

Questionnaire:

Please copy this form as many times as required to complete a questionnaire for every species or lower-level taxon in your taxonomic group that you consider to be threatened, or data deficient and potentially threatened.

Your name

Address

E-mail

Telephone numbers

Taxon:

Scientific name

Common name

General status:

Does the taxon have a formally published name that is generally accepted by those working on the group? **Yes / No**

Is the taxon (please tick correct choices)

- Introduced and naturalised
- A vagrant visitor with no resident breeding population, or a rare migrant with <15 individuals reaching New Zealand per year
- A regular migrant (>15 individuals per year) to New Zealand not breeding in New Zealand
- A colonist which has established without human assistance and begun breeding in the wild in the last 50 years, and which is still uncommon
- Native but non-endemic, including natural colonists which are now abundant and/or have been established for more than 50 years, and migrants which breed or spend the great majority of their lives in New Zealand but are also breeding or resident elsewhere
- Endemic, including migrants which breed or spend the great majority of their lives only in New Zealand
- Believed to be extinct after adequate search effort?

For non-endemic taxa, please consider only the New Zealand populations when answering the questions below (please also answer the questions for endemic taxa):

Is the taxon extinct in the wild, but surviving in captivity or cultivation? **Yes / No**

Is the taxon sufficiently well-known to meaningfully answer the questions below?
Yes / No (if no, then stop here)

Population:

Is the total population size

- <250 mature individuals
- 250-1000 mature individuals
- 1000-5000 mature individuals
- 5000-20 000 mature individuals
- 20 000- 100 000 mature individuals
- >100 000 mature individuals
- unknown?

Please provide more accurate estimate if possible:

Is the total area occupied

- <1 ha (0.01 km²)
- 1-10 ha (0.01-0.1 km²)
- 10-100 ha (0.1-1 km²)
- 100-1000 ha (1 km²)
- 1000-10 000 ha (1 km²)
- >10 000 ha (1 km²)
- unknown?

Please provide more accurate estimate if possible:

Sub-populations:

Do the data available for your assessment of the questions below allow

- Confident response for the taxon throughout its range
- Confident response for many but not all sub-populations
- Confident response for only a small subset of sub-populations
- Low confidence in all estimates?

Is the known number of sub-populations of the taxon

- ≤2
- 3-5
- 6-15
- >15?

Please provide more accurate estimate if possible:

Is the number of mature individuals in the largest known sub-population

- <200
- 200-300
- 300-500
- 500-1000
- >1000

unknown?

Decline:

Regardless of whether or not the trend is the result of management, is the total population now

- showing a sustained recovery (>10% per 10 years or 3 generations)
- stable (+- 10%)
- in decline (>10% per 10 years or 3 generations)?

If in decline, do existing threats mean the decline in the total population in the next 10 years/3 generations is predicted to be

- >70%
- 50-70%
- 30-50%
- 10-30%
- Not applicable?

Is this decline predicted to continue beyond the next 10 years?

Yes / No / Not Applicable

Which qualifiers apply?

- Conservation Dependent (CD):** The taxon is likely to move to a higher threat category if current management ceases.
- Data Poor (DP):** Confidence in the listing is low due to there being only poor data available for assessment.
- Designated (De):** A taxon that does not fit within the criteria provided, and which the Expert Panel has designated to the most appropriate listing without full application of the criteria. For example, a commercial fish stock that is being fished down to Biomass Maximum Sustainable Yield (BMSY) may meet criteria for 'Declining'; however, it could be designated as 'Not Threatened' if the Expert Panel believes that this better describes the taxon's risk of extinction.
- Extinct in the Wild (EW):** The taxon is known only in cultivation or captivity.
- Extreme Fluctuations (EF):** The taxon experiences extreme unnatural population fluctuations, or natural fluctuations overlaying human-induced declines, that increase the threat of extinction. When ranking taxa with extreme fluctuations, the lowest number of mature individuals should be used for determining population size, as a precautionary measure.
- Increasing (Inc):** There is an ongoing or predicted increase of > 10% in the total population, taken over the next 10 years or three generations, whichever is longer. Note that this qualifier is redundant for taxa ranked as 'Recovering'.
- Island Endemic (IE):** A taxon whose natural distribution is restricted to one island archipelago (e.g. Auckland Islands) and is not part of the North or South Islands or Stewart Island/Rakiura.
- One Location (OL):** Found at one location (geographically or ecologically distinct area) of less than 1000 km² (100 000 ha), in which a single event (e.g. a predator irruption) could easily affect all individuals of the taxon, e.g. L'Esperance Rock groundsel (*Senecio lautus* var. *esperensis*) and Open Bay

Island leech (*Hirudobdella antipodum*). Taxa with restricted distributions but where it is unlikely that all sub-populations would be threatened by a single event (e.g. because water gaps within an archipelago are larger than known rodent swimming distances) should be qualified as 'Range Restricted' (RR). 'OL' can apply to all 'Threatened' and 'At Risk' taxa, regardless of whether their restricted distribution is natural or human-induced.

- Partial Decline (PD):** Taxa undergoing decline over the majority of their range, but with one or more secure populations (such as on offshore islands). Partial decline taxa (e.g. North Island kaka *Nestor meridionalis septentrionalis* and Pacific gecko *Hoplodactylus pacificus*) are declining towards 'Relict' status rather than towards extinction.
- Range Restricted (RR):** Taxa confined to specific substrates, habitats or geographic areas of less than 1000 km² (100 000 ha); this is assessed by taking into account the area of occupied habitat of all sub-populations (and summing the areas of habitat if there is more than one sub-population), e.g. Chatham Island forget-me-not (*Myosotidium hortensia*) and Auckland Island snipe (*Coenocorypha aucklandica aucklandica*). This qualifier can apply to all 'Threatened' and 'At Risk' taxa regardless of whether their restricted distribution is natural or human-induced, but is redundant if a taxon is confined to 'One Location' (OL).
- Recruitment Failure (RF):** The taxon's current population may appear stable but the age structure is such that catastrophic declines are likely in the future.
- Secure Overseas (SO):** The taxon is secure in other parts of its natural range outside New Zealand.
- Sparse (Sp):** Taxa that occur within typically small and widely scattered populations.
- Stable (St):** The total population is stable ($\pm 10\%$), taken over the last 10 years or three generations, whichever is longer.
- Threatened Overseas (TO):** The taxon is threatened in those parts of its natural range outside New Zealand.

In the period since 2004, has the species changed:

in total population by

in area occupied by

in number of existing populations by

What is the likely cause of this change (above)?

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