbour (WS). One bird had been banded as a chick on Somes Island in December 1982 and another as a chick on Palliser Spit in December 1991. Four juveniles had been banded as chicks on Somes Island in December 1993 and one as a chick on Ward Island (Wellington Harbour) in December 1993. Band numbers were not provided for 18 juveniles and one adult found dead on Somes Island but these birds probably came from the Wellington Harbour colonies. One banded Southern Black-backed Gull was found at the Manawatu River (WW) in November 1994. It had been banded as a chick on Mana Island in December 1992.

TAYLOR

Two banded Australasian Gannets (*Morus serrator*) were reported by beach patrollers. One found near the Manawatu River (WW) in November 1994 had been banded as a juvenile on White Island in December 1990. The other bird was found on Ocean Beach (AE) in April 1994 and had been banded as a juvenile on White Island in January 1994. A White-fronted Tern (*Sterna striata*) found at Waikanae Beach (WW) in February 1994 had been banded as a chick at Nelson in December 1986. A Black Swan found on Kawhia Beach (AW) in January 1994 had been banded as a juvenile female at Lake Whangape in November 1975. This bird was at least 18 years old when it died.

Other banded species found on beach patrols included one Southern Giant Petrel (*Macronectes giganteus*) found on Matakana Island (BP) (banded on Elephant Island, South Shetlands, no other details) and two Red-billed Gulls (*Larus novaehollandiae*) found at Kaikoura Peninsula (CN) (no other details).

Causes of mortality

Occasionally, observers recorded the apparent cause of seabird mortality on beach patrol cards. Whereas most birds probably died of exhaustion or starvation and were washed ashore after storms, some died as a result of human activities. There were 38 birds reported by patrollers which had been shot. These included 14 Southern Black-backed Gulls, 13 Red-billed Gulls, 10 South Island Pied Oystercatchers (*Haematopus ostralegus finschi*) and one Blue Penguin. The last three species are protected by the Wildlife Act 1953 and were shot illegally.

Fourteen birds died after they had been caught on fishing lines or became entangled in fishing nets. One Flesh-footed shearwater was found on Piha Beach with a fish hook in its stomach and fishing line tangled around its wings and body. An Australasian Gannet was found with fishing line protruding from its bill. Three Southern Black-backed Gulls had been caught by fishing tackle; one was caught by nylon fishing line, another had a fish hook in its throat and the third bird was entangled in discarded fishing line. Three Red-billed Gulls had also been caught by fishing lines and one of these had a large fish hook embedded in the throat. Two Black-billed Gulls (*Larus bulleri*) were killed by fishing lines; one with a nylon fishing line. Three species were found entangled in pieces of fishing net; Black Shag (*Phalacrocorax carbo*), Southern Black-backed Gull and Blue Penguin. Another Black Shag had a wing broken off and appeared to have been caught in a fishing net.

Only one oiled seabird was reported in 1994 - a Fairy Prion. Finally, a squashed Black-billed Gull was found on Oreti Beach, apparently having been hit by a car.

Miscellaneous birds

A total of 121 birds other than seabirds were recovered in 1994. There were 25 species recorded including: 29 Australian Magpies (*Gymnorhina tibicen*), 13 Mallards (*Anas platyrhynchos*), 12 South Island Pied Oystercatchers, nine Domestic Geese (*Anser* sp.), eight Black Swans, six Blackbirds (*Turdus merula*), five Spur-winged Plovers (*Vanellus miles novaehollandiae*), four each of Australasian Harriers (*Circus*

approximans) and Variable Oystercatchers (Haematopus unicolor), three each of Pukeko (Porphyrio porphyrio melanotus), Australasian Pied Stilt (Himantopus bimantopus leucocephalus), Rock Pigeons (Columba livia), Song Thrush (Turdus philomelos) and Starling (Sturnus vulgaris), two each of Cattle Egret (Bubulcus ibis), Grey Duck (Anas superciliosa), Brown Teal (A. aucklandica chlorotis), Paradise Shelduck (Tadorna variegata) and Ring-necked Pheasant (Phasianus colchicus), and one each of Royal Spoonbill (Platalea regia), New Zealand Shoveler (Anas rhynchotis variegata), Domestic Fowl (Gallus domesticus), New Zealand Dotterel (Charadrius obscurus), North Island Kaka (Nestor meridionalis septentrionalis) and Red-crowned Parakeet (Cyanoramphus novaezelandiae).

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Short Note

Extended parental care of the Southern Black-backed Gull (*Larus dominicanus*)

On 16 June 1996, an adult Southern Black-backed Gull (*Larus dominicanus*) was seen to regurgitate food for a juvenile at Days Bay, Wellington. If the juvenile resulted from a clutch laid at the peak of laying in early November (Fordham 1964a) then it was 28-29 weeks old by mid June. Even if it hatched from a very late clutch laid in mid January (Fordham 1964a) then it was 17-18 weeks old. I am not aware that adults have been recorded previously feeding juveniles as old as this.

Fordham (1964b) stated that Black-backed Gull chicks raised on Somes Island, Wellington Harbour, "may accompany their parents for several months after they are able to feed themselves (i.e. shortly after they can fly, at about seven weeks old) and juveniles up to at least six months old are often seen food-begging but always unsuccessfully." Wilkinson & Wilkinson (1952) noted that Black-backed Gulls on Kapiti Island stopped feeding their chicks at about 12 weeks of age. The observation of the Days Bay juvenile receiving food when at least 17 weeks old and possibly as old as 28 weeks of age suggests that a small proportion of juvenile gulls continue to be fed by parents well beyond 10 weeks of age when most start foraging for themselves.

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