

# Research Needs Catalogue user guide

Version 1.0

## What it is

The Research Needs Catalogue is a searchable catalogue of knowledge gaps and research needs for NSW threatened species, threatened ecological communities and key threatening processes.

### **Use the catalogue as:**

- a guide to identify key research needs, whether you're an internal or external research partner
- an opportunity to discover research synergies, with an aim to share resources for greater efficiency
- a tool for connecting research partners with our species managers and practitioners, allowing research to have more end-user applications.

## Terms of use

We request that any information used from this catalogue to form research projects is done in collaboration with the relevant species project coordinator. This will enable end-user participation in project design, ensure the research meets conservation manager needs, and maximise the impact of any research. If you are external to the NSW Department of Climate Change, Energy, the Environment and Water, please email [sos.scienceresearch@environment.nsw.gov.au](mailto:sos.scienceresearch@environment.nsw.gov.au) and we will connect you with the species project coordinator relevant to your interests.

# Source

The knowledge gaps in the catalogue have been identified from conservation strategies, key threatening process strategies, workshops, and/or consultation with species experts, and the Saving our Species database.

If you would like to add a knowledge gap, please email the Saving our Species Science and Research team: [sos.scienceresearch@environment.nsw.gov.au](mailto:sos.scienceresearch@environment.nsw.gov.au).

**Table 1** Confidence levels for different knowledge gaps identified in the Research Needs Catalogue

Confidence	Definition	Source
High	Multiple individuals (an expert panel) have agreed on research needs or knowledge gaps that address a critical threat or management action	Conservation strategies
High	Multiple individuals (an expert panel) have agreed on the critical research required for key threatening process management	Key threatening process strategies
Medium	Research addresses or is linked to an identified threat in the BioNet Atlas	BioNet Atlas identified threat
Low	A species expert has identified a knowledge gap or research need of value which does not currently align with an identified threat in BioNet or fall under the species conservation strategy	Other

Note: confidence here is not used to rank or prioritise the knowledge gap, but to provide guidance as to the source and the number of experts who identified it. We suggest consulting with the relevant species project coordinator to find out more about research needs tagged as low confidence as they may still hold high value where critical threats are still unknown.

# How to use the Research Needs Catalogue

Apply filters to narrow your search of the catalogue.

- **Search by name:** underneath 'Common name' or 'Scientific name' in the first column, click the 'All' dropdown and a search bar will appear. To locate a species, key threatening process or threatened ecological community, you can then either start typing the name until it appears, or scroll down to find it in the alphabetical list.
- **Search by type (group):** Saving our Species 'types' are species and threatened ecological communities grouped by taxon or groups.
- **Search by research theme:** these are broad research categories.
- **Search by research topic:** use this filter to narrow the search to a sub-research theme, method or topic.

The screenshot shows the 'Research Needs Catalogue' interface. At the top, it says 'Saving our Species' and 'Research Needs Catalogue' with the NSW logo. Below this is a descriptive paragraph: 'This catalogue is a compilation of known research needs and knowledge gaps for threatened species, threatened ecological communities (TECs) and key threatening processes (KTPs). Use filters in the report to search for a specific research need or knowledge gap, or find out all the research needs for a particular threatened species or ecological community. Tip: Ctrl + click to select multiple in all filters below.' The interface is divided into five filter columns: 'Common name' (with 'All' dropdown), 'Scientific name' (with 'All' dropdown), 'Type (groups)' (with checkboxes for Amphibians, Birds, Fungi, Invertebrates, KTPs, Mammals, Plants, Reptiles, and TECs), 'Research theme' (with buttons for Climate change impacts, Disease susceptibility, Habitat suitability, Species ecology, Species taxonomy, Status assessment, and Threat dynamics), 'Research method' (with buttons for Biological control, Chytrid, Detection methods, Feral pests, Fire ecology, Habitat associations, and Habitat restoration), and 'Managing region' (with a map of NSW and checkboxes for Greater Sydney, Hunter-Central Coast, North east, North west, South east, South west, and Statewide). At the bottom, it shows '172 count rows', a 'Clear all filters (Ctrl + click)' button, and a 'See results' button.

**172 count rows**

This is the number of records under the current filters.

**Clear all filters (Ctrl + click)**

To clear all filters, hold down the 'Ctrl' key and click this button.

**See results**

Click this button to view a table of results comprising research needs or knowledge gaps under the current filter.

## Exporting data

In the Results tab you'll see a table with more information on the research needs under your current filter. Highlight rows and right-click to copy the selection.

Saving our Species

## Research Needs Catalogue

**Results**

*Tip: Highlight rows and right click to copy selected rows*

Scientific name	Common name	Type	Research idea / knowledge gap	Research theme	Research topic/methods	Confidence	Threat topic	Threat name	NSW status	Region
Acacia acanthoclada	Harrow Wattle	Plants	Increase understanding of the species ecological requirements: There is currently a lack of knowledge about the species ecology	Species ecology	Species ecology	High	Lack of knowledge	Insufficient understanding of species/community ecology	Endangered	South west
Acacia curranii	Curly-bark Wattle	Plants	What are the germination triggers for Acacia curranii germination, notably understand fire ecology and response to disturbance.	Species ecology	Reproductive ecology	Medium	Lack of knowledge	Insufficient understanding of species/community ecology	Vulnerable	North west
Acacia melanantha					Population genetics	Low	Lack of knowledge	Insufficient understanding of species' phylogeny	Endangered	North west
Amytmopsis modestus obscurior					Habitat associations	High	Lack of knowledge	Insufficient understanding of distribution and/or abundance	Critically Endangered	North west
Anomalopus mackayi	worm-skink	S	... species, specifically in areas of potential habitat, including assessment of the habitat quality	Status assessment	Targeted survey	Medium	Lack of knowledge	Insufficient understanding of distribution and/or abundance	Endangered	North west
Aprasia inaurita	Mallee Worm-lizards	Reptiles	Determine distribution of the species post-fire.	Status assessment	Targeted survey	Low	Fire	Direct loss of individuals	Endangered	Statewide
Atriplex inaequalis	A saltbush	Plants	Experimental research into the relative impacts of grazing and fire on the species survival and recruitment.	Threat dynamics	Impact assessment	High	Lack of knowledge	Insufficient understanding of threat	Vulnerable	North west

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Show as a table

Include

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Image with caption



Click the 'Back' button to return to the search page.

**Table 2** Results table columns and definitions

Name	Definition
Scientific name	Scientific name
Common name	Common name according to Saving our Species nomenclature
Type	Saving our Species taxonomic grouping
Research idea / knowledge gap	Description of the research need or knowledge gap
Research theme	Broad research theme (see Table 3)
Research topic/methods	Specific research topic or method (see Table 3)
Confidence	Confidence in source, as per Table 1
Threat topic	Broad threat topic
Threat name	Threat category related to research need or knowledge gap
NSW status	Conservation status of species or threatened ecological community in New South Wales

**Table 3 Research themes and associated research topic or method (sub-theme)**

<b>Research theme*</b>	<b>Research topic/methods</b>
<b>Investigation of climate change impacts</b>	Species distribution model
<b>Investigation of disease susceptibility</b>	Animal pathogens
	Chytrid
	Myrtle rust
	Phytophthora
	Sporicidal fluke infestations
<b>Investigation of habitat suitability</b>	Habitat restoration
	Refugia/corridors
	Translocation
	Water quality/health
<b>Investigation of species ecology</b>	Fire ecology
	Habitat associations
	Mycology
	Reproductive ecology
	Species distribution model
	Species ecology
	Symbiosis
	Translocation
	Understand threats
<b>Investigation of species taxonomy</b>	Population genetics
	Taxonomy
<b>Investigation of threat dynamics</b>	Biological control
	Detection methods
	Feral pests
	Impact assessment
	Predator behaviour
	Reproductive ecology
	Species distribution model
	Toxicology
<b>Population and threat assessment</b>	Impact assessment
	Phytophthora
	Survey methods
	Targeted survey

\*Research themes align with Saving our Species database.



Releasing lab-reared Bell's turtle (*Myuchelys bellii*) hatchlings. Photo: David Waugh/DCCEEW

Please provide any feedback on this user guide or the Research Needs Catalogue at [sos.scienceresearch@environment.nsw.gov.au](mailto:sos.scienceresearch@environment.nsw.gov.au).

Environment and Heritage

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