ATLAS OF LIVING AUSTRALIA
sharing biodiversity knowledge

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Atlas of Living Australia

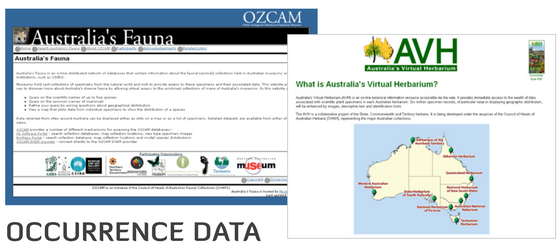
www.ala.org.au

Building the Atlas of Living Australia

The Atlas of Living Australia (ALA) is funded by the Australian government to build infrastructure in order to manage Australian biodiversity data as a tool for research, policy and education. The core component of the Atlas will be the Biodiversity Information Explorer. This will act as a broker between different information sources and will present an integrated map of biodiversity data organised to address the needs of the ALA's user communities.

INFORMATION SOURCES

Data owners register their databases, documents and images with the ALA.



OCCURRENCE DATA (SPECIMENS AND OBSERVATIONS)

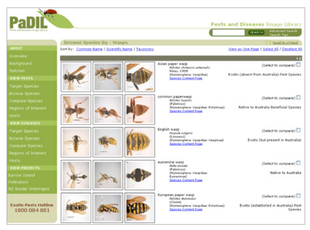
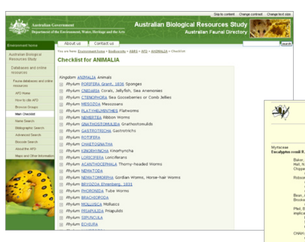


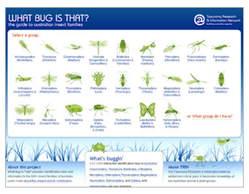
IMAGE LIBRARIES

Providers describe information sources: Title, description, methods, taxonomic scope, geographic scope, keywords, data ownership and IPR, etc.

SPECIES INFORMATION



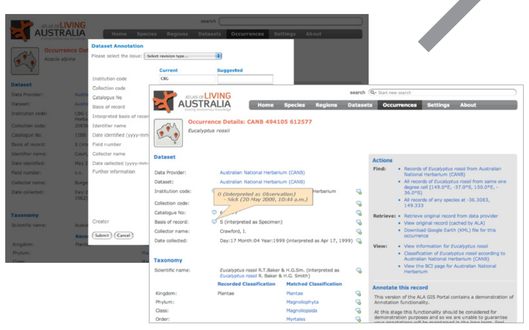
NAMES AND CLASSIFICATIONS



IDENTIFICATION TOOLS

USER INPUT

Users help to evaluate data sources, contribute corrections, and additional data.



ANNOTATION TOOLS

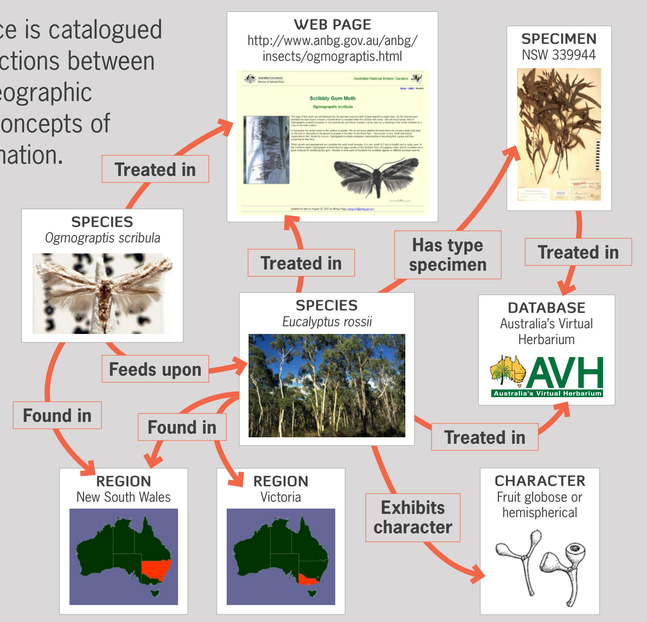
The ALA is developing general purpose tools to allow users to attach additional data to any record or information resource. The first use of these tools is to enable users of the Geospatial Data Portal to indicate possible errors in data records and propose corrections. Future uses will allow users to assert relationships between species (e.g. "X feeds upon Y"), tag species with descriptive terms, or simply to indicate which information sources are most useful for different purposes.

BIODIVERSITY INFORMATION EXPLORER

All biodiversity information from any source is catalogued to build a picture of the network of connections between information sources, species, habitats, geographic regions, species traits, genes and other concepts of significance to users of biodiversity information.

The ALA is building this tool using the Fedora open source content management system. Fedora allows multiple streams of information from different sources all to be associated with a single object.

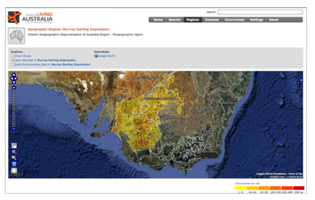
The ALA will create Fedora objects to represent species, habitats, etc., each combining information from original information sources, ALA tools and user input. This will allow researchers to explore connections which would otherwise be hidden.



ALA TOOLS

The ALA is building tools to give integrated overviews of data from many sources. These overviews enrich our understanding of these sources.

GEOSPATIAL DATA PORTAL



The ALA has customised GBIF's Data Portal software. The ALA Geospatial Data Portal organises specimen and observation data by state, local government area, bioregion and water catchment and provides maps and layers for use in other websites.

Tools provide summary data to enhance the Biodiversity Information Explorer. For example, the Geospatial Data Portal identifies links between species and geographic regions, and between species and information sources.

TAXONOMIC DATA SERVICES

The ALA is working with partners to improve access to authoritative data on the names and classification of Australian species. ALA name services will allow any agency or organisation to connect their data to a shared classification.

Tools are notified when new information sources are added.

OTHER TOOLS

The ALA is evaluating several tools developed by the international biodiversity informatics community, including the BOLD sequence management software and the MorphBank image management software, with the aim of deploying national instances.

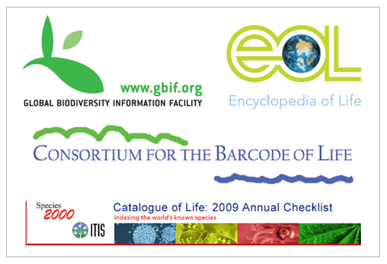
DATA DISSEMINATION

Integrated subsets of data are made accessible for use by other projects and communities.

ALA incorporates data from other projects into the Biodiversity Information Explorer.

INTERNATIONAL ACTIVITIES

Data integrated by the ALA can feed efficiently into the international systems being developed by projects such as GBIF, EOL, CBOL and the Catalogue of Life.



ALA feeds data from all sources into other projects and networks.

DATA STANDARDS

The ALA is adopting TDWG's international biodiversity data standards to maximise interoperability with other projects.

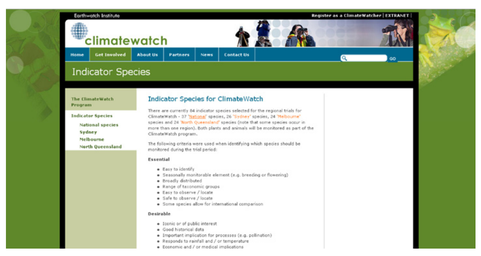
Biodiversity Information Standards TDWG

CONSERVATION AND BIOSECURITY

The ALA is planning portals which will organise biodiversity data to address issues in conservation and biosecurity and to support government activity in these areas.

CITIZEN SCIENCE

The ALA is working with partners such as Earthwatch Australia to involve the public in capture of biodiversity data, including observations of different species and of their seasonal occurrence. As the ALA develops, it will seek to engage amateur observers as participants in regional or national surveys and research projects.



NATIONAL COLLABORATIVE RESEARCH INFRASTRUCTURE STRATEGY (NCRIS)

In addition to the ALA, NCRIS has funded a wide range of other scientific infrastructure projects. The ALA has strong relationships with many of these, including the Terrestrial Ecosystem Research Network, Australian Biosecurity Information Network, Australian Phenomics Network, Australian Plant Phenomics Facility and Australian National Data Service. Opportunities exist to develop shared infrastructure and to integrate data with each of these projects.

CONTACT US

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An Australian Government Initiative
National Collaborative Research Infrastructure Strategy

Australian museum
nature culture discover

MUSEUMVICTORIA

Queensland Government

qm queensland museum
www.qm.qld.gov.au

Tasmania
Explore the possibilities

Tasmanian Museum & Art Gallery

CHAH
Council of Heads of Australasian Herbaria

Australian Government
Department of Agriculture, Fisheries and Forestry

Southern Cross UNIVERSITY

THE UNIVERSITY OF ADELAIDE
AUSTRALIA

ABRS

Australian Government
Department of the Environment, Water, Heritage and the Arts

CSIRO