

# Conservation status of New Zealand birds, 2016

Hugh A. Robertson, Karen Baird, John E. Dowding, Graeme P. Elliott, Rodney A. Hitchmough, Colin M. Miskelly, Nikki McArthur, Colin F.J. O'Donnell, Paul M. Sagar, R. Paul Scofield and Graeme A. Taylor



Cover: Australasian bittern at Hatuma Lake. Photo: John Cheyne.  $\textit{New Zealand Threat Classification Series} \ \text{is a scientific monograph series presenting publications related to the New Zealand Threat}$ Classification System (NZTCS). Most will be lists providing NZTCS status of members of a plant or animal group (e.g. algae, birds, spiders). There are currently 23 groups, each assessed once every 5 years. After each three-year cycle there will be a report analysing and summarising trends across all groups for that listing cycle. From time to time the manual that defines the categories, criteria and process for the NZTCS will be reviewed. Publications in this series are considered part of the formal international scientific literature. This report is available from the departmental website in pdf form. Titles are listed in our catalogue on the website, refer www.doc.govt.nz under Publications, then Series.

This report was prepared for publication by the Publishing Team; editing and layout by Lynette Clelland. Publication was approved by the

Published by Publishing Team, Department of Conservation, PO Box 10420, The Terrace, Wellington 6143, New Zealand.

© Copyright May 2017, New Zealand Department of Conservation

Director, Terrestrial Ecosystems Unit, Department of Conservation, Wellington, New Zealand.

In the interest of forest conservation, we support paperless electronic publishing.

2324-1713 (web PDF)

978-1-98-851423-9 (web PDF)

ISSN

ISBN

#### CONTENTS

Abs	tract		1
1.	Sum	ımary	2
	1.1	Additional taxa	2
	1.2	Deleted taxon	3
	1.3	Changed taxon names	3
	1.4	2016 assessment	4
2.	Con	servation status of all New Zealand birds since human contact	7
	2.1	Taxonomically Determinate	7
		Extinct	7
		Data Deficient	9
		Threatened	9
		Nationally Critical	9
		Nationally Endangered	10
		Nationally Vulnerable	11
		At Risk	12
		Declining	12
		Recovering	13
		Relict	14
		Naturally Uncommon	14
		Non-resident Native	15
		Migrant	15
		Vagrant	16
		Coloniser	19
		Not Threatened	19
		Introduced and Naturalised	20
	2.2	Taxonomically Indeterminate	21
		Data Deficient	21
		Threatened	21
		Nationally Critical	21
		Nationally Endangered	22
		Nationally Vulnerable	22
		At Risk	22
		Naturally Uncommon	22
3.	Ackı	nowledgements	22
	Doto	rences	
4.	17616	1611/629	22

# Conservation status of New Zealand birds, 2016

Hugh A. Robertson<sup>1</sup>, Karen Baird<sup>2</sup>, John E. Dowding<sup>3</sup>, Graeme P. Elliott<sup>4</sup>, Rodney A. Hitchmough<sup>1</sup>, Colin M. Miskelly<sup>5</sup>, Nikki McArthur<sup>6</sup>, Colin.J. O'Donnell<sup>7</sup>, Paul M. Sagar<sup>8</sup>, R. Paul Scofield<sup>9</sup> and Graeme A. Taylor<sup>1</sup>

- Science and Policy Group, Department of Conservation, PO Box 10420, Wellington 6143, New Zealand Email: hrobertson@doc.govt.nz
- <sup>2</sup> Forest & Bird, PO Box 631, Wellington, New Zealand
- <sup>3</sup> DM Consultants, PO Box 36274, Merivale, Christchurch 8146, New Zealand
- Science and Policy Group, Department of Conservation, Private Bag 5, Nelson 7042, New Zealand
- <sup>5</sup> Museum of New Zealand Te Papa Tongarewa, PO Box 467, Wellington, New Zealand
- <sup>6</sup> Wildlife Management International, PO Box 607, Blenheim 7240, New Zealand
- Science and Policy Group, Department of Conservation, Private Bag 4715, Christchurch Mail Centre, Christchurch 8140, New Zealand
- <sup>8</sup> 418 Pleasant Valley Road, RD21 Geraldine 7991 New Zealand
- <sup>9</sup> Canterbury Museum, Rolleston Avenue, Christchurch 8001, New Zealand

#### Abstract

The second complete audit of the conservation status of the 487 taxa of birds that have been recorded in New Zealand since first human contact (about 800 years ago) was carried out. Using the same ranking criteria, the assessments made in the audit were compared with those for the 473 taxa included in the first complete audit in 2012. Since then, 15 taxa have been added to the New Zealand list, six as a result of the acceptance of new distribution records, three as newly-described recently extinct species from the Chatham Islands, six as a result of taxonomic changes, and one species has been deleted from the New Zealand list. Of 77 threatened taxa classified in 2012, the status of 22 (29%) taxa improved, mainly due to successful conservation management, while five (6%) of them moved to a more threatened status. Eight other taxa, including three not assessed in 2012, were added to the threatened categories. Overall, 71 taxa were assessed as being threatened with extinction, six fewer than in 2012, and 23 rather than 25 taxa are now classified as being Nationally Critical. A list of all 487 bird taxa and their conservation status in 2016 is presented.

Keywords: threatened birds, extinct birds, conservation status, threat classification, New Zealand

© Copyright May 2017, Department of Conservation. This paper may be cited as: Robertson, H.A.; Baird, K.; Dowding, J.E.; Elliott, G.P.; Hitchmough, R.A.; Miskelly, C.M.; McArthur, N.; O'Donnell, C.F.J.; Sagar, P.M.; Scofield, R.P.; Taylor, G.A. 2017: Conservation status of New Zealand birds, 2016. New Zealand Threat Classification Series 19. Department of Conservation, Wellington. 23 p.

# 1. Summary

Robertson et al. (2013) presented an audit of the conservation status of 473 taxa of New Zealand birds known to have been alive since first human contact about 800 years ago. We re-assessed their conservation status in 2016. The ranking criteria were identical to those used by Robertson et al. (2013), and previously used by Miskelly et al. (2008), and followed the New Zealand Threat Classification System manual (Townsend et al. 2008). The current assessment also included 15 taxa added to the New Zealand list since 2012, six as a result of being accepted as valid additions to the New Zealand list by the Records Appraisal Committee of Birds New Zealand (Ornithological Society of New Zealand), three as recently-described extinct taxa, and six as a result of genetic research identifying the presence of cryptic species, or by splitting species or subspecies, including the re-instatement of a taxon of kiwi that had been deleted in 2012. The final 487 bird taxa examined represents the second complete audit of the conservation status of New Zealand birds since the first human contact.

In this review, we again treated two Arctic migrant waders — eastern bar-tailed godwit *Limosa lapponica baueri* and lesser knot *Calidris canutus rogersi* — as 'resident' rather than 'migrant' because greater than 25% of the population of each taxon spends more than 50% of their life cycle in New Zealand, even though they don't breed in New Zealand.

#### 1.1 Additional taxa

Six species – northern fulmar Fulmarus glacialis, Herald petrel Pterodroma heraldica, red-footed booby Sula sula, buff-breasted sandpiper Tryngites subruficollis, dusky woodswallow Artamus cyanopterus, and magpie lark Grallina cyanoleuca – have been added to the New Zealand list by the Records Appraisal Committee of Birds New Zealand since 2012 (Miskelly et al. 2015; Colin Miskelly, pers. comm.).

Three recently-extinct Chatham Island species – Chatham Island merganser *Mergus milleneri*, Imber's petrel *Pterodroma imberi*, Chatham Island kaka *Nestor chathamensis* – have been added to the New Zealand list following their description from Holocene cave and dune deposits (Williams et al. 2014; Wood et al. 2014; Tennyson et al. 2015).

Following further genetic analysis (Weir et al. 2016), two taxa of tokoeka, – *Apteryx australis australis* in southern Fiordland and *A. australis* "northern Fiordland" – were re-instated, thus returning to the taxonomy used by Miskelly et al. (2008). These taxa have a small zone of hybridisation just northeast of Wilmot Pass (Hugh Robertson, pers. comm.).

In this review, we still recognise that pure grey ducks *Anas superciliosa* are ranked as Nationally Critical because they are exceptionally rare and/or are supplemented by vagrants from Australia, as evidenced by a bird banded in New South Wales that was shot in Otago (Heather & Robertson 2015). Native grey ducks and introduced mallards *Anas platyrhynchos* have hybridised extensively, and many birds show characteristics of both species. In the last 20–30 years, a relatively stable proportion of these birds effectively resemble grey ducks, even though genetic analysis shows clear introgression with mallards (Rhymer et al. 1994; 2004). The proportion of grey-like birds varies from district to district, with the highest proportions (c. 35%) on the West Coast and in Northland, and the lowest (<10%) in the Waikato, Manawatu, Otago and Southland (Murray Williams, pers. comm.). We have designated these often reported, and legally hunted, grey-like ducks (*A. superciliosa* × *platyrhynchos*) as a unique taxonomic entity with a classification of 'Not threatened'.

New genetic research (Grosser et al. 2015, 2016), shows that Australian fairy penguins *Eudyptula* novaehollandiae have colonised the Otago and South Canterbury coast within the last 500 years.

This species is now the predominant resident taxon there, rather than the expected blue penguin *E. minor*, though some hybridisation between the species is known.

Preliminary genetic analysis of blood samples of winter-breeding and summer-breeding populations of Kermadec petrel (*Pterodroma neglecta*) appear to show that they are two distinct taxa (Tammy Steeves, pers. comm.). The populations on the Meyer Islets are mainly winter breeders, but only 2 km away, the former population on Raoul Island were summer breeders, like those breeding near the tops of two of the Meyer Islets and on islands in the southern Kermadecs (Imber 2005). One of the three possible type specimens was collected on Sunday (=Raoul) Island (Gill et al. 1990), and so is likely a summer breeder. For the purposes of this report, and until the identity of the primary type specimen is resolved from DNA testing, we refer to the two taxa as *Pterodroma* aff. *neglecta* "summer" and *Pterodroma* aff. *neglecta* "winter".

Rawlence et al. (2014, 2016) provided genetic and morphological evidence to recognise two species of *Leucocarbo* shag in the southern South Island. The former Stewart Island shag (*L. chalconotus*) has been split into two species – the Otago shag (*L. chalconotus*) from the Otago coastline and the Foveaux shag (*L. stewarti*) from around Stewart Island and in Foveaux Strait.

Weston & Robertson (2015) identified a deep north-south split in the genetic structure of rock wren (*Xenicus gilviventris*), with the two clades meeting near Aoraki/Mt Cook. They did not propose a taxonomic split, but the depth of divergence is similar to or deeper than those recorded among other New Zealand pairs of sister species. Therefore, following the precautionary approach outlined by Townsend et al. (2008), we have assessed two taxa separately. The type specimen was collected from "Canterbury", and could potentially apply to either taxon. So, until the provenance of the type specimen is determined from DNA testing we have used the terms *Xenicus* aff. *gilviventris* "northern" for populations north of Aoraki/Mt Cook, and *Xenicus* aff. *gilviventris* "southern" for those further south.

#### 1.2 Deleted taxon

The Birds New Zealand Records Appraisal Committee reassessed the solitary New Zealand record of a black falcon (*Falco subniger*), from Gisborne in 1983, and determined that the species should be removed from the New Zealand list because juvenile New Zealand falcon could not be excluded on the basis of the original description (Miskelly et al. 2015). We have therefore deleted black falcon (formerly listed as a Vagrant) from the list of species being considered in this review.

## 1.3 Changed taxon names

The generic assignment of two species have changed and two subspecies have been formally named since the 2012 audit (Table 1).

Genetic research, supported with a re-examination of osteological characteristics, has shown that the extinct Chatham Island duck was a phenotypically divergent species within the genus *Anas* rather than the only member of the endemic genus *Pachyanas* (Mitchell et al. 2014; Williams 2015). Genetic research also showed that extant and museum specimens of New Zealand storm petrel were the same species, but that they were more closely related to *Fregetta* than *Oceanites* storm petrels (Robertson et al. 2011).

The bush falcon, found in the North Island and, according to Fox (1977, 1988), also in the northwest of the South Island, and the eastern falcon from most of the rest of the South Island were listed by Robertson et al. (2013) as undescribed, taxonomically indeterminate subspecies. Falco novaeseelandiae "bush" and Falco novaeseelandiae "eastern" were formally named as Falco novaeseelandiae ferox (bush) and Falco novaeseelandiae novaeseelandiae (eastern) by Trewick & Olley (2016). They consequently move from the taxonomically indeterminate to the

taxonomically determinate section of the list. The third form proposed by Fox (1977, 1988) – the southern falcon (*Falco novaeseelandiae* "southern") from Fiordland and the Auckland Islands – was not distinguished by Trewick & Olley (2016), but their sampling included few birds from within the range of this form and so it is retained here as a taxonomically indeterminate entity as a precaution

Table 1. Summary of changes to scientific names between Robertson et al. (2013) and this review.

SCIENTIFIC NAME	SCIENTIFIC NAME	COMMON NAME
(Robertson et al. 2013)	(This document)	
Falco novaeseelandiae "bush"	Falco novaeseelandiae ferox	Bush falcon
Falco novaeseelandiae "eastern"	Falco novaeseelandiae novaeseelandiae	Eastern falcon
Pachyanas chathamica	Anas chathamica	Chatham Island duck
Pealeornis maoriana	Fregetta maoriana	New Zealand storm petrel
Pterodroma neglecta	Pterodroma aff. neglecta "summer"	Kermadec petrel "summer"
Pterodroma neglecta	Pterodroma aff. neglecta "winter"	Kermadec petrel "winter"
Xenicus gilviventris	Xenicus aff. gilviventris "northern"	Rock wren "northern"
Xenicus gilviventris	Xenicus aff. gilviventris "southern"	Rock wren "southern"

#### 1.4 2016 assessment

A summary of the numbers of taxa in each threat category in 2008 (Miskelly et al. 2008), 2012 (Robertson et al. 2013) and in 2016 is presented in Table 2, and a full list of the taxa with their 2016 status, qualifiers which apply to each, and the criteria used to place the taxon into the category is presented in Section 2.

Table 2. Statistical summary of the status of New Zealand bird species assessed in 2008 (Miskelly et al. 2008), in 2012 (Robertson et al. 2013) and in 2016 (this document). Note that direct comparisons of extinct and vagrant species are difficult because more taxa were assessed in 2012 and 2016 than in 2008.

CATEGORY	TOTAL 2008	TOTAL 2012	TOTAL 2016
Extinct since first human contact	20	56	59
Data deficient	1	2	2
Threatened – Nationally Critical	24	25	23
Threatened – Nationally Endangered	15	18	15
Threatened – Nationally Vulnerable	38	34	33
At Risk – Declining	18	17	22
At Risk – Recovering	9	13	23
At Risk – Relict	18	17	15
At Risk - Naturally Uncommon	47	45	47
Non-resident – Coloniser	8	9	8
Non-resident - Migrant	27	24	24
Non-resident - Vagrant	130	138	141
Not Threatened	36	38	38
Introduced and Naturalised	36	37	37
Total	427	473	487

Of the 487 taxa considered in this review, we ranked 59 (12.1%) as Extinct, of which 40 went extinct before 1800 and 19 since 1800. Two (0.4%) taxa – South Island brown teal *Anas chlorotis* "South Island" and South Island kokako *Callaeas cinerea*, were again classified as Data Deficient. Although we consider that both of these taxa are likely to be functionally extinct, we are not convinced beyond reasonable doubt that the last individuals of these taxa have died.

Of the 426 known living bird taxa, 71 (16.7%) were assessed as Threatened (comprising 23 Nationally Critical, 15 Nationally Endangered, and 33 Nationally Vulnerable), and 107 (25.1%) were assessed as At Risk (comprising 22 Declining, 23 Recovering, 15 Relict and 47 Naturally Uncommon). A total of 38 (8.9%) of the extant taxa were assessed as Not Threatened (native and resident), 8 (1.9%) as Colonisers, 24 (5.6%) as Migrants, 141 (33.1%) as Vagrants, and 37 (8.7%) as Introduced and Naturalised.

Four of the five taxa that were downlisted from Nationally Critical to Nationally Vulnerable were done so on the basis of population growth following successful conservation efforts. Campbell Island teal *Anas nesiotis* and Campbell Island snipe *Coenocorypha aucklandica perseverance* have both benefitted from the eradication of rats from 11300 ha Campbell Island in 2001 (McClelland 2011). Rowi *Apteryx rowi* has more than doubled its population during an Operation Nest Egg programme running since 1994 (Heather & Robertson 2015), and South Island takahe *Porphyrio hochstetteri* have passed the threshold of 250 breeding adults following several successful breeding seasons (Glen Greaves, pers. comm.). The remaining Nationally Critical species to be downgraded – the eastern rockhopper penguin, *Eudyptes filholi* – was transferred on the basis of data (Kyle Morrison and Jo Hiscock, pers. comm.) showing lower rates of long-term decline than was feared previously.

On the other hand, three taxa have moved from Nationally Endangered to Nationally Critical: Australasian bittern *Botaurus poiciloptilus* continues to decline throughout the country, the orange-fronted parakeet *Cyanoramphus malherbi* returned to the top threat category following declines in some translocated island populations and on the mainland following predation associated with an exceptional beech-masting event in 2014–15, and the northern rock wren *Xenicus* aff. *gilviventris* "northern" was likely affected by the same beech-masting event, but has been moved to a higher threat status mainly because the split of the species into two separate taxa meant that the rarer northern form now meets the small population and high decline criteria for Nationally Critical.

Another notable change, was the shift of 14 taxa from Threatened categories to the At Risk categories of Recovering, Declining or Naturally Uncommon, including seven taxa whose change was a direct result of successful conservation management programmes: brown kiwi Apteryx mantelli, northern New Zealand dotterel Charadrius obscurus aquilonius, white-flippered blue penguin Eudyptula minor albosignata, Chatham Island warbler Gerygone albofrontata, yellowhead Mohoua ochrocephala, North Island kākā Nestor meridionalis septentrionalis and red-tailed tropicbird Phaethon rubricauda. The maintenance of many of these gains will depend on the continuation of successful conservation programmes; otherwise, the status of the taxa will soon worsen. The 14 gains were, however, tempered by the shift of three taxa to Threatened categories for the first time: Antipodes Island pipit Anthus novaeseelandiae steindachneri, Antipodes Island snipe Coenocorypha aucklandica meinertzhagenae, and Hutton's shearwater Puffinus huttoni, and the addition of three taxa as a result of taxonomic changes: northern Fiordland tokoeka Apteryx australis "northern", Foveaux shag Leucocarbo stewarti, and southern rock wren Xenicus aff. gilviventris "southern".

Overall, we made changes to the status of 52 (11.0%) of the 473 taxa examined in 2012 by Robertson et al. (2013). Four years later in 2016, 34 were classified as better off, 17 were worse off and 1 taxon was deleted. Taxa can change status between listings either as a result of a genuine increase or decrease in abundance or range, or as a result of better knowledge (e.g. from more accurate population estimates or the discovery of previously unknown populations). These two categories are not mutually exclusive – a species can have had both a genuine decline or recovery documented and additional populations discovered. Actual improvements to bird populations have followed the eradication of rats or cats from offshore islands, especially Campbell Island (in 2001), Raoul Island (rats in 2002, cats in 2004) and Little Barrier Island/ Hauturu (in 2004). However, we also flag concern for five taxa that have moved from Not Threatened or At Risk – Relict to the At Risk – Declining category: whitehead *Mohoua albicilla*,

South Island robin *Petroica australis australis*, North Island robin *Petroica longipes*, marsh crake *Porzana pusilla affinis* and spotless crake *Porzana tabuensis*, all due to ongoing declines of mainland populations. The number of far-eastern curlew *Numenuis madagascariensis* visiting New Zealand has declined to the point where they are classified as vagrants rather than migrants in line with a sharp global decline of the species that led to their global conservation status being uplisted from Vulnerable to Endangered in 2015 (Birdlife International 2017).

A summary of shifts of taxa between categories is presented in Table 3.

Table 3. Summary of status changes of New Zealand birds between 2012 (data in rows) (Robertson et al. 2013) and 2016 (data in columns). Numbers above the diagonal (shaded mid-grey) indicate improved status (e.g. 5 of 25 taxa have gone from Nationally Critical in 2012 to Nationally Vulnerable in 2016), numbers below the diagonal (shaded light grey) indicate poorer status, numbers on the diagonal (shaded dark grey) have not changed, and numbers without shading are either introduced species or taxa added at this assessment.

CATEGORY	EX	DD	NC	NE	NV	DEC	REC	REL	NU	COL	MIG	VAG	NT	IN	2012 TOTAL
Extinct (EX)	56														56
Data Deficient (DD)		2													2
Nationally Critical (NC)			20		5										25
Nationally Endangered (NE)			3	10	3		1		1						18
Nationally Vulnerable (NV)				2	20	3	9								34
At Risk – Declining (Dec)					1	14							2		17
At Risk – Recovering (Rec)							10	1	2						13
At Risk – Relict (Rel)				1		2		14							17
At Risk - Naturally Uncommon (NU)				1	2		2		40						45
Coloniser (Col)									3	6					9
Migrant (Mig)											23	1			24
Vagrant (Vag)										2	1	134			138*
Not threatened (NT)						3							35		38
Introduced & Naturalised (IN)														37	37
Not assessed (NA)	3			1	2		1		1			6	1		15
2016 Total	59	2	23	15	33	22	23	15	47	8	24	141	38	37	487

One species, black falcon Falco subniger, was not included in the 2016 assessment (see text).

# 2. Conservation status of all New Zealand birds since human contact

Taxa are assessed according to the criteria of Townsend et al. (2008), grouped initially by whether or not they are taxonomically determinate, then by conservation status, and finally in alphabetical order by scientific name. In all cases, predicted and ongoing rates of population change are measured over 10 years or three generations, whichever is the longer. Categories are listed by degree of loss or threat to native species, with Extinct at the top of the list and Not Threatened at the bottom, and finally we included species that are Introduced and Naturalised. The Data Deficient list is inserted between Extinct and Threatened, because the two bird taxa in that list are there because they are both likely to be functionally or actually extinct.

See Townsend et al. (2008) for details of criteria and qualifiers, which are abbreviated as follows:

- CD Conservation Dependent
- De Designated (even though it could have been placed elsewhere)
- Dec Declining
- DP Data Poor
- EF Extreme Fluctuations
- EW Extinct in the Wild
- IE Island Endemic
- Inc Increasing
- OL One Location
- PD Partial Decline
- RF Recruitment Failure
- RR Range Restricted
- SO Secure Overseas
- Sp Sparse
- St Stable
- TO Threatened Overseas

## 2.1 Taxonomically Determinate

#### Extinct

Taxa for which there is no reasonable doubt – following repeated surveys in known or expected habitats at appropriate times (diurnal, seasonal and annual) and throughout the taxon's historic range – that the last individual has died.

SCIENTIFIC NAME	COMMON NAME	FAMILY
Aegotheles novaezealandiae	New Zealand owlet-nightjar	Aegothelidae
Anas chathamica	Chatham Island duck	Anatidae
Anomalopteryx didiformis	Little bush moa	Emeidae
Anthornis melanocephala	Chatham Island bellbird	Meliphagidae
Aptornis defossor	South Island adzebill	Aptornithidae
Aptornis otidiformis	North Island adzebill	Aptornithidae
Aquila moorei	Haast's eagle	Accipitridae
Biziura delautouri	New Zealand musk duck	Anatidae
Bowdleria rufescens	Chatham Island fernbird	Megaluridae
Cabalus modestus	Chatham Island rail	Rallidae
		0 " 1 1

Kunct continued		
SCIENTIFIC NAME	COMMON NAME	FAMILY
Capellirallus karamu	Snipe-rail	Rallidae
Chenonetta finschi	Finsch's duck	Anatidae
Circus teauteensis	Eyles' harrier	Accipitridae
Cnemiornis calcitrans	South Island goose	Anatidae
Cnemiornis gracilis	North Island goose	Anatidae
Coenocorypha barrierensis	North Island snipe	Scolopacidae
Coenocorypha chathamica	Forbes' snipe	Scolopacidae
Coenocorypha iredalei	South Island snipe	Scolopacidae
Corvus antipodum antipodum	North Island raven	Corvidae
Corvus antipodum pycrafti	South Island raven	Corvidae
Corvus moriorum	Chatham Island raven	Corvidae
Coturnix novaezelandiae	New Zealand quail	Phasianidae
Dendroscansor decurvirostris	Long-billed wren	Acanthisittidae
Diaphorapteryx hawkinsi	Hawkins' rail	Rallidae
Dinornis novaezealandiae	North Island giant moa	Dinornithidae
Dinornis robustus	South Island giant moa	Dinornithidae
Emeus crassus	Eastern moa	Emeidae
Euryapteryx curtus curtus	North Island coastal moa	Emeidae
Euryapteryx curtus gravis	South Island coastal moa	Emeidae
Fulica chathamensis	Chatham Island coot	Rallidae
Fulica prisca	New Zealand coot	Rallidae
Gallinula hodgenorum	Hodgens' waterhen	Rallidae
Gallirallus dieffenbachii	Dieffenbach's rail	Rallidae
Heteralocha acutirostris	Huia	Callaeidae
Ixobrychus novaezelandiae	New Zealand little bittern	Ardeidae
Malacorhynchus scarletti	Scarlett's duck	Anatidae
Megadyptes waitaha	Waitaha penguin	Spheniscidae
Megalapteryx didinus	Upland moa	Megalapterygidae
Mergus australis	New Zealand merganser	Anatidae
Mergus milleneri	Chatham Island merganser	Anatidae
Nestor chathamensis	Chatham Island kaka	Strigopidae
Oxyura vantetsi	New Zealand blue-billed duck	Anatidae
Pachyornis australis	Crested moa	Emeidae
Pachyornis elephantopus	Heavy-footed moa	Emeidae
Pachyornis geranoides	Mantell's moa	Emeidae
Pachyplichas jagmi	North Island stout-legged wren	Acanthisittidae
Pachyplichas yaldwyni	South Island stout-legged wren	Acanthisittidae
Porphyrio mantelli	North Island takahe	Rallidae
Pterodroma imberi	Imber's petrel	Procellariidae
Puffinus spelaeus	Scarlett's shearwater	Procellariidae
Sceloglaux albifacies albifacies	South Island laughing owl	Strigidae
Sceloglaux albifacies rufifacies	North Island laughing owl	Strigidae
Traversia Iyalli	Lyall's wren	Acanthisittidae
Turnagra capensis capensis	South Island piopio	Turnagridae
Turnagra capensis minor	Stephens Island piopio	Turnagridae
Turnagra tanagra	North Island piopio	Turnagridae
Xenicus longipes longipes	South Island bush wren	Acanthisittidae
Xenicus longipes stokesii	North Island bush wren	Acanthisittidae
Xenicus longipes variabilis	Stead's bush wren	Acanthisittidae

#### **Data Deficient**

Taxa that are suspected to be threatened or, in some instances, possibly extinct but are not definitely known to belong to any particular category due to a lack of current information about their distribution or abundance. In this case, the taxon is almost certainly functionally extinct, though a few scattered individuals may persist somewhere in the South Island. It is hoped that listing taxa in Data Deficient will stimulate research to find out the true category (for a fuller definition see Townsend et al. 2008).

SCIENTIFIC NAME	COMMON NAME	FAMILY
Callaeas cinerea	South Island kokako	Callaeidae

#### Threatened

Taxa that meet the criteria specified by Townsend et al. (2008) for the categories Nationally Critical, Nationally Endangered and Nationally Vulnerable.

Limited to taxa that are native and resident, i.e. excluding introduced taxa or those that are colonisers, migrants or vagrants.

#### **Nationally Critical**

Criteria for Nationally Critical:

#### A—very small population (natural or unnatural)

- A(1) <250 mature individuals, regardless of cause
- A(2)  $\leq$ 2 subpopulations,  $\leq$ 200 mature individuals in the larger subpopulation
- A(3) Total area of occupancy ≤1 ha (0.01 km²)

#### B—small population (natural or unnatural) with a high ongoing or predicted decline

- B(1/1) 250-1000 mature individuals, predicted decline 50-70%
- B(2/1)  $\leq$ 5 subpopulations,  $\leq$ 300 mature individuals in the largest subpopulation, predicted decline 50-70%
- B(3/1) Total area of occupancy  $\leq$ 10 ha (0.1 km²), predicted decline 50-70%

# C—population (irrespective of size or number of subpopulations) with a very high ongoing or predicted decline (>70%)

C Predicted decline > 70%

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Anas superciliosa	Grey duck	Anatidae	B(1/1)	DP, SO
Ardea modesta	White heron	Ardeidae	A(1)	OL, SO, St
Botaurus poiciloptilus	Australasian bittern	Ardeidae	B(1/1)	RF, Sp, TO
Charadrius obscurus obscurus	Southern New Zealand dotterel	Charadriidae	A(1)	CD, Dec, OL
Cyanoramphus malherbi	Orange-fronted parakeet	Psittacidae	С	CD, EF, RR
Diomedea antipodensis antipodensis	Antipodean albatross	Diomedeidae	С	IE, RF, RR
Diomedea antipodensis gibsoni	Gibson's albatross	Diomedeidae	С	IE, OL
Gygis alba candida	White tern	Sternidae	A(1)	CD, Inc, OL, SO
Haematopus chathamensis	Chatham Island oystercatcher	Haematopodidae	A(1)	CD, IE, RR, St
Himantopus novaezelandiae	Black stilt	Recurvirostridae	A(1)	CD, RR, St
Larus bulleri	Black-billed gull	Laridae	С	DP, RF
Leucocarbo onslowi	Chatham Island shag	Phalacrocoracidae	С	IE, RR
Pelagodroma albiclunis	Kermadec white-faced storm petrel	Hydrobatidae	A(1)	DP, IE, OL
Petroica traversi	Black robin	Petroicidae	A(1)	CD, IE, RR, St

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Pterodroma magentae	Chatham Island taiko	Procellariidae	A(1)	CD, IE, Inc, OL
Sternula nereis davisae	New Zealand fairy tern	Sternidae	A(1)	CD, RR, St
Stictocarbo featherstoni	Pitt Island shag	Phalacrocoracidae	B(1/1)	Dec, IE, RR
Strigops habroptilus	Kakapo	Strigopidae	A(1)	CD, Inc, RR
Thalassarche salvini	Salvin's mollymawk	Diomedeidae	С	DP, RR
Thinornis novaeseelandiae	New Zealand shore plover	Charadriidae	A(1)	CD, RR, Sp, St

#### Nationally Endangered

Criteria for Nationally Endangered:

# A—small population (natural or unnatural) that has a low to high ongoing or predicted decline

- A(1/1) 250-1000 mature individuals, predicted decline 10-50%
- A(2/1)  $\leq$ 5 subpopulations,  $\leq$ 300 mature individuals in the largest subpopulation, predicted decline 10–50%
- A(3/1) Total area of occupancy ≤10 ha (0.1 km²), predicted decline 10-50%

#### B—small stable population (unnatural)

- B(1/1) 250-1000 mature individuals, stable population
- B(2/1)  $\leq$ 5 subpopulations,  $\leq$ 300 mature individuals in the largest subpopulation, stable population
- B(3/1) Total area of occupancy  $\leq$ 10 ha (0.1 km<sup>2</sup>), stable population

#### C—moderate population and high ongoing or predicted decline

- C(1/1) 1000-5000 mature individuals, predicted decline 50-70%
- C(2/1)  $\leq$ 15 subpopulations,  $\leq$ 500 mature individuals in the largest subpopulation, predicted decline 50–70%
- C(3/1) Total area of occupancy  $\leq$ 100 ha (1 km²), predicted decline 50-70%

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Apteryx australis australis	Southern Fiordland tokoeka	Apterygidae	C(1/1)	CD, PD, RF
Apteryx australis lawryi <sup>1</sup>	Rakiura tokoeka	Apterygidae	C(1/1)	De , DP, OL,
Chlidonias albostriatus	Black-fronted tern	Sternidae	C(1/1)	CD, DP, RF, Sp
Coenocorypha aucklandica meinertzhagenae	Antipodes Island snipe	Scolopacidae	B(1/1)	IE, RR
Cyanoramphus forbesi	Forbes' parakeet	Psittacidae	B(1/1)	CD, IE, OL
Egretta sacra sacra	Reef heron	Ardeidae	B(1/1)	DP, SO, Sp
Fregetta grallaria grallaria	White-bellied storm petrel	Hydrobatidae	B(1/1)	DP, RR, SO
Leucocarbo carunculatus	King shag	Phalacrocoracidae	B(1/1)	RR
Megadyptes antipodes	Yellow-eyed penguin	Sphenicidae	C(1/1)	EF
Nestor notabilis	Kea	Strigopidae	C(1/1)	RR
Petroica macrocephala chathamensis	Chatham Island tomtit	Petroicidae	B(1/1)	CD, IE, RR
Prosthemadera novaeseelandiae chathamensis	Chatham Island tui	Meliphagidae	B(1/1)	DP, IE, RR
Sula dactylatra tasmani	Masked (blue-faced) booby	Sulidae	B(1/1)	RR, TO

Designated as Nationally Endangered because the population may be declining at >70% in three generations, which would trigger Nationally Critical, but there is uncertainty whether the observed decline at one site (Mason Bay) is typical of the whole population (Rogan Colbourne & Hugh Robertson, pers. comm.).

#### Nationally Vulnerable

Criteria for Nationally Vulnerable:

#### A—small, increasing population (unnatural)

- A(1/1) 250-1000 mature individuals, predicted increase >10%
- A(2/1)  $\leq$ 5 subpopulations,  $\leq$ 300 mature individuals in the largest subpopulation, predicted increase >10%
- A(3/1) Total area of occupancy  $\leq$ 10 ha (0.1 km²), predicted increase >10%

#### B—moderate, stable population (unnatural)

- B(1/1) 1000-5000 mature individuals, stable population
- B(2/1)  $\leq$ 15 subpopulations,  $\leq$ 500 mature individuals in the largest subpopulation, stable population
- B(3/1) Total area of occupancy  $\leq$ 100 ha (1 km $^2$ ), stable population

#### C-moderate population, with population trend that is declining

- C(1/1) 1000-5000 mature individuals, predicted decline 10-50%
- C(2/1)  $\leq$ 15 subpopulations,  $\leq$ 500 mature individuals in the largest subpopulation, predicted decline 10–50%
- C(3/1) Total area of occupancy ≤100 ha (1 km²), predicted decline 10-50%

#### D-moderate to large population, and moderate to high ongoing or predicted decline

- D(1/1)  $\,$  5000–20 000 mature individuals, predicted decline 30–70%  $\,$
- D(2/1)  $\leq$ 15 subpopulations and  $\leq$ 1000 mature individuals in the largest subpopulation, predicted decline 30–70%
- D(3/1) Total area of occupancy  $\leq 1000$  ha (10 km<sup>2</sup>), predicted decline 30-70%

#### E—large population, and high ongoing or predicted decline

- E(1/1) 20 000–100 000 mature individuals, predicted decline 50–70%
- E(2/1) Total area of occupancy ≤10 000 ha (100 km²), predicted decline 50-70%

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Anarhynchus frontalis	Wrybill	Charadriidae	B(1/1)	DP, RR
Anas aucklandica	Auckland Island teal	Anatidae	B(1/1)	IE, RR
Anas nesiotis	Campbell Island teal	Anatidae	A(1/1)	CD, DP, IE, RR
Anthus novaeseelandiae steindachneri	Antipodes Island pipit	Motacillidae	B(1/1)	CD, DP, IE, RR
Apteryx haastii	Great spotted kiwi	Apterygidae	D(1/1)	DP, RF
Apteryx rowi	Rowi	Apterygidae	A(1/1)	CD, OL
Bowdleria punctata stewartiana	Stewart Island fernbird	Megaluridae	B(1/1)	DP, RR
Calidris canutus rogersi	Lesser knot	Scolopacidae	E(1/1)	ТО
Charadrius bicinctus bicinctus	Banded dotterel	Charadriidae	D(1/1)	DP
Coenocorypha aucklandica perseverance	Campbell Island snipe	Scolopacidae	A(1/1)	DP, IE, OL
Coenocorypha pusilla	Chatham Island snipe	Scolopacidae	B(1/1)	IE, RR
Eudyptes filholi	Eastern rockhopper penguin	Spheniscidae	E(1/1)	RR, TO
Eudyptes pachyrhynchus	Fiordland crested penguin	Spheniscidae	D(1/1)	Sp
Fregetta maoriana	New Zealand storm petrel	Hydrobatidae	A(1/1)	CD, OL
Gallirallus australis scotti	Stewart Island weka	Rallidae	B(1/1)	DP
Hemiphaga chathamensis	Chatham Island pigeon, parea	Columbidae	A(1/1)	CD, IE, OL
Hydroprogne caspia	Caspian tern	Sternidae	C(1/1)	SO, Sp
Hymenolaimus malachorhynchos	Blue duck, whio	Anatidae	C(1/1)	CD, PD, Sp
Leucocarbo colensoi	Auckland Island shag	Phalacrocoracidae	B(1/1)	IE, Inc, RR
Leucocarbo stewarti	Foveaux shag	Phalacrocoracidae	B(1/1)	CD, PD

COLENITIES NAME	OOMMON NAME	EARAHA/	ODITEDIA	OLIALIEIEDO
SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Nestor meridionalis meridionalis	South Island kaka	Strigopidae	C(1/1)	CD, PD, RF
Notiomystis cincta	Stitchbird	Notiomystidae	B(1/1)	CD, RR
Podiceps cristatus australis	Southern crested grebe	Podicipedidae	A(1/1)	SO
Porphyrio hochstetteri	South Island takahe	Rallidae	A(1/1)	CD, RR
Procellaria parkinsoni	Black petrel	Procellariidae	C(1/1)	RR
Pterodroma axillaris	Chatham petrel	Procellariidae	A(1/1)	CD, RR
Puffinus carneipes	Flesh-footed shearwater	Procellariidae	E(1/1)	RR, TO
Puffinus huttoni	Hutton's shearwater	Procellariidae	B(3/1)	CD, RR
Sterna striata aucklandorna	Southern white-fronted tern	Sternidae	B(1/1)	DP, RR
Thalassarche chrysostoma	Grey-headed mollymawk	Diomedeidae	B(3/1)	OL, TO
Thalassarche impavida	Campbell Island mollymawk	Diomedeidae	C(3/1)	IE, OL

#### At Risk

Taxa that meet the criteria specified by Townsend et al. (2008) for Declining, Recovering, Relict and Naturally Uncommon.

#### Declining

Taxa that do not qualify as 'Threatened' because they are buffered by large population size and/or a slower rate of decline than the trigger points.

Criteria for Declining:

#### A-moderate to large population and low ongoing or predicted decline

- A(1/1) 5000-20000 mature individuals, predicted decline 10-30%
- A(2/1) Total area of occupancy  $\leq$ 1000 ha (10 km<sup>2</sup>), predicted decline 10-30%

#### B—large population and low to moderate ongoing or predicted decline

- B(1/1) 20 000–100 000 mature individuals, predicted decline 10–50%
- B(2/1) Total area of occupancy  $\leq$ 10 000 ha (100 km<sup>2</sup>), predicted decline 10-50%

#### C—very large population and low to high ongoing or predicted decline

- C(1/1) >100 000 mature individuals, predicted decline 10-70%
- C(2/1) Total area of occupancy >10 000 ha (100 km<sup>2</sup>), predicted decline 10-70%

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Acanthisitta chloris granti	North Island rifleman	Acanthisittidae	B(1/1)	DP
Anthus novaeseelandiae novaeseelandiae	New Zealand pipit	Motacillidae	C(1/1)	
Apteryx mantelli	North Island brown kiwi	Apterygiidae	B(1/1)	CD, PD, RF
Bowdleria punctata punctata	South Island fernbird	Megaluridae	B(1/1)	
Bowdleria punctata vealeae	North Island fernbird	Megaluridae	B(1/1)	DP
Eudyptes sclateri	Erect-crested penguin	Spheniscidae	C(1/1)	
Eudyptula minor albosignata	White-flippered penguin	Spheniscidae	A(1/1)	CD, PD, RR
Eudyptula minor iredalei	Northern blue penguin	Spheniscidae	A(1/1)	DP
Eudyptula minor minor	Southern blue penguin	Spheniscidae	A(1/1)	DP
Gallirallus philippensis assimilis	Banded rail	Rallidae	A(1/1)	DP, RR
Haematopus finschi	South Island pied oystercatcher	Haematopodidae	B(1/1)	
Larus novaehollandiae scopulinus	Red-billed gull	Laridae	C(1/1)	
Limosa lapponica baueri	Eastern bar-tailed godwit	Scolopacidae	B(1/1)	TO
Mohoua albicilla	Whitehead	Pachycephalidae	C(1/1)	DP
Petroica australis australis	South Island robin	Petroicidae	B(1/1)	CD

#### Declining continued

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Petroica longipes	North Island robin	Petroicidae	B(1/1)	
Phoebetria palpebrata	Light-mantled sooty albatross	Diomedeidae	A(1/1)	DP, RR, SO
Porzana pusilla affinis	Marsh crake	Rallidae	A(1/1)	DP
Porzana tabuensis tabuensis	Spotless crake	Rallidae	A(1/1)	DP, SO
Puffinus griseus	Sooty shearwater	Procellariidae	C(1/1)	SO
Sterna striata striata	White-fronted tern	Sternidae	A(1/1)	DP
Thalassarche cauta steadi	Shy mollymawk	Diomedeidae	C(1/1)	EF, RR

#### Recovering

Taxa that have undergone a documented decline within the last 1000 years and now have an ongoing or predicted increase of >10% in the total population or area of occupancy, taken over the next 10 years or three generations, whichever is longer. Note that such taxa that are increasing but have a population size of <1000 mature individuals (or total area of occupancy of <10 ha) are listed in one of the Threatened categories, depending on their population size (for more details see Townsend et al. (2008)).

#### Criteria for Recovering:

- A 1000–5000 mature individuals or total area of occupancy  $\leq$ 100 ha (1 km²), and predicted increase >10%
- B 5000–20 000 mature individuals or total area of occupancy  $\leq$  1000 ha (10 km²), and predicted increase >10%

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Anas chlorotis	Brown teal	Anatidae	А	CD, RR
Apteryx owenii	Little spotted kiwi	Apterygidae	Α	CD, RR
Callaeas wilsoni	North Island kokako	Callaeidae	Α	CD, Sp
Charadrius obscurus aquilonius	Northern New Zealand dotterel	Charadriidae	Α	CD
Eudyptula novaehollandiae	Australian little penguin	Spheniscidae	В	CD
Falco novaeseelandiae ferox	Bush falcon	Falconidae	Α	DP
Falco novaeseelandiae novaeseelandiae	Eastern falcon	Falconidae	Α	DP
Gallirallus australis greyi	North Island weka	Rallidae	Α	DP
Gerygone albofrontata	Chatham Island warbler	Acanthizidae	В	CD, IE, RR
Haematopus unicolor	Variable oystercatcher	Haematopodidae	Α	
Leucocarbo chalconotus	Otago shag	Phalacrocoracidae	Α	CD, PD
Macronectes halli	Northern giant petrel	Procellariidae	В	RR, SO
Mohoua ochrocephala	Mohua, yellowhead	Pachycephalidae	В	CD, PD, RR
Nestor meridionalis septentrionalis	North Island kaka	Strigopidae	В	CD, PD
Onychoprion fuscata serratus	Sooty tern	Sternidae	В	CD, OL, SO
Phaethon rubricauda	Red-tailed tropicbird	Phaethontidae	Α	CD, RR, SO
Phalacrocorax varius varius	Pied shag	Phalacrocoracidae	В	
Philesturnus carunculatus	South Island saddleback	Callaeidae	Α	CD, RR
Philesturnus rufusater	North Island saddleback	Callaeidae	В	CD, RR
Poliocephalus rufopectus	New Zealand dabchick	Podicipedidae	Α	DP
Pterodroma pycrofti	Pycroft's petrel	Procellariidae	В	CD, RR
Puffinus assimilis haurakiensis	North Island little shearwater	Procellariidae	В	CD, RR
Sterna vittata bethunei	New Zealand Antarctic tern	Sternidae	Α	RR

#### Relict

Taxa that have undergone a documented decline within the last 1000 years and now occupy <10% of their former range and meet one of the following criteria:

- A 5000-20000 mature individuals; population stable (±10%)
- B >20 000 mature individuals; population stable or increasing at >10%.

The range of a relictual taxon takes into account the area currently occupied as a ratio of its former extent. Relict can also include taxa that exist as reintroduced and self-sustaining populations within or outside their former known range (for more details see Townsend et al. 2008).

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Cyanoramphus novaezelandiae novaezelandiae	Red-crowned parakeet	Psittacidae	В	
Gallirallus australis hectori	Buff weka	Rallidae	В	
Garrodia nereis	Grey-backed storm petrel	Hydrobatidae	В	RR, SO
Pachyptila turtur	Fairy prion	Procellariidae	В	RR, SO
Pachyptila vittata	Broad-billed prion	Procellariidae	В	RR, SO
Pelagodroma marina maoriana	New Zealand white-faced storm petrel	Hydrobatidae	В	RR
Pelecanoides urinatrix chathamensis	Southern diving petrel	Procellariidae	В	RR
Pelecanoides urinatrix urinatrix	Northern diving petrel	Procellariidae	В	Inc, RR, SO
Petroica australis rakiura	Stewart Island robin	Petroicidae	Α	CD, RR
Pterodroma cervicalis	White-naped petrel	Procellariidae	В	OL
Pterodroma cookii	Cook's petrel	Procellariidae	В	Inc, RR
Pterodroma inexpectata	Mottled petrel	Procellariidae	В	Inc, RR
Puffinus assimilis kermadecensis	Kermadec little shearwater	Procellariidae	В	IE, RR
Puffinus gavia	Fluttering shearwater	Procellariidae	В	RR
Puffinus pacificus pacificus	Wedge-tailed shearwater	Procellariidae	В	RR, SO

#### Naturally Uncommon

Taxa whose distribution is confined to a specific geographical area or which occur within naturally small and widely scattered populations, where this distribution is not the result of human disturbance. Taxa with >20 000 mature individuals are not considered naturally uncommon unless they occupy an area of <1000  $\rm km^2$ 

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Anous minutus minutus	White-capped noddy	Sternidae	RR, SO
Anthornis melanura obscura	Three Kings bellbird	Meliphagidae	IE, OL, St
Anthornis melanura oneho	Poor Knights bellbird	Meliphagidae	IE, OL, St
Anthus novaeseelandiae aucklandicus	Auckland Island pipit	Motacillidae	CD, Inc, RR,
Anthus novaeseelandiae chathamensis	Chatham Island pipit	Motacillidae	IE, RR, St
Bowdleria punctata caudata	Snares Island fernbird	Megaluridae	IE, OL, St
Bowdleria punctata wilsoni	Codfish Island fernbird	Megaluridae	IE, RR
Catharacta antarctica lonnbergi	Brown skua	Stercorariidae	Sp
Charadrius bicinctus exilis	Auckland Island banded dotterel	Charadriidae	DP, IE, RR
Coenocorypha aucklandica aucklandica	Auckland Island snipe	Scolopacidae	IE, RR, St
Coenocorypha huegeli	Snares Island snipe	Scolopacidae	CD, IE, RR, St
Cyanoramphus hochstetteri	Reischek's parakeet	Psittacidae	CD, IE, RR, St
Cyanoramphus novaezelandiae chathamensis	Chatham Island red-crowned parakeet	Psittacidae	IE, RR, St
Cyanoramphus novaezelandiae cyanurus	Kermadec red-crowned parakeet	Psittacidae	CD, EF, IE, RR
Cyanoramphus unicolor	Antipodes Island parakeet	Psittacidae	CD, IE, RR, St
Daption capense australe	Snares cape petrel	Procellariidae	RR

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Diomedea epomophora epomophora	Southern royal albatross	Diomedeidae	RR
Diomedea sanfordi	Northern royal albatross	Diomedeidae	RR
Elseyornis melanops	Black-fronted dotterel	Charadriidae	SO, Sp
Eudynamys taitensis	Long-tailed cuckoo	Cuculidae	DP
Eudyptes robustus	Snares crested penguin	Spheniscidae	IE, OL
Eudyptula minor chathamensis	Chatham Island blue penguin	Spheniscidae	IE, RR
Fulica atra australis	Australian coot	Rallidae	Inc, SO
Leucocarbo campbelli	Campbell Island shag	Phalacrocoracidae	DP, IE, OL
Leucocarbo ranfurlyi	Bounty Island shag	Phalacrocoracidae	IE, OL
Lewinia muelleri	Auckland Island rail	Rallidae	DP, IE, RR, St
Pachyptila crassirostris crassirostris	Fulmar prion	Procellariidae	RR, St
Pachyptila crassirostris flemingi	Lesser fulmar prion	Procellariidae	OL, St
Pachyptila crassirostris pyramidalis	Chatham fulmar prion	Procellariidae	IE, RR
Pachyptila desolata	Antarctic prion	Procellariidae	RR, SO
Petroica macrocephala dannefaerdi	Snares Island tomtit	Petroicidae	IE, OL, St
Petroica macrocephala marrineri	Auckland Island tomtit	Petroicidae	DP, IE, RR
Phalacrocorax carbo novaehollandiae	Black shag	Phalacrocoracidae	SO, Sp
Phalacrocorax sulcirostris	Little black shag	Phalacrocoracidae	RR
Platalea regia	Royal spoonbill	Threskiornithidae	Inc, RR, SO, Sp
Procellaria cinerea	Grey petrel	Procellariidae	RR, SO
Procellaria westlandica	Westland petrel	Procellariidae	OL, St
Procelsterna cerulea albivittata	Grey ternlet	Sternidae	RR
Pterodroma mollis	Soft-plumaged petrel	Procellariidae	Inc, OL, SO
Puffinus bulleri	Buller's shearwater	Procellariidae	OL, St
Puffinus elegans	Subantarctic little shearwater	Procellariidae	RR
Rhipidura fuliginosa penita	Chatham Island fantail	Rhipiduridae	EF, IE, RR
Stictocarbo punctatus oliveri	Blue shag	Phalacrocoracidae	
Thalassarche bulleri bulleri	Southern Buller's mollymawk	Diomedeidae	RR
Thalassarche bulleri platei	Pacific (northern Buller's) mollymawk	Diomedeidae	RR
Thalassarche eremita	Chatham Island mollymawk	Diomedeidae	IE, OL

#### Non-resident Native

Taxa whose natural presence in New Zealand is either discontinuous (Migrant) or sporadic or temporary (Vagrant) or which have succeeded in recently (since 1950) establishing a resident breeding population (Coloniser).

#### Migrant

Taxa that predictably visit New Zealand seasonally as part of their normal life cycle (a minimum of 15 individuals known or presumed to visit per annum) but do not breed here. Where >25% of the taxon relies on New Zealand for greater than 50% of its life cycle (e.g. pre-breeding years plus each austral summer), they have been considered as part of the native avifauna.

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Ardea ibis coromanda	Eastern cattle egret	Ardeidae	SO
Arenaria interpres	Turnstone	Scolopacidae	SO
Calidris acuminata	Sharp-tailed sandpiper	Scolopacidae	SO
Calidris ruficollis	Red-necked stint	Scolopacidae	SO
Catharacta maccormicki	South Polar skua	Stercorariidae	SO
Chlidonias leucopterus	White-winged black tern	Sternidae	SO

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Coprotheres pomarinus	Pomarine skua	Stercorariidae	SO
Daption capense capense	Cape petrel	Procellariidae	SO
Diomedea exulans	Snowy albatross	Diomedeidae	TO
Fulmarus glacialoides	Antarctic fulmar	Procellariidae	SO
Halobaena caerulea	Blue petrel	Procellariidae	SO
Lugensa brevirostris	Kerguelen petrel	Procellariidae	SO
Macronectes giganteus	Southern giant petrel	Procellariidae	SO
Numenius phaeopus variegatus	Asiatic whimbrel	Scolopacidae	SO
Oceanites oceanicus exasperatus	Wilson's storm petrel	Hydrobatidae	SO
Pachyptila belcheri	Narrow-billed prion	Procellariidae	SO
Pachyptila salvini	Salvin's prion	Procellariidae	SO
Pluvialis fulva	Pacific golden plover	Charadriidae	SO
Pterodroma leucoptera caledonica	New Caledonian petrel	Procellariidae	TO
Puffinus tenuirostris	Short-tailed shearwater	Procellariidae	SO
Stercorarius longicaudus	Long-tailed skua	Stercorariidae	SO
Stercorarius parasiticus	Arctic skua	Stercorariidae	SO
Sterna paradisaea	Arctic tern	Sternidae	SO
Sternula albifrons sinensis	Eastern little tern	Sternidae	SO

### Vagrant

Taxa whose occurrences, though natural, are sporadic and typically transitory, or migrants with fewer than 15 individuals visiting New Zealand per annum.

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Acrocephalus australis	Australian reed warbler	Acrocephalidae	SO
Anas acuta	Northern pintail	Anatidae	SO
Anas castanea	Chestnut teal	Anatidae	SO
Anas clypeata	Northern shoveler	Anatidae	SO
Anhinga melanogaster novaehollandiae	Australian darter	Anhingidae	SO
Anthochaera carunculata	Red wattlebird	Meliphagidae	SO
Aptenodytes forsteri	Emperor penguin	Spheniscidae	SO
Aptenodytes patagonicus	King penguin	Spheniscidae	SO
Apus pacificus pacificus	Fork-tailed swift	Apodidae	SO
Ardea cinerea jouyi	Oriental grey heron	Ardeidae	DP, SO
Ardea intermedia plumifera	Intermediate egret	Ardeidae	SO
Ardea pacifica	White-necked heron	Ardeidae	SO
Artamus cyanopterus	Dusky woodswallow	Artamidae	SO
Artamus personatus	Masked woodswallow	Artamidae	SO
Artamus superciliosus	White-browed woodswallow	Artamidae	SO
Aythya australis	Australian white-eyed duck	Anatidae	SO
Bartramia longicauda	Upland sandpiper	Scolopacidae	SO
Bulweria bulwerii	Bulwer's petrel	Procellariidae	SO
Cacomantis flabelliformis flabelliformis	Fan-tailed cuckoo	Cuculidae	SO
Calidris alba	Sanderling	Scolopacidae	SO
Calidris alpina	Dunlin	Scolopacidae	SO
Calidris bairdii	Baird's sandpiper	Scolopacidae	SO
Calidris ferruginea	Curlew sandpiper	Scolopacidae	SO
Calidris fusicollis	White-rumped sandpiper	Scolopacidae	SO
Calidris himantopus	Stilt sandpiper	Scolopacidae	SO

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIER
Calidris mauri	Western sandpiper	Scolopacidae	SO
Calidris melanotos	Pectoral sandpiper	Scolopacidae	SO
Calidris minuta	Little stint	Scolopacidae	SO
Calidris pusilla	Semipalmated sandpiper	Scolopacidae	SO
Calidris subminuta	Long-toed stint	Scolopacidae	SO
Calidris tenuirostris	Great knot	Scolopacidae	SO
Calonectris borealis	Cory's shearwater	Procellariidae	SO
Calonectris leucomelas	Streaked shearwater	Procellariidae	SO
Charadrius leschenaultii leschenaultii	Large sand dotterel	Charadriidae	SO
Charadrius mongolus	Mongolian dotterel	Charadriidae	SO
Charadrius ruficapillus	Red-capped dotterel	Charadriidae	SO
Charadrius semipalmatus	Semi-palmated plover	Charadriidae	SO
Charadrius veredus	Oriental dotterel	Charadriidae	SO
Chlidonias hybridus javanicus	Whiskered tern	Sternidae	SO
Coracina novaehollandiae	Black-faced cuckoo-shrike	Campephagidae	SO
Crex crex	Corncrake	Rallidae	DP, SO
Cuculus optatus	Oriental cuckoo	Cuculidae	SO
Cuculus pallidus	Pallid cuckoo	Cuculidae	SO
Dendrocygna eytoni	Plumed whistling duck	Anatidae	SO
Egretta garzetta immaculata	Little egret	Ardeidae	SO
Erythrogonys cinctus	Red-kneed dotterel	Charadriidae	SO
Eudyptes chrysocome	Western rockhopper penguin	Cuculidae	то
Eudyptes chrysolophus	Macaroni penguin	Spheniscidae	то
Eudyptes moseleyi	Moseley's rockhopper penguin	Spheniscidae	ТО
Eudyptes schlegeli	Royal penguin	Spheniscidae	ТО
Eurystomus orientalis pacificus	Dollarbird	Coraciidae	SO
Falco cenchroides cenchroides	Nankeen kestrel	Falconidae	SO
Fulmarus glacialis	Northern fulmar	Procellariidae	SO
Fregata ariel ariel	Lesser frigatebird	Fregatidae	SO
Fregata minor palmerstoni	Great frigatebird	Fregatidae	SO
Gallinago hardwickii	Japanese snipe	Scolopacidae	SO
Gallinula chloropus	Common moorhen	Rallidae	SO
Gallinula tenebrosa	Dusky moorhen	Rallidae	SO
Gallinula ventralis	Black-tailed native-hen	Rallidae	SO
Gelochelidon nilotica	Gull-billed tern	Sternidae	SO
Glareola maldivarum	Oriental pratincole	Glareolidae	SO
Grallina cyanoleuca	Magpie-lark	Monarchidae	SO
Haliaeetus leucogaster	White-bellied sea eagle	Accipitriformes	DP, SO
Hirundapus caudacutus caudacutus	White-throated needletail	Apodidae	SO
Ixobrychus minutus dubius	Australian little bittern	Ardeidae	SO
Lalage tricolor	White-winged triller	Campephagidae	SO
Larus pacificus	Pacific gull	Laridae	SO
Larus pipixcan	Franklin's gull	Laridae	SO
Limicola falcinellus sibirica	Eastern broad-billed sandpiper	Scolopacidae	SO
Limnodromus semipalmatus	Asiatic dowitcher	Scolopacidae	SO
Limosa haemastica	Hudsonian godwit	Scolopacidae	SO
Limosa limosa melanuroides	Asiatic black-tailed godwit	Scolopacidae	SO
Malacorhynchus membranaceus	Pink-eared duck	Anatidae	SO
Milvus migrans	Black kite	Accipitridae	SO
Monarcha melanopsis	Black-faced monarch	Monarchidae	SO
Morus capensis	Cape gannet	Sulidae	SO

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIER
Myiagra cyanoleuca	Satin flycatcher	Monarchidae	SO
Numenius madagascariensis	Far-eastern curlew	Scolopacidae	TO
Numenius minutus	Little whimbrel	Scolopacidae	SO
Numenius phaeopus hudsonicus	American whimbrel	Scolopacidae	SO
Numenius tahitiensis	Bristle-thighed curlew	Scolopacidae	TO
Oceanodroma leucorhoa leucorhoa	Leach's storm petrel	Hydrobatidae	SO
Onchyoprion anaethetus	Bridled tern	Sternidae	SO
Onychoprion lunatus	Grey-backed tern	Sternidae	SO
Pelagodroma marina dulciae	Australian white-faced storm petrel	Hydrobatidae	SO
Pelecanus conspicillatus	Australian pelican	Pelicanidae	SO
Petrochelidon ariel	Fairy martin	Hirundinidae	SO
Petrochelidon nigricans	Tree martin	Hirundinidae	SO
Phaeton lepturus dorotheae	White-tailed tropicbird	Phaethontidae	SO
Phalacrocorax melanoleucos melanoleucos	Little pied cormorant	Phalacrocoracidae	SO
Phalaropus fulicaria	Grey phalarope	Scolopacidae	SO
Phalaropus lobatus	Red-necked phalarope	Scolopacidae	SO
Phalaropus tricolor	Wilson's phalarope	Scolopacidae	so
Philomachus pugnax	Ruff	Scolopacidae	SO
Phoebastria immutabilis	Laysan albatross	Diomedeidae	TO
Phoebastria nigripes	Black-footed albatross	Diomedeidae	TO
Phoebetria fusca	Sooty albatross	Diomedeidae	TO
Platalea flavipes	Yellow-billed spoonbill	Threskiornithidae	SO
Pluvialis dominicus	American golden plover	Charadriidae	SO
Pluvialis squatarola	Grey plover	Charadriidae	SO
Poliocephalus poliocephalus	Hoary-headed grebe	Podicipedidae	SO
Porzana fluminea	Australian crake	Rallidae	DP, SO
Pseudobulweria rostrata	Tahiti petrel	Procellariidae	SO
Pterodroma alba	Phoenix petrel	Procellariidae	ТО
Pterodroma externa	Juan Fernandez petrel	Procellariidae	ТО
Pterodroma heraldica	Herald petrel	Procellariidae	SO
Pterodroma longirostris	Stejneger's petrel	Procellariidae	ТО
Pterodroma solandri	Providence petrel	Procellariidae	ТО
Puffinus assimilis assimilis	Norfolk Island little shearwater	Procellariidae	SO
Puffinus creatopus	Pink-footed shearwater	Procellariidae	SO
Puffinus gravis	Great shearwater	Procellariidae	SO
Puffinus nativitatis	Christmas Island shearwater	Procellariidae	SO
Puffinus newelli	Newell's shearwater	Procellariidae	TO
Puffinus pacificus chlororhynchus	Wedge-tailed shearwater	Procellariidae	SO
Puffinus puffinus	Manx shearwater	Procellariidae	SO
Pygoscelis adeliae	Adelie penguin	Spheniscidae	SO
Pygoscelis antarctica	Chinstrap penguin	Spheniscidae	SO
Pygoscelis papua	Gentoo penguin	Spheniscidae	SO
Recurvirostra novaehollandiae	Red-necked avocet	Recurvirostridae	SO
Rhiphidura leucophrys	Willie wagtail	Rhipiduridae	SO
Rostratula benghalensis	Painted snipe	Rostratulidae	SO
Scythrops novaehollandiae	Channel-billed cuckoo	Cuculidae	SO
Spheniscus magellanicus	Magellanic penguin	Spheniscidae	SO
Sterna bergii cristata	Crested tern	Sternidae	SO
Sterna bergii cristata Sterna hirundo longipennis	Common tern	Sternidae	SO
• .	Brown booby	Sulidae	SO
Sula leucogaster plotus			

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Tadorna tadornoides	Chestnut-breasted shelduck	Anatidae	SO
Thalassarche cauta cauta	Tasmanian mollymawk	Diomedeidae	SO
Thalassarche chlororhynchos	Atlantic yellow-nosed mollymawk	Diomedeidae	TO
Thalassoica antarctica	Antarctic petrel	Procellariidae	SO
Threskiornis molucca strictipennis	Australian white ibis	Threskiornithidae	SO
Threskiornis spinicollis	Straw-necked ibis	Threskiornithidae	SO
Tringa brevipes	Siberian tattler	Scolopacidae	SO
Tringa cinerea	Terek sandpiper	Scolopacidae	SO
Tringa flavipes	Lesser yellowlegs	Scolopacidae	SO
Tringa hypoleucos	Common sandpiper	Scolopacidae	SO
Tringa incana	Wandering tattler	Scolopacidae	SO
Tringa nebularia	Greenshank	Scolopacidae	SO
Tringa stagnatilis	Marsh sandpiper	Scolopacidae	SO
Tryngites subruficollis	Buff-breasted sandpiper	Scolopacidae	SO

#### Coloniser

Taxa that otherwise trigger Threatened categories because of small population size, but have arrived in New Zealand without direct or indirect help from humans and have been successfully reproducing in the wild only since 1950 (see Townsend et al. 2008).

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Anous stolidus pileatus	Common noddy	Sternidae	OL, SO
Chenonetta jubata	Australian wood duck	Anatidae	OL, SO
Nycticorax caledonicus australasiae	Nankeen night heron	Ardeidae	DP, OL, SO
Plegadis falcinellus	Glossy ibis	Threskiornithidae	SO
Tachybaptus novaehollandiae novaehollandiae	Australasian little grebe	Podicipedidae	SO
Thalassarche carteri	Eastern yellow-nosed mollymawk	Diomedeidae	TO
Thalassarche melanophris	Black-browed mollymawk	Diomedeidae	TO
Tyto alba deliculata	Australian barn owl	Tytonidae	Inc, OL, SO

## Not Threatened

Resident native taxa that have large populations that are stable or increasing, though some can have extreme fluctuations but return to a similar long-term large average population size.

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Acanthisitta chloris chloris	South Island rifleman	Acanthisittidae	
Anas gracilis	Grey teal	Anatidae	Inc, SO
Anas rhynchotis	Australasian shoveler	Anatidae	
Anas superciliosa x platyrhynchus	Grey duck - mallard hybrid	Anatidae	
Anthornis melanura melanura	Bellbird	Meliphagidae	
Aythya novaeseelandiae	New Zealand scaup	Anatidae	Inc
Chrysococcyx lucidus lucidus	Shining cuckoo	Cuculidae	DP
Circus approximans	Swamp harrier	Accipitridae	SO
Cyanoramphus auriceps	Yellow-crowned parakeet	Psittacidae	EF
Cygnus atratus	Black swan	Anatidae	SO
Egretta novaehollandiae	White-faced heron	Ardeidae	SO
Fregetta tropica	Black-bellied storm petrel	Hydrobatidae	De <sup>1</sup> , RR
Gallirallus australis australis	Western weka	Rallidae	EF, Inc
Gerygone igata	Grey warbler	Acanthizidae	

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIER
Hemiphaga novaeseelandiae	New Zealand pigeon, kereru	Columbidae	CD, Inc
Himantopus himantopus leucocephalus	Pied stilt	Recurvirostridae	SO
Hirundo neoxena neoxena	Welcome swallow	Hirundinidae	SO, St
Larus dominicanus dominicanus	Southern black-backed gull	Laridae	SO
Mohoua novaeseelandiae	Brown creeper	Pachycephalidae	
Morus serrator	Australasian gannet	Sulidae	De <sup>1</sup> , Inc, SC
Ninox novaeseelandiae novaeseelandiae	Morepork	Strigidae	
Pelecanoides urinatrix exsul	Subantarctic diving petrel	Procellariidae	De <sup>1</sup> , RR, SC
Petroica macrocephala macrocephala	Yellow-breasted tomtit	Petroicidae	
Petroica macrocephala toitoi	Pied tomtit	Petroicidae	
Phalacrocorax melanoleucos brevirostris	Little shag	Phalacrocoracidae	Inc
Porphyrio melanotus melanotus	Pukeko	Rallidae	Inc, SO
Procellaria aequinoctialis	White-chinned petrel	Procellariidae	CD, RR, TC
Prosthemadera novaeseelandiae novaeseelandiae	Tui	Meliphagidae	Inc
Pterodroma lessonii	White-headed petrel	Procellariidae	De <sup>1</sup> , RR, SC
Pterodroma macroptera gouldi	Grey-faced petrel	Procellariidae	De <sup>1</sup> , Inc, RF
Pterodroma nigripennis	Black-winged petrel	Procellariidae	De <sup>1</sup> , Inc, RF
Rhipidura fuliginosa fuliginosa	South Island fantail	Rhipiduridae	EF
Rhipidura fuliginosa placabilis	North Island fantail	Rhipiduridae	EF
Stictocarbo punctatus punctatus	Spotted shag	Phalacrocoracidae	
Tadorna variegata	Paradise shelduck	Anatidae	
Todiramphus sanctus vagans	New Zealand kingfisher	Alcedinidae	
Vanellus miles novaehollandiae	Spur-winged plover	Charadriidae	SO
Zosterops lateralis lateralis	Silvereye	Zosteropidae	SO

Designated because the small total area occupied by colonies would otherwise have placed them in a Threatened or At Risk category.

## Introduced and Naturalised

Taxa that have become naturalised in the wild after being deliberately or accidentally introduced into New Zealand by human agency.

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Acridotheres tristis	Myna	Sturnidae	SO
Alauda arvensis	Skylark	Alaudidae	SO
Alectoris chukar	Chukor	Phasianidae	SO, Sp
Anas platyrhynchos	Mallard	Anatidae	SO
Anser anser	Feral (greylag) goose	Anatidae	SO
Athene noctua	Little owl	Strigidae	SO
Branta canadensis	Canada goose	Anatidae	SO
Cacatua galerita	Sulphur-crested cockatoo	Cacatuidae	SO, Sp
Callipepla californica	California quail	Phasianidae	SO
Carduelis carduelis	Goldfinch	Fringillidae	SO
Carduelis chloris	Greenfinch	Fringillidae	SO
Carduelis flammea	Redpoll	Fringillidae	SO
Cereopsis novaehollandiae	Cape Barren goose	Anatidae	SO, Sp
Columba livia	Rock pigeon	Columbidae	SO
Corvus frugilegus	Rook	Corvidae	SO
Coturnix ypsilophora australis	Australian brown quail	Phasianidae	SO
Cygnus olor	Mute swan	Anatidae	SO, Sp
Dacelo novaeguineae	Laughing kookaburra	Halcyonidae	RR, SO

Introduced and Naturalised continued

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Emberiza cirlus	Cirl bunting	Emberizidae	SO, Sp
Emberiza citrinella	Yellowhammer	Emberizidae	SO
Eolophus roseicapillus	Galah	Cacatuidae	RR, SO
Fringilla coelebs	Chaffinch	Fringillidae	SO
Gallus gallus	Feral chicken	Phasianidae	SO
Gymnorhina tibicen	Australian magpie	Artamidae	SO
Meleagris gallopavo	Wild turkey	Phasianidae	SO
Numida meleagris	Helmeted guineafowl	Phasianidae	SO, Sp
Passer domesticus	House sparrow	Passeridae	SO
Pavo cristatus	Indian peafowl	Phasianidae	SO
Phasianus colchicus	Common pheasant	Phasianidae	SO
Platycercus elegans	Crimson rosella	Psittacidae	RR, SO
Platycercus eximius	Eastern rosella	Psittacidae	SO
Prunella modularis	Dunnock	Prunellidae	SO
Streptopelia chinensis tigrina	Spotted dove	Columbidae	SO
Streptopelia risoria	Barbary dove	Columbidae	SO, Sp
Sturnus vulgaris	Starling	Sturnidae	SO
Turdus merula	Blackbird	Turdidae	SO
Turdus philomelos	Song thrush	Turdidae	SO

## 2.2 Taxonomically Indeterminate

### **Data Deficient**

Taxa that are suspected to be threatened or in some instances, possibly extinct but are not definitely known to belong to any particular category due to a lack of current information about their distribution or abundance. In this case, the taxon is almost certainly functionally extinct, though a few scattered individuals may persist somewhere in the southern South Island. It is hoped that listing taxa in Data Deficient will stimulate research to find out the true category (for a fuller definition see Townsend et al. 2008).

SCIENTIFIC NAME	COMMON NAME	FAMILY
Anas chlorotis "South Island"	South Island brown teal	Anatidae

### Threatened

Taxa that meet the criteria specified by Townsend et al. (2008) for the categories Nationally Critical, Nationally Endangered and Nationally Vulnerable (see Section 2.1 for definitions).

#### Nationally Critical

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Apteryx australis "Haast"	Haast tokoeka	Apterygidae	A(1)	CD, Inc, RF
Pelecanoides georgicus "Codfish Island"	South Georgian diving petrel	Procellariidae	A(1)	CD, IE, OL
Xenicus gilviventris "northern"	Northern rock wren	Acanthisittidae	B(1/1)	DP, RR, Sp

#### Nationally Endangered

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Pterodroma aff. neglecta "summer"	Kermadec petrel "summer"	Procellariidae	B(1/1)	CD, DP, SO
Xenicus gilviventris "southern"	Southern rock wren	Acanthisittidae	C(1/1)	DP

#### Nationally Vulnerable

SCIENTIFIC NAME	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS
Apteryx australis "northern Fiordland"	Northern Fiordland tokoeka	Apterygidae	A(1)	PD, RF
Falco novaeseelandiae "southern"	Southern falcon	Falconidae	B(1/1)	DP

#### At Risk

Taxa that meet the criteria specified by Townsend et al. (2008) for Declining, Recovering, Relict and Naturally Uncommon (see Section 2.1 for definitions).

#### **Naturally Uncommon**

SCIENTIFIC NAME	COMMON NAME	FAMILY	QUALIFIERS
Pterodroma aff. neglecta "winter"	Kermadec petrel "winter"	Procellariidae	TO?

# 3. Acknowledgements

We thank the many people and organisations who responded to various electronic advertisements or direct approaches calling for submissions about the status of species they were familiar with, or who answered queries and shared unpublished data with us.

# 4. References

- Birdlife International. 2017: Far eastern Curlew *Numenius madagascariensis*. http://datazone.birdlife.org/species/factsheet/far-eastern-curlew-numenius-madagascariensis
- Fox, N.C. 1977: The biology of the New Zealand falcon (Falco novaeseelandiae Gmelin 1788). Unpublished PhD thesis. University of Canterbury, Christchurch.
- Fox, N.C. 1988: A taxonomic redescription of the New Zealand falcon, Falco novaeseelandiae Gmelin, 1788. Notornis 35: 270–272.
- Gill, B.J.; Bell, B.D.; Chambers, G.K.; Medway, D.G.; Palma, R.L.; Scofield, R.P.; Tennyson, A.J.D.; Worthy, T.H. 2010: Checklist of the Birds of New Zealand, Norfolk and Macquarie Islands, and the Ross Dependency, Antarctica. Te Papa Press, Wellington. 500 p.
- Grosser, S.; Burridge, C.P.; Peucker, A.J.; Waters, J.M. 2015: Coalescent modelling suggests recent secondary-contact of cryptic penguin species. *PLOS One 10(12)*: e0144966. doi:10.1371/journals/pone.0144966
- Grosser, S.; Rawlence, N.J.; Anderson, C.N.K.; Smith, I.W.G.; Scofield, R.P.; Waters, J.M. 2016: Invader or resident? Ancient-DNA reveals rapid species turnover in New Zealand little penguins. *Proceedings of the Royal Society B 283*: 20152879. http://dx.doi.org/10.1098/rspb.2015.2879

- Heather, B.; Robertson, H. 2015: The field guide to the birds of New Zealand. Penguin, Auckland.
- Imber, M.J. 2005: Status of Kermadec petrels (*Pterodroma neglecta*) on the Meyer Islets, and prospects for their recolonization of Raoul Island, Kermadec group. *Notornis* 52: 168–169.
- McClelland, P. 2011: Campbell Island pushing the boundaries of rat eradication. Pp. 204–207 in: Veitch, C.R.; Clout, M.N. and Towns, D.R. (eds): Island invasives: eradication and management. IUCN, Gland, Switzerland.
- Miskelly, C.M.; Crossland, A.C.; Sagar, P.M.; Saville, I.; Tennyson, A.J.D.; Bell, E.A. 2015: Vagrant and extra-limital bird records accepted by the Birds New Zealand Records Appraisal Committee 2013–2014. *Notornis* 62: 85–95.
- Miskelly, C.M.; Dowding, J.E.; Elliott, G.P.; Hitchmough, R.A.; Powlesland, R.G.; Robertson, H.A.; Sagar, P.M.; Scofield, R.P.; Taylor, G.A. 2008: Conservation status of New Zealand birds, 2008. *Notornis* 55: 117–135.
- Mitchell, K.J.; Wood, J.R.; Scofield, R.P.; Llamas, B.; Cooper, A. 2014: Ancient mitochondrial genome reveals unsuspected taxonomic affinity of the extinct Chatham duck (*Pachyanas chathamica*) and resolves divergence times for New Zealand and sub-Antarctic brown teals. *Molecular Phylogenetics and Evolution* 70: 420–428.
- Rawlence, N.J.; Scofield, R.P.; Spencer, H.G.; Lalas, C.; Easton, L.J.; Tennyson, A.J.D.; Adams, M.; Pasquet, E.; Fraser, C.; Waters, J.M.; Kennedy, M. 2016: Genetic and morphological evidence for two species of *Leucocarbo* shag (Aves, Pelecaniformes) from southern South Island of New Zealand. *Zoological Journal of the Linnean Society* 177: 676–694.
- Rawlence, N.J.; Till, C.E.; Scofield, R.P.; Tennyson, A.J.D.; Collins, C.J.; Lalas, C.; Loh, G.; Matisoo-Smith, E.; Waters, J.M.; Spencer, H.J.; Kennedy, M. 2014: Strong phylogenetic structure in a sedentary seabird, the Stewart Island shag (*Leucocarbo chalconotus*). *PLOS One* 9(3): e90769. https://doi.org/10.1371/journal.pone.0090769
- Rhymer, J.M; Williams, M.J.; Braun, M.J. 1994: Mitochondrial analysis of gene flow between New Zealand mallards (*Anas platyrhynchos*) and grey ducks (*A. superciliosa*). *Auk* 111: 970–978.
- Rhymer, J.M; Williams, M.J.; Kingsford, R.T. 2004: Implications of phylogeography and population genetics for subspecies taxonomy of grey (Pacific black) duck *Anas superciliosa* and its conservation in New Zealand. *Pacific Conservation Biology* 10: 57–66.
- Robertson, B.C.; Stephenson, B.M.; Goldstein, S. 2011: When rediscovery is not enough: taxonomic uncertainty hinders conservation of a critically endangered bird. *Molecular Phylogenetics and Evolution 61*: 949–952.
- Robertson, H.A.; Dowding, J.E.; Elliott, G.P.; Hitchmough, R.A.; Miskelly, C.M.; O'Donnell, C.F.J.; Powlesland, R.G.; Sagar, P.M.; Scofield, R.P.; Taylor, G.A. 2013: Conservation status of New Zealand birds, 2012. New Zealand Threat Classification Series 4. Department of Conservation, Wellington. 22 p.
- Tennyson, A.J.D.; Cooper, J.H.; Shepherd, L.D. 2015: A new species of extinct *Pterodroma* petrel (Procellariiformes: Procellariidae) from the Chatham Islands, New Zealand. *Bulletin of the British Ornithologists' Club 135*: 267–277.
- Townsend, A.J.; de Lange, P.J.; Duffy, C.A.J.; Miskelly, C.M.; Molloy, J.; Norton, D.A. 2008: New Zealand Threat Classification System manual. Department of Conservation, Wellington. 35 p.
- Trewick, S.A.; Olley, L. 2016: Spatial size dimorphism in New Zealand's last endemic raptor, the Kārearea Falco novaeseelandiae, coincides with a narrow sea strait. Ibis 158: 747–761.
- Weir, J.T.; Haddrath, O.; Robertson, H.A.; Colbourne, R.M.; Baker, A.J. 2016: Explosive ice age diversification of kiwi. Proceedings of the National Academy of Sciences 113 (38): E5580-E5587, doi: 10.1073/pnas.1603795113
- Weston, K.A.; Robertson, B.C. 2015: Population structure within an alpine archipelago: strong signature of past climate change in the New Zealand rock wren (*Xenicus gilviventris*). *Molecular Ecology 24*: 4778–4794.
- Williams, M. 2015: Size and flight capability of *Anas chathamica*, an extinct duck from Chatham Island, New Zealand. *Wildfowl* 65: 75–99.
- Williams, M.; Tennyson, A.J.D.; Sim, D. 2014: Island differentiation of New Zealand's extinct mergansers (Anatidae: Mergini), with description of a new species from Chatham Island. Wildfowl 64: 3–34.
- Wood, J.R.; Mitchell, K.J.; Scofield, R.P.; Tennyson, A.J.D.; Fidler, A.E.; Wilmshurst, J.M.; Llamas, B.; Cooper, A. 2014: An extinct nestorid parrot (Aves, Psittaciformes, Nestoridae) from the Chatham Islands, New Zealand. *Zoological Journal of the Linnean Society* 172: 185–199.