

phylolink.ala.org.au

Phylolink

Overview

Phylolink is a collection of tools through which biodiversity can be explored from a **phylogenetic** (or tree of life) perspective.

At the core of these tools is the ability to easily intersect a phylogenetic tree with species occurrence records, environmental data, and species character information.

The result is powerful ways of combining data to generate flexible and customisable visualisations, profiles and metrics for biodiversity.

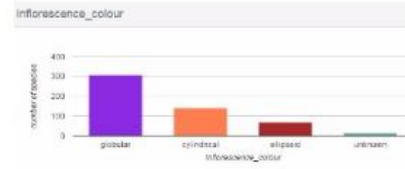
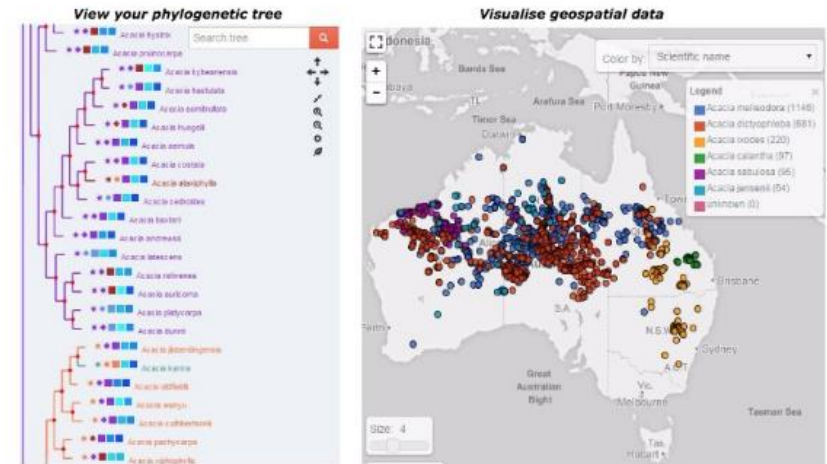
View an example demonstration [here](#). Or, view screencast on how to view phylolink [here](#).

Start Phylolink

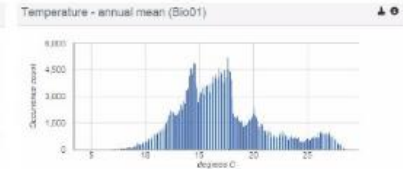
Explore Phylogenetic Diversity

Collaborators and acknowledgement:

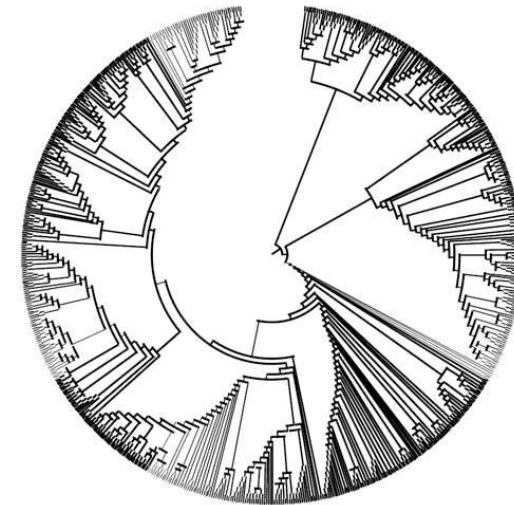
Phylolink is the result of **collaboration** between the Atlas of Living Australia and scientists at CSIRO, the Australian National University and the National Science Foundation (USA). Phylolink builds upon **PhyloJIVE**, which was developed by CSIRO, the Taxonomy Research and Information Network (TRIN), and the Centre for Australian National Biodiversity Research (CANBR).



Graph species characters



Generate graphs and charts



[Home](#)

Load a tree or select a visualisation

On this page, you can load a tree for visualisation, view your previous visualisations, or upload your own tree for visualisation. You can select a tree from an expert recommended list or from your previous uploads.

Load a tree

- Select an expert recommended tree
- Select from my trees
- Add a new tree

Select a visualisation

- Select from my previous visualisations
- View a demonstration visualisation

Administration

- Tree administration

← Back

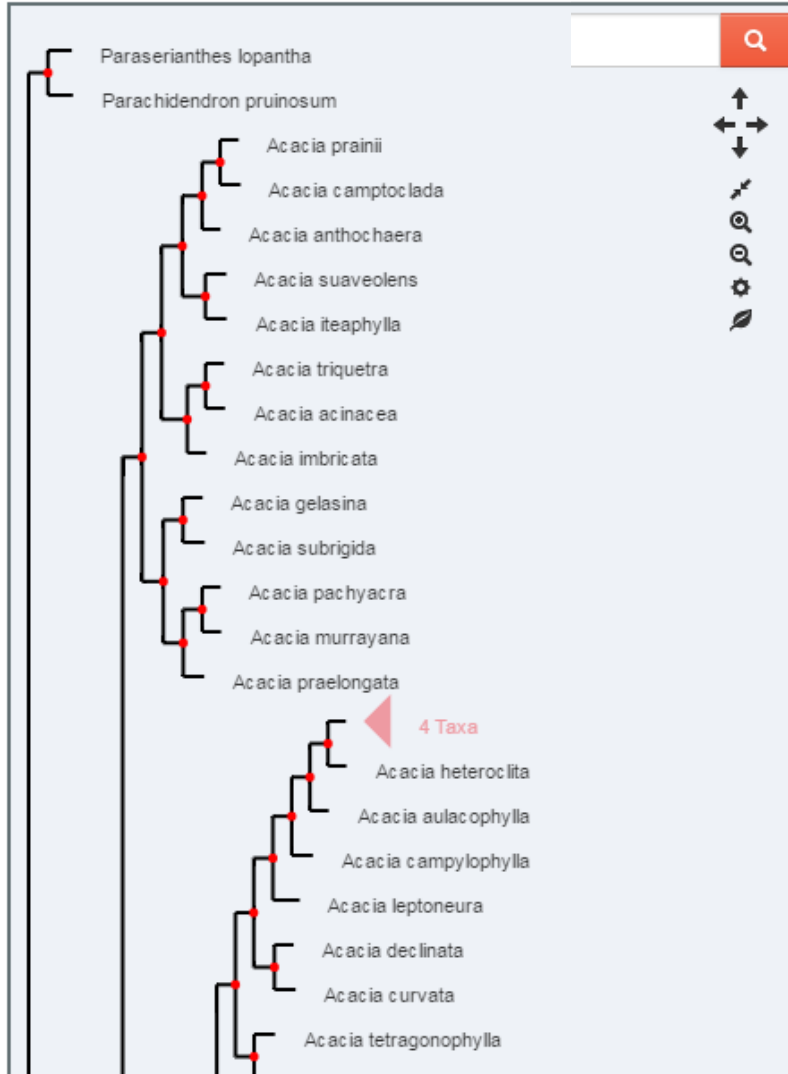
→ Next



Home / Start PhyloLink

Select an expert recommended tree

Tree name	Species covered	Action
Acacia – Miller et al 2012	Acacia	<input checked="" type="checkbox"/> Open <input type="checkbox"/> Preview tree
<p><i>Miller, J. T., Murphy, D. J., Brown, G. K., Richardson, D. M. and González-Orozco, C. E. (2011), The evolution and phylogenetic placement of invasive Australian Acacia species. Diversity and Distributions, 17: 848–860. doi: 10.1111/j.1472-4642.2011.00780.x</i> http://onlinelibrary.wiley.com/doi/10.1111/j.1472-4642.2011.00780.x/full</p>		
Amphibians (global) – Pyron & Wiens 2011	Amphibians	<input checked="" type="checkbox"/> Open <input type="checkbox"/> Preview tree
Mammals – Fritz et al 2009	Mammals	<input checked="" type="checkbox"/> Open <input type="checkbox"/> Preview tree
Diptera – Wiegmann et al 2011	DIPTERA	<input checked="" type="checkbox"/> Open <input type="checkbox"/> Preview tree
Marsupials – Cardillo et al 2004	Marsupials	<input checked="" type="checkbox"/> Open <input type="checkbox"/> Preview tree
Wrens (Maluridae) - Lee et al 2012	Wrens (Maluridae)	<input checked="" type="checkbox"/> Open <input type="checkbox"/> Preview tree
Hornworts - Cargill et al 2013	Australian Hornworts	<input checked="" type="checkbox"/> Open <input type="checkbox"/> Preview tree
Ferns – Nagalingum et al 2015	Ferns	<input checked="" type="checkbox"/> Open <input type="checkbox"/> Preview tree



Character

Map

Analysis

Occurrences

Metadata

Help

Upload your character data

You need modern browser such as Google Chrome 40 or Safari 8

Choose a CSV file*: No file chosen

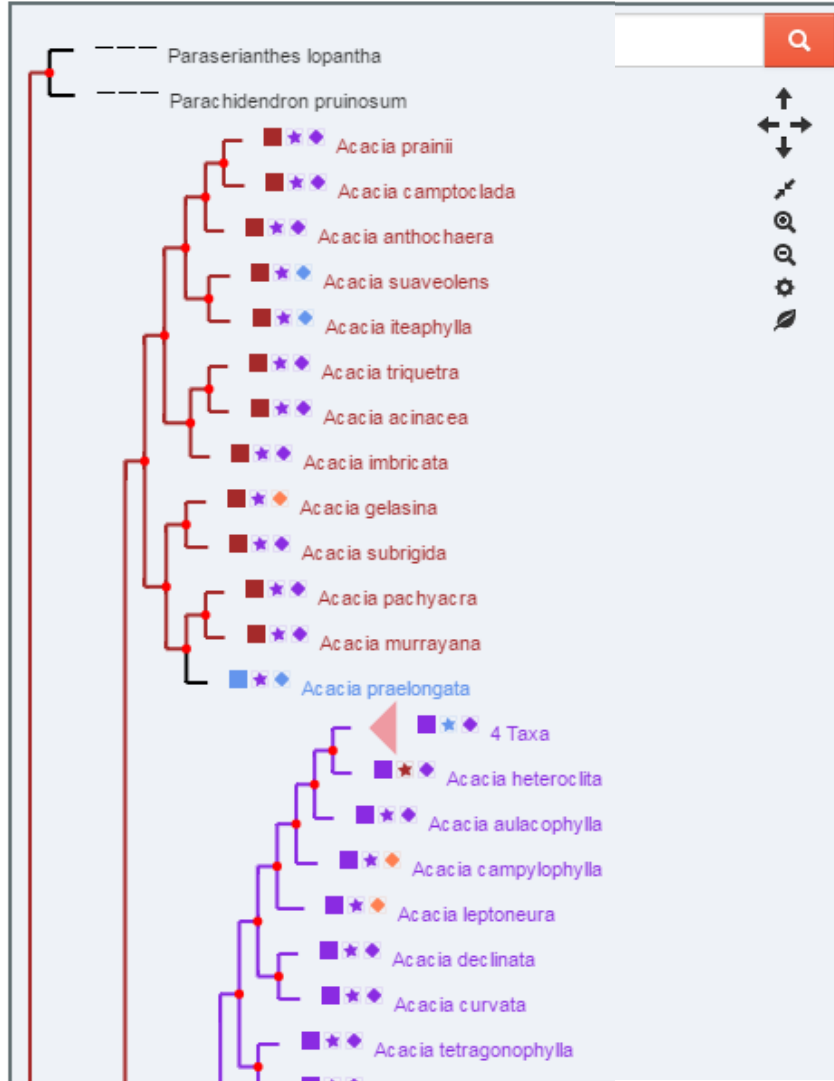
[Download sample CSV file from here.](#)

Title*:

Column with scientific name*:

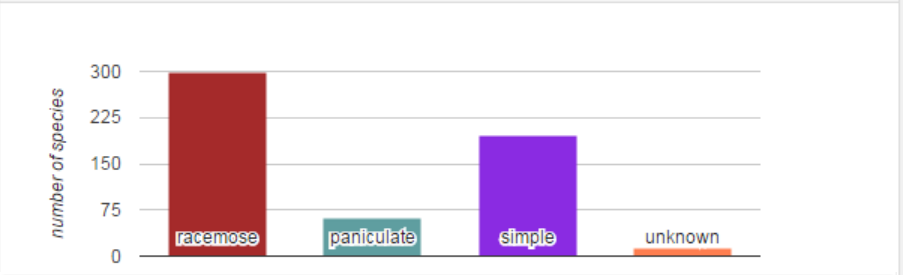
Or, pick a character dataset from the available list:

List of characters available:

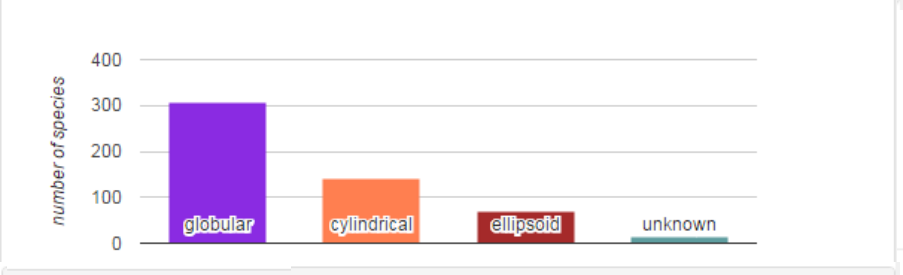


Character | Map | Analysis | Occurrences | Metadata | Help

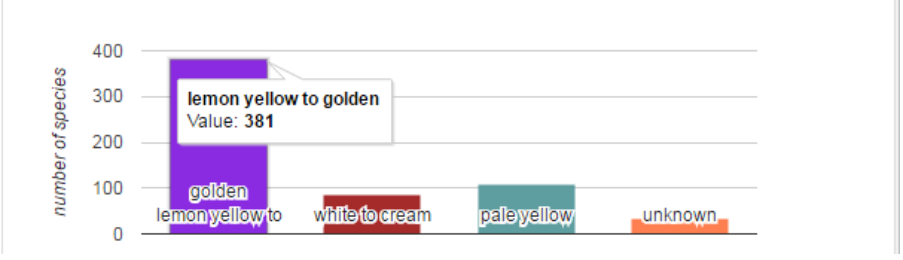
Inflorescence_arrangement

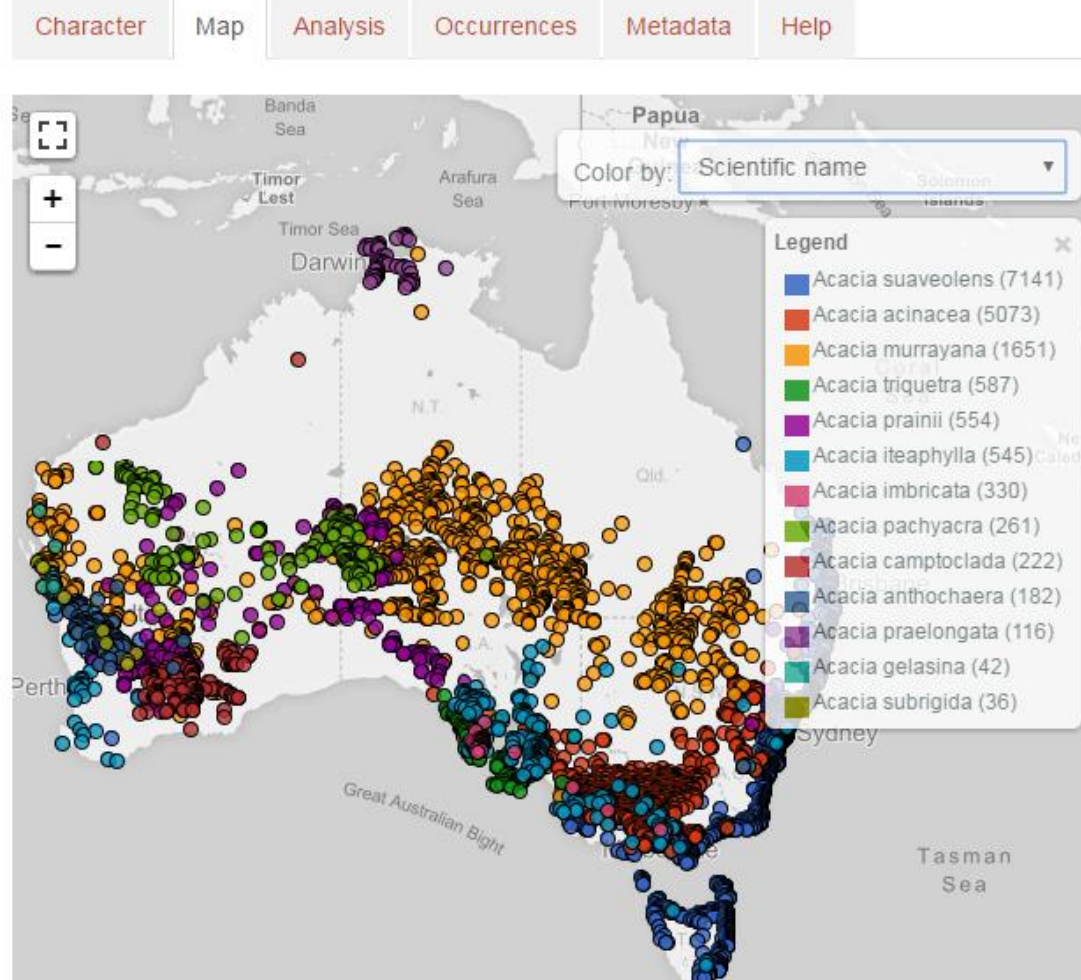
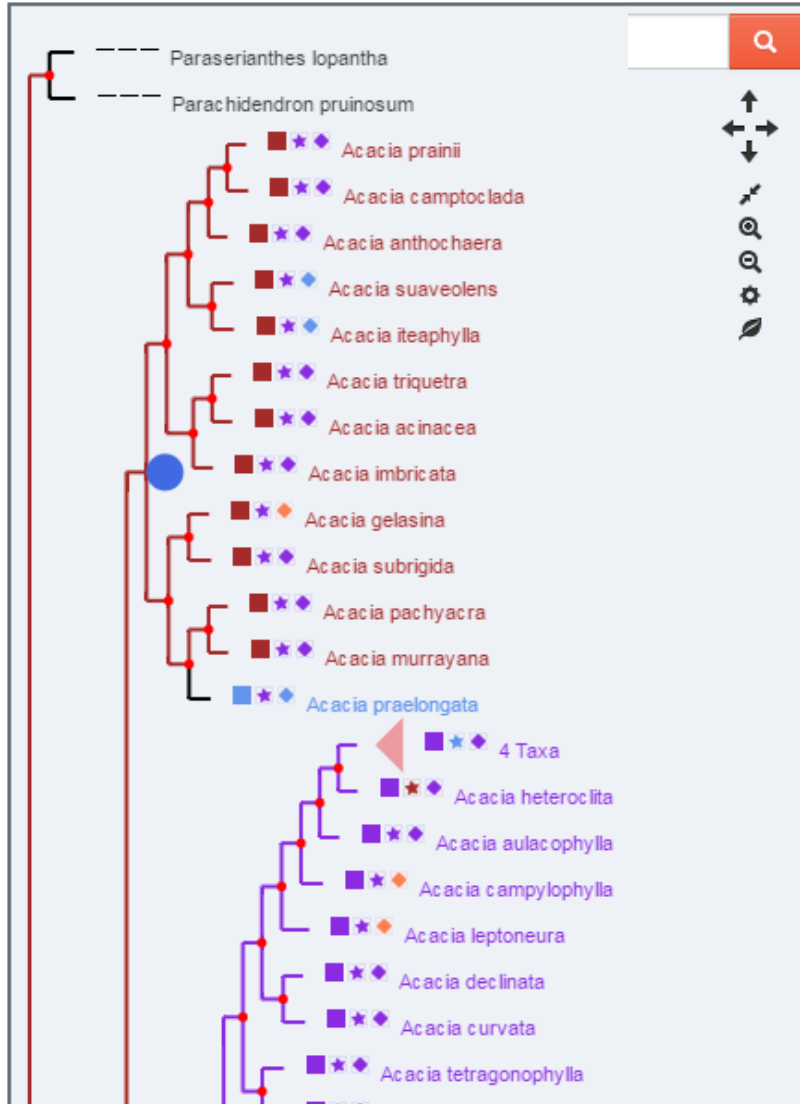


Inflorescence_shape



Inflorescence_colour

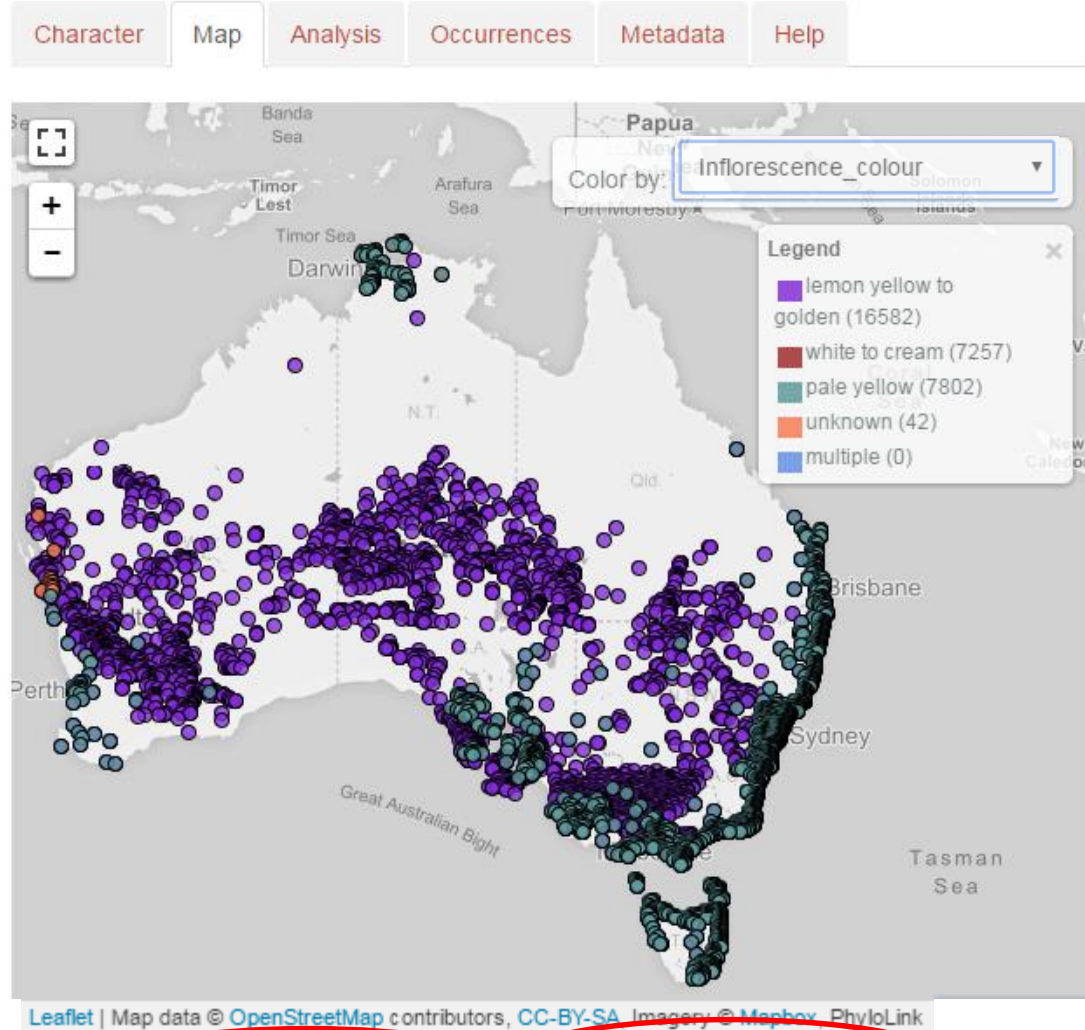
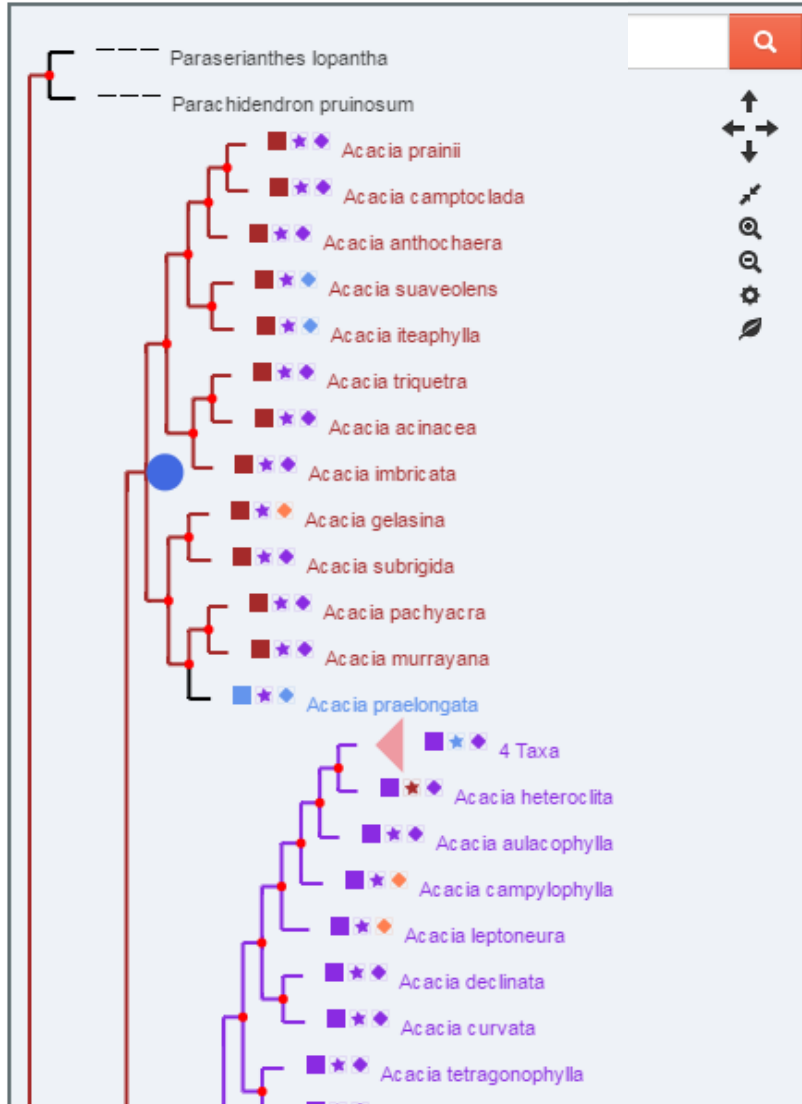




Leaflet | Map data © OpenStreetMap contributors, CC-BY-SA, Imagery © Mapbox, PhyloLink

[Open in Spatial Portal](#)

[Download occurrence data](#)



[Open in Spatial Portal](#) [Download occurrence data](#)

Character

Map

Analysis

Occurrences

Metadata

Help

Upload my occurrence records

Or, pick a records dataset from the available list:

Atlas of Living Australia (All d

Trimming Options

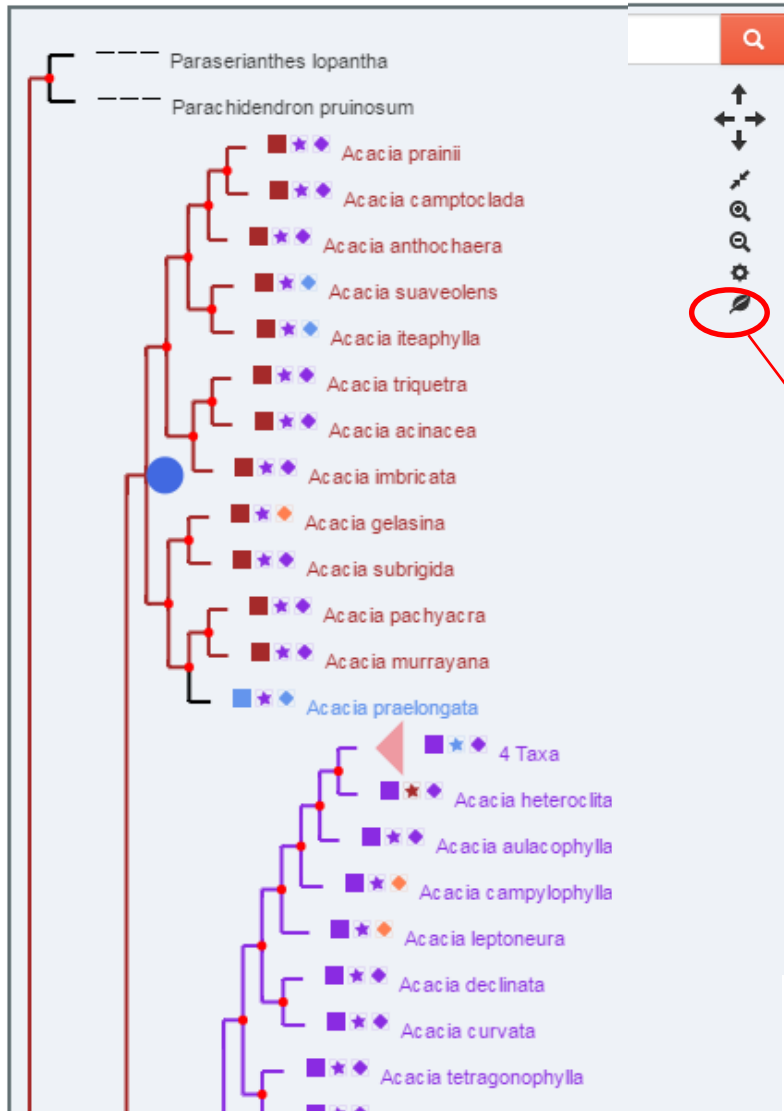
Trim the tree to Include Exclude

species from Choose...

Apply

Clear Trimming

Cancel





Character

Map

Analysis

Occurrences

Metadata

Help

Display histograms of information like precipitation, temperature, State etc. of occurrences in the selected clade.

➕ Add histogram

⬇️ Download raw data

↑ 2030A1BMk35M: Precipitation - annu... ✕

Search for a layer by name or browse the tree.

▼ Climate

▶ Classification

▶ Evaporation

▶ Growth index

▶ Humidity

▼ Precipitation

2030A1BMk35M: Aridity index - annual mean

2030A1BMk35M: Aridity index - month max

Paraserianthes lophantha

Parachidendron pruinosum

Acacia prairii

Acacia camptoclada

Acacia anthochaera

Acacia suaveolens

Acacia iteaphylla

Acacia triquetra

Acacia acinacea

Acacia imbricata

Acacia gelasina

Acacia subrigida

Acacia pachyacra

Acacia murrayana

Acacia praelongata

4 Ta:

Acacia he

Acacia aula

Acacia campy

Acacia leptonei

Acacia declinata

Acacia curvata

Acacia tetragonop

Character

Map

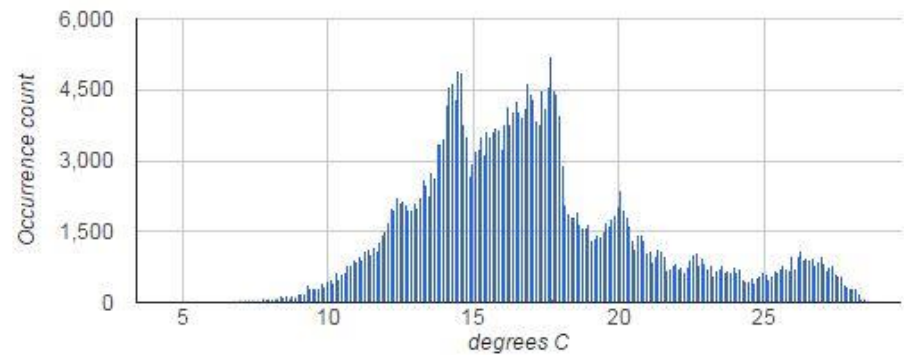
Analysis

Occurrences

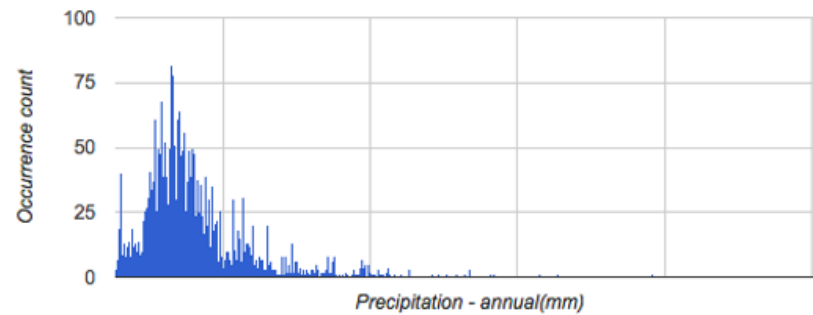
Metadata

Help

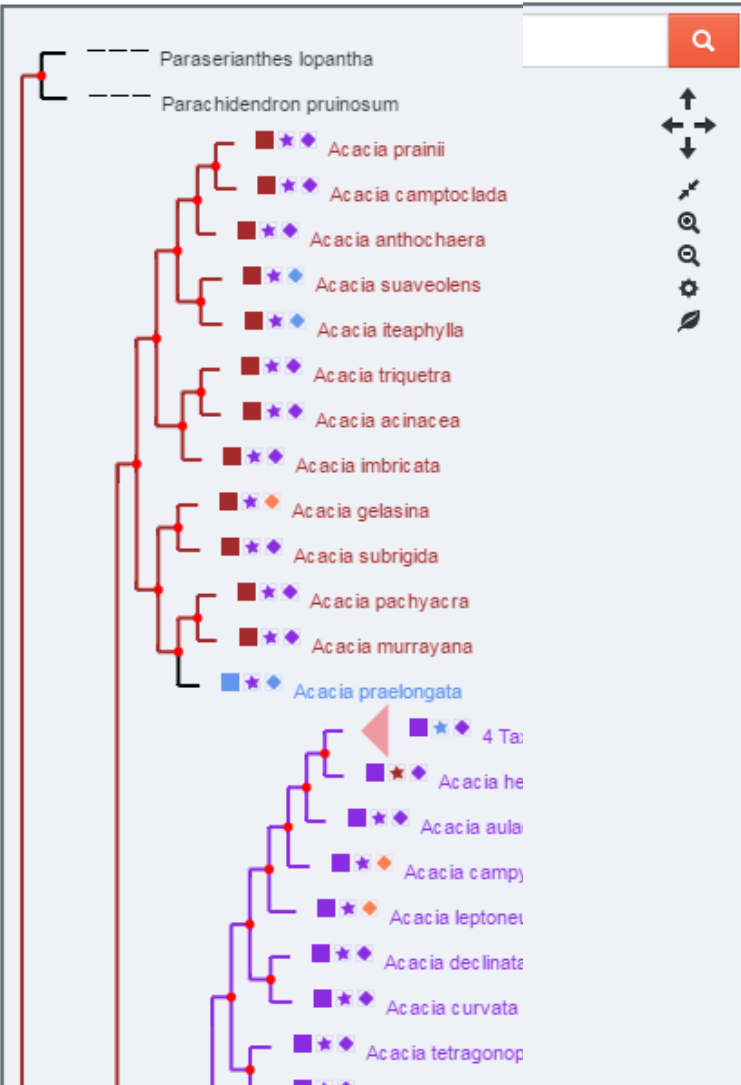
Temperature - annual mean (Bio01)

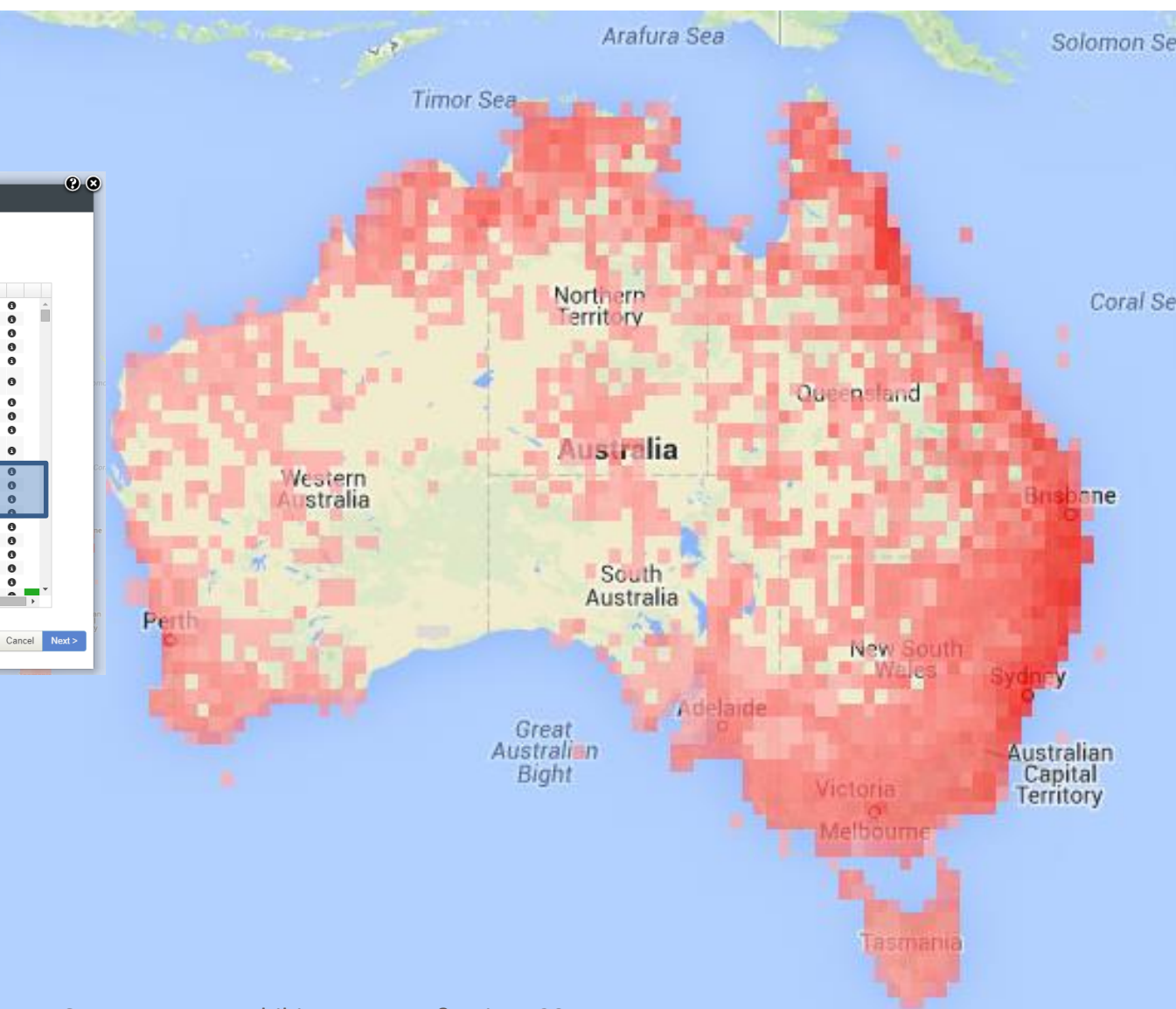


Precipitation - annual



View data summary





Add Layer

1. Select layers Select one or more layers. The layer sets use layer 'short name': see layers

Add set a of layers:

Add from search:

category	name	
<input type="checkbox"/>	Beards Province	<input type="radio"/>
<input type="checkbox"/>	Daily Air Water Vapour Pressure 20121217	<input type="radio"/>
<input type="checkbox"/>	Daily Maximum Air Temperature 20121217	<input type="radio"/>
<input type="checkbox"/>	Daily Rain Gauge Precipitation 20121217	<input type="radio"/>
<input type="checkbox"/>	Daily Solar Radiation (Global Horizontal Exposure) 20121217	<input type="radio"/>
<input type="checkbox"/>	Geofabric - Waterbody Water Storage	<input type="radio"/>
<input type="checkbox"/>	NDVI 20121101 to 20121110	<input type="radio"/>
<input type="checkbox"/>	NVIS 4.1 Major Vegetation Groups	<input type="radio"/>
<input type="checkbox"/>	National Resource Management (NRM) Regions V2	<input type="radio"/>
<input checked="" type="checkbox"/>	Phylogenetic Tree 2857	<input checked="" type="radio"/>
<input checked="" type="checkbox"/>	Phylogenetic Tree 4152	<input checked="" type="radio"/>
<input checked="" type="checkbox"/>	Phylogenetic Tree 5	<input checked="" type="radio"/>
<input checked="" type="checkbox"/>	Surface Geology of Australia 2012	<input checked="" type="radio"/>
<input type="checkbox"/>	User Uploaded Objects	<input type="radio"/>
<input type="checkbox"/>	test_Geomorphology_of_australian_seafloor	<input type="radio"/>
<input type="checkbox"/>	ACT TAMS Reserves	<input type="radio"/>
<input type="checkbox"/>	Land use	<input type="radio"/>
<input type="checkbox"/>	NZ DOC Public Conservation Areas	<input type="radio"/>
<input type="checkbox"/>	NZ DOC Public Conservation Areas	<input type="radio"/>

The colours against the layers are like traffic lights. Green implies the layer is uncorrelated to all selected layers, orange implies some correlation while red implies high correlation. As you select layers, the colours change to reflect correlations with already selected layers. For example a red layer implies high correlation with at least one selected layer while a green layer implies little or no correlation to any selected layer. Note: The correlations are currently based on full layer spatial extents and not any selected sub-area.

Clear selection Export set 0 layers selected

Cancel Next >

Source tree: Amphibians - Pyron & Wiens 2011

Add Area

Select method to define area.

Interact with the map

- Draw bounding box
- Draw polygon
- Draw point and radius
- Select area from polygonal layer

Searching

- Radius centered on street address
- Create radius from point
- Gazetteer polygon

Preset areas

- Box - Australia
- Box - World
- Box - Current View

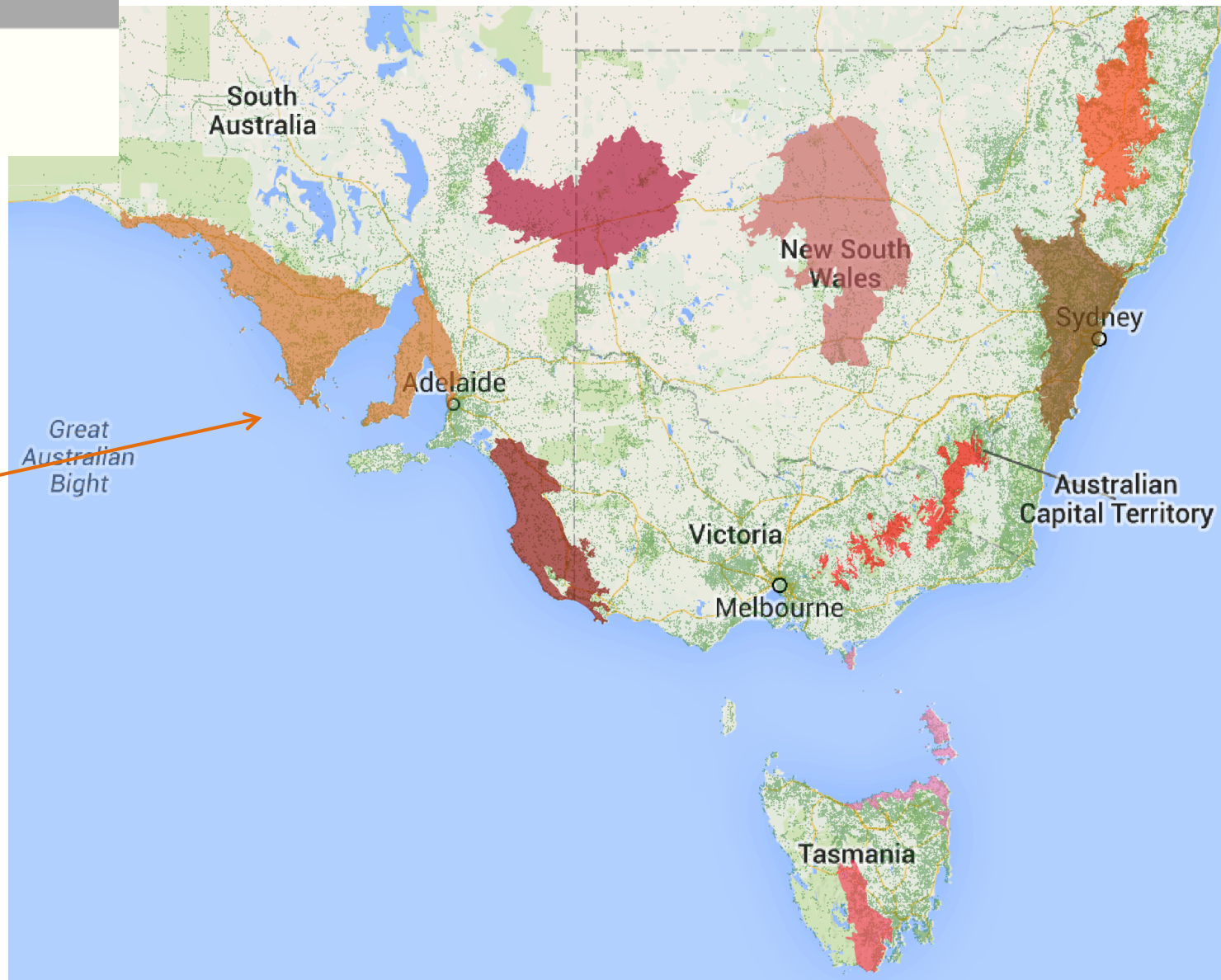
Import

- Import Shapefile
- Import KML

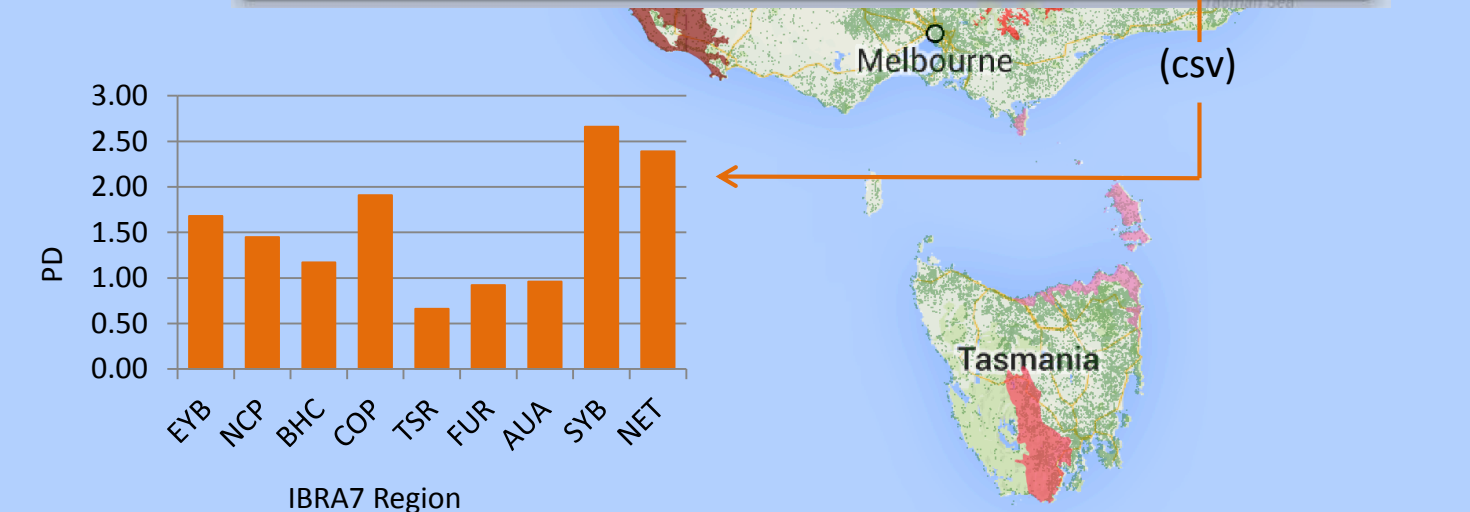
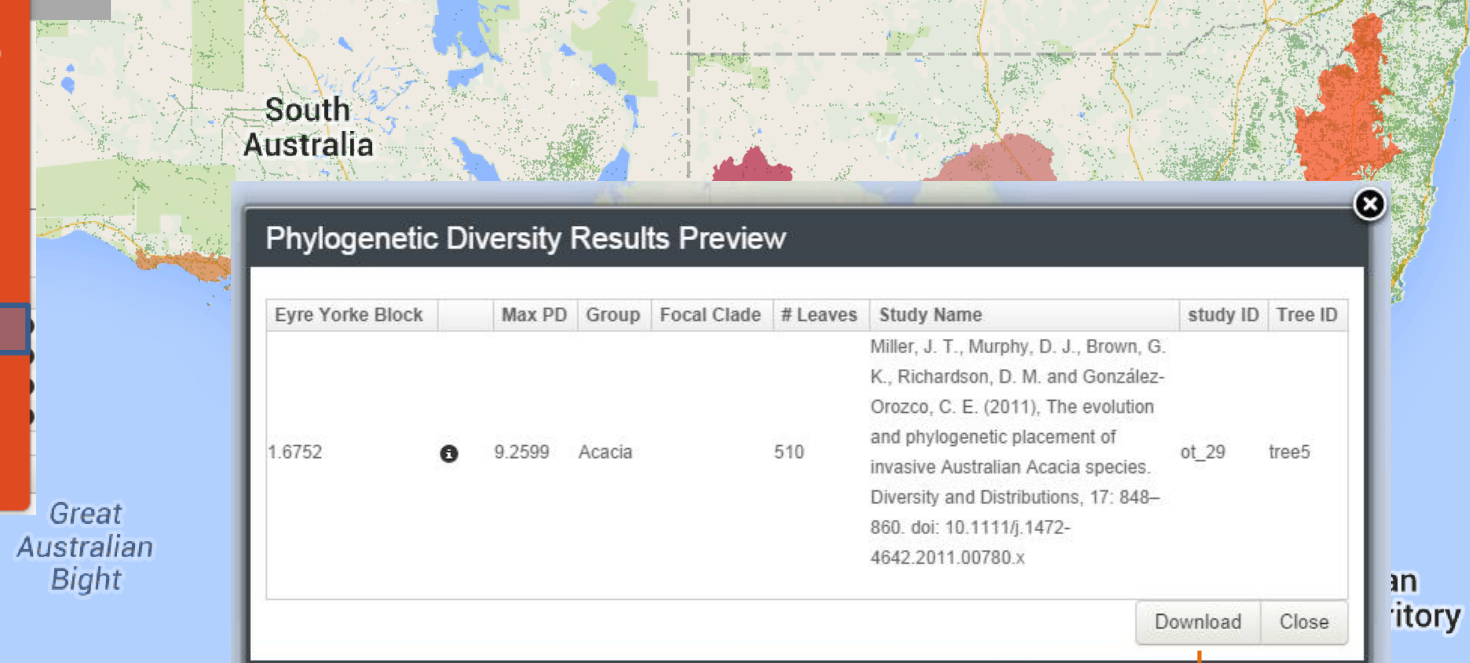
Other

- Define environmental envelope
- Enter area coordinates (WKT)
- Merge map areas

Cancel Next >



- Area Report
- Detailed Area Report (PDF)
- Nearest locality
- Scatterplot
- Scatterplot List
- Tabulate
- Points to Grid
- Generate Points
- Phylogenetic Diversity**
- Classify
- Predict
- GDM
- Restore prior analysis



phylolink.ala.org.au



Atlas Of Living Australia

ALA Apps ▾

ALA Info ▾

Search the Atlas

Search

Acknowledgements:

Joe Miller

Temi Varghese

Dan Rosauer

Craig Moritz

Nick dos Remedios

Garry Jolley-Rogers

ALA development team