Annex 6
New Interface for the DaRWIN Collections Management System

1. INTRODUCTION

The DaRWIN Collection management system is an in-house relational database based on PostgreSQL with a user web interface designed with the Symfony/PHP framework. It was developed first by RBINS and after by the consortium RBINS/RMCA.

Figure 1. Home screen of the DarWIN CMS

The Backend user interface is composed of a dashboard which can be configured by the user in order to display the requested widgets in a specific order. These choices are saved in the user preferences independently from the workstation.

Figure 2. Home screen of the backend of the DarWIN CMS

Figure 3. Settings of the widgets displayed by the DarWIN CMS

And by a set of views accessible by a multi-level menu and allowing the search, the creation and the edition of all information related to a collection specimen (Specimen, Taxonomy, Institution, People, Sampling Location etc …)
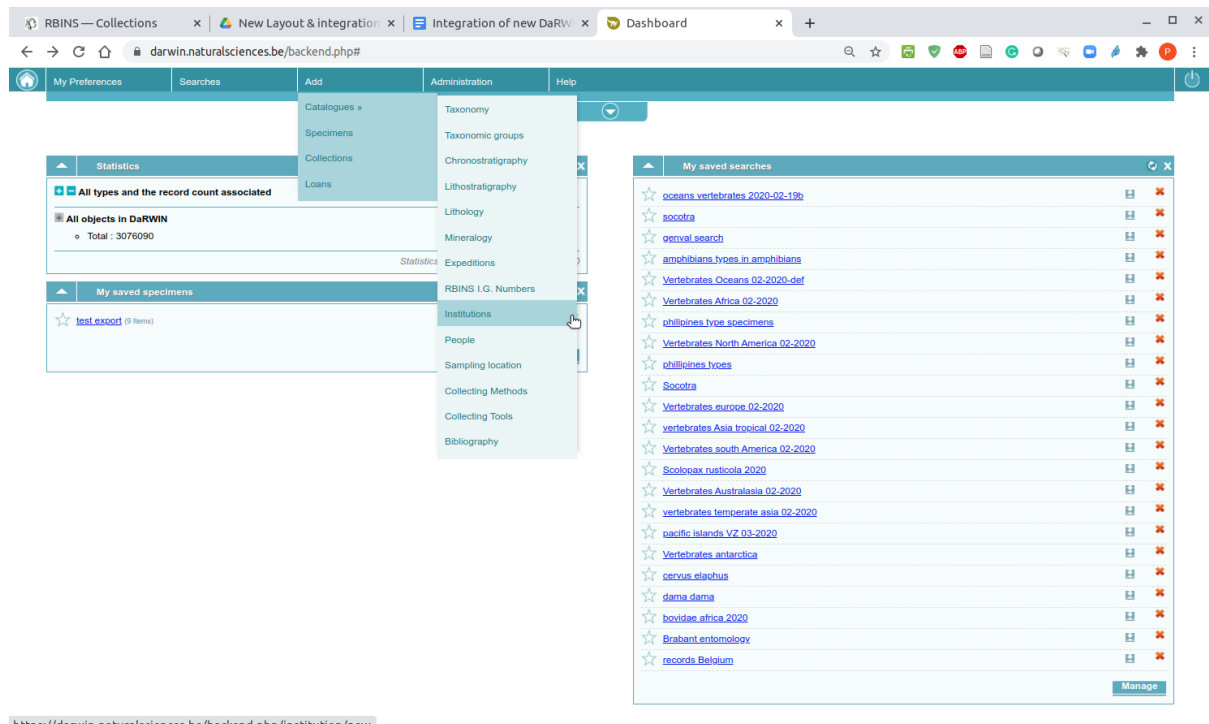
Figure 4. Menus and sub-menus of the backend of the DarWIN CMS

This interface has been in production for nearly 10 years but the capacity of encoding is limited to 5000-10000 specimens/encoder/year. This is a limiting factor if we consider the size of the Belgian Natural History Collections (38 millions for RBINS and 10 millions for RMCA).

Moreover the modification of the interface in Symfony is very time consuming, limiting the optimisation of the interface. We analysed deeply the original DaRWIN interface and proposed several modifications in order to speedup and improve the manual encoding. The time for a complete renewal of the interface using the Symfony technology was estimated to be 24 PM which was/is quite impossible in the present day budgetary context.

2. METHODOLOGY

The NaturalHeritage project aims to develop a set of technologies allowing to combine together several tools but transparently for the final user. We develop a new DaRWIN interface with simple technologies (html) and an easy integration in any institutional website of the Institution or directly in the NaturalHeritage Portal.

In this case study, we used the Plone 4.3 Content management system already in production at RBINS and used it for the NaturalHeritage website to develop the new DaRWIN interface. By this way, a specific encoding interface can be easily developed for each NaturalHeritage partner.

The different views of DaRWIN were slightly modified to be embedded in html pages.
A simple html edition allows to call and visualise the DaRWIN views and to access the database's functionalities.

Figure 5.Home screen of the backend of the RBINS DarWIN CMS

3. INFRASTRUCTURE

The case study is based on the Plone 4.3 CMS already in use at RBINS. There is no need for a new infrastructure and this approach can be transferred to any other Content Management System used to build Institution websites.

4. RESULTS

4.1 Simplification of the menu
We create several one click menus allowing us to directly access the different sections from the Dashboard view. This limits drastically the number of clicks (20%) and speeds up the encoding process.

The right side menu provides links to the database items menus: Administration, Item, Sampling, Multimedia, Bibliography, etc

Figure 6. Menu to access the different content modules of the DarWIN CMS
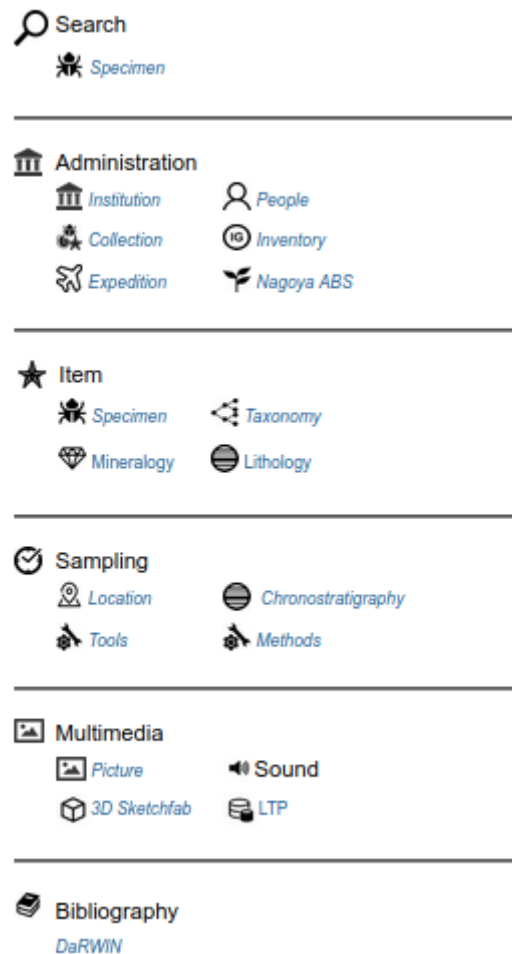
while the bottom menu provides links to the management tools: Settings, Reporting, Loans and labels, Import and Mass actions.
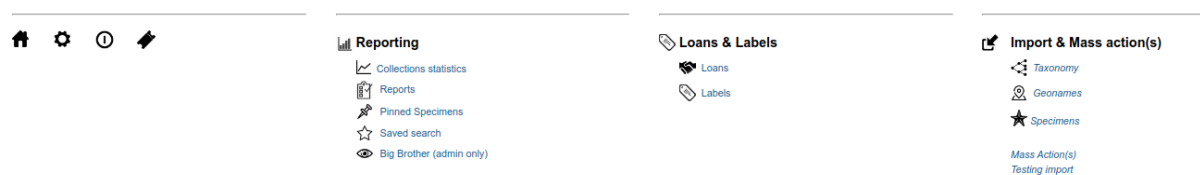

Figure 7. Menu to access the different management/administrative modules of the DarWIN CMS

Each link can redirect to a specific section which can be easily adapted if the tools used are different from one institution to another one.

The idea is also to avoid/limit the double encoding: the encoder is always invited to check first if the item doesn't exist in the database before being able to create it. This is very important for the standardisation and the validation of the data.

Figure 8. Search view for institution

Figure 9. Input interface for a new institution

The menu on the right side provides links to external tools or authority validated resources to improve the quality of the encoding and limit the time to reach it.
This uses only html encoding limiting the time needed to add a new resource or to modify an existing one.

The following section will describe in more detail the different sections available in the new interface.

4.2 Search specimen

Figure 10. Menu to search a specimen at the upper right corner of the backend view

4.2.1 Backend Search

The **backend search** allows registered users to search specimens from Zoological, Paleontological / Geological collections.
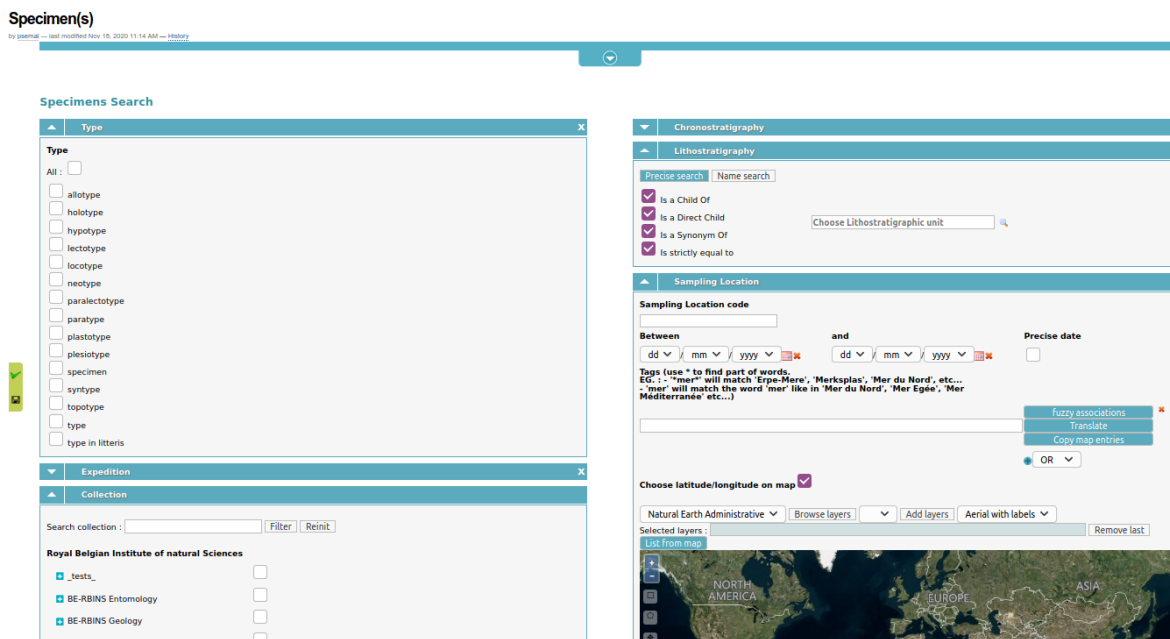

Figure 11. Backend Specimen search view

For the Specimens search, different criteria can be used and the allowed widgets can be defined by the user using the top blue menu.
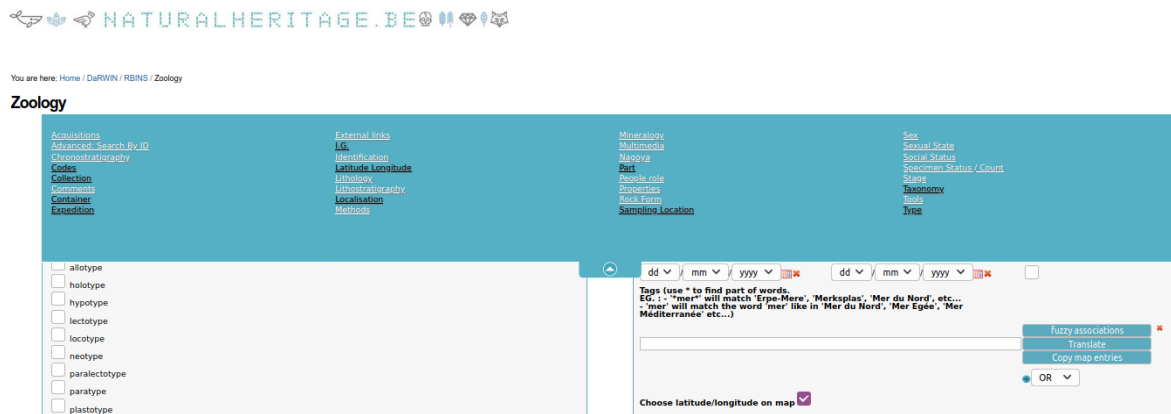
Figure 12. Setting of the widgets displayed on the search interface

4.2.2 Public Search (only published data)

The **public search** with less searching criteria and less customizable interface is available through the NaturalHeritage search interface. This interface also provides a common search with the other NaturalHeritage partners.

See also: annexe 10 - BBR/175/A3 NaturalHeritage: The (re)Indexing System and Research portal

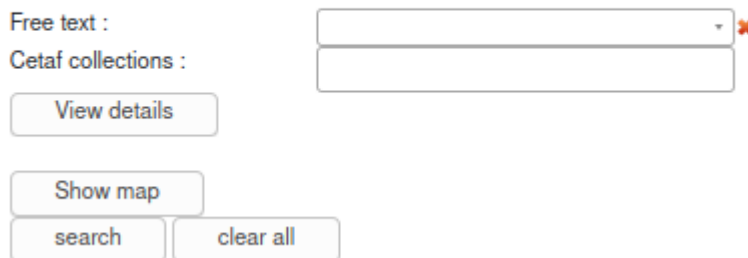The default search is a Google Like search using one generic research field :

Figure 13. Simple search interface of the NaturalHeritage portal

It is also possible to ask simple human questions: What, Where, When, Who and How or to use a graphical geographic research interface.

Advanced Search

Free text :

Cetaf collections :

Hide details

Institution:

And:

Collection:

And:

What:

And: details

Where:

And: details

Who:

And: details

When (begin date):

Date type:

When (end date):

Date type:

Show map

search   clear all

Geographic Search

Free text :

Cetaf collections :

View details

Hide map

Natural Earth Administrative

Browse layers

Add layers

Selected layers :

Remove last

Polygon on map :

WFS on map :

Figure 14. Advanced search interface of the NaturalHeritage portal
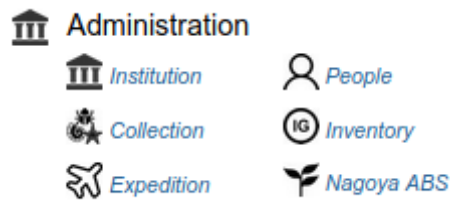
4.3. Administration

Figure 15. Administration data menu

4.3.1 Institution

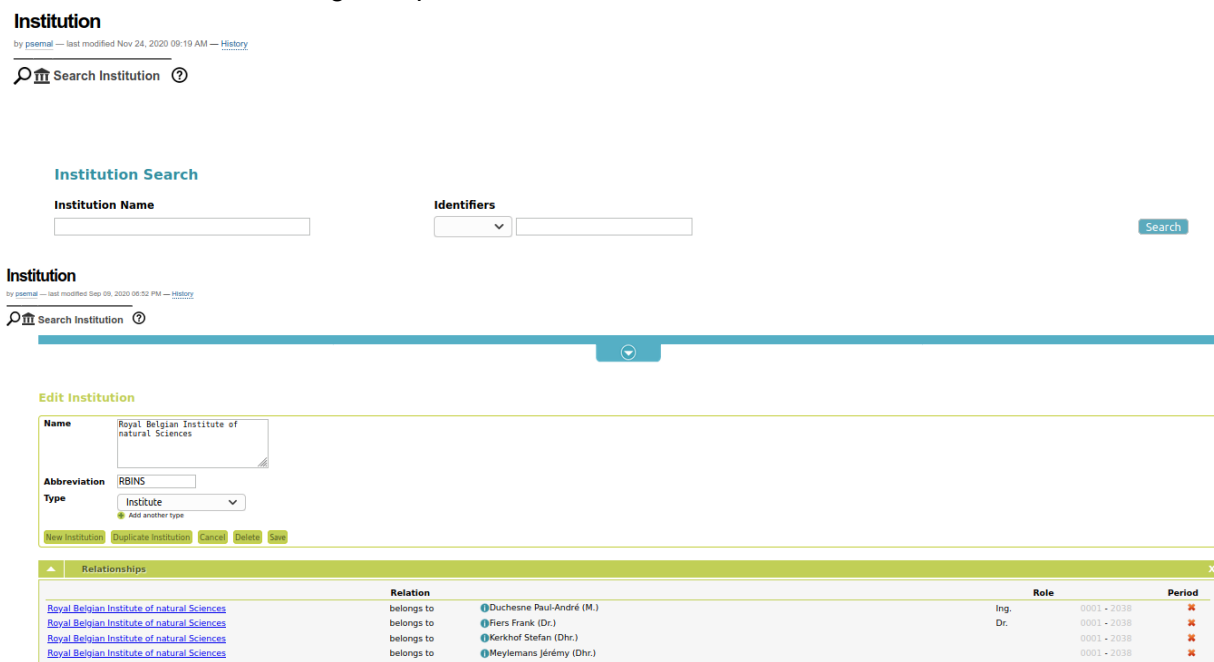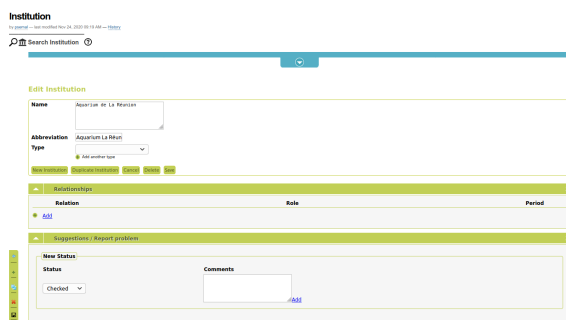This view allows searching if a specific institution exists in the database.

Figure 16. Institution search interface

Leave all fields empty and click on the Search button to see all the existing institutions.

Figure 17. Institution view

If the Institution exists, the user can use it in the other encoding operations or edit the institution to update information.

If the Institution does not exist, the user can add a new institution using the Add menu. He can also open authorities resources like iDigBio, CETAF, GRID, WIKI DATA to gather the updated information. This menu can be easily updated if new service providers appear.
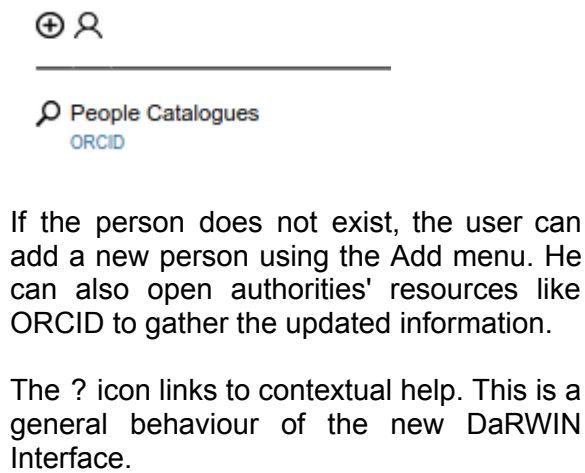
Figure 18. External resources menu

4.3.2 People

This section allows searching if a specific person already exists in the database.
If the People exists, the user can use it in the other encoding operations or edit the People to update information.

Figure 19. Institution search interface

Leave all fields empty and click on the Search button to see all the existing people.

People help
by psemal — last modified Sep 09, 2020 06:52 PM

If the person does not exist, the user can add a new person using the Add menu. He can also open authorities' resources like ORCID to gather the updated information.

The ? icon links to contextual help. This is a general behaviour of the new DaRWIN Interface.

Figure 20. Contextual help

4.3.3 Collection

This section allows searching a collection in the database.

If this exists, specimens can be added manually or imported with templates. The user can also edit the Collection to update the information.

Figure 21. Collection Search Interface

⊕ ♣

If the collection does not exist, the user can add a collection using the Add menu.

Collection

by psemal — last modified Sep 09, 2020 06:52 PM — History

⊕ ♣ Add a collection ⑦

New Collection

Public collection	☑
Code	
Unique identifier	
Name	
Institution	Choose Institution 🔍
Collection type	mix ▾
Conservator	Choose Manager 🔍
Staff Member	Choose Staff Member 🔍
Parent collection	▾
Preferred taxonomy	All ▾
Allow duplicates	☐
Nagoya	Not defined ▾

Users	Rights
	Add User
	Cancel Save

Figure 22. Collection Add Interface

4.3.4 Inventory

This section allows searching an Inventory number in the database.

Figure 23. General Inventory Search Interface

Leave all fields empty and click on the Search button to see all the existing references. If this exists, specimens can be related to this inventory reference manually or imported with templates. The user can also edit the Inventory number to update the information.

Figure 24. General Inventory Edit Interface

If the inventory reference does not exist, the user can add it using the Add menu.

Figure 25. General Inventory Add Interface

4.3.5 Expedition

This section allows searching an Expedition in the database.

Figure 26. Expedition Search Interface

Leave all fields empty and click on the Search button to see all the existing references. If the Inventory reference exists. the user can edit the reference to update the information.

Figure 27. Expedition Edit Interface

If the expedition does not exist, the user can add it using the Add menu.

Figure 28. Add expedition Menu
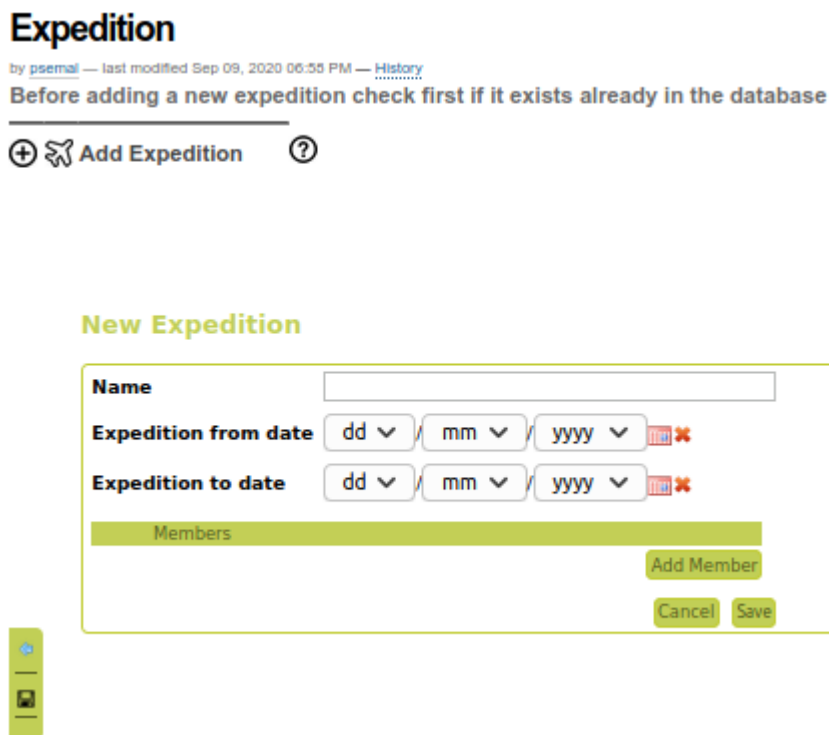
Figure 29. Expedition Search Interface

4.3.6 Nagoya Protocol

This section is related to the management of the Nagoya Documents. The Nagoya Documents can be directly related in Darwin to a specimen, an expedition or an inventory as a related file.

Nevertheless, it is not so, easy because:
- they are several documents for a complete reference to Nagoya documentation (MAT, PIC, CETAF MTA, etc)
- several specimens can be related to the same Nagoya documents which should be uploaded on the system several times for each specimen
- One expedition could be related to several Nagoya Documents
- One inventory could be related to several Nagoya Documents or one Nagya document could be related to several Inventory numbers

The situation can be very complex to document correctly the DaRWIN items.

In order to have a centralized authority for the Nagoya documentation, we created a specific site : nagoya.naturalheritage.be

See also the annexe 5 - BBR/175/A3 NaturalHeritage: The ABS and CITES modules

What applied to your specimen(s) ?

by admin — last modified Nov 25, 2020 08:08 PM — History
Please check what is the category concerned by your specimen(s)

Case 1	Case 2	Case 3

• No DNA
 	
• Not covered by NP (e.g. human remains)
 	
• Collected prior to Dec. 29 1993 **or**
 	
• Collected in international waters or Antartica **or**
 	
• **Check for the following cases:**
 	
  • Country where collected is non-party of CBD (e.g. USA, see List of parties) **or**
 	
  • Country is a party of CBD and to NP, but provides free access to their genetic resources (e.g. United-Kingdom)
	Check https://absch.cbd.int for:
	
	• Country is a party of CBD but not NP (e.g. Canada, New-Zealand) (List of coutries) or
	
	• Country is a party of CBD and party to NP, but (had) not yet passed access regulations or legislation (List of countries) or
	
	• Country is a party of CBD and to NP and does not provide free access but **sample was collected before October 12, 2014 or before the NP went into force in that country**
		Check for:
		
		• Country is a party of CBD and to NP and does not provide free access and sample was collected after the NP went into force in that country (List of countries)

Please provide	**Please provide**	**Please provide**
1. *Basic information*	1. *Basic information* 2. *Additional Information* 3. *Documentation* (recommended)	1. *Basic information* 2. *Additional Information* 3. *Documentation*

1. Basic information	2. Additional Information	3. Documentation
• Country and exact location where genetic resource was collected • Date of collection • Any permits/documentation linked to the specimen (?)	• Name of the national competent authority that granted access.	• ⑦ Prior Informed Consent (PIC) **and/or** • ⑦ Mutually Agreed terms (MAT) **and** • Material Transfer Agreement (MTA) if required by the provider country • Link to International recognised certificate of Compliance. **Check https://absch.cbd.int for this if available.**

Figure 30. ABS documents main menu

This site offers a path to understand if Nagoya is applicable or not to the specimen(s) and provides a place to store the different Nagoya documentation in chronological folders.

The link(s) to the folder(s) can then be encoded as external links (with Nagoya tag) in the DaRWIN system. The url with the complete path "https://nagoya.naturalheritage.be/year/nagoya_documents_folder_name" has to be used in order to be compliant with the SSL connection.

Figure 31. ABS documents external link in DaRWIN CMS

This link can be filled at the specimen(s) level, at the inventory or the expedition level with all the multiple links options but doesn't request a multiple upload.

4.4. Item

Figure 32. Items menu

4.4.1 Specimen
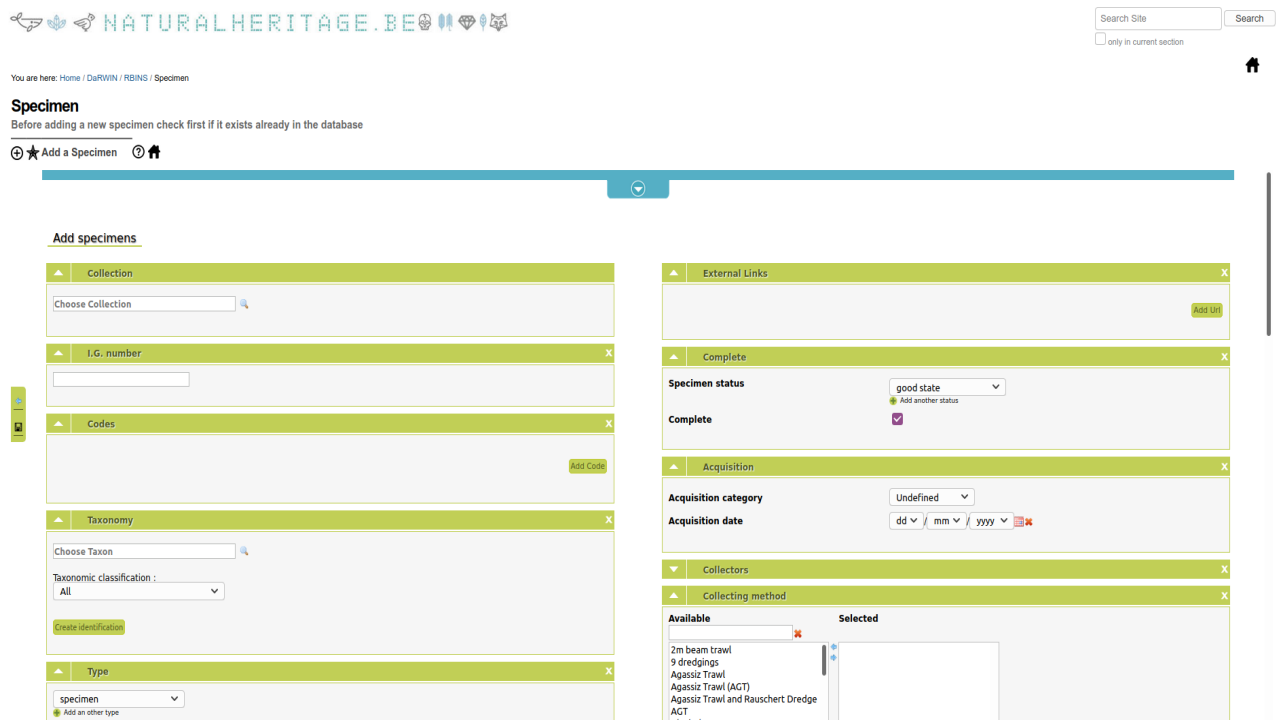
Figure 33. Add specimen interface

The specimen section is the central core of the DaRWIN Collection management system. It summarises all the information of the specimen(s) available using the *ad hoc* widget.
The selection of the visible widget is available in the blue top menu

Figure 34. Settings of the widgets related to Specimen

A menu linking to the external resources is available on the right of the encoding windows.

Figure 35. external resources menu

4.4.2 Taxonomy

The taxonomy section is another fundamental block of the DaRWIN CMS.
The user should first check if the taxon already exists in the database.

Figure 36. Taxonomic unit search interface

Leave all fields empty and click on the Search button to see existing references.
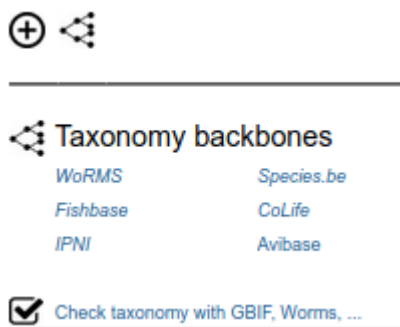
If the taxon doesn't exist, the user can add a new taxon using the add link.

External resources are also proposed to help the taxonomy check.

Figure 37. Taxonomic unit menu and external resources
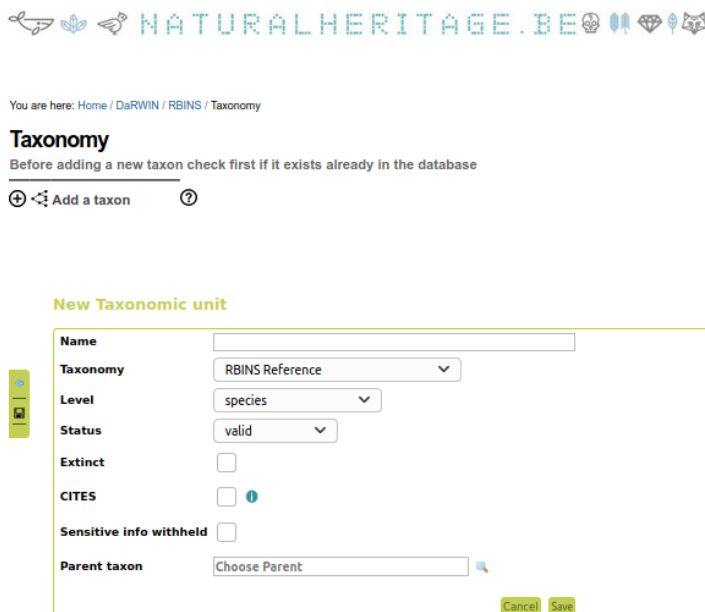
Figure 38. Taxonomic unit add interface

It is possible to work with the validated central taxonomy (RBINS reference) or to create a personal taxonomy. In this case the taxa included in this taxonomy will not be proposed by the RBINS reference.

You can also import Taxonomy using the Import taxonomy widget. The link is on the bottom menu.

Figure 39. Taxonomic unit import interface

4.4.3 Mineralogy

This section proposes the Mineralogic taxonomy using the Strunz or the Dana references systems.

Figure 40. Mineralogy search interface

Leave all fields empty and click on the Search button to see existing references.

If the Mineralogic unit doesn't exist, the user can add a new one using the add link.

External resources are also proposed to help the Mineral "taxonomy" check.

Figure 41. Mineralogy menu and external resource

4.4.4 Lithology

This section proposes the Lithology "taxonomy".

Figure 42. Lithology search interface

Leave all fields empty and click on the Search button to see existing references.

If the Lithology unit doesn't exist, the user can add a new one using the add link.

Figure 43. Lithology menu

Figure 43. Lithology Add interface

4.5. Sampling

Figure 44. Sampling menu

4.5.1 Location

Figure 45. Location Search Interface

Leave all fields empty and click on the Search button to see existing references.

If the location unit doesn't exist, the user can add a new one using the add link.

External resources are also proposed to help the Location check and creation.

Figure 46. Location menu

Geonames and Nominatim provide Longitude and Latitude for locations searched by their name(s).

Figure 47. Location Add Interface

4.5.2 Stratigraphy

This section describes the chronostratigraphic context of a specimen. This is used for the palaeontological specimens and for some of the geological specimens.

Figure 48. Stratigraphy Search Interface

Leave all fields empty and click on the Search button to see existing references.

Figure 49. Stratigraphy menu

If the stratigraphical unit doesn't exist, the user can add a new one using the add link. External resources are also proposed to help the stratigraphy check and creation.

Figure 50. Stratigraphy menu

4.5.3 Tools

This section describes the tools used for the collection of the specimen(s).
The list of the available tools is automatically displayed.

Figure 51. Tools Search Interface

Figure 52. Tools menu

If the tool doesn't exist, the user can add a new one using the add link.

Figure 53. Tools Add Interface

After the creation, return to the search page and search the newly created tool.

Figure 54. Tools selection interface

click on the edition icon to the right of the table of search results. Edit the tool information and save

Figure 55. Tools Add interface

4.5.4 Methods

This section describes the methods used for the collection of the specimen(s).
The list of the available methods is automatically displayed.

Figure 56. Method search Interface

Figure 57. Method menu

If the method doesn't exist, the user can add a new one using the add link.

Figure 58. Tools Add Interface

After the creation, return to the search page and search the newly created tool.

Figure 59. Method selection interface

click on the edition icon the right of the table of search results. Edit the method information and save

Figure 60. Method Edit interface

4.6. Multimedia

Figure 61. Multimedia Menu

It is possible to upload files (pdf, images, XLS files) directly to a specimen. This approach is nevertheless not recommended because this operation has to be repeated manually for each specimen. Moreover the multimedia files can be very heavy and use too much space for the DaRWIN server.

For all multimedia files, it is better to use specific multimedia servers and link to the specimens in DaRWIN with the external links widget. This allows to link any resource managed by the institution or integrated in a shared or platform (public, commercial, etc).

For this reason the menu available in the DaRWIN can be configured to link to the specific Multimedia server(s) of the Institution.

see also annexe 9 - BBR/175/A3 NaturalHeritage: The Multimedia module of the DaRWIN Collection Management System

4.6.1 Picture(s)

If the resource is a IIIF compliant image server, the image can be directly viewed at high resolution using a IIIF viewer. The link is automatically proposed in DaRWIN just clicking the images in the thumbnail.

Figure 62. IIIF image viewer

RMCA is using a Collective Access server to store and render the images files. The IIIF viewer is Universal user by default.

If the Mirador viewer is installed, it is possible to include the IIIF image view in DaRWIN or in another CMS as Plone.

RBINS is using Plone sites for the storage and the rendering of the images files. The plone site is not a IIIF server but the display of high resolution files is very fast. Each specimen is a folderish object. All images of one specimen are stored in the specimen object. The DaRWIN UUID is encoded in the description of the specimen and a view of the DaRWIN data is available as a Data view. Moreover, a link to the advanced data view of DaRWIN is provided for registered users.

Figure 63. External link to Virtualcollections image server

Figure 64. View of a specimen and images in the RBINS Virtualcollections

Figure 65. View of the DaRWIN data of a specimen in the RBINS Virtualcollections

4.6.2 D Surface Model(s)

The 3D files of RBINS and RMCA are stored on the sketchfab platform. It is a commercial platform but with interesting prices for Museums. The 3d models are stored on the sketchfab server and the 3D rendering is also managed by the Sketchfab solution. The 3D view of the specimens are embedded with Iframe in the different collection management systems of the institutions.

The link to the page with the Iframe(s) is encoded in DaRWIN as an external link.

Figure 66. View of a 3D view of a specimen in Sketchfab

3D files from 3DHOP servers can also be encoded as external links. The link is direct to the 3d file but the view is not embedded in the DaRWIn interface as 3DHOP avoids Iframe.

4.6.3 Sound(s)

The Sounds files can be linked to the DaRWIN specimens using the same approach.

The files are stored on a dedicated external multimedia server in native format if recording infra and ultra sounds information (skipped by the MP3 compression) or in MP3 if only human audible sounds are concerned.

4.6.4 Video(s)

The Video files can be linked to the DaRWIN specimens using the same approach.

The files are stored on a dedicated external multimedia server like Youtube and linked to the specimen using the external links widget in the Specimen edition.

4.6.5 LTP

The Long Term preservation platform of Belspo is used for the preservation of the digitisation files of the specimens. This allows linking directly the specimen to the LTP record in the RBINS/RMCA DIGIT system which stores the LTP metadata and the link to the LTP file(s).

All multimedia files (1 by technique) are grouped in a ZIP file which is uploaded to the LTP system. Several links to LTP files can thus be encoded for one specimen.

4.7. Bibliography

It is possible to encode bibliographical references in DaRWIN and to link them to the specimen(s).

Figure 67. Search bibliography interface (encoded in DaRWIN)

Figure 68. Search bibliography results (encoded in DaRWIN)

The list of results displays bibliographic references corresponding to the search criteria. Icons on the right of the table allow editing, duplicating, and viewing the reference. The last icon links to the list of the specimens encoded in DaRWIN which are already related to the reference.

View Bibliography

Type	Article
Title	1881. Liste des coquilles recueillies à Cannes par MM. E. et Ad. Dollfus. Feuilles jeunes Natur., 11e ann., pp. 117-121.
Bibliographical reference	
Year	1881
Abstract	
URI	
Related specimens	

Authors

External Links

Url	Comment

Figure 69. Bibliographic reference view (encoded in DaRWIN)

The list of the related specimens is also available directly from the reference view using the "Related specimens" link.

To link a reference to a specimen, use the Specimen edition view and open the Bibliography widget.

Bibliography

Year : 1881
Title : 1881. Liste des coquilles recueillies à Cannes par MM. E. et Ad. Dollfus. Feuilles jeunes Natur., 11e ann., pp. 117-121.

Year : 2021
Title : Cirripedes (Thoracica, Crustacea) from the Maastrichtian of Kalaat Senan, Tunisia
URL : https://dx.doi.org/10.1016/j.cretres.2020.104650

Year : 2016
Title : Neandertal cannibalism and Neandertal bones used as tools in Northern Europe. Sci Rep 6, 29005
URL : https://dx.doi.org/https://doi.org/10.1038/srep29005

Add bibliography

Figure 70. Bibliographic references linked to a specimen (encoded in DaRWIN)

- The link in the Title opens the bibliographic reference encoded in DaRWIN.
- The link in the URI opens the reference or the pdf from an external resource.

Click "Add bibliography" and Choose a reference in the list of bibliographic references to add a new reference related to the specimen. You can also make a preliminary search in the selection list.

Figure 71. Bibliographic references selection view (encoded in DaRWIN)

If the reference doesn't exists in the bibliography of DaRWIN, the user can encode the reference in the system using the ⊕ 📚 icons.

Figure 72. Bibliographic reference input interface

It is possible to encode:
- the type of reference,
- the title,
- the year of publication,
- the abstract
- and the full citation.
- It is also possible to link the reference to an external link (DOI or URL) which opens (in a new window) the full reference or the pdf from a bibliography repository or the editor website.

It is also possible (but not required) to link author(s) from the list of people already encoded in DaRWIN using "Add Author".

4.8 User Interface and Administration tools

4.8.1 DaRWIN Application shortcuts

Four icons appear in the first left menu

The   returns to the Home page of the DaRWIN Interface

The   links to the Profile / Preferences / Widgets settings of the DaRWIN interface

Profile

Edit My Profile

Title	Dr. ⌄
	Add another title ⊕
Gender	M ⌄
Given name	Patrick
Family name	Semal
Additional names	

Application Language
- ● English
- ○ Nederlands
- ○ Français

Last seen

> Show link with people <

Edit your widgets

View your rights on collections

Cancel Save

Figure 73. Profile Settings of a DaRWIN user

The "Show link with people" establishes relationships with other DaRWIN people.

Figure 74. Search People to link to user profile

The ⚙ link open the preference settings

Figure 75. Preferences of the DaRWIN user

The ⚙ link opens the widgets settings

Widgets

☺ ⚙ ⚗

| Sf | 1.5.12-dev | ⚙ config | 🗋 view | 🖋 logs | 🗔 18432.0 KB | 🕓 322 ms | 🗐 6 |

List of widgets available for Semal Patrick (Dr.)

Cancel Reset Save

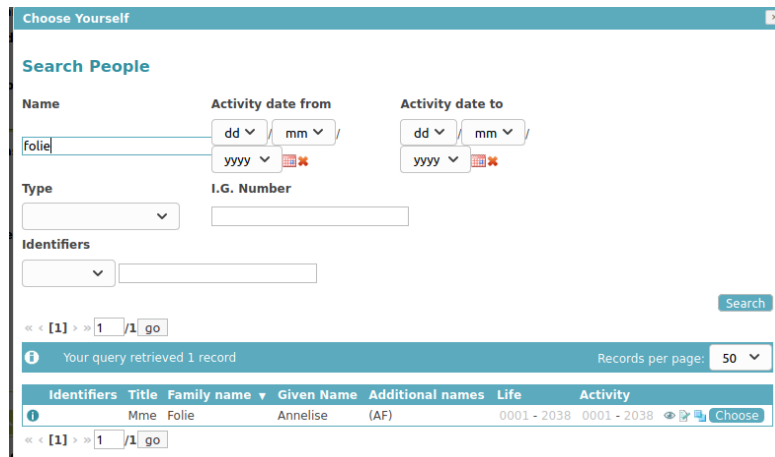| Category/screen	Name	Widget				
		Deactivated ○	Activated ○	Visible ○	Opened ○	Custom title
board_widget	addSpecimen	○	●	○	○	Add new specimen
	addTaxon	○	●	○	○	Add new taxon
	myChangesPlotted	○	●	○	○	My activity
	myLastsItems	○	●	○	○	My Last Actions
	myLoans	○	●	○	○	My loans
	news	○	●	○	○	News
	savedSearch	○	○	○	●	My saved searches
	savedSpecimens	○	○	○	●	My saved specimens
	stats	○	○	○	●	Statistics
	workflowsSummary	○	●	○	○	Workflows summary
		Deactivated ○	Activated ○	Visible ○	Opened ○	Custom title
catalogue_bibliography_widget	comment	○	●	○	○	Comments
	extLinks	○	○	○	●	External Links
	keywords	○	●	○	○	Keywords
	properties	○	●	○	○	Properties
	relatedFiles	○	●	○	○	Related Files
		Deactivated ○	Activated ○	Visible ○	Opened ○	Custom title
	biblio	○	○	○	●	Bibliography
	cataloguePeople	○	○	○	●	People
	comment	○	●	○	○	Comments

Figure 76. Widgets settings of the daRWIN user

The ⊙ allows to logout the DaRWIN session
The click-on action will open a new window and logout the session. Close the windows and return to the main windows to login again if needed.

The 🎟 links to the ticketing system of DaRWIN

We develop a simple system for the tickets related to NaturalHeritage and DaRWIN.

List

by psemal — last modified Dec 02, 2020 05:33 PM — History

| Creation | | | | Show [100 ▾] entries | Search: [_____] | First Previous 1 Next Last |

Items	tags
. Add External link for bibliographic reference Use the External link widget to add link in Bibliograhic widget using DOI or other hyperlink	DaRWIN
. Create the full worlflow of RBINS bibliographic references to Orfeo Use NH as intermediate to export Bib References to Orfeo	Plone, OAI-PMH, NaturalHeritage
. Find a system to avoid multiple encoding of taxonomy in the different DaRWIN systems	DaRWIN
. Install a Collective Access server on the RBINS server Create a collective server for RBINS VirtualCollections	Plone, Collective Access
. Test Free satellite images provider Google and Bing are limiting the free access to Satellite images	DaRWIN

Creation: Past — Today — Future
Modification: Past — Today — Future
Search: ● all items ○ in current results [Search]

Showing 1 to 5 of 5 entries   Print

📊 Excel export

Figure 77. Ticketing system of DaRWIN (Plone users)

The list of the tickets can be searched and the ticket can be edited by the owner and

the people with the edition access rights. The Excel export provides all the data as an XLS file which allows easier and better reporting including time recording for each task. The ticket is divided in 5 sections:

The default section describes the request.

Figure 78. Default section interface of a ticket

Figure 79. Workflow section interface of a ticket

The Workflow section describes the analysis of the request, the proposed answer and the evaluation of the time and distribution of the tasks.

Figure 80. Workflow section interface of a ticket

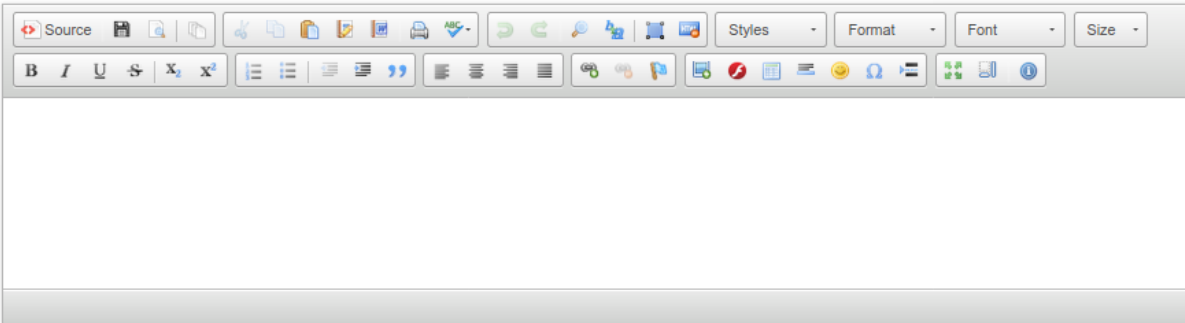The follow-up section documents the actions and the accomplished work.

Each ticket allows a specific discussion tracing the exchanges between the requester and the developers.
Each task and related execution time can be recorded in the system using the "Time recording" child object.

Figure 81. Follow-up section interface of a ticket

- Title is the name of the task.
- Summary is the short description of the task displayed in the facetted list
- Rich Task description allows us to describe the task in detail.
- File allows you to upload an attached file.
- Hours and Minutes fields record the time information related to the task (integer fields).
- Attributed to specify the people to be counted for this task.

4.9. Reporting and statistics

Figure 82. Reporting menu
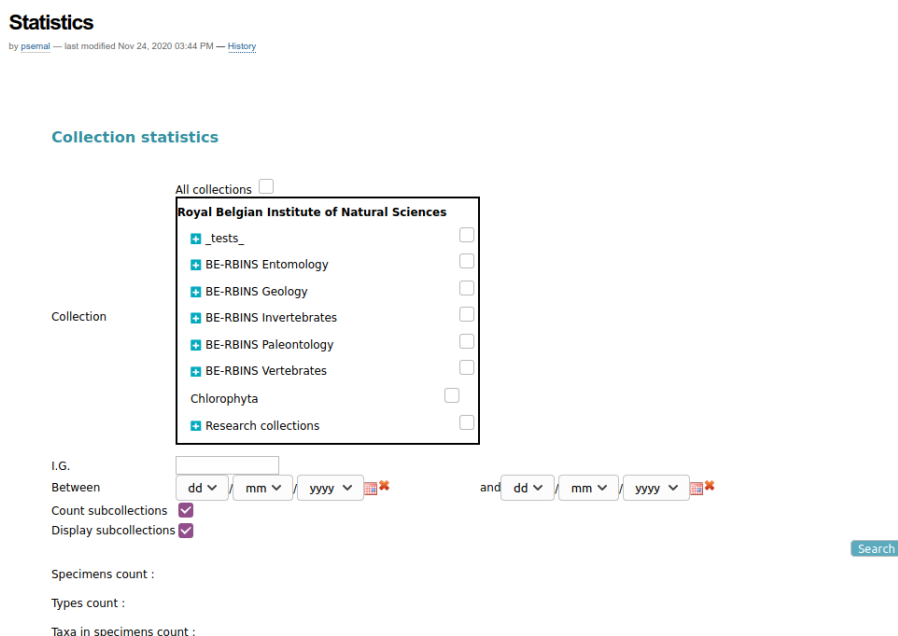
4.9.1 Collections statistics

Figure 83. Collection statistics interface

This section presents the main statistics of the collections: specimens count, types count and taxa represented in the collection.

This view can also be embedded in an Iframe in an external service like the CETAF collections Registry using the following code:

```
<p>
<iframe height="1000" src="//darwin.naturalsciences.be/collections/statistics?menu=off" width="100%">
</iframe>
</p>
```

the url darwin.naturalsciences.be has to be adapted following the database url.

4.9.2 Reports

The list of reports displays the reports requested by the registered user.
It is possible to download them as an XLS file.

Figure 84. Reports interface

The reporting system of DaRWIN provides several type of reporting:

- Annual statistics by collection (real time reporting)

Figure 85. Annual statistics interface

- Scientific loan form

Figure 86. Scientific loans interface

- Encoder statistics

Figure 87. Encoder(s) statistics interface

4.9.3 Pinned specimens

Figure 88. Specimen search view and pinning interface

Each registered user can pin some specific specimens in the results of his/her searches. These pinned specimens are then available for specific operations like the Mass Actions available through a specific menu or to include pinned specimens in the Loan forms.

4.9.4 Saved search

Figure 89. Specimen searches interface

Each registered user can save specific research and associated criteria. It is possible to pin specimens in this list for additional operations

4.9.5 Big Brother (admin only)

Figure 90. Big Brother view (logbook)

The Big Brother tool allows the administrator(s) to report the complete history of the database addressing the dates, the users and the associated operations.

4.10 Loans and labels

Figure 91. Loans and labels menu

4.10.1 Loans

The DaRWIN system integrates a loan(s) tool for the creation, edition of loaning documents. The system is related to the specimens recorded in the database and the content of the form(s) can be modified by updates in the database. For this reason(s), users have to save the loan contract(s) as a PDF file and store them in an appropriate repository.

Figure 92. Loans search interface

The different widgets can be activated for the visualisation of the loaning form.
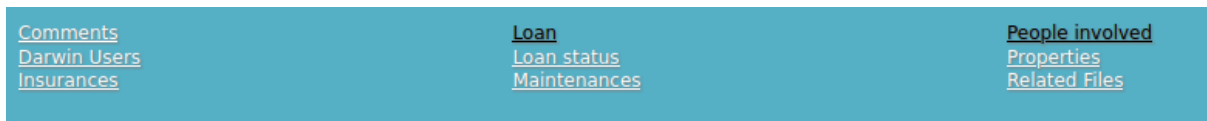
Figure 93. Widgets settings interface

Figure 94. Loan view

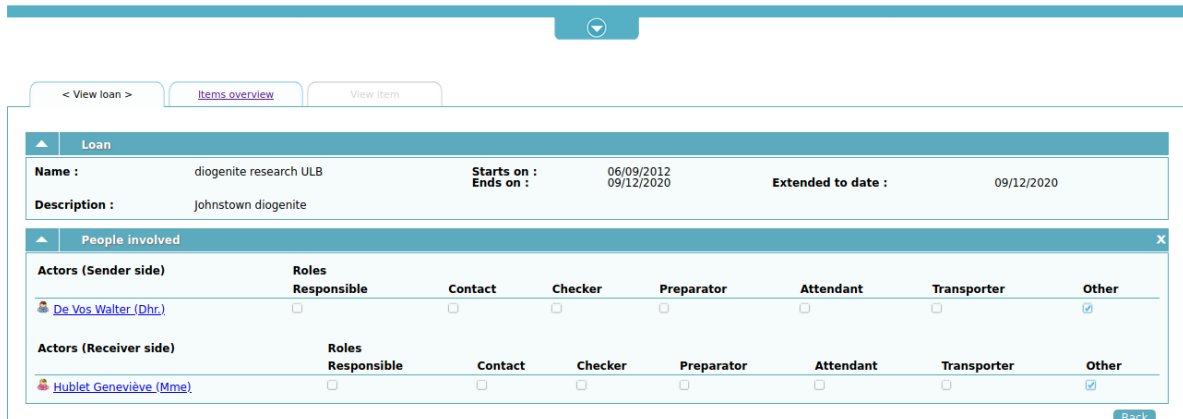The loan information links also to the list of specimens in DaRWIN.
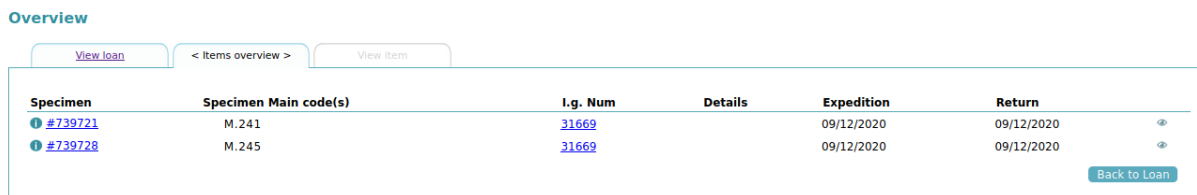

Figure 95. Loan related specimen view

If the loan contract does not exist in the system, a new one has to be created using the Add Loan link.
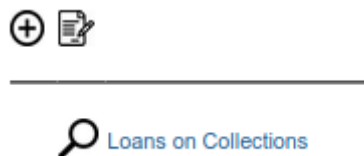

Figure 96. Loan add menu

It is also possible to visit the Loans section of other Collection management systems like Collections/Plone to view and to search the saved loans documents.

4.10.2 Labels

4.10.2.1 Export data from Darwin
   A. Do not use the export option available on the bottom of the Search form
   B. Save first your research in DarWIN
   C. Go to "My Preferences" menu
   D. Select "Saved Search"
   E. Click on the "get reports" option for the saved search corresponding to your labels in order to get the full export of data for the selected specimens.

4.10.2.2 Open export file in Notepad/Notepad++
   A. Select all text, titles included (CTRL+A)
   B. Copy selected, text copy (CTRL+C)

4.10.2.3 Download the template worksheet
   A. BE-RBINS VZ

4.9.2.4 Copy data in "RAW-DARWIN" worksheet
LibreOffice Calc Options has to be modified to allow macro to run (to do once). Go to the macro security setting in Tools - Options - LibreOffice - Security. Select the medium option + OK + OK
   A. Goto in "RAW-DARWIN" worksheet
   B. Erase all content
   C. Select first cell (A1).
   D. Paste (CTRL+V)

Column titles have to be pasted too. Otherwise the program won't work.
You can copy data from different exports if needed.
When you are ready, you can choose which format you wish to create by clicking on the corresponding button below.
Each format is visible on the example worksheet with the corresponding name followed by "TEMPLATE". These worksheets are protected from edition.

4.10.2.5. Create labels
Click on one of the buttons below, depending on the format. A new worksheet will be created, with your labels formatted.
You can edit each label in this worksheet if needed (example: abbreviate too long names or comments, adapt font size, etc.)
Screen will update, let the program work until you see a message "Done!"
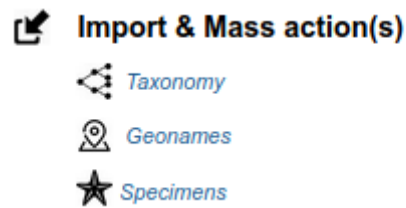
4.11. Import series and Mass action(s)

Figure 97. Import and Mass Action menu

4.11.1 Import Taxonomy

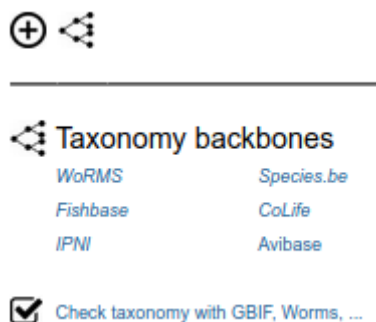Figure 98. Import taxonomy from XLS file interface

Figure 97. Taxonomy external resources menu

It is also possible to export a taxonomical branch from one DaRWIN system and import this branch to another DaRWIN system. Search first the taxon at the base of the branch in the Reference taxonomy in the Source DaRWIN and export the taxonomy as CSV (tab delimited).

Figure 98. Import geonames from XLS file interface

Open it with LibreOffice Calc or Excel to edit the file and import it using the import Taxonomy widget in the new DaRWIN.
This procedure allows to transfer taxonomical branches from one DaRWIN to another avoiding multiple manual encoding which is very time consuming.

4.11.2 Import Geonames

Figure 98. Import Geonames from XLS file interface
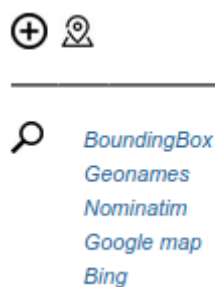
Figure 99. Geonames external resources menu

4.11.3 Import Specimens

Figure 100. Import Specimens from XLS file interface

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