

Threatened Species Index of Australia shows staggering loss of threatened native plants over 20 years

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Rodd's star hair (*Astrotricha roddii*) is one of the NSW species in the index.
Credit: Gavin Phillips, DPIE NSW, Saving Our Species

In just over two decades (1995-2017) numbers of Australian threatened

plants have decreased by more than 70% on average.

The findings come from Australia's [Threatened Species Index](#) which combines data from hundreds of monitoring programs across the country to track trends in threatened species populations.

The Index was developed by the Threatened Species Recovery Hub of the Australian Government's National Environmental Science Program. It is the first of its kind in Australia, providing an evidence-based national-level understanding of threatened species trends.

The recent addition of [plants](#) to the [index](#) has put the spotlight on trends for Australian threatened plant populations.

Dr. Micha Jackson from the University of Queensland, who was part of the team that co-ordinated [data collection](#) and analysis for the 2020 index, said that the index includes monitoring data for 112 threatened [plant species](#) from almost 600 sites across the country.

"There are 1342 threatened plant species in Australia. We've been able to collate monitoring data on almost 10% of these species and it paints a worrying picture," Dr. Jackson said.

"Overall threatened plants are faring badly.

"We took a look at different plant types and found they had all suffered similar declines over that period, with trees, shrubs, herbs and orchids all declining by 65-75% on average.

"These are averages, so within that some [individual species](#) have done better and others worse.

"We also looked at the difference that conservation management made

for populations.

"We found that plant populations at managed sites suffered declines of less than 60% on average, but the declines at unmanaged sites were substantially higher, at around 80% on average.

"This indicates that while conservation actions may be linked to reduced rates of decline, they have not been sufficient to reverse declines overall.

"That being said, the index does include a somewhat disproportionate amount of Australia's most threatened plants—i.e. those that are listed nationally as Critically Endangered or Endangered—because more resources and monitoring effort tend to go into these highly threatened species," said Dr. Jackson.

Project co-leader Prof Hugh Possingham at the University of Queensland said that monitoring threatened species is vital to understand if numbers are going up or down and if conservation investments are working.

"While there are individual monitoring programs for hundreds of species across the country, this index has allowed us to bring this data together to tell us about the bigger picture for the first time.

"What it is telling us is very concerning, and highlights that a lot more effort is needed if we as a society want to prevent extinctions and the loss of nature around us," Prof Possingham said.

Project co-leader Dr. Ayesha Tulloch from the University of Sydney said that most of the data had been contributed by [state government](#) monitoring programs in four states: South Australia, Victoria, New South Wales and Western Australia. Data was also provided by non-government conservation and [community groups](#).

"The index already provides a lot of insight into how threatened species are faring, but some regions are not yet well represented. As more data is added it will increase the power of the index to tell us if our conservation investments are paying off and which regions or species groups most need help," Dr. Tulloch said.

"The index is updated with new data annually and we encourage any groups monitoring threatened or near threatened species to [contribute their data](#).

"Australia has more than twice as many threatened plants (1379) as threatened animals (518), but a lot less effort has gone into monitoring plants.

"Almost ten times more monitoring data is available on threatened birds, in large part due to the amazing efforts of community birdwatchers coordinated by groups like Birdlife Australia.

"Plants are generally fairly easy to monitor and we'd love to see more community groups get involved in [monitoring](#) a threatened species in their local patch," Dr. Tulloch said.

The Threatened Species Index also collates [data](#) for threatened birds and mammals and it is hoped that other groups such as freshwater [species](#) may be added in future.

Provided by Threatened Species Recovery Hub

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