

# The CSIRO National Soil Archive

The CSIRO National Soil Archive in Canberra maintains a collection of soil specimens from around Australia for future research.

Archived soil specimens are invaluable “time capsules” for assessing change in soil properties over time, particularly as new analytical tools become available.

## What does the CSIRO National Soil Archive do?

The Archive’s mission is to:

- provide facilities and protocols for conserving the long-term scientific value of soil specimens and associated soil data
- allow for archived specimens and their data to be available for public research, both now and into the future.

The Archive currently has over 71,000 soil specimens, collected from around 9,500 sites across Australia. Ongoing storage, archiving and maintenance of soil specimens and their associated field records, along with management of the NatSoils database are core activities in the Archive.



## Partners

The Archive is one of the key deliverables of the Australian Collaborative Land Evaluation Program (ACLEP) ([www.clw.csiro.au/aclep](http://www.clw.csiro.au/aclep)). ACLEP is a partnership between CSIRO; the Australian Government Department of Agriculture, Fisheries and Forestry; and the state and territory agencies responsible for land resource assessment.

## Use of the CSIRO National Soil Archive

Recent use of Archive material has included:

- calibrating new data sources such as from gamma radiometrics, electro-magnetics and near and mid-infra red spectroscopy
- developing a national spectral reflectance library to characterise soil composition and diversity
- predicting soil minerals, organic carbon and other important soil attributes based on spectroscopy results from thousands of Archive specimens from around Australia
- assessing soil carbon sequestration potential in rangeland soils in Queensland
- the acid sulfate soils study at Lake Albert in South Australia that re-analysed some of the oldest archived samples (78 years), providing an opportunity to measure changes due to exposure to oxygen while in an air-dry condition.

The location of sample sites can be viewed in the Australian Soil Resource Information System (ASRIS) ([www.asris.csiro.au](http://www.asris.csiro.au)). Site reports with soil morphology and chemistry data can be viewed or downloaded.

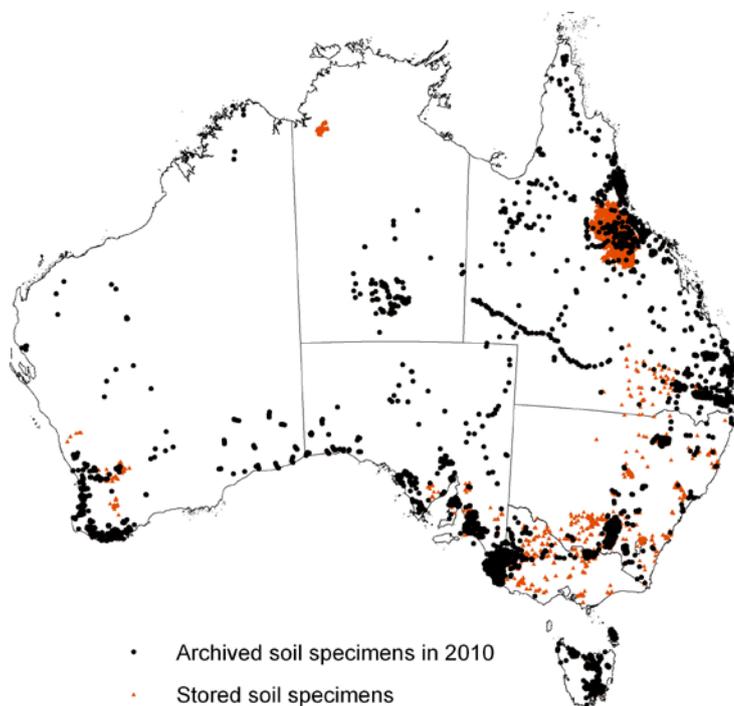
## How to submit and use Archive specimens

The majority of Archive specimens have been collected by CSIRO, although many specimens are now being submitted by other organisations, predominantly state and territory agencies.

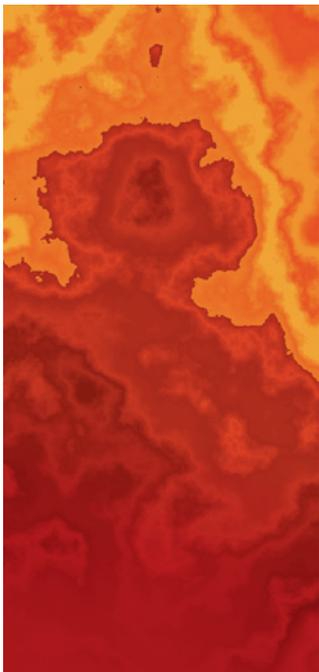
The Archive supports continuing submission of soil specimens to increase the importance of the collection for future research. Specimens submitted to the Archive are required to meet a number of criteria such as having adequate location and other documentation and be non-toxic and in a dry condition (see website for details).

Users of the soil specimens must adhere to Archive guidelines as a matter of common courtesy and ethical responsibility.

Proposals for specimen use or submission must be made on the appropriate forms, available from the Archive website. The CSIRO National Soil Archive Committee reviews and assesses all proposals.



*Sampling location of soil specimens in the CSIRO National Soil Archive*



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