

The Atlas of Living Australia's Research Portal

Lee Belbin

The Atlas of Living Australia, Canberra, Australia, leebelbin@gmail.com

THE ATLAS OF LIVING AUSTRALIA

The Atlas of Living Australia (<http://www.ala.org.au>) is a Australian government funded project established in 2010 and managed by CSIRO to collect and integrate information on observations and specimens of species in the Australian region. The Atlas is the result of recognition that diverse and valuable data held by Australian herbaria and museums needed to be integrated and exposed publicly in a consistent form. The Atlas holds more than 90 million records of over 100 thousand terrestrial, marine and freshwater species and a broad range of species attributes (e.g., images). To June 2017, there have been 11.3 billion records downloaded from the Atlas.

THE RESEARCH (SPATIAL) PORTAL

The Atlas has several web portals, one of which, the Spatial Portal (<http://spatial.ala.org.au>), supports ecological research and environmental management. As its name suggests, the Spatial Portal provides a map focus, around 500 'environmental layers' and range of flexible tools to demonstrate the utility of integrated biological and environment data. The Spatial Portal can for example use any of 15 different methods for defining an area, e.g., it can identify areas based on combinations of environmental characteristics (e.g., where to grow Pinot Noir).

Attributes of species records including the results of ~100 tests and environmental data can be used to extensively filter data for purpose. The Spatial Portal includes a broad range of analytical tools such as scatterplots, area reports, multivariate classification, data conversions and advanced species distribution modeling.

There are three interfaces to the Spatial Portal: The standard web interface as above; a spatial portal library for the R-statistical environment (ALA4R: <http://www.ala.org.au/faq/spatial-portal/spatial-portal-case-studies/ala4r/>) and a comprehensive suite of web services (<http://api.ala.org.au>).