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# New Zealand Threat Classification System manual 2022

## Part 2: Administration

Pascale Michel, Jeremy Rolfe and Rod Hitchmough



Department of  
Conservation  
*Te Papa Atawhai*



**Te Kāwanatanga  
o Aotearoa**  
New Zealand Government

Cover: Gorgonian fans (unidentified) surrounded by sponges, yellow zoanthid anemones, the hydrozoan *Solanderia ericopsis* (ramified grey-white) and other encrusting invertebrates at the Poor Knights Islands. *Photo: Vincent Zintzen*

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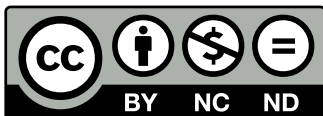
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## Part 2: Administration

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### Abstract

The New Zealand Threat Classification System (NZTCS) provides a tool for assessing the risk of population decline and extinction faced by New Zealand's resident native taxa based on current understanding of population state, size and trend criteria. It has been adapted from the International Union for Conservation of Nature (IUCN) Red List process to provide a national perspective that is more sensitive to the state of taxa that have naturally restricted distributions and small numbers as a result of insular rarity. Part 1 of the 2022 NZTCS manual details the technical process by which candidate taxa and taxonomically unresolved entities are assessed, while Part 2 (this document) details the administrative process for organising and publishing NZTCS assessments. The process is described in five phases: expert panel activation, pre-assessment preparation, assessment meetings, data analysis and report publication.

Keywords: endangered species, manual, New Zealand, rarity, threat classification system, threatened species, threat listing process, threat ranking

# 1. Background

The New Zealand Threat Classification System (NZTCS) provides a tool for assessing the risk of population decline and extinction faced by New Zealand resident native taxa.<sup>1</sup> It was developed to complement the world view provided by the International Union for Conservation of Nature (IUCN) Red List and to focus specifically on assessing taxa that occur in New Zealand (Molloy & Davis 1992; Molloy et al. 2002). Each taxon is scored against criteria based on current understanding of the population state, size and trend, taking into account the population status, impact of threats, recovery potential and taxonomic certainty. The categories and criteria have been adapted from the IUCN Red List system to take account of New Zealand's relatively small size and diversity of ecosystems, as well as the large number of taxa with naturally restricted ranges and/or small population sizes.

The NZTCS was reviewed in 2007 and an NZTCS manual was subsequently published in 2008 (Townsend et al. 2008). A review of that manual then began in 2019, leading to publication of the 2022 manual in two parts: Part 1 (Rolfe et al. 2022), which defines the criteria and categories for assessing taxa, and Part 2 (this document), which describes the administrative processes for managing the NZTCS.

As increasing numbers of taxonomically unresolved species have been assessed and technology has provided us with new tools (e.g. the NZTCS database), the process of assessing New Zealand taxa has also been refined. In this document, we outline the approach to gathering scientific evidence to support the process of assessing the risk of extinction faced by candidate taxa. This includes the management of available data on the taxonomic distinctiveness, population size and estimated trends of taxa, the establishment of expert panels and running of expert meetings, and the publication of reports in the *New Zealand Threat Classification Series*.

Many New Zealand indigenous taxa hold cultural significance to Māori identity and are considered taonga (treasured). Cooperation with iwi, hapū and whānau is critical to the conservation of New Zealand indigenous biodiversity and is strongly supported by Te Mana o te Taiao – Aotearoa New Zealand Biodiversity Strategy (ANZBS) 2020 (DOC 2020). Traditional knowledge can play a valuable role in the development of indicators and metrics for biodiversity assessment and, in New Zealand, mātauranga Māori already complements scientific approaches to monitoring wetlands and freshwater ecosystems (Harmsworth et al. 2011; Harmsworth & Awatere 2013). The NZTCS is seeking to engage this knowledge and include Māori-based indicators in assessing the conservation status of indigenous taxa. However, the frameworks by which mātauranga Māori will inform the NZTCS process still need to be developed and therefore are not covered in this document.

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<sup>1</sup> For the purposes of this manual, a taxon (plural taxa) includes formally named and informally named (taxonomically unresolved) ranks below genus.

## 2. The expert panel

### 2.1 NZTCS Administrator

The NZTCS Administrator will understand the workings of the system and will be an effective channel between the public, decision-makers, expert panel members, the Department of Conservation (DOC) and the NZTCS data. The Administrator's role is to:

- Select a lead expert for each panel and, in consultation with the lead expert, select a panel (to be signed off by the accountable DOC manager)
- Maintain the NZTCS data and background information relating to them through regular contact with the expert panel leads and members and update the database
- Answer questions about the system and assessments in consultation with the expert panel leads (and members)
- Brief expert panel leads and members on their roles
- Ensure that standards are maintained in the quality of the data gathered for assessments
- Schedule and arrange meetings
- Coordinate the process of notifying intent to list a taxonomic group as Threatened
- Oversee and coordinate the 'call for information' process and compile the submitted information
- Ensure that assessment reports are published via the DOC website
- Prepare national cross-taxa summaries of threat listings and other high-level analyses as appropriate

During assessment meetings, the Administrator's role is to:

- Chair expert panel meetings
- Ensure that the NZTCS criteria are applied consistently and without bias by each expert panel
- Ensure that an accurate record is kept of decisions reached by each expert panel and the main experts for each taxon to assist with targeting follow-up questions

Managing the NZTCS requires a sound understanding of taxonomic and nomenclatural principles as applied under the International Code of Zoological Nomenclature (ICZN) and International Code for the Nomenclature of Algae, Fungi and Plants (ICN). A working knowledge of species concepts is also useful to aid discussion on whether variation between populations should be recognised through an NZTCS informal taxonomy (tag-named species). There will often be diverging opinions amongst relevant experts as to whether an entity should be recognised by the NZTCS, so the Administrator may need to mediate debate, providing advice on principles that have been applied to date in the NZTCS.

## 2.2 Expert Panel Lead

An Expert Panel Lead will be selected for each expert panel by the NZTCS Administrator in consultation with acknowledged experts and relevant societies and will be ratified by the accountable DOC manager.

Their primary roles are to:

- Act as a liaison point between the NZTCS Administrator and the expert panel members
- Lead writing of the assessment report to be published in the *New Zealand Threat Classification Series*
- Be a spokesperson for the expert panel
- Attend expert panel lead briefings as necessary
- Act as an expert panel member as needed

These roles will be assumed by the NZTCS Administrator in situations where an Expert Panel Lead is unavailable.

## 2.3 Expert panel members

The number of experts on a given panel should be tailored to the needs of the group of taxa being assessed, ensuring the inclusion of people who can provide specialist knowledge on subsets of taxa within a report. Expert panel members should be available for at least two assessment cycles (ideally more), as this will allow each member to become fully familiar with the classification system and its application. Endeavours should be made to include up-and-coming experts to build experience for future assessments.

Expert panel members contribute their knowledge to assess the conservation status of taxa, including evaluating any submitted information on assessments. They are expected to consult with peers to bring as much information as possible to the assessments. Where required, it is expected that expert panel members will give permission for their material to be used in the NZTCS (including its publication), and where their peers have contributed information, ensure that any required permissions have been obtained.

Expert panel members can be selected through consultation with a relevant society or societies (e.g. New Zealand Entomological Society, Birds New Zealand, New Zealand Botanical Society, New Zealand Plant Conservation Network, Society for Research on Amphibians and Reptiles in New Zealand, and New Zealand Marine Sciences Society).



### 3. NZTCS assessment process

The NZTCS assessment process consists of five phases (Fig. 1):

1. Expert panel activation
2. Pre-meeting preparation
3. Assessment meeting
4. Post-meeting analyses
5. Assessment report



Figure 1. Graphic representation of the Department of Conservation's (DOC's) New Zealand Threat Classification System (NZTCS) process summarising the list of actions within each of the five phases.

#### 3.1 Expert panel activation

The expert panel is activated by the NZTCS Administrator in advance of scheduling an assessment meeting. Membership of the panel is based on the previous panel for that taxonomic group, with any changes being made based on the guidance provided above. Agreements between expert panel leads and members and DOC are formalised before work begins.

The scope of the assessment is determined in consultation with the expert panel leads and members and relevant DOC experts. Groups of taxa are assessed on an approximately 5-year cycle and assessment meetings are scheduled at least 3 months into the future. Meetings may vary in length depending on the number of taxa being assessed, and the format of meetings is decided in consultation between the NZTCS Administrator and the Expert Panel Lead. In some instances, a meeting may not be required, but assessments still need a 3-month notice for public consultation (see details below).

## 3.2 Pre-meeting preparation

Experts who are not on the expert panel are consulted on changes in status of the assessed taxa to inform the revision of the assessment. A call for information is posted on the ‘Have your say’ page on the DOC website ([www.doc.govt.nz/get-involved/have-your-say/](http://www.doc.govt.nz/get-involved/have-your-say/)) usually at least 3 months before the assessment meeting takes place. Professional societies and relevant organisations are also encouraged to advertise the call for information through their own networks (e.g. via newsletters or websites).

Prior to the meeting, the NZTCS database ‘report’ is prepared for the group of organisms to be assessed, the taxonomy and nomenclature are updated, and any submitted information is analysed and uploaded. It is often useful to create a new database report immediately after publishing a completed assessment so that taxonomic changes and additions and relevant population data can be added as they come to hand during the intervening period before the next assessment. New reports are visible only to expert panel leads and members until all the assessments are completed and published, and the information they contain is used to facilitate the meeting discussions.

## 3.3 Assessment meeting

The assessment meeting focuses primarily on discussions about population state, size and trend estimates for each candidate taxon. Estimates used in the assessment and uploaded into the NZTCS database reflect a consensus amongst the expert panel lead and members and are used to determine the conservation status of the assessed taxon as described in Part 1 of the NZTCS technical manual (Rolfe et al. 2022). The data used and rationale for the assessment are recorded during the meeting and stored in the database. Any points of contention that have not been resolved during the meeting are followed up after the meeting via online discussions amongst the expert panel lead and members. In some cases, consultation with other experts may also be required to finalise an assessment.

## 3.4 Post-meeting analyses

Data including name changes, taxa assessed for the first time and assessment statistics are analysed by the NZTCS Administrator to provide summary tables in preparation of the assessment report. Notes are also made to summarise the main points of discussion in the assessment report. Summary statistics, discussion notes and narratives about the statistics are compiled to form the first draft of the assessment report, which is then circulated amongst the expert panel lead and members for comments and additions. The expert panel lead and members add narrative about taxa of concern, especially ‘actual’ declines in status, and agree on the final content of the assessment report.

## 3.5 Assessment report

Once finalised, the draft assessment report is sent first to the accountable DOC manager for approval and then to DOC’s publishing and communications teams for publication. Any intellectual property created as a result of the NZTCS assessment process will be owned by DOC unless explicitly provided for in the relevant agreement. All published assessment reports are made openly available on the DOC website in accordance with the New Zealand Government Open Access Licensing framework ([www.doc.govt.nz/about-us/science-publications/conservation-publications/nz-threat-classification-system/](http://www.doc.govt.nz/about-us/science-publications/conservation-publications/nz-threat-classification-system/)). The newly published report then replaces all previous conservation status assessments for that group of taxa.

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