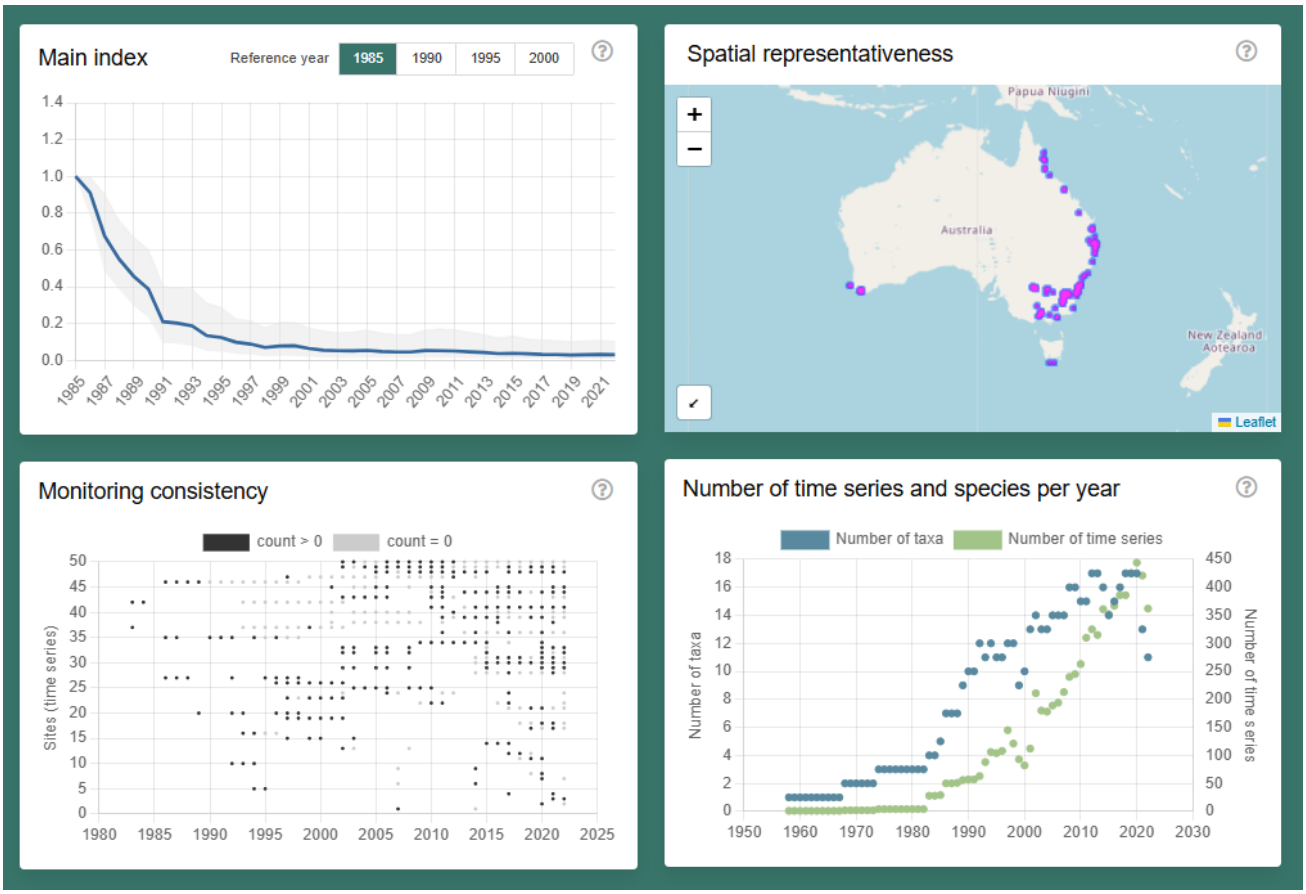
Threatened Frog Index

An index for Australia's threatened and near-threatened amphibians

Summary of trends up to 2022

Dated: Tuesday, 25 November 2025



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Background

Australia has a rich frog fauna, with over 250 taxa (species and sub-species) recognised as of December 2025. However, 58 of these taxa (23%) are listed as threatened or near-threatened by the Australian Government and/or the International Union for the Conservation of Nature (IUCN). A further 7 taxa are either extinct or likely to be so, having not been seen for many years.

Australia's frogs have been the focus of considerable survey, monitoring and management effort. Dozens of projects by government and non-government agencies, academics and community groups have gathered data on species occurrence and abundance. These studies have delivered crucial insights into the status and conservation needs of Australia's frogs, and even led to the re-discovery of species thought to be extinct.

To understand population trends across Australia's threatened amphibians, the Threatened Species Index, — operated by the NCRIS-enabled Terrestrial Ecosystem Research Network (TERN) — has built a 'Threatened Frog Index' by aggregating monitoring data from across Australia.

The Threatened Species Index (TSX)

The TSX aims to provide a reliable and robust index of change in the relative abundance of Australia's threatened and near-threatened species. Understanding changes over time is crucial for evaluating whether Australia is progressing towards its conservation targets.

The TSX is managed by TERN at The University of Queensland and funded by the Australian Government. The index was established by the Threatened Species Recovery Hub in collaboration with BirdLife Australia, funded by the Australian Government's National Environmental Science Program.

The TSX brings together thousands of monitoring datasets from across Australia and releases trend updates annually. Trends are calculated using the *Living Planet Index* (LPI) methodology, developed by the World Wildlife Fund and the Zoological Society of London. The LPI method enables trends from different species to be aggregated together at a national scale, as well as across jurisdictional, taxonomic and other groupings (e.g., for different functional groups).

Assembling all the data is a big task and is being staged. Data and trends for threatened birds, mammals and plants were released between 2018 and 2020. In 2021 and 2022, new data was collated for the existing groups, and in 2023 a comprehensive update to the *Threatened Bird Index* occurred. In 2024, a pilot *Threatened Frog Index* was created, representing the first addition of a new index to the TSX since 2020. In 2025, a pilot *Threatened Reptile Index* has been developed, alongside the formalisation of the frog index.

What is this document for?

This document provides a summary of the results from the *Threatened Frog Index 2025*. In this document you will find national trends along with a break-down of trends among species groups and jurisdictions. The full set of trends can be viewed at here. See also **Figure A1** in the Appendix illustrating how to interpret the Threatened Frog Index trend graphs.

Note that a 3-year lag is implemented, given the time it takes for the data collectors to process, archive, and share the data with the index. **As such, the 2025 release includes trends up to 2022**. Only species and sub-species listed as threatened or near-threatened by the Australian Government and/or by the IUCN are included. **1 species that has recently been delisted due to recovery is not included in these trends, being the Waterfall Frog (*Litoria nannotis*).**

Further information and feedback

If you require clarification of any of the content in this document, would like more information about the project or to become a *Friend of TSX* and receive updates on our progress of the project, please contact the TSX Team at **tsx@tern.org.au**.

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The Threatened Frog Index 2025

The dataset

Key findings: national trends

Overall trends

Among the 28 taxa of threatened and near-threatened frogs covered by the current dataset, relative abundance has **declined by 97% on average from a reference year of 1985** (**Figure 1**). Declines were precipitous through to around 2000. While there has been some stabilisation after 2000, declines are ongoing, albeit at a slower pace. The very large decline overall is due to (i) the collapse of numerous frog populations due to amphibian chytrid fungus in the late 1980s and 1990s (with impacted species dominating the early datasets; see below); (ii) the lack of recovery for many of these species, and; (iii) continued decline of others in more recent years. Species included in the dataset are listed below and in the Appendix, as are the relevant data sources.

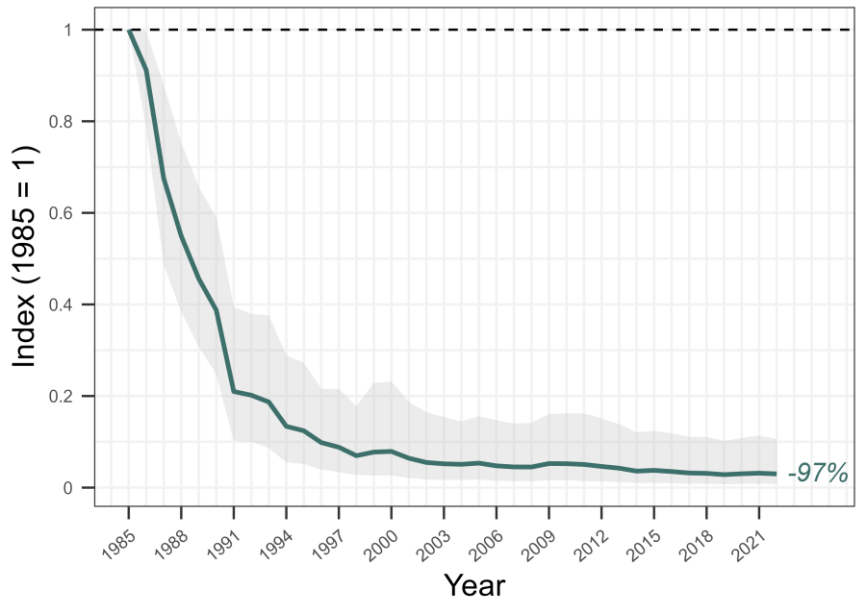

Figure 1. The Threatened Frog Index 2025, showing trends up to 2022 across all taxa. The green line shows the average change in relative abundance compared to the baseline year of 1985 where the index value is set to 1. The shaded areas show the confidence limits.

Trends across all species for the reference years 1985, 1990, 1995 and 2000 are provided in the **Figure 2**. Significant declines are apparent regardless of reference year, with steep initial declines evident with reference years in the 1990s when declines associated with the amphibian chytrid fungus were observed across the country. However, strong declines post 2000 are also evident in the data. With this reference year, the data suggest relative abundance has fallen on average by 62% to the year 2022.

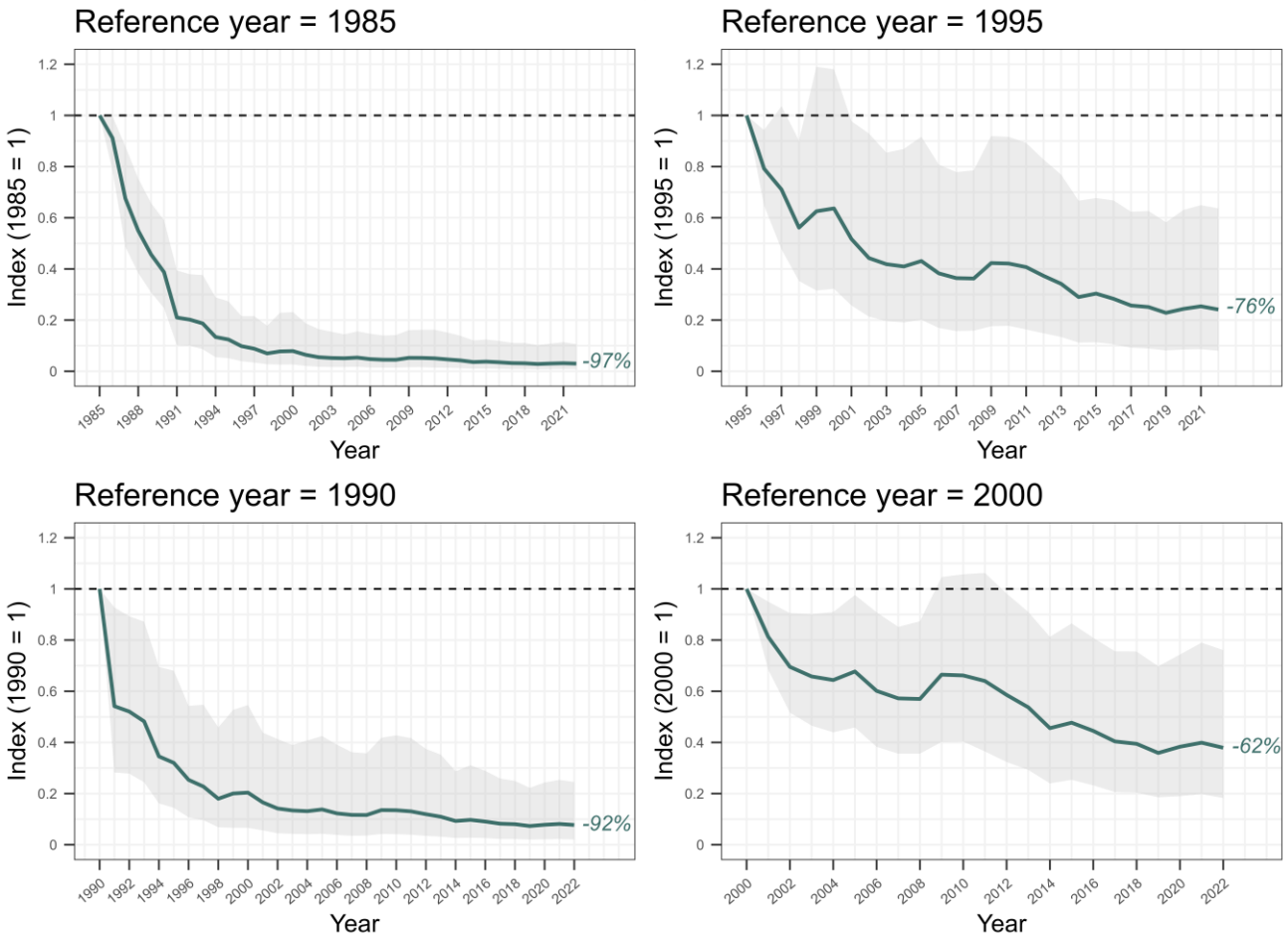

Figure 2. Trend estimates for threatened and near-threatened frogs through to 2022, with reference years of 1985, 1990, 1995 and 2000. In each case, the green line shows the average change in relative abundance compared to the baseline year. The shaded areas show the confidence limits.

Trends for National Priority Species

The TSX obtained data for 5 of the 6 frogs listed as national priority species under the Australian Government's Threatened Species Action Plan. These species are the White-bellied Frog (*Anstisia alba*), the Growling Grass Frog or Southern Bell Frog (*Litoria raniformis*), the Mountain Frog (*Philoria kundagungan*), the Southern Corroboree Frog (*Pseudophryne corroboree*) and the Kroombit Tinker Frog (*Taudactylus pleione*). In total, 254 time series of detections or counts were accrued for these species (see Appendix).

The trend for the 5 national priority species is shown in **Figure 3**. **On average, the relative abundance of national priority frog species declined by 92% since 1990**. The trend is one of linear decline (with some fluctuations) from 1994 to 2006, with some slowing of the pace of declines since 2006. The trend for the only other reference year for which a trend could be generated (1995) is very similar to that in **Figure 3**.

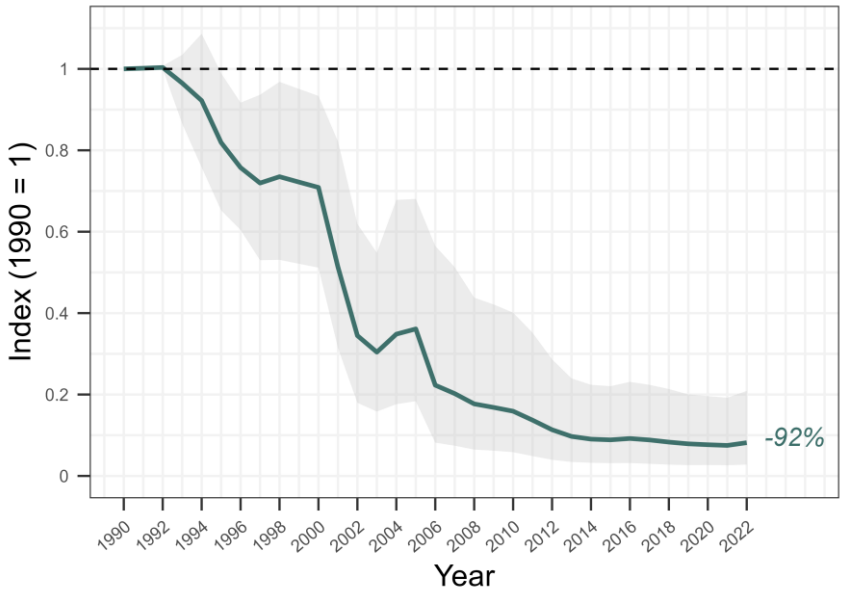

Figure 3. The trend for national priority frog species between 1990 and 2022. The green line shows the average change in relative abundance compared to the baseline year of 1990 where the index value is set to 1. The shaded areas show the confidence limits.

Comparison of trends for species impacted and not impacted by the amphibian chytrid fungus

The amphibian chytrid fungus (often simply called 'chytrid fungus' or 'chytrid') was first detected in Australia in 1978 and caused precipitous frog declines. It has been identified as the causal driver of the extinction of 7 species. Data collated by the TSX enable comparison of trends between species known to have been impacted by the pathogen (based on field monitoring and exposure trials) and those for which there is currently no evidence of chytrid related declines. Species in each group for which data were acquired are detailed below (see **Figure 6**).

Table 1 provides estimates of change in the relative abundance of chytrid impacted and non-impacted frog species. For chytrid impacted species — for which a greater quantum of data is available — trends could be estimated from 1985 onwards. For chytrid non-impacted species, trends could only be derived from 1997.

Across the datasets so far compiled, **chytrid impacted species have declined by 54% on average since 1997, compared with 73% among chytrid non-impacted species**. Plots for each trend with 1997 as the base year are provided in the Appendix. This suggests greater declines among chytrid non-impacted species from around the turn of the century; however, data are limited for non-impacted taxa. Moreover, many chytrid-related declines occurred prior to 1997. **Using 1985 as the reference year, chytrid impacted species have declined by 97%** on average, matching the overall national trend.

Table 1. Estimated change in the relative abundance of chytrid impacted and chytrid non-impacted frog species. A reference year of 1985 is provided for chytrid impacted species, along with 1997 for both groups (a trend could only be derived from 1997 onwards for chytrid non-impacted species).

Group	Reference year = 1985			Reference year = 1997		
	Percent change	Taxa	Time series	Percent change	Taxa	Time series
Chytrid impacted	-97%	19	644	-54%	19	644
Chytrid non-impacted	–	–	–	-73%	9	87

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Comparison of trends among key functional groups

Previous analyses of ecological and trait-based correlates of extinction risk in Australian frogs have indicated that breeding strategy is a key predictor of this risk. For the purposes of comparison, each Australian frog species was categorised into 3 functional groups with regard to breeding strategy: *stream breeding* (species that primarily breed in flowing streams), *terrestrial breeding* (species that lay eggs in terrestrial nests, including those with and without an aquatic larval stage) and *wetland breeding* (species that breed in standing bodies of water). These groups were not mutually exclusive, with a small number of species being listed as both stream breeding and wetland breeding (for example, *Litoria raniformis*, which breeds in both pools along streams and standing water bodies).

Table 2 provides a comparison of trends for these 3 functional groups, from a reference year of 2001 (the first year for which data were sufficient for all groups). The trends suggest very significant declines for terrestrial breeding and wetland breeding frogs since 2001 and some stabilisation of stream breeding frogs. The number of taxa in each group are low and the confidence limits around these estimates are wide (plots are provided in the Appendix), in which case the comparison should be treated with some caution. However, recoveries among stream breeding frogs that have been impacted by chytrid fungus have been documented and contribute to the trend for this group (for example, *Litoria rheocola* in the Wet Tropics of North Queensland and *Mixophyes fleayi* and *M. iteratus* in northern NSW and southeast Queensland).

Table 2. Estimated change in the relative abundance of frog species in 3 functional groups relating to breeding strategy. The reference year is 2001.

Functional group	Percent change since 2001	Number of taxa	Number of time series
Stream breeding	-16%	14	84
Terrestrial breeding	-95%	7	183
Wetland breeding	-72%	9	507

Comparison of trends among States and Territories

For this index, data are currently only sufficient to build trends for 2 jurisdictions: New South Wales and the Australian Capital Territory (combined) and Queensland. **Table 3** and **Figure 4** provide comparisons for the 3 reference years for which trends could be produced (1990, 1995 and 2000). **Nevertheless, we advise caution with these trends, particularly for Queensland, for which data are patchy in space and time.**

Significant declines of >80% on average were estimated for NSW+ACT with reference years of 1990 and 1995, and for Queensland for the reference year of 1990. For all other reference years, average declines are between 35% and 46%, but with considerable uncertainty around these estimates (**Figure 4**). Hence, there is considerable variation between species in more recent years, with some displaying ongoing declines and others displaying upward trends in these jurisdictions.

With a reference year of 1990, there is an extremely steep decline in the index for Queensland. This results from 5 of 6 populations for the 4 taxa for which data is available going locally extinct in 1991. More generally, this period was one of extreme population crashes among chytrid susceptible species, with local extinctions of numerous populations and global extinction of several species following the spread of the pathogen northwards through Queensland.

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Table 3. Comparison of trends for threatened and near-threatened frogs in 2 jurisdictions for which data are sufficient: Queensland, and New South Wales and the Australian Capital Territory (combined). Percent change is provided for 3 reference years: 1990, 1995 and 2000.

Jurisdiction	Percent change since 1990	Percent change since 1995	Percent change since 2000
Queensland	-96%	-43%	-46%
New South Wales + ACT	-92%	-83%	-35%

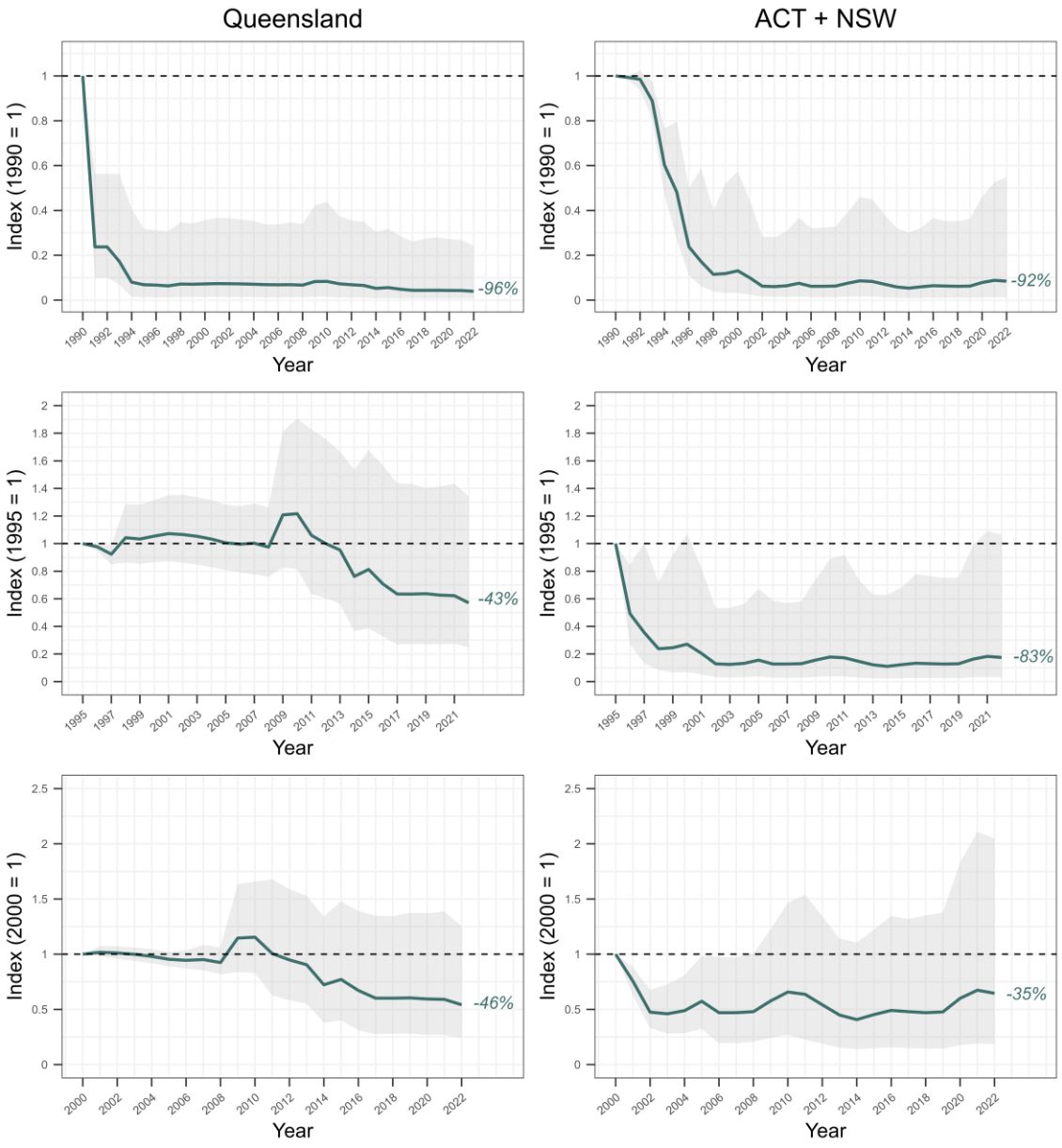

Figure 4. Trends for Queensland, and New South Wales and the Australian Capital Territory (combined) with 3 reference years: 1990, 1995 and 2000. The green lines show the average change in relative abundance compared to the baseline year where the index value is set to 1. The shaded areas show the confidence limits.

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What we should know about the data

The multi-species trends listed above are based on the first attempt to compile monitoring data for Australia's threatened and near-threatened frogs. Data quality was maximised by 1) confirming that each dataset had been produced by standardised monitoring and 2) by assessing the trends in collaboration with data custodians. Nevertheless, it is important to consider the taxonomic, spatial and temporal biases when interpreting the trends, and the uncertainty around the trends.

National dataset

The National trends are based on 731 time series obtained from monitoring of 28 taxa (**Figures 5 & 6**). Collated data are primarily from eastern Australia, in line with the distribution of threatened and near-threatened Australian frogs. Tasmania is represented by a single species (*Litoria burrowsae*) and Western Australia by 3 species (*Anstisia alba*, *A. vitellina* and *Spicospina flammocaerulea*). No suitable monitoring data were obtained for South Australia or the Northern Territory. Further details are provided below for the State and Territory summaries, with a full species list provided in the Appendix.

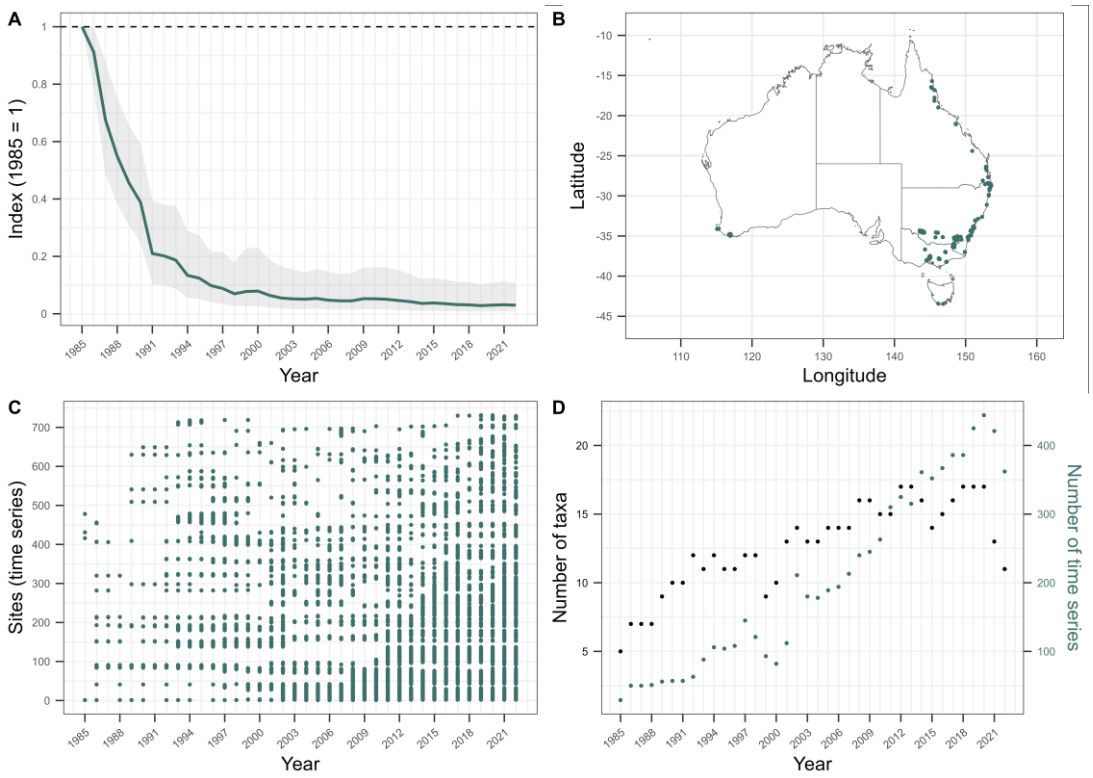

Figure 5. A) The 2025 Threatened Frog Index for Australia based on all data compiled on threatened and near-threatened frog taxa. The green line shows the average change in relative abundance compared to the baseline year of 1985 where the index value is set to 1. The shaded areas show the confidence limits. **B)** A map showing where the threatened frog data were recorded in Australia. The green dots indicate repeatedly monitored sites. **C)** A dot plot showing the years for which monitoring data were available to compile the index. Each row represents a time series where a taxon was monitored with a consistent method at a single site in Australia. **D)** The number of taxa (in black circles) and number of time series (in green circles) used to calculate the index for each year.

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The temporal accumulation of data must be considered when interpreting the national trends. In 1985 (the reference year), data were available for only 5 taxa (18% of total) from 29 time series (4% of total) (**Figure 5D**). The number of taxa and time series included in the calculation of the index grew steadily during the 1990s (**Figure 5D**) as monitoring of chytrid impacted species increased, in particular (see **Figure 6**). Data availability, both in terms of time series and species coverage, declines slightly in more recent years, but not drastically so (**Figure 5D**).

An important additional factor that must be considered when interpreting the national trend is that all data acquired prior to 1992 were for chytrid impacted taxa, particularly those showing rapid population crashes in eastern Australia (such as North Queensland) (**Figure 6**). Very steep declines early in the time series (**Figure 5A**) reflect these declines. Likewise, the lack of recovery of many taxa and populations impacted by chytrid, along with declines among non-impacted taxa for which data were accrued from 1992 onwards, effectively holds the national trend at a very low level subsequent to ~2000. It is also important to consider the fact that one species that has recovered from chytrid and been delisted in recent years (*Litoria nannotis*) is not included in this trend, which is restricted to taxa listed as threatened or near-threatened by the Australian Government or the IUCN. Nevertheless, data for several species that have shown some recoveries are included, namely *L. rheocola*, *Mixophyes fleayi* and *M. iteratus.*

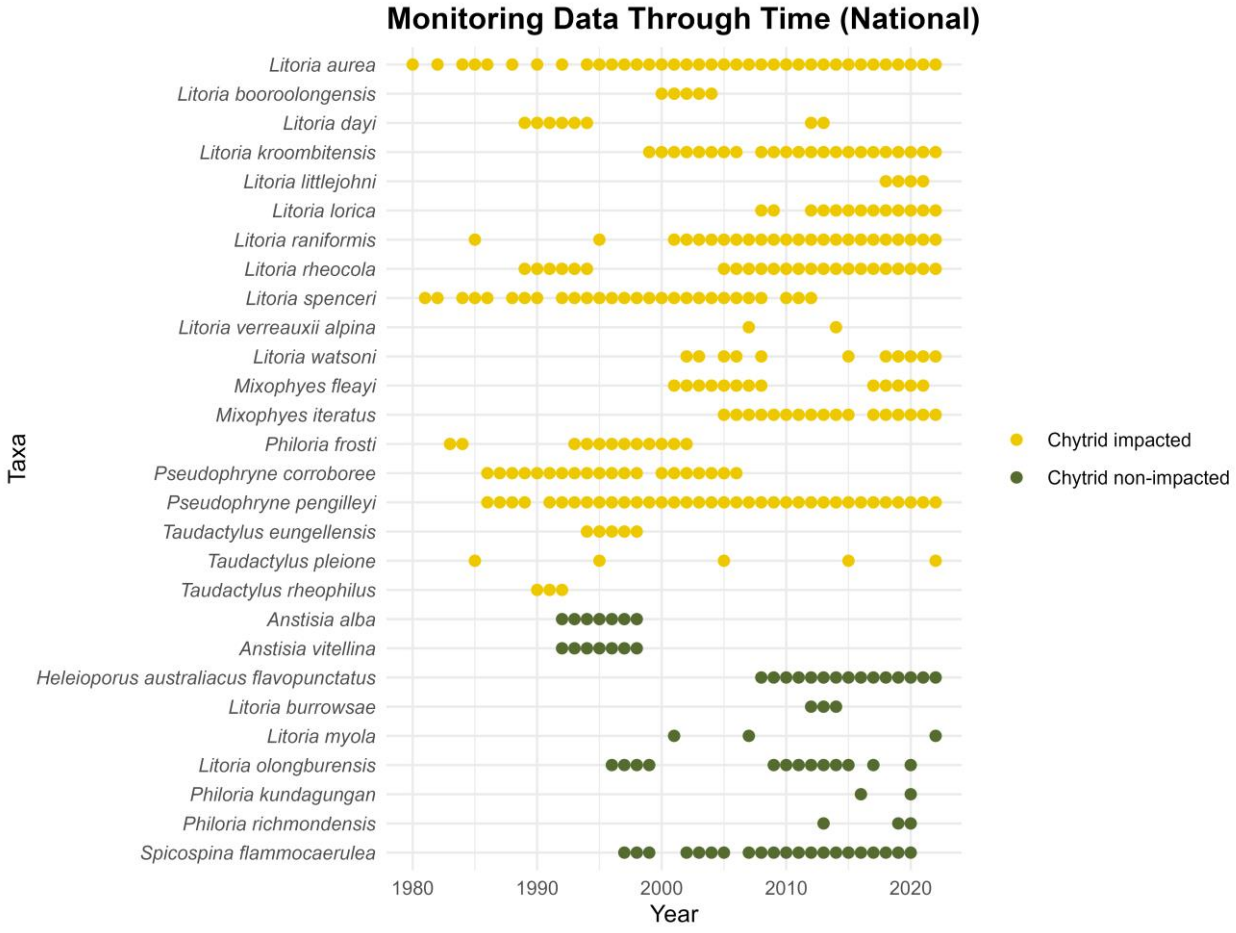

Figure 6. The temporal coverage of monitoring data acquired for threatened and near-threatened frogs across Australia. Note the significantly greater amount and temporal coverage of monitoring data for chytrid impacted taxa, and the fact that monitoring data for chytrid non-impacted taxa is only available from 1992 onwards in this index.

Data for Queensland

Monitoring data were acquired for 11 threatened and near-threatened frog taxa in Queensland, totalling 40 time series (**Figure 7**). All data are from the eastern coast and ranges (**Figure 7B**), for 8 chytrid impacted taxa and 3 chytrid non-impacted taxa (**Figure 8**). With the exception of *Litoria olongburensis*, all taxa from Queensland occupy rainforests and wet sclerophyll forests in mesic coastal ranges.

Qld Frog Index - Quick Facts

Reference year	1990
2022 index value	0.039
% change from 1990	*-96.1%*
Time series	40
Taxa	11
Av. time-series length	10.7
Data sources	16

Some of the earliest monitoring data obtained for this index are from Queensland, notably monitoring of populations that crashed following the arrival of chytrid in North Queensland (**Figure 8**). Nevertheless, time series are sparse from 1985 to 1995. Crucial long-term monitoring for *Litoria kroombitensis*, *L. lorica*, *L. myola*, *L. olongburensis*, *L. rheocola*, *Mixophyes iteratus* and *Taudactylus pleione* are included (**Figure 8**). These data have been collected by government scientists, academics and community groups.

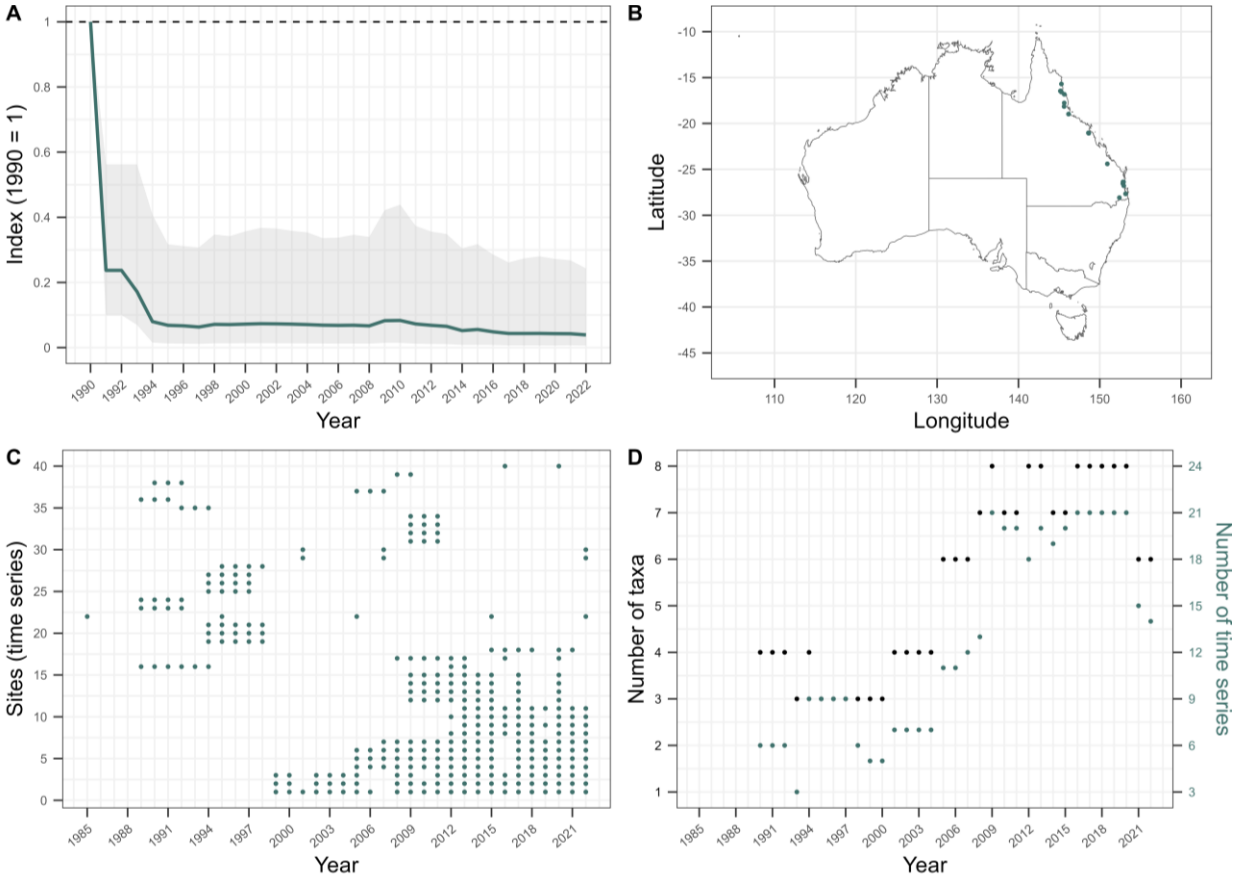

Figure 7. A) The trend for Queensland based on all data compiled on threatened and near-threatened frog taxa. The green line shows the average change in relative abundance compared to the baseline year of 1990 where the index value is set to 1. The shaded areas show the confidence limits. **B)** A map showing where the threatened frog data were recorded in Queensland. The green dots indicate repeatedly monitored sites. **C)** A dot plot showing the years for which monitoring data were available to compile the index. Each row represents a time series where a taxon was monitored with a consistent method at a single site. **D)** The number of taxa (in black circles) and number of time series (in green circles) used to calculate the index for each year.

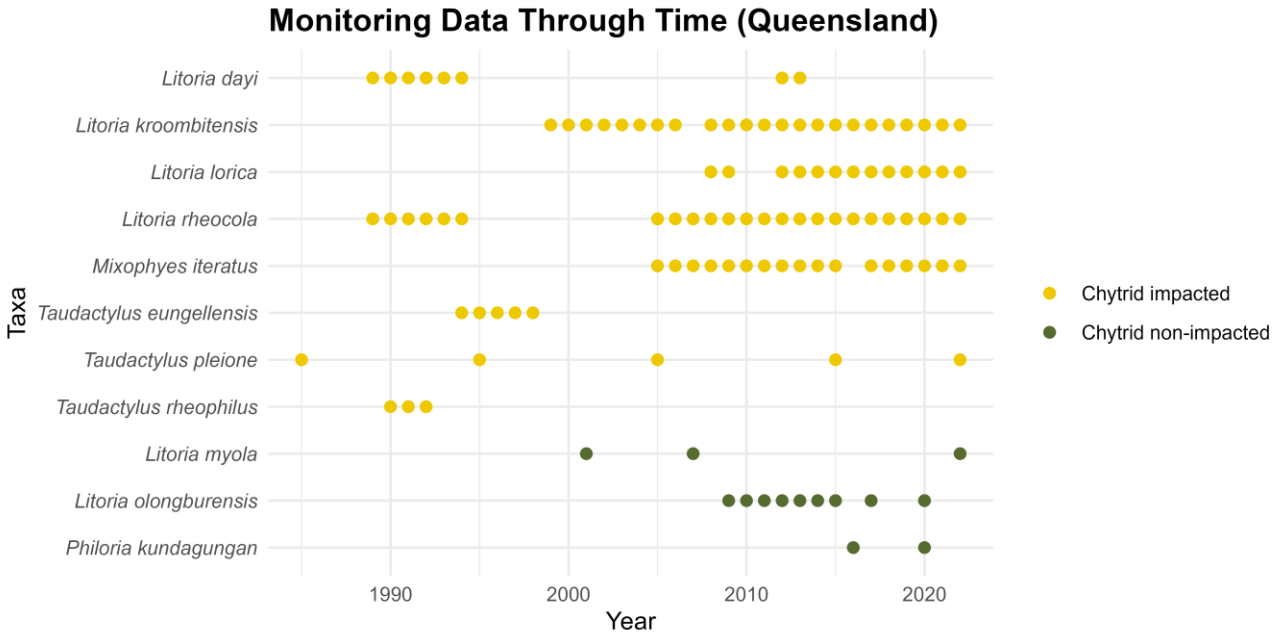

Figure 8. The temporal coverage of monitoring data acquired for threatened and near-threatened frogs in Queensland.

Data for New South Wales and the Australian Capital Territory

Monitoring in New South Wales and the Australian Capital Territory delivered a total of 399 time series for 12 taxa across 29 data sources; the highest quantum of data across jurisdictions (**Figure 9**). Monitoring covers taxa from southern and western NSW, the Australian Alps and Southern Tablelands, south and central coast of NSW and the coast and ranges of far northern NSW (**Figure 9B**).

NSW+ACT Frog Index - Quick Facts

Reference year	1990
2022 index value	0.084
% change from 1990	***-91.6%***
Time series	399
Taxa	12
Av. time-series length	8.6
Data sources	29

Significant early datasets for New South Wales and the Australian Capital Territory are for the chytrid impacted species *Litoria aurea*, *Pseudophryne corroboree* and *P. pengilleyi*, with each of these species having received considerable monitoring since the mid-late 1980s (**Figure 10**). Long-term datasets are included for *L. aurea* in eastern NSW, *L. raniformis* in western NSW, *L. spenceri* in the Australian Alps and *Heleioporus australiacus flavopunctatus* on the far-south coast of NSW (**Figure 9B, Figure 10**).

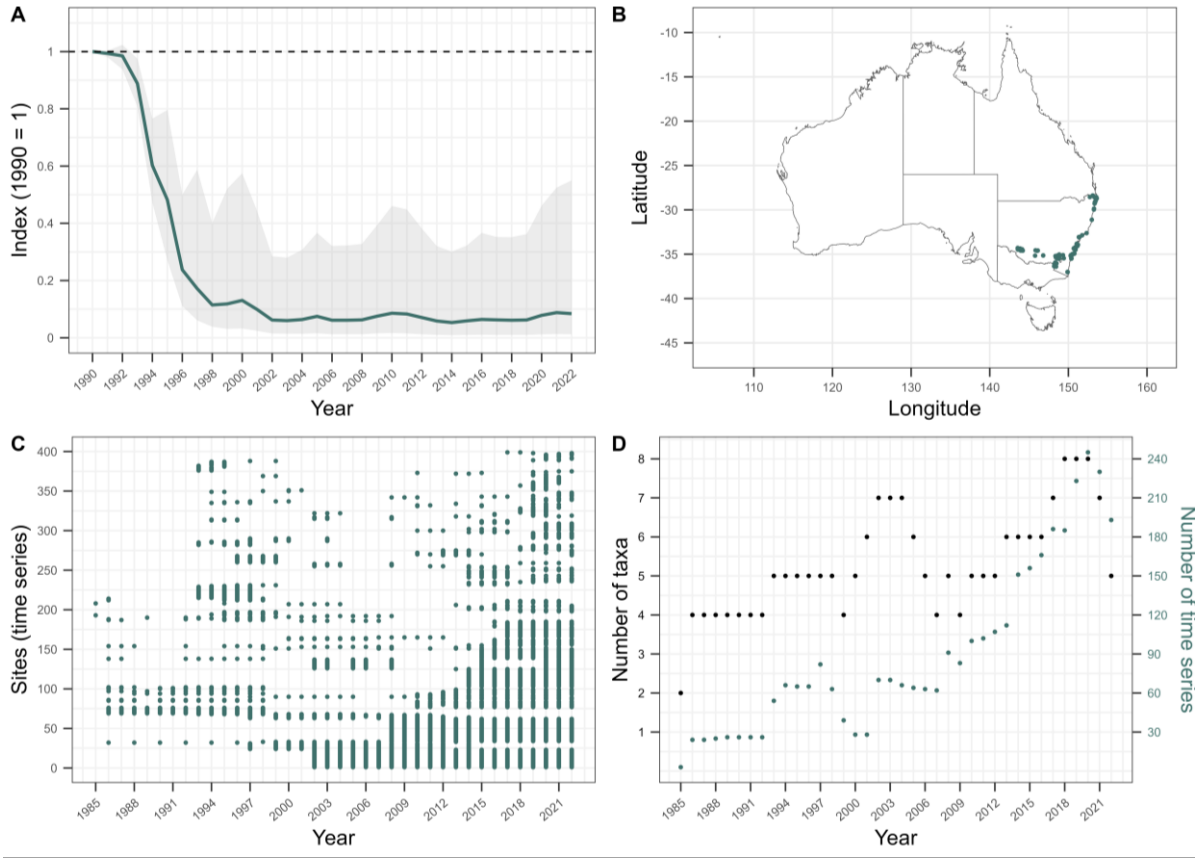

Figure 9. A) The trend for NSW+ACT based on all data compiled on threatened and near-threatened frog taxa. The green line shows the average change in relative abundance compared to the baseline year of 1990 where the index value is set to 1. The shaded areas show the confidence limits. **B)** A map showing where the threatened frog data were recorded in NSW+ACT. The green dots indicate repeatedly monitored sites. **C)** A dot plot showing the years for which monitoring data were available to compile the index. Each row represents a time series where a taxon was monitored with a consistent method at a single site. **D)** The number of taxa (in black circles) and number of time series (in green circles) used to calculate the index for each year.

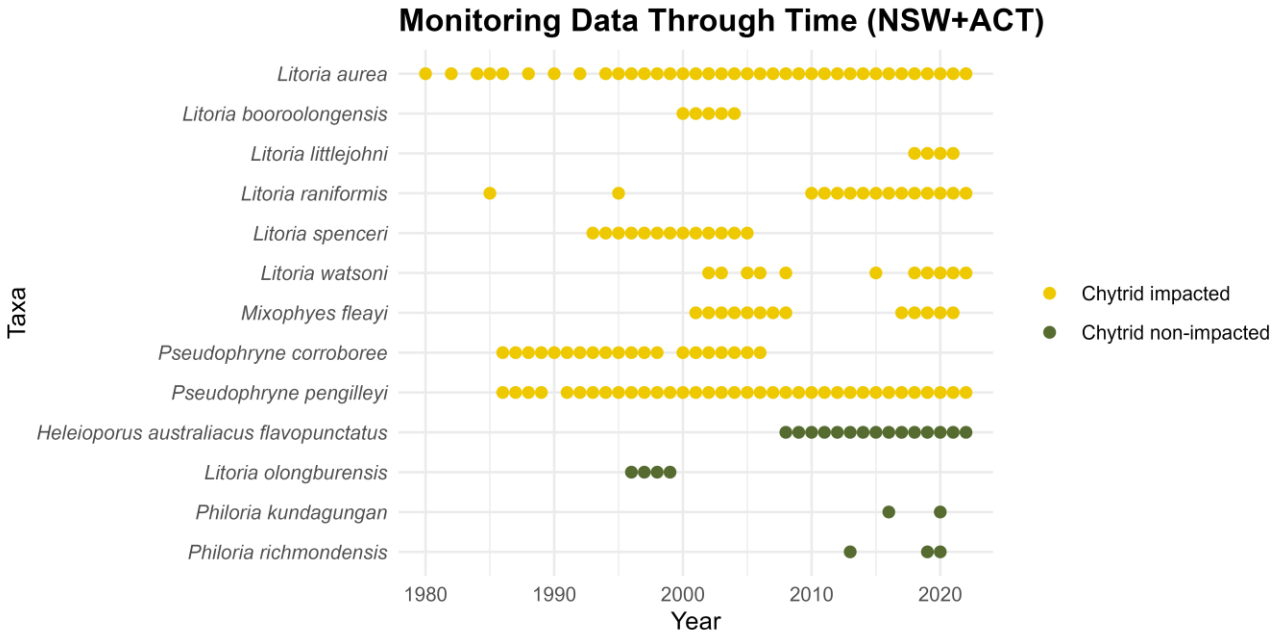

Figure 10. The temporal coverage of monitoring data acquired for threatened and near-threatened frogs in New South Wales and the Australian Capital Territory.

Data for Victoria

While crucial long-term monitoring has been underway on threatened frogs in Victoria since the 1980s, data compiled for this index were insufficient to build a state level trend. Monitoring data were obtained for 5 taxa, with a total of 255 time series from 9 data sources (**Figure 11**). Monitoring data came from the Australian Alps, central Victoria, Gippsland and in the vicinity of Melbourne (**Figure 11A**).

Vic Frog Index - Quick Facts

Reference year	NA
2022 index value	NA
% change from 1990	***NA***
Time series	255
Taxa	5
Av. time-series length	14.08
Data sources	9

Time-series availability is low prior to 2000, before rapidly increasing over the subsequent decade (**Figure 11C**). However, in any single year, data are available for only 3 taxa (**Figure 11C**). Early data include monitoring of *Philoria frosti* on the Baw Baw Plateau and *Litoria spenceri* in the Australian Alps (**Figure 12**). Long-term monitoring of of *L. raniformis* in the vicinity of Melbourne are included, along with shorter time series for *L. raniformis* in central Victoria, *L. aurea* in Gippsland and *L. verreauxii alpina* from Mt Hotham (**Figure 11A**, **Figure 12**).

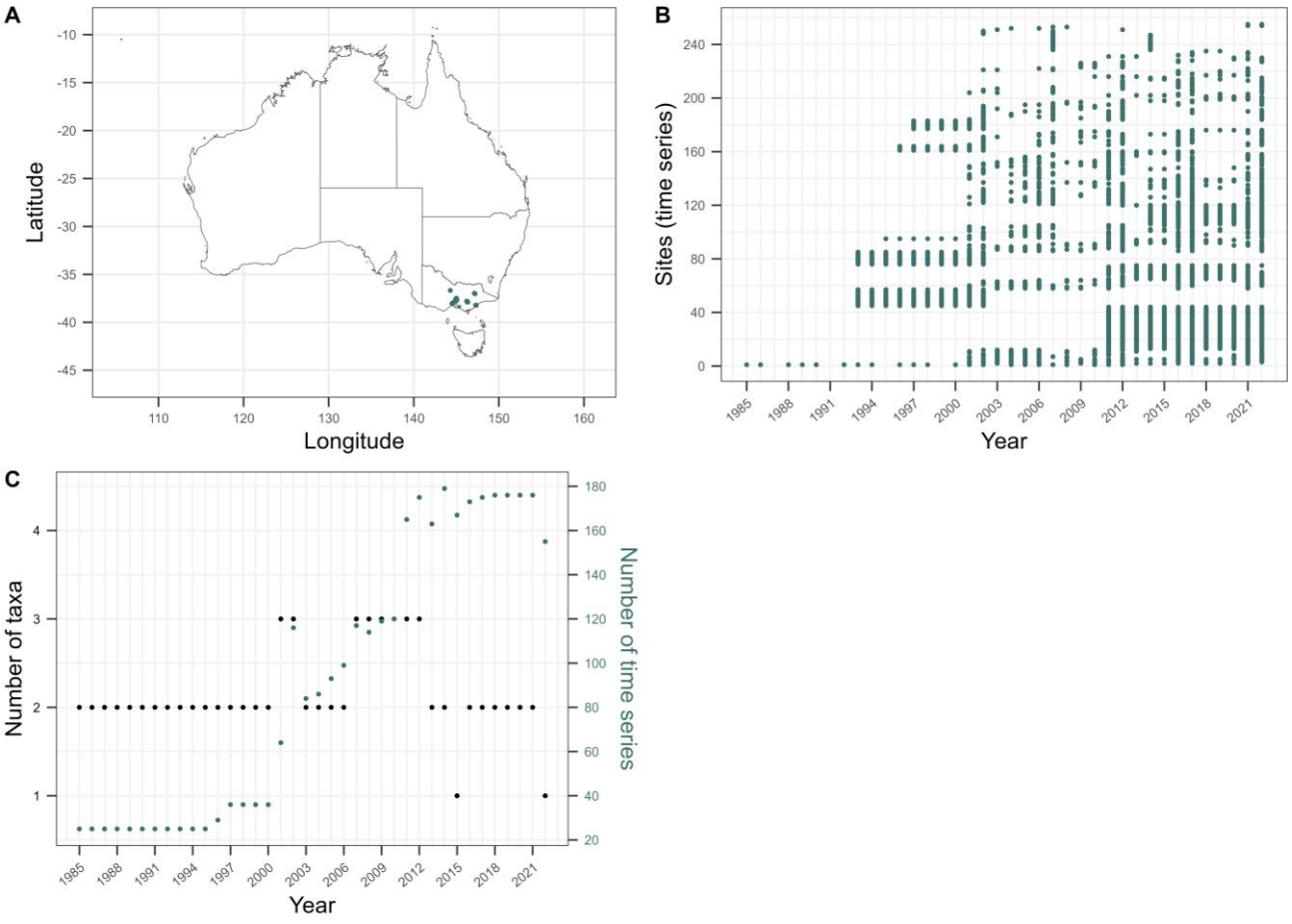

Figure 11. A) A map showing where the threatened and near-threatened frog data were recorded in Victoria. The green dots indicate repeatedly monitored sites. **B)** A dot plot showing the years for which monitoring data were available to compile the index. Each row represents a time series where a taxon was monitored with a consistent method at a single site. **C)** The number of taxa (in black circles) and number of time series (in green circles) used to calculate the index for each year.

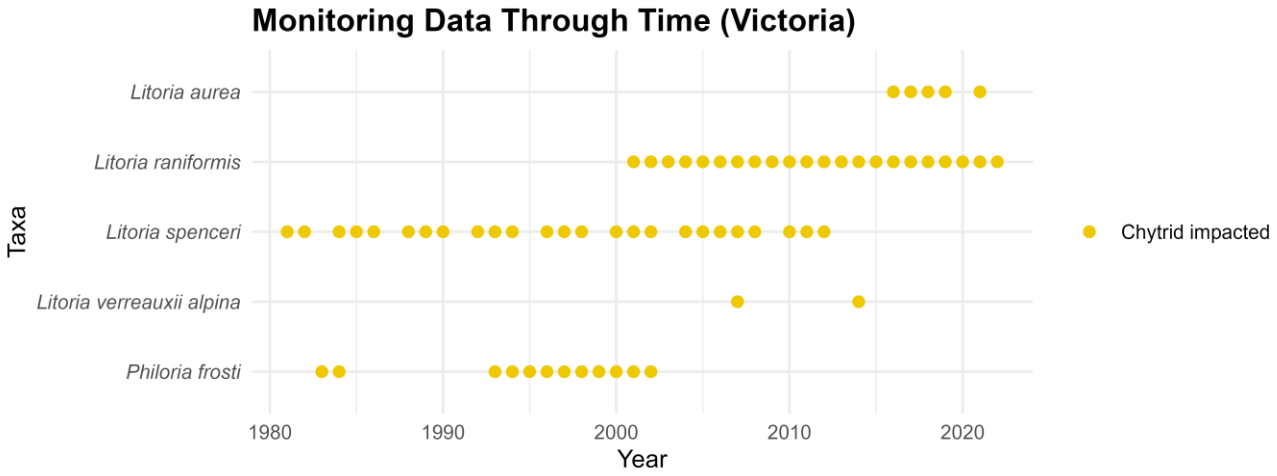

Figure 12. The temporal coverage of monitoring data acquired for threatened and near-threatened frogs in Victoria.

Data for Tasmania and Western Australia

Limited monitoring data for threatened and near-threatened frogs were acquired for Tasmania and Western Australia, in part because these jurisdictions have few such species. Tasmania has 1 species listed as Vulnerable by the Australian Government and IUCN (*Litoria raniformis*) and 1 species listed as Near-threatened by the IUCN (*Litoria burrowsae*). Western Australia has 1 species listed as Critically Endangered by the Australian Government and the IUCN (*Anstisia alba*), 2 species listed as Vulnerable by the Australian Government (*Anstisia vitellina* and *Spicospina flammocaerulea*) and 1 species listed as Endangered by the IUCN (*S. flammocaerulea*).

For Tasmania, monitoring data acquired for this index were limited to a short-term mark-recapture study of *L. burrowsae* in south-western Tasmania (**Figure 13**). 2 time series of population size estimates were available from this study over 3 years.

In Western Australia, long-term monitoring of choruses of male *S. flammocaerulea* were collated from the far south-west, along with shorter-term monitoring of chorus size of select populations of *A. alba* and *A. vitellina* (**Figure 13**). The long-term monitoring of *S. flammocaerulea* is an extensive dataset, stretching back to the 1990s and currently continuing (**Figure 13**). In total, 35 time series were obtained for *A. alba*, *A. vitellina* and *S. flammocaerulea* in south-western Western Australia.

All species for which data were compiled in Tasmania and Western Australia are not known to be impacted by chytrid fungus.

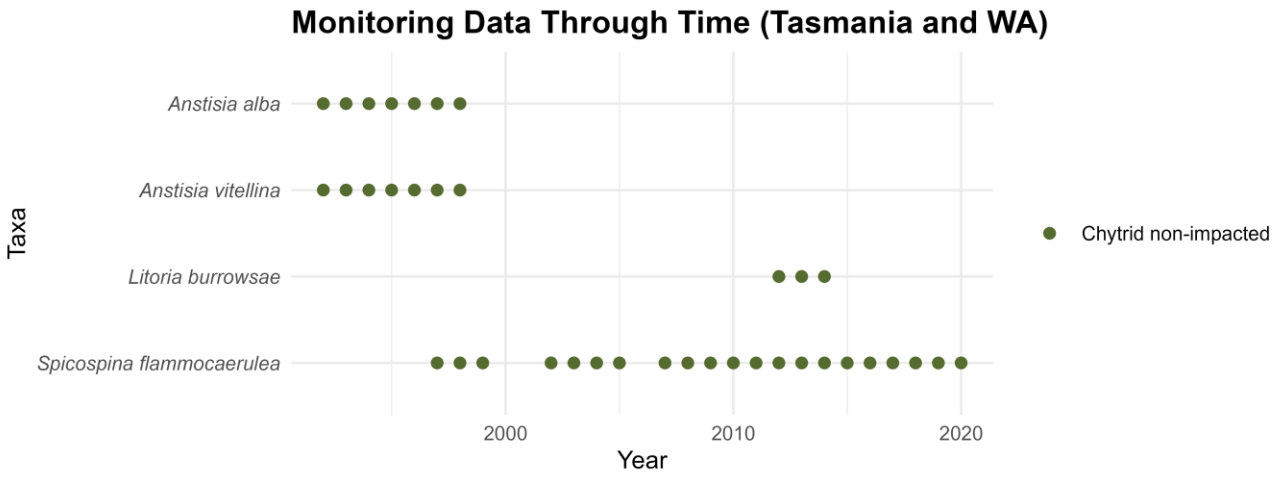

Figure 13. The temporal coverage of monitoring data acquired for threatened and near-threatened frogs in Tasmania and Western Australia.

Glossary

The TSX is created using on multiple time series of population abundance, brought together to reveal changes in threatened species abundance over time. To interpret the results of the TSX correctly, refer to the following definitions of some commonly used terms.

Taxon: a taxonomic unit, specifically including both species and subspecies in this context.

Taxa: plural of *taxon*.

Time series: repeated surveys of a single taxon, conducted at a single site using the same method over at least 2 years.

Population: a group of organisms from the same taxon, living in a distinct area of habitat at a particular time. A single taxon can have multiple populations, depending on its range and habitat distribution.

Abundance: the number of individuals recorded at a survey site. This count provides an estimate of a species' local population size.

Relative abundance: the rate of change in population abundance over time. Rather than measuring the absolute number of individuals, this focuses on how populations increase or decrease relative to their starting abundance.

Confidence limits: ranges that show the level of uncertainty in an index calculation. These are produced using a statistical method called "bootstrapping," which resamples trends to estimate upper and lower bounds. Wider limits indicate greater variation in the underlying trends.

Appendix

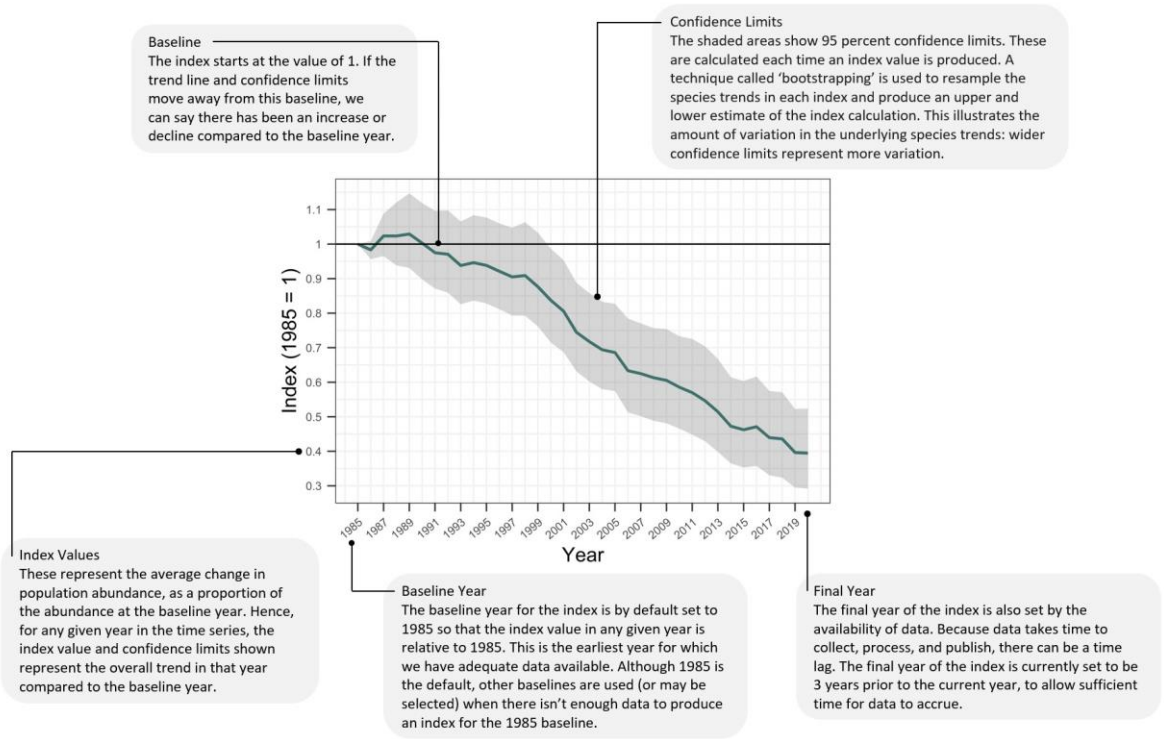

Figure A1. This illustration explains how to interpret the Threatened Frog Index trend graphs. It briefly explains the time period displayed and what the confidence limits and index values show.

Table A1. Frog taxa currently included in the Threatened Frog Index. National Priority Species are bolded.

Taxon name	Taxon scientific name	Functional group	IUCN status	EPBC status	# data sources	# time series	Av. time-series length
Alpine Tree Frog	*Litoria verreauxii alpina*	Chytrid impacted, Wetland breeding	Least Concern	Vulnerable	1	12	8
Armoured Mist Frog	*Litoria lorica*	Chytrid impacted, Stream breeding	Critically Endangered	Critically Endangered	2	3	7.7
Australian Lace-lid	*Litoria dayi*	Chytrid impacted, Stream breeding	Vulnerable	Vulnerable	2	2	14.5
Baw Baw Frog	*Philoria frosti*	Chytrid impacted, Terrestrial breeding	Critically Endangered	Critically Endangered	1	35	15.7
Booroolong Frog	*Litoria booroolongensis*	Chytrid impacted, Stream breeding	Endangered	Endangered	1	3	3.3
Common Mist Frog	*Litoria rheocola*	Chytrid impacted, Stream breeding	Near Threatened		6	8	6.8
Eungella Dayfrog	*Taudactylus eungellensis*	Chytrid impacted, Stream breeding	Endangered	Endangered	1	7	4.4
Fleay's Barred Frog	*Mixophyes fleayi*	Chytrid impacted, Stream breeding	Endangered	Endangered	2	5	6
Giant Barred Frog	*Mixophyes iteratus*	Chytrid impacted, Stream breeding	Vulnerable	Vulnerable	1	4	17.5
Green and Golden Bell Frog	*Litoria aurea*	Chytrid impacted, Wetland breeding	Near Threatened	Vulnerable	13	150	6.5
Kroombit Tinker Frog	***Taudactylus pleione***	**Chytrid impacted, Stream breeding**	**Critically Endangered**	**Critically Endangered**	**1**	**1**	**38**
Kroombit Tree Frog	*Litoria kroombitensis*	Chytrid impacted, Stream breeding	Critically Endangered	Critically Endangered	1	3	24
Kuranda Tree Frog	*Litoria myola*	Chytrid non-impacted, Stream breeding	Critically Endangered	Critically Endangered	1	2	22
Northern Corroboree Frog	*Pseudophryne pengilleyi*	Chytrid impacted, Terrestrial breeding	Critically Endangered	Critically Endangered	6	116	9.4
Northern Heath Frog	*Litoria littlejohni*	Chytrid impacted, Stream breeding, Wetland breeding	Endangered	Endangered	1	26	2.4
Northern Tinker Frog	*Taudactylus rheophilus*	Chytrid impacted, Stream breeding	Critically Endangered	Critically Endangered	1	1	3
Orange-bellied Frog	*Anstisia vitellina*	Chytrid non-impacted, Terrestrial breeding	Vulnerable	Vulnerable	2	3	5.7
Red and Yellow Mountain Frog	***Philoria kundagungan***	**Chytrid non-impacted, Terrestrial breeding**	**Endangered**	**Endangered**	**1**	**1**	**5**
Richmond Range Mountain Frog	*Philoria richmondensis*	Chytrid non-impacted, Terrestrial breeding	Endangered	Endangered	1	1	8
Southern Bell Frog	***Litoria raniformis***	**Chytrid impacted, Wetland breeding**	**Vulnerable**	**Vulnerable**	**7**	**225**	**13.9**
Southern Corroboree Frog	***Pseudophryne corroboree***	**Chytrid impacted, Terrestrial breeding**	**Critically Endangered**	**Critically Endangered**	**2**	**24**	**12.1**

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Table A1 (continued). Frog taxa currently included in the Threatened Frog Index. National Priority Species are bolded.

Taxon name	Taxon scientific name	Functional group	IUCN status	EPBC status	# data sources	# time series	Av. time-series length
Southern Heath Frog	*Litoria watsoni*	Chytrid impacted, Stream breeding, Wetland breeding	Endangered	Endangered	2	17	15.9
Southern Owl Frog	*Heleioporus australiacus flavopunctatus*	Chytrid non-impacted, Wetland breeding	Endangered	Endangered	1	28	15
Spotted Tree Frog	*Litoria spenceri*	Chytrid impacted, Stream breeding	Critically Endangered	Critically Endangered	2	2	34
Sunset Frog	*Spicospina flammocaerulea*	Chytrid non-impacted, Wetland breeding	Endangered	Vulnerable	2	29	12.3
Tasmanian Tree Frog	*Litoria burrowsae*	Chytrid non-impacted, Wetland breeding	Near Threatened		1	2	3
Wallum Sedge Frog	*Litoria olongburensis*	Chytrid non-impacted, Wetland breeding	Vulnerable	Vulnerable	3	18	5.4
White-bellied Frog	***Anstisia alba***	**Chytrid non-impacted, Terrestrial breeding**	**Critically Endangered**	**Critically Endangered**	**1**	**3**	**6.3**

Table A3. Frog taxa currently included in the Threatened Frog Index 2025 as listed according to EPBC Act and the IUCN Red List. The proportion of all eligible listed taxa represented in the index is also provided.

	EPBC Act	IUCN Red List	All listings
Total number of taxa	26	27	28
Proportion of all listed taxa represented	54%	50%	48%

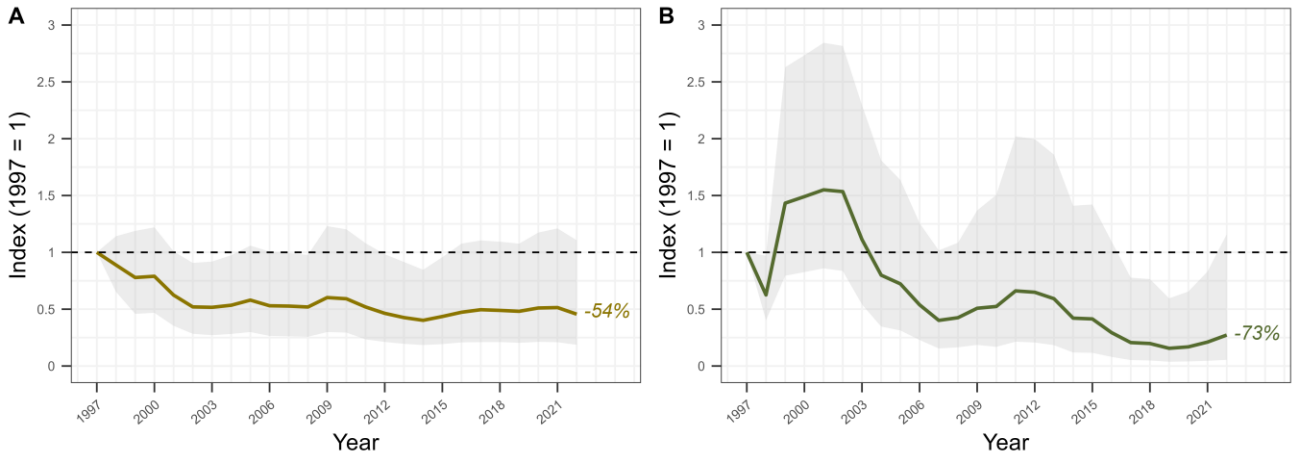

Figure A2. Trends for chytrid impacted (**A**) and chytrid non-impacted (**B**) frogs with 1997 as a baseline (the first year for which a trend could be derived for chytrid non-impacted species). The solid line shows the average change in relative abundance compared to the baseline year where the index value is set to 1. The shaded areas show the confidence limits.

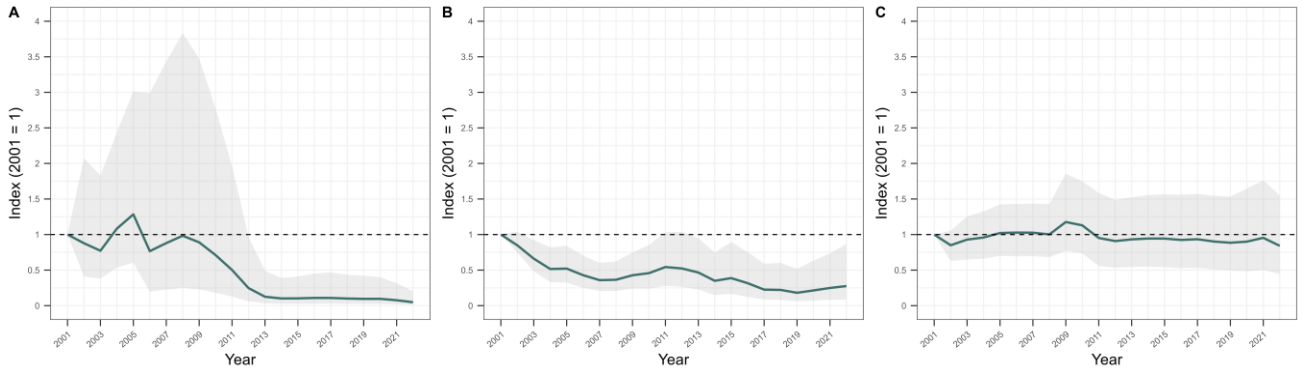

Figure A3. Comparison of trends for terrestrial breeding (**A**), wetland breeding (**B**) and stream breeding (**C**) frogs with 2001 as a reference year (the first year for which a trend could be generated for all 3 functional groups). The green line shows the average change in relative abundance compared to the baseline year where the index value is set to 1. The shaded areas show the confidence limits. The oscillation of confidence limits for terrestrial breeding across the time series suggest this trend should be treated with particular caution.

Citations for the 58 data sources contributing to the Threatened Frog Index:

1. Alpine Resorts Victoria (2025). Monitoring of Alpine Tree Frogs at Mount Hotham Alpine Resort. Alpine Resorts Victoria and Biosis Research. Aggregated for the Australian Threatened Species Index, an output of the NESP Threatened Species Recovery Hub and operated by the Terrestrial Ecosystem Research Network, The University of Queensland.
2. Christy, M. (2025). Monitoring of *Litoria aurea* at Homebush Bay and Kurnell, Sydney. Christy, M. (2001). Ecology and Conservation Biology of the Green and Golden Bell Frog (*Litoria aurea*). PhD thesis, The University of Sydney. The University of Sydney. Aggregated for the Australian Threatened Species Index, an output of the NESP Threatened Species Recovery Hub and operated by the Terrestrial Ecosystem Research Network, The University of Queensland.
3. City and Environment Directorate, ACT Government (2025). Long-term monitoring of the Northern Corroboree Frog in the ACT. Compiled by Stephanie Pulsford. City and Environment Directorate, ACT Government. Aggregated for the Australian Threatened Species Index, an output of the NESP Threatened Species Recovery Hub and operated by the Terrestrial Ecosystem Research Network, The University of Queensland.
4. City of Whittlesea (2025). Monitoring of Growling Grass Frogs at the City of Whittlesea quarry, undertaken by Peter Homan Fauna Consultancy. City of Whittlesea and Peter Homan Fauna Consultancy. Aggregated for the Australian Threatened Species Index, an output of the NESP Threatened Species Recovery Hub and operated by the Terrestrial Ecosystem Research Network, The University of Queensland.
5. Coliban Water (2025). Annual monitoring of *Litoria raniformis* at the Bendigo Wastewater Reclamation Plant, Epsom. Coliban Water. Aggregated for the Australian Threatened Species Index, an output of the NESP Threatened Species Recovery Hub and operated by the Terrestrial Ecosystem Research Network, The University of Queensland.
6. Conservation Science Research Group (2025). Monitoring of Northern and Southern Heath Frogs in New South Wales. Compiled by Kaya Klop-Toker. The University of Newcastle. Aggregated for the Australian Threatened Species Index, an output of the NESP Threatened Species Recovery Hub and operated by the Terrestrial Ecosystem Research Network, The University of Queensland.

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9. DBCA (2025). Survey based counts of *Spicospina flammocaerulea* at key monitoring sites in south-western Western Australia. Data compiled by Janine Liddelow. The State of Western Australia. Aggregated for the Australian Threatened Species Index, an output of the NESP Threatened Species Recovery Hub and operated by the Terrestrial Ecosystem Research Network, The University of Queensland.

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