



The Atlas of Living Australia is building infrastructure and tools to enable researchers and other users of biodiversity information to find, access, combine and visualise data on Australian plants and animals.

About the Atlas of Living Australia

The Atlas is a national collaboration between the CSIRO; Australian museums, herbaria and other biological collections and the Australian Government, and was developed in response to the need for more comprehensive and accessible information on Australia's biodiversity.

The Atlas will support biological and ecological sciences by improving the accessibility and usability of Australia's biodiversity and ecological data. It aims to enable anyone to locate, access and combine information on all aspects of Australian biodiversity, online.

To achieve this, the Atlas is working on a suite of projects to improve the linkages between all forms of information about Australian plants, animals and microorganisms and to organise this information in ways which support the needs of its users.

Biodiversity information includes reference lists of species in different groups; databases of information on specimens held in natural history collections; databases of field observations from ecologists, naturalists and others; images and other multimedia; published literature; molecular data sets; identification keys; and a wide range of other databases and web sites.

The end result will provide more integrated data and new tools and services; opening further possibilities for research and management.

A key part of the Atlas' work is collaborating with Australian museums, herbaria and other biological collections to digitise, publish and share their specimen data online.

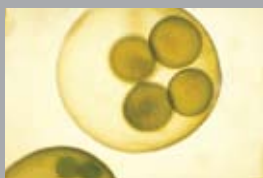
The Atlas is also working with a number of international projects to incorporate more comprehensive information about Australian biodiversity, for example, Biodiversity Heritage Library and Morphbank.

Australia's Unique Biodiversity

Australia's remarkable biodiversity is an essential part of its well-being and sustainability. Nearly 600,000 different described species occur in Australia, along with many yet to be described. Of these, about 84 per cent of the mammals, 45 per cent of the birds, 93 per cent of the reptiles, 94 per cent of the frogs and 85 per cent of the flowering plants are only found in Australia.

In south-western Australia, over 4,000 species of plants and 100 species of vertebrates are only found in this small part of the world.

Today, Australia has over 1,500 species of threatened plants and animals; threats which are compounded by the likely effects of climate change.



Six Main Components of the Atlas

AUSTRALIAN NATIONAL SPECIES LISTS

- Comprehensive lists of Australian species.
- Classifications.
- Support national checklists: Australian Fauna Directory, Australian Plant Census.
- Web Services.
- Tools to share and manage lists.

DATA SHARING

- Tools and portals for users.
- Citizen science portal.
- Web services.

DATA INTEGRATION

- Integrated data from all sources.
- Data quality.
- Sensitive data service.

DATA STORAGE

- Databases to store and manage:
 - descriptive data (Identify Life)
 - images (Morphbank)
 - sequences (BOLD)
 - digital literature (BHL).

BIOLOGICAL COLLECTIONS

- Work with the collection community.
- Tools for imaging and databasing.
- Support national collection databases, OZCAM, AVH.
- Field capture of data.
- Directory of Natural History Collections.

SPATIAL DATA MANAGEMENT

- Mapping tools.
- Hundreds of environmental and political map layers.
- Integrated data from collections, field work and observations.

The Atlas Offers

- Species overview pages with descriptions, images, distribution maps, observations, specimens and more
- A 'yellow pages' of biodiversity, linking people to rich information sources
- Authoritative lists of scientific and common names for Australian plants, animals and microorganisms
- Identification keys and tools
- Curatorial information on Natural History Collections (museums, herbaria and microorganism collections), with links to their specimens
- Mapping tools to search, analyse and combine biodiversity and environmental data
- Information and tools for citizen science projects
- Open source tools to download and use in other projects
- Australian nodes of international biodiversity databases and tools, e.g. Morphbank, Biodiversity Heritage Library.

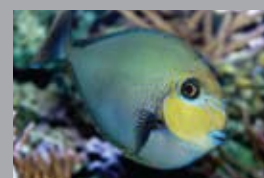
You can also use the Atlas to

- Create a species list for an area
- Contribute observations, data and images to improve Australia's biodiversity knowledge
- Create species maps

Who is Involved in the Atlas?

The Atlas of Living Australia is a collaboration between:

- The Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Australian Museum
- Museums and Art Galleries of the Northern Territory
- Museum Victoria
- Queensland Museum
- South Australian Museum
- Tasmanian Museum and Art Gallery
- Western Australian Museum
- The Council of Australasian Museum Directors (CAMD)
- The Council of Heads of Australasian Herbaria (CHAH)
- The Council of Heads of Australian Collections of Microorganisms (CHACM)
- The Council of Heads of Australian Entomological Collections (CHAEC)
- The Council of Heads of Australian Faunal Collections (CHAFC)
- Southern Cross University
- The University of Adelaide
- The Australian Government Department of Agriculture, Fisheries and Forestry (DAFF)
- The Australian Government Department of Sustainability, Environment, Water, Population and Communities (DSEWPac, formerly DEWHA).





How is the Atlas Funded?

The Atlas is funded by the Australian Government under the National Collaborative Research Infrastructure Strategy (NCRIS) and further supported by the Super Science Initiative funded from the Education Investment Fund until June 2012.

The Atlas partners are also providing substantial in-kind contributions.

Other NCRIS Projects

The Atlas works together with other related NCRIS projects, in particular the Terrestrial Ecosystem Research Network (TERN), the Integrated Marine Observing System (IMOS), the Australian Biosecurity Intelligence Network (ABIN), the Australian Phenomics Network (APN) and the Australian Plant Phenomics Facility (APPF).

International Partnerships

The Atlas of Living Australia works together with relevant international organisations to mobilise biodiversity data, put it to use and improve web-based tools and services. The Atlas is a participant node of the Global Biodiversity Information Facility (GBIF) and an overseas partner of the Encyclopedia of Life, the Biodiversity Heritage Library, the European Union's Distributed Dynamic Diversity Databases for Life (4D4Life) and the Data Observation Network for Earth (DataONE).

FOR FURTHER INFORMATION

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Photo credits PAGE 4: **1** Narrow Winged Wattle, *Acacia stenoptera*, by Jean Hort. **2** Teliospores of *Sphaerophragmium quadricellulare* on *Acacia pennata* subsp. *kerrii*, by Dr Roger Shivas, courtesy of Queensland Plant Pathology Herbarium. **3** Soft Tree Fern, *Dicksonia Antarctica*, by Arthur Chapman. **4** Scarabaeidae Beetle on *Hakea varia* flowers, by Jean Hort. **5** Large Potter Wasp, *Abispa ephippium*, by Jean Hort. **6** Firewheel Tree, *Stenocarpus sinuatus*, by Arthur Chapman. **7** Jellyfish, *Pseudorhiza haeckeli*, by K.L. Gowlett-Holmes, courtesy of South Australian Museum. **8** Eucalypt flowers, by John Tann.

