www.ala.org.au

The Atlas of Living Australia:A Spatial Perspective

Lee Belbin
lee@blatantfabrictions.comBISON, September 2011

Mission

To develop an authoritative, freely accessible, distributed and federated biodiversity data management system(…and efficiently invest $64.7 million!)

Partners…

Government
- CSIRO
- Department of Sustainability, Environment, Water, Population and Communities
- Department of Agriculture, Fisheries and Forestry

Representative bodies
- Council of Heads of Australasian Herbaria
- Council of Heads of Australian Faunal Collections
- Council of Heads of Australian Entomological Collections
- Council of Heads of Australian Collections of Microorganisms
- Council of Australasian Museum Directors

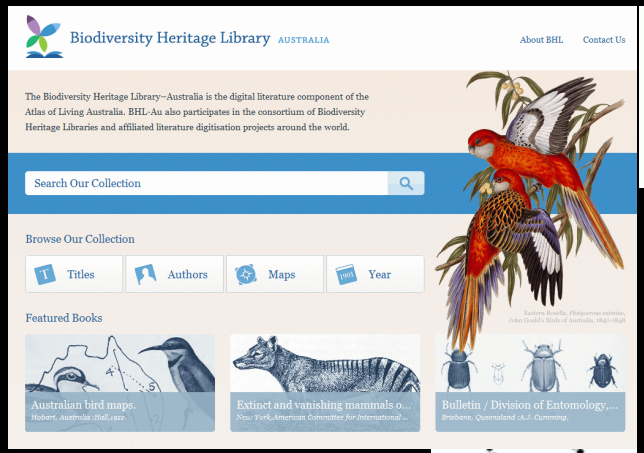
State museums
- Australian Museum
- Museum and Art Gallery of the Northern Territory
- Museum Victoria
- Queensland Museum
- South Australian Museum
- Tasmanian Museum and Art Gallery
- Western Australian Museum

Universities
- Southern Cross University
- University of Adelaide

…Providers…

Birds Australia (7,401,793)
Atlas of NSW Wildlife (4,288,512)
Australia's Virtual Herbarium (4,047,405)
Eremaea (1,397,835)
Garden Bird Surveys (1,264,535)
NODC Plankton Database (1,187,027)
Australian Museum (843,920)
NT Fauna Atlas (762,438)
SA Fauna (548,143)
SA Flora (520,288)
Museum Victoria (519,312)
Western Australian Museum (265,175)
ARGOS animal tracks (218,767)
History of Marine Animal Populations (196,736)
Southern & South Indian Ocean Seabirds (134,461)
Australian National Insect Collection (133,052)
South Australian Museum Australia (131,907)
Australian National Wildlife Collection (115,073)
Atlantic Reference Centre (OBIS Canada) (115,073)
OBIS Australia (101,358)
Continuous Zooplankton Recorder (95,519)
NT Flora Atlas (65,535)
S. African Institute for Aquatic Biodiversity (56,062)
Pelagic Fish Observations 1968-1999 (54,059)
NT Museum and Art Gallery (49,516)
Queen Victoria Museum Art Gallery (41,717)
Hexacoral Database (32,927)
Macquarie Island Elephant Seal sightings (31,000)
IRO Ichthyology (29,970)

...Projects


Biodiversity Heritage Library AUSTRALIA
About BHL
Contact Us
The Biodiversity Heritage Library–Australia is the digital literature component of the Atlas of Living Australia. BHL-Au also participates in the consortium of Biodiversity Heritage Libraries and affiliated literature digitisation projects around the world.
Search Our Collection
Browse Our Collection
Titles
Authors
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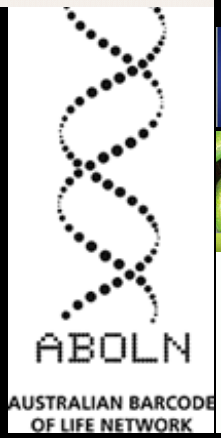
Year
Featured Books
Australian bird maps.
Extinct and vanishing mammals o...
Bulletin / Division of Entomology,...

NSL Services


ABOLN
AUSTRALIAN BARCODE OF LIFE NETWORK

Welcome to Morphbank ALA
User: Guest [click to login]

IdentifyLife
"The beginning of wisdom is to call a thing by its right name"
Home
Keys Central
My IdentifyLife
Key to All Life

Taxonomy Research & Information Network
building australian capacity

Architecture

- Free and Open Source
  - –(Public) Google Code environment
  - –Javascript & ZK, Cassandra/SOLR, PostGIS, Geoserver, Open Layers
  - –http://creativecommons.org/licenses/by/3.0/au/deed.en
- Most functions are implemented as a (REST) web service
  - –http://www.ala.org.au/tools-services/ala-web-services-list/
  - –JSON/GeoJSON, Spring Java libraries, OGC
  - –Life Science Identifiers (taxa) and Handles (layers and polygons)

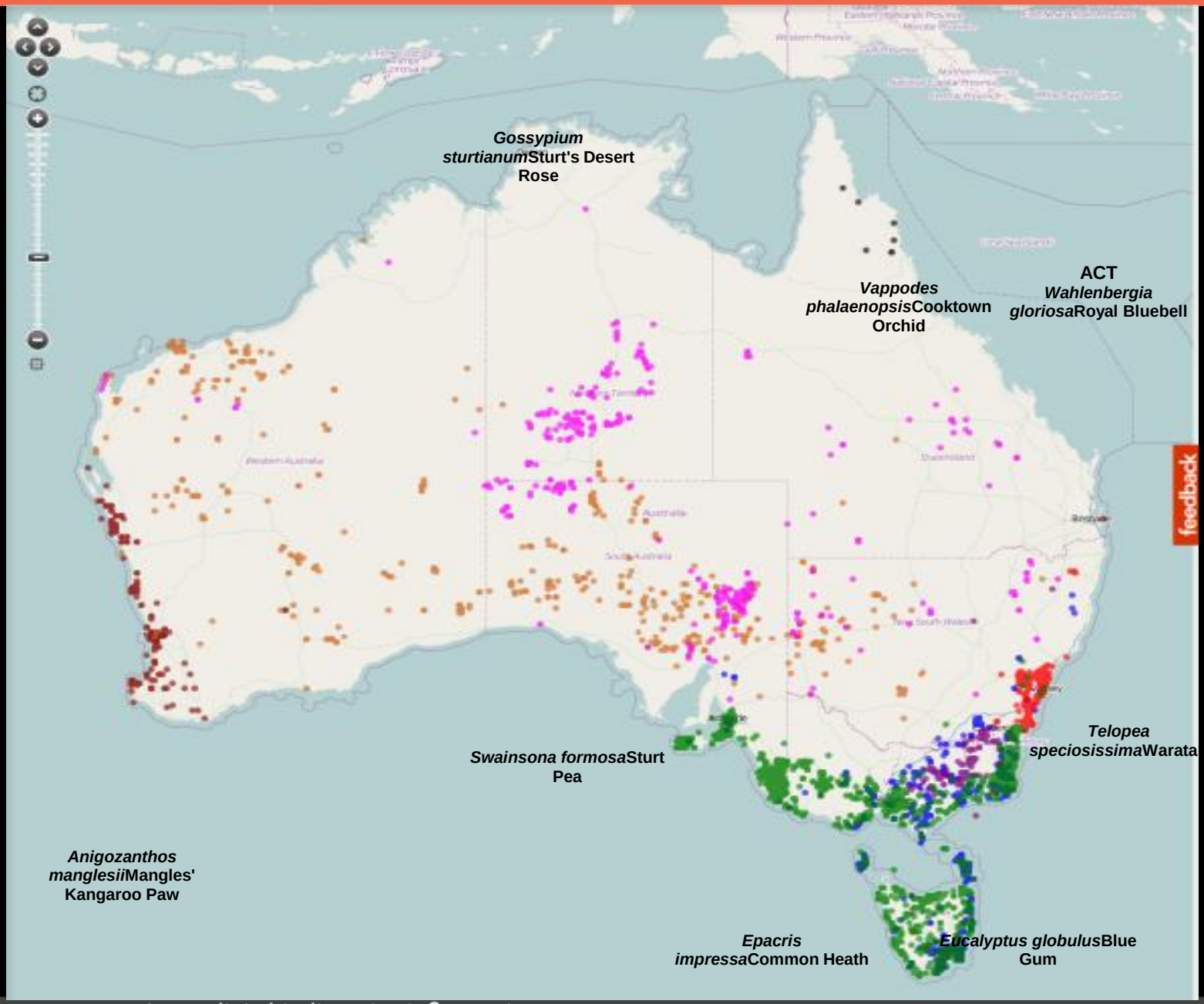
Services

- Taxonomic Name Service
- Sensitive Data Service
- Taxonomic tools (TRIN)
- Australian Biodiversity Heritage Library
- Identify Life
- Field data capture (Citizen Science)
- Collectory services
- Australian Barcode of Life
- Australian Morphbank
- Annotation Services
- Spatial services

Spatial Framework

- Integrated biological and environmental data
- Human and machine oriented services on data
- Data upload and download

1. Where is it?


*Gossypium sturtianum*Sturt's Desert Rose
*Vappodes phalaenopsis*Cooktown Orchid
ACT
*Wahlenbergia gloriosa*Royal Bluebell
feedback
*Telopea speciosissima*Warata
*Swainsona formosa*Sturt Pea
*Anigozanthos manglesii*Mangles' Kangaroo Paw
*Epacris impressa*Common Heath
*Eucalyptus globulus*Blue Gum

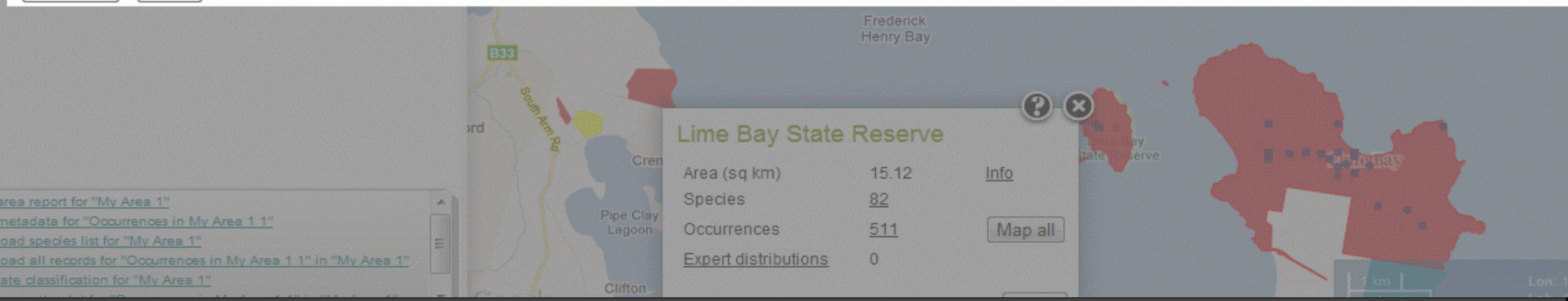
2. What's here?

Species List Results Preview

preview of all 82 species found

Family	Scientific name	Common name/s	Taxon rank	LSID	# Occurrences
Acanthizidae	Acanthiza chrysorrhoa	Yellow-rumped Thornbill, Yellow-rumped Thornbill, Yellow-rumped Thornbill, Yellow-rumped Thornbill, Yellow-rumped Thornbill, Yellow-rumped Thornbill	species	urn:lsid:biodiversity.org.au:afd.tax 3d46-4c6e-a233-1ba9e82a2886	7
Acanthizidae	Acanthiza ewingii		species	urn:lsid:biodiversity.org.au:afd.tax 278f-4e84-ac57-87494d836689	2
Acanthizidae	Acanthiza pusilla	Brown Thornbill, Brown Thornbill, Brown Thornbill, Brown Thornbill, Brown Thornbill, Brown Thornbill, Brown Thornbill, Brown Thornbill, brown thornbill	species	urn:lsid:biodiversity.org.au:afd.tax 9ef1-4a2c-839d-0efd7e794af4	13
Acanthizidae	Sericornis humilis	Tasmanian Scrubwren, Tasmanian Scrubwren, Tasmanian Scrubwren; Brown Scrubwren	species	urn:lsid:biodiversity.org.au:afd.tax bd51-42bc-bcf9-7ea22359d483	5
[illegible]	[illegible]	Wedge-tailed, Wedge-tailed, Wedge-tailed, Wedge-tailed Eagle, Wedge-tailed Eagle, Wedge-	[illegible]	urn:lsid:biodiversity.org.au:afd.tax	[illegible]

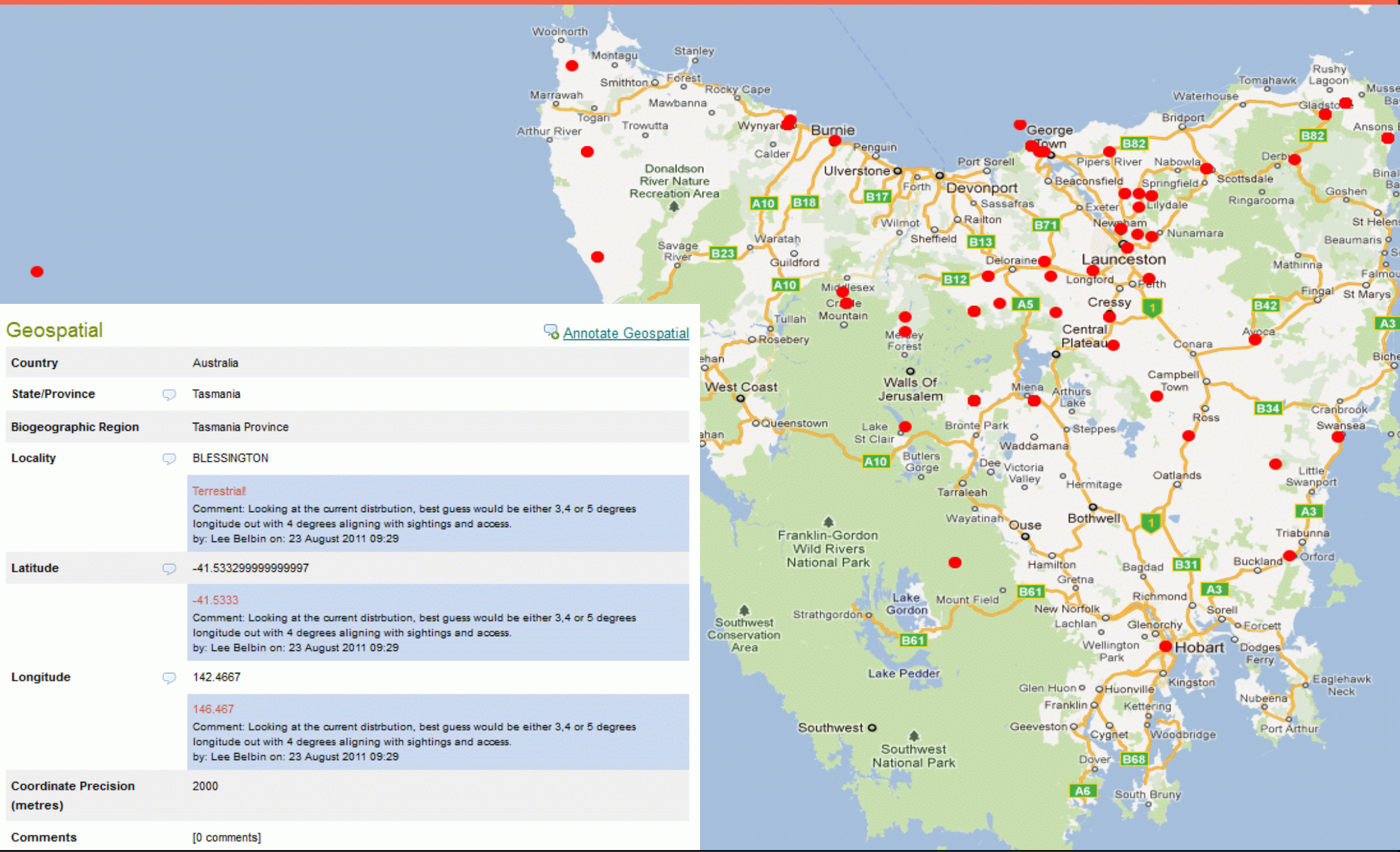
Download Close



Data: Checks

Code	Name	Creator	Description	Wiki	Failure implication	Severity/ Verification/ Metric	Darwin Core Class	Darwin Core Fields
Geospatial								
1	NEGATED_LATITUDE	GBIF	Record appears to be referencing a location in the wrong hemisphere	Wiki	Fix and report	Warning	Location	decimalLatitude
2	NEGATED_LONGITUDE	GBIF	Record appears to be referencing a location in the wrong hemisphere	Wiki	Fix and report	Warning	Location	decimalLongitude
3	INVERTED_COORDINATES	GBIF	Latitude and longitude have been transposed accidently (typically bad database mapping)	Wiki	Fix and report	Warning	Location	decimalLatitude,
4	ZERO_COORDINATES	GBIF	Coordinates given as 0,0. Typically a result of bad default values for empty database fields	Wiki	Exclude from mapping and other reports. Make view able in error report	Error	Location	decimalLatitude, decimalLongitude
5	COORDINATES_OUT_OF_RANGE	GBIF	Latitude >90 or <-90 and Longitude >180 or <-180	Wiki	Exclude from mapping and other reports. Make view able in error report	Error	Location	decimalLatitude, decimalLongitude
6	UNKNOWN_COUNTRY_NAME	GBIF	Unrecognised or unparseable country name	Wiki	Report	Warning	Location	country
7	ALTITUDE_OUT_OF_RANGE	GBIF	Altitude greater than 10000m, or less than -100m	Wiki	Report	Warning	Location	verbatimElevation
8	BADLY_FORMED_ALTITUDE	GBIF	Free text string provided as altitude	Wiki	Report	Warning	Location	verbatimElevation
9	MIN_MAX_ALTITUDE_REVERSED	GBIF	Typically a column mapping issue	Wiki	Fix and report	Warning	Location	
10	DEPTH_IN_FEET	GBIF	Darwin core specifies metres should be used	Wiki	Fix and report	Warning	Location	verbatimDepth
11	DEPTH_OUT_OF_RANGE	GBIF	Depth greater than 10000	Wiki	Report	Warning	Location	verbatimDepth
12	MIN_MAX_DEPTH_REVERSED	GBIF	Typically a column mapping issue	Wiki	Fix and report	Warning	Location	verbatimDepth
13	ALTITUDE_IN_FEET	GBIF	Darwin core specifies metres should be used	Wiki	Fix and report	Warning	Location	verbatimElevation
14	ALTITUDE_NON_NUMERIC	GBIF	Should be a numeric value in metres	Wiki	Report	Warning	Location	verbatimElevation
15	DEPTH_NON_NUMERIC	GBIF	Should be a numeric value in metres	Wiki	Report	Warning	Location	verbatimDepth
16	COUNTRY_COORDINATE_MISMATCH	GBIF	Coordinates outside the range for the reported country	Wiki	Report	Warning	Location	country, decimalLatitude, decimalLongitude
17	STATEPROVINCE_COORDINATE_MISMATCH	DM	Coordinates dont match the supplied state	Wiki	Report	Warning	Location	stateProvince, decimalLatitude, decimalLongitude
18	COORDINATE_HABITAT_MISMATCH	DM	Marine species reported in terrestrial area ** could be an identification or name match error instead of geospatial (MN)	Wiki	Exclude from mapping and other reports. Make view able in error report	Error	Location	decimalLatitude, decimalLongitude,
19	DETECTED_OUTLIER_ENVIRONMENTAL	DM	Record marked as outlier either because it is outside the known range of the species or detected using environmental variables.	Wiki	Optionally exclude from mapping and other reports	Error	Location	decimalLatitude, decimalLongitude, various spatial layers
20	COUNTRY_INFERRED_FROM_COORDINATES	GBIF	Country field supplied was empty, but was inferred in processing by the supplied coordinates	Wiki	Report	Warning	Location	country
21	COORDINATES_CENTRE_OF_STATEPROVINCE	DM	The coordinates given are in the centre of the state, indicating they have be generated post collection event, erroneously by software. MN - should be verified as being an issue (as opposed to genuine record in the centre of the state) by checking the uncertainty is large or the record is imprecise.	Wiki	Exclude from mapping and other reports. Make view able in error report	Error	Location	stateProvince, coordinatePrecision, CoordinateUncertaintyInMeters
22	COORDINATE_PRECISION_MISMATCH	MN	Coordinate data does not match precision indicated - could be incorrect precision or truncation or rounding of the coordinate data (most likely with trailing zeros)	Wiki	Report	Warning	Location	coordinatePrecision
23	PRECISION_RANGE_MISMATCH	MN	A precision value should be between >0 and <=1 if entered according to DwC specificiations	Wiki	Report	Warning	Location	coordinatePrecision
24	UNCERTAINTY_RANGE_MISMATCH	MN	Uncertainty should be a whole number >0	Wiki	Report	Warning	Location	coordinateUncertaintyInMeters
25	UNCERTAINTY_IN_PRECISION	MN	The value in precision is a mismatch with the precision spec but matches the uncertainty spec	Wiki	Report	Warning	Location	coordinateUncertaintyInMeters, coordinatePrecision
26	SPECIES_OUTSIDE_EXPERT_RANGE	MN	Coordinates are outside the known "expert" range of the species	Wiki	Report	Warning	Location	decimalLatitude, decimalLongitude, expert range
27	UNCERTAINTY_NOT_SPECIFIED	NC	Uncertainty was not supplied with the record	Wiki	Report	Warning	Location	coordinateUncertaintyInMeters
28	MISSING_COORDINATEPRECISION	MN	coordinatePrecision not supplied with the record	Wiki	Report	Warning	Location	coordinatePrecision
29	MISSING_GEODETICDATUM	MN	geodeticDatum not supplied for coordinates	Wiki	Report - also implies uncertainty	Warning	Location	geodeticDatum
30	MISSING_GEOREFERNCEDBY	MN	GeoreferencedBy not supplied with the record	Wiki	Report	Warning	Location	georeferencedBy
31	MISSING_GEOREFERENCEPROTOCOL	MN	GeoreferenceProtocol not supplied with the record	Wiki	Report	Warning	Location	georeferenceProtocol
32	MISSING_GEOREFERENCESOURCES	MN	GeoreferenceSources not supplied with the record	Wiki	Report	Warning	Location	georeferenceSources
33	MISSING_GEOREFERENCEVERIFICATIONSTATUS	MN	GeoreferenceVerificationStatus not supplied with the record	Wiki	Report	Warning	Location	georeferenceVerificationStatus
34	INVALID_GEODETICDATUM	SB	The geodetic datum is not valid	Wiki	Report	Warning	Location	geodeticDatum

Data: Annotations



Geospatial

Annotate Geospatial

Country		Australia
State/Province		Tasmania
Biogeographic Region		Tasmania Province
Locality		BLESSINGTON
		Terrestrial! Comment: Looking at the current distrbution, best guess would be either 3,4 or 5 degrees longitude out with 4 degrees aligning with sightings and access. by: Lee Belbin on: 23 August 2011 09:29
Latitude		-41.533299999999997
		-41.5333 Comment: Looking at the current distrbution, best guess would be either 3,4 or 5 degrees longitude out with 4 degrees aligning with sightings and access. by: Lee Belbin on: 23 August 2011 09:29
Longitude		142.4667
		146.467 Comment: Looking at the current distrbution, best guess would be either 3,4 or 5 degrees longitude out with 4 degrees aligning with sightings and access. by: Lee Belbin on: 23 August 2011 09:29
Coordinate Precision (metres)		2000
Comments		[0 comments]

Spatial Portal Functions

- Map
  - –Any taxonomic level
  - –Areas
  - –Layers (4 basemap options)
- Tools
  - –Area analysis: Size, species, occurrences
  - –Scatterplots: Taxa by environmental layers
  - –Environmental classification (PATN)
  - –Spatial prediction of taxa (MaxEnt)
- Import and export
  - –Occurrences with any layer sampling (CSV)
  - –Assemblages (CSV)
  - –Areas (shapefile, KML and WKT) + aggregate
- Help, Print, Annotate

Data: Biology

- ~172,00 taxa and ~26,000,000 records
  - –Observations, specimens, checklists, expert distributions (polygons) and tracks*
  - –Auto-complete by scientific/common name with feedback on occurrences & taxonomy
- Upload for session
  - –Taxa coordinates and up to 256 fields (CSV)
  - –Assemblages (via LSIDs: CSV)
- •Display
  - Point colour, size, transparency, density
  - Faceting/filtering records on 25+ fields
  - Links to taxa-related information
- •Download
  - Checklists
  - Occurrence records with samples of all layers
- •Annotate or feedback

Species Page

Home : Explore : *Grus rubicunda* (Perry, 1810) : Australian Crane

Logged in as leebelbin@gmail.com

Grus rubicunda (Perry, 1810)

Australian Crane

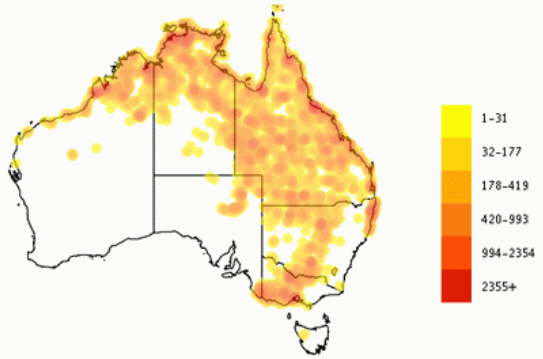
Rank Species
Name source Australian Faunal Directory
Data links LSID | JSON

Animalia : Chordata : Aves : Gruiformes : Gruidae : *Grus* : *Grus rubicunda*

Overview | Gallery | Names | Classification | Records | Literature

Mapped occurrence records

View occurrence records list | View interactive map



Learn more about Atlas maps

RECORDED IN AUSTRALIA
TERRESTRIAL HABITATS
IUCN LEAST CONCERN
SA VULNERABLE
VIC VULNERABLE
NSW VULNERABLE

Description

The Brolga is quite unmistakable in southern Australia. (Australia's only other crane, the Sarus Crane, is found only in far northern Australia.) It is a huge bird - one of Australia's largest flying birds - standing 1.3 metres tall with a wingspan of nearly 2.5 metres. It is pale bright grey with a broad band of bare red skin from the beak round the nape of the neck and a black dewlap under the chin. ...

SOURCE: Department of Environment and Conservation - NSW threatened species

The full-grown Brolga is a tall, mid-grey to silver-grey crane , 0.7–1.3 m (3.3–4.3 ft) high, with a wingspan of 1.7–2.4 m (5.6–7.9 ft), and a broad red band extending from the straight, bone-coloured bill around the back of the head. Juveniles lack the red band. Adult males average at a little under 7 kg (15 lb), females a little under 6 kg (13 lb). ...

SOURCE: Wikipedia

Online Resources

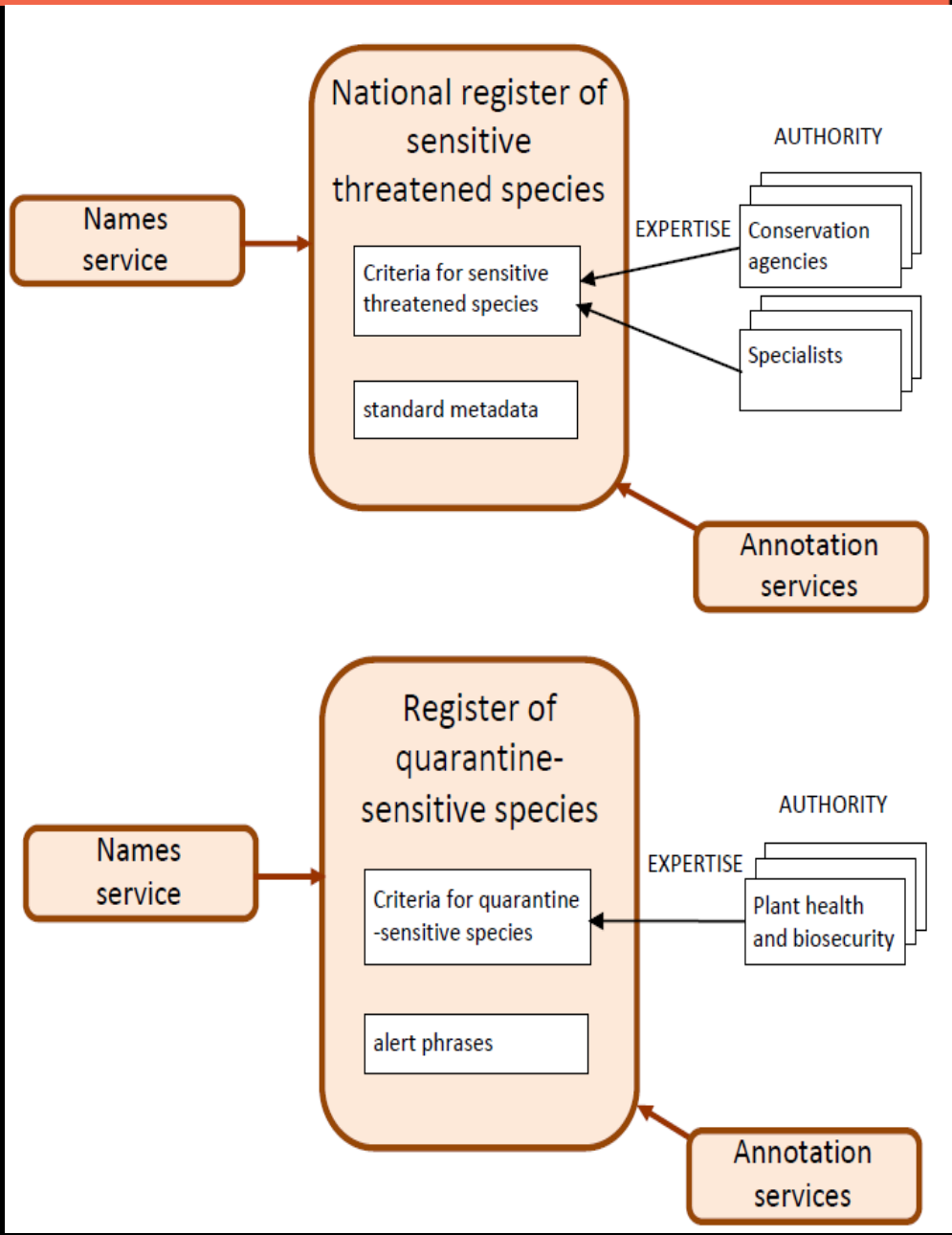
Aus Wild Life	Names, Images, Images
Australian Faunal Directory	Names
Barry Armstead Photography	Images, Images
Birds in Backyards	Distribution, Habitat, Diet, Reproduction, Similar Species, Distribution Map, Images

The Brolga is found across tropical northern Australia, southwards through north-east and east central areas, as well as central New South Wales to western Victoria. more

Share
Sightings, photos and data for the **Australian Crane**

Sensitive Data Service

- Sensitive geospatial data
  - –Threatened species
  - –Quarantine-sensitive species
- Registers of sensitive species
  - –Conservation agencies
  - –Biosecurity agencies
  - –National and state-by-state
- Configurable rules
  - –Suppress from public views
  - –Reduce coordinate precision
  - –Require additional metadata

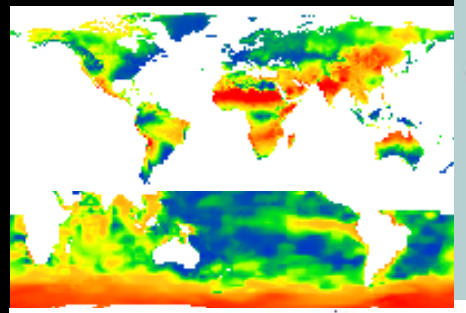


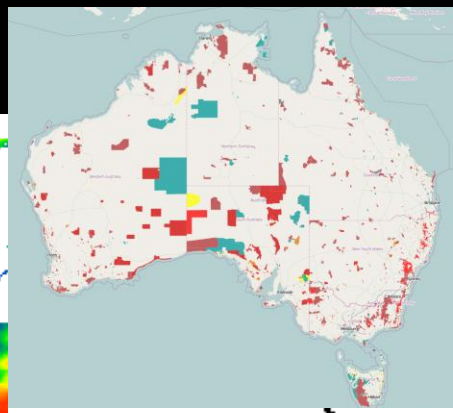
Data: Layers

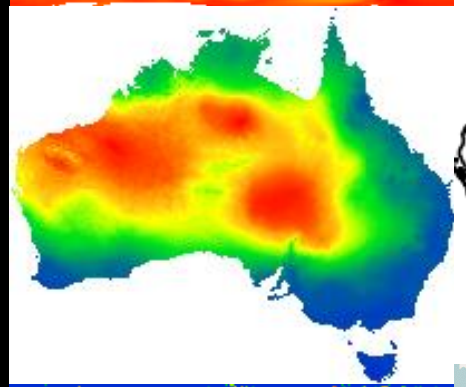
- ~ 220 environmental layers
  - –Most ~1km grids
  - –Used for sampling, scatterplots, classification and prediction
- ~ 50 ‘contextual layers’
  - –Polygonal with classes
  - –Used for area definitions & tabulation*
- Services
  - –http://spatial.ala.org.au/layers
    - •JSON, XML, CSV
  - –Classification, autocomplete + tags

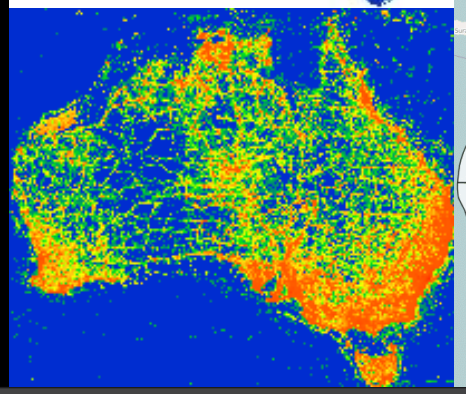
Environmental

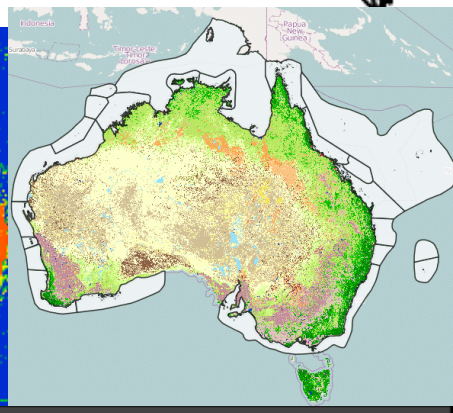
Contextual





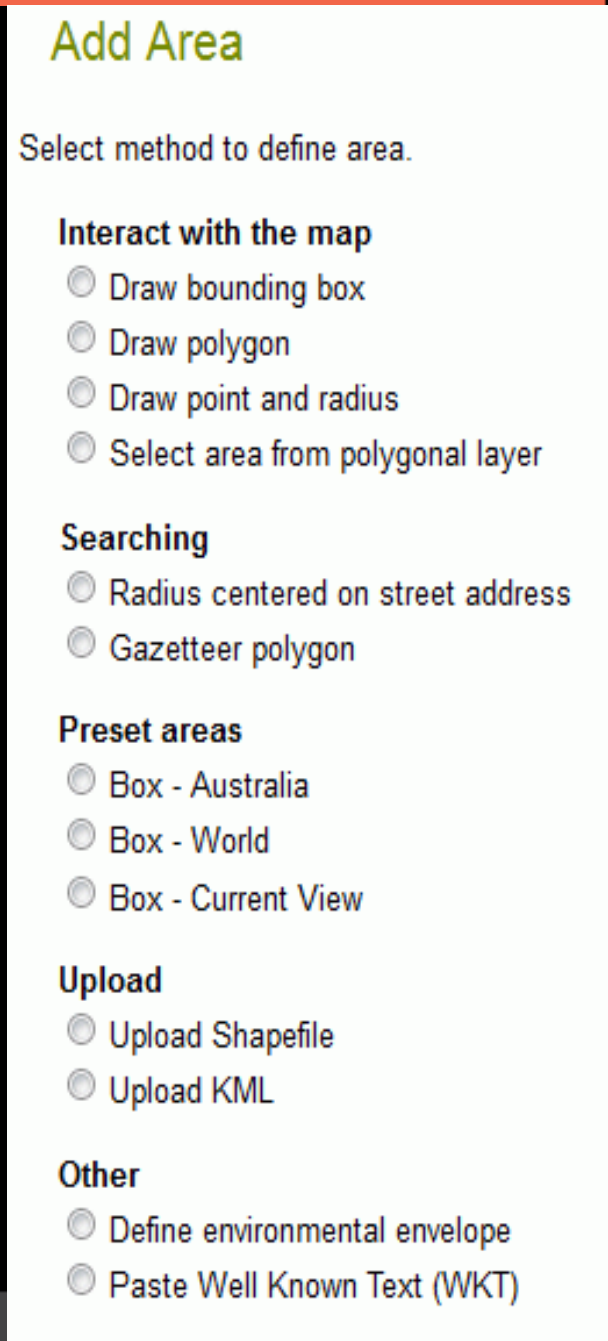






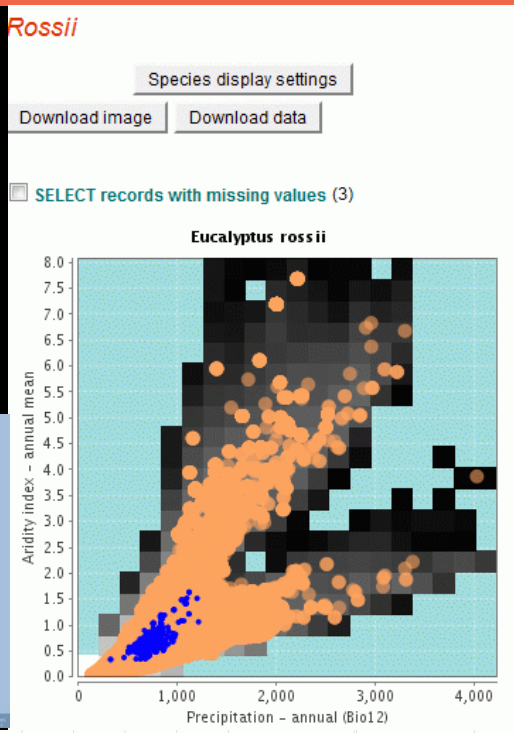
Data: Areas

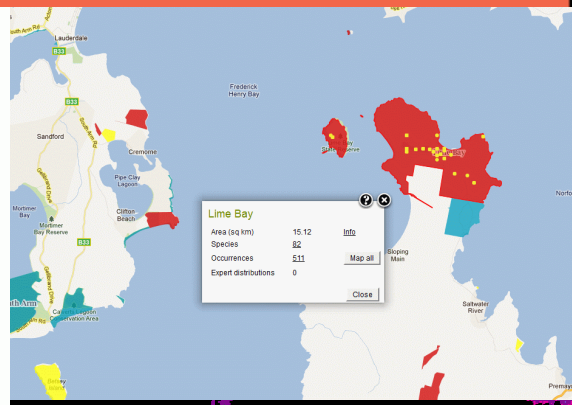
- On map digitizing or selecting
- Searching Google or our gazetters
- Pre-set areas
- Environmental envelopes
  - –Select ranges on any combination of environmental layers
  - –Logical AND
- Import, combine and export areas
  - –Shapefiles, KML, WKT

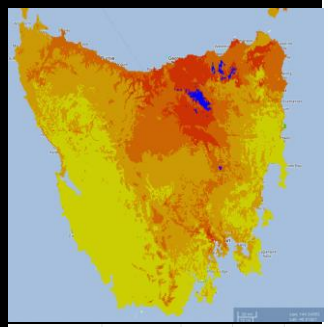


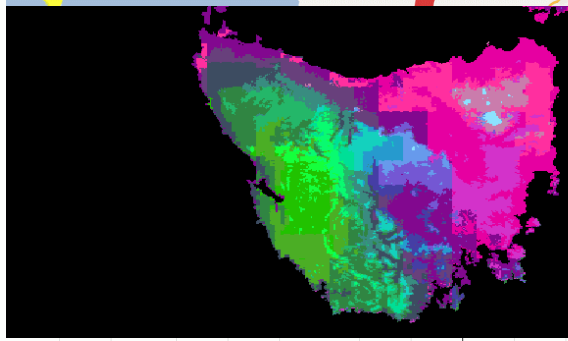
Tools

- Exemplars
  - –Workshop of experts, but focusing on enhancing import & export
  - –Area reports
  - –Checklists
  - –Sampling layers
  - –Scatterplots
  - –Classification
  - –Prediction
  - –GDM*
- Restore ID
- Documented case stu







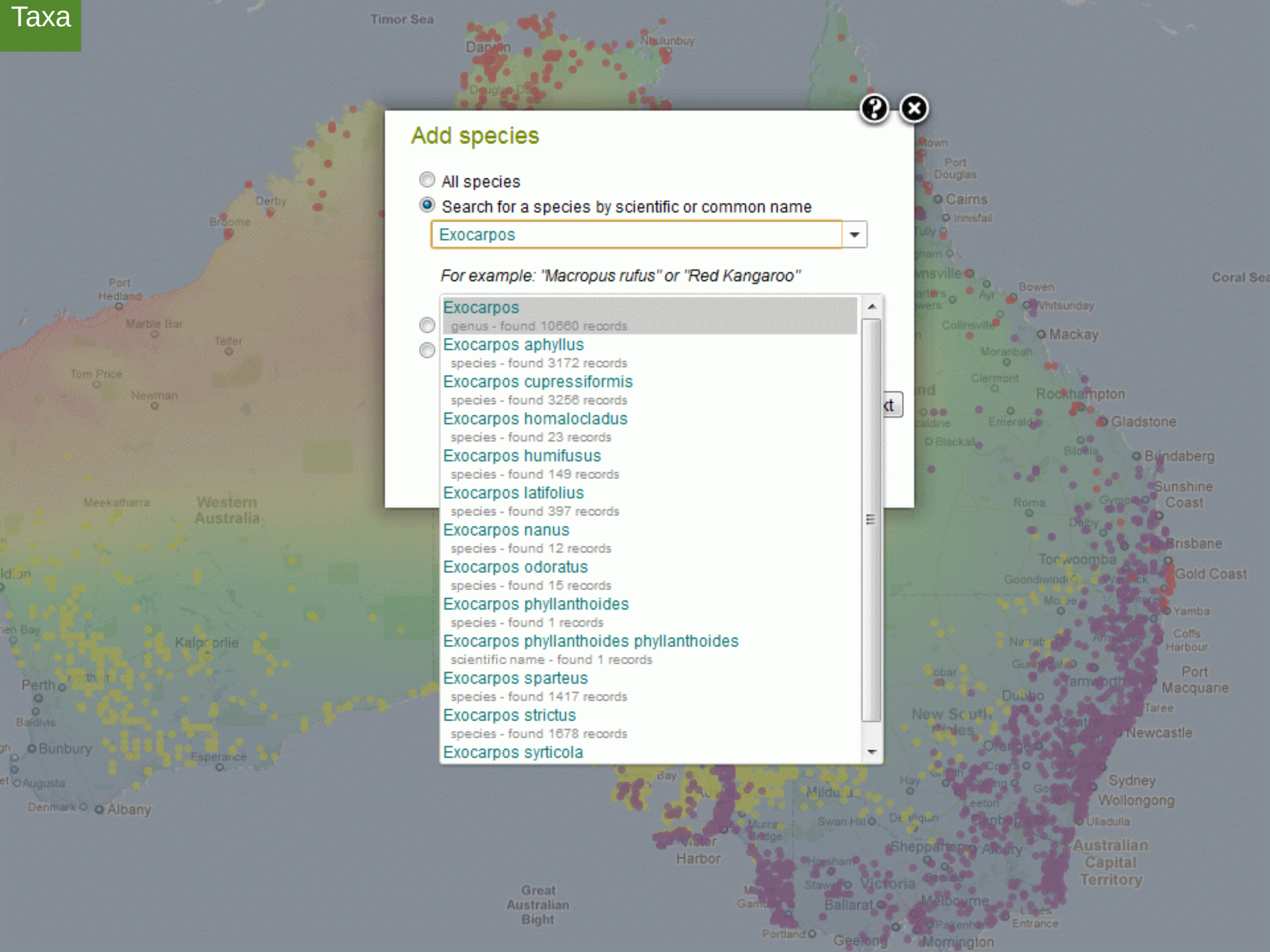


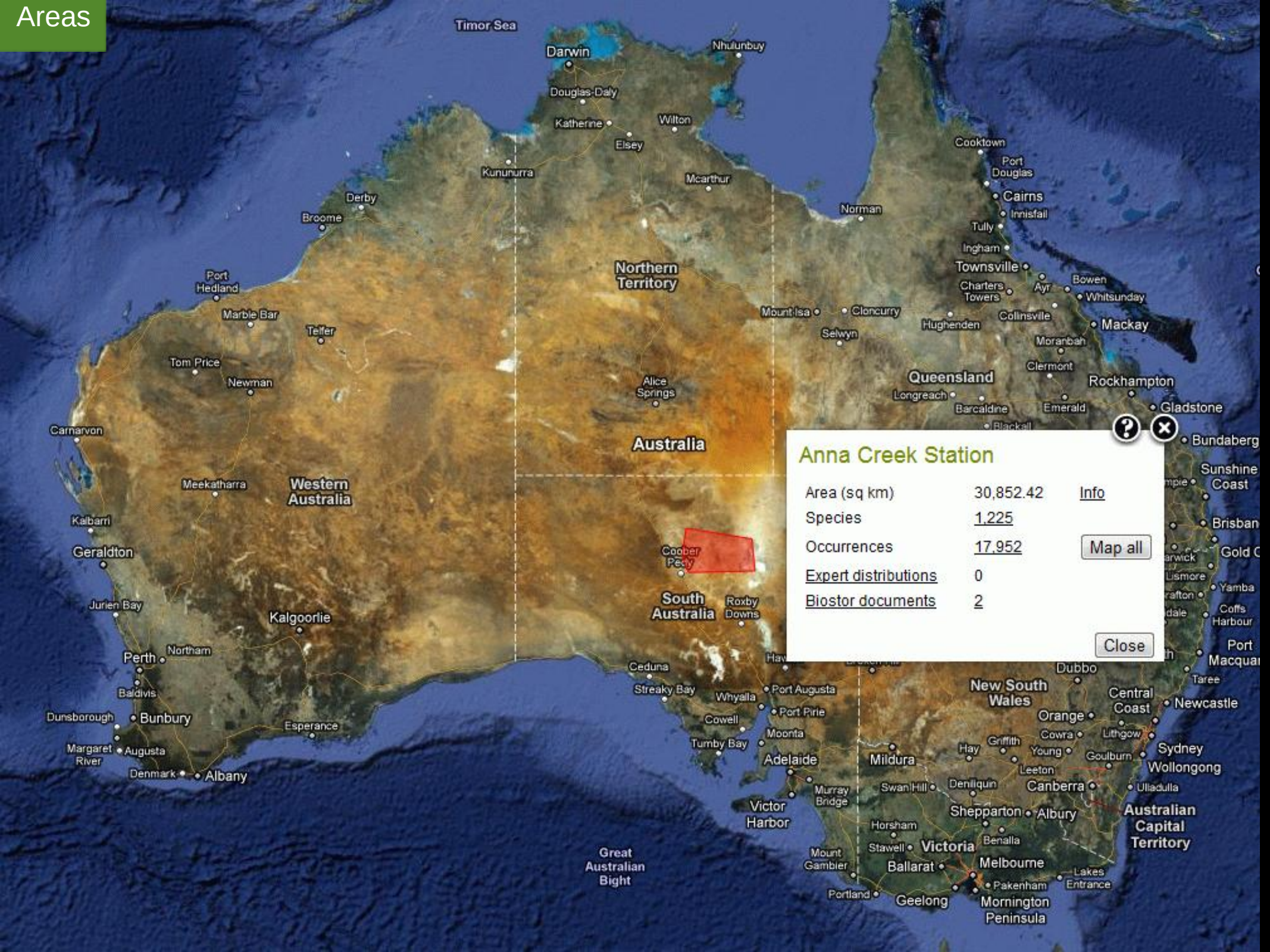
taxon_concept_lsid	id	kingdom	phylum	class	order	family	genus	species	taxon_name	data_provider	data_resource	rank	lat_long_precision	year	month	basis_of_record	longitude	latitude	Species Richness	Evaporation - month max
urn:lsid:biodiversity.org.au:afd.taxon:7c6c4836-0b6e-4268-a984-17f69745552f	186421737	Animalia	Chordata	Aves	Pelecanif	Phalacroc	Microcarb	Microcarb	Microcarbo melanoleuco	Birds Australia	Birdata	species	100	2000	1	observation	147.641	-42.9508	1.185185	153.993
urn:lsid:biodiversity.org.au:afd.taxon:7c6c4836-0b6e-4268-a984-17f69745552f	188051153	Animalia	Chordata	Aves	Pelecanif	Phalacroc	Microcarb	Microcarb	Microcarbo melanoleuco	Birds Australia	Birdata	species	500	2002	12	observation	147.704	-42.9597	1.049383	152.7646
urn:lsid:biodiversity.org.au:afd.taxon:cf6f1688-c600-4171-aa54-620bbddcc838	199647921	Animalia	Chordata	Actinopte	Perciform	Aplodacty	Aplodacty	Aplodacty	Aplodactylus arctidens	OZCAM (Online Zoological Collections of Australian Museums) Provider	Tasmanian Museum and Art Gallery provider for OZCAM	species		1966		specimen	147.7	-42.96	2.518518	153.4384
urn:lsid:biodiversity.org.au:afd.taxon:9381713e-1875-4eb4-b59e-3628e0f9afb4	199648354	Animalia	Chordata	Chondrich	Torpedini	Narcinida	Narcine	Narcine ta	Narcine tasmaniensis	OZCAM (Online Zoological Collections of Australian Museums) Provider	Tasmanian Museum and Art Gallery provider for OZCAM	species		1974		specimen	147.64	-42.95	0.876543	
urn:lsid:biodiversity.org.au:afd.taxon:1fb65c6f-abdb-4be8-8442-20cde8f4e408	199326111	Animalia	Mollusca	Gastropoc	Stylomma	Caryodida	Caryodes	Caryodes	Caryodes dufresnii	OZCAM (Online Zoological Collections of Australian Museums) Provider	Queen Victoria Museum Art Gallery provider for OZCAM	species				unknown	147.7	-42.95	1.074074	154.1512
urn:lsid:biodiversity.org.au:afd.taxon:9e26bceb-0135-4ede-94ce-502bd9229c74	199331510	Animalia	Mollusca	Gastropoc	Stylomma	Charopida	Pernagera	Pernagera	Pernagera officeri	OZCAM (Online Zoological Collections of Australian Museums) Provider	Queen Victoria Museum Art Gallery provider for OZCAM	species				unknown	147.7	-42.95	1.074074	154.1512

Spatial Portal

- View metadata for "Exocarpos aphyllus 1"
- Download all records for "Exocarpos aphyllus 1"
- Produce scatterplot for "Exocarpos aphyllus 1"
- Generate prediction for "Exocarpos aphyllus 1"

Taxa


Add species
All species
Search for a species by scientific or common name
Exocarpos
For example: "Macropus rufus" or "Red Kangaroo"
Exocarpos
genus - found 10660 records
Exocarpos aphyllus
species - found 3172 records
Exocarpos cupressiformis
species - found 3256 records
Exocarpos homalocladus
species - found 23 records
Exocarpos humifusus
species - found 149 records
Exocarpos latifolius
species - found 397 records
Exocarpos nanus
species - found 12 records
Exocarpos odoratus
species - found 15 records
Exocarpos phyllanthoides
species - found 1 records
Exocarpos phyllanthoides phyllanthoides
scientific name - found 1 records
Exocarpos sparteus
species - found 1417 records
Exocarpos strictus
species - found 1678 records
Exocarpos syrticola
Timor Sea
Coral Sea
Western Australia
Great Australian Bight
Australian Capital Territory
Victoria
Perth
Albany
Bunbury
Kalgoorlie
Cairns
Mackay
Rockhampton
Gladstone
Bundaberg
Sunshine Coast
Brisbane
Gold Coast
Toowoomba
Port Macquarie
Newcastle
Sydney
Wollongong
Dubbo
Orange
Sheppartton
Albury
Ballarat
Melbourne
Geelong
Mornington
Victor Harbor
Port Hedland
Marble Bar
Telfer
Tom Price
Newman
Meekatharra
Derby
Broome
Esperance
Augusta
Denmark
Port Douglas
Innisfail
Bowen
Whitsunday
Collinsville
Moranbah
Clermont
Emerald
Blackall
Biloela
Roma
Dalby
Goondiwindi
Yamba
Coffs Harbour
Tamworth
Taree
Ulladulla
Swan Hill
Hay
Leeton
Horsham
Portland
Lakes Entrance
Pakenham
Hawkesbury
Cobar
Narrabri
Armidale
Gunnedah
Moree
Warwick
Gympie
Nhulunbuy
Douglas-Daly
Ayr
Tully
Mildura
Murray Bridge
Stawell
Gambier
Bay
Hillsdale
Bay


Areas
Timor Sea
Darwin
Nhulunbuy
Douglas-Daly
Katherine
Wilton
Elsey
Kununurra
Mcarthur
Cooktown
Port Douglas
Cairns
Innisfail
Tully
Ingham
Norman
Derby
Broome
Northern Territory
Townsville
Charters Towers
Ayr
Bowen
Whitsunday
Port Hedland
Marble Bar
Telfer
Mount Isa
Cloncurry
Selwyn
Hughenden
Collinsville
Mackay
Moranbah
Clermont
Tom Price
Newman
Alice Springs
Queensland
Longreach
Barcaldine
Emerald
Rockhampton
Gladstone
Bundaberg
Carnarvon
Australia
Meekatharra
Western Australia
Sunshine Coast
Brisbane
Kalbarri
Geraldton
Coober Pedy
Gold Coast
Lismore
Yamba
Jurien Bay
Kalgoorlie
South Australia
Roxby Downs
Coffs Harbour
Perth
Northam
Port Macquarie
Ceduna
Dubbo
Taree
Baldivis
Streaky Bay
Whyalla
Port Augusta
New South Wales
Central Coast
Newcastle
Dunsborough
Bunbury
Port Pirie
Orange
Cowell
Cowra
Lithgow
Esperance
Moonta
Hay
Griffith
Young
Sydney
Wollongong
Margaret River
Augusta
Turnby Bay
Adelaide
Mildura
Goulburn
Leeton
Denmark
Albany
Swan Hill
Deniliquin
Canberra
Ulladulla
Murray Bridge
Victor Harbor
Shepparton
Albury
Australian Capital Territory
Horsham
Great Australian Bight
Stawell
Victoria
Benalla
Mount Gambier
Ballarat
Melbourne
Lakes Entrance
Pakenham
Portland
Geelong
Mornington Peninsula
Anna Creek Station
Area (sq km) 30,852.42 Info
Species 1,225
Occurrences 17,952 Map all
Expert distributions 0
Biostor documents 2
Close

Areas

Add to Map | Tools | Help

Temperature - annual mean (Bio01)

Anna Creek Station

Exocarpos latifolius 1

Environmental Envelope

Area name EE

Search for a layer to add

e.g. Annual Mean Temperature

Clear layers

Layer	Envelope extent	Species count
Temperature - annual mean (Bio01)	between 3.4000 and 8.0000	5843

edit envelope for: Temperature - annual mean (Bio01)

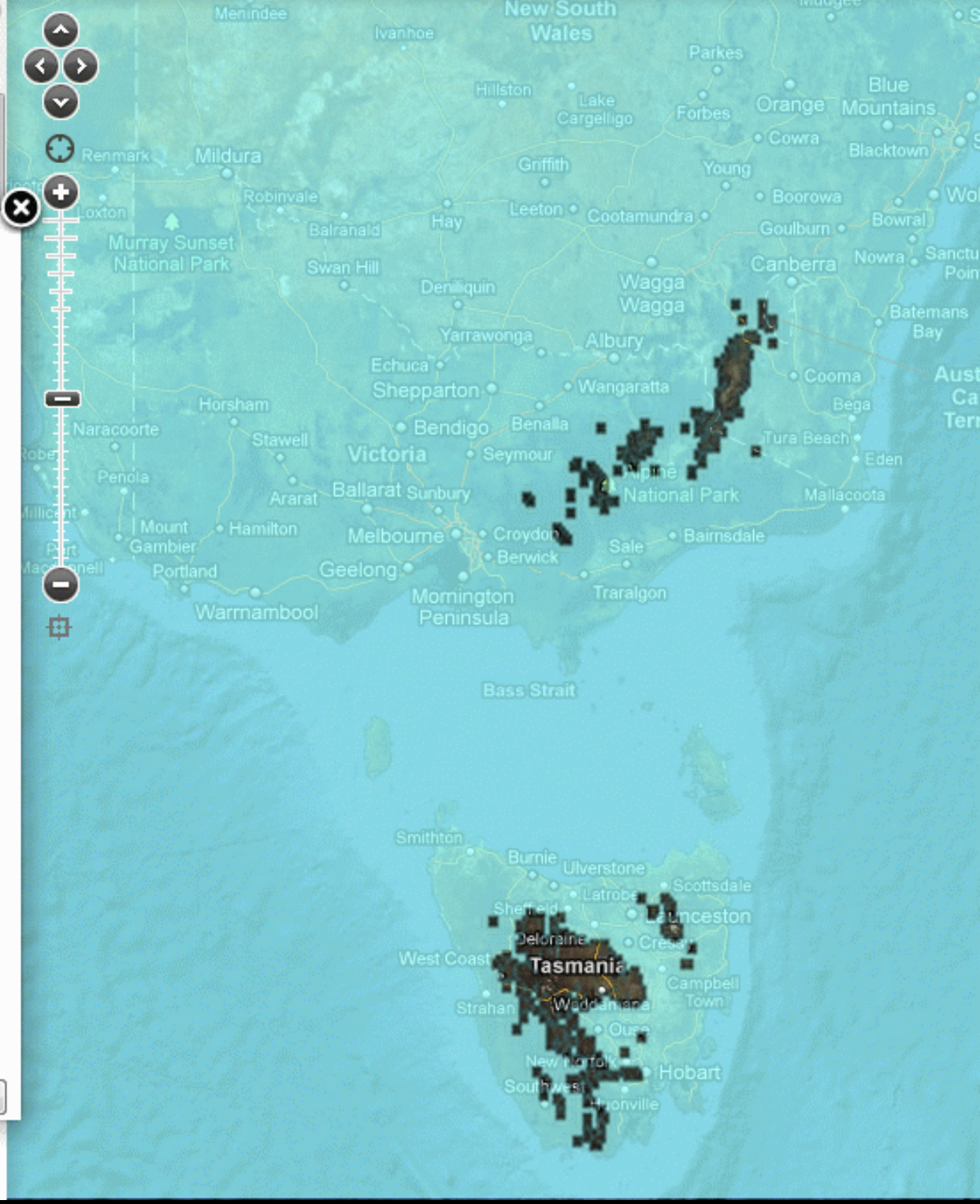
Full layer extent 3.4000 - 29.7000

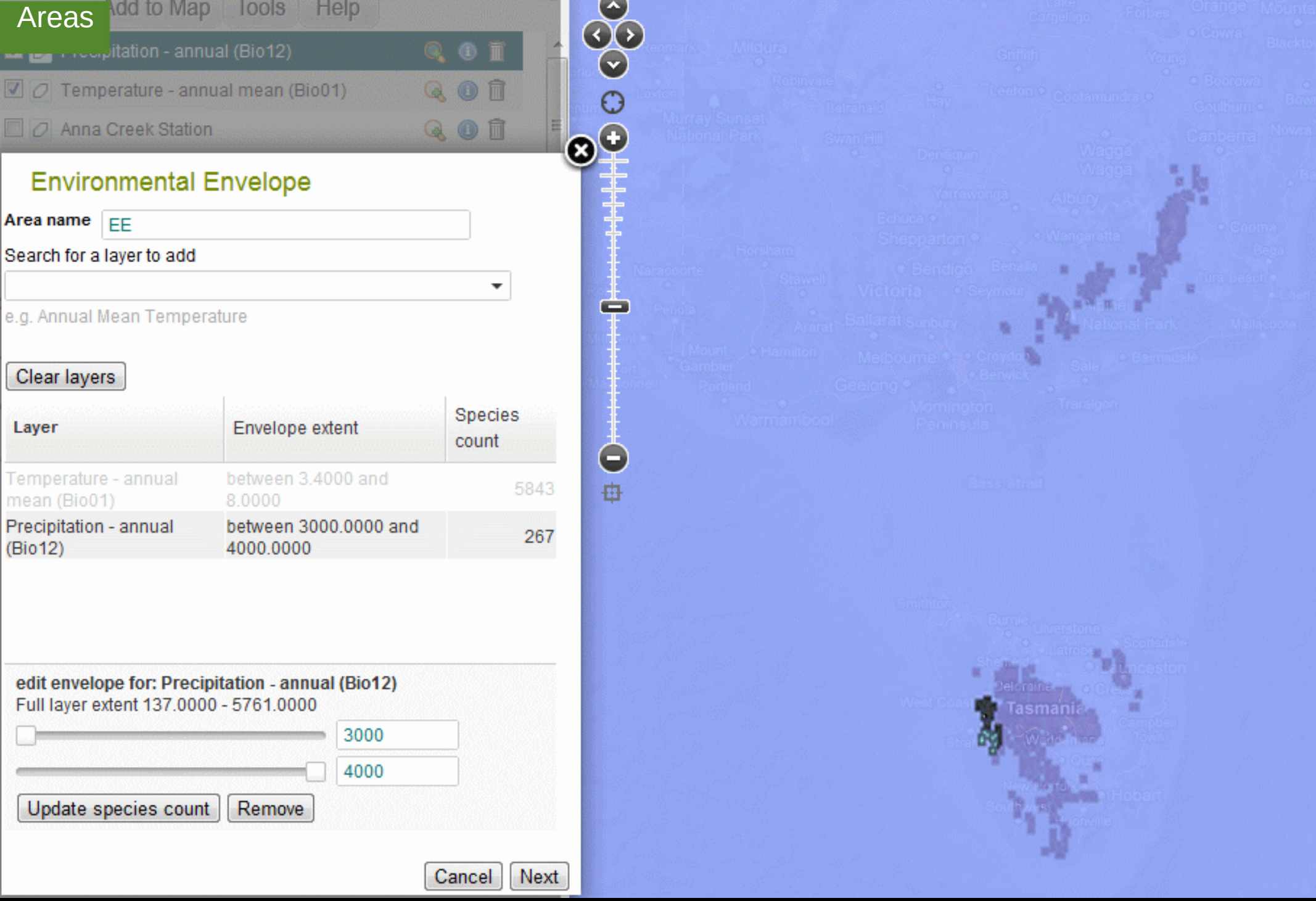
3.4000000953

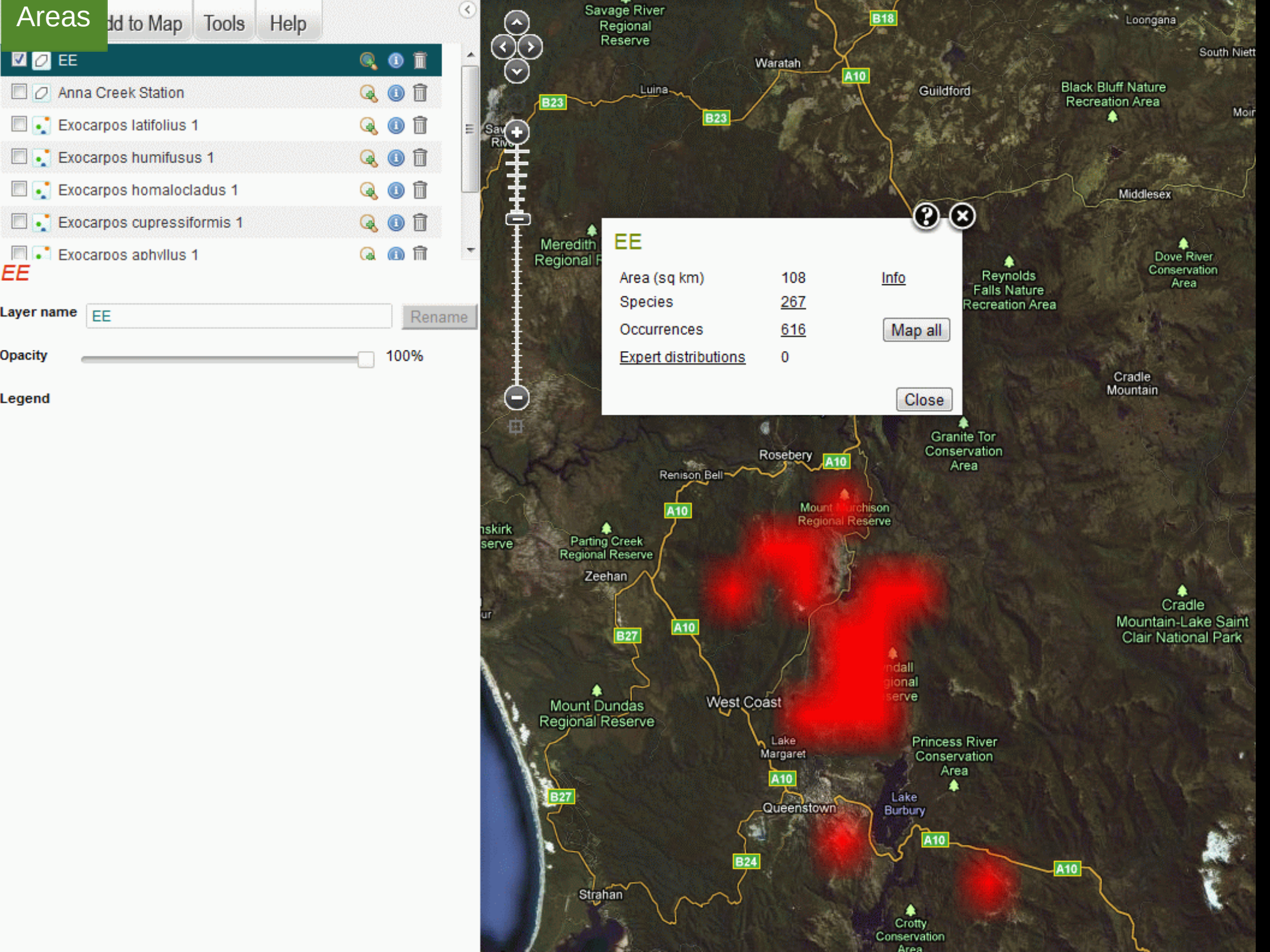
8

Update species count | Remove

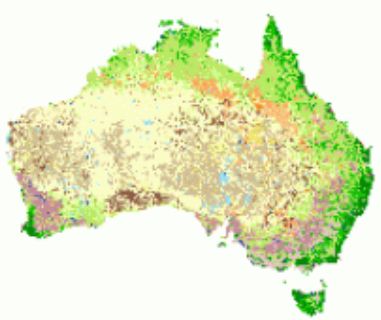
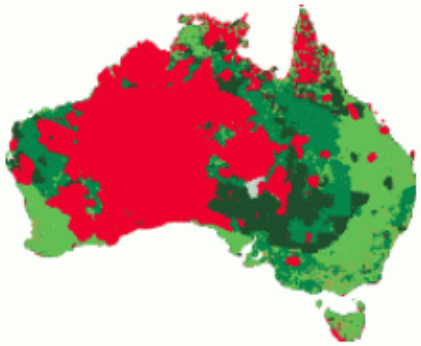
Cancel | Next




Areas
Add to Map
Tools
Help
Precipitation - annual (Bio12)
Temperature - annual mean (Bio01)
Anna Creek Station
Environmental Envelope
Area name
EE
Search for a layer to add
e.g. Annual Mean Temperature
Clear layers
Layer
Envelope extent
Species count
Temperature - annual mean (Bio01)
between 3.4000 and 8.0000
5843
Precipitation - annual (Bio12)
between 3000.0000 and 4000.0000
267
edit envelope for: Precipitation - annual (Bio12)
Full layer extent 137.0000 - 5761.0000
3000
4000
Update species count
Remove
Cancel
Next
Tasmania


Areas
dd to Map
Tools
Help
EE
Anna Creek Station
Exocarpos latifolius 1
Exocarpos humifusus 1
Exocarpos homalocladus 1
Exocarpos cupressiformis 1
Exocarpos aphyllus 1
EE
Layer name
EE
Rename
Opacity
100%
Legend
Savage River Regional Reserve
Waratah
Luina
Guildford
Black Bluff Nature Recreation Area
Middlesex
Meredith Regional
Reynolds Falls Nature Recreation Area
Dove River Conservation Area
EE
Area (sq km) 108 Info
Species 267
Occurrences 616 Map all
Expert distributions 0
Close
Cradle Mountain
Granite Tor Conservation Area
Rosebery
Renison Bell
Mount Murchison Regional Reserve
Parting Creek Regional Reserve
Zeehan
Cradle Mountain-Lake Saint Clair National Park
West Coast
Mount Dundas Regional Reserve
Lake Margaret
Princess River Conservation Area
Queenstown
Lake Burbury
Strahan
Crotty Conservation Area
B18
A10
B23
B27
B24

Layers

		National Dynamic Land Cover	dld_DLCMv1_Class	The National Dynamic Land Cover Dataset	Environmental (gridded) 250m	GA		
Vegetation		Vegetation - condition	vast	Vegetation assets, states and transitions - VAST 2 (class)	Contextual (polygonal)	ABARES		
Vegetation		Vegetation types - native	native_veg	Pre-European major vegetation groups (class)	Contextual (polygonal)	ERIN		
Vegetation		Vegetation types - present	present_veg	Current major vegetation group (class)	Contextual (polygonal)	ERIN		

Download as CSV | JSON | XML

Layers: land cover

National Dynamic Land Cover

Map options

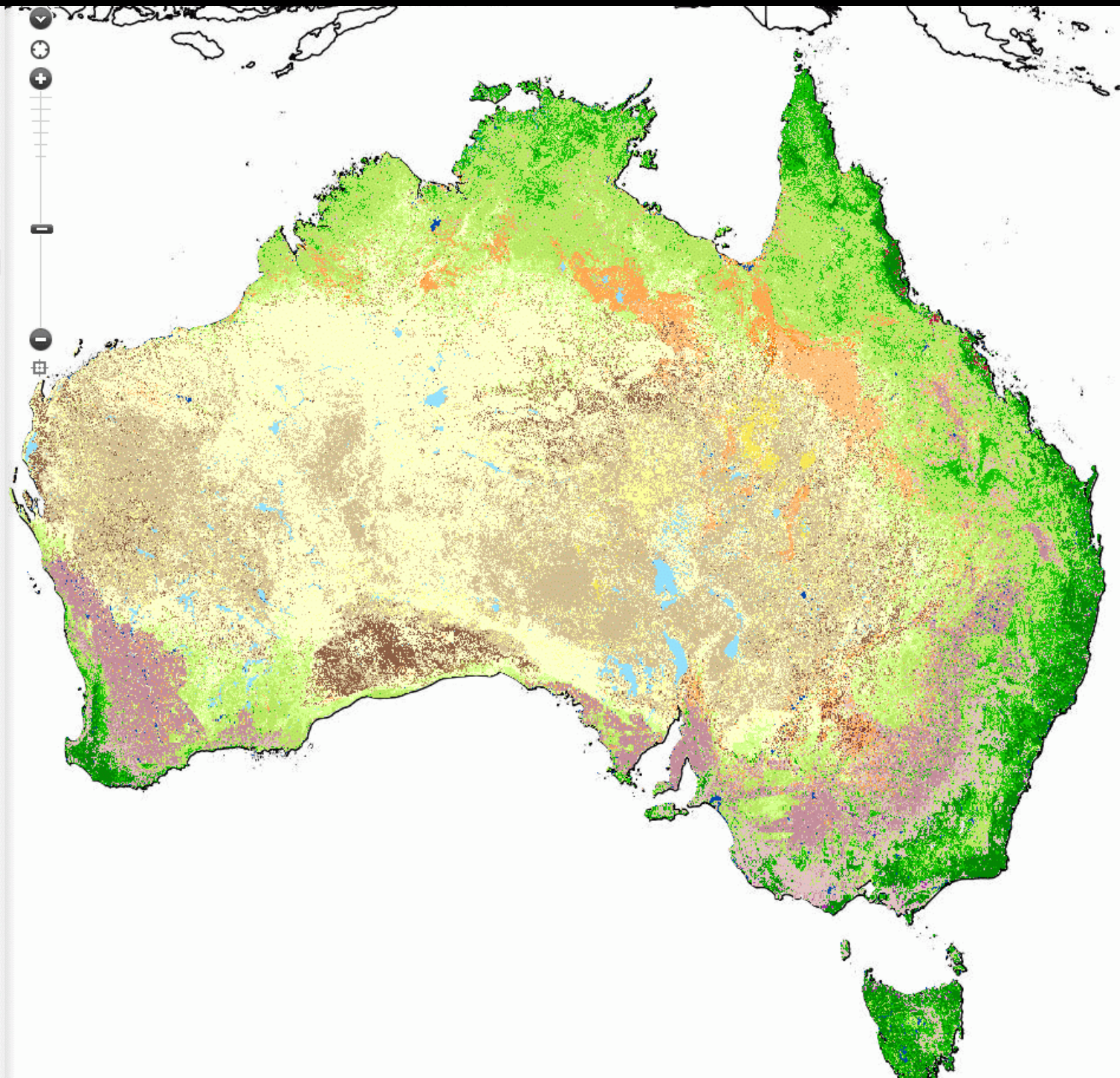
National Dynamic Land Cover

Layer name: National Dynamic Land Cover — Rename

Opacity: 100%

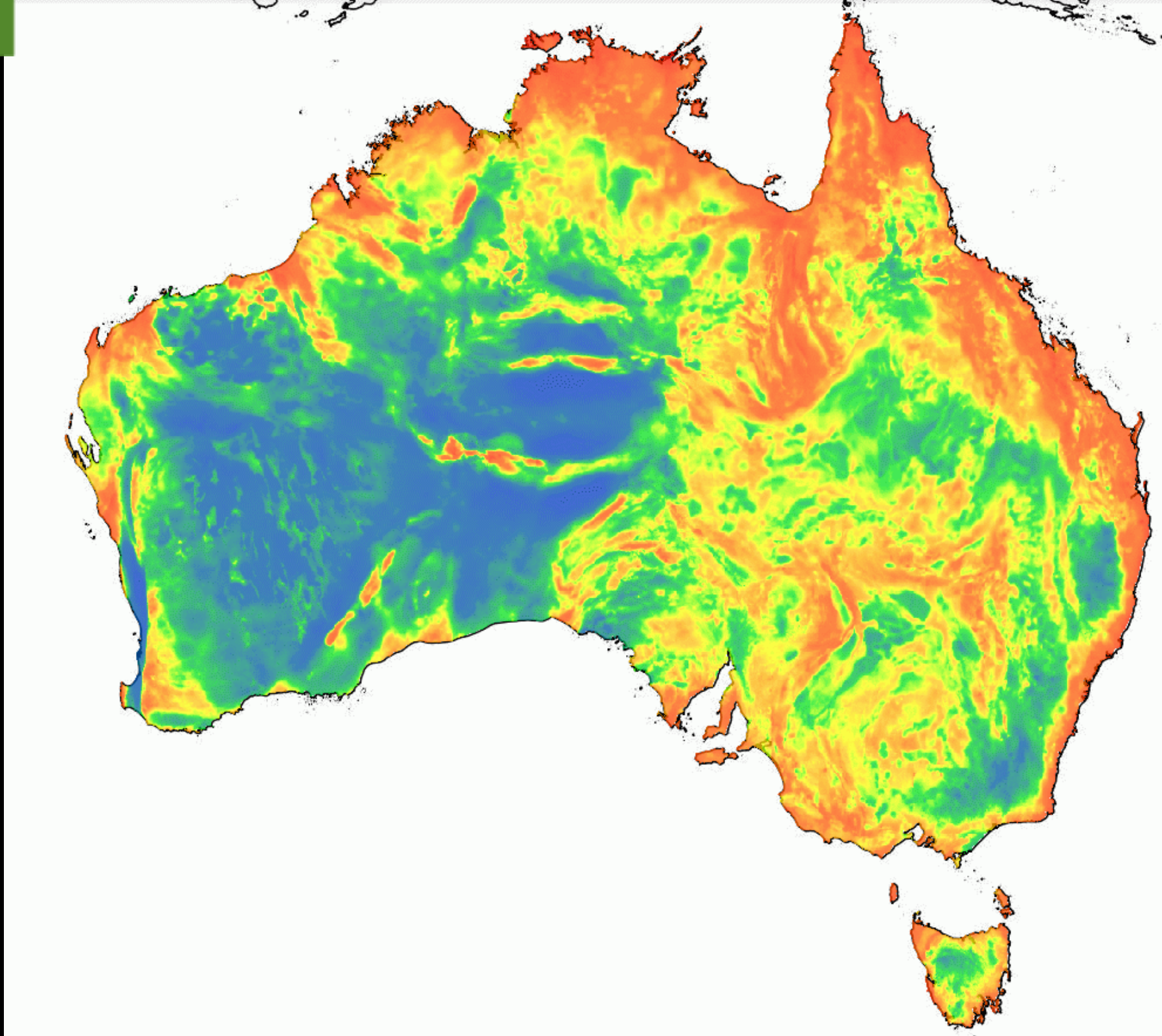
Legend

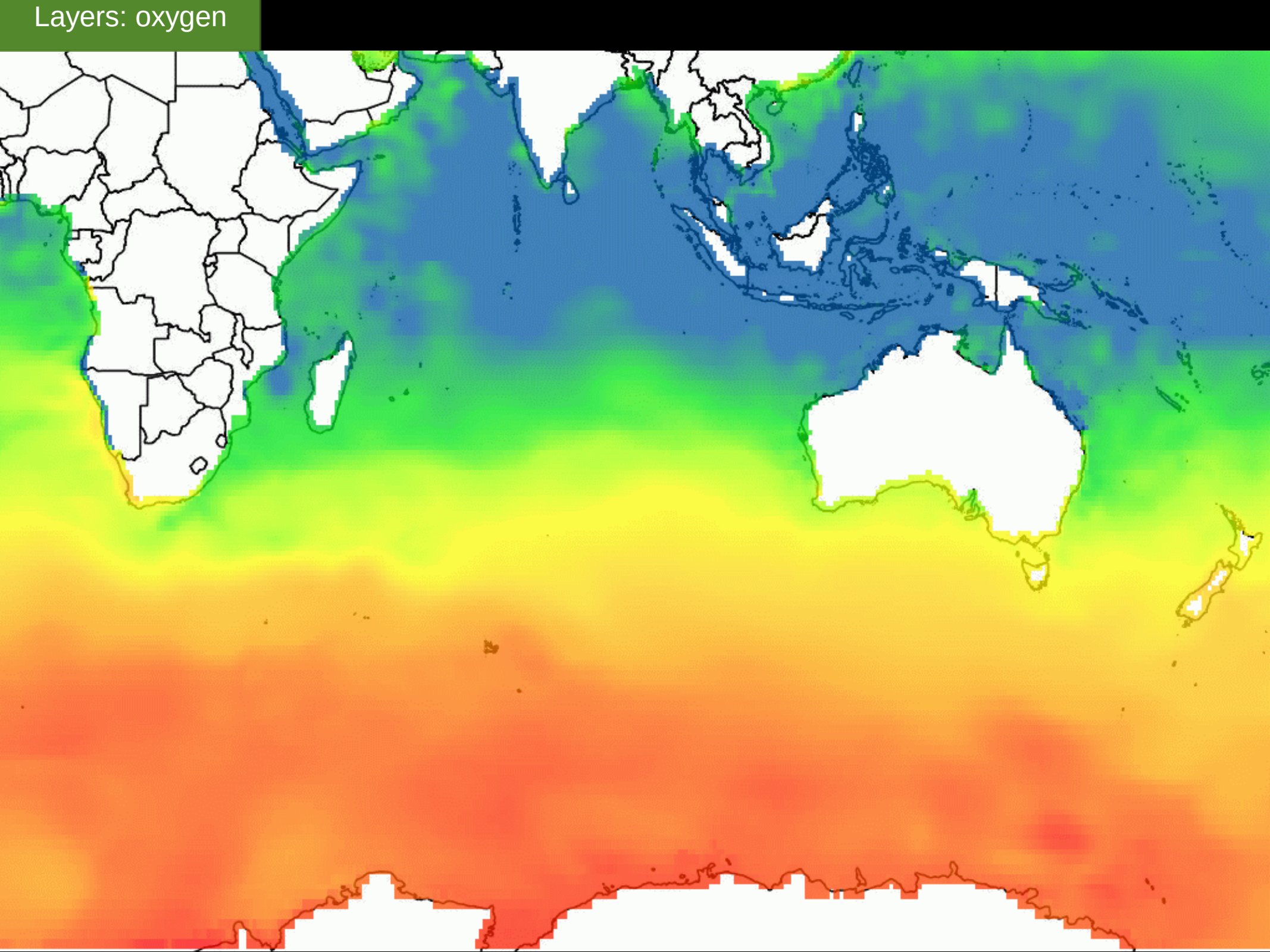
- No Data
- Extraction Sites
- Bare Areas
- Inland Waterbodies
- Salt Lakes
- Irrigated Cropping
- Irrigated Pasture
- Irrigated Sugar
- Rainfed Cropping
- Rainfed Pasture
- Rainfed Sugar
- Wetlands
- Forbs – Open
- Forbs – Sparse
- Tussock Grasses – Closed
- Alpine Grasses – Open
- Hummock Grasses – Open
- Sedges – Open
- Tussock Grasses – Open
- Grassland – Scattered
- Tussock Grasses – Scattered
- Grassland – Sparse
- Hummock Grasses – Sparse
- Tussock Grasses – Sparse
- Shrubs – Closed
- Shrubs – Open
- Chenopod Shrubs – Open
- Shrubs – Scattered
- Chenopod Shrubs – Scattered
- Shrubs – Sparse
- Chenopod Shrubs – Sparse
- Trees – Closed
- Trees – Open
- Trees – Scattered
- Trees – Sparse



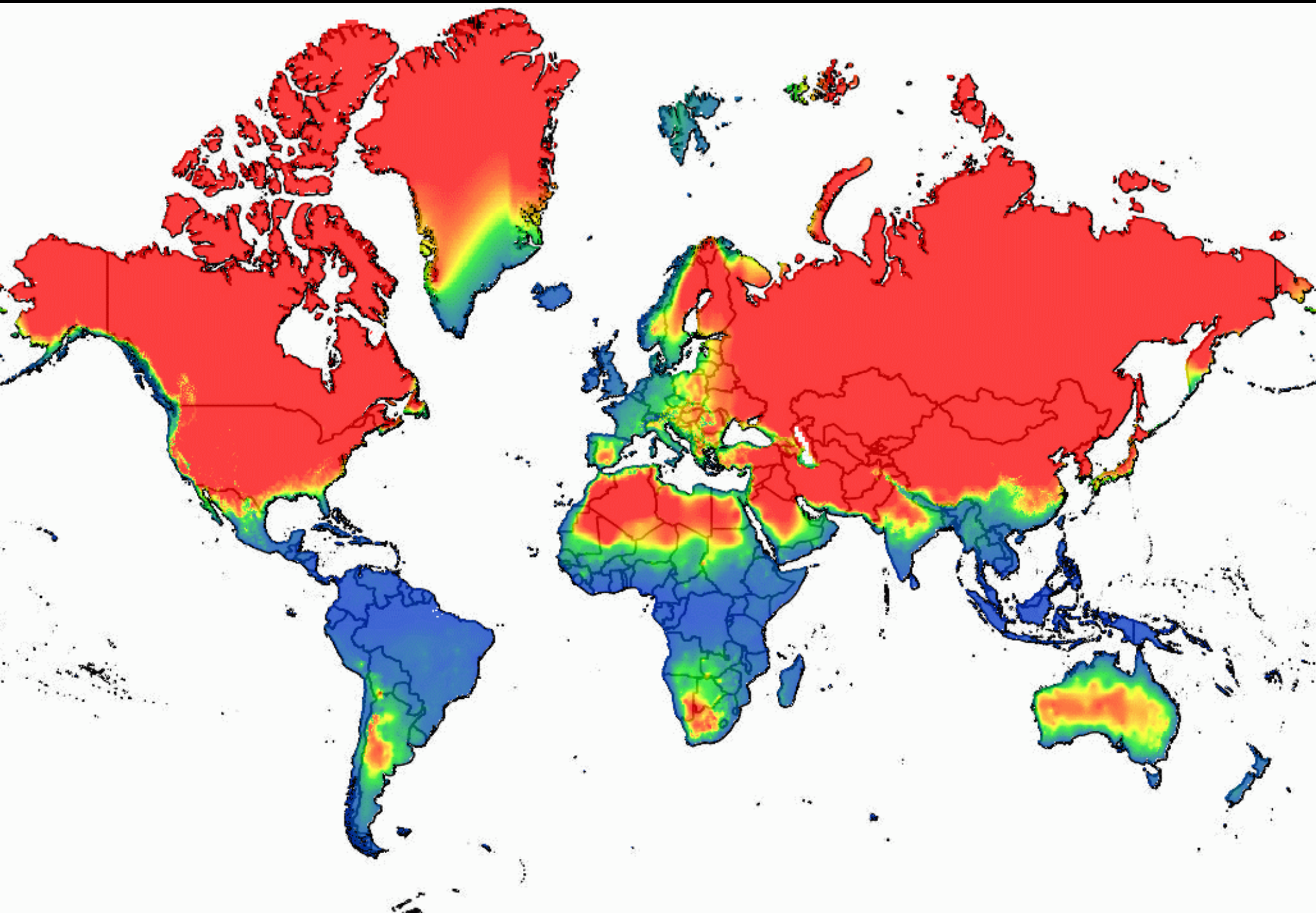
- View metadata for "National Dynamic Land Cover"

Layers: gravity

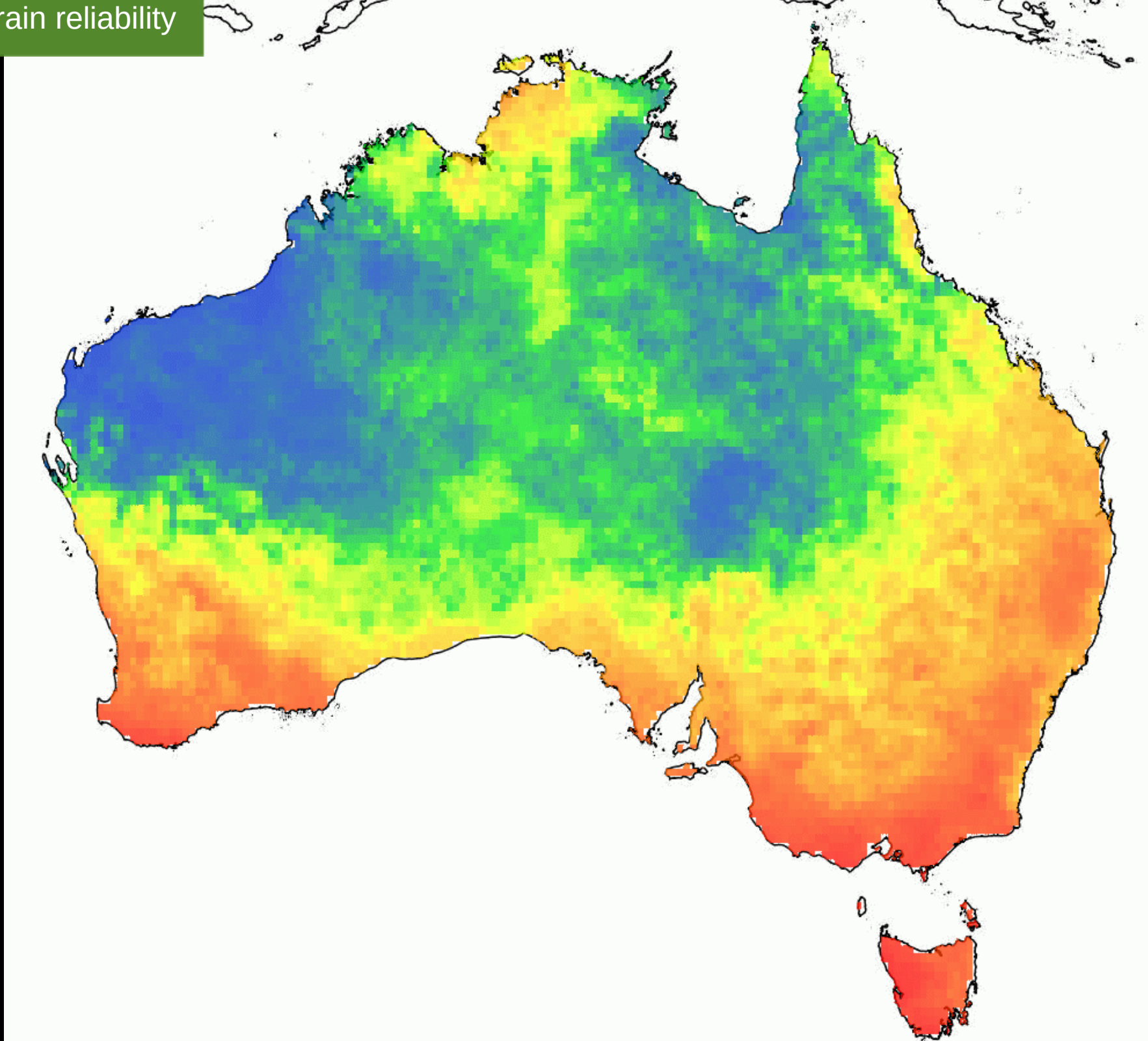



Layers: oxygen

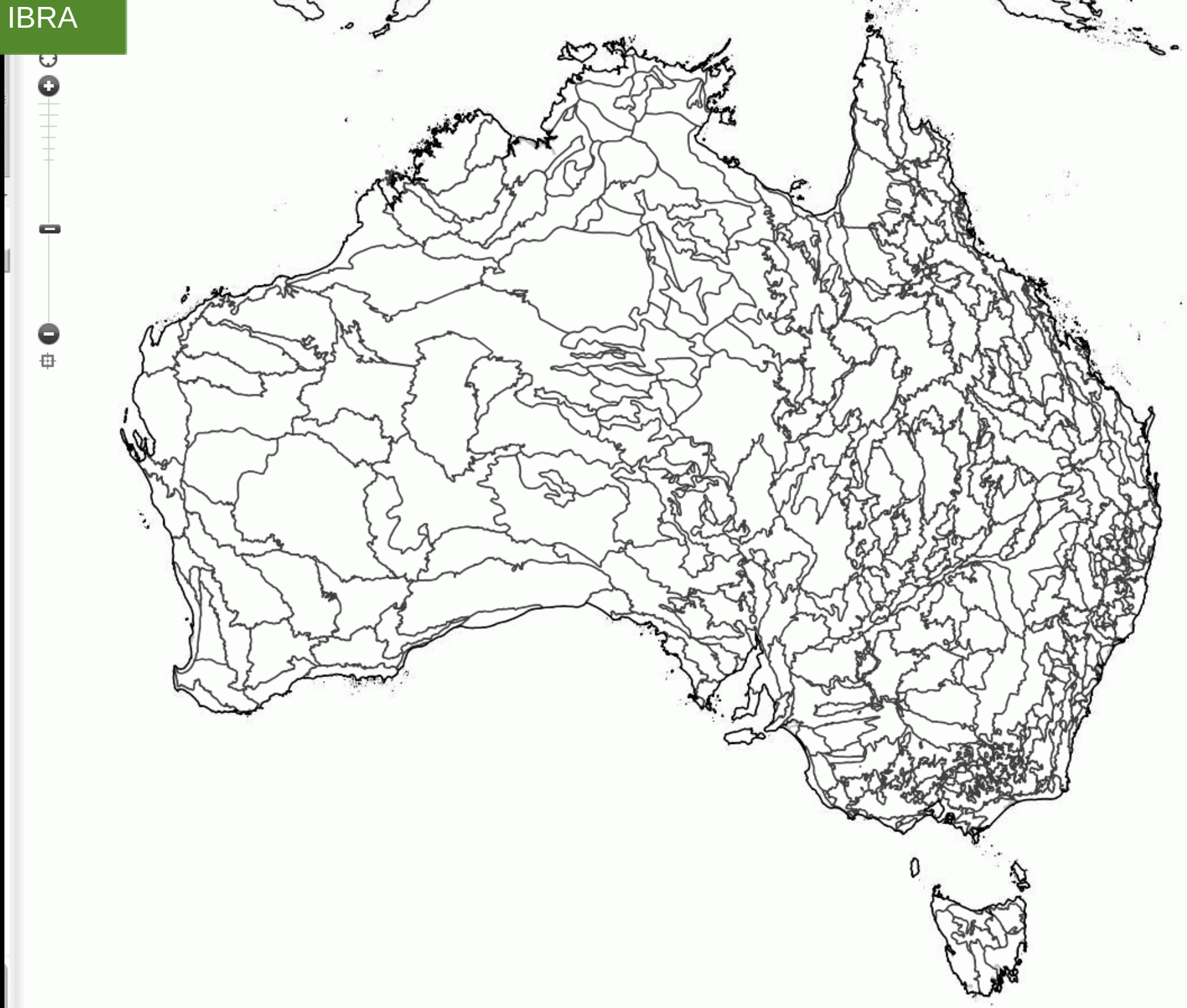
Layers: Temp range

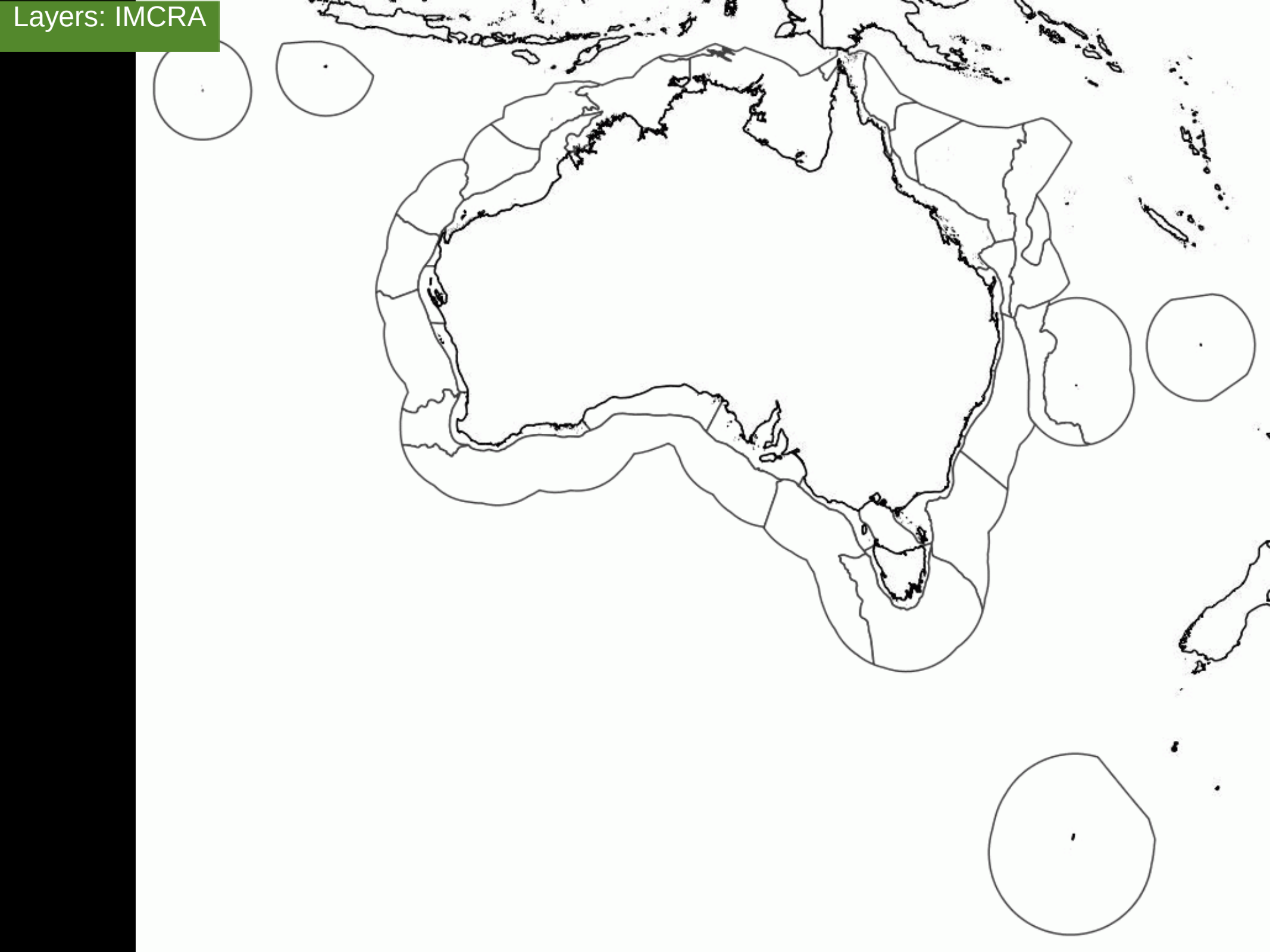


Layers: spring rain reliability

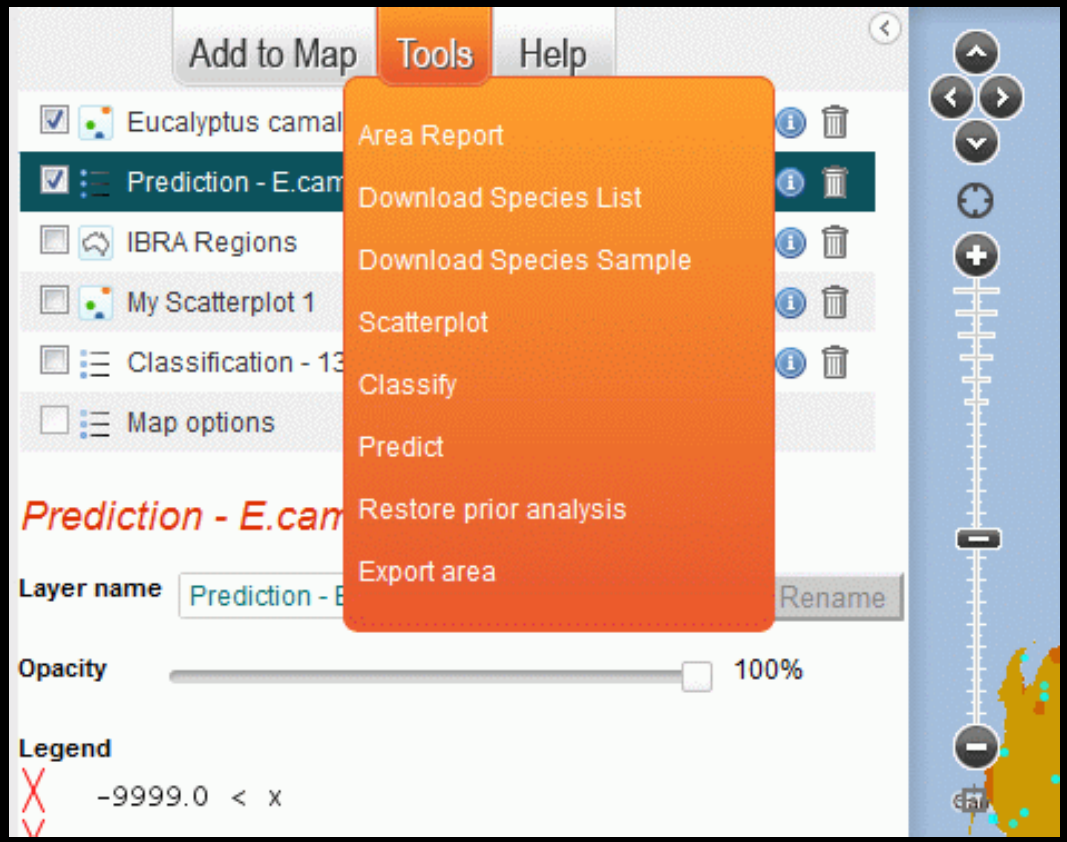


Layers: IBRA




Layers: IMCRA

Tools


Add to Map
Tools
Help
Eucalyptus camal
Prediction - E.cam
IBRA Regions
My Scatterplot 1
Classification - 13
Map options
Area Report
Download Species List
Download Species Sample
Scatterplot
Classify
Predict
Restore prior analysis
Export area
Prediction - E.cam
Layer name
Prediction - E
Rename
Opacity
100%
Legend
-9999.0 < x

Checklists

A	B	C	D	E	F
Family Name	**Scientific Name**	**Common name/s**	**Taxon rank**	**Scientific Name LSID**	**Number of Occurrences**
Estrildidae	Taeniopygia guttata	Zebra Finch, Zebra Finch, Zebra Finch, Zebra Finch, Zebra Finch, Zebra Finch, Zebra Finch, Zebra Finch, Zebra Finch, Zebra Finch	species	urn:lsid:biodiversity.org.au:afd.taxon:2f8fd069-023c-4331-ba3e-8b7c63f07b1e	335
Muridae	Mus musculus	biganuelo (Dominican Republic), field mouse (English), Hausmaus (German), House Mouse, House Mouse, House Mouse, House Mouse, House mouse, house mouse (English), kiore-iti (Maori), raton casero (Dominican Republic), souris commune (French), wood mouse (English)	species	urn:lsid:biodiversity.org.au:afd.taxon:d297ea57-6fac-45de-8d02-8e43adc89010	230
Columbidae	Ocyphaps lophotes	Crested Bronzewing, Crested Pigeon, Crested Pigeon, Crested Pigeon, Crested Pigeon, Crested Pigeon, Crested Pigeon, Crested Pigeon	species	urn:lsid:biodiversity.org.au:afd.taxon:8343fa49-0bab-496e-9d1f-e63d4608d9f7	226
Maluridae	Malurus leucopterus	White-winged Fairy-wren, White-winged Fairy-wren, White-winged Fairy-wren, White-winged Fairy-wren, White-winged Fairywren, White-winged Fairywren; White-winged Fairy-wren	species	urn:lsid:biodiversity.org.au:afd.taxon:2d20bbc4-af43-410f-9042-985c63c6359f	225
Cacatuidae	Eolophus roseicapillus	Galah, Galah, Galah	species	urn:lsid:biodiversity.org.au:afd.taxon:53f876f0-2c4d-40c8-ae6c-f478db8b07af	207
Meliphagidae	Lichenostomus virescens	Singing Honeyeater, Singing Honeyeater, Singing Honeyeater, Singing Honeyeater, Singing Honeyeater, Singing Honeyeater	species	urn:lsid:biodiversity.org.au:afd.taxon:50954e49-5907-4f08-8017-b27c0b3d3b9d	191
Gekkonidae	Gehyra variegata	Tree Dtella, Tree Dtella, Tree Dtella, Tree Dtella, Tree Dtella	species	urn:lsid:biodiversity.org.au:afd.taxon:2add58c8-a3e1-4d69-bbe6-daa14dfd975c	171
Rhipiduridae	Rhipidura leucophrys	Willie Wagtail, Willie Wagtail, Willie Wagtail, Willie Wagtail, Willie Wagtail, Willie Wagtail, Willie Wagtail, Willie Wagtail, Willie-wagtail; Willie Wagtail	species	urn:lsid:biodiversity.org.au:afd.taxon:10595785-a754-4011-8e14-0459e70080a9	167
Psittacidae	Melopsittacus undulatus	Budgerigar, Budgerigar, Budgerigar, Budgerigar, Budgerigar, Budgerigar, Budgie; Budgerygah	species	urn:lsid:biodiversity.org.au:afd.taxon:149bac5a-83f2-4adb-91ca-5f53b1aa2374	166
Artamidae	Artamus cinereus		species	urn:lsid:biodiversity.org.au:afd.taxon:6dee0810-3f27-45cd-82d4-5a97fa291ab5	161
Meliphagidae	Lichenostomus penicillatus	White-plumed Honeyeater, White-plumed Honeyeater, White-plumed Honeyeater, White-plumed Honeyeater, White-plumed Honeyeater, White-plumed Honeyeater	species	urn:lsid:biodiversity.org.au:afd.taxon:3ca16127-364a-404e-ab8b-acf39f0b7099	159
Dasyuridae	Sminthopsis crassicaudata	Fat-tailed Dunnart, Fat-tailed Dunnart, Fat-tailed Dunnart, Fat-tailed Dunnart, Fat-tailed Dunnart, Fat-tailed Dunnart	species	urn:lsid:biodiversity.org.au:afd.taxon:77b3bcbc-6ac6-45ee-9c1c-1c1dc3108ac9	138
Corvidae	Corvus coronoides		species	urn:lsid:biodiversity.org.au:afd.taxon:9b8d040b-ede1-46b8-a2b0-ee32d08e0961	126
Motacillidae	Anthus novaeseelandiae	Australasian Pipit, Australasian Pipit; New Zealand Pipit; Richard's Pipit, Australian Pipit, Australian Pipit, New Zealand Pipit, Richards Pipit	species	urn:lsid:biodiversity.org.au:afd.taxon:3677a747-9b1e-4bc2-b986-1c1d1ddb2879	126
Maluridae	Malurus lamberti	Lambert Wren; Lavender-flanked Wren, Variegated Fairy-wren, Variegated Fairy-wren, Variegated Fairy-wren, Variegated Fairy-wren,	species	urn:lsid:biodiversity.org.au:afd.taxon:698fa787-ffc8-44a7-	123

Sampling

H1 fx taxon_concept_lsid

H	I	J	K	L	M	N	O	Q	S	X	AA	AB	AD	AI	AJ	AK	AL	AM	AN	AO
taxon_concept_lsid	id	kingdom	phylum	class	order	family	genus	taxon_name	data_provider	institution_code_name	catalogue_number	rank	lat_long_precision	occurrence_date	basis_of_record	raw_record_no	longitude	latitude	Growth index C3 macrotherm plants - annual mean	IBRA Sub Regions
urn:lsid:biodiversity.org.au:apni.taxon:294916	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lindleyi conduplicata	Australia's Virtual Herbarium (AVH)	Plant Biodiversity Centre State Herbarium of South Australia	96845290	subspecies	28500	1968-07-31T12:00:00	specimen	96845290	135.8	-28.2	0.03	Warriner
urn:lsid:biodiversity.org.au:apni.taxon:294916	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lindleyi conduplicata	Australia's Virtual Herbarium (AVH)	Plant Biodiversity Centre State Herbarium of South Australia	96218079	subspecies	48500		specimen	96218079	135.6	-28.3	0.03	Warriner
urn:lsid:biodiversity.org.au:apni.taxon:294916	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lindleyi conduplicata	Australia's Virtual Herbarium (AVH)	Plant Biodiversity Centre State Herbarium of South Australia	143803	subspecies	28500	2001-08-15T12:00:00	specimen	143803	135.1	-28	0.03	Oodnadatta
urn:lsid:biodiversity.org.au:apni.taxon:294916	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lindleyi conduplicata	Australia's Virtual Herbarium (AVH)	Queensland Herbarium	AQ0534039	subspecies	20100	1986-09-14T12:00:00	specimen	AQ0534039	135.5	-28.5	0.03	Oodnadatta
urn:lsid:biodiversity.org.au:apni.taxon:294916	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lindleyi conduplicata	Australia's Virtual Herbarium (AVH)	Australian National Herbarium	496490	subspecies	19500	1986-09-14T12:00:00	specimen	496490	135.5	-28.5	0.03	Oodnadatta
urn:lsid:biodiversity.org.au:apni.taxon:295799	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lindleyi inflata	Australia's Virtual Herbarium (AVH)	Plant Biodiversity Centre State Herbarium of South Australia	97803155	subspecies	48500		specimen	97803155	135.4	-28.2	0.03	Oodnadatta
urn:lsid:biodiversity.org.au:apni.taxon:295799	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lindleyi inflata	Australia's Virtual Herbarium (AVH)	Plant Biodiversity Centre State Herbarium of South Australia	96833232	subspecies	28500	1968-06-29T12:00:00	specimen	96833232	135.9	-28	0.02	Oodnadatta
urn:lsid:biodiversity.org.au:apni.taxon:295799	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lindleyi inflata	Australia's Virtual Herbarium (AVH)	Australian National Herbarium	266274	subspecies	20500	1976-12-02T12:00:00	specimen	266274	136.3	-28.9	0.02	Warriner
urn:lsid:biodiversity.org.au:apni.taxon:294925	2.02E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lobativalvis	South Australia Department of Environment and Natural Resources			species	100	1992-12-04T12:00:00	specimen	1177792	134.92	-28.517	0.03	Oodnadatta
urn:lsid:biodiversity.org.au:apni.taxon:294925	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex lobativalvis	Australia's Virtual Herbarium (AVH)	Plant Biodiversity Centre State Herbarium of South Australia	98449201	species	19500	1984-07-03T12:00:00	specimen	98449201	136	-29	0.02	Warriner
urn:lsid:biodiversity.org.au:apni.taxon:294926	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex muelleri	Australia's Virtual Herbarium (AVH)	Australian National Herbarium	34900	species	20500	1955-09-16T12:00:00	specimen	34900	135.8	-28.4	0.03	Peake-Dennisc
urn:lsid:biodiversity.org.au:apni.taxon:294960	2.02E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex pseudocampanulata	South Australia Department of Environment and Natural Resources			species	50	2005-09-29T12:00:00	specimen	585851	136.321	-27.967	0.02	Oodnadatta
urn:lsid:biodiversity.org.au:apni.taxon:294960	2.03E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex pseudocampanulata	Australia's Virtual Herbarium (AVH)	Plant Biodiversity Centre State Herbarium of South Australia	98448207	species	19500	1984-06-02T12:00:00	specimen	98448207	136.1	-28.9	0.02	Warriner
urn:lsid:biodiversity.org.au:apni.taxon:294984	2.02E+08	Plantae	Magnoliophyta	Magnoli	Caryophyllales	Chenopodiaceae	Atriplex	Atriplex spongiosa	South Australia Department of Environment and Natural Resources			species	50	2005-09-23T12:00:00	specimen	70228	135.314	-28.182	0.03	Oodnadatta
									South Australia											

Scatterplot

Anna Creek Station

Exocarpos latifolius 1

Exocarpos humifusus 1

Exocarpos homalocladus 1

Exocarpos cupressiformis 1

E.Melliodora

Species display settings

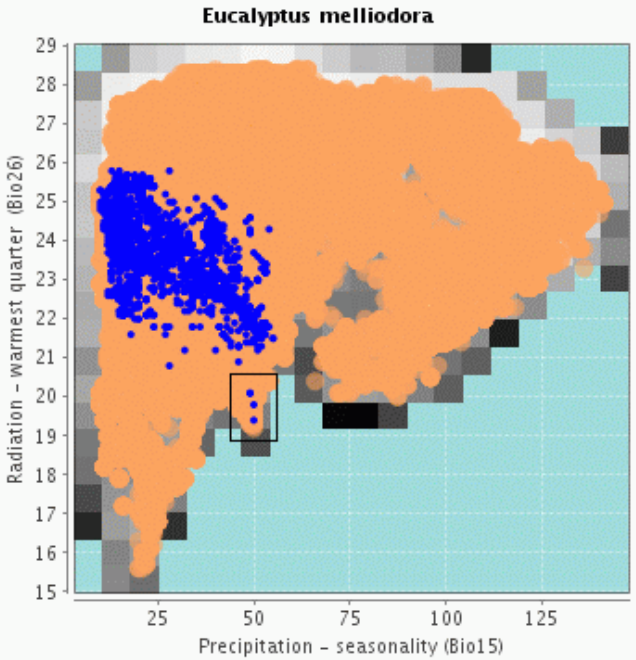
Download image | Download data

Records selected: 4 | add in/out layers to map

Precipitation - seasonality (Bio15): 43.7122 - 55.7863

Radiation - warmest quarter (Bio26): 18.8961 - 20.6090

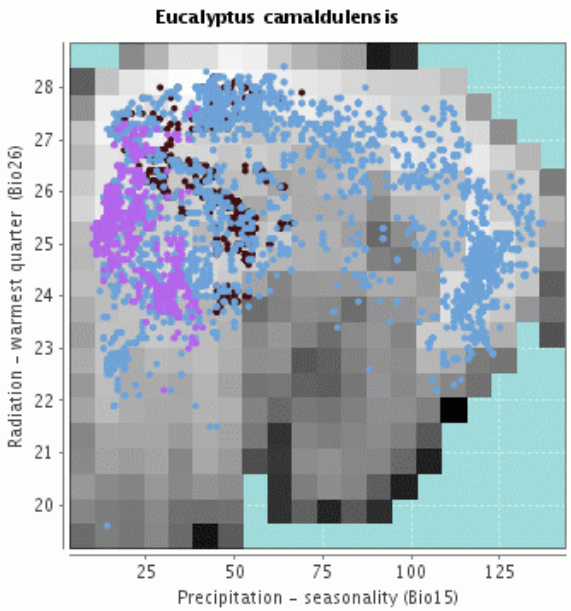
SELECT records with missing values (16)



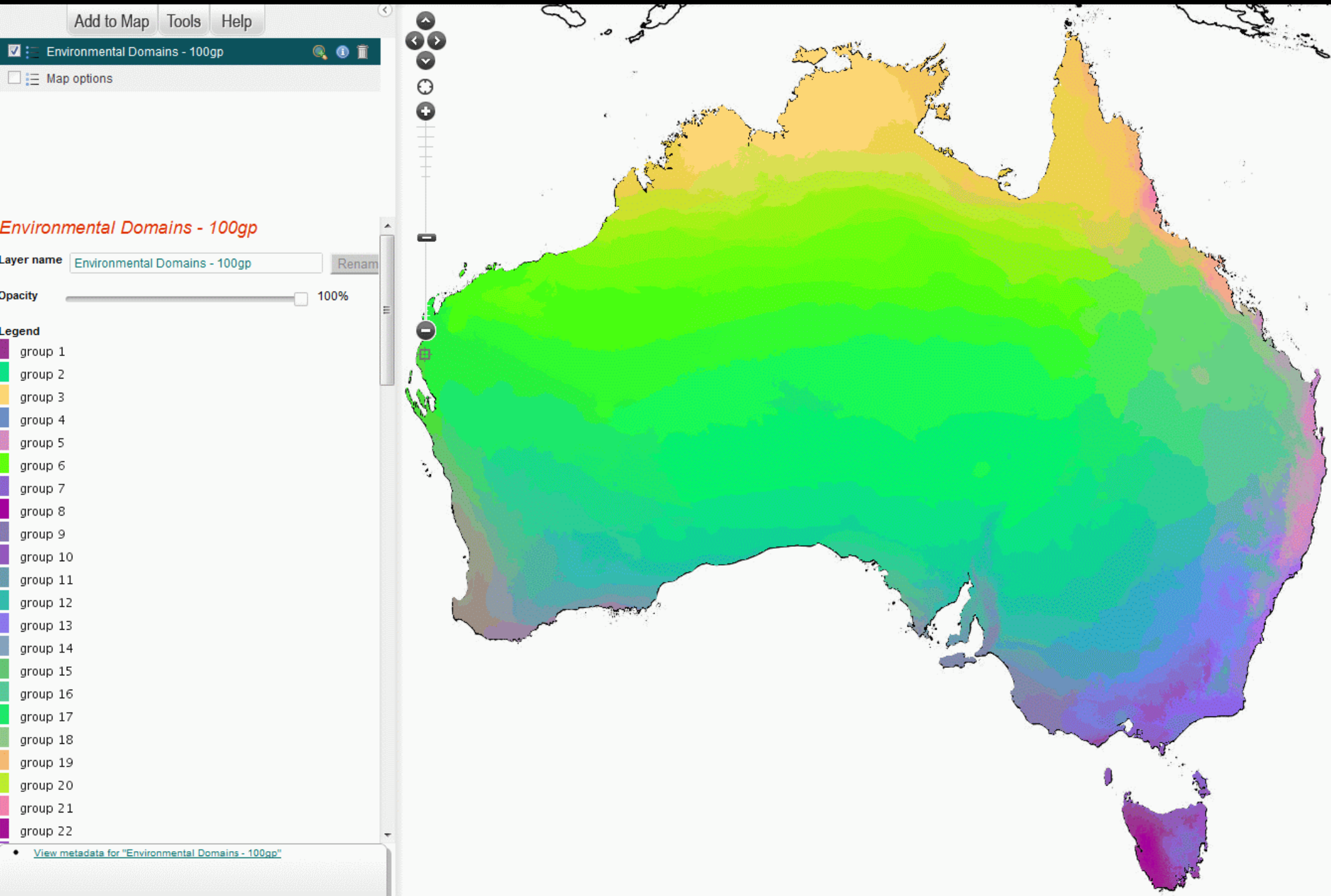
Species display settings

Download image | Download data

SELECT records with missing values (118)



Classification



Classification

	A	B	C	D	E	F	G	H	I
1	group number	red	green	blue	Precipitation - driest quarter (Bio17)	Precipitation - seasonality (Bio15)	Radiation - seasonality (Bio23)	Radiation - warmest quarter (Bio26)	Moisture Index - highest quarter mean (Bio32)
2	1	154	52	143	270.49	31.26	53.89	18.69	1.00
3	2	0	226	136	38.41	26.45	31.89	27.38	0.15
4	3	255	215	115	6.11	114.33	10.23	23.84	0.99
5	4	107	142	198	108.41	21.96	39.80	23.56	0.77
6	5	214	140	192	143.74	47.96	25.92	20.72	1.00
7	6	96	254	19	13.92	102.24	18.22	26.28	0.25
8	7	138	100	206	144.95	20.12	47.00	21.82	1.00
9	8	164	0	154	492.96	22.55	53.81	16.12	1.00
10	9	135	123	176	82.32	43.53	45.65	23.68	1.00
11	10	142	88	196	221.26	29.38	45.85	21.62	1.00
12	11	105	156	174	51.26	46.64	40.83	25.65	0.84
13	12	49	187	160	47.37	30.80	37.85	26.25	0.49
14	13	140	119	254	173.96	16.46	37.27	23.14	0.98
15	14	132	162	191	132.37	33.35	29.10	23.15	0.72
16	15	101	196	115	24.33	76.92	32.60	26.99	0.67
17	16	87	200	153	84.72	37.40	26.71	24.66	0.44
18	17	29	232	103	20.61	53.71	29.25	27.65	0.23
19	18	144	200	139	77.52	54.04	21.08	23.21	0.58
20	19	247	185	113	44.70	97.97	17.83	22.06	0.99
21	20	187	236	45	7.49	120.54	13.31	24.93	0.64
22	21	240	130	169	277.49	71.37	18.39	20.12	1.00

Step 1 of 5 - Prediction

1. **Apply to an area**
2. Select species
3. Select environmental layers
4. MaxEnt options
5. Set layer name

Apply to an area

- (•) My Area 3
- ( ) My Area 2
- ( ) My Area 1
- ( ) All area layers
- ( ) Current extent
- ( ) Australia
- ( ) World
- ( ) Define new area

Step 2 of 5 - Prediction

1. Apply to an area ✓
2. **Select species**
3. Select environmental layers
4. MaxEnt options
5. Set layer name

Select species

- (•) Eucalyptus camaldulensis 2
- ( ) Search for species by common or scientific name
- ( ) Upload coordinates
- ( ) Upload LSIDs

Step 3 of 5 - Prediction

1. Apply to an area ✓
2. Select species ✓
3. **Select environmental layers**
4. MaxEnt options
5. Set layer name

Select one or more environmental layers

	category	name
☐	Climate; Precipitation	Precipitation - annual mean
☐	Climate; Precipitation	Precipitation - annual seasonality
☐	Climate; Precipitation	Precipitation - annual seasonality ratio
☐	Climate; Precipitation	Precipitation - autumn
☐	Climate; Precipitation	Precipitation - autumn reliability
☐	Climate; Precipitation	Precipitation - coldest quarter (Bio19)
☐	Climate; Precipitation	Precipitation - driest month
☐	Climate; Precipitation	Precipitation - driest period (Bio14)
☑	Climate; Precipitation	Precipitation - driest quarter (Bio17)
☐	Climate; Precipitation	Precipitation - equinox seasonality ratio
☐	Climate; Precipitation	Precipitation - max difference between successive months

Step 4 of 5 - Prediction

1. Apply to an area ✓
2. Select species ✓
3. Select environmental layers ✓
4. **MaxEnt options**
5. Set layer name

MaxEnt options

- ☐ Do jackknife to measure variable importance
- ☑ Create response curves

Random test percentage (0 - 100): 10

Step 5 of 5 - Prediction

1. Apply to an area ✓
2. Select species ✓
3. Select environmental layers ✓
4. MaxEnt options ✓
5. **Set layer name**

Name for prediction layer

Eucalyptus camaldulensis

Prediction

Add to Map | Tools | Help

- Eucalyptus camaldulensis 2
- Prediction - E.camaldulensis
- IBRA Regions
- My Scatterplot 1
- Classification - 1315953358461
- Map options

Prediction - E.camaldulensis

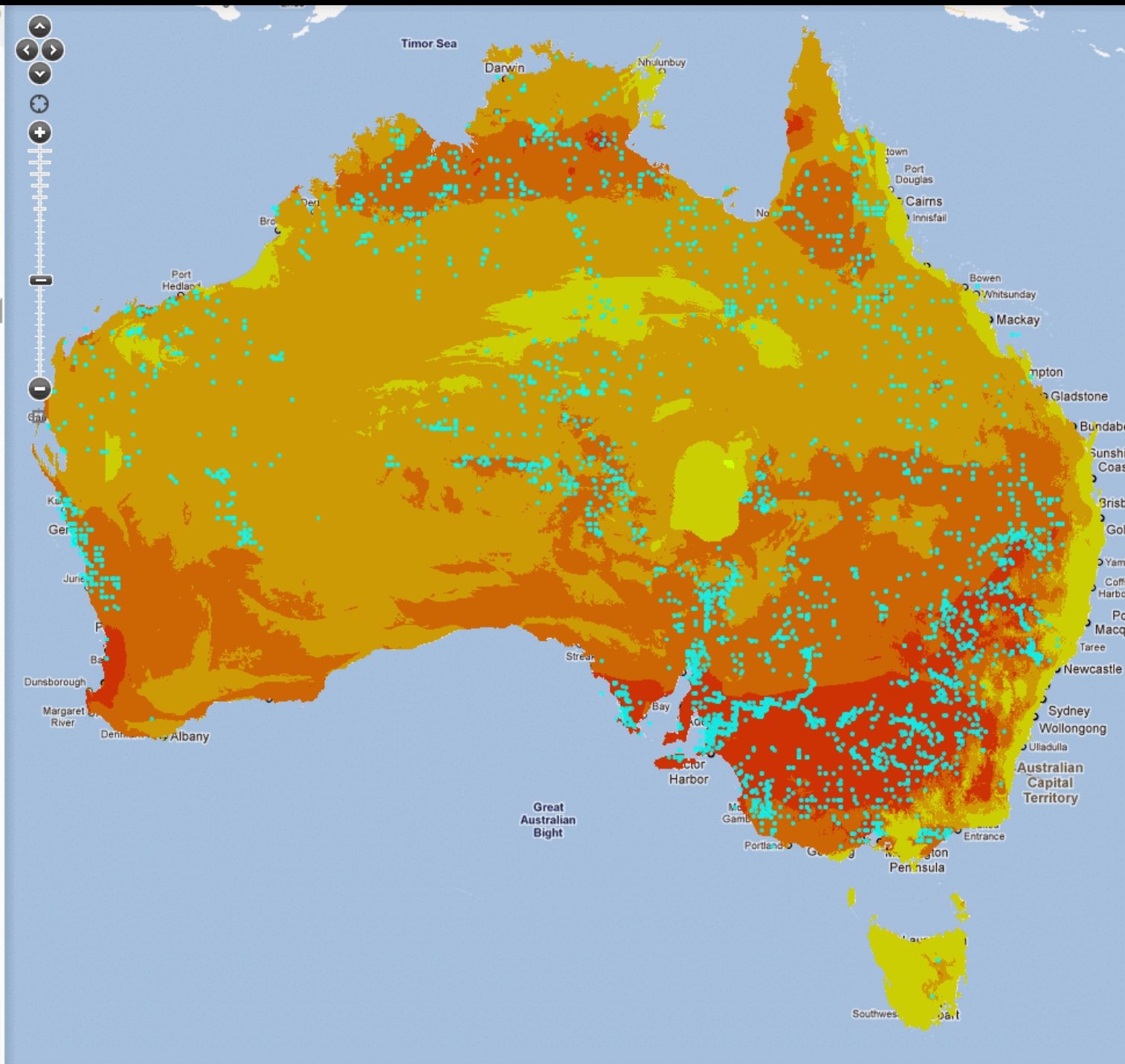
Layer name Prediction - E.camaldulensis Rename

Opacity 100%

Legend

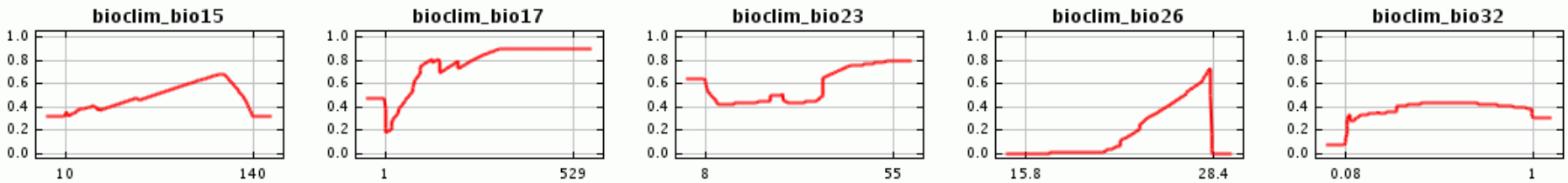
- -9999.0 < x
- -9999.0 <= x < 0.0
- 0.0 <= x < 1.0E-4
- 1.0E-4 <= x < 0.2
- 0.2 <= x < 0.4
- 0.4 <= x < 0.6
- 0.6 <= x < 0.8
- 0.8 <= x < 1.0

- View metadata for "Eucalyptus camaldulensis 2"
- Download all records for "Eucalyptus camaldulensis 2"
- Produce scatterplot for "Eucalyptus camaldulensis 2"
- Generate prediction for "Eucalyptus camaldulensis 2"

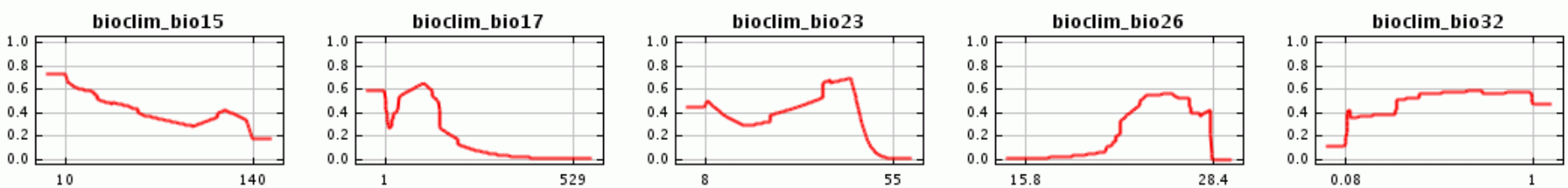


Response curves

These curves show how each environmental variable affects the Maxent prediction. The curves show how the logistic prediction changes as each environmental variable is varied, keeping all other environmental variables at their average sample value. Click on a response curve to see a larger version. Note that the curves can be hard to interpret if you have strongly correlated variables, as the model may depend on the correlations in ways that are not evident in the curves. In other words, the curves show the marginal effect of changing exactly one variable, whereas the model may take advantage of sets of variables changing together.



In contrast to the above marginal response curves, each of the following curves represents a different model, namely, a Maxent model created using only the corresponding variable. These plots reflect the dependence of predicted suitability both on the selected variable and on dependencies induced by correlations between the selected variable and other variables. They may be easier to interpret if there are strong correlations between variables.

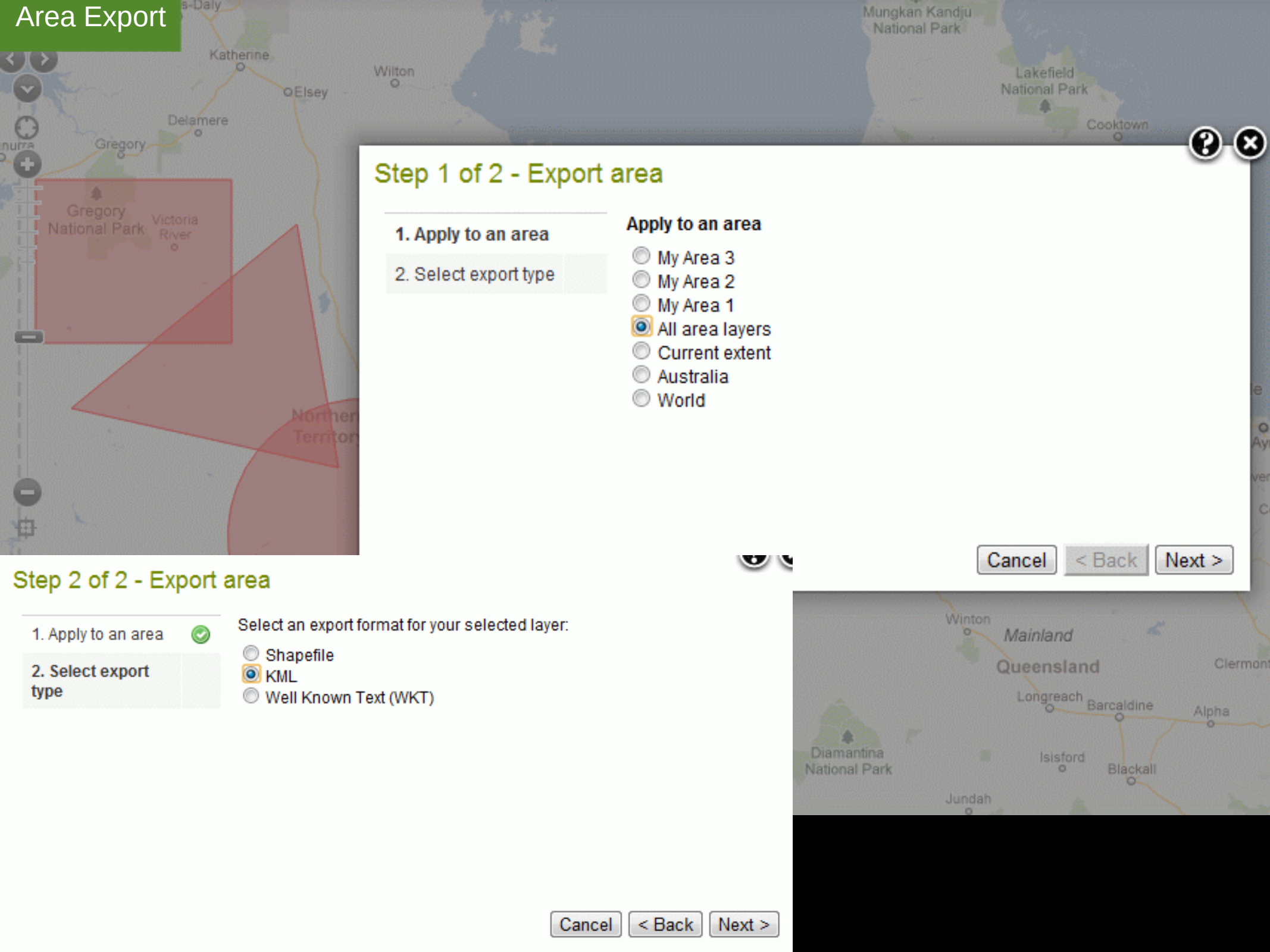


Analysis of variable contributions

The following table gives estimates of relative contributions of the environmental variables to the Maxent model. To determine the first estimate, in each iteration of the training algorithm, the increase in regularized gain is added to the contribution of the corresponding variable, or subtracted from it if the change to the absolute value of lambda is negative. For the second estimate, for each environmental variable in turn, the values of that variable on training presence and background data are randomly permuted. The model is reevaluated on the permuted data, and the resulting drop in training AUC is shown in the table, normalized to percentages. As with the variable jackknife, variable contributions should be interpreted with caution when the predictor variables are correlated.

Variable	Percent contribution	Permutation importance
bioclim_bio23	41.8	19.3
bioclim_bio17	22.3	38.3
bioclim_bio26	18.2	20.4
bioclim_bio32	13	12.1
bioclim_bio15	4.6	9.9

Area Export


Katherine
Elsey
Wilton
Delamere
Gregory
Gregory National Park
Victoria River
Mungkan Kandju National Park
Lakefield National Park
Cooktown
Step 1 of 2 - Export area
1. Apply to an area
2. Select export type
Apply to an area
My Area 3
My Area 2
My Area 1
All area layers
Current extent
Australia
World
Cancel
< Back
Next >
Step 2 of 2 - Export area
1. Apply to an area
2. Select export type
Select an export format for your selected layer:
Shapefile
KML
Well Known Text (WKT)
Cancel
< Back
Next >
Winton
Mainland
Queensland
Longreach
Barcaldine
Alpha
Diamantina National Park
Isisford
Blackall
Jundah

Ahead

- Portable Portal (HTML5)
- Generalize Scatterplot to contextual layers (tabulations)
- Generate areas x species matrices (+ environmental data)
- Generalized Dissimilarity Modelling (Simon Ferrier)
- Restore state and task scheduling
- Tap satellite imagery, e.g., weekly evapotranspiration maps

The End

http://www.ala.org.au
http://spatial.ala.org.au
http://spatial.ala.org.au/layers
http://biocache.ala.org.au
http://bie.ala.org.au
http://bhl.ala.org.au

Partners

Government:
- –CSIRO
- –Dept. Environment, Water, Heritage and the Arts
- –Dept. Agriculture, Fisheries and Forestry

Representative bodies
- –Council of Heads of Australasian Herbaria
- –Council of Heads of Australian Faunal Collections
- –Council of Heads of Australian Entomological Collections
- –Council of Heads of Australian Collections of Microorganisms
- –Council of Australasian Museum Directors

State museums
- –Australian Museum
- –Museum and Art Gallery of the Northern Territory
- –Museum Victoria
- –Queensland Museum
- –South Australian Museum
- –Tasmanian Museum and Art Gallery
- –Western Australian Museum

Universities
- –Southern Cross University
- –University of Adelaide