CREATING & MANAGING TAXONOMY IN THE BDRS

Introduction

There are two main methods for creating and managing taxonomic structures and content in the Biological Data Recording System (BDRS)

The simplest is to **import** species pages from the Atlas of Living Australia (Atlas).

The more complex method is to **create** the structures and content by hand.

BDRS Taxonomy comes in two parts – the **Taxonomic Group** and the **Taxonomy Page**.

The **Taxonomic Page** is the BDRS equivalent of a **species profile** page in the Atlas and contains information about the particular species of interest including images, description, habitat, diet and so on – whatever you want to show to visitors to your site.

These profile pages can be developed for all levels of a taxonomic structure including sub-species, species, genus, subfamily, family etc to whatever level of detail you wish to go to and is appropriate for your audience and useful in surveys.

The **Taxonomic Group** is a flexible grouping classification tool. You can group things by anything you like:

- For example type - lizards, snakes, skinks, waterfowl, birds of prey, etc; OR
- or within a family or kingdom: Waterfowl, Herons, Ibis etc, Birds of Prey, Shorebirds and Gulls, Pigeons and Doves, Cockatoos, Parrots and Lorikeets, Robins, Cuckoos, and so on; OR
- by habitat – wetlands, dry forest etc.

Clicking on the taxonomic group opens the next level down which is usually a list of species – then Clicking on an individual species opens the selected species profile page.

You can group species at whatever level of detail you like, is appropriate for your audience and is useful in setting the context of more formal scientifically driven surveys (vs a casual "any species" sighting record with basic Darwin Core Fields).

Most BDRS sites have a field guide or species guide which shows this first level of grouping that provide users with the opportunity to browse your content within the grouping or association framework and which shape and guide their understanding of what your particular projects are all about.

This document:

Part 1 describes the processes for creating Taxonomy Groups.

Part 2 describes the processes for creating Taxon/Species pages.

Part 3 describes the processes for creating & updating taxonomy groups and species pages using the Atlas of Living Australia Import functionality.

Note:

You will need to be an administrator to perform the actions described in this document.

The menus may not look exactly like the images shown here as your site may be themed with different colours and/or text. The functionality will be the same however so look at the admin screens as they will not generally be themed.

PART 1: CREATING TAXONOMIC GROUPS

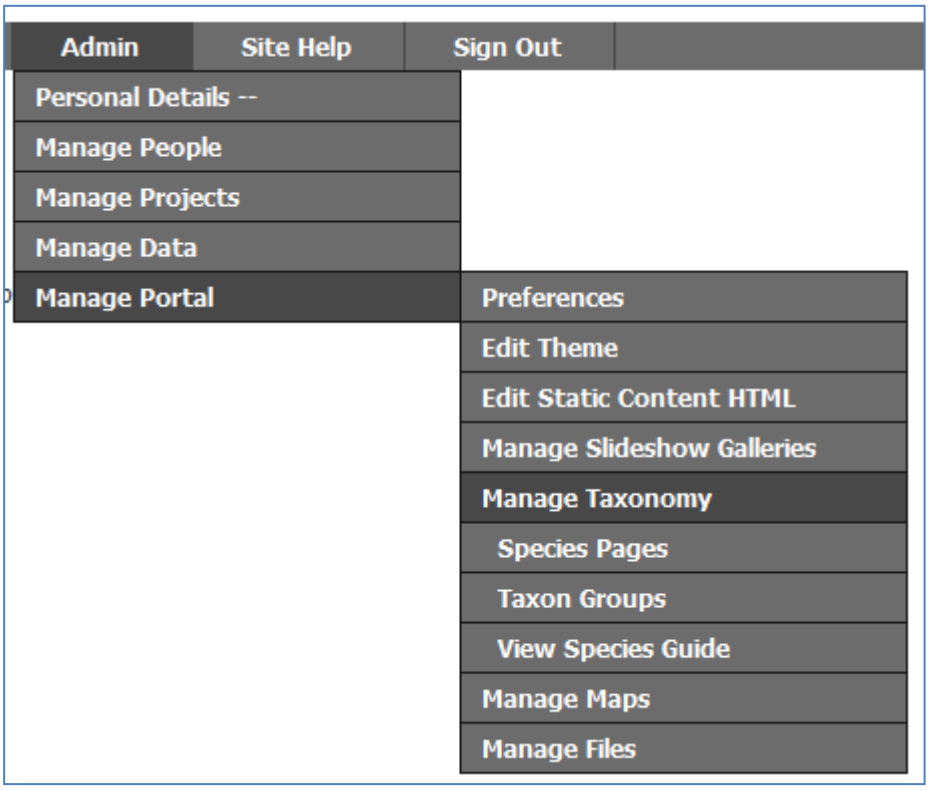
The Taxonomic Group is a flexible grouping classification tool. You can group things by anything you like – for example type: lizards, snakes, skinks, waterfowl, birds of prey, etc

Most BDRS sites have a field guide or species guide which shows this first level of grouping.

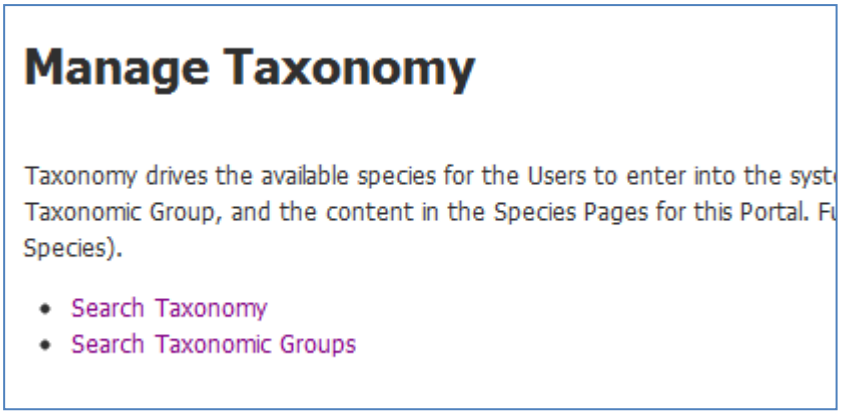
Clicking on the taxonomic group opens the next level down which is usually a list of species – then Clicking on an individual species opens the selected species profile page.

Instructions for creating or editing a new Taxon Group:

1. Log in to your web site as usual.
2. Click on Admin from the navigation menu and Select Manage Portal, then Manage Taxonomy on the sub-menu



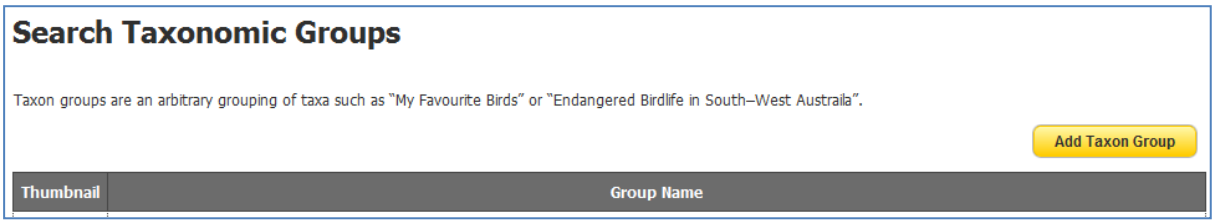
3. Select Search Taxonomic Groups from the list



Tip – you can also select Taxon Groups in the menu above to open directly

To Add a New Taxon Group:

4. Click the Add Taxon Group button



5. Type a Name

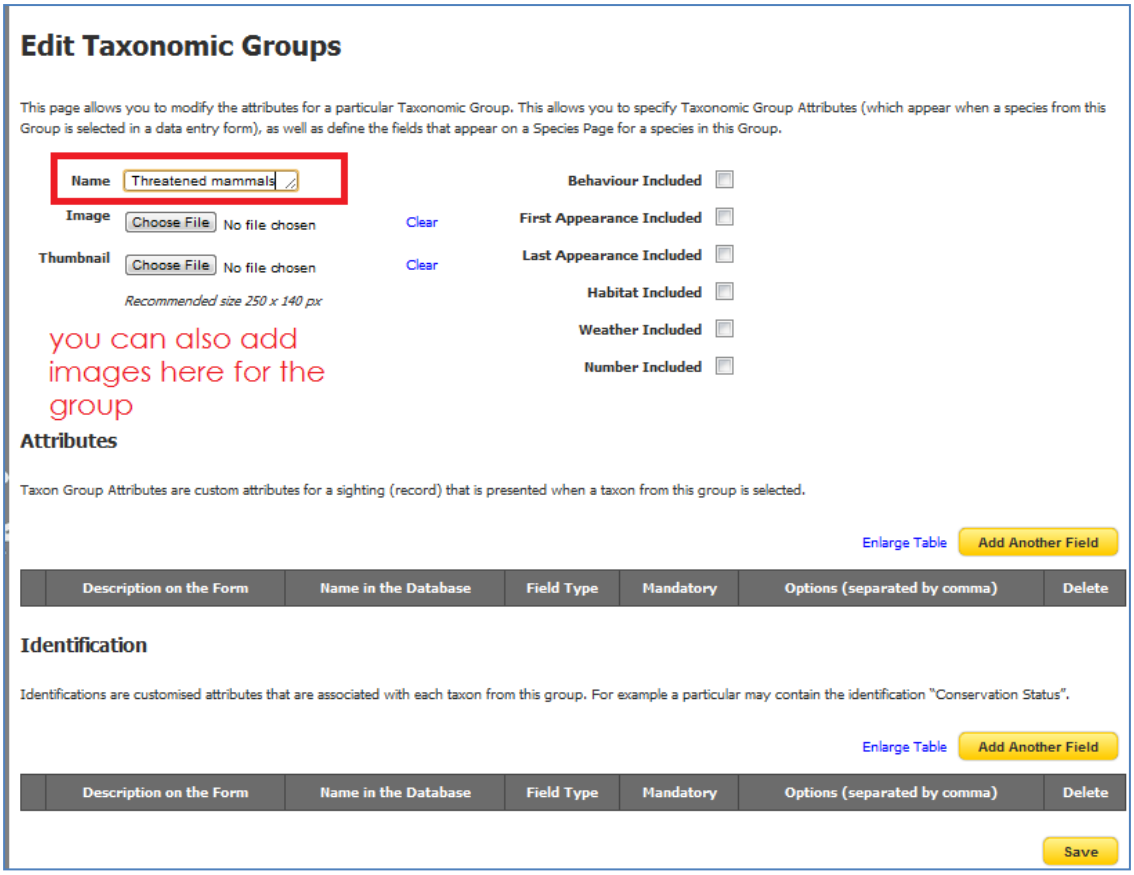
   Naming is important as it is how people distinguish between groups of objects – for example it is usually better to use common names rather than scientific names to improve the usability of the site.

   In this example we have used "Threatened mammals"

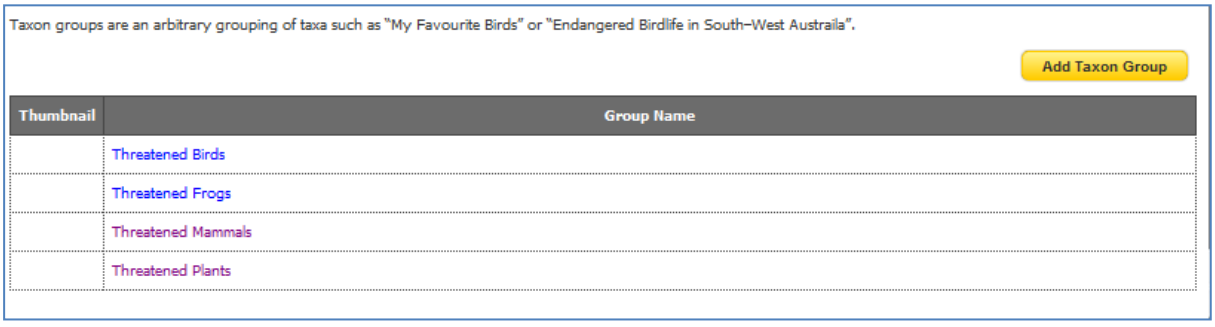
   Note that you can also add an Image and/or Thumbnail image for a species representative of your group which will be displayed on the field guide page.

   We recommend you do this to add visual appeal to your web site and help people understand and differentiate between the species contained within your taxon groups.

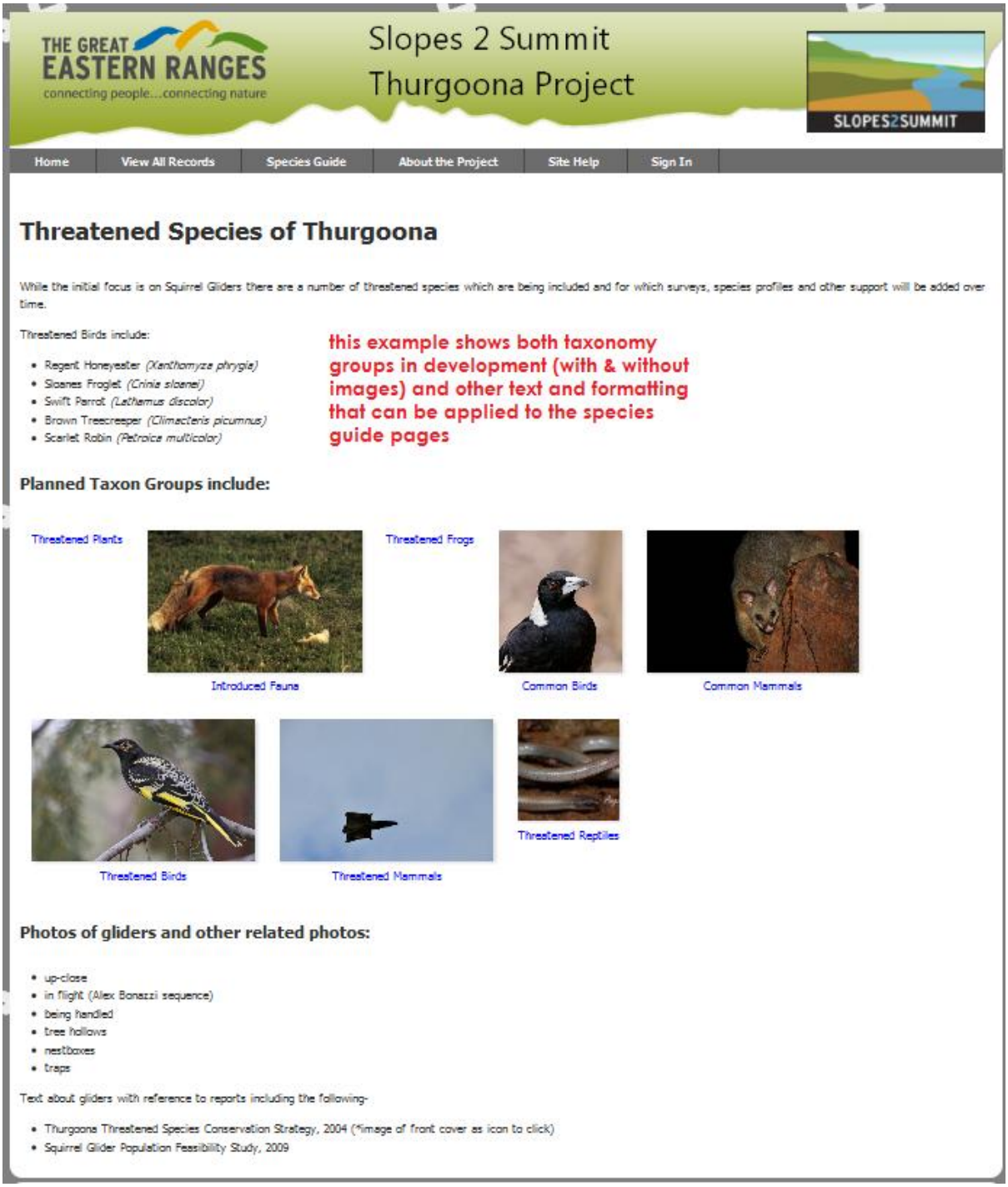
Continuing with the Threatened Mammals example



6. Click the Save button



7. Select View Species Guide (or field guide - site dependent) to see the results.



PART 2: CREATING TAXONOMIC PROFILES

The **Taxonomic Page** is the BDRS equivalent of a **species profile** page in the Atlas and contains information about the particular species of interest including images, description, habitat, diet and so on – whatever you want to show to visitors to your site.

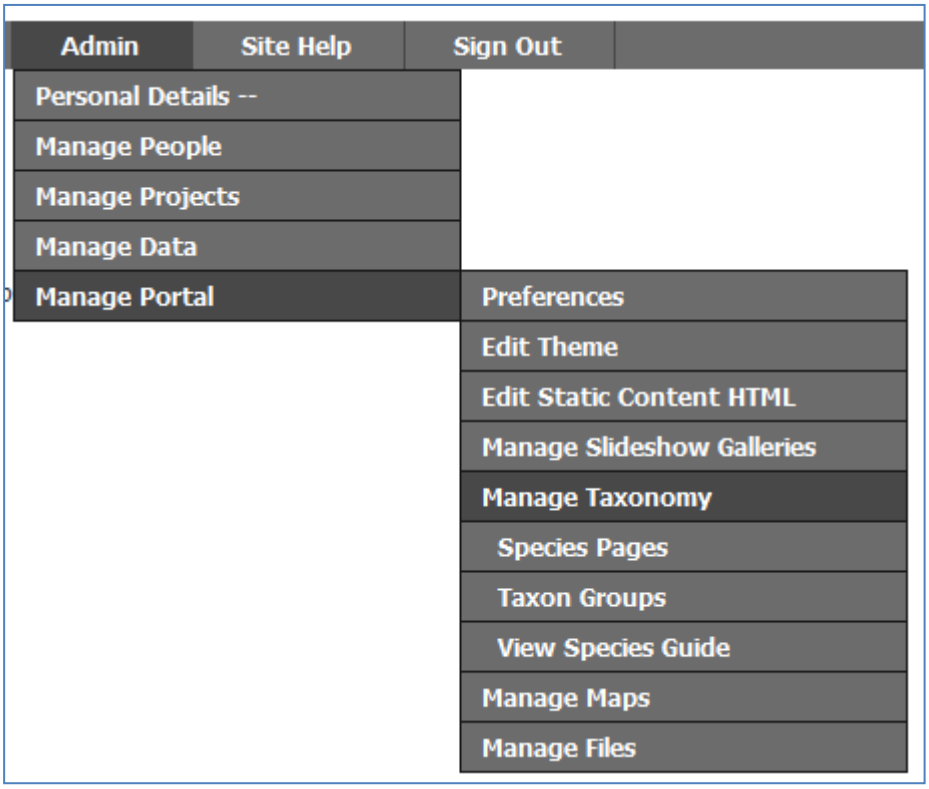
These profile pages can be developed for all levels of a taxonomic structure including sub-species, species, genus, subfamily, family etc to whatever level of detail you wish to go to and is appropriate for your audience and useful in surveys.

Note:

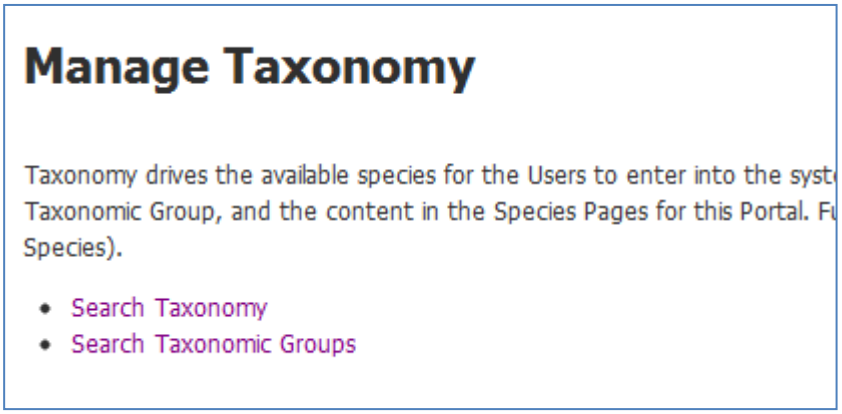
You will need to have created at least one Taxonomy Group to perform this action as all species pages have to be assigned to a group.

Instructions for creating or editing a new Taxon Profile/Species Page:

1. Log in to your web site as usual.
2. Click on Admin from the navigation menu and Select Manage Portal, then Manage Taxonomy on the sub-menu



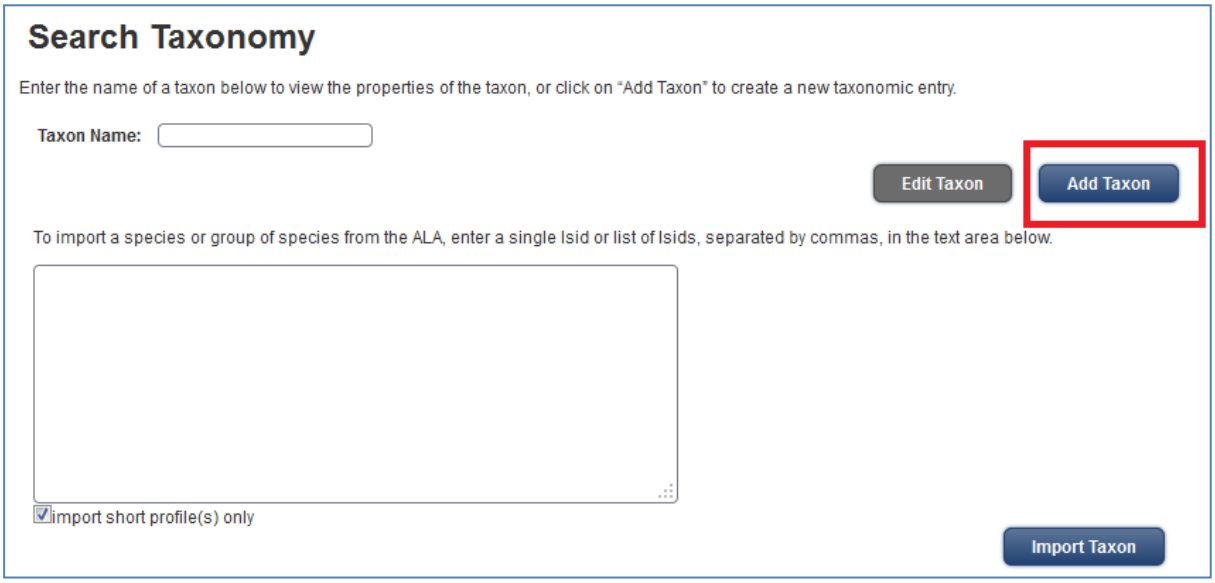
3. Select Search Taxonomy from the list



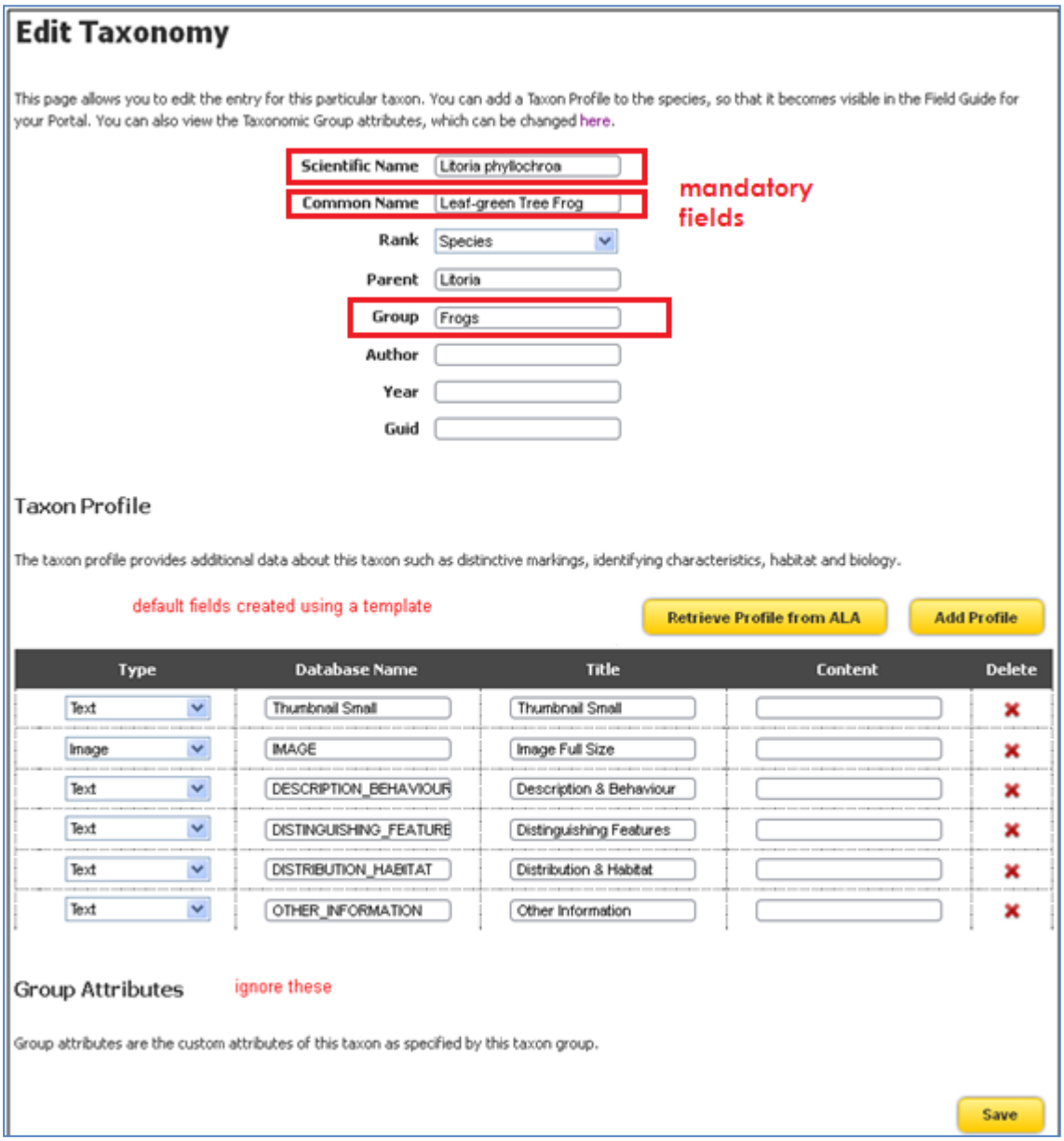
Tip – you can also select Species Pages in the menu (as shown above) to open directly if your site has this option.

To Add a New Taxon/Species Page:

4. Click the Add Taxon button



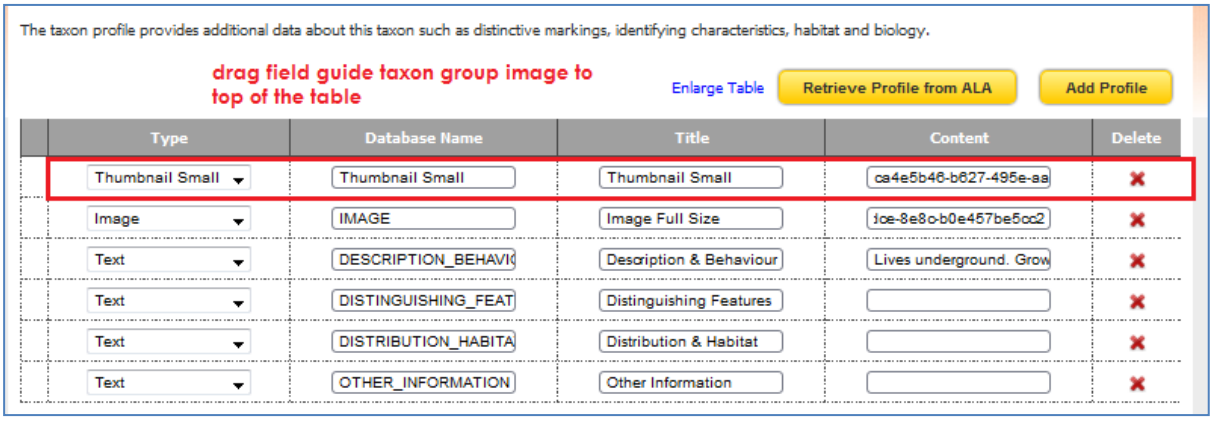
5. The following image shows the edit options for K2C Reptiles including the default fields established for this site as well as the Atlas species page importing functionality described in detail in Part 3.



6. Note that the Scientific, Common and Group name fields are mandatory
7. **Add your content**
    a. The fields are limited in size while in edit mode as shown but can contain as much text as you like.
    b. We recommend you develop detailed text separately and paste into the appropriate fields
    c. The text supports HTML mark up such as this text will be shown bolded
    d. We also recommend that you **add at least one image** that can be displayed both in the species page and in the taxon group species list.

e. Images need to be added first to the Managed Files list so you can reference the unique Identifier e.g. 02df8c72-ae25-4171-b5ad-401c793e11f4 which will be used to display the image

f. The table row containing the image needs to be dragged up to the top of the table in order to display in the taxon group species list: this is more important when you have multiple images.

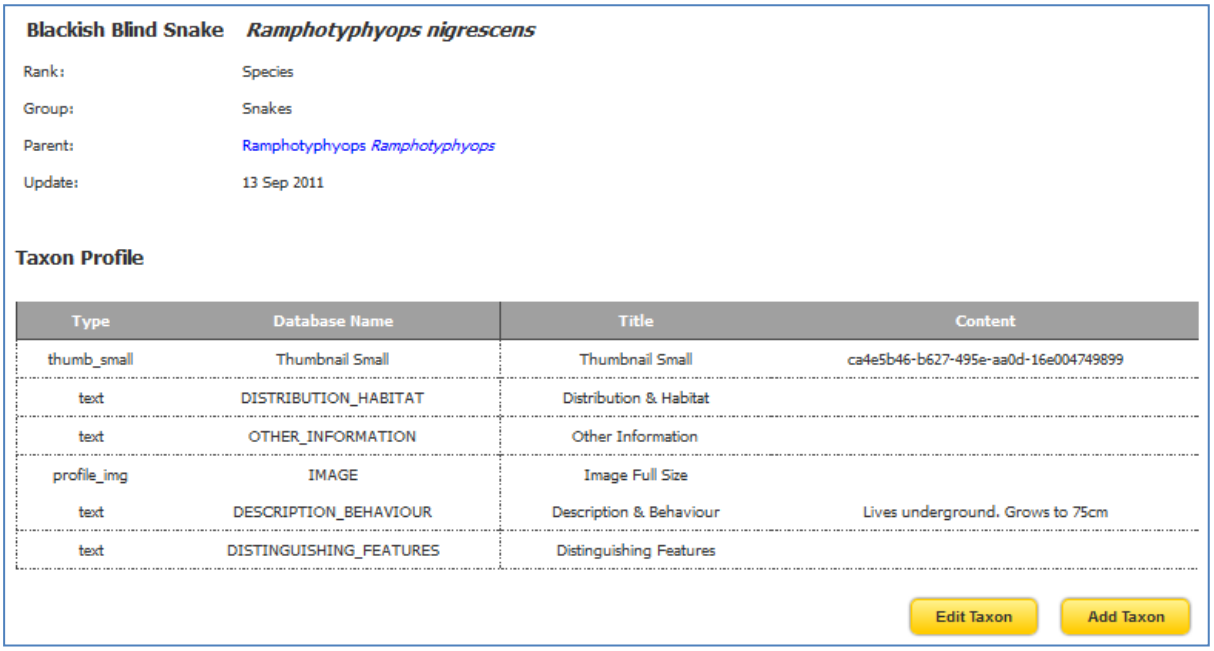


g. More complete details on how to create and manage field content and options are provided in a separate document.

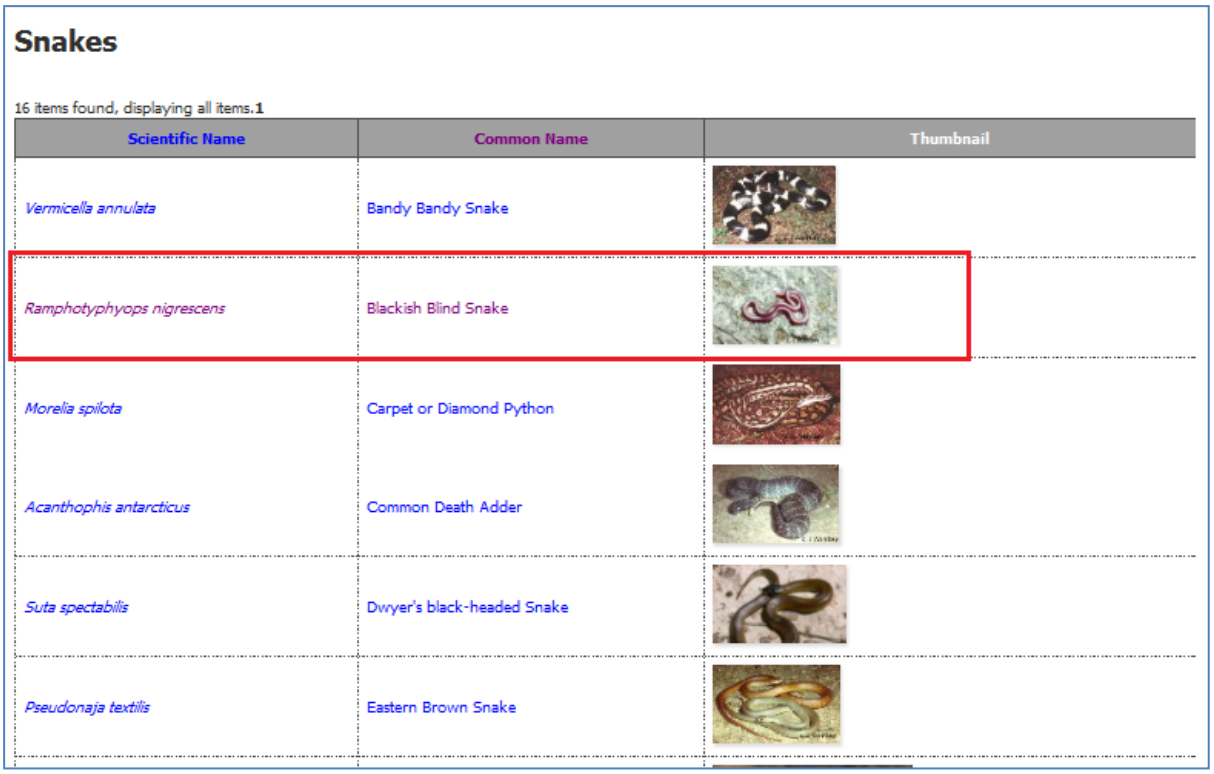
TIP

Browsers are notoriously reluctant to release cached page data so you may have to clear your history in order to see the changes you have made.
This is especially so with images

8. Click the Save button to complete the species profile.



9. Select View Species Guide (or field guide - site dependent) and then the appropriate Taxonomy Group to see the results.



Snakes

16 items found, displaying all items.**1**

Scientific Name	Common Name	Thumbnail
Vermicella annulata	Bandy Bandy Snake	
Ramphotyphyops nigrescens	Blackish Blind Snake	
Morelia spilota	Carpet or Diamond Python	
Acanthophis antarcticus	Common Death Adder	
Suta spectabilis	Dwyer's black-headed Snake	
Pseudonaja textilis	Eastern Brown Snake	

Note for Administrators:

Default fields such as those shown here are established using a ".json" template file which is added to managed files and then connected to the profiles.

This is important to understand as, without a set of standard fields, each species page you create will require the manual addition of every field required with the same name and data type if further formatting is to be applied.

By using the template you can substantially reduce the species profile creation workload and reduce errors.

See appendixes for more details

PART 3: IMPORTING ALA CONTENT TO POPULATE THE BDRS

BDRS taxon groups and species pages can be created and updated quickly by populating them with Atlas of Living Australia data (where it available for that species).

This new functionality addresses one of the most difficult, complex and time consuming processes in setting up a new BDRS site.

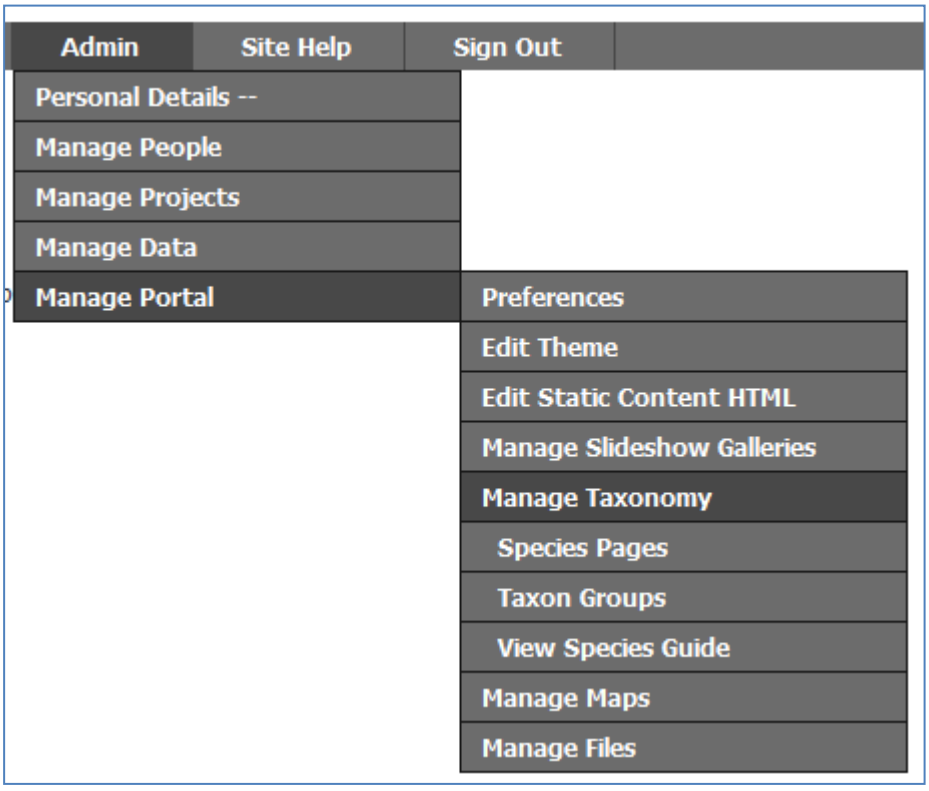
This piece of the document is broken down into 3 sections – the first describes how you can update your existing pages with Atlas data, the second shows how you can use the import functionality to create new species profiles singly and in bulk, and the third explains how your own data and that form the Atlas are formatted in the Species Profile page.

SECTION 1: IMPORTING DETAILS INTO AN EXISTING SPECIES PAGE

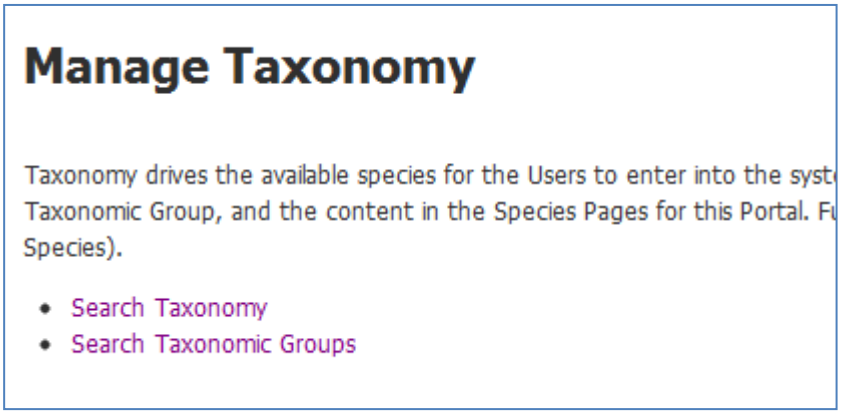
Instructions for updating a Taxon Profile/Species Page:

1. Log in to your web site as usual.

2. Click on Admin from the navigation menu and Select Manage Portal, then Manage Taxonomy on the sub-menu

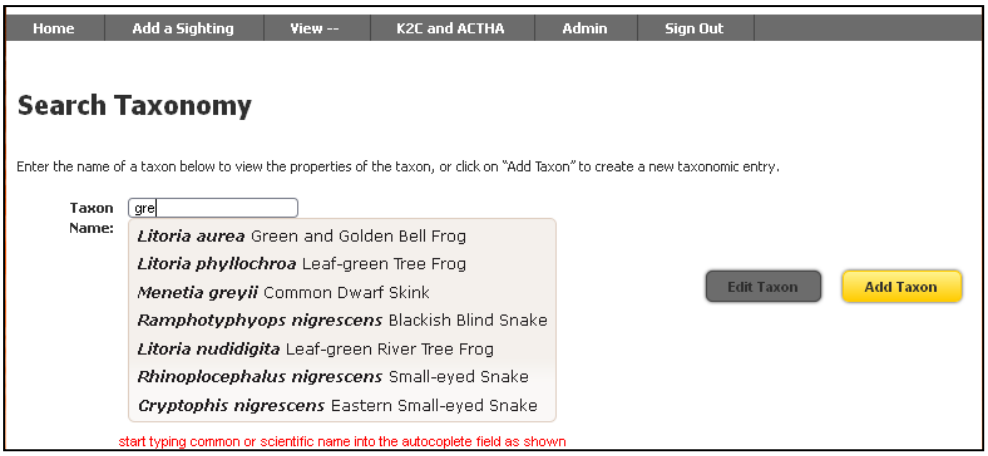


3. Select Search Taxonomy from the list



Tip – you can also select Species Pages in the menu (as shown above) to open directly if your site has this option.

4. Type the name of the species you wish to edit/update in the **Taxon Name:** field



Species matching your in scientific or common name text in some way (including whole or part word matches) are displayed as list for your selection as shown.

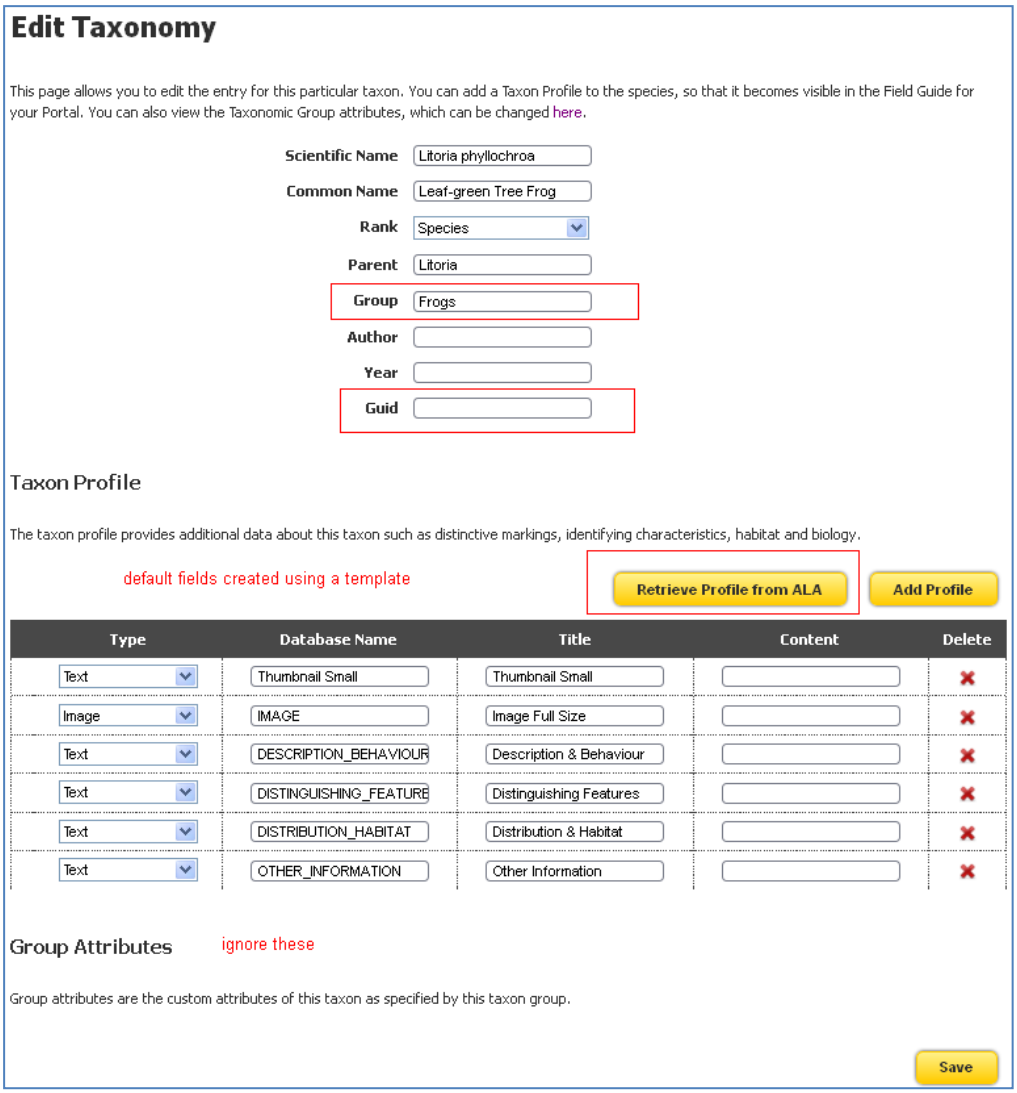
The field uses auto-complete to list every profile matching the letters you type from about the 3rd onwards.

5. Select the species you wish to edit then click on the **Edit Taxon** button (which changes colour to show you it is active)

Where there is already information on the species it will be shown in the area between Update (last updated field) and the Edit Taxon button.

Note the large text box at the foot of the page – you can use this for importing single and multiple species pages from the Atlas directly: described in more detail in section 2 below.

6. This image shows the edit options for K2C Reptiles including the default fields established for this site as well as the Atlas species page importing functionality.

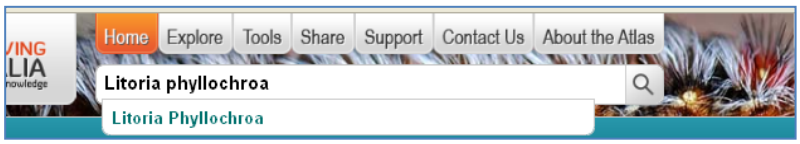


7. In order to import the data you will need to **add the Guid** (second field highlighted in red in the diagram above)

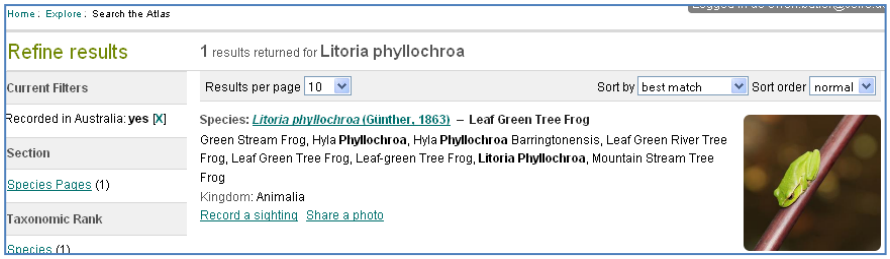
Instructions for getting a GUID or LSID from the Atlas of Living Australia:

a. Copy the scientific Name to clipboard

b. Open the Atlas of Living Australia – www.ala.org.au – in a new browser window or tab and paste the name into the Search field at the top of the page

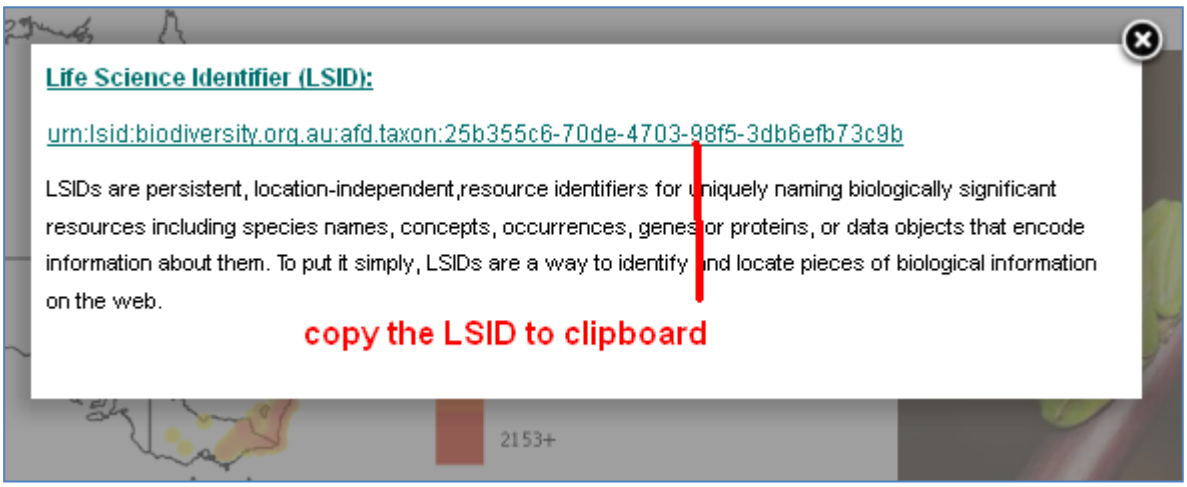


c. Select the correct option from the list and click the search icon



d. Click to open the correct species (there may be a list including sub-species, genus and other search results containing the species name you entered)

e. Click on the LSID data link as shown



TIP

Do not right mouse click the LSID and select 'copy link location' or similar browser specific command.

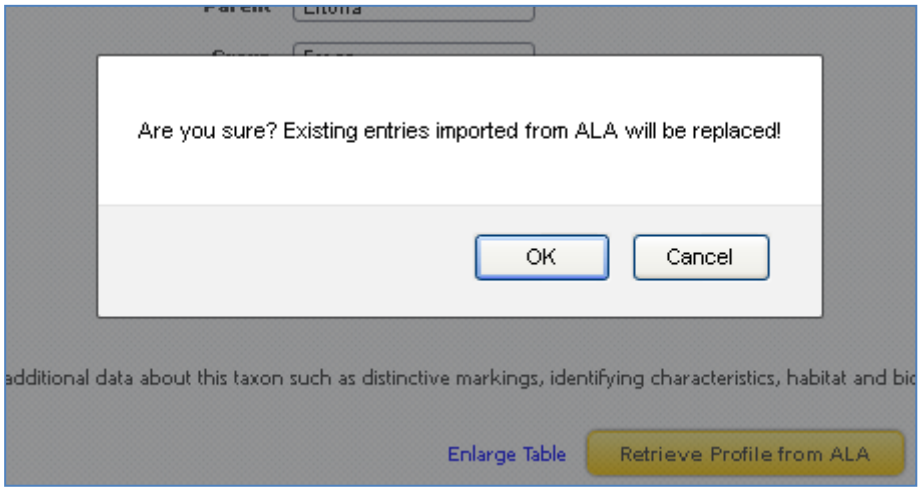
It is better to drag the mouse over the link (select) and copy to clipboard
Done correctly the LSID will look like this -
urn:lsid:biodiversity.org.au:afd.taxon:25b355c6-70de-4703-98f5-3db6efb73c9b

Done incorrectly it will look like this and will not work in the BDRS
http://lsid.tdwg.org/summary/urn:lsid:biodiversity.org.au:afd.taxon:25b355c6-70de-4703-98f5-3db6efb73c9b

2. Switch back to the BDRS Species page tab/window and paste the LSID into the GUID field

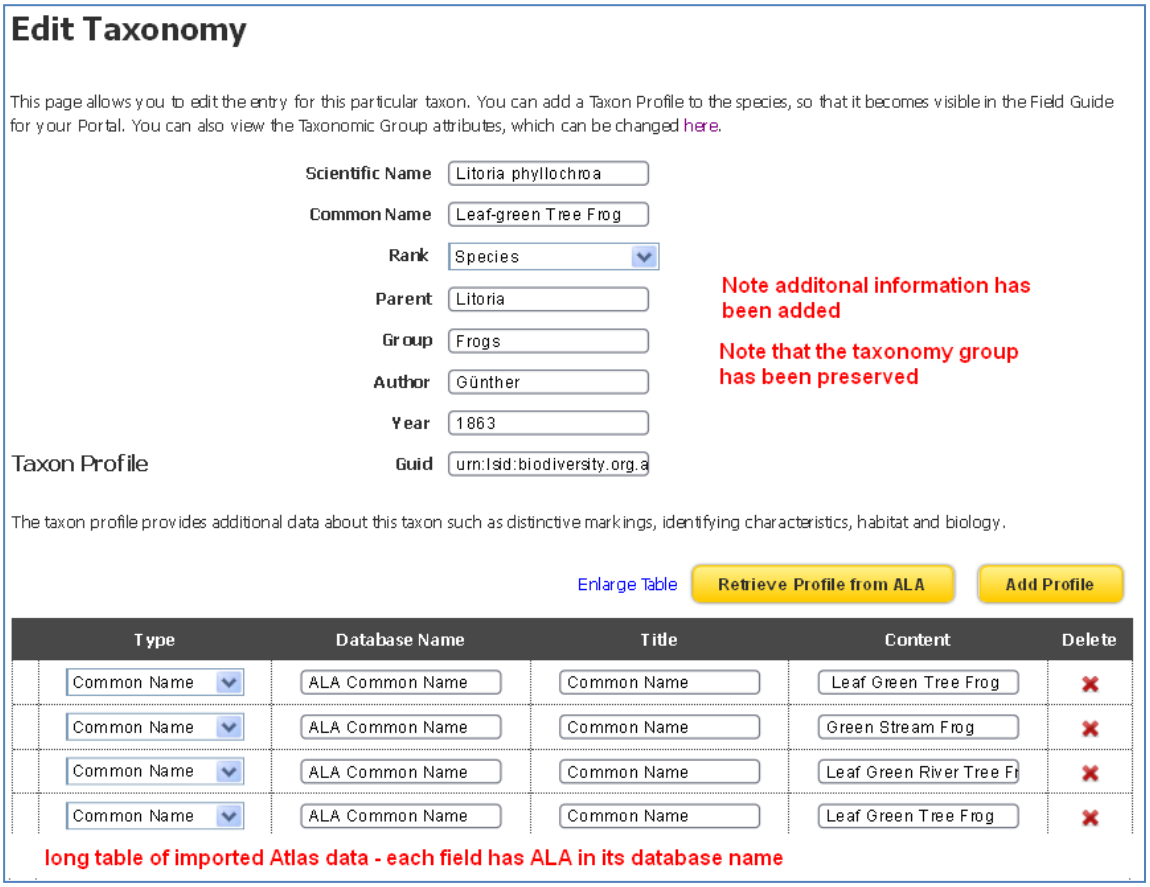
3. Then click the **Retrieve Profile from ALA** button.

    a. Click OK in the popup window to complete the import.



Note – if you have previously imported content **from the Atlas** this process will overwrite it.

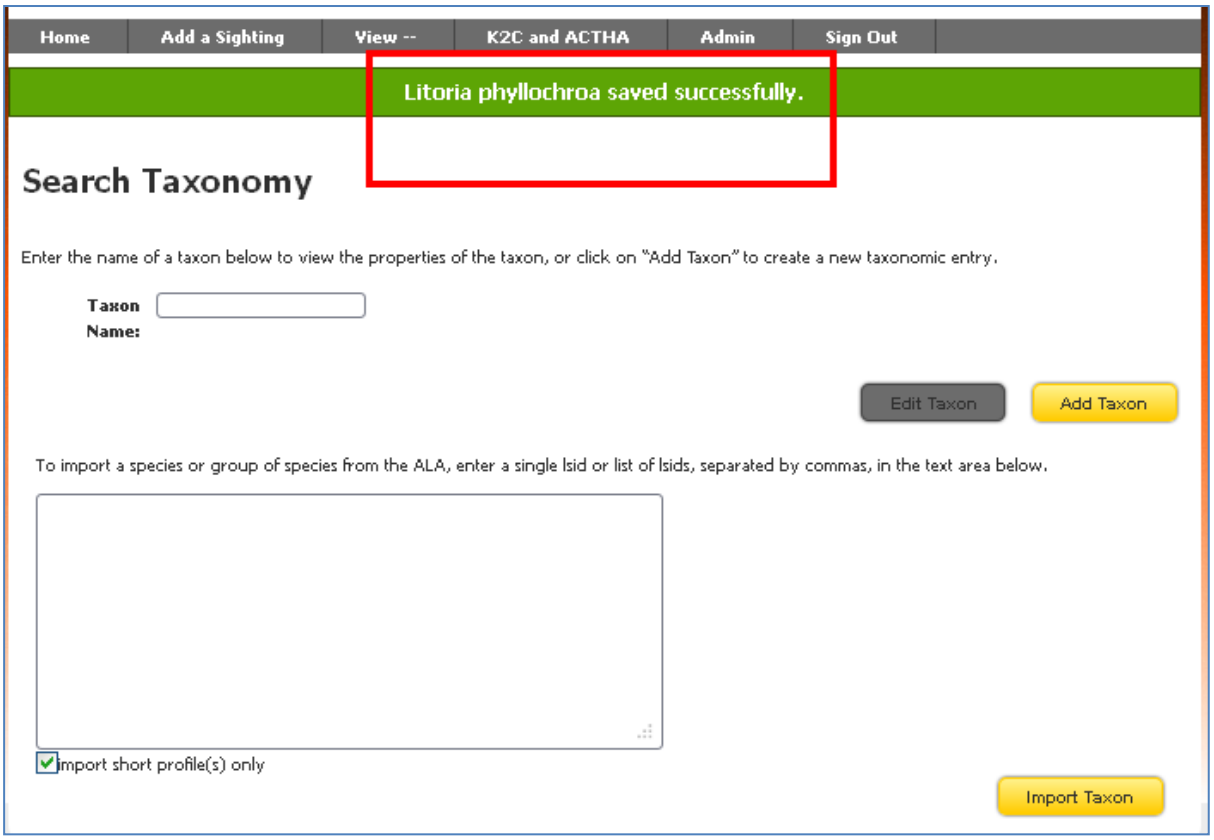
4. Once the import process has completed you will see a long list of new data fields as well as new data in existing fields.



Note: This image is truncated as the list can be quite long

Check that everything looks OK – is the species in the right taxonomy group? Has the original data manually loaded into non-ALA import fields been preserved?

5. Click the Save Button at the foot of the page and you are returned to where you started!



6. With a success message shown in green

7. Repeat as necessary to complete your import requirements.

See section 3 below to learn about species profile formatting and answer the question:

What will my newly added species data look like to users?

SECTION 2: IMPORTING MULTIPLE SPECIES PAGES

Assumptions

There is a current Taxonomy Grouping Structure you wish to maintain.

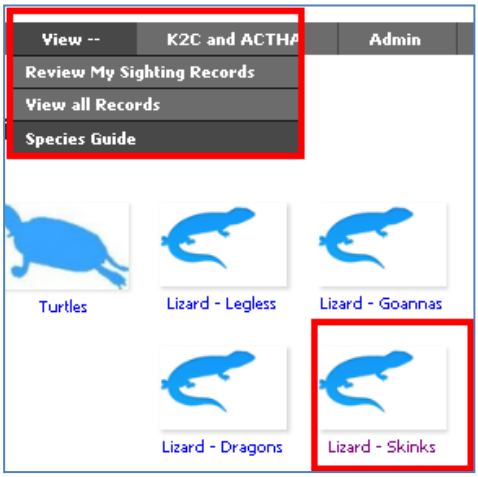
There may be existing BDRS species pages you wish to update – optional (i.e. not required as you can create new ones as needed).

You have access to the Atlas of Living Australia LSID of the species of interest.

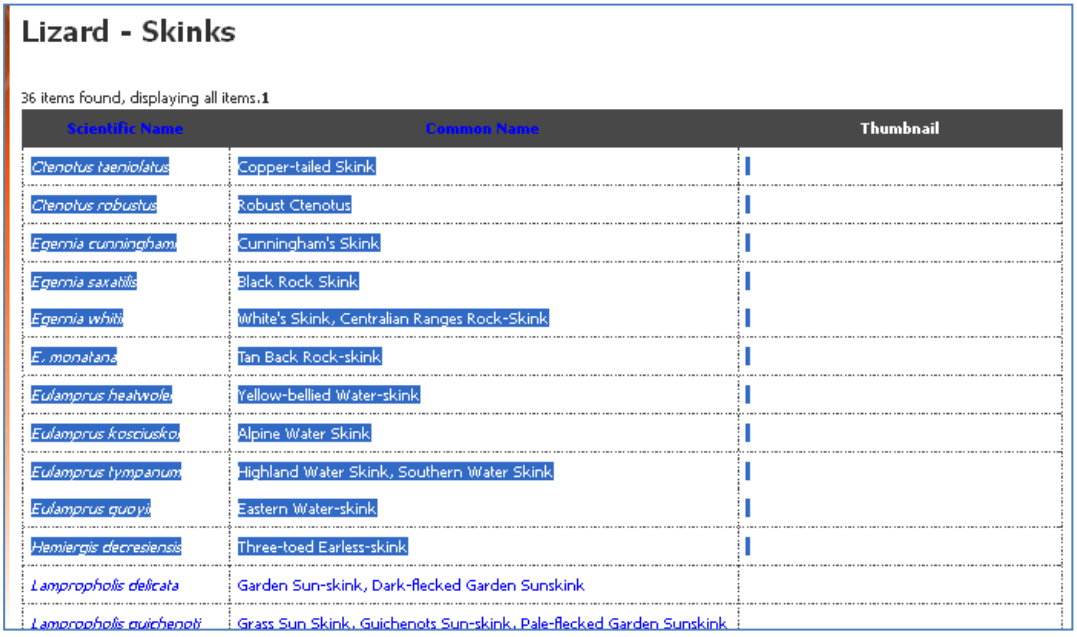
TIME SAVING TIP

Where you have an existing set of taxon groups and species pages go to the list of species:

1. Select View Species Guide from the View menu
2. Click the taxon group of interest e.g. Lizard – Skinks



3. Select the three columns of the species list table and copy to clipboard

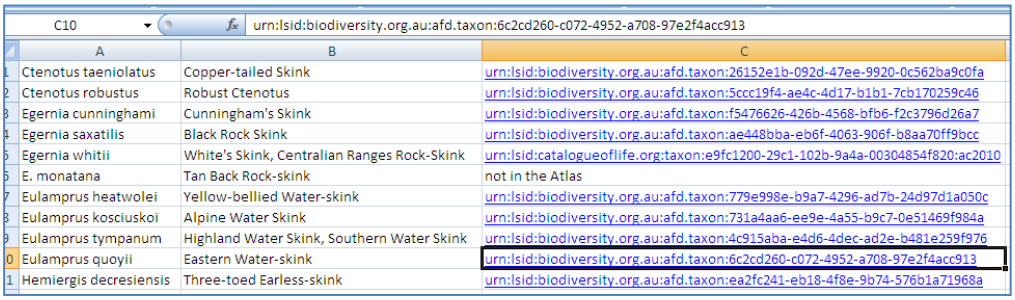


Lizard - Skinks

36 items found, displaying all items.1

Scientific Name	Common Name	Thumbnail
Ctenotus taeniolatus	Copper-tailed Skink	
Ctenotus robustus	Robust Ctenotus	
Egernia cunninghami	Cunningham's Skink	
Egernia saxatilis	Black Rock Skink	
Egernia whitii	White's Skink, Centralian Ranges Rock-Skink	
E. montana	Tan Back Rock-skink	
Eulamprus heatwolei	Yellow-bellied Water-skink	
Eulamprus kosciuskoi	Alpine Water Skink	
Eulamprus tympanum	Highland Water Skink, Southern Water Skink	
Eulamprus quoyii	Eastern Water-skink	
Hemiergis decresiensis	Three-toed Earless-skink	
Lamprophalis delicata	Garden Sun-skink, Dark-flecked Garden Sunskink	
Lamprophalis guichenoti	Grass Sun Skink, Guichenots Sun-skink, Pale-flecked Garden Sunskink	

4. Paste into a Word document or Excel table (special paste as text to preserve columns)
5. Follow the instructions above on collecting the LSID for each of the selected species and paste them into the third column
6. This image shows a collection in Excel



C10 urn:lsid:biodiversity.org.au:afd.taxon:6c2cd260-c072-4952-a708-97e2f4acc913

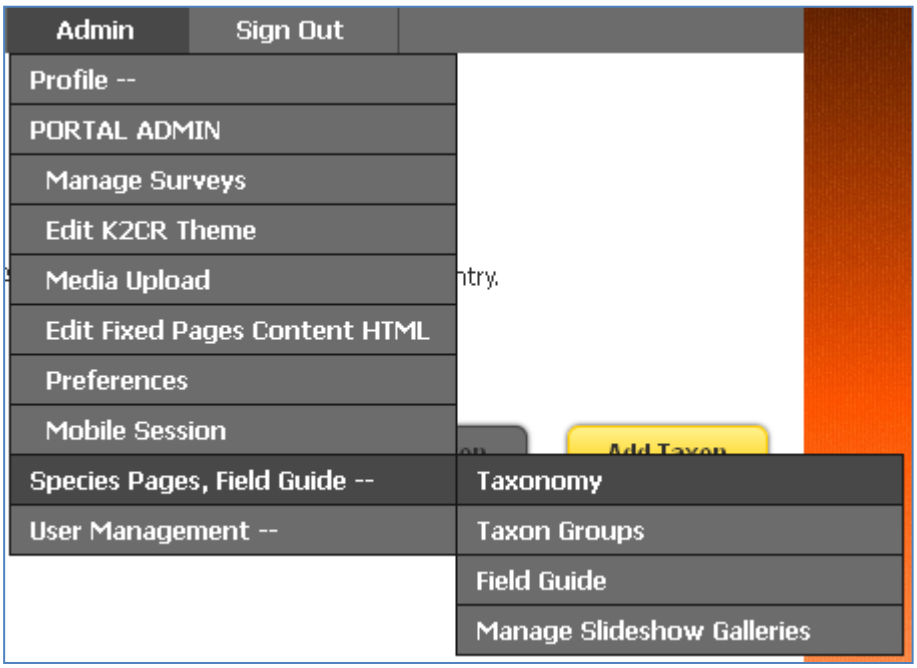
	A	B	C
1	Ctenotus taeniolatus	Copper-tailed Skink	urn:lsid:biodiversity.org.au:afd.taxon:26152e1b-092d-47ee-9920-0c562ba9c0fa
2	Ctenotus robustus	Robust Ctenotus	urn:lsid:biodiversity.org.au:afd.taxon:5ccc19f4-ae4c-4d17-b1b1-7cb170259c46
3	Egernia cunninghami	Cunningham's Skink	urn:lsid:biodiversity.org.au:afd.taxon:f5476626-426b-4568-bfb6-f2c3796d26a7
4	Egernia saxatilis	Black Rock Skink	urn:lsid:biodiversity.org.au:afd.taxon:ae448bba-eb6f-4063-906f-b8aa70ff9bcc
5	Egernia whitii	White's Skink, Centralian Ranges Rock-Skink	urn:lsid:catalogueoflife.org:taxon:e9fc1200-29c1-102b-9a4a-00304854f820:ac2010
6	E. monatana	Tan Back Rock-skink	not in the Atlas
7	Eulamprus heatwolei	Yellow-bellied Water-skink	urn:lsid:biodiversity.org.au:afd.taxon:779e998e-b9a7-4296-ad7b-24d97d1a050c
8	Eulamprus kosciuskoi	Alpine Water Skink	urn:lsid:biodiversity.org.au:afd.taxon:731a4aa6-ee9e-4a55-b9c7-0e51469f984a
9	Eulamprus tympanum	Highland Water Skink, Southern Water Skink	urn:lsid:biodiversity.org.au:afd.taxon:4c915aba-e4d6-4dec-ad2e-b481e259f976
10	Eulamprus quoyii	Eastern Water-skink	urn:lsid:biodiversity.org.au:afd.taxon:6c2cd260-c072-4952-a708-97e2f4acc913
11	Hemiergis decresiensis	Three-toed Earless-skink	urn:lsid:biodiversity.org.au:afd.taxon:ea2fc241-eb18-4f8e-9b74-576b1a71968a

7. Copy the 3rd column to clipboard

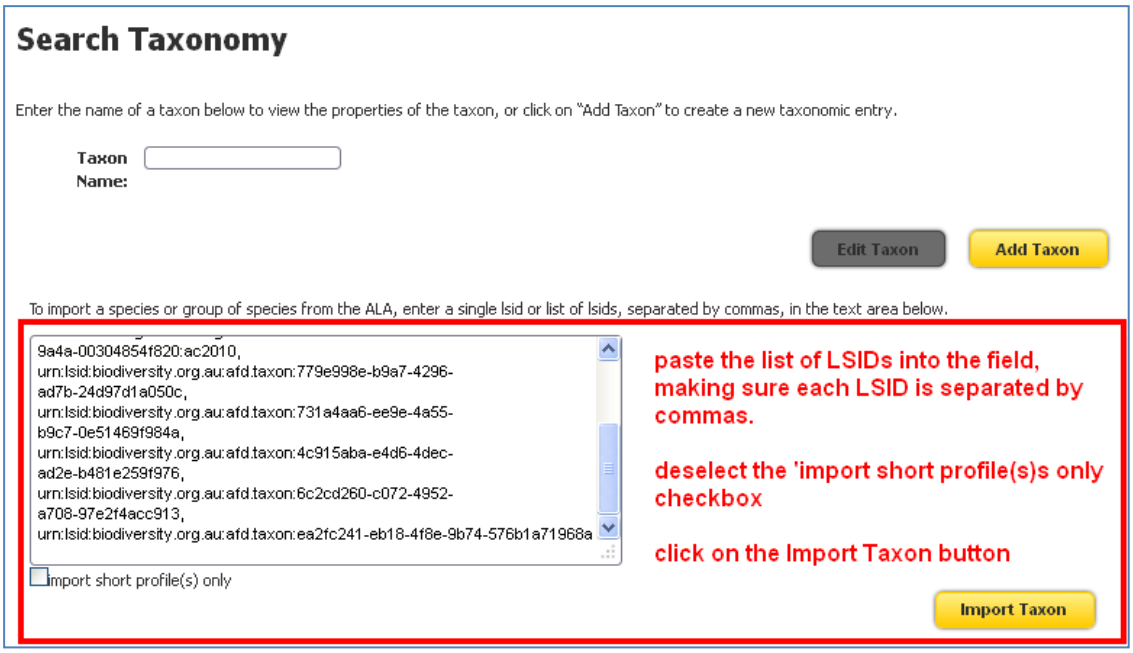
Instructions:

1. Log in to your web site as usual.

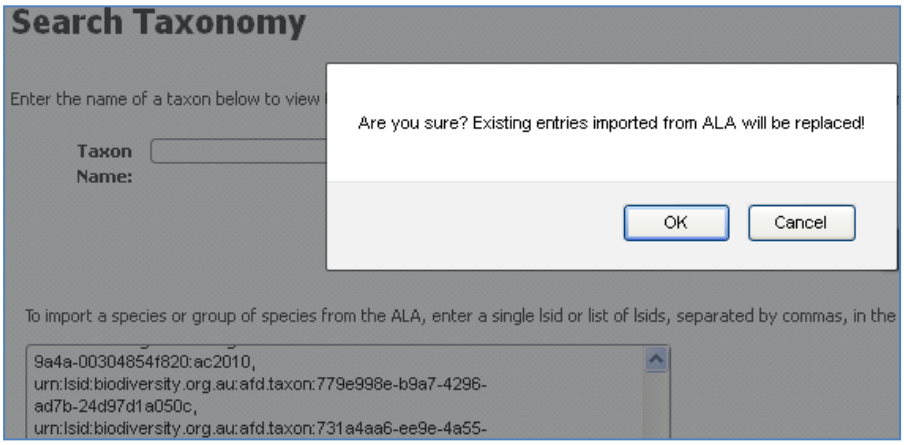
2. Click on Admin from the navigation menu and Select Species Pages, then the Taxonomy sub-menu



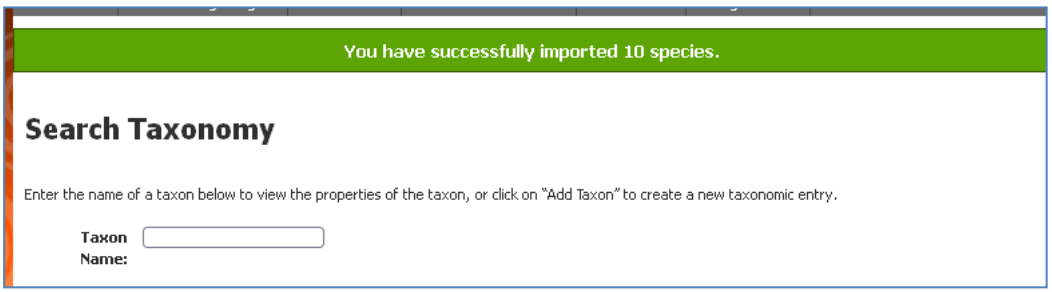
3. Paste the list of LSIDs you have collected (for example from Excel as described above) into the large table at the foot of the page



4. Answer OK to the check box



5. Species profiles are imported in Bulk



6. To confirm this select View Species Field Guide from the main menu, then (in this example) Lizard – Skinks

7. The list will now include new and/or updated species pages with ALA content.

TIP

It is very easy to get a comma in the wrong place which breaks the import process resulting in a 500 error page being displayed.

We did this several times for this help :)

Solution:

If you get the 500 error use browser go back to importing page; copy the contents of the large import field into clipboard; paste it into word; select it all and then turn it into a table with the comma as break – you can very clearly see when a column/row doesn't start with **urn**!

urn:lsid :biodiversity.org.au:afd.taxon :26152e1b-092d-47ee-9920-0c562ba9c0fa	urn:lsid :biodiversity.org.au:afd.taxon :5ccc19f4-ae4c-4d17-b1b1-7cb170259c46	urn:lsid :biodiversity.org.au:afd.taxon :f5476626-426b-4568-bfb6-f2c3796d26a7	urn:lsid :biodiversity.org.au:afd.taxon :ae448bba-eb6f-4063-906f-b8aa70ff9	bccurn:lsid:catalogueoflife.org:taxon:e9fc1200-29c1-102b-9a4a-00304854f820:ac2010	urn:lsid :biodiversity.org.au:afd.taxon :779e998e-b9a7-4296-ad7b-24d97d1a050c	urn:lsid :biodiversity.org.au:afd.taxon :731a4aa6-ee9e-4a55-b9c7-0e51469f984a	urn:lsid :biodiversity.org.au:afd.taxon :4c915aba-e4d6-4dec-ad2e-b481e259f976	urn:lsid :biodiversity.org.au:afd.taxon :6c2cd260-c072-4952-a708-97e2f4acc913	urn:lsid :biodiversity.org.au:afd.taxon :ea2fc241-eb18-4f8e-9b74-576b1a71968a

In this case pasting the text in again as a list and correcting the placement of the comma resulted in a successful import

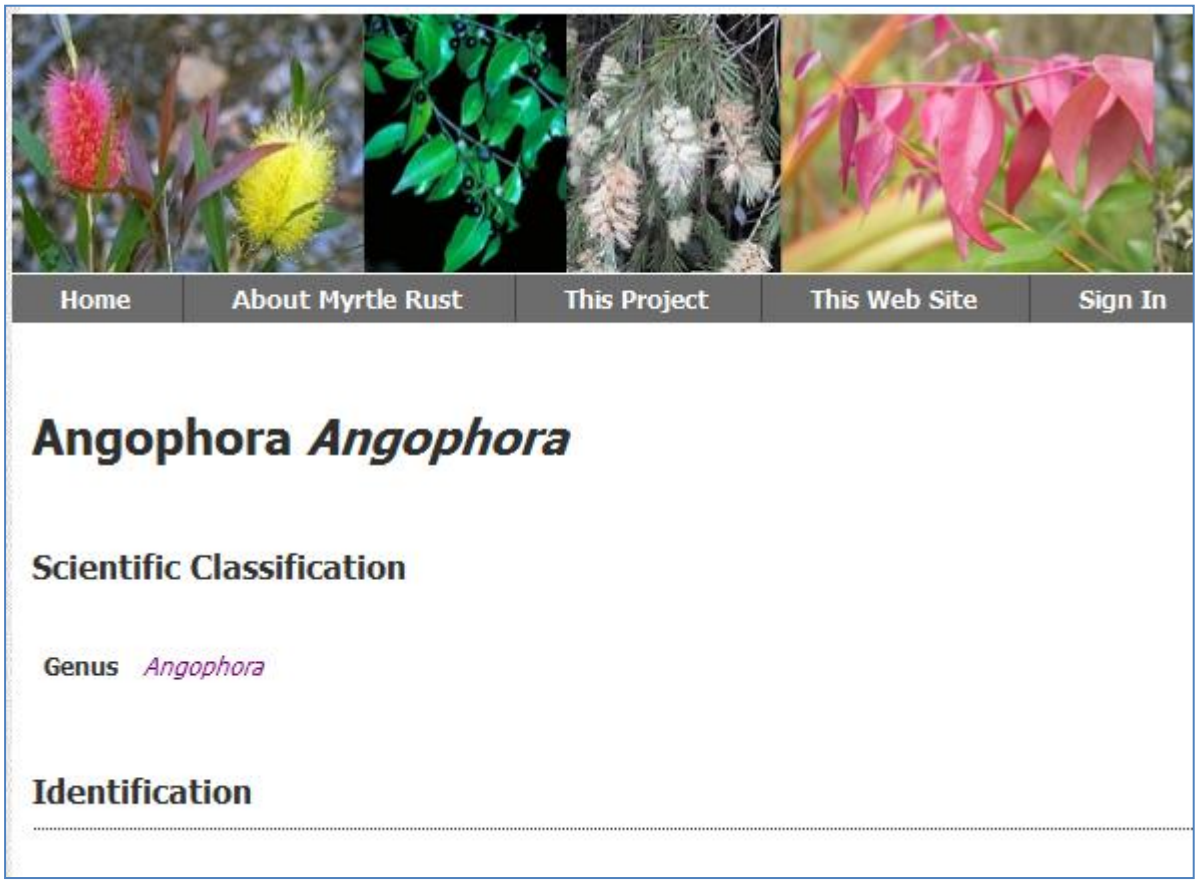
urn:lsid:biodiversity.org.au:afd.taxon:26152e1b-092d-47ee-9920-0c562ba9c0fa,urn:lsid:biodiversity.org.au:afd.taxon:5ccc19f4-ae4c-4d17-b1b1-7cb170259c46,urn:lsid:biodiversity.org.au:afd.taxon:f5476626-426b-4568-bfb6-f2c3796d26a7,urn:lsid:biodiversity.org.au:afd.taxon:ae448bba-eb6f-4063-906f-b8aa70ff9bcc,urn:lsid:catalogueoflife.org:taxon:e9fc1200-29c1-102b-9a4a-00304854f820:ac2010,urn:lsid:biodiversity.org.au:afd.taxon:779e998e-b9a7-4296-ad7b-

SECTION 3: SPECIES PAGE FORMATTING

The flowing images show what the unformatted new content looks like:

Example 1:

A new species profile page with no formatting from the myrtle rust bdrs:



Example 2:

A new species profile page containing ALA data with no formatting from the K2C Reptiles site:

Leaf-green Tree Frog *Litoria phyllochroa*

Scientific Classification

Genus *Litoria*

Species *Litoria phyllochroa*

Identification

Common Name

Leaf Green Tree Frog , Source: International Union for Conservation of Nature

Green Stream Frog , Source: OZ Animals

Leaf Green River Tree Frog , Source: International Union for Conservation of Nature

Leaf Green Tree Frog , Source: OZ Animals

Leaf-green Tree Frog , Source: ALA website image uploads

Leaf-green Tree Frog , Source: ALA website image uploads

Leaf-green Tree Frog , Source: Department of Environment, Climate Change and Water

Litoria Phyllochroa, Hyla Phyllochroa, Hyla Phyllochroa Barringtonensis , Source: OZ Animals

Mountain Stream Tree Frog , Source: OZ Animals

Thumbnail for Litoria phyllochroa

Credit: Christopher Madden
Permission: CC-BY – Creative Commons Attribution 3.0 Australia
Description:

40x40 Thumbnail for Litoria phyllochroa

Credit: Christopher Madden
Permission: CC-BY – Creative Commons Attribution 3.0 Australia
Description:

Image for Litoria phyllochroa

Credit: Christopher Madden
Permission: CC-BY – Creative Commons Attribution 3.0 Australia
Description:

DescriptiveText

The Mountain Stream Tree Frog is light green to dark olive green on the back. The thighs are orange yellow and the belly is off-white. It has a pale brown yellowish stripe from the nostril, through the eye, and down to the shoulder. It has black dots scattered over the back. The Mountain Stream Tree Frog, (Litoria barringtonensis) may be the same species as the Leaf Green Tree Frog (Litoria phyllochroa).

Source: OZ Animals

DistributionText

native to highland areas of NSW, Australia stretching from the Myall Lakes area, north to around Dorrigo National Park and west to Barrington Tops National Park.

Source: OZ Animals

MorphologicalText

4.5cm

Source: OZ Animals

HabitatText

mountainous areas, rainforests and wet sclerophyll forests

Source: OZ Animals

EcologicalText

This species inhabits flowing creeks in mountainous areas, in rainforests and adjacent wet sclerophyll forests, as its name suggests. Males call from stream side vegetation during spring and summer, the call is similar to that of Litoria phyllochroa . This species is rarely described in field guides due to its similarity to the Pearson?s Green Tree Frog and due to the taxonomy being under review.

Source: Wikipedia

Reference

Anstis, M. 2002. Tadpoles of South-eastern Australia. Reed New Holland: Sydney. (under Litoria pearsoniana)

Source: Wikipedia

ImageLicenseInfo

Brad (froggydarb) - http://commons.wikimedia.org/wiki/Commons:GNU_Free_Documentation_License,_version_1.2

Source: OZ Animals

ImageUrl

http://upload.wikimedia.org/wikipedia/commons/thumb/e/e9/Litoria_phyllochroa.JPG/800px-Litoria_phyllochroa.JPG

Source: Wikipedia

Synonym

Hyla phyllochroa , Source: Günther, 1863

Conservation Status

Least Concern/Unknown , Source: International Union for Conservation of Nature

Habitat

Non-marine

Source: Interim Register of Marine and Non-marine Genera

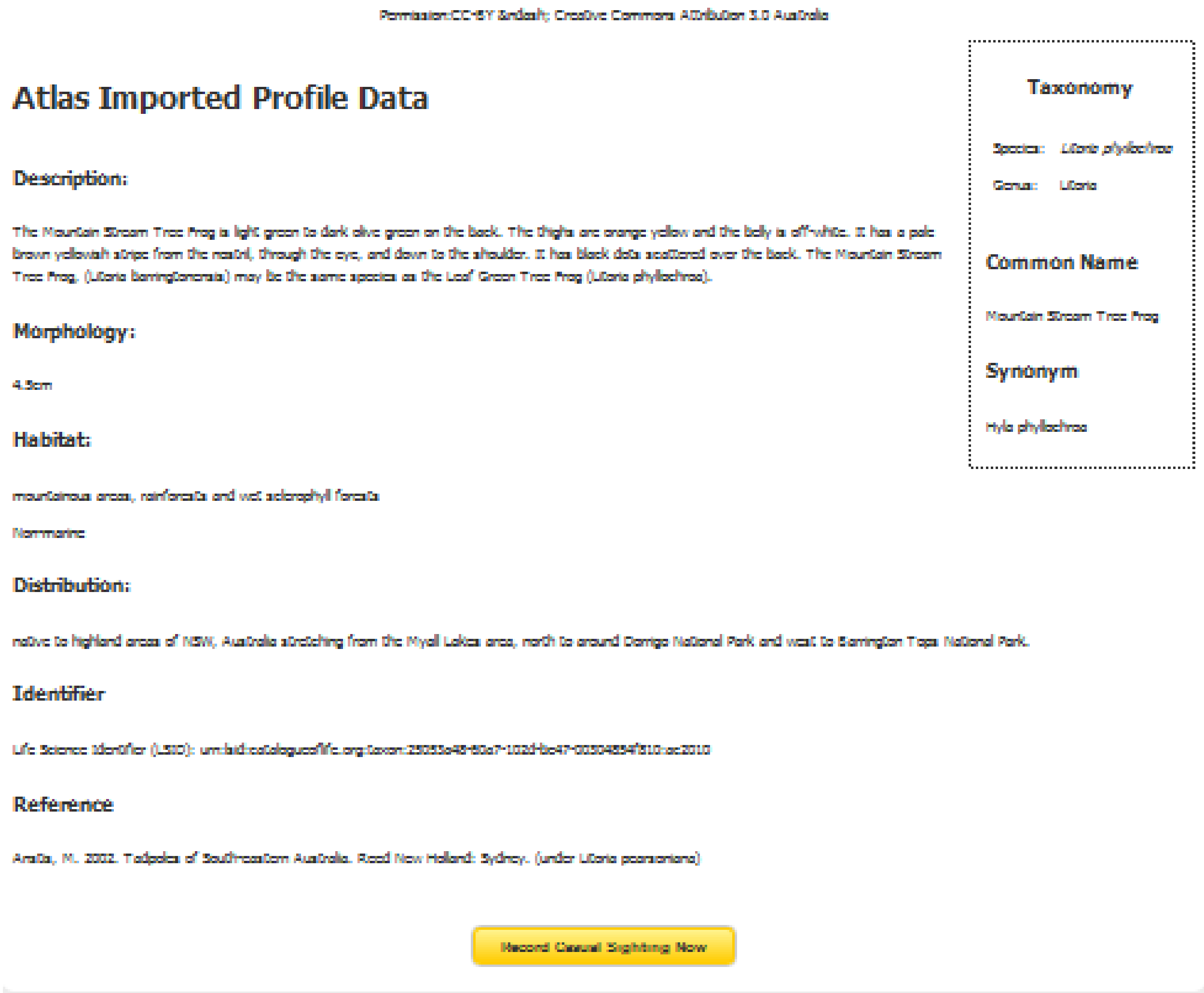
Identifier

urn:lsid:catalogueoflife.org:taxon:25053a48-60a7-102d-be47-00304854f810:ac2010 , Source: ALA

Example 3:

The same K2C Reptiles species profile page with formatting applied using a theme template

\Border Ranges\Theme Development\templates\public\fieldguide\ taxonView.vm



Permission:CC-BY – Creative Commons Attribution 3.0 Australia

Atlas Imported Profile Data

Description:

The Mountain Stream Tree Frog is light green to dark olive green on the back. The thighs are orange yellow and the belly is off-white. It has a pale brown yellowish stripe from the nostril, through the eye, and down to the shoulder. It has black dots scattered over the back. The Mountain Stream Tree Frog, (Litoria barringtonensis) may be the same species as the Leaf Green Tree Frog (Litoria phyllochroa).

Morphology:

4.5cm

Habitat:

mountainous areas, rainforests and wet sclerophyll forests

Non-marine

Distribution:

native to highland areas of NSW, Australia stretching from the Myall Lakes area, north to around Dorrigo National Park and west to Barrington Tops National Park.

Identifier

Life Science Identifier (LSID): urn:lsid:catalogueoflife.org:taxon:25053e48-60a7-102d-be47-00304854f810:ac2010

Reference

Anstis, M. 2002. Tadpoles of South-eastern Australia. Reed New Holland: Sydney. (under Litoria pearsoniana)

Record Casual Sighting Now

Taxonomy

Species: *Litoria phyllochroa*

Genus: Litoria

Common Name

Mountain Stream Tree Frog

Synonym

Hyla phyllochroa

The image is shown separately as it is quite large

Credit:Christopher Madden
Permission:CC-BY –; Creative Commons Attribution 3.0 Australia

Atlas Imported Profile Data

Description:

Taxonomy

Species: *Litoria phyllochroa*

Genus: Litoria