

[www.ala.org.au](http://www.ala.org.au)

# How can the ALA help BIGnet?

## Citizen Science at work

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# Overview

- An introduction to the Atlas of Living Australia (ALA)
- The ALA's Citizen Science project
- The ALA's Citizen Science solution
- Where to from here?
- Questions
- Demo at morning tea

# Atlas of Living Australia

- Australian Government funding to June 2012
- Mission
  - To develop an authoritative, freely accessible distributed and federated biodiversity data management system
- Working in a range of areas to deliver this, all around the ALA web site:

[www.ala.org.au](http://www.ala.org.au)

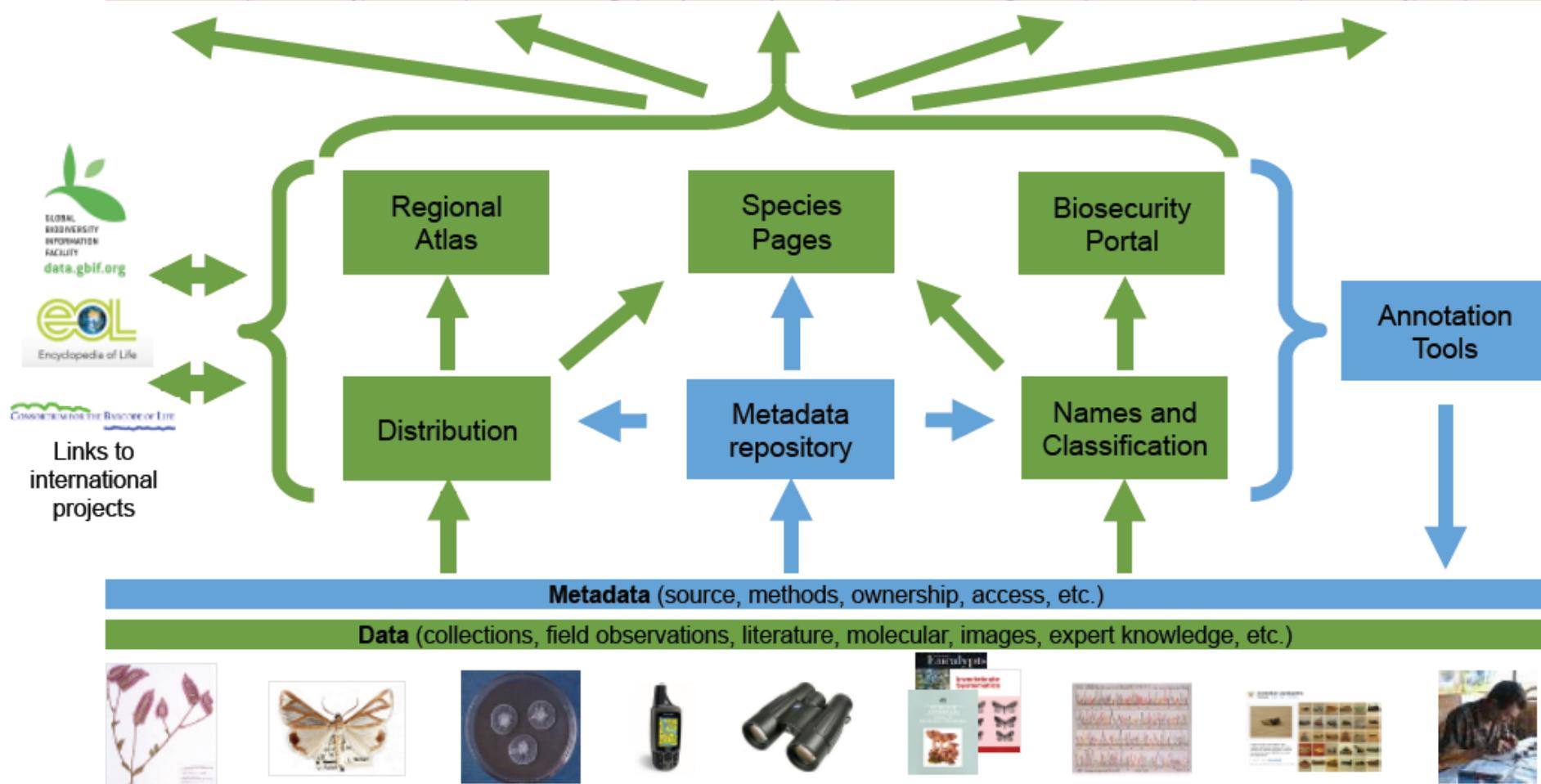
# Atlas of Living Australia

- Integrated picture of Australia's biodiversity
  - Plants, animals and microorganisms
  - Marine and terrestrial
  - Native and non-native
- Information and tools to support:
  - Species identification
  - Taxonomic and collection management
  - Biosecurity
  - Conservation and land-use management
  - Ecological and agricultural research
  - Education

# Atlas of Living Australia



**Uses** (biosecurity, land-use, climate change, crop development, resource management, materials, forensics, taxonomy, etc.)



# ALA and Citizen Science



## Six Main Components of the Atlas

### AUSTRALIAN NATIONAL SPECIES LISTS

- Comprehensive lists of Australian species.
- Classifications.
- Support national checklists: Australian Fauna Directory, Australian Plant Census.
- Web Services.
- Tools to share and manage lists.

### DATA SHARING

- Tools and portals for users.
- Citizen science portal.
- Web services.

### DATA INTEGRATION

- Integrated data from all sources.
- Data quality.
- Sensitive data service.

### DATA MANAGEMENT

- Databases to store and manage:
  - descriptive data (Identify Life)
  - Images (Morphbank)
  - sequences (BOLD)
  - digital literature (BHL).

### BIOLOGICAL COLLECTIONS

- Work with the collection community.
- Tools for imaging and databasing.
- Support national collection databases, OZCAM, AVH.
- Field capture of data.
- Directory of Natural History Collections.

### DATA SHARING

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# ALA and Citizen Science

- Undertook a review of the citizen science projects that were running in late 2009, and further user needs analysis in 2010
- Developing flexible, open source web-based (and mobile-compatible) software that will enable a wide range of parties to record and manage records of Australian biodiversity
- Software is called the “Biological Data Recording System” (BDRS) and has been in development for close to a year

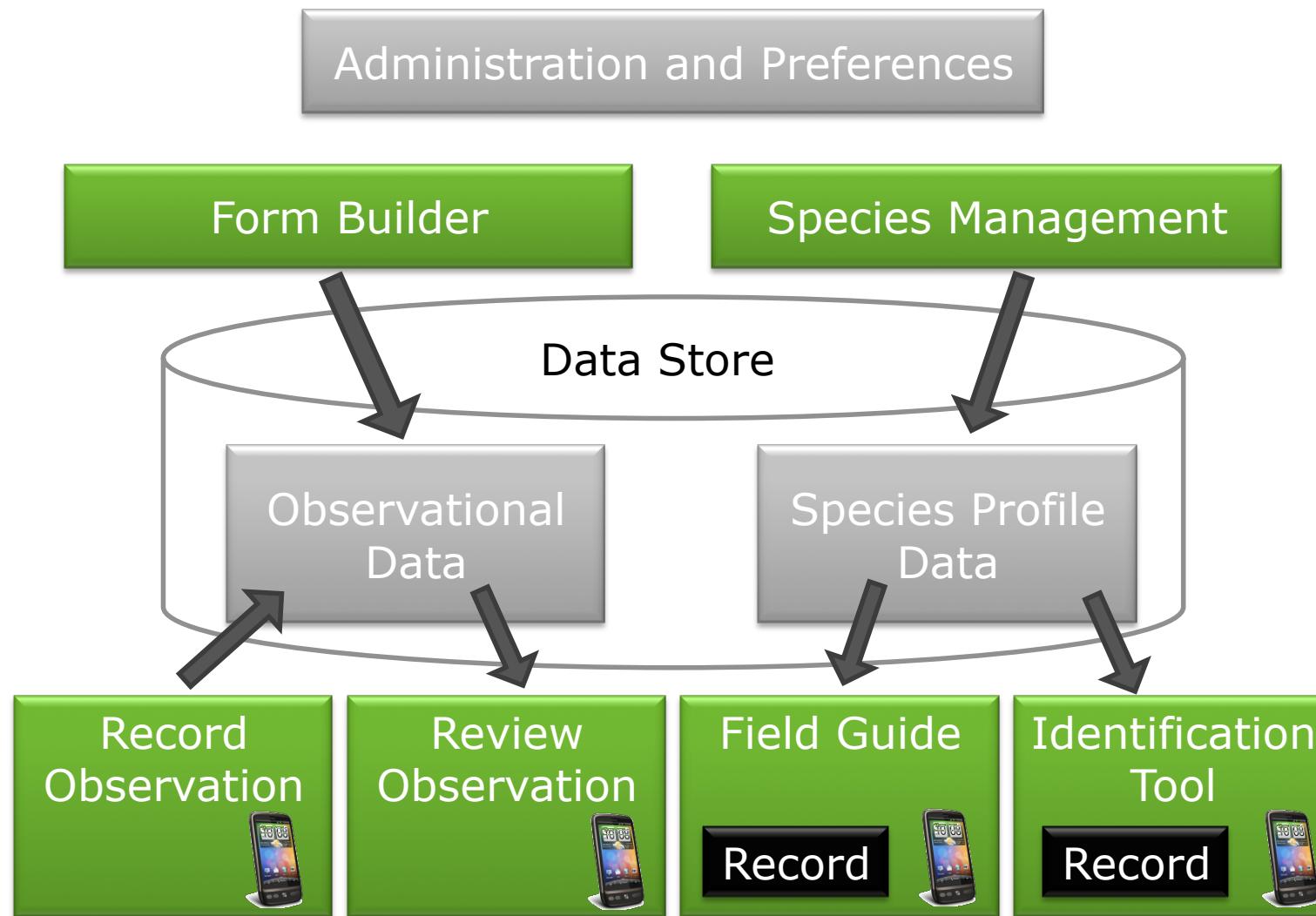
# BDRS in action



- Deployed in several production web sites now...

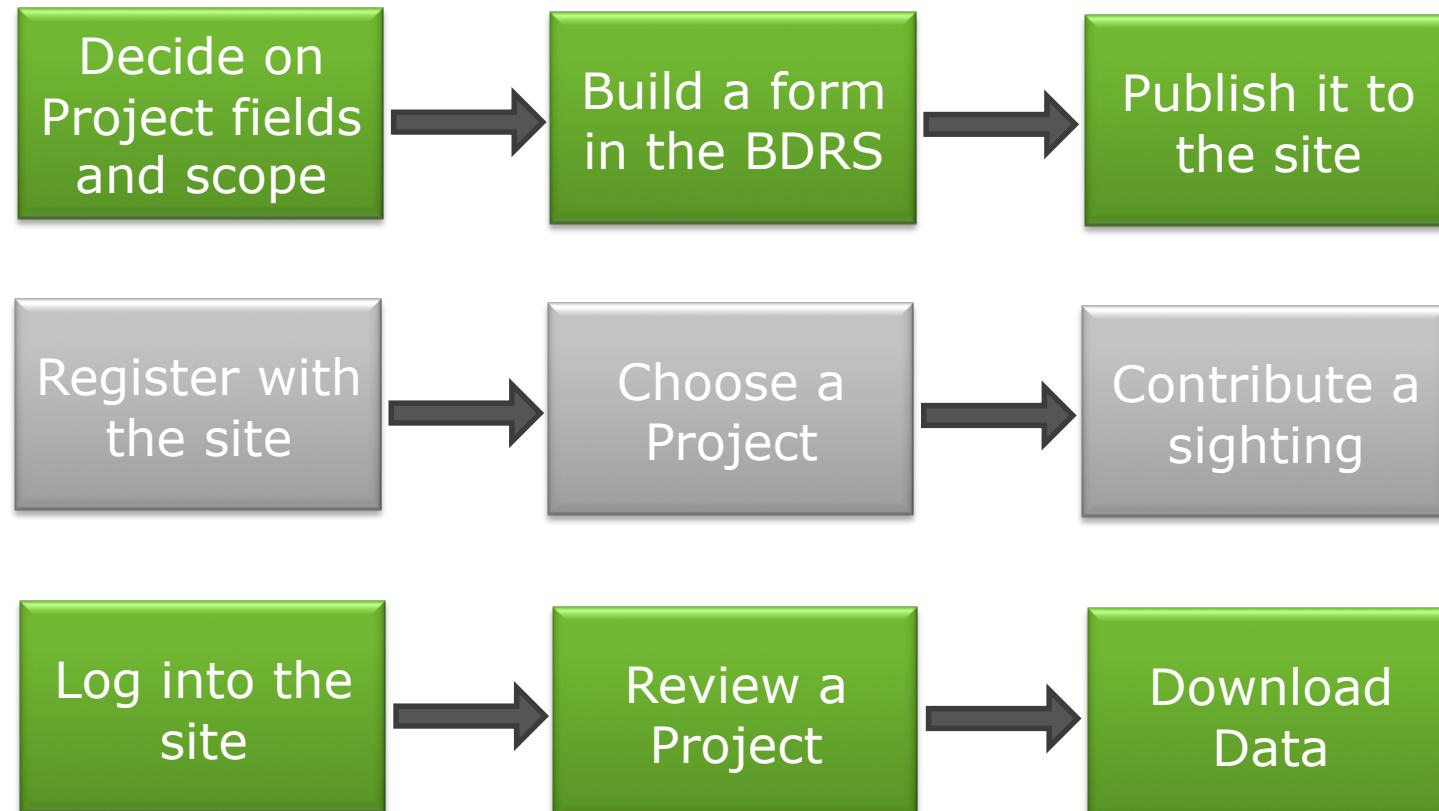
The image displays three side-by-side screenshots of web pages built using the Biodiversity Data Recording System (BDRS).  
1. **ClimateWatch** (left): A green frog with large red eyes is the central image. The header reads 'ClimateWatch an initiative of Earthwatch Institute'. Navigation links include Home, About, Get Involved, and Species. A 'Species Spotlight' section features a purple flower.  
2. **Birds Australia** (center): The header features the 'Birds Australia' logo and the tagline 'CONSERVATION THROUGH KNOWLEDGE'. It includes a navigation bar with Home, Projects, Sign In, About, and Help. A banner at the top urges political leaders for strong commitments on biodiversity. Below is a 'Welcome to Birds Australia's Citizen Science Portal' message. It has sections for 'What's on...', 'Our Projects', and a large image of a bird in a cage. A 'Register Now' button is prominent.  
3. **Atlas of Living Australia** (right): The header features the 'ATLAS OF LIVING AUSTRALIA' logo. It includes a navigation bar with Program, About, and Help. A sidebar on the left discusses the education program and encourages users to record biodiversity. A 'Latest Statistics' box shows 307 records. The main content area features a green landscape with a tree and a bird.  
All three sites demonstrate how BDRS can be used to build functional, user-centered biodiversity web applications.

# BDRS in action



# BDRS in action

- How does it work? Here's three examples of how you might want to use it.



# BDRS in action

Decide on  
Project fields  
and scope

Build a form  
in the BDRS

Publish it to  
the site

Site: New 1  
A Class Bander:

Bander	Bag #	Net #
JB	90	11
JB	95	7
JB	96	7
JB	81	8
JB	87	1
SB	84	3
JB	99	10
SB	86	3
SB	91	6
JB	93	1
SB	94	3
SB	95	5
SB	83	3
JB	89	8
SB	97	1

Description on the Form      Name in the Database

Species	N/A
Number	N/A
Location	N/A
Position	N/A
Date	N/A
Time	N/A
Additional Comments	N/A
Select the type of search	survey_type
Time spent surveying	survey_time
Number of People Sur	number_people
Breeding	breeding
Finish Date (if different)	Finish Date
Finish Time	Finish Time
Site Location name	Location
Site number (for regist	Site number
Wetland status	Wetland
Size of the bird	size
State	state

POWERED BY  Terms of Use | Privacy | Help | Site Map

Tasmania Tasman Sea New Zealand 0.00000, 0.00000

Location

Latitude

Longitude

Date

Time  16  00

Additional Comments

Select the type of search  2-ha Search

Time spent surveying  20 mins

Number of People Surveying

Finish Date (if different from start date)

Finish Time

Site Location name

Site number (for registered sites only)

Wetland status

Size of the bird

State

**Publish:**

[Enlarge Table](#) [Add Sighting](#)

Species	Number	Breeding
		No
		No

# BDRS in action



- The BDRS handles different types of forms...

**Bittern Survey**

Click on the map to enter the location of the survey.

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**Calendar sightings**

This is a yearly calendar form — simply pick the location you are recording for, then click on the day you are reporting on (today is highlighted) and then enter the number of individuals that you saw on that day.

Species *Trichoglossus haematodus*  
Location  Add Location

	Jan 11	Feb 11	Mar 11	Apr 11	May 10	Jun 10	Jul 10	Aug 10	Sep 10	Oct 10	Nov 10	Dec 10
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												

Additional C  
Select the type  
Time spent  
Number of People

Species  
Pomatostomus superciliosus  
Egretta sacra

Submit and Add Another    Submit Sightings

# BDRS in action



Register with the site

Choose a Project

Contribute a sighting

## Birds Australia Citizen Science Registration

To start contributing your observations to Birds Australia Citizen Science, please enter the following details:

Account Details

Desired username\*:

Email Address\*:

Choose a password\*:

Repeat your password\*:

Birds Australia Membership Details

BA/Attasser Number (if applicable):

Forgotten your BA member / Attasser number?

Personal Details (Only required if not a BA member)

Title\*:

First Name\*:

Last Name\*:

Group/Business Name:

Postal Address\*:

Suburb\*:

State\*:

Country\*:  Australia

Postcode\*:

Home Phone:

Work Phone:

- Contribute
- Atlas General Form
- BA Training Survey
- BIBY-BackyardBirds
- BIBY-Common Koel
- Bittern Survey
- Calendar sightings
- Carnaby's Cockatoo Track
- Carnaby's Locations
- Carnaby's Nesting
- HP Flocks
- HP Nest Monitoring
- HP Sightings
- Red-Tailed Blacks
- Secret Red-Tails
- Shorebirds 2020

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Tasmania Tasman Sea New Zealand

Location

Latitude

Longitude

Date

Time  16  00

Additional Comments

Select the type of search  2-ha Search

Time spent surveying  20 mins

Number of People Surveying

Finish Date (if different from start date)

Site Location Name

Site number (for registered sites only)

Wetland status

Size of the bird

State

**Submit Sighting**

Enlarge Table Add Sighting

Species	Number	Breeding
<input type="text"/>	<input type="text"/>	<input type="text"/> No <input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/> No <input type="text"/>

# BDRS in action



- The BDRS can also accept bulk uploads...

[Download Template Spreadsheet](#)

Download your template below for your project.

A screenshot of Microsoft Excel showing a spreadsheet titled 'CarnabysCockatooTracker\_template\_1301300490338.xls'. The spreadsheet has a header row with columns for ID, Scientific Name, Common Name, Location, Latitude, Longitude, Date, Time, Number, Notes, Did you see, Overall, Flock Size, Inbound, Outbound, Birds are, and Water. Below the header, there are several empty rows for data entry. A large orange button labeled 'Upload Spreadsheet' is overlaid on the right side of the spreadsheet area.

[Upload Spreadsheet](#)

[Collapse](#)

Once you have filled out your template, upload it below. When you upload a file, it will be checked against the project to make sure it matches the project requirements.

Project: Carnaby's Cockatoo Tracker

Spreadsheet:  [Browse...](#)

[Upload Spreadsheet](#)

# BDRS in action



Birds Au

Welcome to the

If you have not

If you already ha

Please enter

Please enter

Guest

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[Terms of Use](#) - [Terms of Use](#)

**Collapse**

**Collapse**

**Date**    **Species**    **Location**    **Number**    **Notes**

17 Mar 2011 *Calyptorhynchus latirostris* -32.842673631954, 117.421875 1

07 Mar 2011 *Calyptorhynchus latirostris* -24.126701958682, 122.200000

16 Dec 2010 *Calyptorhynchus latirostris* -24.607069137709, 122.200000

16 Dec 2010 *Calyptorhynchus latirostris* -30.961123839412, 119.150000

16 Dec 2010 *Calyptorhynchus latirostris* -31.938260427838, 119.150000

03 Nov 2010 *Calyptorhynchus latirostris* -37.805376134761, 142.000000

02 Nov 2010 *Calyptorhynchus latirostris* -18.145851771694, 142.000000

02 Nov 2010 *Calyptorhynchus latirostris* -26.745610382199, 122.200000

01 Nov 2010 *Calyptorhynchus latirostris* -24.527134822598, 130.000000

27 Oct 2010 *Calyptorhynchus latirostris* -34.705493410226, 130.000000

26 Sep 2010 *Calyptorhynchus latirostris* -31.83004222036167, 122.200000

12 Sep 2010 *Calyptorhynchus latirostris* -31.945024963615047, 122.200000

12 Sep 2010 *Calyptorhynchus latirostris* -31.719245685346383, 122.200000

12 Sep 2010 *Calyptorhynchus latirostris* -31.76260380462574, 122.200000

11 Sep 2010 *Calyptorhynchus latirostris* -32.008766932103036, 116.02292597293854 At least 30 to 40 flying north east. I heard even more in the distance flying in that direction.

11 Sep 2010 *Calyptorhynchus latirostris* -31.717055342984906, 115.72071075439453 Feeding mainly on dryandra sessilis flower in the Tamala Park Conservation Reserve.

Possibly the same two CBC's that I reported this

**Download XLS**

**Opening records\_1301299906753.xls**

You have chosen to open

**records\_1301299906753.xls**

which is a: Microsoft Office Excel 97-2003 Worksheet

from: <http://ba.gaiaresources.com.au>

What should Firefox do with this file?

Open with Microsoft Office Excel (default)

Save File

Do this automatically for files like this from now on.

OK Cancel

# BDRS in action

- The BDRS can also allow for thresholds to notify you of a special case...

For all **Records** where:

Taxa	<b>Records</b>	Surveys	Users
------	----------------	---------	-------

[Enlarge Table](#) [Add Condition](#)

Rules			Delete
behaviour	is equal to	nesting	X

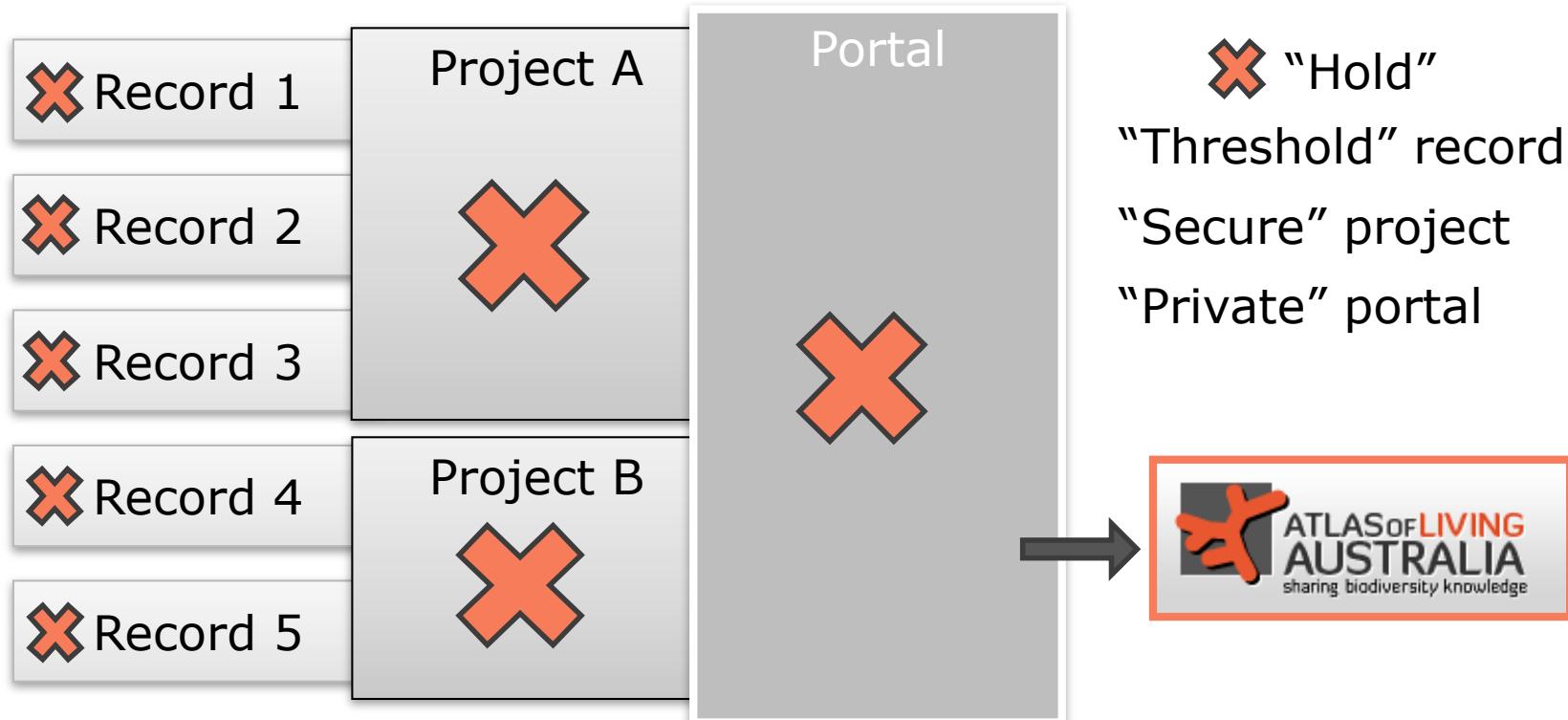
the system shall perform the following actions:

Action	Input	Delete
Send an email to		X
Hold Record	N/A	X

Enable this threshold [Save](#)

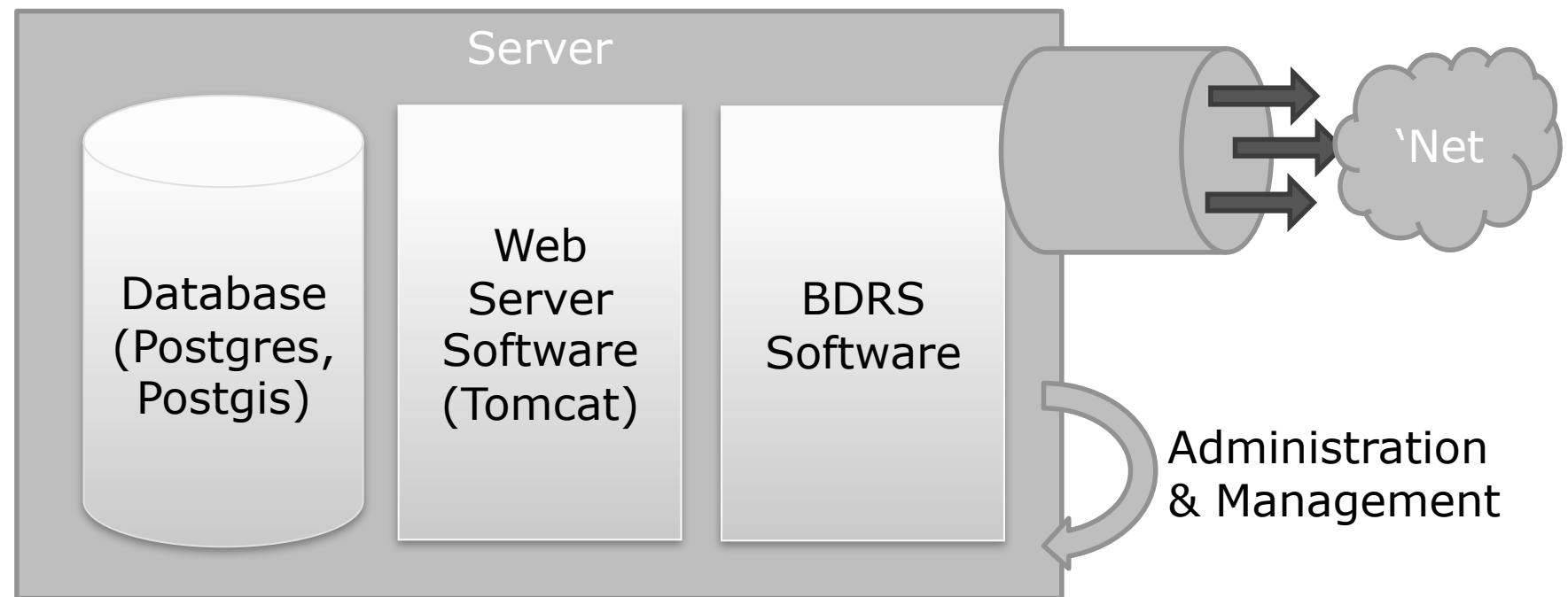
# BDRS in action

- We have a range of permissions in the software to allow data to be controlled for an individual record, a project, or a portal – internally and externally.



# Where to from here?

- To run an instance of the BDRS there are several requirements...



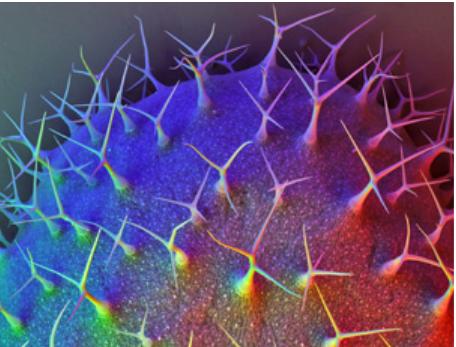
- ...all of which are actually in place with Birds Australia under the current support from the ALA

# Where to from here?

- You could set up a joint project such as the Important Bird Areas surveys and test using the BA implementation of the BDRS software
- We can set up a version of the software that will “re-skin” the forms for each project or even each group that sets up a project
- We can provide materials and so on to help you get set up as we develop them – helped by Birds Australia staff who have had two training sessions from Gaia Resources and the ALA

# Want to see it in action?

- Demonstrations of the software can be done at morning tea and lunchtime
- You can access our “staging” server yourself to get a feel for the software and how it works:
- <http://ba.gaiaresources.com.au/>
  - Login as user/password
  - Login as admin/password
- Please note: as this is a “staging” server, it may not be available 24/7



## The Atlas of Living Australia Participants

[www.ala.org.au](http://www.ala.org.au)



nature culture discover



qm  
queensland museum  
[www.qm.qld.gov.au](http://www.qm.qld.gov.au)

Tasmanian Museum  
& Art Gallery



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



Australian Government  
Department of Agriculture,  
Fisheries and Forestry



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AUSTRALIA  
*SUP CRUCE LUMEN*



*Council of Heads of Australasian Herbaria*

The Council of Heads of Australian  
Faunal Collections (CHAFC)

The Council of Heads of Australian  
Entomological Collections (CHAEC)

The Australian Microbial Resources  
Research Network (AMRRN)

The Council of Heads of Australasian  
Museum Directors (CAMD)



An Australian Government Initiative  
National Collaborative Research  
Infrastructure Strategy



ATLAS OF **LIVING**  
**AUSTRALIA**  
sharing biodiversity knowledge

The Atlas is funded by the  
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