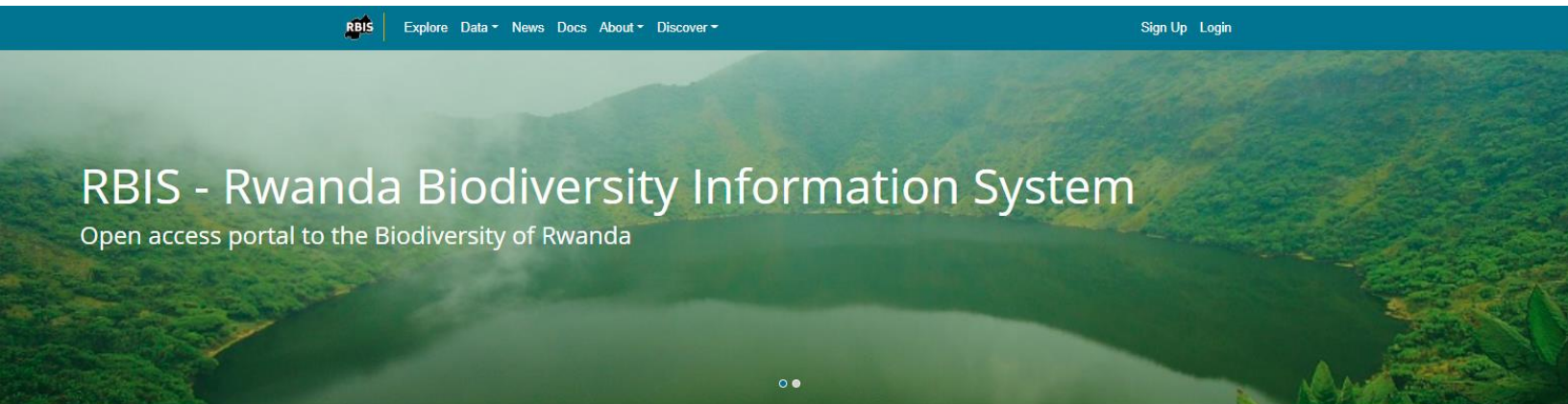




RWANDA BIODIVERSITY INFORMATION SYSTEM (RBIS)

A GUIDE TO THE USE OF RBIS FUNCTIONS



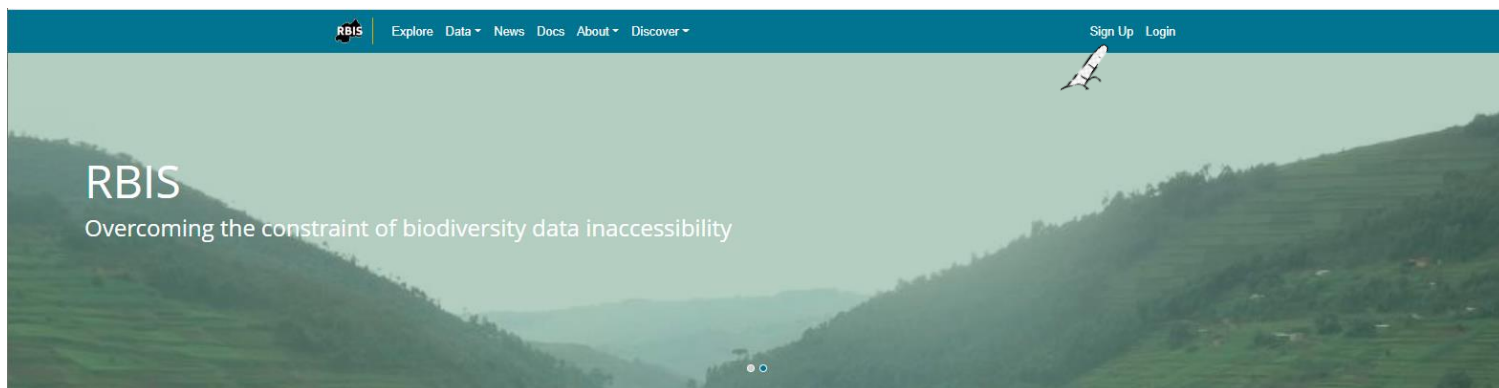
SIGNING UP AND LOGGING IN TO THE RBIS

It is very crucial to sign up to the RBIS prior to navigating its functions and having access to download data (CSV files, maps, graphs....) from the system.

To sign up follow these simple steps:

SIGNING UP - Creating an account:

1. Go to the Top right corner of the landing page <https://rbis.ur.ac.rw/>
2. Click on [Sign up](#) (This is a hyperlink and can direct you to the sign up page)



The pop up page displays a number of items to fill in as below:

SIGN UP

E-mail:
johnsmith@college.us.br

First Name:
John

Last Name:
Smithson

Organization/Institution:
University of Crate or Environmental consultancy

Role:
Citizen

Password:
Password must contain at least six characters, including:
• lower case letter
• upper case letter
• numeric character
.....

Password (again):
Password (again)

☒ I'm not a robot

SIGN UP

All these fields must be filled in

Click in here and choose from the dropdown your role.

Always tick the box here

After all fields are filled in, please Sign up here

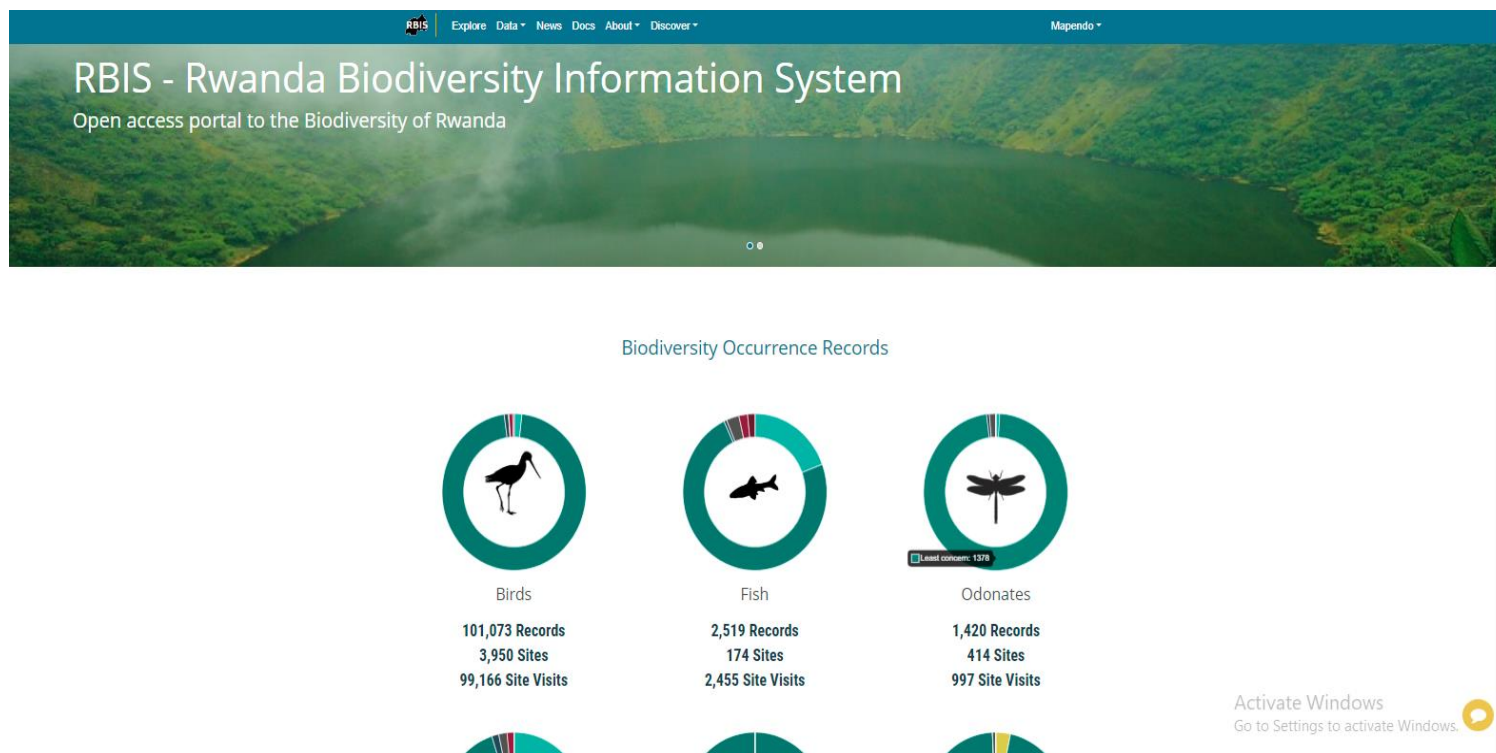
After sign up to the system, the management team will receive an email that you signed up and will confirm your registration. This will take approximately 24hours to get approval for new sign up.

Once your account is approved, you can log in to the system.

Log in to the system (This is a hyperlink and can direct you to the log in page).

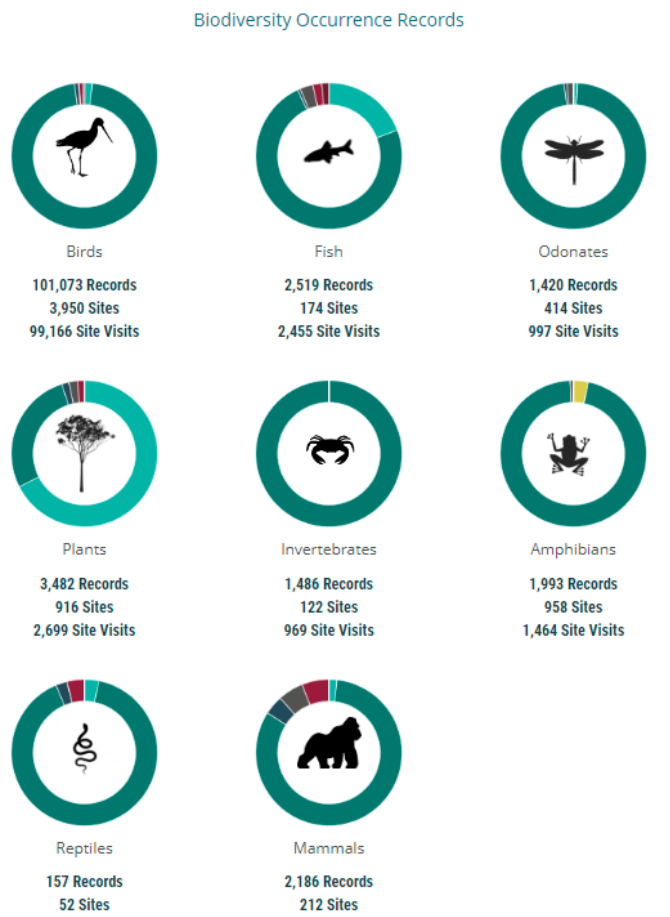
Fill in your e-mail and password as submitted while signing up.

After correctly filling in your credentials, you will be directed to the landing page.



Navigating the landing page

The landing page is the first page after logging in to the system. You can simply note the different modules (Taxa groups) displaying the number of occurrence records per module, site visits and a partition of IUCN categories of species so far ingested in the system. **Each module has a unique dashboard for full information about all species occurrences and lists as available in the system.** **(steps to dashboards will follow on the next page).**



You can also have them here:

You can click on each hyperlink ([Dashboard](#))



Birds- [Dashboard](#)



Fish - [Dashboard](#)



Odonates- [Dashboard](#)



Plants- [Dashboard](#)



Invertebrates- [Dashboard](#)



Amphibian- [Dashboard](#)



Reptiles- [Dashboard](#)



Mammals- [Dashboard](#)

[Explore data to get the CSV files from Dashboard results](#)

A. The following steps guide you towards searching data on a particular taxon group



Explore Data News Docs About Discover

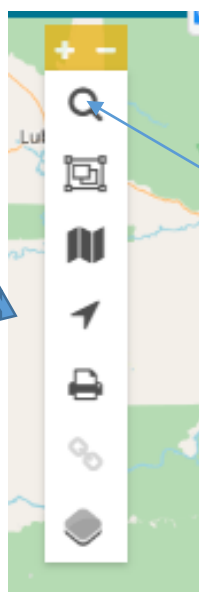
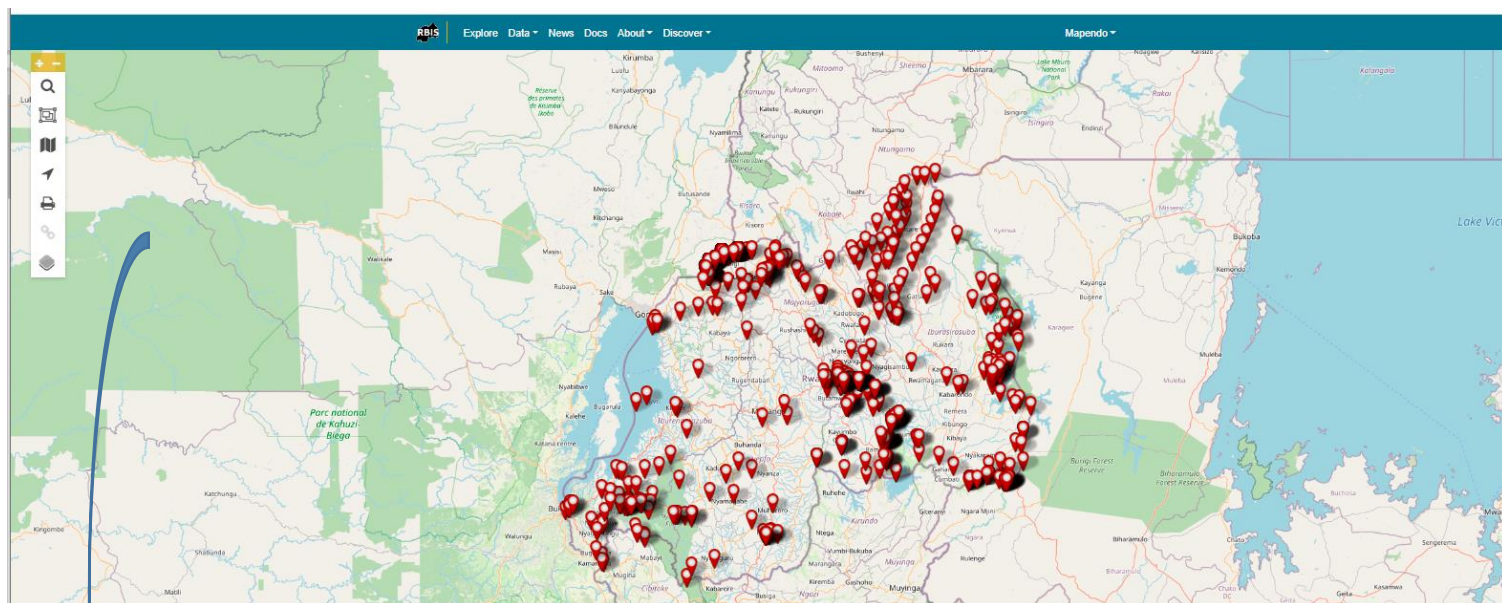
Mapendo

free

RBIS - Rwanda Biodiversity Information System

Open access portal to the Biodiversity of Rwanda

1. Go to explore Menu. The page below will appear as shown.



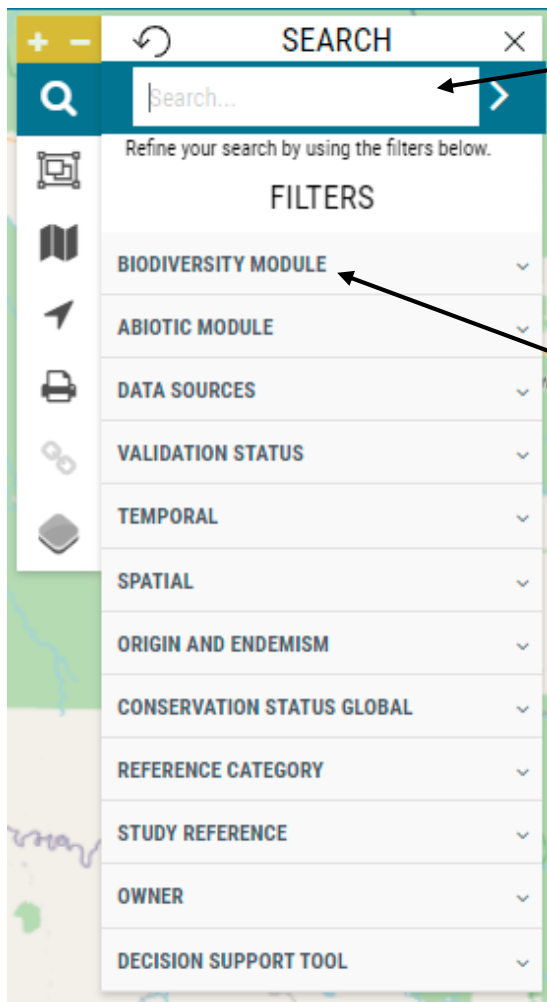
Note: On this page you will need to filter a number of options to serve your advanced search.



2. You will need to click on the search/finder button to start navigating the filtering options.

Zoom in and Zoom out the Page

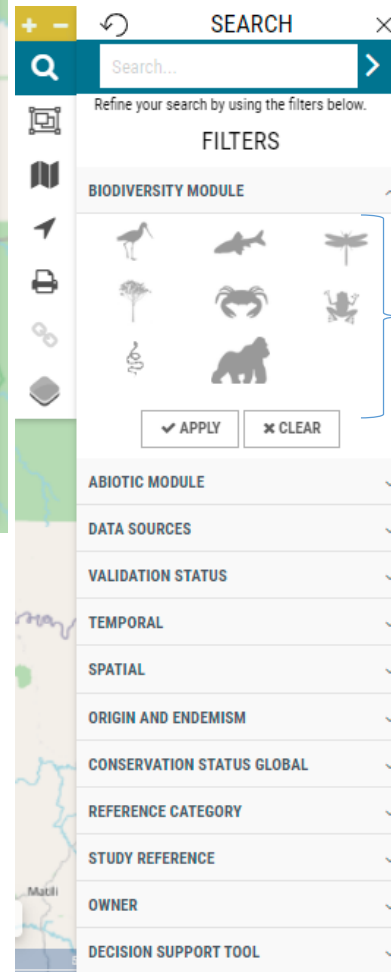
The search button will pop up this image - it contains a number of filtering options to tick while searching for information.



Search: Here you can enter either a common name of a species or proceed without this search option (common or scientific name of species)-


Remember here; you are in need of getting all information concerning a particular taxon group such as birds for instance.

- If your option is to look for an entire module data- Please skip the search option and click on **BIODIVERSITY MODULE**

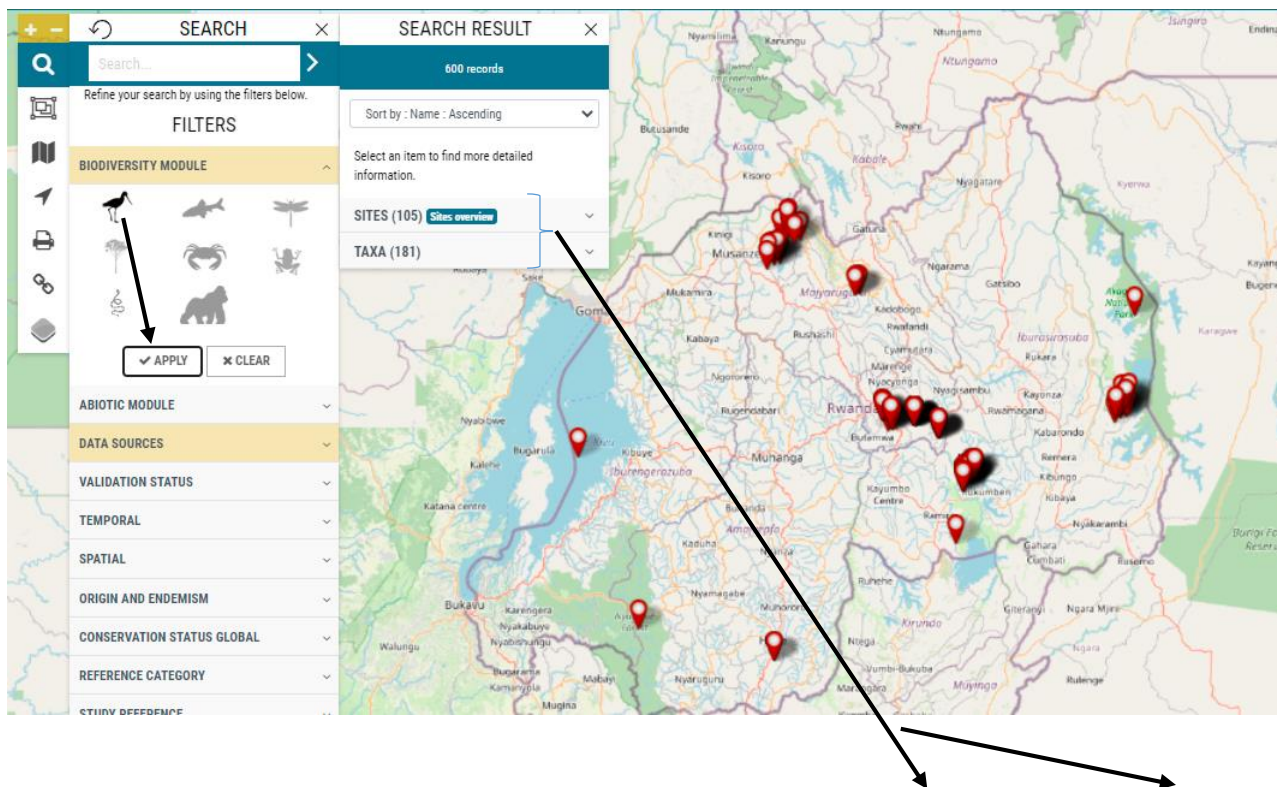


The Biodiversity modules will appear, each with its icon. Hover over each icon to know the module name.

Note: You can always click again on the major filter option to fold it back.

3. Click on any module. e.g Bird Icon  . The icon will be **deep black**. It means active, then click on Apply button



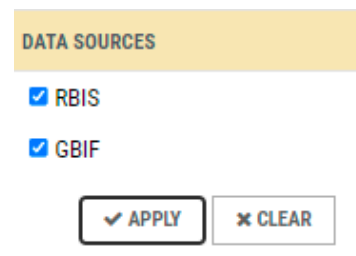


The search results will appear where you will see the number of **SITES** surveyed and **TAXA**.

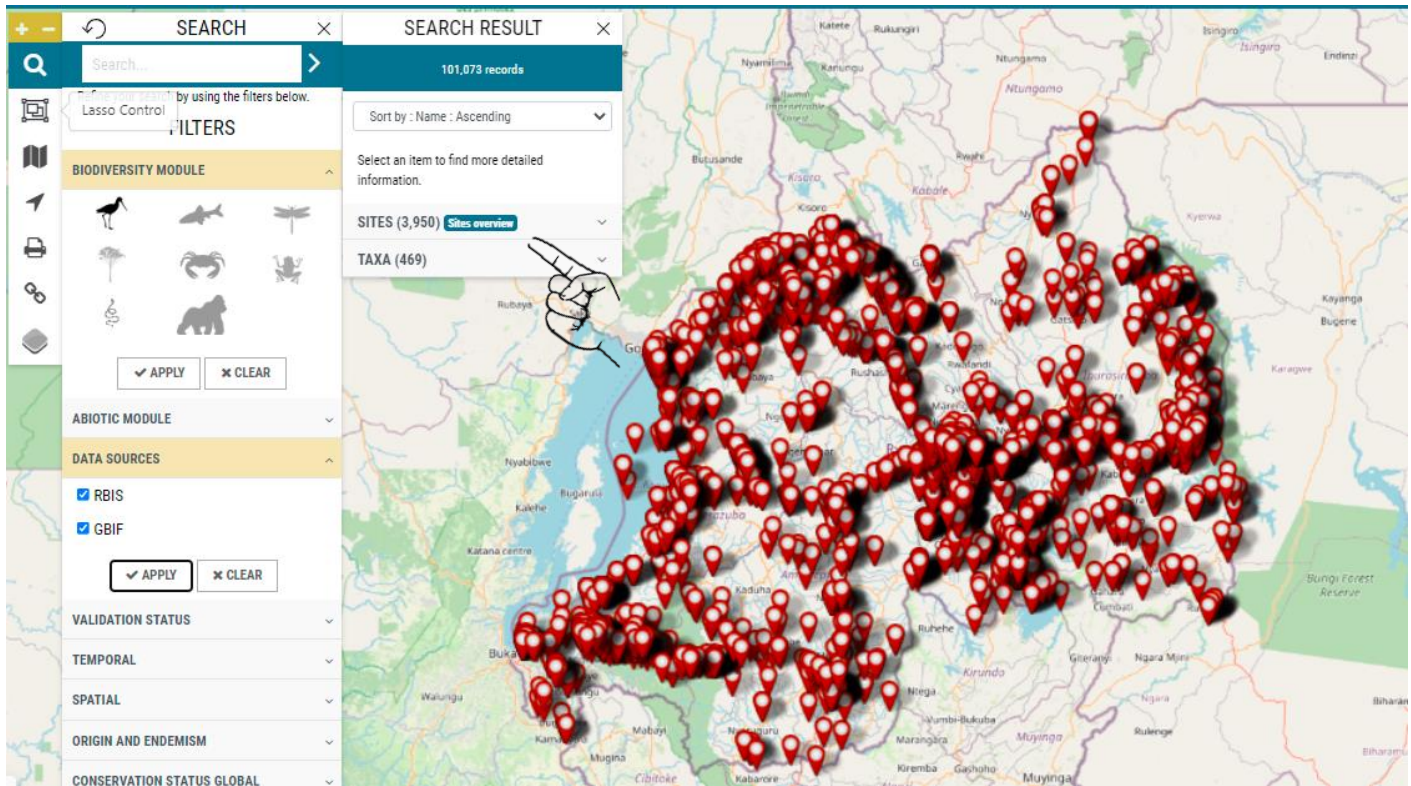
4. Then continue the filter option. Next, click on Abiotic data to add the **water module** (Abiotic data: Physical chemical parameters), and continue to add more filter options such as **Soil nutrients**.

Note: The above screenshot can change anytime the system has been upgraded such as after adding new features in the functionality.

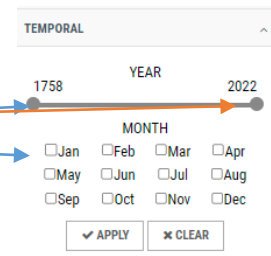
5. Continue to add more filter options. Go to **DATA SOURCES**, Tick both **GBIF** and **RBIS** then apply. **GBIF** are data harvested from the Global Biodiversity Information Facility. **RBIS** data are the ones added by the Rwanda Biodiversity Information system team.



As you can see from the image below, the number of records, sites and taxa has increased after applying the **DATA SOURCES**.

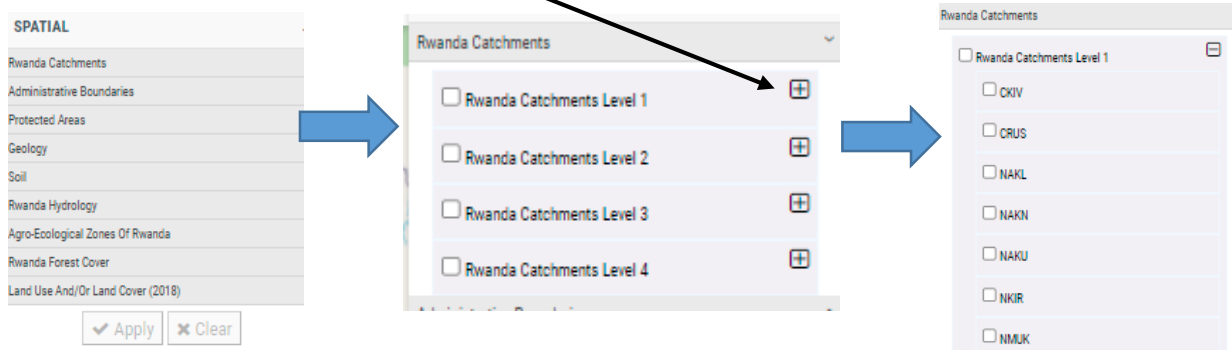


- Then continue to filter the search to the Temporal filter option. Here you can tick the month or pull or push the year button, **Then Apply.**



Then add spatial filter. Here you can click on any of the spatial filters; once you click on one filter such as Rwanda Catchments, all the catchments will open and you will choose one for your search intent.

- Here also, you can click on the **Plus button** to add the Catchment level per your need.



8. Keep filtering in the spatial filters from **Protected areas** to **Land Use and/or Land cover**. **Always remember to click in the options (Protected areas, Geology, Soil, etc.) to get other embedded filters (advanced search). Do the same as in Point 7 if there is a Plus button to open more features.**
9. Keep filtering for the Origin and Endemism, **Global Conservation status**, **Reference category**, **study reference**, etc. Here, you can tick any choice depending on the objective of your search.

The screenshot displays a search interface with four filter panels:

- ORIGIN AND ENDEMISM:** Contains two buttons: "Non-Native" and "Native".
- CONSERVATION STATUS GLOBAL:** A list of conservation statuses with checkboxes: Critically Endangered, Data Deficient, Endangered, Extinct In The Wild, Least Concern, Not Evaluated, Near Threatened, and Vulnerable. At the bottom are "APPLY" and "CLEAR" buttons.
- REFERENCE CATEGORY:** A list of reference categories with checkboxes: Database, Peer-reviewed scientific article, Published report or thesis, and Unpublished data. At the bottom are "APPLY" and "CLEAR" buttons.
- STUDY REFERENCE:** A search bar with a dropdown menu showing results for "Vande weghe JP & Ruboneka G | 2018 | Birds of Rwanda", "Rwanda Birding Club Checklist, 2016", and "Mindje M, Tumushimire L & Sinsch U | 2020 | Diversity assessment of anurans in the Mugesera wetland (eastern Rwanda): impact of habitat disturbance and partial recovery".

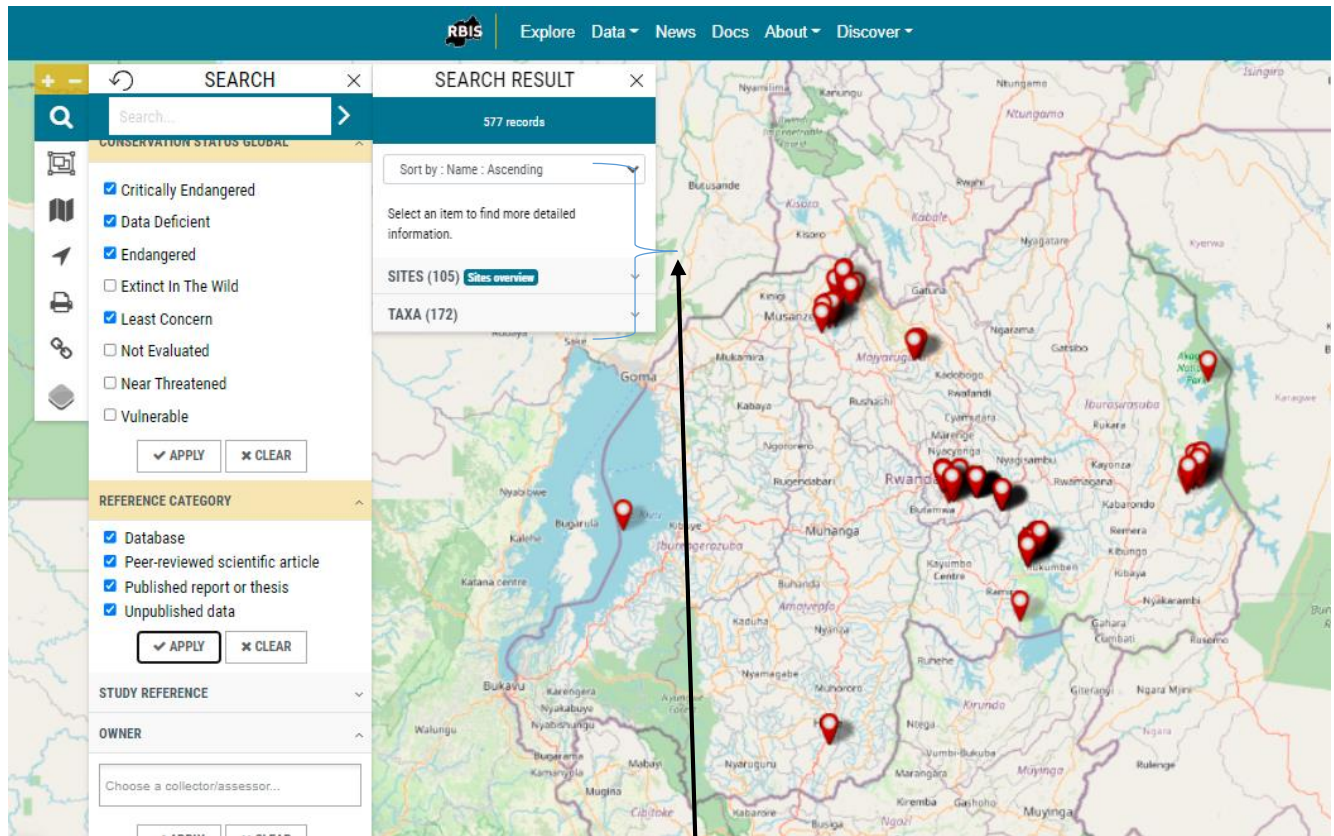
A callout box on the right states:

- **Study reference** refers to the source of the data (what study produced the data), and you can filter using the names of the author, or title of the data source if known.

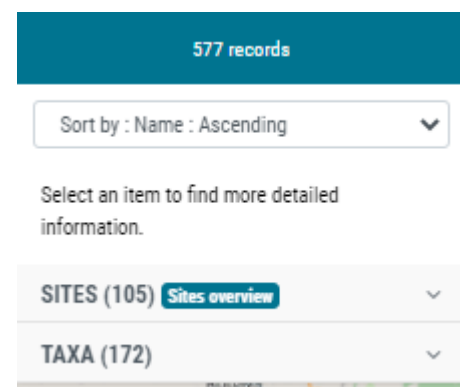
Exploring the Dashboards

After filtering all the options as per the objective of your search in RBIS, now the next step is to get the results of your search.

I.e., you have stopped your filtering options, now you need the results from advanced search. The Table below is the page you will have from your search



10. Then, you will need to click on the above **SEARCH RESULTS** panel to get results.



11. Click on **SITES**, or **Sites overview**.

SITES (105) [Sites overview](#)

The former will give you data by

sites but the latter will give an overview of all sites investigated based on your search. You can also click on Taxa, to get individual species data.

SITES (105)	Sites overview
-03724	9 occurrence • 2 visit
-03730	7 occurrence • 2 visit
-03868	6 occurrence • 1 visit
-03895	9 occurrence • 2 visit
-03901	3 occurrence • 2 visit
-03909	2 occurrence • 2 visit

Different investigated sites

When you click on Sites

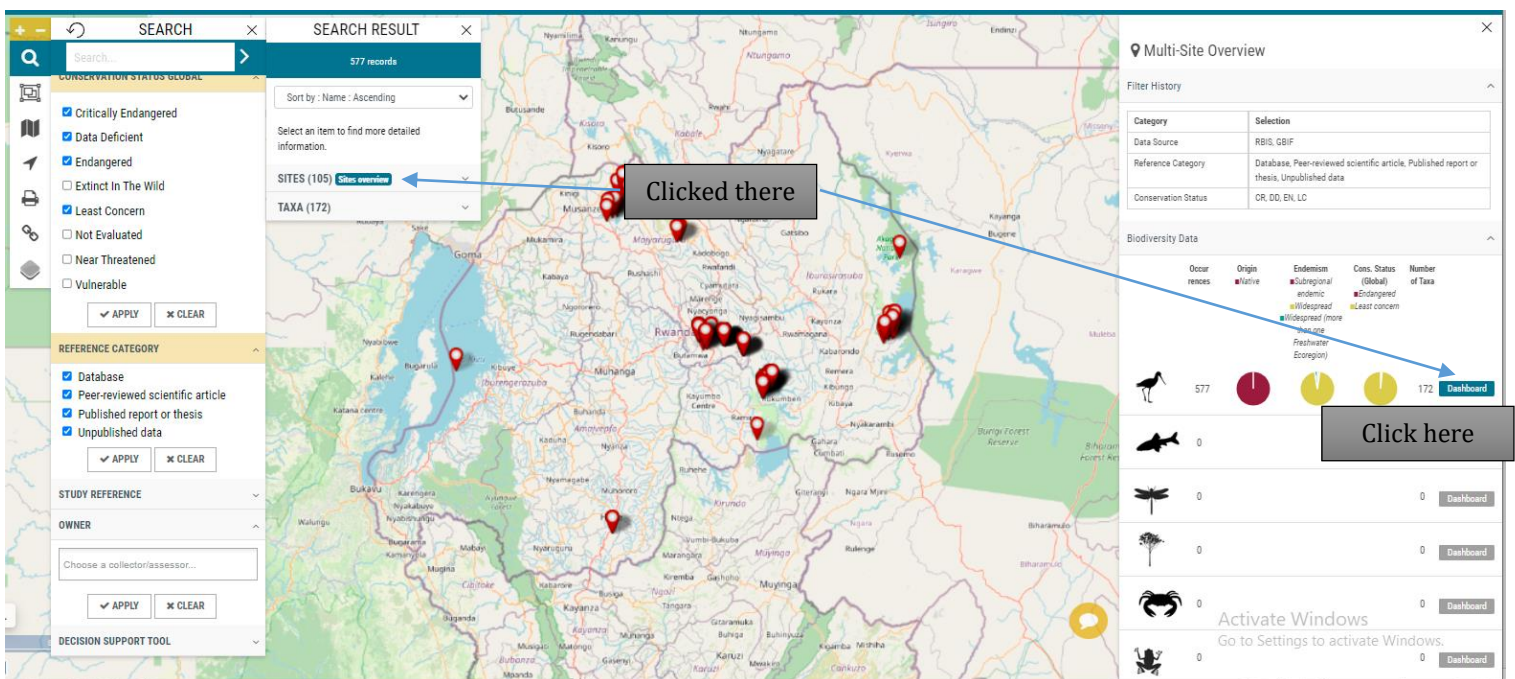
TAXA (172)
<i>Acrocephalus scirpaceus</i>
1 occurrence • 1 visit
<i>Actitis hypoleucos</i>
7 occurrence • 7 visit
<i>Actophilornis africanus</i>
17 occurrences • 13 visits
<i>Alcedo cristata</i>
18 occurrences • 16 visits
<i>Alopochen aegyptiaca</i>
4 occurrence • 3 visit
<i>Amauornis flavirostra</i>
13 occurrences • 10 visits

When you click on Taxa.

12. Now, let us now click on **Sites overview** to get a general information from the complete dashboard.

[Sites overview](#)

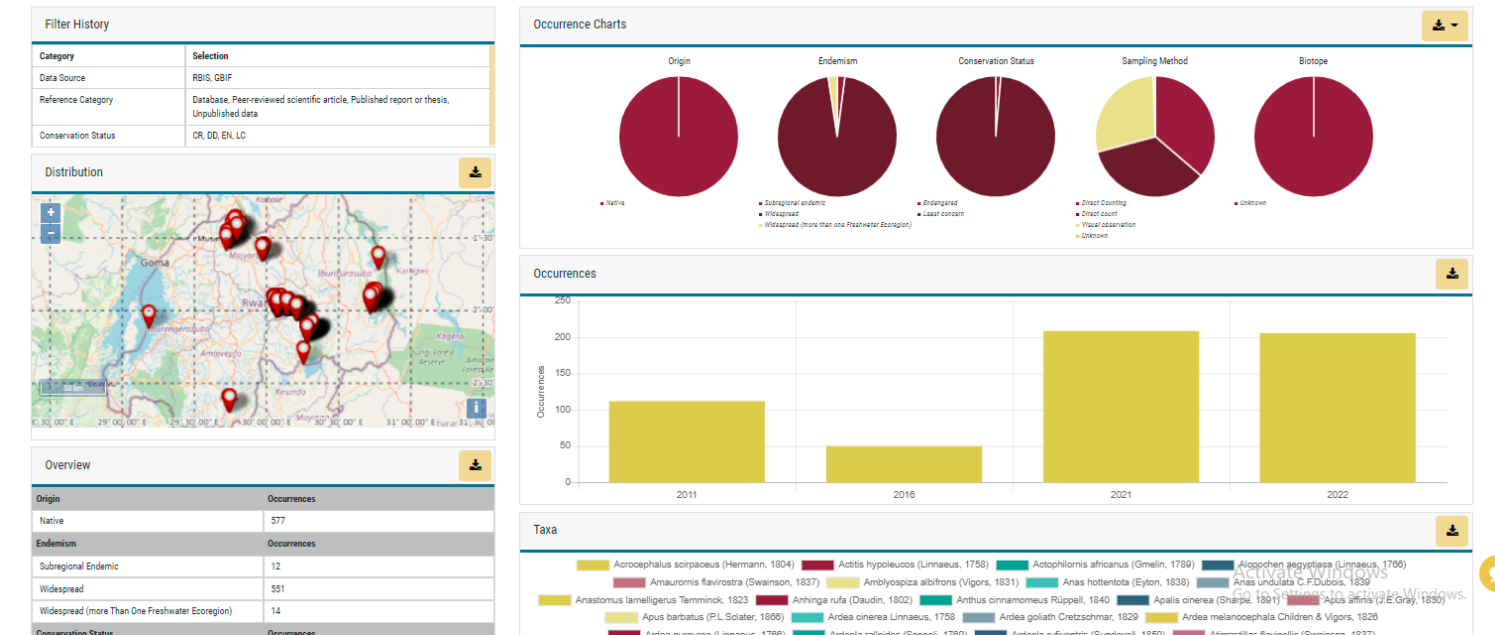
Site overview to get a general information from the



You see that the Dashboard for the Bird module also depending on your search filtering option is active.

13. Click on Dashboard. IMAGES OF DASHBOARDS DISPLAY

Multiple Sites Dashboard - Birds



Site Visit Data

5 recent site visit

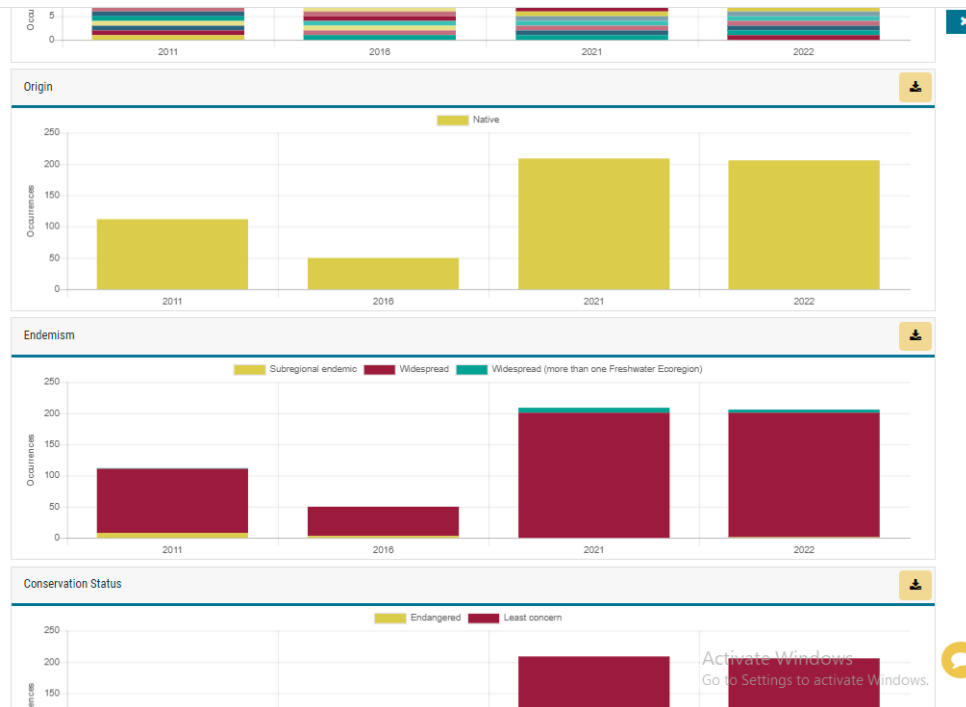
Site Code	Date	Total records
NNVL1102-00161	2022-07-17	1
NNVL1102-00162	2022-07-17	1
NAKL1504-00223	2022-07-17	1
-04199	2022-03-04	1
-04080	2022-03-04	1

See more site visit

Occurrence Data

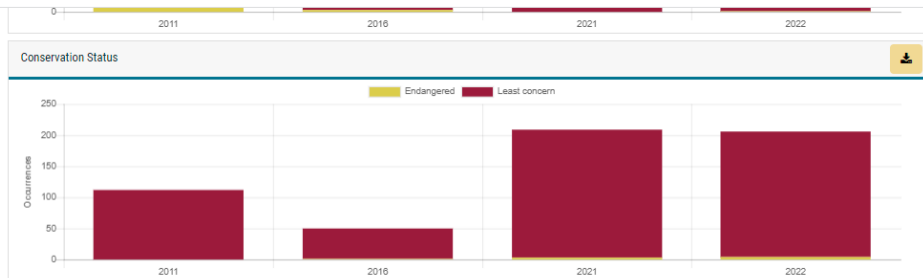
Alcedo cristata Pallas, 1794	18	Native	Widespread	Least concern
Alcedon aegyptiaca (Linnaeus, 1766)	4	Native	Widespread	Least concern
Amaurornis flavicostis (Swainson, 1837)	13	Native	Widespread	Least concern
Amblyospiza albifrons (Vigors, 1831)	2	Native	Widespread	Least concern
Anas hottentota (Eyton, 1838)	2	Native	Widespread	Least concern
Anas undulata C.F.Dubois, 1839	12	Native	Widespread	Least concern
Anastomus lamelligerus Temminck, 1823	8	Native	Widespread	Least concern
Anhinga rufa (Daudin, 1802)	3	Native	Widespread	Least concern
Anthus cinnamomeus Rüppell, 1840	1	Native	Widespread	Least concern
Apalis cinerea (Sharpe, 1891)	1	Native	Widespread	Least concern
Apus affinis (J.E.Gray, 1830)	1	Native	Widespread	Least concern
Apus barbatus (P.L.Sclater, 1866)	1	Native	Widespread	Least concern
Ardea alba Linnaeus, 1758	7	Native	Widespread	Least concern
Ardea cinerea Linnaeus, 1758	15	Native	Widespread	Least concern

Download as CSV



<i>Apus affinis</i> (J.E.Gray, 1830)	1	Native	Widespread	Least concern
<i>Apus barbatus</i> (P.L.Sclater, 1866)	1	Native	Widespread	Least concern
<i>Ardea alba</i> Linnaeus, 1758	7	Native	Widespread	Least concern
<i>Ardea cinerea</i> Linnaeus, 1758	15	Native	Widespread	Least concern

Download as CSV



Reference Category	Author/s	Year	Title	Source	DOI/URL	Notes
Database	-	-	Rwanda Birding Club Checklist, 2016	Rwanda Birding Club Checklist	-	-
Database	-	-	Global Biodiversity Information Facility (GBIF)	Global Biodiversity Information Facility (GBIF)	-	-
Published report or thesis	Vande weghe JP & Ruboneka G	2018	Birds of Rwanda	-	Download	-
Unpublished data	-	-	Birds observation and counting at the National Herbarium of Rwanda compound	Birds observation and counting at the National Herbarium of Rwanda compound	-	Birds observation and counting at the National Herbarium of Rwanda compound
Unpublished data	-	-	Rwanda waterbird counts: An institutionalized long term citizen science programme	Rwanda waterbird counts: An institutionalized long term citizen science programme	-	Rwanda waterbird counts: An institutionalized long term citizen science programme
Unpublished data	-	-	Center of Excellence in Biodiversity and Natural Resource Management	Center of Excellence in Biodiversity and Natural Resource Management	-	Center of Excellence in Biodiversity and Natural Resource Management

The Dashboards here show what information is displayed.

You can download the maps, graphs or CSV files; remember for CSV file, you must sign up and log in first.

<i>Apus affinis</i> (J.E.Gray, 1830)	1	Native	Widespread	Least concern
<i>Apus barbatus</i> (P.L.Sclater, 1866)	1	Native	Widespread	Least concern
<i>Ardea alba</i> Linnaeus, 1758	7	Native	Widespread	Least concern
<i>Ardea cinerea</i> Linnaeus, 1758	15	Native	Widespread	Least concern

Download as CSV

Click here to download a CSV file of the data

Download Occurrence Data

Purpose

Scientific Article

Notes (optional)

Any issue or something to address?

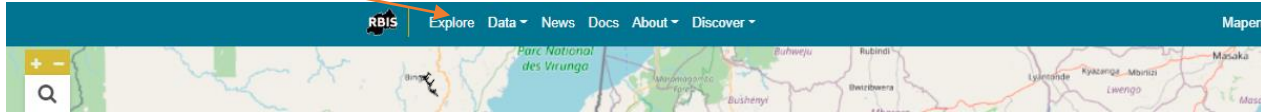
Download Close

If you request to download a CSV file, you may be sent an email request to confirm some terms and conditions for data use for the data user agreement. Our team will receive an e-mail to approve your request upon your time taken to sign the data user agreement as will be guided by the system.

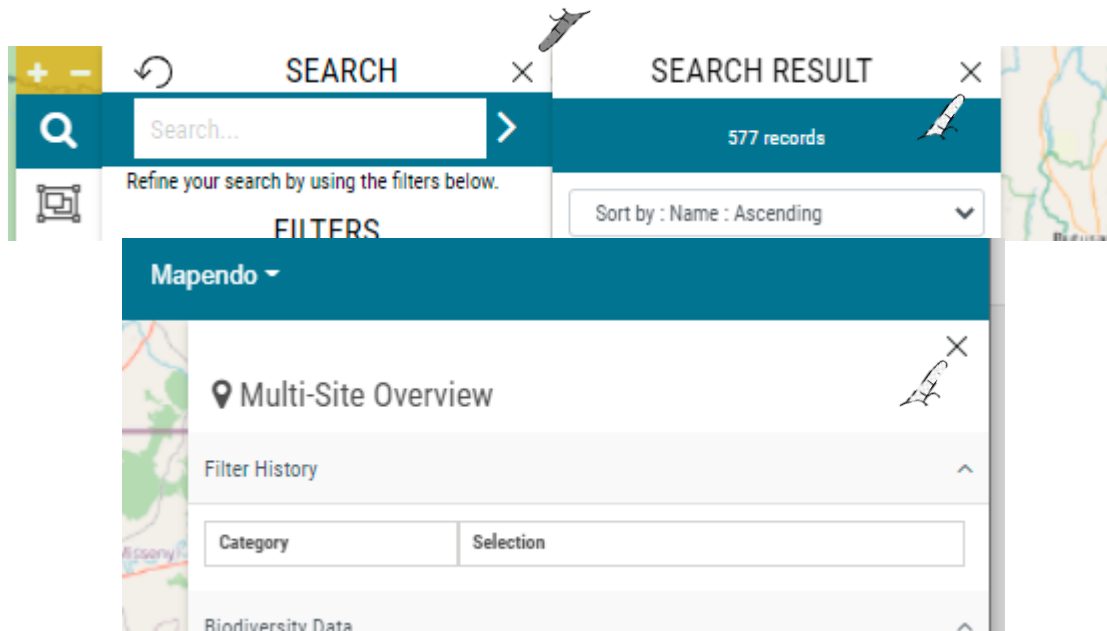
B. The following steps guide you towards searching data on a particular species.

The process of advanced search (filtering option) for a particular species is not far different from the search of particular module as in the guide above.

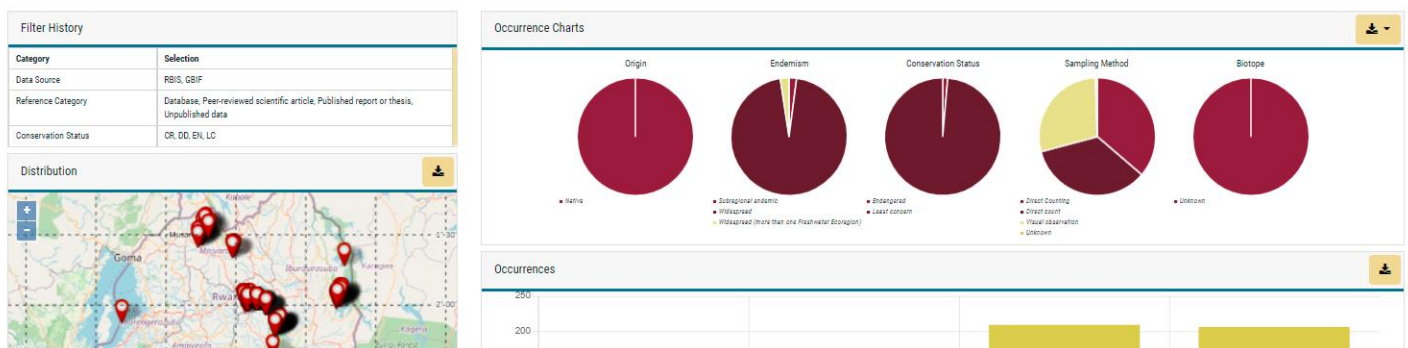
1. Click here to refresh the search from the top left corner.



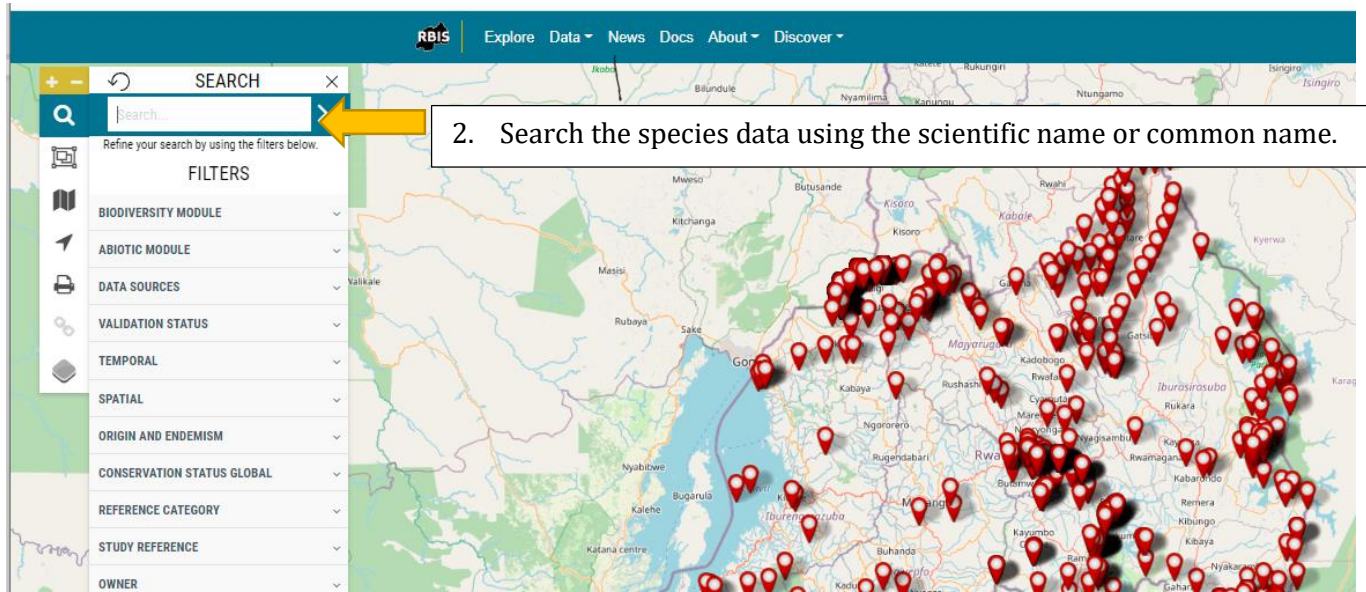
2. Close all the previous searches. For each search there is a Sign X



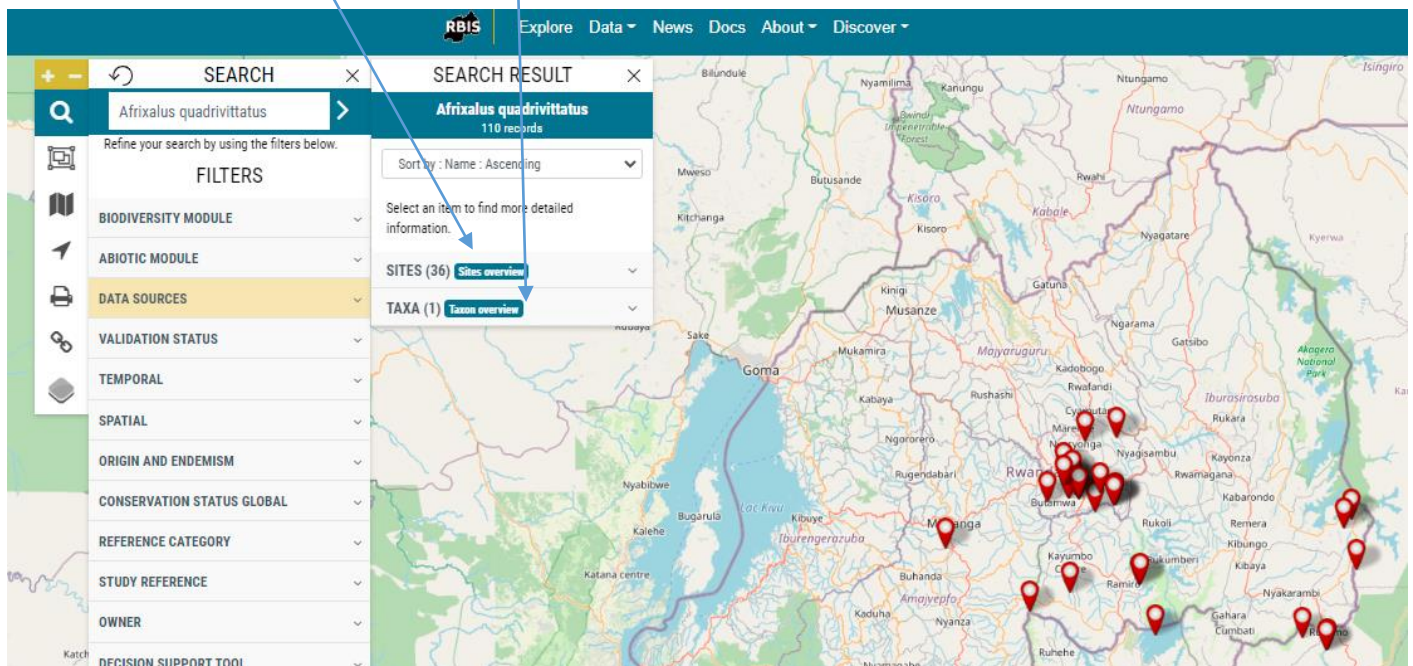
Multiple Sites Dashboard - Birds



3. Click Explore – The page will display the below pop up.



2. The species data will display as below. Then you will navigate its information using the **site overview** or **Taxon overview**



3. **Sites overview.** Click on **this feature**, and the information pop up will display the option to navigate the activate dashboard and then do as indicated on points 12 and 13 of this guide.

Multi-Site Overview

Category	Selection
Search Query	Afrixalus quadrivittatus
Data Source	RBIS

Biodiversity Data

	Occur rences	Origin Native	Endemism Subregional endemic	Cons. Status (Global) Least concern	Number of Taxa	
	0				0	Dashboard
	0				0	Dashboard
	0				0	Dashboard
	0				0	Dashboard
	0				0	Dashboard
	64				1	Dashboard
	0				0	Dashboard
	0				0	Dashboard

4. **Taxon overview.** Here you will navigate the species' data where images or calls/songs could also be displayed in addition to other data.

Overview

Species details

Taxon	Afrixalus quadrivittatus (Werner, 1958)
Common Name	Unknown
Occurrences	111
Number of Sites	37
Taxon Rank	SPECIES

Origin

Native	Non Native	Unknown

Endemism

Micro endemic level	Micro endemic level	Regional endemic level	Regional endemic level	National endemic	Subregional endemic	Wider regional	Unknown
2	1	2	1				

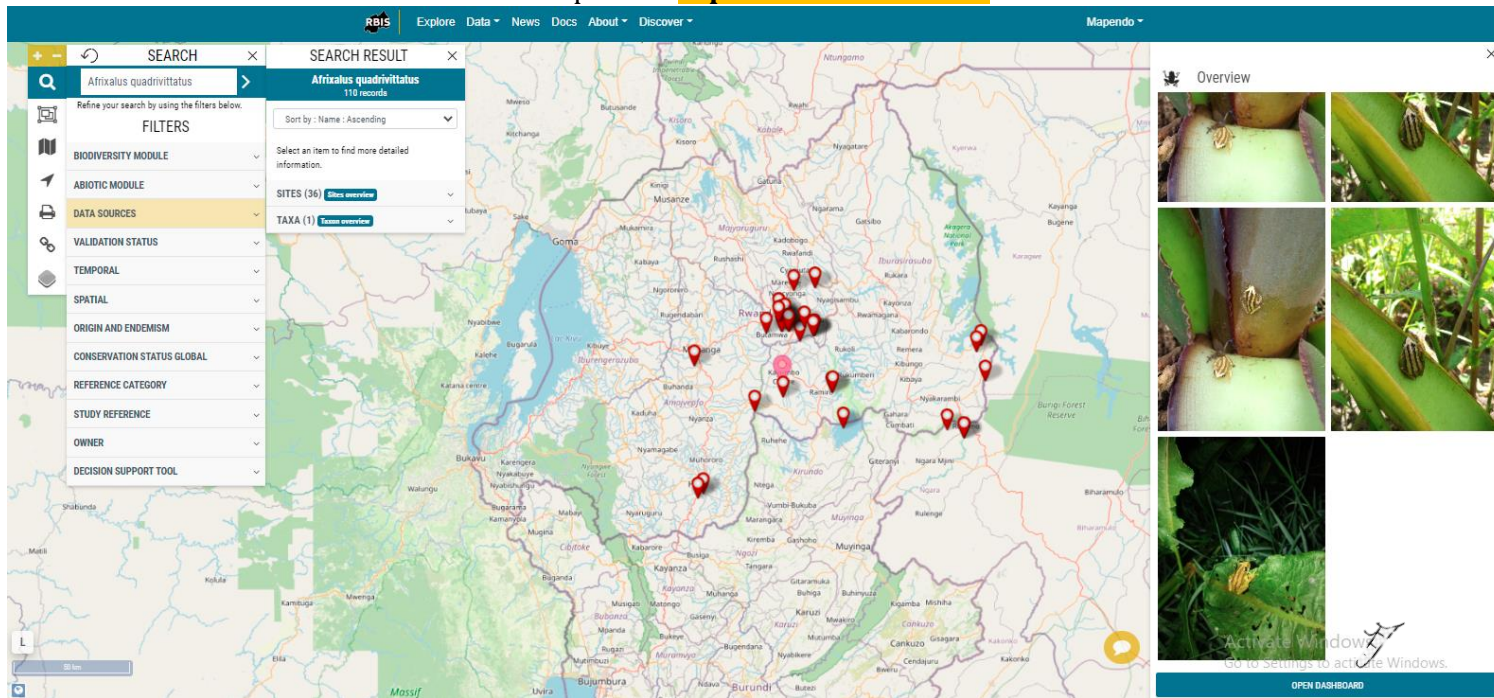
Conservation Status

NE	DD	LC (Least concern)	NT	VU	EN	CR	EW	EX

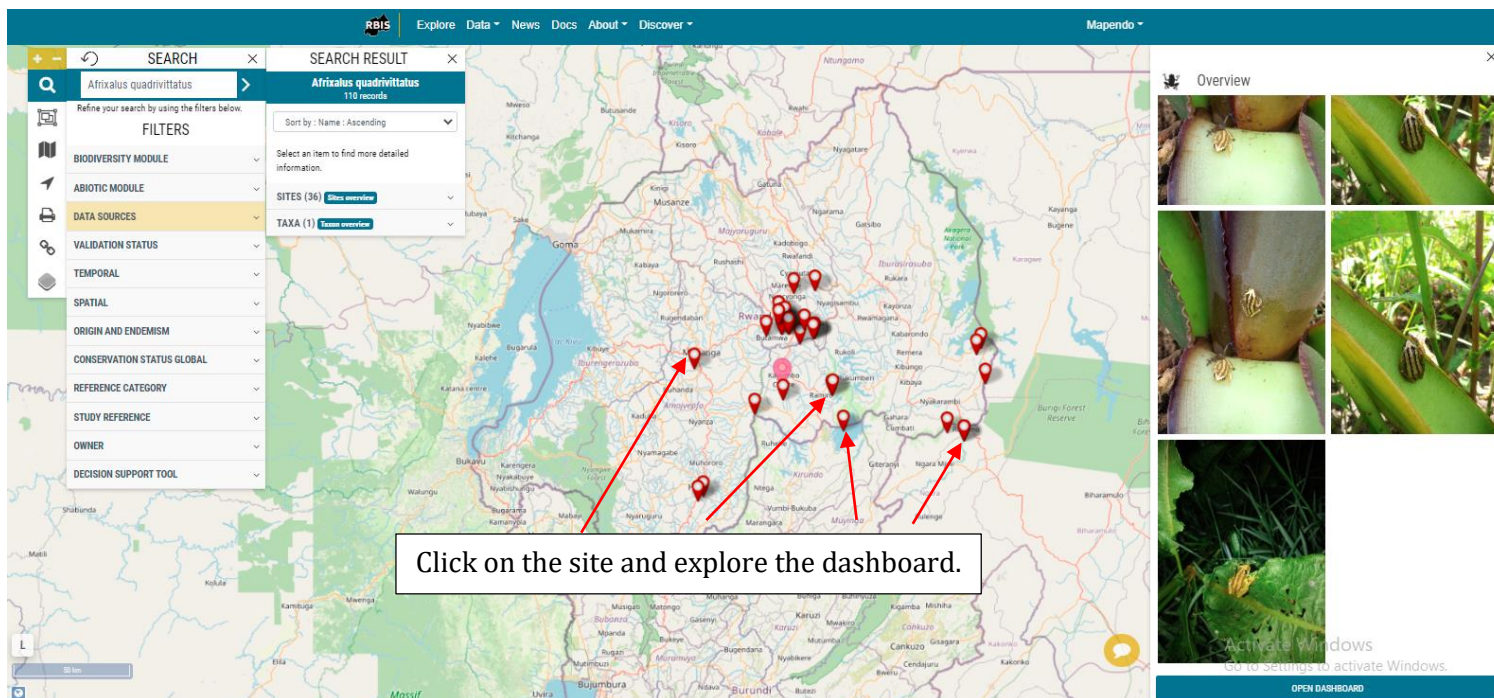
[IUCN species page](#)

Images

5. You can scroll down and see the option to **explore the dashboard**.

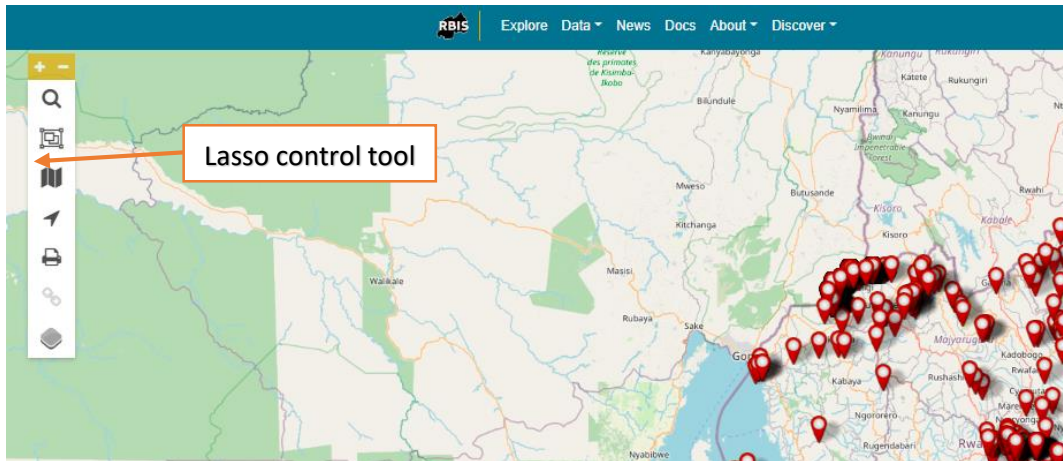


6. You can also click on a single site in the map and get a detail for a specific site.

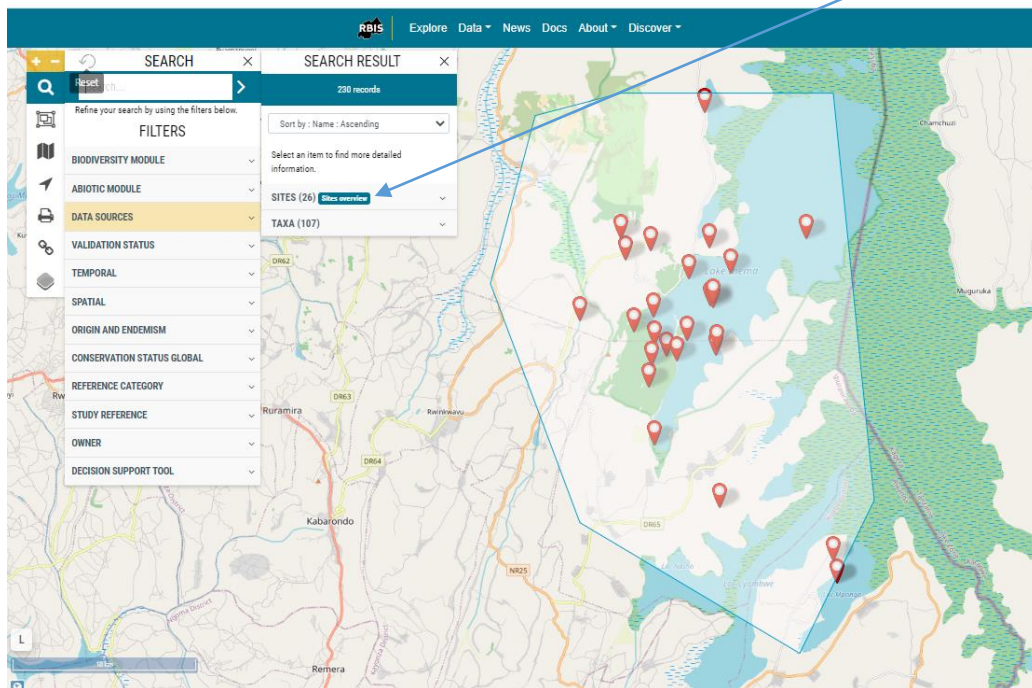


Other options

1. Lasso control tool – to explore a particular site using a polygon.



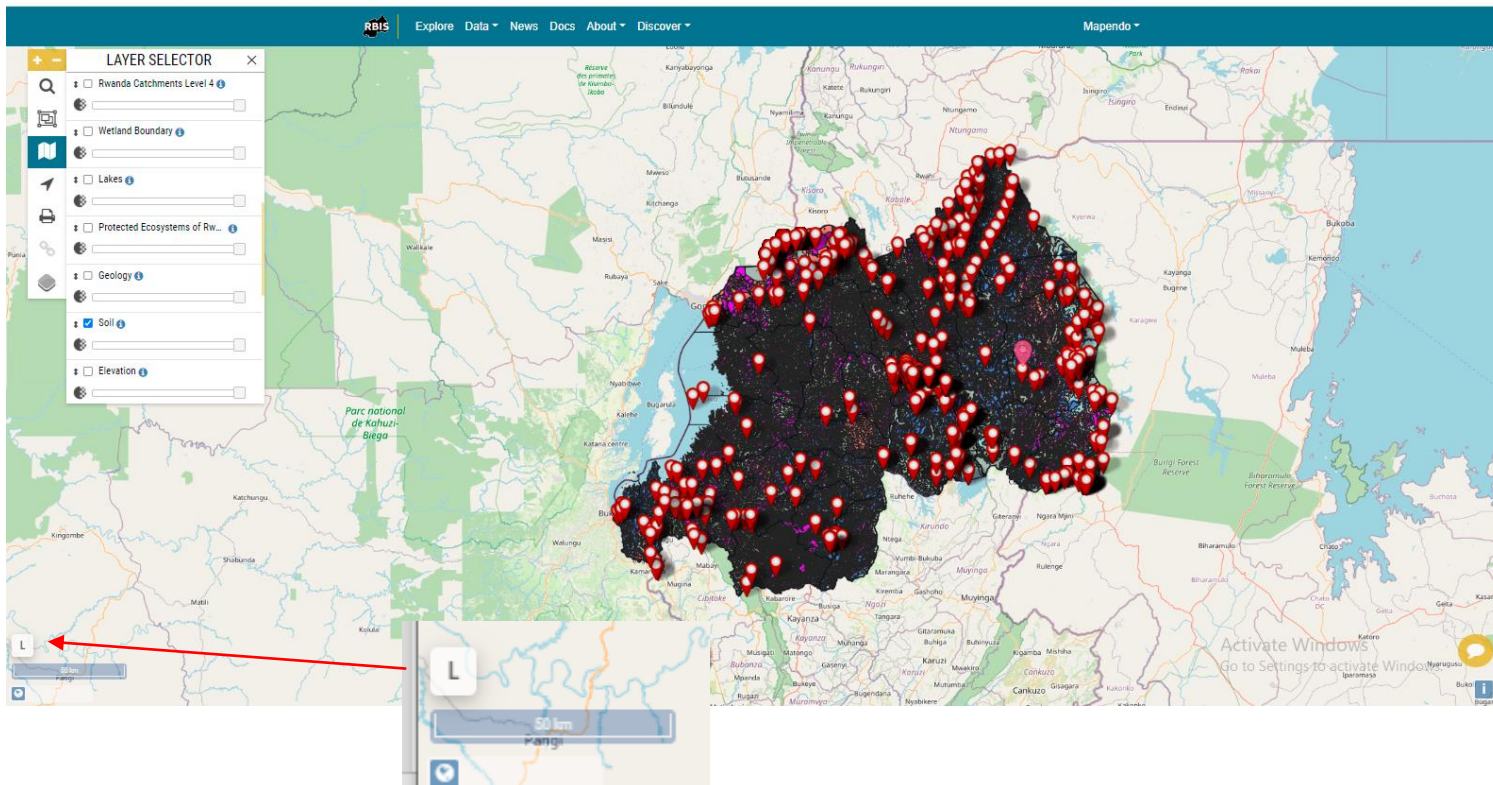
1. Go to explore again
2. Click on Lasso control
3. Draw a polygon at the Site you want to explore.
4. Update search – Then follow all steps of exploring the dashboard from the **sites overview** as indicated from step 12 to 13 of this guide.



Always refresh to have a new search - click on the RBIS icon



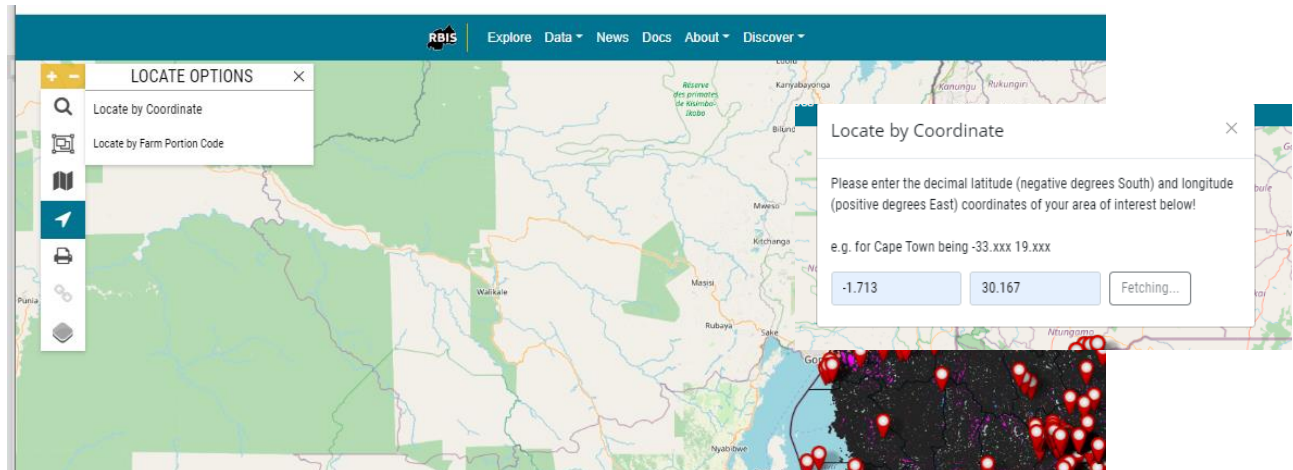
2. Layer selector



-What you can do here is play around with the different layers, drag and drop them up or below another to have a better image visualization.

- the **L** on the left bottom corner is the Legend.

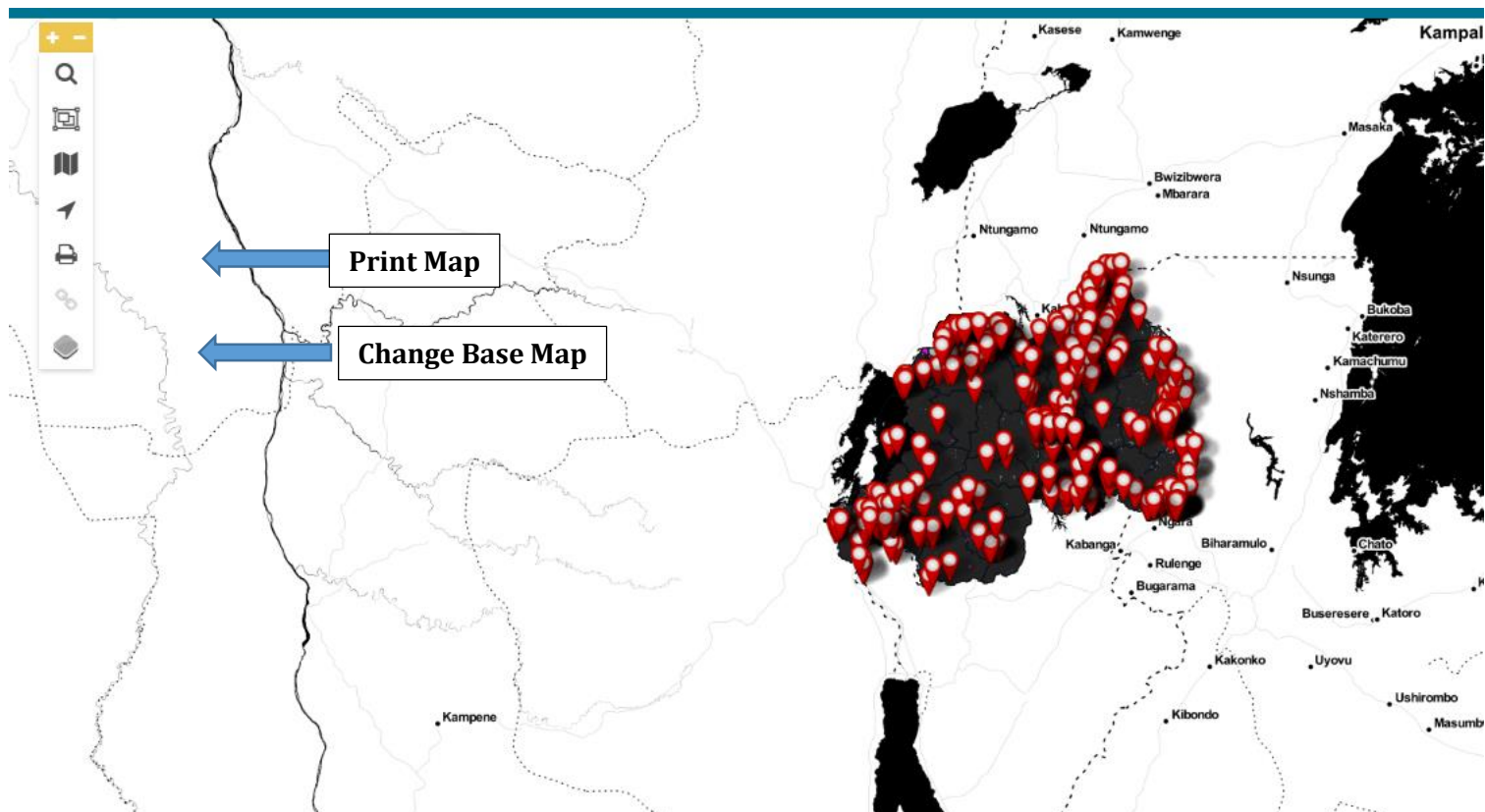
3. Locate option



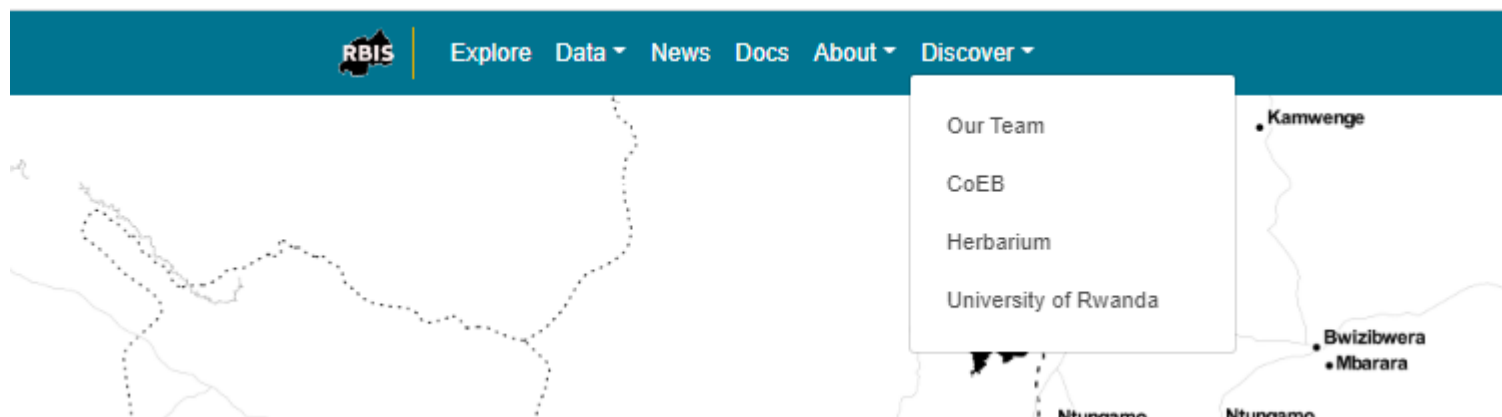
- **You can locate using GPS coordinates** - Please enter the decimal latitude (negative degrees South) and longitude (positive degrees East). **Wait until site overview displayed. Then do step 12-13.**
- You can also Locate by Farm portion code if you know the farm code.

4. Print Map

5. Change Base Map



You can keep navigating the System's Menu button to discover more about the system



Note- The Menu can change as the system will be upgraded- i.e once new featured are added.

Should you have any question?

Please contact us at

E-mail: rbis@ur.ac.rw/ Cc- coeb1@ur.ac.rw

Tel: +250786470049

Huye Campus, University of Rwanda or Nyarugenge Campus, University of Rwanda