The Atlas of Living Australia

sharing Australia's biodiversity knowledge

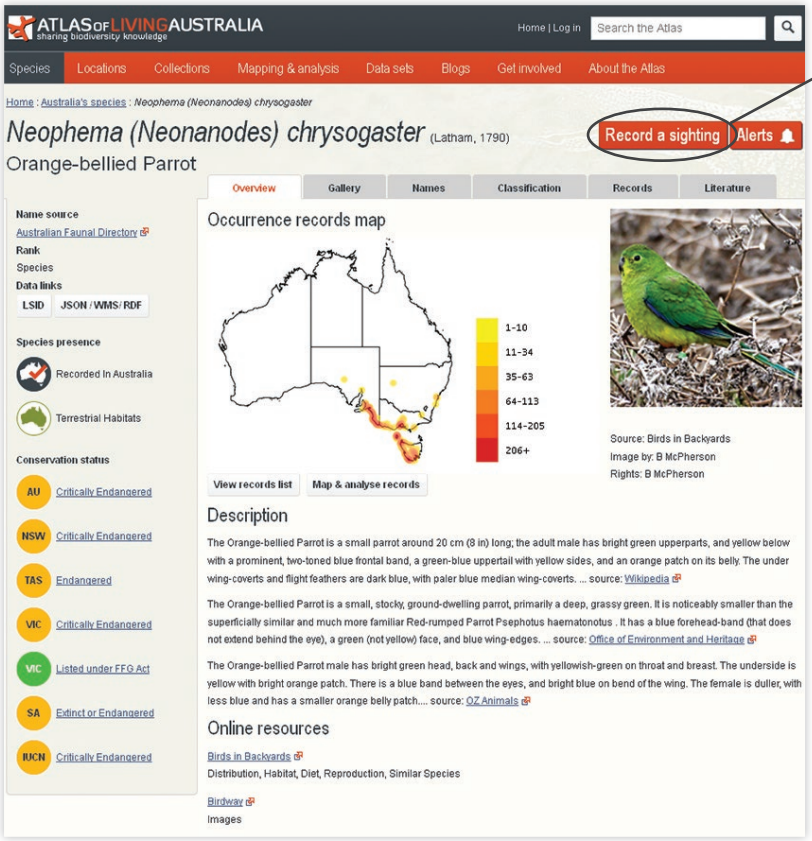
ATLAS OF LIVING AUSTRALIA

www.ala.org.au

The Atlas of Living Australia provides free, online access to a vast repository of information about Australia's biodiversity. It supports research, environmental monitoring, conservation planning, education, and biosecurity activities. It allows users to focus on discovering answers to their questions, rather than searching for and managing data.

The Atlas was founded on the principle of data sharing—collect it once, share it, use it many times. More than 50 million occurrence records, based on specimens, field observations, and surveys, are being shared through the Atlas. These records are enriched by additional information including molecular data, photographs, maps, sound recordings, and literature.

Powerful mapping and analysis tools, provided as open source software, allow users to explore and analyse information in new ways. The Atlas is opening up research possibilities, improving knowledge of our biodiversity, and changing the way environmental management occurs in Australia.



Spotted a goanna?
Photographed a fungus?
Recorded audio of a bird?
The Atlas needs citizen scientists to contribute sightings.

Look up a species

Look up any species that occurs in Australia to find a description, a distribution map, an image gallery, literature and information about conservation status, classification and names. You can also gain access to all of the occurrence records of the species, from specimens held in biological collections (from Museums, Herbaria and other institutions), to records made during scientific field trips and sightings by citizen scientists. Shown here is the species page for the orange-bellied parrot.

Biodiversity data is provided under open licence arrangements, making the Atlas the most comprehensive and accessible data set on Australia's biodiversity ever produced.

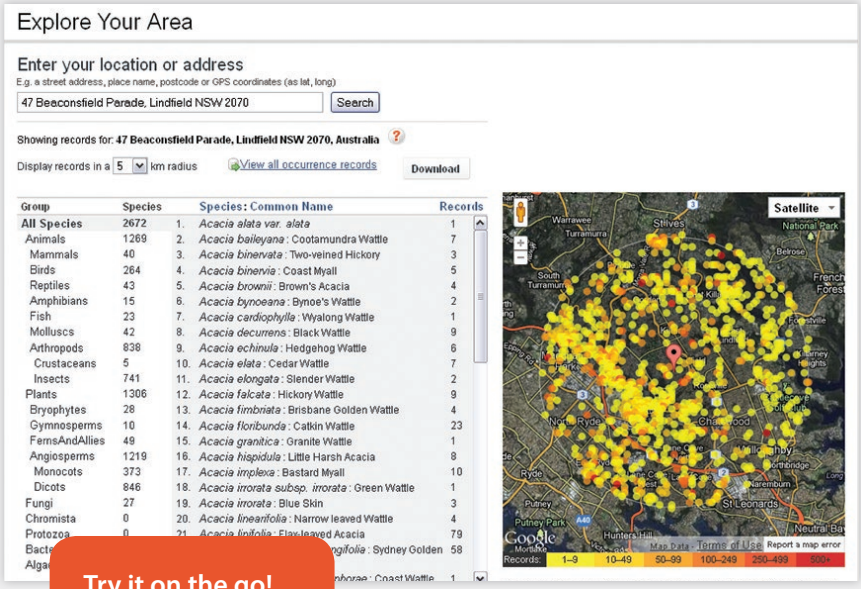
The Atlas comprises:

- Over 50 million records* on Australian species, including records based on specimens (such as an insect held in a museum collection) and observations (such as a bird sighted during a field trip).
- Over 400 spatial layers that enable users to explore the relationships between species distribution and factors such as rainfall, temperature, soil moisture, political or regional boundaries, fire, and vegetation. These spatial layers include climate change layers for projecting future species distribution.
- A wide range of mapping and analysis tools.

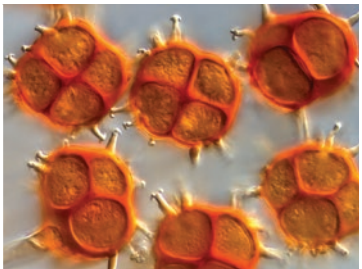
* as at October 2014, and growing rapidly

Explore your area

Enter an address, GPS coordinates, postcode or place name to find what species live nearby. Shown here are all the species records that occur within a 5 km radius of a street address in Sydney. From this, you can create a field guide or download records for research, education or biodiversity management.



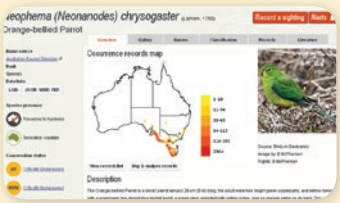
Try it on the go! The OzAtlas mobile app lets you explore the local area wherever you go.

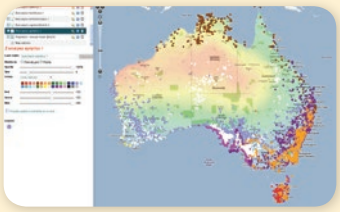



DATA: Comprehensive data sets underpin the Atlas; they come from a wide range of sources, including biological collections, Australian and State Government Departments, community groups, and individual collectors. Data includes (but is not limited to) specimen records, field observations, molecular data, literature, maps, sound recordings, and photographs.

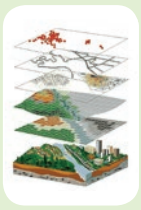


TOOLS: The Atlas' open source software allows users to easily and quickly explore and analyse Australia's biodiversity data in novel ways, including through species pages, and a wide range of powerful mapping and analysis tools.



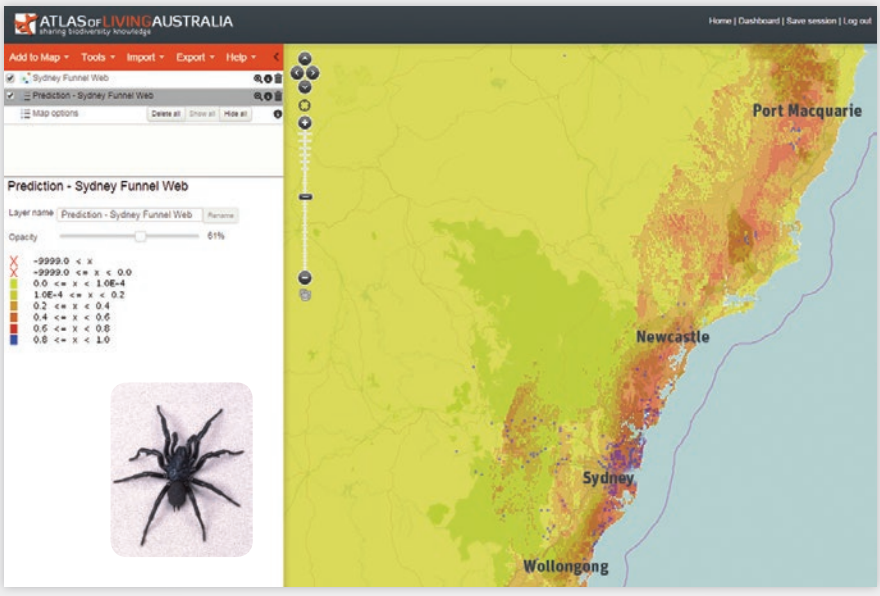


USES: Outputs from the Atlas' tools have wide ranging uses, including research, taxonomy, biological collection management, crop development, biosecurity activities, natural resource management, land-use planning, education, and conservation management.

Map and analyse species

The Atlas features a wide range of powerful mapping and analysis tools. Over 400 spatial layers let users explore the relationship between species distribution and factors such as rainfall, temperature, soil moisture, political or regional boundaries, fire, and vegetation. These spatial layers include climate change layers for projecting future species distribution. This map shows the distribution of observation records (the blue dots) for the Sydney Funnel-web Spider (***Atrax robustus***), mapped on a background showing probability of it occurring in areas surrounding Sydney (the darker the colour, the more likely it is to occur in that location).



> Using the Atlas, it took me just half an hour to download the records of lizards across eastern Australia that I needed for my research. This was a huge time saving compared with the months I spent getting hold of similar records of frogs for my PhD.
>
> *Dan Rosauer, Australian National University*

Internationals links

The Atlas has links to a number of international projects. It is the Australian node of the Global Biodiversity Information Facility (GBIF), and is sharing its knowledge and expertise with other nodes to set up similar platforms in countries such as Spain, Brazil, Costa Rica, Argentina, and France.

GBIF www.gbif.org

Biodiversity Heritage Library

eol Encyclopedia of Life

International BARCODE OF LIFE

CREATIVE-B

> In August 2014, the Atlas reached 2.5 billion downloads, showing us the value of data sharing: capture it once, make it freely available and share it many times.
>
> *John La Salle, Director, Atlas of Living Australia*

SOME FACTS ABOUT THE ATLAS

3500:
the average number of people who use the Atlas per day

Australian Magpie:
the most recorded species in the Atlas with over 625 000 records

52: the average number of times each of the 50 million records in the Atlas has been downloaded

2.6 billion:
the number of records that have been downloaded from the Atlas

Find information on specimens collected by Sir Joseph Banks during Captain Cook's first voyage to Australia in 1770

15: the average number of new publications per month mentioning the Atlas

> "The exciting thing about citizen science on the Atlas is that anyone can do it. It empowers individuals to contribute to science and assembles enough people to make large scale surveys possible.
>
> *Kathy Eyles, Canberra Ornithologists Group*

Take it with you

The Atlas supports mobile apps, including:

- OzAtlas, for finding out what species occur wherever you happen to be, as well as for uploading sightings of species when you're on the go
- specialised apps supporting complex mobile data capture for a range of groups.

Get involved

The Atlas of Living Australia encourages you to get involved in a number of ways—from contributing species sightings (even of caterpillars in your garden), to going on a virtual expedition or helping the Australian Museum transcribe expedition diaries from the early 1900s.

Customise

The Atlas is built using open source software and all capabilities are available through web services, allowing anyone to build a web site that leverages capabilities and data from the core Atlas system.

Customisable field data capture portals are also available and these are now in active use by over 40 individual groups, including researchers, natural resource managers and citizen scientists. These portals are helping in the cause to gather data critical to Australia's understanding of biodiversity.

Partners

THE ATLAS RECEIVES SUPPORT FROM THE AUSTRALIAN GOVERNMENT THROUGH THE NATIONAL COLLABORATIVE RESEARCH INFRASTRUCTURE STRATEGY (NCRIS). THE ATLAS IS MADE POSSIBLE THANKS TO CONTRIBUTIONS FROM ITS MANY PARTNERS, INCLUDING:

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PHOTO CREDITS:

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1. New Holland Honeyeater by Leo Berzins
2. An Eastern Talma, *Chelmonops truncatus*, by Richard Ling, flickr
3. Caterpillar of Lesser Wanderer, *Danaus chrysippus petilia*, by John Tann
4. *Grevillea lanigera*, the Woolly Grevillea, by Karen Gough
5. Eastern Grey Kangaroo by Leo Berzins
6. Ruby Bonnet, *Mycena viscidocruenta*, by Arthur Chapman

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1. Gippsland Water Dragon, *Physignathus lesueurii howittii*, by Leo Berzins.
2. Teliospores of *Sphaerophragmium quadricellulare* on *Acacia pennata* subsp. *kerrii* by Dr Roger Shivas, Queensland Plant Pathology Herbarium.
3. Flame Robin by Leo Berzins
4. A tray of butterflies from the Australian National Insect Collection at CSIRO Entomology, by Carl Davies, CSIRO.

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