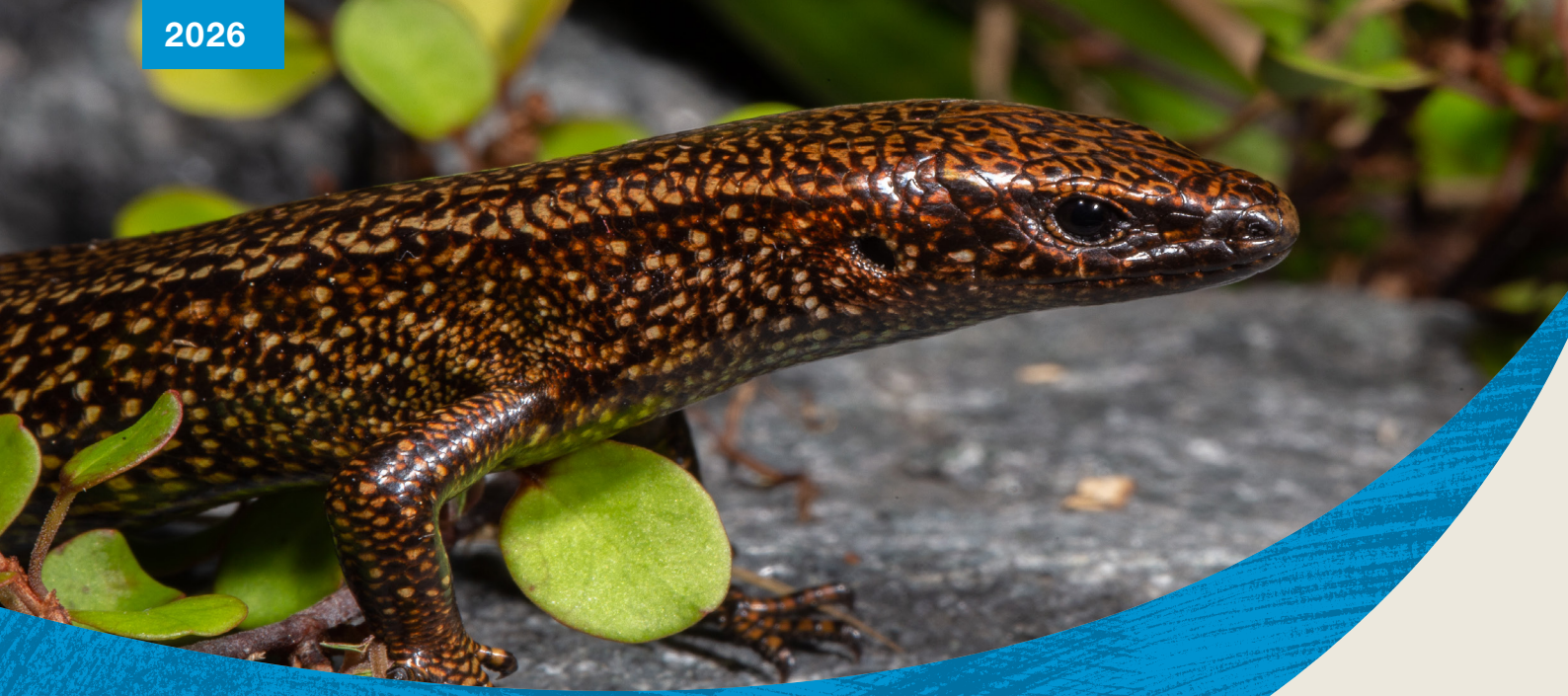
2026



NEW ZEALAND THREAT CLASSIFICATION SERIES 50

Conservation status of reptiles in Aotearoa New Zealand, 2025

Rod Hitchmough, Ben Barr, Carey Knox, Marieke Lettink, Joanne M. Monks, Geoff B. Patterson, James T. Reardon, Dylan van Winkel, Troy Makan and Pascale Michel

Department of Conservation
Te Papa Atawhai

Te Kāwanatanga o Aotearoa
New Zealand Government

Cover: The Threatened – Nationally Critical awakōpaka skink, *Oligosoma awakopaka*, Fiordland. *Photo: James Reardon.*

New Zealand Threat Classification Series is a scientific monograph series presenting publications related to the New Zealand Threat Classification System (NZTCS). Most will be lists providing the NZTCS status of members of a group (e.g. algae, birds, spiders, fungi). There are currently 23 groups, each assessed once approximately every 5 years. 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.

The views published in this report reflect the views of an independent panel and are not necessarily the views of the Department of Conservation. This publication is not a living document and the assessments were not made by the Department of Conservation.

This publication is available for download from the Department of Conservation website. Refer www.doc.govt.nz under *Publications*. The NZTCS database can be accessed at nztcs.org.nz. For all enquiries, email threatstatus@doc.govt.nz.

© Copyright January 2026, New Zealand Department of Conservation

ISSN 2324-1713 (web PDF)

This report was prepared for publication by Te Rōpū Ratonga Auaha, Te Papa Atawhai / Creative Services, Department of Conservation; editing by James Mortimer and layout by Sharlan Shields. Publication was approved by Charlie Chambers, Manager Insights and Analytics, Department of Conservation, Wellington, New Zealand. This report may not meet the Department of Conservation's usual publication standards, as the process has been streamlined to support its timely release.

Published by Department of Conservation Te Papa Atawhai, PO Box 10420, Wellington 6140, New Zealand.

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

This work is licensed under the Creative Commons Attribution 4.0 International licence. In essence, you are free to copy, distribute and adapt the work, as long as you attribute the work to the Crown and abide by the other licence terms. To view a copy of this licence, visit www.creativecommons.org/licenses/by/4.0/.

Please note that no departmental or governmental emblem, logo, or Coat of Arms may be used in any way that infringes any provision of the Flags, Emblems, and Names Protection Act 1981. Use the wording 'Department of Conservation' in your attribution, not the Department of Conservation logo.

If you publish, distribute, or otherwise disseminate this work (or any part of it) without adapting it, the following attribution statement should be used: 'Source: NZTCS and licensed by the Department of Conservation for reuse under the Creative Commons Attribution 4.0 International licence'.

If you adapt this work in any way, or include it in a collection, and publish, distribute, or otherwise disseminate that adaptation or collection, the following attribution statement should be used: 'This work is based on / includes NZTCS content that is licensed by the Department of Conservation for reuse under the Creative Commons Attribution 4.0 International licence'.

Disclaimer

While care and diligence has been taken in processing, analysing and extracting data and information for this publication, the Department of Conservation and the independent panel accept no liability whatsoever in relation to any loss, damage or other costs relating to the use of any part of this report (including any data) or any compilations, derivative works or modifications of this report (including any data).

CONTENTS

Conservation status of reptiles in Aotearoa New Zealand, 2025

Rod Hitchmough[1]*, Ben Barr[2], Carey Knox[3], Marieke Lettink[4], Joanne M. Monks[5], Geoff B. Patterson[6], James T. Reardon[7], Dylan van Winkel[8], Troy Makan[9] and Pascale Michel[10]

[1] Takapu Valley, Wellington 5028, New Zealand

[2] 8 Reotahi Road, RD4, Whangarei 0174, New Zealand

[3] Southern Scales, 57 Bute Street, Ranfurly 9332, New Zealand

[4] Fauna Finders, 20 Days Road, Lyttelton, Christchurch 8082, New Zealand

[5] Zoology Department, University of Otago, Dunedin 9016, New Zealand

[6] 149 Mairangi Road, Wilton, Wellington 6012, New Zealand

[7] Department of Conservation, PO Box 29, Te Anau 9600, New Zealand

[8] Bioresearches (Babbage Consultants Ltd.), PO Box 2027, Auckland 1140, New Zealand

[9] Department of Conservation, PO Box 1146, Rotorua 3040, New Zealand

[10] Department of Conservation, PO Box 10420, Wellington 6143, New Zealand

* Corresponding author; email: rod.hitchmough@xtra.co.nz

Abstract

The conservation status of all known taxa of reptiles in Aotearoa New Zealand was reassessed using the New Zealand Threat Classification System (NZTCS). A list of 159 taxa is presented, along with a statistical summary and brief notes on the most important changes since the previous assessment in 2021. This list replaces all previous NZTCS lists for reptiles. In total, one taxon (0.6%) was assessed as being Extinct, 59 (37.1%) as Threatened, 69 (43.4%) as At Risk, 5 (3.1%) as Not Threatened, 8 (5.0%) as Non-resident Native and one (0.6%) as Introduced and Naturalised. A further 16 taxa (10.0%) were assessed as Data Deficient (i.e. insufficient information was available to assess their conservation status). Of the taxa assessed in this report, 87 (54.7%) have been formally described and named. Amongst endemic lizards, 143 (96.6%) of 148 extant species and hypothesised new taxa are Data Deficient, Threatened or At Risk.

Keywords: New Zealand Threat Classification System, NZTCS, conservation status, gecko, skink, tuatara, turtle, sea snake, Diplodactylidae, Scincidae, Sphenodontidae, Cheloniidae, Dermochelyidae, Hydrophiidae, Laticaudidae

© Copyright January 2026, Department of Conservation. This paper may be cited as:

Hitchmough R, Barr B, Knox C, Lettink M, Monks JM, Patterson GB, Reardon JT, van Winkel D, Makan T, Michel P. 2026. Conservation status of reptiles in Aotearoa New Zealand, 2025. Wellington: Department of Conservation. New Zealand Threat Classification Series 50.

1. Background

The New Zealand Threat Classification System (NZTCS) was established in 2001 to complement the International Union for Conservation of Nature (IUCN) Red List system. Categories and criteria were defined to reflect Aotearoa New Zealand's unique environments and to consider the country'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 (de Lange and Norton 1998; Molloy et al. 2002; Townsend et al. 2008; Rolfe et al. 2022). The conservation status of reptiles in Aotearoa New Zealand was first assessed using the NZTCS in 2001 (Hitchmough 2002) and was then re-assessed in subsequent publications, with the most recent assessment occurring in 2021 (Hitchmough et al. 2021).

Assessments in 2001 and 2005 (Hitchmough et al. 2007) were carried out using the original guidelines, categories and criteria (Molloy et al. 2002). The NZTCS methodology was refined in 2007 and again in 2019 following rigorous reviews by teams of experts to ensure that all possible combinations of status and trend were covered within the different categories. The resulting manuals (Townsend et al. 2008; revised by Rolfe et al. 2022) were used to re-assess the conservation status of reptiles in 2009 (Hitchmough et al. 2010), 2012 (Hitchmough et al. 2013), 2015 (Hitchmough et al. 2016), 2021 (Hitchmough et al. 2021) and 2025 (this report).

Minor category changes have been introduced since the previous assessment in 2021. The statuses At Risk – Naturally Uncommon and At Risk – Relict did not allow for taxa that had declined and then stabilised at a level greater than 10% of their former range. To address this, these statuses have been combined and renamed At Risk – Uncommon, with the population state value (Natural, Unnatural or Unknown) indicating whether the population size is a natural or induced state. For taxa with stable populations that occupy less than 10% of their former ranges, the status At Risk – Relict has been replaced by the qualifier Relict.

NZTCS assessments are currently reviewed approximately every 5 years by a panel facilitated by the Aotearoa New Zealand Department of Conservation Te Papa Atawhai (DOC). The assessment panel brings together experts in the fields of taxonomy, conservation biology and ecology in Aotearoa New Zealand, as well as people with a good technical knowledge of the NZTCS process to ensure consistent approaches across the various assessment panels for each taxonomic group. For this assessment, the expert panel consisted of eight members plus two administration/support staff, and all but one of the panel members were employees or associates of organisations external to DOC.

Prior to the assessment, a call for information was advertised through the Society For Research on Amphibians and Reptiles in New Zealand, DOC's 'have your say' process, the NZTCS website and informal and expert networks. A total of 12 submissions covering 10 taxa were received through this process.

When making their assessment, experts consider the previously published assessment as the starting point for the new assessment and evaluate any new information available, both published and unpublished. Taxa are assessed according to the estimated or reported population size and trend since the last assessment (usually the past 5 years) and predicted future changes over the next 10 years or three generations, whichever is longer.

The Threatened categories include taxa that are extremely rare, in rapid decline, or both rare/uncommon and declining. Species in the At Risk categories are not considered Threatened, but include taxa that are either uncommon but not currently in decline or declining but at present still considered relatively common. At Risk – Uncommon and At Risk – Recovering species will immediately move into Threatened categories if any significant future decline occurs, and At Risk – Declining species will also eventually move into Threatened categories when their population size or area of occupancy moves below the thresholds for those categories. These categories collectively are the equivalent of the IUCN Redlist Near Threatened category.

Taxa are assigned to the category Data Deficient when insufficient data are available to assess their conservation status. When able to be assessed but with low confidence due to limited data being available, they are given the qualifiers Data Poor Size and/or Data Poor Trend.

Assessment criteria and categories are interpreted in the context of scientific evidence (e.g. population monitoring) and expert understanding of the ecology of each taxon/order (e.g. natural population fluctuations), and the manual requires that a precautionary approach is applied where a taxon is on the border of two possible threat categories, resulting in the higher threat category being chosen. Notes from the expert panel meeting and the rationales for the reclassification of taxa have been summarised in the present report. Full details can be found on the assessment page for each taxon on the NZTCS website (https://nztcs.org.nz/reports/1177).

2. Summary

This report presents the conservation status of all known taxa of reptiles in Aotearoa New Zealand, including endemic, Migrant, Vagrant, and Introduced and Naturalised species. It is the latest update in a regular series of re-assessments (Molloy and Davis 1992, Hitchmough et al. 2002, 2007, 2010, 2013, 2016, 2021). In 2021, Hitchmough et al. (2021) assessed the conservation status of 135 taxa of reptiles in Aotearoa New Zealand using the criteria specified in the NZTCS manual of Townsend et al. 2008. Here, we report on a new assessment of 159 taxa, 29 of which were assessed for the first time, using the NZTCS manual of Rolfe et al. 2022.

2.1 Changes to the list of taxa

The NZTCS has a strongly expressed precautionary principle when putting taxa into status categories; when two or more realistic interpretations are possible, the more pessimistic outcome is chosen for listing. Unfortunately, trends over more than 20 years of listing cycles have confirmed that this approach is most often justified; exceptions mostly result from improved information about recently discovered taxa. Similarly, a precautionary principle is also applied regarding taxonomy. Possible new Taxonomically Unresolved taxa are included not only when there is good proof of their validity, but when in the judgement of the expert panel there is reasonable evidence that formal taxonomic recognition is possible, and more systematic work is required. This approach has the benefit of providing stimulus for such work to take place and helps ensure that unresolved taxonomic entities do not go extinct while their taxonomy is awaiting resolution.

More hypothesised new taxa (29) were assessed in 2025 than in any previous assessment (Table 1). Meanwhile, four previously listed entities are regarded here as taxonomically indistinct (Table 2). This is mainly because information from genomic studies (using thousands of single nucleotide polymorphisms[1] or SNPs) became available for the first time for Aotearoa New Zealand reptiles (Ludovic Dutoit, Sarah Walters and Angus Davis (University of Otago) pers. comm.; more detail for each study below) that significantly changed our understanding of some lizards. The far larger numbers of genetic markers and sampling across the entire genome give these datasets far more power than any more traditional genetic technique. These studies resulted in inclusion of nine proposed new taxa split from *Oligosoma newmani* (and exclusion of one previously listed Taxonomically Unresolved entity in the *O. infrapunctatum* complex); three in the *O. inconspicuum* complex (but the exclusion of three other entities in this complex); and two in the *O. laxa* (formerly

[1] SNPs (single nucleotide polymorphisms) are locations in the genome where organisms of the study species can have alternative DNA bases rather than all being the same. An individual may have two different bases inherited from its two parents, or have both copies the same, but different from other members of the population. An assessment over many thousands of the genetic locations gives an overall measure of similarity to/difference from other individuals and populations.

O. waimatense)–alpine rock skink complex. Two more splits from *O. newmani* are proposed based on morphological differences from entities identified by the genomic study; these still require genetic confirmation. No further detail on these unpublished studies (i.e. other than limited broad-scale distribution information) of the proposed taxa is provided here.

All North Island species and populations of the *O. infrapunctatum* complex clustered very closely together on the basis of genomic SNPs, indicating that they are best regarded as putative subspecies within a single, North-Island-endemic species.

The Stephens Island/Takapourewa population of the *O. infrapunctatum* complex is genetically distinct from all others, suggesting that the name *O. newmani* should now be confined to this population. The following populations previously regarded as conspecific with *O. newmani* also formed distinct genetic clusters (listed below roughly east to west) in locations indicated by the tag names:

- *Oligosoma* aff. *newmani* "St Arnaud" (also presumed historically on Golden Downs)
- *Oligosoma* aff. *newmani* "Nelson Lakes alpine, Mt Arthur"
- *Oligosoma* aff. *newmani* "Douglas Range"
- *Oligosoma* aff. *newmani* "Lockett Range"
- *Oligosoma* aff. *newmani* "Garibaldi"
- *Oligosoma* aff. *newmani* "Mt White, Brown Hill"
- *Oligosoma* aff. *newmani* "Karamea" (may include Gunner Downs population – to be confirmed)
- *Oligosoma* aff. *newmani* "Buller" (coastal populations north of Cape Foulwind to about the Mokihinui River mouth)
- *Oligosoma* aff. *newmani* "Westland" (populations formerly identified as *O. newmani* south from Cape Foulwind to Hokitika, including some inland populations, and also including Denniston and presumably Stockton Plateaux; also includes the "Hokitika skink" which is no longer regarded as a distinct entity).

These results are tentative, and further analysis of gene flow patterns may reveal that some of the more divergent populations included here in the more widespread of these taxa (particularly *O.* "Westland") justify separate status of their own. Putative new taxa with tag names including aff. *newmani* are those previously regarded as part of *O. newmani*; aff. *infrapunctatum* continues to be used for those that were already regarded as different species in the broader complex.

Many entities, particularly those from Kahurangi National Park alpine areas, appear from photographs to be very obviously morphologically different, and preliminary examination of museum material suggests that the rest are at least subtly so. However, work on some entities is hindered by lack of museum material.

O. aff. *newmani* "Gouland Downs" has not yet been included in genomic studies but was included as a putative separate entity on the basis of morphological differences from neighbouring populations that have been shown to be likely genetically and morphologically distinct entities.

O. aff. *newmani* "Lonely Lake" is known only from good photographs of a single specimen, with a second having been seen but not caught. It is found very close to *O.* aff. *newmani* "Douglas Range" but looks very different.

Genomic study suggests substantial rearrangement of some entities in the *O. inconspicuum* complex (preliminary results, to be confirmed by further analysis; Angus Davis, Otago University, pers. comm. 12 August 2025). Jewell's (2022a) *O. murihiku* (minus the Tiwai Point-Awarua Wetland population) and the "Oteake skink" plus populations from the Solution Range and the West Coast just south of the Haast River appear to be a single species. A second species from Central Otago and central Southland, referred to in this report as *O.* aff. *inconspicuum* "Central - Southern", includes the

Tiwai Point-Awarua Wetland population formerly included in *O. murihiku,* all populations previously identified as the "pallid skink" and a few easternmost populations formerly regarded as part of *O. inconspicuum* sensu stricto, forming a geographically congruent cluster with no sympatry with others in the core complex. *O. inconspicuum* sensu stricto is largely unchanged, but has lost a few of its easternmost populations, and as previously indicated by mitochondrial sequences, is confirmed to include the "Humboldt skink" and eastern Fiordland populations (regarded by Jewell 2022b as part of his very broadly defined *O. pluvialis*). Each population of the West Coast group (mahogany, Big Bay/*O. pluvialis* sensu stricto, Barn Bay and Cascade Plateau) is here tentatively regarded as a separate entity using the precautionary principle, on the basis of differences in colour and body proportions and forming separate clades in both mitochondrial and genomic trees.

In the *O. laxa* (formerly *O. waimatense*)-alpine rock skink complex, scree skink populations between roughly the Rakaia and Pukaki Rivers have been found to be very deeply divergent in genomic genotypes from scree skink populations further south (Angus Davis, Otago University, pers. comm. 26 September 2025). They also have mitochondrial haplotypes related to the Marlborough entity of this complex (Chapple et al. 2012), whereas the more southern populations (which will retain the name *O. laxa*) all have mitochondrial haplotypes shared with *O. otagense* (Chapple et al. 2012; DOC unpublished data). Jewell (2022c) pointed out that the two groups of populations are morphologically readily distinguishable, but this was previously inferred to result from introgressive hybridisation with *O. otagense* in the more southern group. They are therefore listed here as a separate Taxonomically Unresolved entity named *O.* aff. *laxa* "Central Canterbury" (Central Canterbury scree skink).

In the same complex, the most northern sampled alpine rock skink population has also been newly identified as a likely distinct taxon. It is only confirmed from a site east of Lake Tekapo, however photographs suggest that this taxon may also be present within the Mount Somers range. It has divergent genomic genotypes and, unlike more southern alpine rock skinks, shares *O. otagense* mitochondrial haplotypes (DOC unpublished data). It has been added to the species list as *O.* aff. *laxa* "alpine rock northern" (northern alpine rock skink).

The much larger, bulkier and more colourful far northern populations of *O. alani* are now known to be distinguishable in genomic analyses from the east Coromandel island populations (Ludovic Dutoit, Otago University pers. comm. August 2025). They were already known to be c.4.5% divergent in mitochondrial ND2 gene sequence and on this basis they are listed separately here. The hypothesis that these northern populations might be conspecific with the extinct *O. northlandi* was not considered to be well supported and separate listings were maintained. The position of the extremely rare Mokohīnau / Pokohinau Islands population of *O. alani* relative to the others remains unknown.

Reassessment of museum material resulted in the inclusion of five potential new taxa that were considered to show significant morphological divergence from their closest genetic and/or morphological relatives. Four of these are known from single specimens (in one case >100 years old) and the fifth from only two museum specimens. Two of these are North Island populations known from genetics (southern Kaimanawa Range) or presumed (Wairarapa) to be very closely related to *O. robinsoni,* but morphologically distinct from other populations. They are listed here as putative undescribed subspecies of *O. robinsoni*.

O. aff. *chloronoton* "Clinton? gracile" is known from two Te Papa specimens labelled as being from Clinton but very unlike other *O. chloronoton* specimens from that area. In fact, in many respects they resemble the *O. lineoocellatum* species group more than *O. chloronoton* and its undescribed relatives (but do not match any of the known species in either group morphologically), suggesting that their correct locality may be somewhere further north. Attempts to sequence samples from these specimens have failed. There is a substantial area of south Canterbury without known records of this group of species that might justify survey work.

O. aff. *chloronoton* "flat head" is a unique specimen, also in Te Papa, which arrived there via a captive collection. Greaves et al. (2008) included sequence from this specimen in their study; it was a distant sister to the Stewart Island/Rakiura clade. They labelled it as being from Tiwai Point; the basis for this is not clear. Its mitochondrial sequence was quite different from other Tiwai samples, which clustered with other Southland populations. Examination by GBP has shown it to also have significant morphological differences from Tiwai and other Southland specimens. Its label states its locality as "Tokanui or Hokonui". Hokonui seems very unlikely, as it is in the core area of the range of typical Southland *O. chloronoton*. However, there are no other specimens of this species group from Tokanui or the broader Catlins area, making that area a possibility for its origin.

A unique, old (1898), bleached but otherwise well-preserved specimen from Otago Museum is from Mount Spencer, in the Southern Alps west of the main divide, near the Franz Josef township. It resembles the *O. waimatense* species group but is a much smaller skink with different body proportions (e.g. shorter tail). No other population of the scree skink group is found west of the main divide.

One addition (*O. ornatum longirostrum* Jewell, 2022d, the Three Kings ornate skink) was triggered in part by the private publication of a formal name for the taxon (Jewell 2022d), but also in part by the number of mitochondrial introgression events being discovered by genomic studies in other groups of Aotearoa New Zealand lizards (every study has uncovered instances, although the studies are non-random, having been chosen partly because of this possibility). It is now clear that such events are common and explain some discrepancies between levels of morphological and mitochondrial sequence divergence. It has long been known to be morphologically distinct (e.g. Hardy 1977), but shared very close mitochondrial relationships with nearby mainland populations so was not included previously. There is need for further taxonomic and genomic study; for this reason, despite a published name being available, this entity is listed here as Taxonomically Unresolved. Similarly, *O. murihiku, O. pluvialis* and *O. chionochloescens* (Jewell 2022e) are also listed as Taxonomically Unresolved because more work is required on their circumscriptions.

The name *O. chionochloescens* is applied here to the whole of clade 5 of the *O. polychroma* complex. Jewell (2022e) in his species description applied the name only to the more southern, usually striped populations. There is an abrupt boundary in many places between these and the more northern speckled populations, but the divergence in genetic markers across this boundary is extremely shallow. Genomic study is required to better understand the significance of the boundary.

O. aff. *prasinum* "Ashburton Lakes" is a group of populations formerly identified as *O. lineoocellatum*. These have now been shown by ND2 sequencing to be sister to *O. prasinum*, but separated from it by an ND2 sequence difference of c. 3% and some distinct differences in morphological features, such as a comparatively longer tail.

Although previously known from a c. 25-year-old specimen, which had been identified as "*O. infrapunctatum*" then assumed to be included in *O. newmani*, *O.* aff. *infrapunctatum* "Ōkārito" has been found again since the 2021 listing and confirmed to be a genetically and morphologically distinct entity. The Ōkārito taxon may also include another recently discovered population near Bruce Bay.

Four additions resulted from completely new field discoveries since the 2021 assessment. This is on a par with rates of discovery between previous assessments; there is no indication that the discovery curve is flattening out. The discovery rate is much higher for skinks than geckos, perhaps partly because most geckos are nocturnal and much more cryptic in their behaviour than skinks, but there also appear to be more very local endemic skinks and larger assemblages of sympatric species than in geckos.

O. aureocola Knox et al., 2023 has been both identified as distinct and described since the 2021 listing. It is a small, striped brown skink, similar to but genetically divergent from *O. repens*, and locally abundant in the Mataura Range and nearby mountains (Knox et al. 2023). Numerous other formerly tag-named species have also been formally named in the last 5 years (Table 3).

O. aff. *acrinasum* "Many Islands" appears close to *O. acrinasum* but is rather more colourful and strongly marked and occupies a very different ecological setting (coastal shrubland/forest; whereas *O. acrinasum* is strictly confined to rocky shorelines and does not enter vegetated habitats). *O. acrinasum* is found on nearby islands, but not immediately adjacent to the newly discovered entity. It may simply be a previously unknown ecotype of *O. acrinasum* but is included here on the precautionary principle.

O. aff. *infrapunctatum* "Giles Creek" is a recent addition to the speckled skink complex discovered on the eastern flanks of the Paparoa Range. Its separation is supported by both morphological differences from related species and a distinct ND2 sequence.

Woodworthia "Sabine" is a recent discovery from the southern part of Nelson Lakes National Park, currently known from photographs of only two female specimens and a tail tip biopsy from one of these. ND2 sequence was highly divergent from, but closest to *W.* "Mt Arthur", and some morphological features were obviously different.

Three *Mokopirirakau* geckos, while not having any name changes, have had substantial shifts in their respective range boundaries based on the preliminary results of a detailed genomic study. *Mokopirirakau* "Open Bay Islands", formerly known only from Taumaka Island, had mainland populations confirmed from mountain ranges north and south of the Haast River (identified by mitochondrial sequences in 2023). Unpublished genomic results indicate substantial mitochondrial introgression between this and neighbouring species (Sarah Walters, University of Otago, pers. comm. March 2024). Its range has been extended north to include the most southern population previously regarded as the broad-cheeked gecko (*M.* "Ōkārito"), and south, to include the northernmost populations previously regarded as cascade geckos (including those on the Cascade Plateau). The cascade gecko now appears to be confined to Fiordland and far western Otago near the Fiordland boundary.

The broad-tailed gecko (*Phyllurus platurus*) was not included in the list. A small population resulted from an illegal introduction but does not meet the criteria for inclusion as Introduced and Naturalised. Listing requires there to have been at least three generations of breeding, plus spread beyond the point of introduction. For the broad-tailed gecko there is no evidence of significant spread and eradication of the population is well advanced.

Similarly, the red-eared terrapin/slider turtle (*Trachemys scripta elegans*) is not listed. Numerous released animals are found living wild in Aotearoa New Zealand. However, nests hatch successfully in only the warmest microhabitats and because of the species' temperature-dependent sex determination all wild hatchlings will be male. Significant population spread beyond the point of introduction of females is therefore biologically impossible under current climatic conditions.

One possible new entity that did not reach the threshold for formal inclusion in this listing was a photograph of what appeared to be a very unusually-patterned skink (which also appeared in the photograph to have different body proportions to other resident skinks in the area), from the Cleddau River area in Fiordland. The photo was considered too poor in quality to justify inclusion without any further information, and the skink may have been an atypical juvenile barrier skink (*Oligosoma judgei*). However, a field trip to follow up this observation is recommended.

Another observation needing follow-up but not formally listed because of absence of more information is of diurnal skinks observed in clearings in forested stream valleys near East Cape.

Table 1. Reptile taxa assessed for the first time in this report.

NAME AND AUTHORITY	FAMILY	REASON FOR ADDITION
Oligosoma aff. *acrinasum* "Many Islands"	Scincidae	New discovery
Oligosoma aff. *alani* "Far North"	Scincidae	Genomic study and published mt-DNA result
Oligosoma aureocola Knox et al., 2023	Scincidae	New discovery
Oligosoma ornatum longirostrum Jewell, 2022	Scincidae	Reassessment of existing information
Oligosoma aff. *chloronoton* "Clinton? gracile"	Scincidae	Museum study
Oligosoma aff. *chloronoton* "flat head"	Scincidae	Museum study and published mt-DNA result
Oligosoma aff. *inconspicuum* "Barn Bay"	Scincidae	Genomic study and published mt-DNA result
Oligosoma aff. *inconspicuum* "Central - Southern"	Scincidae	Genomic study
Oligosoma aff. *inconspicuum* "Cascade"	Scincidae	Genomic study and published mt-DNA result
Oligosoma aff. *infrapunctatum* "Giles Creek"	Scincidae	New discovery and unpublished mt-DNA result
Oligosoma aff. *infrapunctatum* "Ōkārito"	Scincidae	New mt-DNA result and morphological assessment
Oligosoma aff. *laxa* "Central Canterbury"	Scincidae	Genomic study and published mt-DNA result
Oligosoma aff. *laxa* "alpine rock northern"	Scincidae	Genomic study and unpublished mt-DNA result
Oligosoma aff. *laxa* "Mt Spencer"	Scincidae	Museum study
Oligosoma aff. *robinsoni* "Kaimanawa"	Scincidae	Museum study
Oligosoma robinsoni subsp. "Wairarapa"	Scincidae	Museum study
Oligosoma aff. *newman*i "Buller"	Scincidae	Genomic study
Oligosoma aff. *newmani* "Douglas Range"	Scincidae	Genomic study
Oligosoma aff. *newmani* "Garibaldi"	Scincidae	Genomic study
Oligosoma aff. *newmani* "Gouland Downs"	Scincidae	Reassessment of existing information informed by genomic information about neighbouring populations
Oligosoma aff. *newmani* "Karamea"	Scincidae	Genomic study
Oligosoma aff. *newmani* "Lockett Range"	Scincidae	Genomic study
Oligosoma aff. *newman*i "Lonely Lake"	Scincidae	New discovery
Oligosoma aff. *newmani* "Mt White, Brown Hill"	Scincidae	Genomic study
Oligosoma aff. *newmani* "Nelson Lakes alpine – Mt Arthur"	Scincidae	Genomic study
Oligosoma aff. *newmani* "St Arnaud"	Scincidae	Genomic study
Oligosoma aff. *newmani* "Westland"	Scincidae	Genomic study
Oligosoma aff. *prasinu*m "Ashburton Lakes"	Scincidae	New mt-DNA result and morphological assessment
*Woodworthi*a "Sabine"	Diplodactylidae	New discovery and unpublished mt-DNA result

Table 2. Reptile taxa that were assessed by Hitchmough et al. (2021) but not included in this assessment.

TAXON IN HITCHMOUGH ET AL. 2021	FAMILY	REASON FOR DELETION
Oligosoma aff. *inconspicuum* "Humboldt"	Scincidae	synonym of *O. inconspicuum* (sensu stricto)
Oligosoma aff. *inconspicuum* "North Otago"	Scincidae	synonym of *O. murihiku*
Oligosoma aff. *inconspicuum* "pallid"	Scincidae	synonym of *Oligosoma* aff. *inconspicuum* "Central - Southern"
Oligosoma aff. *infrapunctatum* "Hokitika"	Scincidae	synonym of *Oligosoma* aff. *newmani* "Westland"

Table 3. Name changes affecting native taxa of reptiles in Aotearoa New Zealand between the publication of Hitchmough et al. (2021) and this report.

NAME AND AUTHORITY IN THIS REPORT	NAME AND AUTHORITY IN HITCHMOUGH ET AL. 2021	FAMILY
Hoplodactylus duvaucelii Duméril & Bibron, 1836	*Hoplodactylus duvaucelii* "northern" Duméril & Bibron, 1836	Diplodactylidae
Hoplodactylus tohu Scarsbrook et al., 2023	*Hoplodactylus duvaucelii* "southern" Duméril & Bibron, 1836	Diplodactylidae
Oligosoma carinacauda Bell & Patterson, 2024	*Oligosoma* "Okuru"	Scincidae
Oligosoma chionochloescens Jewell, 2022	*Oligosoma* aff. *polychroma* Clade 5	Scincidae
Oligosoma eludens Knox et al., 2024	*Oligosoma* "rockhopper"	Scincidae
Oligosoma kakerakau Barr et al., 2021	*Oligosoma* "Whirinaki"	Scincidae
Oligosoma laxa (Hutton, 1872)	*Oligosoma waimatense* (McCann, 1955)	Scincidae
Oligosoma murihiku Jewell, 2022	*Oligosoma* aff. *inconspicuum* "herbfield"	Scincidae
Oligosoma newmani sensu stricto (Wells & Wellington, 1985)	*Oligosoma newmani* Wells & Wellington, 1985	Scincidae
Oligosoma pluvialis Jewell, 2022	*Oligosoma* aff. *inconspicuum* "Big Bay"	Scincidae
Oligosoma robinsoni subsp. "Southern North Island"	*Oligosoma* aff. *infrapunctatum* "Southern North Island"	Scincidae
Oligosoma aff. *laxa* "alpine rock"	*Oligosoma* aff. *waimatense* "alpine rock"	Scincidae
Oligosoma aff. *laxa* "Marlborough"	*Oligosoma* aff. *waimatense* "Marlborough"	Scincidae
Woodworthia korowai van Winkel et al., 2023	*Woodworthia* aff. *maculata* "Muriwai"	Diplodactylidae

2.2 Trends

The number of taxa within each conservation status has changed from the three most recent NZTCS assessments (Table 4). In the current listing, eight taxa have moved to more threatened categories since 2021, and 17 have improved in status. For 13 of those with improved status, the change is the result of improved knowledge on their status rather than actual recent recovery. Notes explaining the reasoning for these decisions can be found in the species accounts in the NZTCS database at NZTCS.org.nz. (by searching for the report "Reptiles 2025", then clicking on individual species names to go to their individual pages).

Four taxa were considered to have actually improved in status (Tables 5 and 6) under successful conservation management as follows:

- *O. grande*: the grand skink has moved from Threatened – Nationally Endangered (and formerly Threatened – Nationally Critical) to Threatened – Nationally Increasing. It continued to recover towards natural carrying capacity in the managed area at Macraes Flat. At least one small western population persists in its native habitat and the translocated population in Mokomoko Sanctuary appears to be well-established and increasing. Any remaining unmanaged populations are considered to now be very small so not contributing significantly to the overall population trend.
- *O. otagense*: the Otago skink has moved from Threatened – Nationally Endangered (and formerly Threatened – Nationally Critical) to Threatened – Nationally Increasing. It has continued to recover towards natural carrying capacity in the managed area at Macraes Flat. The western populations persist at several sites in their native habitats, and the translocated population in Mokomoko Sanctuary appears to be well-established and increasing. Any remaining unmanaged populations are considered to now be very small so not contributing significantly to the overall population trend.
- *O. salmo*: the Kapitia skink (formerly Chesterfield skink) has moved from Threatened – Nationally Critical to Threatened – Nationally Endangered. It persists in its original, highly modified habitat fragments. Translocated populations, both within a predator exclusion fence

around a 1.3 ha patch of habitat and small experimental "leaky" fences nearby, are recovering very well. Both the area of occupancy and the adult population size are inferred to now be above the thresholds for the Threatened – Nationally Critical category.

- *O. whitakeri*: Whitaker's skink has moved from Threatened – Nationally Endangered to Threatened – Nationally Vulnerable. Translocations carried out in the late 1990s within the Mercury Island group and previously considered to have probably failed are now known to have succeeded, increasing the area of occupancy and putting the species on a positive recovery trajectory. The Pukerua Bay population, while probably extinct in the wild, persists and is breeding successfully in captivity.

For seven out of eight species for which the threat status worsened, the change resulted from improved information. The only exception was:

- *O. pikitanga*: the Sinbad skink had both a decline observed in the last 5 years and indication that the area of occupancy was over-estimated 5 years ago. It has moved from Threatened – Nationally Endangered to Threatened – Nationally Critical. Despite being notoriously difficult to monitor due to its vertical alpine habitat, it is known to have disappeared from some formerly occupied areas. At the top of its vertical range, it has colonised small gullies now free of permanent snow, but the overall trend is of decline, and lower total numbers than estimated previously.

All but one of the new additions to the Data Deficient category are newly discovered or newly identified as distinct since the last listing, so remain very poorly known simply because there has not been time to conduct sufficient work on them. They join three already listed Data Deficient taxa, each known from single specimens, for which there is no new information on their conservation status. One previously listed species moved into the Data Deficient category:

- *O. longipes*: the long-toed skink occupies scree slopes and rocky river terraces in inland south Marlborough and north Canterbury. While thought to probably be quite widespread with some reasonably large populations, it has never been well known and most records are several decades old. It was listed as Threatened – Nationally Vulnerable in 2021. The extreme paucity of recent records caused concern but may be due to lack of search effort. There is absolutely no information on population trend, but decline is likely by inference from other skink species. Given that the possible true status spans the range from Threatened – Nationally Critical to At Risk – Declining, it was felt that Data Deficient was most appropriate to highlight the extreme lack of recent knowledge about this species.

Of the 147 extant endemic lizard taxa assessed, 59 (40.1%) are Threatened, 68 (46.3%) At Risk, and 16 (10.9%) Data Deficient, leaving only 4 (2.7%) Not Threatened (Tables 4, 5). In total, 97.3% of endemic reptiles are considered Threatened, At Risk, or too poorly known to assess. Although agents of decline are not formally documented here, the main drivers for mainland lizard populations are predation from introduced mammals and habitat loss. In addition, 82 species (53.6%) are estimated to be at risk of climate change impacts that broadly align with higher level assessments of global climate change induced risk to endemic biodiversity (Manes et al. 2021).

Management of lizards is essentially a game of two halves: islands versus mainland populations, with far fewer options for the latter. Starting in the 1980s, several northern North Island lowland species such as *Sphenodon punctatus, O. alani, O. whitakeri, O. townsi, O. macgregori* and also recently *O. tekakahu* in Fiordland were better secured by island pest eradications and translocations. The most secure populations are those under intensive management, almost exclusively on predator-free offshore islands or within fenced sanctuaries, where a few species (e.g. *O. grande*, *O. otagense*, *O. salmo*) show measurable recent improvements (Tables 6. 7). However, this model cannot feasibly be extended to more than a small fraction of species at a few very small sites, meaning that unmanaged mainland populations will continue to decline towards extinction without fundamental systemic change.

Many assume that "Predator-Free" initiatives are benefitting endemic lizards, however this is not demonstrated by long-term monitoring studies. Even if successful in its current goals, the predator-free movement is unlikely to benefit lizards because of the high likelihood of meso-predator release of mice (*Mus musculus*), which have been well demonstrated to impact lizards severely (Norbury et al. 2014; Monks et al. 2024). This pattern is consistent with global biodiversity assessments (e.g. IPBES 2019; Díaz et al. 2019), that highlight accelerating extinction risk, loss of ecological function, and system-level collapse. The status of Aotearoa New Zealand's reptiles therefore not only underscores the fragility of biodiversity under cumulative human pressures, but also serves as a stark indicator of the wider ecological unravelling now underway across Aotearoa New Zealand.

Table 4. Number of New Zealand reptile taxa per taxonomic group for each umbrella category.

UMBRELLA CATEGORIES	SKINKS[a]	GECKOS	TUATARA	TURTLES	SEA SNAKES, KRAITS	**TOTAL**
Extinct	1					**1**
Data Deficient	15	1				**16**
Threatened	44	15				**59**
At Risk	38	30	1			**69**
Not Threatened	2	2			1	**5**
Non-resident native				5	3	**8**
Introduced and Naturalised	1					**1**
Total	**101**	**48**	**1**	**5**	**4**	**159**

a All New Zealand indigenous skink taxa are endemic.

Table 5. Comparison of the status of reptile taxa in Aotearoa New Zealand assessed in 2015 (Hitchmough et al. 2016) and 2021 (Hitchmough et al. 2021) and 2025 (this report).

CONSERVATION STATUS	2015	2021	2025
Data Deficient	7	4	16
Extinct	2	1	1
Threatened – Nationally Critical	8	10	11
Threatened – Nationally Endangered	8	16	12
Threatened – Nationally Vulnerable	21	22	33
Threatened – Nationally Increasing[a]	0	1	3
At Risk – Declining	27	49	49
At Risk –Uncommon[b]	21	15	17
At Risk – Recovering	4	3	3
Not Threatened	10	5	5
Non-resident Native – Migrant	2	2	2
Non-resident Native – Vagrant	6	6	6
Introduced and Naturalised	1	1	1
Total	**117**	**135**	**159**

a The status At Risk – Recovering (criterion A) defined in Townsend et al. (2008) and used in 2015 has been renamed Threatened – Nationally Increasing in this assessment following Rolfe et al. (2022).

b The statuses At Risk – Relict and At Risk – Naturally Uncommon defined in Townsend et al. (2008) and used in 2015 and in 2021 have been combined into a status named At Risk – Uncommon following Rolfe et al. (2022).

Table 6. Summary of changes to the number of reptile taxa assigned to each conservation status between 2021 (Hitchmough et al. 2021) and 2025 (this report).

TYPE OF CHANGE, REASON, CONSERVATION STATUS	NUMBER OF TAXA
BETTER	**17**
Actual improvement	**4**
Threatened – Nationally Endangered	1
Threatened – Nationally Vulnerable	1
Threatened – Nationally Increasing	2
More knowledge	**13**
Threatened – Nationally Endangered	2
Threatened – Nationally Vulnerable	7
At Risk – Declining	3
At Risk – Uncommon	1
WORSE	**8**
Actual decline	**1**
Threatened – Nationally Critical	1
More knowledge	**7**
Threatened – Nationally Critical	1
Threatened – Nationally Endangered	1
Threatened – Nationally Vulnerable	5
NEUTRAL[a]	**1**
Greater uncertainty	**1**
Data Deficient	1
NO CHANGE	**104**
No change in status	**89**
Data Deficient	3
Extinct	1
Threatened – Nationally Critical	4
Threatened – Nationally Endangered	6
Threatened – Nationally Vulnerable	15
Threatened – Nationally Increasing	1
At Risk – Declining	42
At Risk – Recovering	3
Not Threatened	5
Non-Resident Native – Migrant	2
Non-Resident Native – Vagrant	6
Introduced and Naturalised	1
Status name changed	**15**
At Risk – Uncommon	15
NEW LISTING	**29**
Data Deficient	12
Threatened – Nationally Critical	5
Threatened – Nationally Endangered	2
Threatened – Nationally Vulnerable	5
At Risk – Declining	4
At Risk – Uncommon	1
TOTAL	**159**

[a] A change in status is considered "Neutral" when a species moves into or out of the category Data Deficient.

Table 7. Summary of status changes of reptile taxa between 2021 (rows; Hitchmough et al. 2021) and 2025 (columns; this report). Numbers on the diagonal (shaded black) represent those taxa that have not changed status between 2021 and 2025, numbers to the right of the diagonal (shaded green) represent taxa with an improved status (e.g. three taxa were moved from Threatened – Nationally Critical in 2021 to Threatened – Nationally Endangered in 2025, numbers to the left of the diagonal (shaded pink) represent taxa with a worse status, and numbers without shading represent taxa that either have moved into or out of Data Deficient, are Non-resident Native or Introduced and Naturalised, have been newly added to this assessment, or have not been assessed in this report because they are now considered taxonomically indistinct (TI) from other taxa in this report.

		CONSERVATION STATUS 2025														
		Total	DD	Ext	NC	NE	NV	NI	Dec	Unc	Rec	NT	Mig	Vag	IN	TI[a]
		163	16	1	11	12	33	3	49	17	3	5	2	6	1	4
CONSERVATION STATUS 2021	Data Deficient (DD)	**3**	3													
	Extinct (Ext)	**1**		1												
	Threatened – Nationally Critical (NC)	**10**			4	3	2									1
	Threatened – Nationally Endangered (NE)	**16**			1	6	6	2		1						
	Threatened – Nationally Vulnerable (NV)	**22**	1		1	1	15		3							1
	Threatened – Nationally Increasing (NI)	**1**						1								
	At Risk – Declining (Dec)	**49**					5		42							2
	At Risk – Uncommon (Unc)[b]	**15**								15						
	At Risk – Recovering (Rec)	**3**									3					
	Not Threatened (NT)	**5**										5				
	Non-resident Native – Migrant (Mig)	**2**											2			
	Non-resident Native – Vagrant (Vag)	**6**												6		
	Introduced and Naturalised (IN)	**1**													1	
New Listing		**29**	12		5	2	5		4	1						

[a] TI = Taxonomically Indistinct.

[b] The statuses At Risk – Relict and At Risk – Naturally Uncommon defined in Townsend et al. (2008) and used in 2021 have been combined into a status named At Risk – Uncommon following Rolfe et al. (2022).

3. Conservation status of all known reptiles in Aotearoa New Zealand

Taxa were assessed according to the criteria of Rolfe et al. (2022) and have been grouped in Table 8 by conservation status and then alphabetically by scientific name. The Data Deficient list is inserted first, then the remaining categories ordered by degree of loss, with Extinct at the top of the list and Not Threatened at the bottom, and lastly, Non-resident Native and Introduced and Naturalised. Although the true status of Data Deficient taxa may span the entire range of available categories, many of the taxa in that list are there because they are very seldom seen and so are likely to eventually be considered Threatened – some may already be extinct. The Data Deficient list is likely to include many of the most threatened species in Aotearoa New Zealand.

Brief descriptions of the NZTCS categories and criteria are provided in Appendix 1. See Rolfe et al. (2022) for full definitions of categories, criteria and qualifiers, as well as an explanation of the assessment process.

The full data for the assessments listed in Table 8 can be viewed and downloaded at https://nztcs.org.nz/reports/1177.

Table 8. Conservation status of reptiles in Aotearoa New Zealand.

Qualifiers are abbreviated as follows: CD = Conservation Dependent, CI = Climate Impact, CR = Conservation Research Needed, DPR = Data Poor Recognition, DPS = Data Poor Size, DPT = Data Poor Trend, IE = Island Endemic, NS = Natural State, OL = One Location, PD = Partial Decline, PE = Possibly Extinct, PF = Population Fragmentation, Rel = Relict, RR = Range Restricted, SO = Secure Overseas, Sp = Biologically Sparse, TO = Threatened Overseas.

NAME AND AUTHORITY	COMMON NAME	FAMILY	CRITERIA	QUALIFIERS	STATUS CHANGE
DATA DEFICIENT (16)					
Taxonomically Determinate (3)					
Oligosoma carinacauda Bell & Patterson, 2024	Okuru skink	Scincidae		OL, PE	No change
Oligosoma infrapunctatum (Boulenger, 1887)	speckled skink	Scincidae		OL, PE	No change
Oligosoma longipes Patterson, 1997	long-toed skink	Scincidae		CI, RR	Neutral
Taxonomically Unresolved (13)					
Oligosoma aff. *acrinasum* "Many Islands"		Scincidae			New listing
Oligosoma aff. *chloronoton* "Clinton? gracile"		Scincidae			New listing
Oligosoma aff. *chloronoton* "flat head"		Scincidae			New listing
Oligosoma aff. *infrapunctatum* "Westport"	Westport skink	Scincidae		OL	No change
Oligosoma aff. *infrapunctatum* "Giles Creek"		Scincidae			New listing
Oligosoma aff. *laxa* "Mt Spencer"		Scincidae		PE	New listing
Oligosoma aff. *newmani* "Karamea"		Scincidae			New listing
Oligosoma aff. *newmani* "Lockett Range"		Scincidae			New listing
Oligosoma aff. *newmani* "Lonely Lake"		Scincidae			New listing
Oligosoma aff. *newmani* "Mt White, Brown Hill"		Scincidae			New listing
Oligosoma aff. *robinsoni* "Kaimanawa"		Scincidae			New listing
Oligosoma aff. *robinsoni* "Wairarapa"		Scincidae			New listing
Woodworthia "Sabine"	Tikumu gecko	Diplodactylidae			New listing
EXTINCT (1)					
Taxonomically Determinate (1)					
Oligosoma northlandi (Worthy, 1991)	Northland skink	Scincidae			No change
THREATENED (59)					
NATIONALLY CRITICAL (11)					

Taxonomically Determinate (5)					
Mokopirirakau cryptozoicus (Jewell & Leschen, 2004)	Takitimu gecko	Diplodactylidae	NCu5o	CI, DPS, DPT, PF, Rel	Worse
Oligosoma albornense Melzer et al., 2019	Alborn Skink	Scincidae	NCu6a	PF, RR, Rel	No change
Oligosoma awakopaka Jewell, 2017	awakōpaka skink	Scincidae	NCu6a	CI, CD, OL, Rel	No change
Oligosoma hoparatea Whitaker et al., 2018	white-bellied skink	Scincidae	NCu6a	Sp, RR	No change
Oligosoma pikitanga Bell & Patterson, 2008	Sinbad skink	Scincidae	NCu4a	CI, DPS, DPT, OL	Worse
Taxonomically Unresolved (6)					
Oligosoma aff. *infrapunctatum* "Ōkārito"		Scincidae	NCu4a	DPS, DPT, PF	New listing
Oligosoma aff. *laxa* "alpine rock northern"	Central Canterbury alpine rock skink	Scincidae	NCu4n	CI, CR, DPR, DPT, DPS, RR	New listing
Oligosoma aff. *newmani* "Douglas Range"		Scincidae		Sp, CI, CR, DPS, DPT, RR	New listing
Oligosoma aff. *newmani* "Garibaldi"		Scincidae		Sp, CI, CR, DPS, DPT, RR	New listing
Oligosoma aff. *newmani* "St Arnaud"		Scincidae	NCu6a	CR, Rel	New listing
Oligosoma robinsoni subsp. "Southern North Island"	Kupe skink	Scincidae	NCu5o	CI, CD, CR, DPT, PD, PF, Rel	No change
NATIONALLY ENDANGERED (12)					
Taxonomically Determinate (8)					
Naultinus rudis (Fischer, 1882)	rough gecko	Diplodactylidae	NEu5p	Sp, CI, CR, DPS, DPT, PF	No change
Oligosoma elium Melzer et al., 2017	south Marlborough spotted skink	Scincidae	NEu5c	CI, CD, DPS, DPT, PD, PF	No change
Oligosoma kakerakau Barr, et al., 2021	Whirinaki skink	Scincidae	NEu3h	CI, CD, CR, DPS, DPT, PF, Rel	Better
Oligosoma levidensum Chapple et al., 2008	slight skink	Scincidae	NEu5i	CI, CR, DPS, DPT, PF, RR	No change
Oligosoma lineoocellatum (Duméril & Duméril 1851)	Canterbury spotted skink	Scincidae	NEu5c	CI, CD, PD, PF	Worse
Oligosoma salmo Melzer et al., 2019	Kapitia skink	Scincidae	NEu2b	CI, CD, OL, RR, Rel	Better
Oligosoma taumakae Chapple & Patterson, 2007	Taumaka skink	Scincidae	NEu2b	CD, RR, Rel	No change
Oligosoma tekakahu Chapple et al., 2011	Te Kakahu skink	Scincidae	NEu2h	CI, CD, PF, RR, Rel	No change
Taxonomically Unresolved (4)					
Oligosoma aff. *alani* "Far North"		Scincidae	NEu2h	CR, DPT, PF, Rel	New listing
Oligosoma aff. *infrapunctatum* "cobble"	cobble skink	Scincidae	NEu3h	CI, CD, RR	Better
Oligosoma aff. *laxa* "Marlborough"	Marlborough scree skink	Scincidae	NEu5p	Sp, CI, DPS, DPT, PF	No change
Oligosoma aff. *newmani* "Gouland Downs"		Scincidae	NEu3b	CI, CR, DPS, DPT, OL	New listing

NATIONALLY VULNERABLE (33)					
Taxonomically Determinate (21)					
Mokopirirakau galaxias Knox et al., 2021	hura te ao gecko	Diplodactylidae	NVu4i	CI, DPS, DPT, PF, Rel	Better
Mokopirirakau kahutarae (Whitaker, 1985)	black-eyed gecko	Diplodactylidae	NVu3p	Sp, CI, DPS, DPT, RR	No change
Naultinus stellatus Hutton, 1872	starred gecko	Diplodactylidae	NVu5e	CI, CR, DPS, PF	No change
Naultinus tuberculatus (McCann, 1955)	West Coast green gecko	Diplodactylidae	NVu4p	CI, DPS, DPT, PF	No change
Oligosoma acrinasum (Hardy, 1977)	Fiordland skink	Scincidae	NVu2i	CI, CD, RR, Rel	No change
Oligosoma burganae Chapple et al., 2011	Burgan skink	Scincidae	NVu5k	Sp, CI, DPT, PF, RR	Better
Oligosoma chloronoton (Hardy, 1977)	green skink	Scincidae	NVu5k	PD, PF	Better
Oligosoma homalonotum (Boulenger, 1906)	chevron skink	Scincidae	NVu3c	CI, CD, CR, DPT, Rel	No change
Oligosoma judgei Patterson & Bell, 2009	Barrier skink	Scincidae	NVu3p	CI, DPT, PF, RR	Better
Oligosoma kahurangi Patterson & Hitchmough, 2021	Kahurangi skink	Scincidae	NVu4i	CI, CR, DPT, PF	Better
Oligosoma laxa (Hutton, 1872)	scree skink	Scincidae	NVu4d	CI, DPT, PF	No change
Oligosoma microlepis (Patterson & Daugherty, 1990)	small-scaled skink	Scincidae	NVu3p	Sp, PF, RR	No change
Oligosoma newmani sensu stricto (Wells & Wellington, 1985)	Newman's speckled skink	Scincidae	NVu2i	CI, CD	Worse
Oligosoma prasinum Melzer et al., 2017	Mackenzie skink	Scincidae	NVu4p	CI, DPT, PF, RR	No change
Oligosoma robinsoni (Wells & Wellington, 1985)	crenulate skink	Scincidae	NVu3p	CD, DPS, DPT, PD, PF	Worse
Oligosoma stenotis (Patterson & Daugherty, 1994)	small-eared skink	Scincidae	NVu4j	Sp, CI, DPS, DPT, RR	No change
Oligosoma whitakeri (Hardy, 1977)	Whitaker's skink	Scincidae	NVu2i	CI, CD, DPT, RR, Rel	Better
Toropuku inexpectatus Hitchmough et al., 2020	northern striped gecko	Diplodactylidae	NVu4p	DPS, DPT	No change
Toropuku stephensi (Robb, 1980)	southern striped gecko	Diplodactylidae	NVu2c	CD, DPS, RR, Rel	No change
Tukutuku rakiurae (Thomas, 1981)	harlequin gecko	Diplodactylidae	NVu4d	CI, DPS, DPT, RR	Better
Woodworthia korowai van Winkel et al., 2023	Muriwai gecko	Diplodactylidae	NVu4c	CI, CR, DPS, DPT, RR	No change
Taxonomically Unresolved (12)					
Mokopirirakau "cascades"	cascade gecko	Diplodactylidae	NVu4q	CI, DPS, DPT, PF	Worse
Mokopirirakau "Ōkārito"	broad-cheeked gecko	Diplodactylidae	NVu4q	DPS, DPT	No change
Mokopirirakau "Open Bay Islands"	Open Bay Islands gecko	Diplodactylidae	NVu4d	CI, DPS, DPT	Better
Mokopirirakau "Roys Peak"	orange-spotted gecko	Diplodactylidae	NVu4j	CI, DPT, PF, RR	Worse

Oligosoma aff. *chloronoton* "West Otago"	Lakes skink	Scincidae	NVu4j	DPS, DPT, PF	No change
Oligosoma aff. *inconspicuum* "Barn Bay"		Scincidae	NVu3i	CI, CR, DPS, DPT, OL	New listing
Oligosoma aff. *inconspicuum* "mahogany"	mahogany skink	Scincidae	NVu3i	CI, DPS, DPT, PF, RR, Rel	Worse
Oligosoma aff. *laxa* "alpine rock"	alpine rock skink	Scincidae	NVu4j	CI, CR, DPR, DPT, RR	No change
Oligosoma aff. *laxa* "central Canterbury"	Central Canterbury scree skink	Scincidae	NVu4c	CI, CR, DPT, DPR, DPS, PF, RR	New listing
Oligosoma aff. *newmani* "Buller"		Scincidae	NVu4c	CI, DPR, DPS, DPT, PF	New listing
Oligosoma aff. *newmani* "Nelson Lakes alpine – Mt Arthur"		Scincidae	NVu4i	CI, CD, DPS, DPT, PF	New listing
Oligosoma aff. *prasinum* "Ashburton Lakes"	Ashburton Lakes spotted skink	Scincidae	NVu4c	DPR, PF, RR	New listing
NATIONALLY INCREASING (3)					
Taxonomically Determinate (3)					
Hoplodactylus tohu Scarsbrook et al., 2023	Tohu gecko	Diplodactylidae	NIu1i	CD, Rel	No change
Oligosoma grande (Gray, 1845)	grand skink	Scincidae	NIu1c	CI, CD, PD, RR, Rel	Better
Oligosoma otagense (McCann, 1955)	Otago skink	Scincidae	NIu1c	CD, PF, RR, Rel	Better

AT RISK (69)					
DECLINING (49)					
Taxonomically Determinate (19)					
Mokopirirakau granulatus (Gray, 1845)	forest gecko	Diplodactylidae	DECu4m	CI, CR, DPT, PD, PF	No change
Naultinus elegans Gray, 1842	elegant gecko	Diplodactylidae	DECu4m	CI, DPT, PD, PF	No change
Naultinus flavirictus Hitchmough et al., 2021	Aupouri gecko	Diplodactylidae	DECu4l	CI, CR, DPT, OL	No change
Naultinus gemmeus (McCann, 1955)	jewelled gecko	Diplodactylidae	DECu3l	CI, PD, PF	No change
Naultinus grayii Bell, 1843	Northland green gecko	Diplodactylidae	DECu4l	CI, DPS, DPT, PF	No change
Naultinus manukanus (McCann, 1955)	Marlborough green gecko	Diplodactylidae	DECu4k	CD, CR, DPS, DPT, PD, PF	No change
Naultinus punctatus Gray, 1843	barking gecko	Diplodactylidae	DECu4m	CI, DPT, PF	No change
Oligosoma aeneum (Girard, 1857)	copper skink	Scincidae	DECu3f	PD	No change
Oligosoma aureocola Knox et al., 2023	Mataura skink	Scincidae	DECu3j	CD, DPT, RR	New listing
Oligosoma eludens Knox, Chapple & Bell, 2024	rockhopper skink	Scincidae	DECu3k	CI, DPR, DPT, RR	No change
Oligosoma inconspicuum (Patterson & Daugherty, 1990)	cryptic skink	Scincidae	DECu3l		No change

Oligosoma notosaurus (Patterson & Daugherty, 1990)	southern skink	Scincidae	DECu3f	CD, DPT, RR	No change
Oligosoma ornatum (Gray, 1843)	ornate skink	Scincidae	DECu3m	PD, PF	No change
Oligosoma repens Chapple et al., 2011	Eyres skink	Scincidae	DECu3l	Sp, DPR, DPT, RR	No change
Oligosoma smithi (Gray, 1845)	shore skink	Scincidae	DECu3l	CI, CD, DPT, PD	No change
Oligosoma striatum (Buller, 1871)	striped skink	Scincidae	DECu4l	CD, DPS, DPT, PF	No change
Oligosoma toka Chapple et al., 2011	Nevis skink	Scincidae	DECu3l	Sp, CI, DPT	No change
Oligosoma zelandicum (Gray, 1843)	glossy brown skink	Scincidae	DECu3m	CD, PD	No change
Woodworthia chrysosiretica (Robb, 1980)	goldstripe gecko	Diplodactylidae	DECu3l	CD, DPS, DPT, PD, PF	No change
Taxonomically Unresolved (30)					
Dactylocnemis “Matapia Island”	Matapia gecko	Diplodactylidae	DECu4l	CI, CD, DPT, PD, RR	No change
Dactylocnemis “North Cape”	Te Paki gecko	Diplodactylidae	DECu4l	CI, DPR, DPS, DPT, PD, RR	No change
Mokopirirakau “southern forest”	Tautuku gecko	Diplodactylidae	DECu4l	CI, DPT	No change
Mokopirirakau “southern North Island”	ngahere gecko	Diplodactylidae	DECu3m	DPR, PD	No change
Oligosoma aff. *chloronoton* “eastern Otago”	Otago green skink	Scincidae	NVu4k	CI, CD, DPS, DPT, PF	No change
Oligosoma aff. *chloronoton* “Stewart Island”	Stewart Island green skink	Scincidae	DECu3j	CD, DPS, DPT, PD, PF, Rel	Better
Oligosoma aff. *inconspicuum* “Central - Southern”		Scincidae	DECu3l	CI, DPT, PF	New listing
Oligosoma aff. *inconspicuum* “Cascade”		Scincidae	DECu3k	CR, DPT, OL	New listing
Oligosoma aff. *longipes* “southern”	southern long-toed skink	Scincidae	DECu3l	DPR, DPT, RR	No change
Oligosoma aff. *newmani* “Westland”		Scincidae	DECu3f	CI, DPR, DPS, DPT	New listing
Oligosoma aff. *polychroma Clade 2*	Waiharakeke grass skink	Scincidae	DECu3k	CD, DPR, PD, RR	No change
Oligosoma aff. *polychroma Clade 3*	south Marlborough grass skink	Scincidae	DECu3l	DPR, DPS, DPT	No change
Oligosoma aff. *polychroma Clade 4*	Canterbury grass skink	Scincidae	DECu3m	DPR	No change
Oligosoma aff. *smithi* “Three Kings, Te Paki, Western Northland”	tātahi skink	Scincidae	DECu3l	CI, PD, RR	No change
Oligosoma chionochloescens Jewell, 2022	southern grass skink	Scincidae	DECu3m	CI, DPR	No change
Oligosoma murihiku Jewell, 2022	herbfield skink	Scincidae	DECu3k	CI, DPT, PD, PF, RR	No change
Oligosoma pluvialis Jewell, 2022	Big Bay skink	Scincidae	DECu3j	CI, DPS, DPT, OL	Better
Woodworthia “Central Otago”	schist gecko	Diplodactylidae	DECu4l	CI, PD	No change
Woodworthia “Cromwell”	Kawarau gecko	Diplodactylidae	DECu3l	CI, DPT	No change
Woodworthia “Kaikōura”	Kaikōura gecko	Diplodactylidae	DECu3k	Sp, CI, CR, DPR, DPS, DPT, RR	No change

Woodworthia “Marlborough mini”	minimac gecko	Diplodactylidae	DECu3f	DPT	No change
Woodworthia “Mt Arthur”	Kahurangi gecko	Diplodactylidae	DECu3l	Sp, CI, CR, DPT, RR	No change
Woodworthia “Otago/Southland large”	kōrero gecko	Diplodactylidae	DECu4f	CI, PD	No change
Woodworthia “pygmy”	pygmy gecko	Diplodactylidae	DECu3f	DPT	No change
Woodworthia “Raggedy”	Raggedy Range gecko	Diplodactylidae	DECu3j	CI, CR, DPR, DPS, DPT, OL, RR	Better
Woodworthia “Southern Alps northern”	greywacke gecko	Diplodactylidae	DECu3m	CI	No change
Woodworthia “Southern Alps”	Southern Alps gecko	Diplodactylidae	DECu3f		No change
Woodworthia “southern mini”	short-toed gecko	Diplodactylidae	DECu3k	CI, DPT	No change
Woodworthia “south-western”	south-western large gecko	Diplodactylidae	DECu4l	CI, DPS, DPT	No change
Woodworthia cf. *brunnea* (Cope, 1869)	Waitaha gecko	Diplodactylidae	DECu3f	PD, PF	No change
UNCOMMON (17)					
Taxonomically Determinate (11)					
Hoplodactylus duvaucelii (Duméril & Bibron, 1836)	northern Duvaucel’s gecko	Diplodactylidae	UNCu1k	CD, Rel	No change
Mokopirirakau nebulosus (McCann, 1955)	cloudy gecko	Diplodactylidae	UNCu2k	CD, DPS, DPT, PD, RR, Rel	No change
Oligosoma fallai (McCann, 1955)	Falla’s skink	Scincidae	UNCn2d	CD, IE, RR	No change
Oligosoma hardyi Chapple et al., 2008	Hardy’s skink	Scincidae	UNCn2d	CD, IE, OL	No change
Oligosoma kokowai Melzer et al., 2017	northern spotted skink	Scincidae	UNCu2j	CD, PD, PF, Rel	No change
Oligosoma moco (Duméril & Bibron, 1839)	moko skink	Scincidae		CI, CD, PD, Rel	No change
Oligosoma nigriplantare (Peters, 1873)	Chathams skink	Scincidae	UNCu2j	CD, IE, PD, RR, Rel	No change
Oligosoma oliveri (McCann, 1955)	marbled skink	Scincidae	UNCn2j	CI, CD, IE, RR	No change
Oligosoma roimata Patterson et al., 2013	Aorangi skink	Scincidae	UNCn2i	CD, IE, OL	No change
Oligosoma suteri (Boulenger, 1906)	egg-laying skink	Scincidae		CI, CD, PD, RR, Rel	No change
Sphenodon punctatus (Gray, 1842)	tuatara	Sphenodontidae		CI, CD, RR, Rel	No change
Taxonomically Unresolved (6)					
Dactylocnemis “Mokohīnau”	Mokohīnau gecko	Diplodactylidae	UNCn2j	CI, CD, IE, RR	No change
Dactylocnemis “Poor Knights”	Poor Knights gecko	Diplodactylidae	UNCn2j	CI, CD, IE, RR	No change
Dactylocnemis “Three Kings”	Three Kings gecko	Diplodactylidae	UNCn2j	CI, CD, IE, RR	No change
Oligosoma ornatum longirostrum Jewell, 2022		Scincidae	UNCn2j	CD, IE, NS, RR	New listing
Oligosoma pachysomaticum (Robb, 1975)	southern marbled skink	Scincidae	UNCu2j	CI, CD, Rel	No change
Oligosoma auroraense Melzer et al., 2018	Hawke’s Bay skink	Scincidae	UNCu2j	CD, PD, PF, Rel	Better

RECOVERING (3)					
Taxonomically Determinate (3)					
Oligosoma alani (Robb, 1970)	robust skink	Scincidae	RECu1d	CI, CD, Rel	No change
Oligosoma macgregori (Robb, 1975)	McGregor's skink	Scincidae	RECu1j	CD, Rel	No change
Oligosoma townsi Chapple et al., 2008	Hauraki skink	Scincidae	RECu1d	CI, CD, DPS, PD, RR	No change

NOT THREATENED (5)					
Taxonomically Determinate (5)					
Dactylocnemis pacificus (Gray, 1842)	Pacific gecko	Diplodactylidae		CD, DPR, PD, PF	No change
Hydrophis platurus (Linnaeus, 1766)	yellow-bellied sea snake	Elapidae		SO	No change
Oligosoma maccanni (Patterson & Daugherty, 1990)	McCann's skink	Scincidae			No change
Oligosoma polychroma (Patterson & Daugherty, 1990)	northern grass skink	Scincidae			No change
Woodworthia maculata (Gray, 1845)	Raukawa gecko	Diplodactylidae		CD, PD	No change

NON-RESIDENT NATIVE (8)					
MIGRANT (2)					
Taxonomically Determinate (2)					
Chelonia mydas (Linnaeus, 1758)	green turtle	Cheloniidae		TO	No change
Dermochelys coriacea (Vandelli, 1761)	leatherback turtle	Dermochelyidae		TO	No change
VAGRANT (6)					
Taxonomically Determinate (6)					
Caretta caretta (Linnaeus, 1758)	loggerhead turtle	Cheloniidae		TO	No change
Eretmochelys imbricata (Linnaeus, 1766)	hawksbill turtle	Cheloniidae		TO	No change
Laticauda colubrina (Schneider, 1799)	yellow-lipped sea krait	Laticaudidae		SO	No change
Laticauda laticaudata (Linnaeus, 1758)	brown lipped sea krait	Laticaudidae		SO	No change
Laticauda saintgironsi Cogger & Heatwole, 2006	Saint-Giron's sea krait	Laticaudidae		SO	No change
Lepidochelys olivacea (Eschscholtz, 1829)	olive ridley turtle	Cheloniidae		TO	No change

INTRODUCED AND NATURALISED (1)					
Taxonomically Determinate (1)					
Lampropholis delicata (De Vis, 1888)	plague skink	Scincidae			No change

4. Acknowledgements

We are very grateful to those who supplied information either via the submission process or informally. We are also extremely grateful to Ludovic Dutoit, Sarah Walters and Angus Davis for sharing preliminary analyses of their genomic datasets.

5. References

Barr BP, Chapple DG, Hitchmough RA, Patterson GB, Ngatiwai Trust Board. 2021. A new species of *Oligosoma* (Squamata: Scincidae) from the northern North Island, New Zealand. Zootaxa. 5047(4):401–415. doi.org/10.11646/zootaxa.5047.4.1

Bell T, Patterson GB. 2024. The Okuru skink (*Oligosoma carinacauda* sp. nov.) of South Westland, New Zealand—simply elusive or extinct? Zootaxa. 5536(1):123–138. doi.org/10.11646/zootaxa.5536.1.4

Chapple DG, Birkett A, Miller KA, Daugherty CH, Gleeson DM. 2012. Phylogeography of the Endangered Otago Skink, *Oligosoma otagense*: Population Structure, Hybridisation and Genetic Diversity in Captive Populations. PLoS ONE. 7(4):e34599. doi.org/10.1371/journal.pone.0034599

de Lange PJ, Norton DA. 1998. Revisiting rarity: a botanical perspective on the meanings of rarity and the classification of New Zealand's uncommon plants. Royal Society of New Zealand Miscellaneous Series. 48:145–160.

Díaz SM, Settele J, Brondízio E, Ngo H, Guèze M, Agard J, Arneth A, Balvanera P, Brauman K, Butchart S, Chan K. 2019. The global assessment report on biodiversity and ecosystem services: Summary for policy makers. Bonn: IPBES Secretariat.

Greaves SNJ, Chapple DG, Daugherty CH, Gleeson DM, Ritchie PA. 2008. Genetic divergences pre-date Pleistocene glacial cycles in the New Zealand speckled skink, *Oligosoma infrapunctatum*. Journal of Biogeography. 35:853–864. doi.org/10.1111/j.1365-2699.2007.01848.x

Hardy GS. 1977. The New Zealand Scincidae (Reptilia: Lacertilia); a taxonomic and zoogeographic study. New Zealand Journal of Zoology. 4(3):221–325. doi.org/10.1080/03014223.1977.9517956

Hitchmough R (compiler). 2002. New Zealand Threat Classification System lists – 2002. Wellington: Department of Conservation. Threatened Species Occasional Publication 23.

Hitchmough R, Bull L, Cromarty P (compilers). 2007. New Zealand Threat Classification System lists 2005. Wellington: Department of Conservation.

Hitchmough RA, Hoare JM, Jamieson H, Newman D, Tocher MD, Anderson PJ, Lettink M, Whitaker AH. 2010. Conservation status of New Zealand reptiles, 2009. New Zealand Journal of Zoology. 37:203–224. doi.org/10.1080/03014223.2010.496487

Hitchmough R, Anderson P, Barr B, Monks J, Lettink M, Reardon J, Tocher M, Whitaker T. 2013. Conservation status of New Zealand reptiles, 2012. Wellington: Department of Conservation. New Zealand Threat Classification Series 2. doc.govt.nz/Documents/science-and-technical/nztcs2entire.pdf

Hitchmough R, Barr B, Lettink M, Monks J, Reardon J, Tocher M, van Winkel D, Rolfe J. 2016. Conservation status of New Zealand reptiles, 2015. Wellington: Department of Conservation. New Zealand Threat Classification Series 17. doc.govt.nz/globalassets/documents/science-and-technical/nztcs17entire.pdf

Hitchmough RA, Barr B, Knox C, Lettink M, Monks JM, Patterson GB, Reardon JT, van Winkel D, Rolfe J, Michel P. 2021. Conservation status of New Zealand reptiles, 2021. Wellington: Department of Conservation. New Zealand Threat Classification Series 35. doc.govt.nz/globalassets/documents/science-and-technical/nztcs35entire-feb2024.pdf

IPBES. 2019. Intergovernmental science-policy platform on biodiversity and ecosystem services. Summary for policy makers of the global assessment report on biodiversity and ecosystem services of the intergovernmental science-policy platform on biodiversity and ecosystem services. Bonn: IPBES Secretariat,.

Jewell T. 2022a. *Oligosoma murihiku* n. sp. (Reptilia: Scincidae) from the south-eastern South Island of New Zealand. Jewell Publications. Occasional Publication #2022C.

Jewell T. 2022b. *Oligosoma pluvialis* n. sp. (Reptilia: Scincidae) from Te Wāhipounamu/South West New Zealand. Jewell Publications. Occasional Publication #2022H.

Jewell T. 2022c. *Oligosoma laxa* (Hutton 1872): an overlooked name for the New Zealand scree skink (Reptilia: Scincidae). Jewell Publications. Occasional Publication #2023A.

Jewell T. 2022d. A new islandic subspecies of *Oligosoma ornatum* (Gray) in the Far North. Jewell Publications. Occasional Publication #2022A.

Jewell T. 2022e. Discovery of an abrupt contact zone supports recognition of a new species of grass skink in southern New Zealand. Jewell Publications. Occasional Publication #2022B.

Knox C, Patterson GB, Chapple DG. 2023. *Oligosoma aureocola* sp. nov. (Reptilia: Scincidae) from the northern Southland high country of Aotearoa/New Zealand. Zootaxa. 5285(2):271–292. doi.org/10.11646/zootaxa.5285.2.3

Knox C, Chapple DG, Bell T. 2024. *Oligosoma eludens* sp. nov. (Reptilia: Scincidae) from the Hawkdun, Ida, and Saint Bathans Ranges of North Otago, Aotearoa/New Zealand. Zootaxa. 5437(4):480–494. doi.org/10.11646/zootaxa.5437.4.2

Manes S, Costello MJ, Beckett H, Debnath A, Devenish-Nelson E, Grey KA, Jenkins R, Khan TM, Kiessling W, Krause C, Maharaj SS. 2021. Endemism increases species' climate change risk in areas of global biodiversity importance. Biological Conservation. 257:109070. doi.org/10.1016/j.biocon.2021.109070

Molloy J, Bell B, Clout M, de Lange P, Gibbs G, Given D, Norton D, Smith N, Stephens T. 2002. Classifying species according to threat of extinction. A system for New Zealand. Wellington: Department of Conservation. Threatened Species Occasional Publication 22. doc.govt.nz/globalassets/documents/science-and-technical/tsop22.pdf

Molloy J, Davis A. 1992. Setting priorities for the conservation of New Zealand's threatened plants and animals. Wellington: Department of Conservation (revised in 1994).

Monks JM, Besson AA, O'Donnell CFJ. 2024. Landscape scale control of selected mammalian predators fails to protect lizards. Biological Invasions. 26(1):107–18. doi.org/10.1007/s10530-023-03160-x

Norbury G, van den Munckhof M, Neitzel S, Hutcheon A, Reardon JT, Ludwig K. 2014. Impacts of invasive house mice on post-release survival of translocated lizards. New Zealand Journal of Ecology. 38(2):322–327.

Rolfe J, Hitchmough R, Michel P, Makan T, Cooper JA, de Lange PJ, Townsend CAJ, Miskelly CM, Molloy J. 2022. New Zealand Threat Classification System manual 2022. Part 1: Assessments. Wellington: Department of Conservation. doc.govt.nz/globalassets/documents/science-and-technical/new-zealand-threat-classification-system-manual-2022-part-1-assessments.pdf

Scarsbrook L, Walton K, Rawlence NJ, Hitchmough RA. 2023. Revision of the New Zealand gecko genus *Hoplodactylus*, with the description of a new species. Zootaxa. 5228(3):267–291. doi.org/10.11646/zootaxa.5228.3.3

Townsend AJ, de Lange PJ, Duffy CAJ, Miskelly CM, Molloy J, Norton DA. 2008. New Zealand Threat Classification System manual. Wellington: Department of Conservation. doc.govt.nz/globalassets/documents/science-and-technical/sap244.pdf

van Winkel D, Wells S, Harker N, Hitchmough R. 2023. On the sand and among the crowds: a new species of *Woodworthia* gecko (Reptilia: Diplodactylidae) from Auckland, Aotearoa/ New Zealand. Zootaxa. 5374(2):263–294. doi.org/10.11646/zootaxa.5374.2.7

Appendix 1
NZTCS criteria and categories

Full details of the criteria and categories included in Table 6 can be found in Rolfe et al. (2022).

Criteria codes

Resident native taxa are assessed for their conservation status, based on population state, size and trend criteria. These criteria are coded as shown in Table A1.1 to provide a short-hand summary of each assessment.

Table A1.1. Codes used in NZTCS assessments. INC = increasing, DEC = decreasing, MATIND = number of mature individuals, AREA = area of occupancy, SUBPOP = total number of sub-populations. This table is sourced from Rolfe et al. (2022, p. 20).

CONSERVATION STATUS		POPULATION STATE		POPULATION TREND		POPULATION SIZE	
CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
NC	Nationally Critical	n	Natural	1	INC >10%	a	MATIND < 250
NE	Nationally Endangered	u	Unnatural	2	STABLE (±10%)	b	MATIND 250–1,000
NV	Nationally Vulnerable	x	Unknown	3	DEC 10–30%	c	MATIND 1,000–5,000
NI	Nationally Increasing			4	DEC 30–50%	d	MATIND 5,000–20,000
DEC	Declining			5	DEC 50–70%	e	MATIND 20,000–100,000[a]
REC	Recovering			6	DEC >70%	f	MATIND >100,000[b]
UNC	Uncommon					g	AREA <1 ha
NT	Not Threatened					h	AREA 1–10 ha
						i	AREA 10–100 ha
						j	AREA 100–1,000 ha
						k	AREA 1,000–10,000 ha
						l	AREA 10,000–100,000 ha
						m	AREA >100,000 ha[c]
						n	SUBPOP 2, MATIND < 200 in largest sub-population
						o	SUBPOP 3–5, MATIND 200–300 in largest sub-population
						p	SUBPOP 6–15, MATIND 300–500 in largest sub-population
						q	SUBPOP 6–15, MATIND 500–1,000 in largest sub-population
						For stable and increasing populations only	
						r	MATIND 20,000 – 100,000 and AREA <100,000ha
						s	MATIND > 100,000 and AREA <100,000ha
						t	AREA > 100,000ha and MATIND 250-20,000

a Size code ‘e’ presumes that stable and increasing populations occupy more than 100 000 ha; otherwise use size code ‘r’.

b Size code ‘f’ presumes that stable and increasing populations occupy more than 100 000 ha; otherwise use size code ‘s’.

c Size code ‘m’ presumes that stable and increasing populations are > 20 000 MATIND; otherwise use size code ‘t’.

Assessment code example

Mokopirirakau cryptozoicus (Jewell & Leschen, 2004) was assessed as Threatened – Nationally Critical in 2025, based on an unnatural population state, a decline of 50–70% over three generations and having 3–5 sub-populations with less than 300 mature individuals in the largest sub-population. Thus, its assessment code is **NCu5o**.

Categories

Summary definitions for the categories are presented below.

DATA DEFICIENT

Taxa that cannot be assessed due to a lack of current information about their distribution and abundance. It is hoped that listing such taxa will stimulate research to find out the true category. For a fuller definition, see Rolfe et al. (2022).

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.

THREATENED

Taxa that meet the criteria specified by Rolfe et al. (2022) for the conservation statuses Nationally Critical, Nationally Endangered and Nationally Vulnerable, and Nationally Increasing.

Nationally Critical

Criteria for Nationally Critical:

- Very small population (natural or unnatural) regardless of the trend
  - The total population size is fewer than 250 mature individuals; or
  - The total area of occupancy is less than 1 ha (0.01 km^2); or
  - There are 2 sub-populations *and* fewer than 200 mature individuals in the largest sub-population
- Small population that is forecast to decline 50–70% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 250–1,000 mature individuals; or
  - The total area of occupancy is 1–10 ha (0.01–0.1 km^2); or
  - There are 3–5 sub-populations *and* ≤ 300 mature individuals in the largest sub-population
- Population that is forecast to decline > 70% over the longer of 10 years or three generations (maximum 100 years), irrespective of the size or number of sub-populations

Nationally Endangered

Criteria for Nationally Endangered:

- Small population that is forecast to remain stable ± 10% (unnatural or unknown)
  - The total population size is 250–1,000 mature individuals; or
  - The total area of occupancy is 1–10 ha (0.01–0.1 km^2); or
  - There are 3–5 sub-populations *and* ≤ 300 mature individuals in the largest sub-population
- Small population that is forecast to decline 10–50% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 250–1,000 mature individuals; or
  - The total area of occupancy is 1–10 ha (0.01–0.1 km^2); or
  - There are 3–5 sub-populations *and* ≤ 300 mature individuals in the largest sub-population

- Moderate population that is forecast to decline 50–70% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 1,000–5,000 mature individuals; or
  - The total area of occupancy is 10–100 ha (0.1–1 km^2); or
  - There are 6-15 sub-populations *and* ≤ 500 mature individuals in the largest sub-population

Nationally Vulnerable

Criteria for Nationally Vulnerable:

- Small population (unnatural) that is forecast to increase by 10% or more, over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 250–1,000 mature individuals; or
  - The total area of occupancy is 1–10 ha (0.01–0.1 km^2); or
  - There are 3–5 sub-populations *and* ≤ 300 mature individuals in the largest sub-population
- Moderate population (unnatural) that is forecast to remain stable ± 10% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 1,000–5,000 mature individuals; or
  - The total area of occupancy is 10–100 ha (0.1–1 km^2); or
  - There are ≤ 15 sub-populations *and* ≤ 500 mature individuals in the largest sub-population
- Moderate population that is forecast to decline of 10–50% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 1,000–5,000 mature individuals; or
  - The total area of occupancy is 10–100 ha (0.1–1 km^2); or
  - There are 6–15 sub-populations *and* ≤ 500 mature individuals in the largest sub-population
- Moderate to large population that is forecast to decline 30–70% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 5,000–20,000 mature individuals; or
  - The total area of occupancy is 100–1,000 ha (1–10 km^2); or
  - There are 6–15 sub-populations *and* ≤ 1,000 mature individuals in the largest sub-population
- Large population that is forecast to decline 50–70% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 20,000–100,000 mature individuals; or
  - The total area of occupancy is 1,000–10,000 ha (10–100 km^2)

Nationally Increasing

This is a new name and category for At Risk – Recovering (criterion A) of Townsend et al. (2008).

- Small population that has experienced previous decline (or for which it is unknown whether it has experienced a previous decline) *and* that is forecast to increase > 10% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 1,000–5,000 mature individuals; or
  - The total area of occupancy 10–100 ha (1–10 km^2); or
  - There are 6-15 sub-populations *and* 300–500 mature individuals in the largest sub-population.

Note: Taxa that have an increasing trend but whose populations are smaller than the size criteria listed here should be classified as Threatened – Nationally Critical or Threatened – Nationally Vulnerable.

AT RISK

Taxa that meet the criteria specified by Rolfe et al. (2022) for Declining, Recovering and Uncommon.

Declining

This conservation status replaces Chronically Threatened – Serious Decline and Chronically Threatened – Gradual Decline of Molloy et al. (2002).

- Moderate to large population that is forecast to decline 10–30% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 5,000–20,000 mature individuals; or
  - The total area of occupancy is 100–1,000 ha (1–10 km^2); or
  - There are 6–15 sub-populations *and* 500–1,000 mature individuals in the largest sub-population
- Large population that is forecast to decline of 10–50% over the longer of 10 years or three generations (maximum 100 years)
  - The total populations size is 20,000–100,000 mature individuals; or
  - The total area of occupancy is 1,000–10,000 ha (10–100 km^2)
- Very large population that is forecast to decline 10–70% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is > 100,000 mature individuals; or
  - The total area of occupancy > 10,000 ha (100 km^2)

Uncommon

This conservation status combines the conservations statuses At Risk – Naturally Uncommon and At Risk – Relict of Townsend et al. (2008), and replaces the conservation statuses At Risk – Range Restricted and At Risk – Sparse of Molloy et al. (2022).

Any taxon with a distribution that is confined to a specific substrate (e.g. ultramafic rock), habitat (e.g. high alpine fellfields, hydrothermal vents) or geographic area (e.g. subantarctic islands, seamounts) or that occurs within small and widely scattered populations is classified as Uncommon. The distribution may be natural or unnatural (i.e. the result of human-induced change) and populations may be stable or increasing.

- Naturally small population that is forecast to increase > 10% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 250–20,000 mature individuals; or
  - The total area of occupancy is 1–100,000 ha (0.01–1,000 km^2)
- Unnaturally small area of occupancy that is forecast to increase > 10% over the longer of 10 years or three generations (maximum 100 years)
  - The total area of occupancy is 1,000–100,000 ha (10–1,000 km^2)
- Naturally small population that is forecast to remain stable ± 10% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 250–20,000 mature individuals; or

  - The total area of occupancy is 1–100,000 ha (0.01–1,000 km2)
- Unnaturally small population that is forecast to remain stable ± 10% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 250–20,000 mature individuals; or
  - The total area of occupancy is 100–100,000 ha (1–1,000 km^2)
- Naturally or unnaturally moderate to large population that has a small to moderate area of occupancy that is forecast to increase > 10% or remain stable over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is 20,000–100,000 mature individuals *and* the area of occupancy is < 100,000 ha (1,000 km^2); or
  - The total population size is > 100,000 mature individuals and the area of occupancy is < 100,000 ha (1,000 km^2)

  Minimum area of occupancy limits apply, which vary according to the state and trend of the population. If the area of occupancy is lower than the minimum limits listed below, the taxon should be classified as Threatened or At Risk – Recovering:
  - Natural, stable or increasing: minimum 1 ha (0.01 km^2); or
  - Unnatural, stable: minimum 100 ha (1 km^2); or
  - Unnatural, increasing: minimum 1,000 ha (10 km^2)
- Naturally or unnaturally small to moderate population that has a large area of occupancy that is forecast to remain stable over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is < 20,000 mature individuals and the area of occupancy is > 100,000 ha (1,000 km^2)

  Minimum population size limits apply, which vary according to the state of the population. If the population size is lower than the minimum limits listed below, the taxon will be assessed as Threatened:
  - Natural: minimum 250 mature individuals; or
  - Unnatural: minimum 5,000 mature individuals

Recovering

- Moderate to large population that has (or may have) experienced a previous decline (within the last 1,000 years) and that is forecast to increase by ≥ 10% over the longest of the next 10 years or three generations (maximum 100 years)
  - The total population size is 5,000–20,000 mature individuals; or
  - The total area of occupancy is 100–1,000 ha (1–10 km^2); or
  - There are 6–15 sub-populations *and* 500–1,000 mature individuals in the largest sub-population.

NOT THREATENED

- Naturally or unnaturally large population that is forecast to increase > 10% or remain stable ± 10% over the longer of 10 years or three generations (maximum 100 years)
  - The total population size is greater than 20,000 mature individuals; *and*
  - The total area of occupancy is greater than 100,000 ha (1,000 km^2)

NON-RESIDENT NATIVE

Taxa whose natural presence in Aotearoa 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 and cyclically visit Aotearoa New Zealand as part of their normal life cycle (a minimum of 15 individuals known or presumed to visit per annum) but do not breed here.

Vagrant

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

INTRODUCED AND NATURALISED

Taxa that have become naturalised in the wild after being deliberately or accidentally introduced into Aotearoa New Zealand by human agency. To be considered naturalised, a taxon must have established a self-sustaining population in the wild over at least three generations and must have spread beyond the site of initial establishment.

References

Molloy J, Bell B, Clout M, de Lange P, Gibbs G, Given D, Norton D, Smith N, Stephens T. 2002. Classifying species according to threat of extinction: a system for New Zealand. Threatened Species Occasional Publication 22. Wellington: Department of Conservation. doc.govt.nz/globalassets/documents/science-and-technical/tsop22.pdf

Rolfe J, Hitchmough R, Michel P, Makan T, Cooper JA, de Lange PJ, Townsend AJ, Miskelly CM, Molloy J. 2022. New Zealand Threat Classification System manual. 2022. Part 1: Assessments. Wellington: Department of Conservation. doc.govt.nz/globalassets/documents/science-and-technical/new-zealand-threat-classification-system-manual-2022-part-1-assessments.pdf

Townsend AJ, de Lange PJ, Duffy CAJ, Miskelly CM, Molloy J, Norton DA. 2008. New Zealand Threat Classification System manual. Wellington: Department of Conservation. doc.govt.nz/globalassets/documents/science-and-technical/sap244.pdf