Citizen Science across LTSER platforms

Training session (a catalyst for network collaboration)

Inês do Rosário & Patrícia Tiago

1st February 2023

Presentations and agenda

Activity 1

Inês do Rosário

Patrícia Tiago

Agenda

Main Topics

Presentations and agenda - activity 1

Basics of Citizen Science - activity 2

Why use Citizen Science at LTSER platform - activity 3

Break

Joining iNaturalist - activities 4, 5 and 6

LTSER umbrella project - activity 7

What will you learn?

What is Citizen science - CS

What is CS, main areas and relevant milestones of CS, with a particular focus on biodiversity projects

How to use iNaturalist

Log in, register species, create a project, validate data, download data

Explore possibilities for platforms

Explore different types of projects that can be developed within iNaturalist, for different taxa or engaging different groups of citizens /stakeholders

Explore advantages for eLTER network

Discuss the possibilities of using iNaturalist for each platform and to the network as a whole

Basics of Citizen Science

What is citizen science?

The involvement of non-professionals in contemporary scientific research and environmental monitoring.

Other designations: participatory science, collaborative science.

Wikipedia, 2005

“a project (or ongoing program of work) which aims to make scientific discoveries, verify scientific hypotheses, or gather data which can be used for scientific purposes, and which involves large numbers of people, many of whom have no specific scientific training.”

The oldest Citizen Science Programme

Prior to the turn of the 20th century - hunters - Christmas "Side Hunt."
Conservation early stages / Declining of bird populations.
Christmas Day 1900 - ornithologist Frank M. Chapman a new holiday tradition "Christmas Bird Census".

Important milestones

In the 1990s the concept of citizen science appeared simultaneously in the United States of America and in the United Kingdom, meaning volunteer data collection to support ornithological research, in the United States of America, and integration of science and citizenship to advance policy goals, in the United Kingdom.

Citizen Science: A Tool for Integrating Studies of Human and Natural Systems

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Keywords

public engagement in science, coupled systems, interdisciplinary research, socioecological systems, coupled human and natural systems, big data

Abstract

Citizen science has proliferated in the last decade, becoming a critical form of public engagement in science and an increasingly important research tool for the study of large-scale patterns in nature. Although citizen science is already interdisciplinary, it has untapped potential to build capacity for transformative research on coupled human and natural systems. New tools have begun to collect paired ecological and social data from the same individual; this allows for detailed examination of feedbacks at the level of individuals and potentially provides much-needed data for agent-based modeling. With the ongoing professionalization of citizen science, the field can benefit from integrating a coupled systems perspective, including a broadening of the social science perspectives considered. This can lead to new schema and platforms to increase support for large-scale research on coupled natural and human systems.

The number of articles published in the last ten years that refer, or use citizen science as a scientific tool, has increased significantly in recent years.

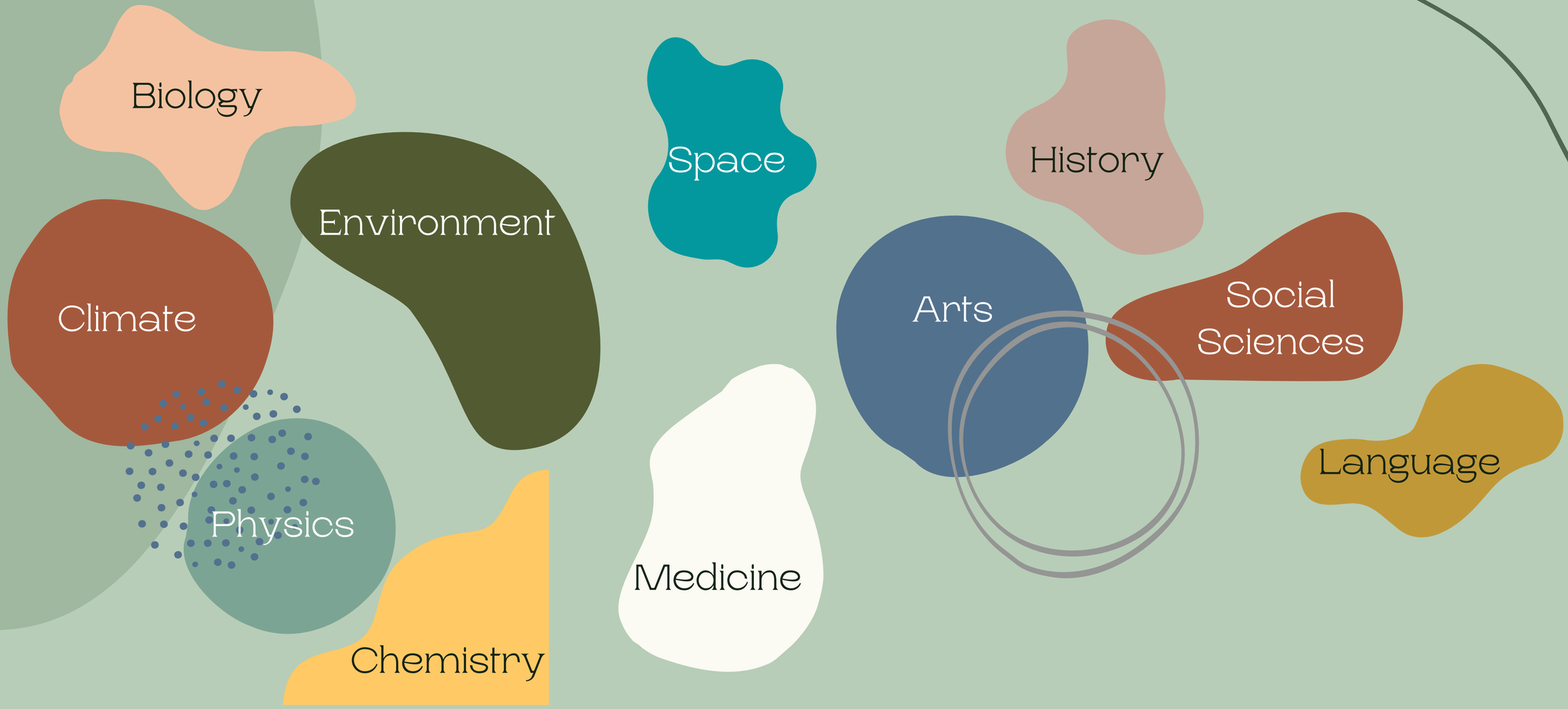
CITIZEN SCIENCE ASSOCIATION

ecsa European Citizen Science Association

Australian Citizen Science Association

Three associations with a broad geographic base emerged to standardize concepts and objectives of the field, to unite and improve expertise, and to power citizen science encompassing educators, scientists, data managers, non-profit organizations, polititians and others.

Main Areas


Biology
Environment
Space
History
Climate
Arts
Social Sciences
Physics
Medicine
Language
Chemistry

Study from 2016

Largest impact of citizen science is in research on biology, conservation and ecology.

International Treaties

Identify the need to evaluate change in the status and trends of global biodiversity.

Citizen Science

Taken into consideration to evaluate regional and global changes in the trends and status of biodiversity.

Activity 2

Create a citizen Science project

Small groups using Miro platform

Create a Citizen Science project (excluding biodiversity area)

- Give a name
- Identify the aims of the project
- Justify for what the data collected can be used for

Why use Citizen Science at LTSER platform?

96 Citizen science programs at 25 LTSER Platforms

74%

included biodiversity

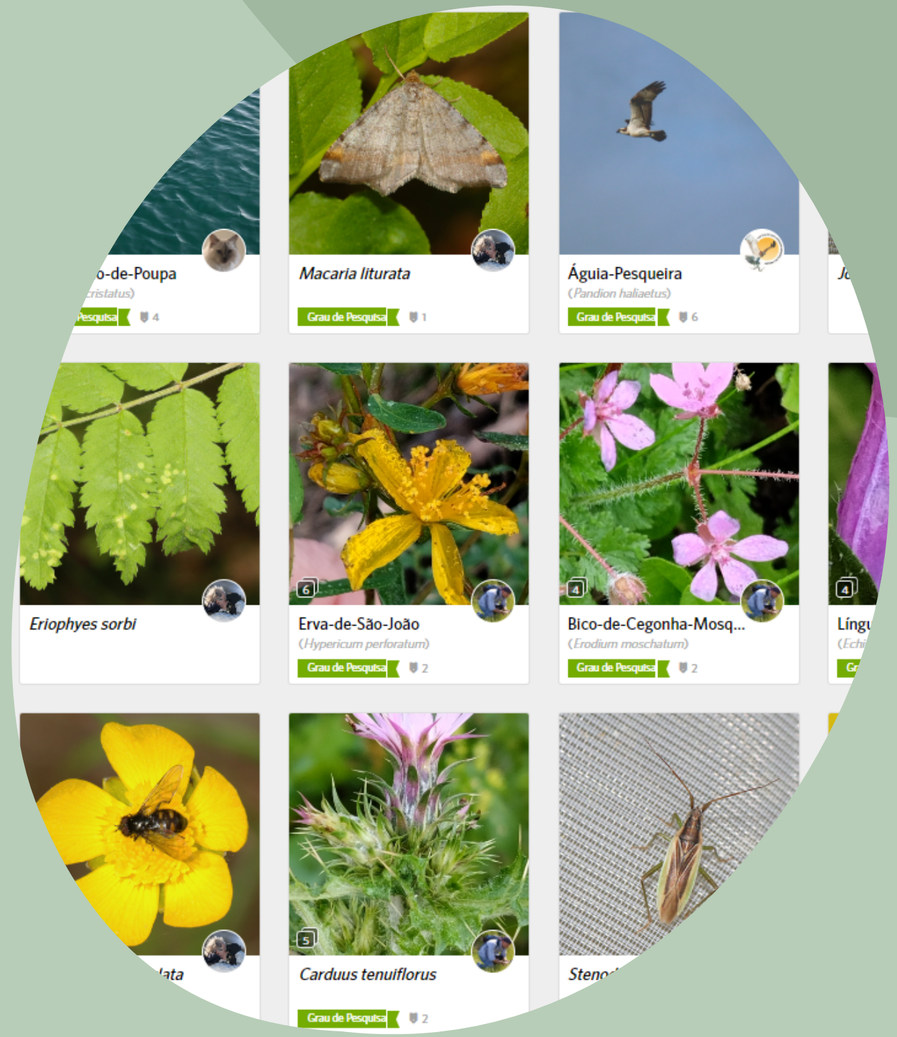
Almost none was the same

Survey to platforms (2019)

What can we do to improve the links between citizen science programs across LTSER platforms?

Stable and durable

Create a common project that can be managed by LTSER members and where any citizen can participate



iNaturalist

A JOINT INITIATIVE BY THE CALIFORNIA ACADEMY OF SCIENCES AND THE NATIONAL GEOGRAPHIC SOCIETY.

Promote

Register

Promote the long-term biodiversity monitoring by citizen scientists in all platforms

Engage

Engage with local stakeholders and citizens and still contribute to an European scale

Network

Stregthening the interaction between LTSER platforms and creating opportunities to work together in CS programs

Umbrella project timeline

Present the project

First presented within the eLTER newsletter, SPF, other eLTER events

Add more LTSER platforms

Continue to add platforms to the umbrella project, ideally done by the platform owners

Training

For platforms (managers, researchers, etc) to create projects, latter for engage citizens, other more specific

Common initiatives

In the future common CS initiatives can be promoted using the umbrella project

Activity 3

My platform

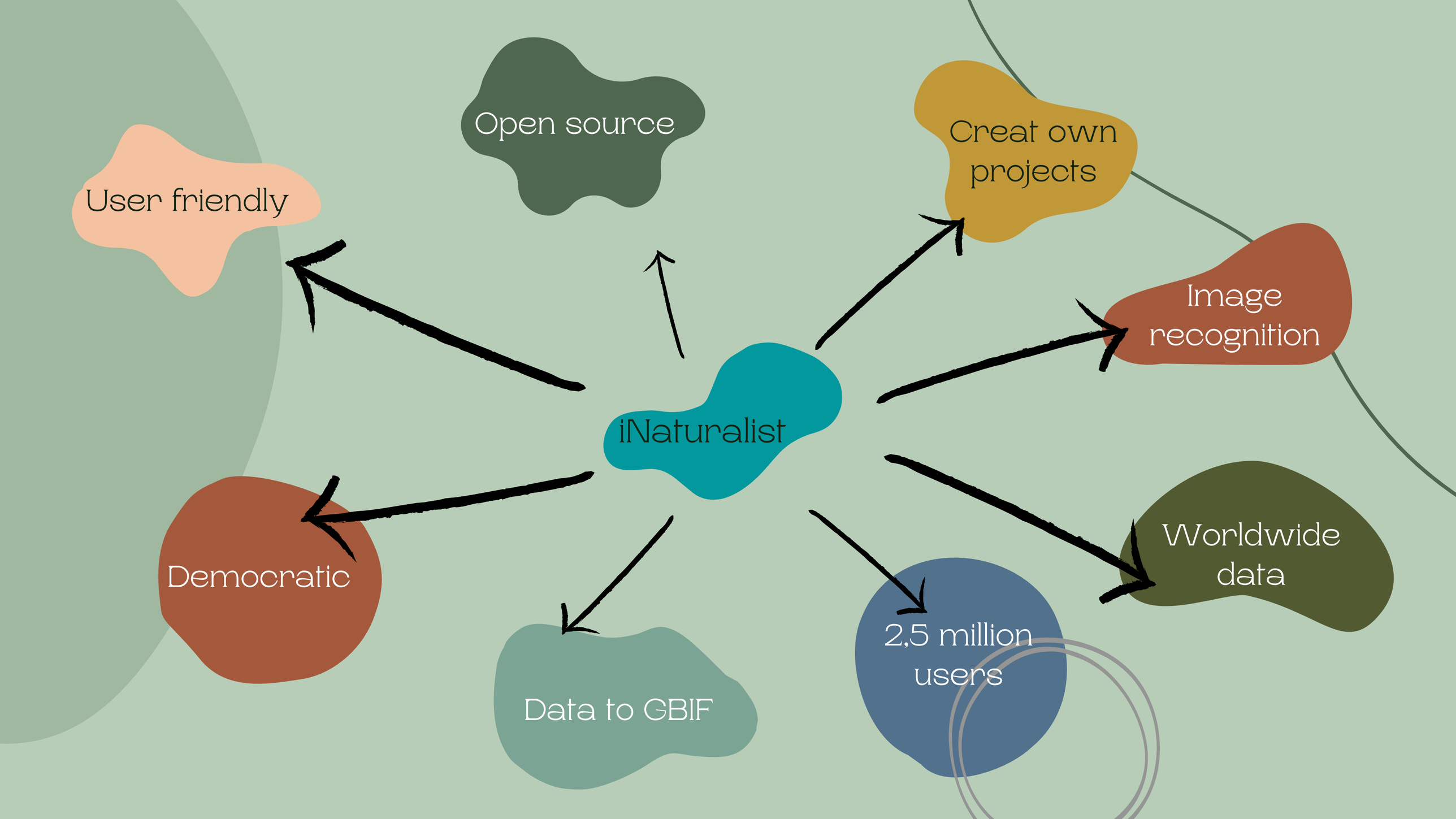
Individual exercice using Menti

Think of your platform, site or a natural place of interest

- Identify taxonomic groups of interest
- Identify the citizens/stakeholders to engage in CS projects

Coffee break

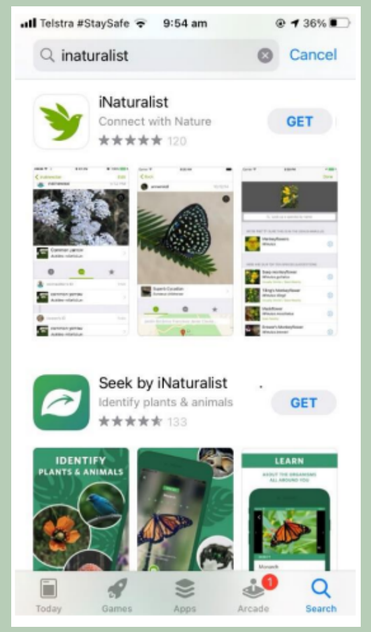
Joining iNaturalist

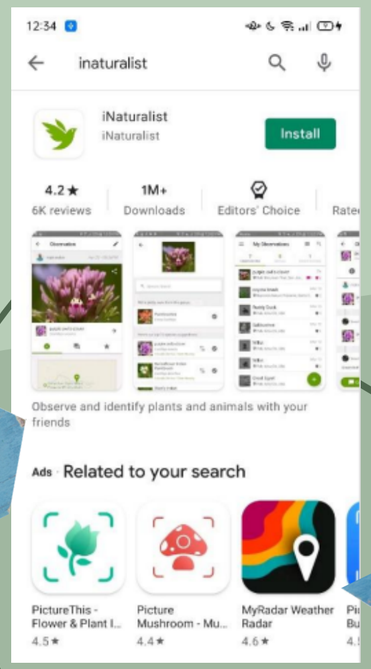

Open source
User friendly
Creat own projects
Image recognition
iNaturalist
Democratic
Worldwide data
Data to GBIF
2,5 million users

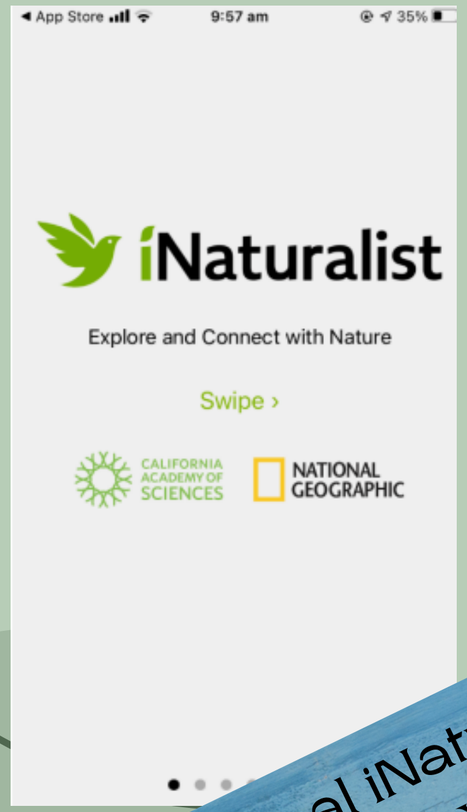
Activity 4

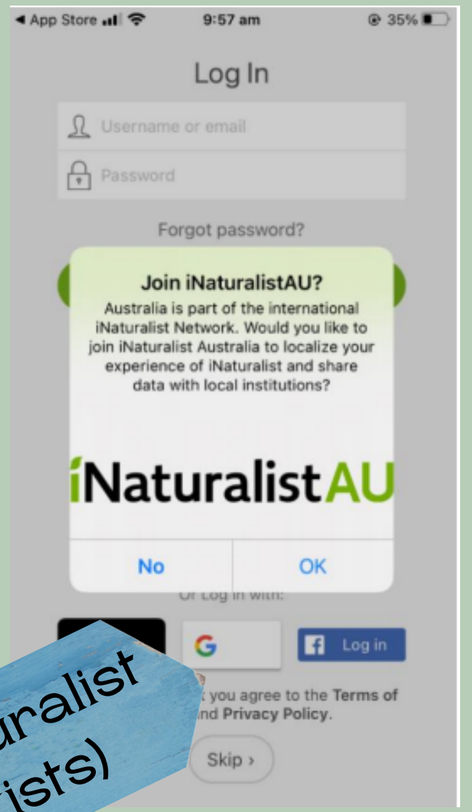
Sign up to iNaturalist

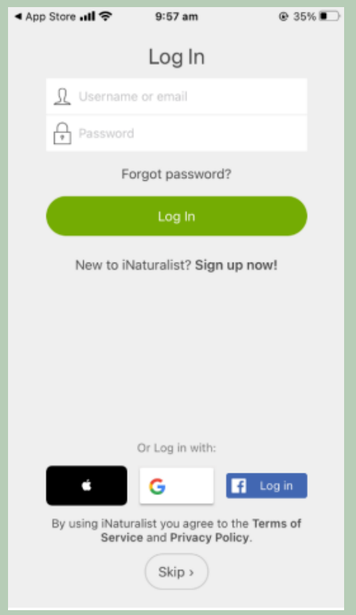
Installing the app

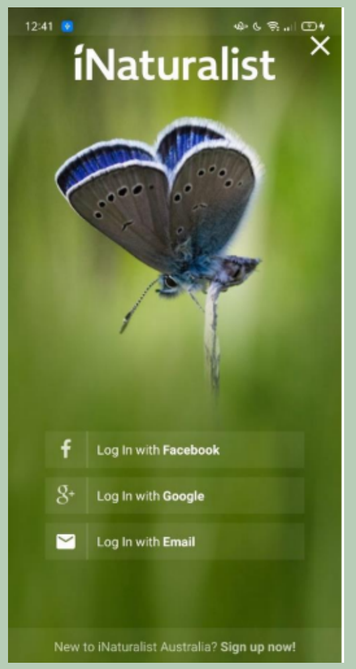












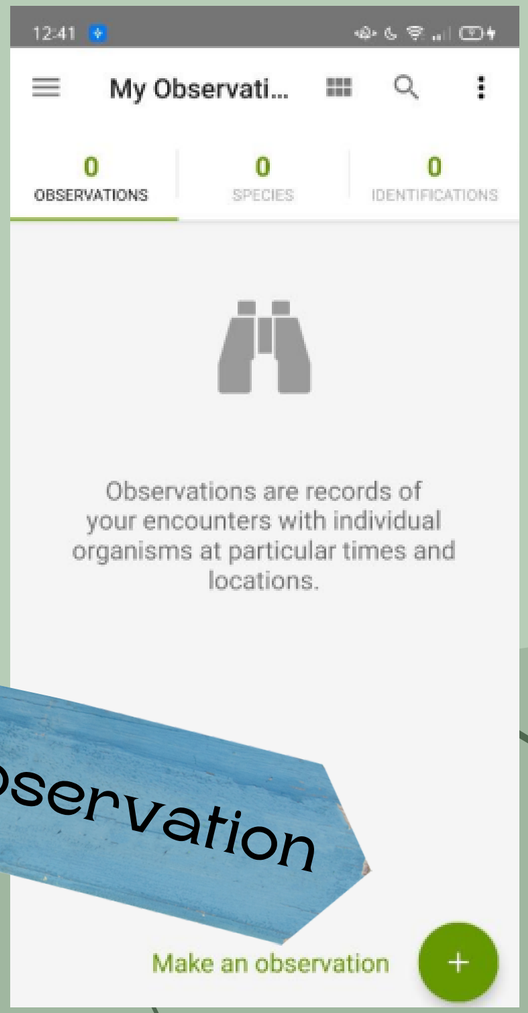
Google Play
App Store

Join the local iNaturalist network (if exists)

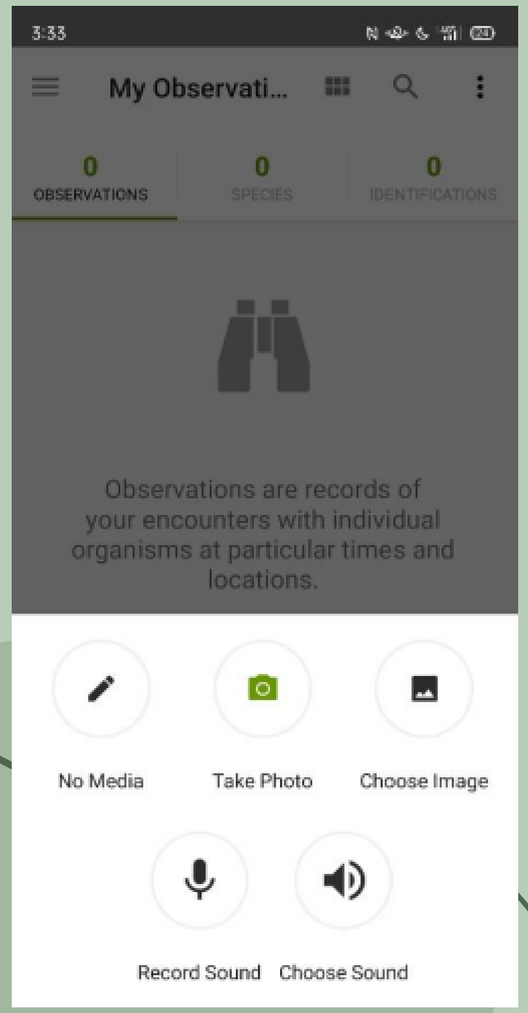
Activity 5

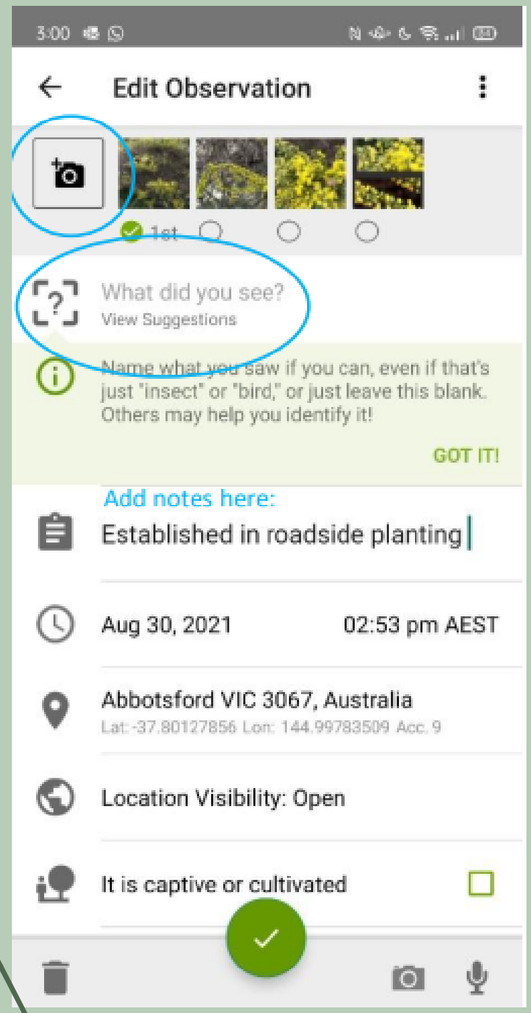
Register a species in the App iNaturalist

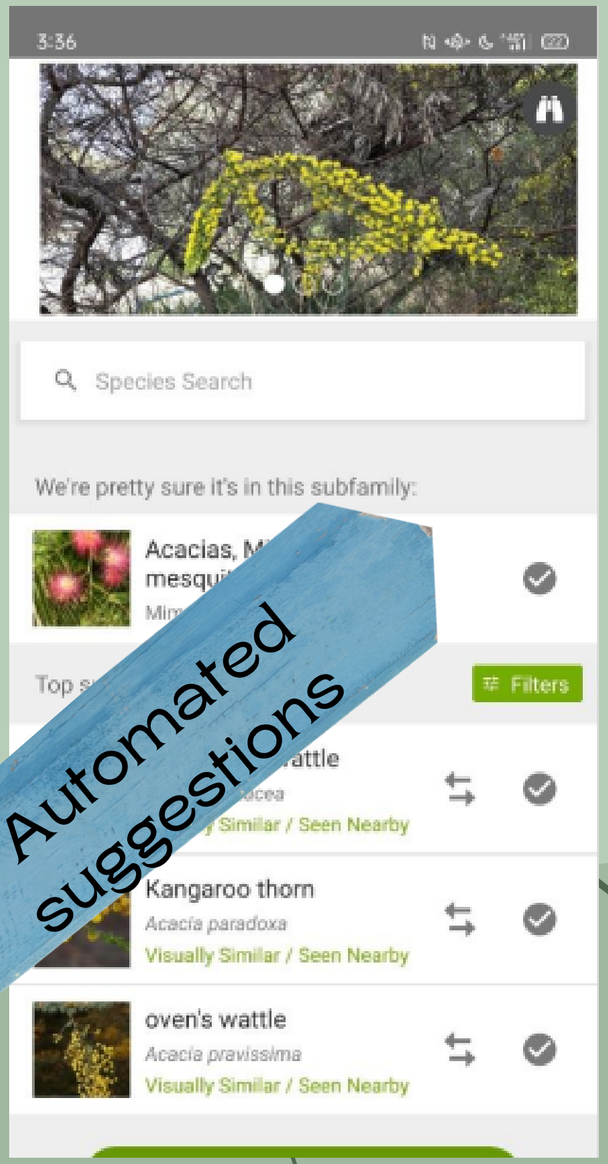
Using the app



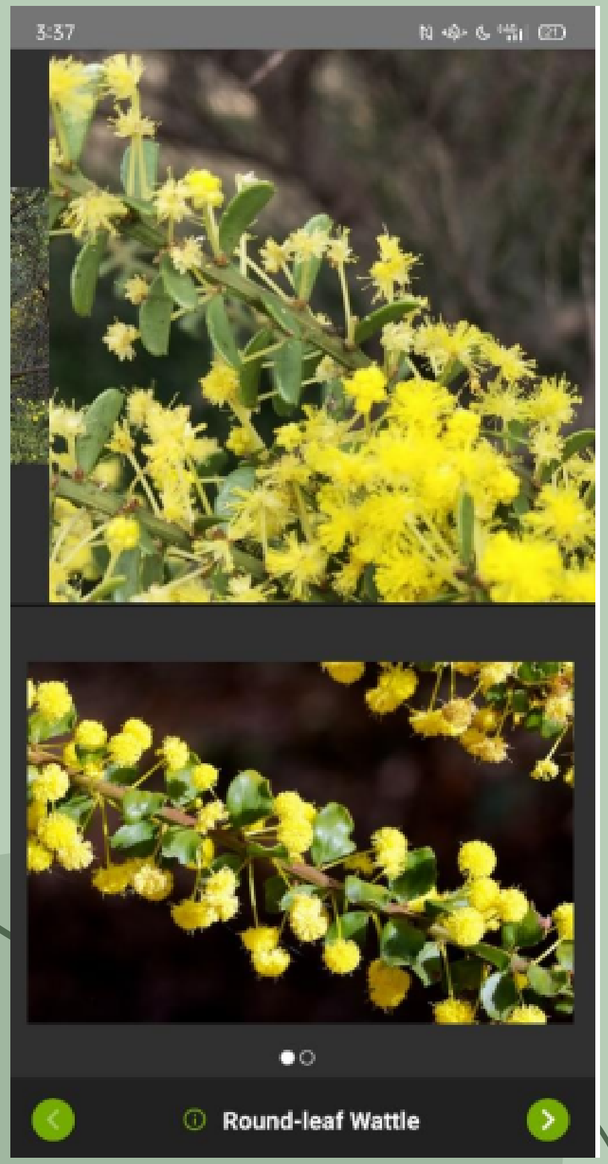
New observation

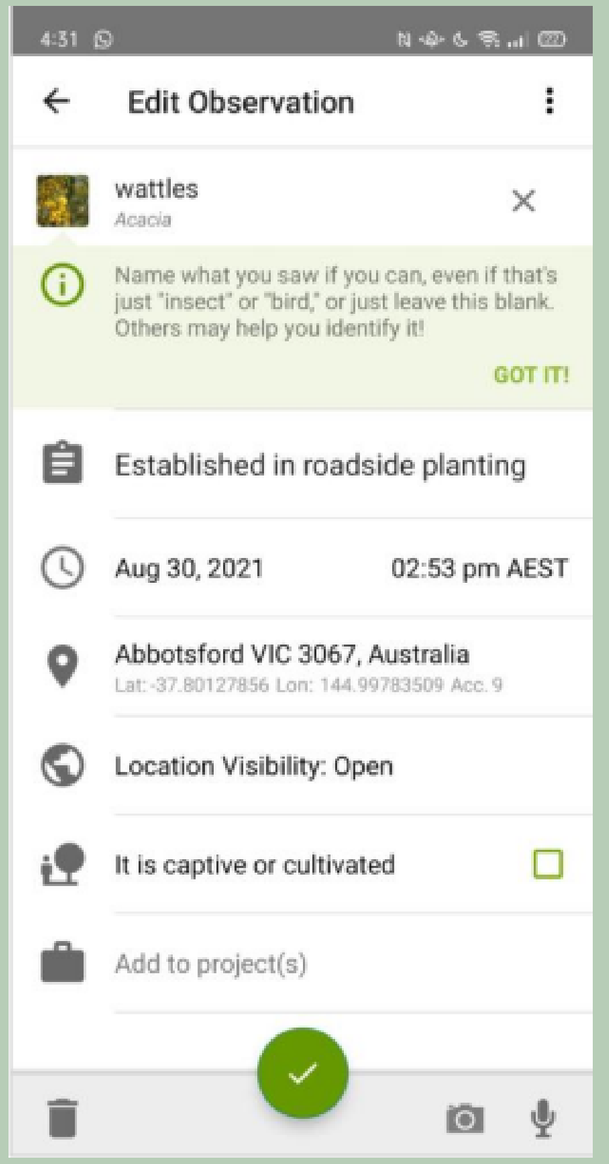




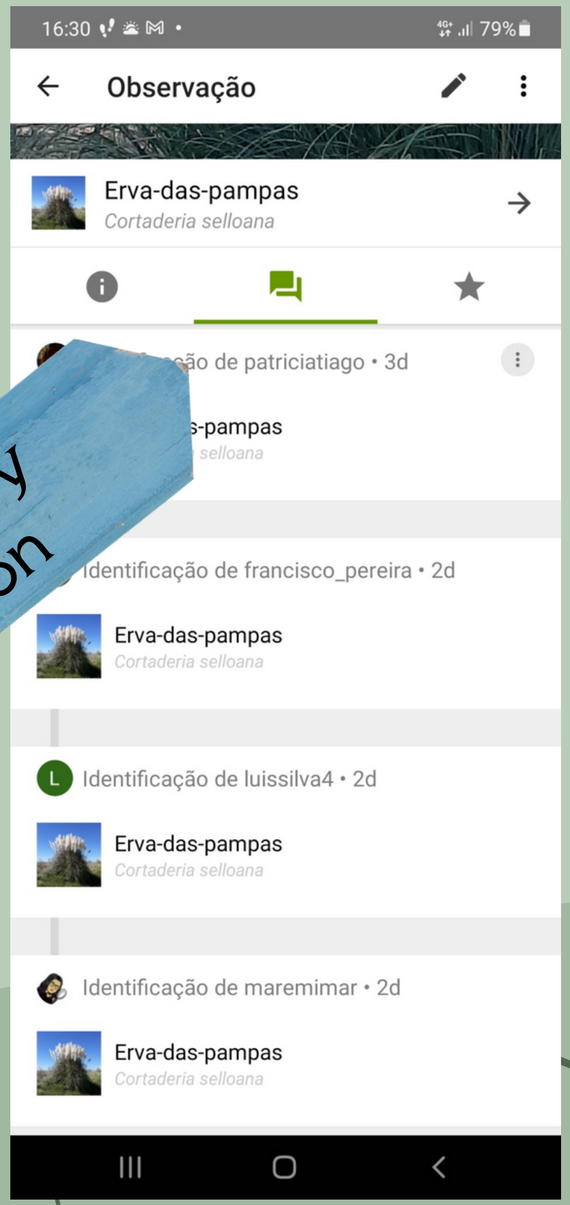


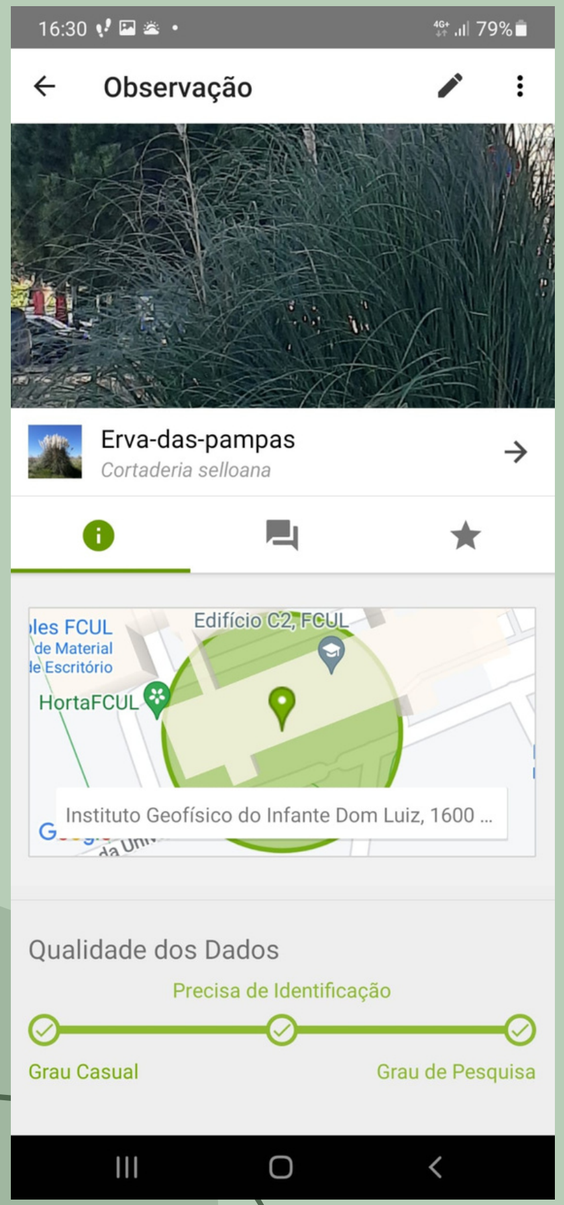
Automated suggestions





Community validation





Projects in the platform

Acerca de

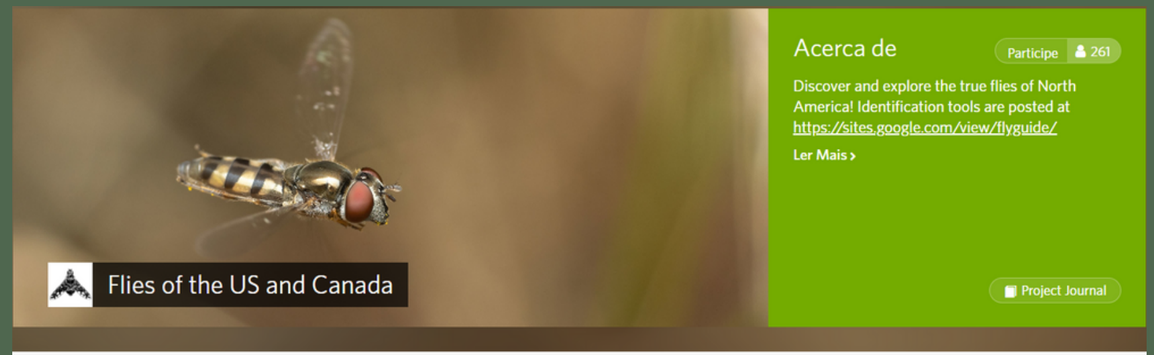
Participe 212

This year the Trinidad and Tobago Bioblitz is joining forces with colleagues in Jamaica and Barbados for a inter-island backyard bioblitz! Join this project now, so that on the 3rd & 4th of December, all of your backyard observations will be added and we can compare findings between these three unique & biodiverse countries!

Ler Mais ›

Project Journal

Visão geral	4.728 OBSERVAÇÕES	1.281 ESPÉCIES	400 IDENTIFICADORES	124 OBSERVADORES	Estatísticas



Acerca de

Participe 261

Discover and explore the true flies of North America! Identification tools are posted at https://sites.google.com/view/flyguide/

Ler Mais ›

Project Journal

Visão geral	1.417.322 OBSERVAÇÕES	5.005 ESPÉCIES	19.729 IDENTIFICADORES	162.491 OBSERVADORES	Estatísticas

Acerca de

Participe 107

This project is for current and former students at Skyline High School to contribute to our understanding of the creatures we share our world with. If you are posting in this project for credit in my biology class, you will need to log your observations in a spreadsheet, which is available in Google Classroom. You'll also need to

Ler Mais ›

PROJECT MEMBERS ONLY

Project Journal

Visão geral	4.782 OBSERVAÇÕES	890 ESPÉCIES	754 IDENTIFICADORES	80 OBSERVADORES	Estatísticas

Acerca de

Participe 44

This project aims to map the distribution of marine fish species in the Mediterranean Sea through the collection of photo observations.

Ler Mais ›

Project Journal

Visão geral	61.513 OBSERVAÇÕES	483 ESPÉCIES	1.768 IDENTIFICADORES	3.824 OBSERVADORES	Estatísticas

Acerca de

Participe 4

A farm is much more than the crops under cultivation, or the livestock being fed and cared for. Each farm is also an ecosystem of naturally occurring flora and fauna – the more biodiversity the better, for the good of the environment and sustainable food production.
To support and celebrate the role of biodiversity

Ler Mais ›

Project Journal

Visão geral	1.724 OBSERVAÇÕES	801 ESPÉCIES	447 IDENTIFICADORES	39 OBSERVADORES	Estatísticas

Acerca de

Participe 36

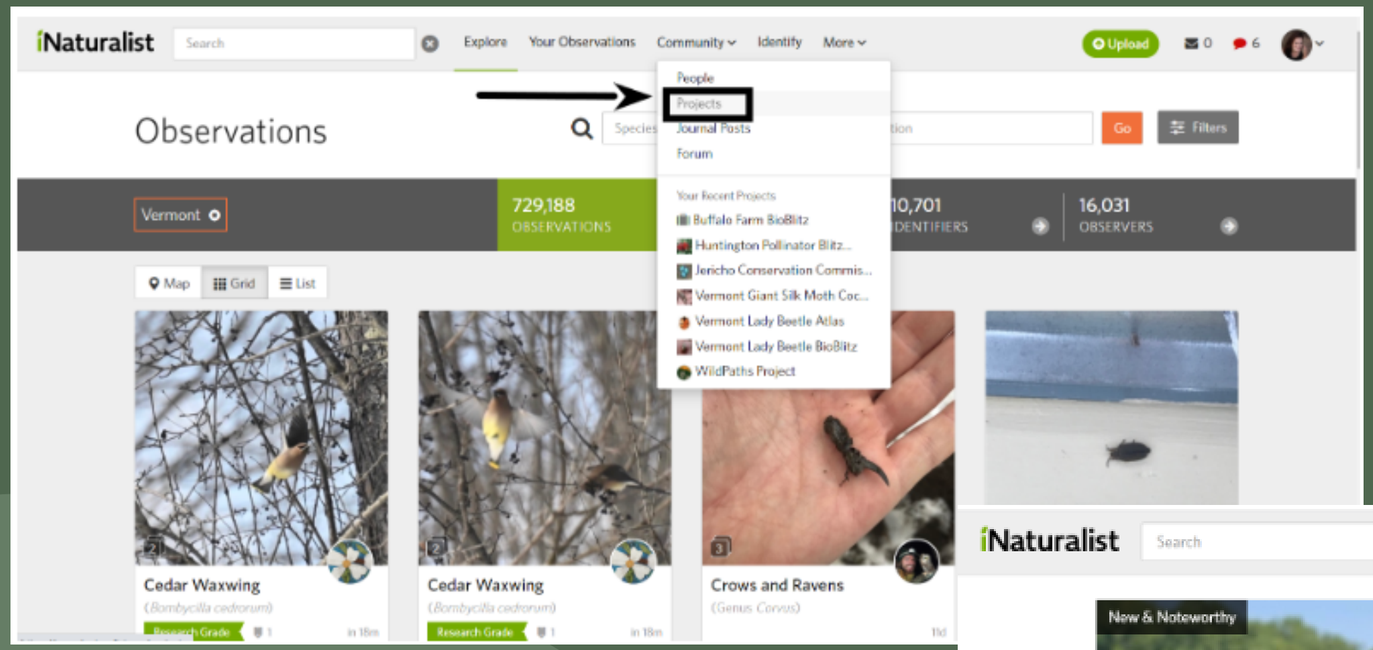
2022 City Nature Challenge

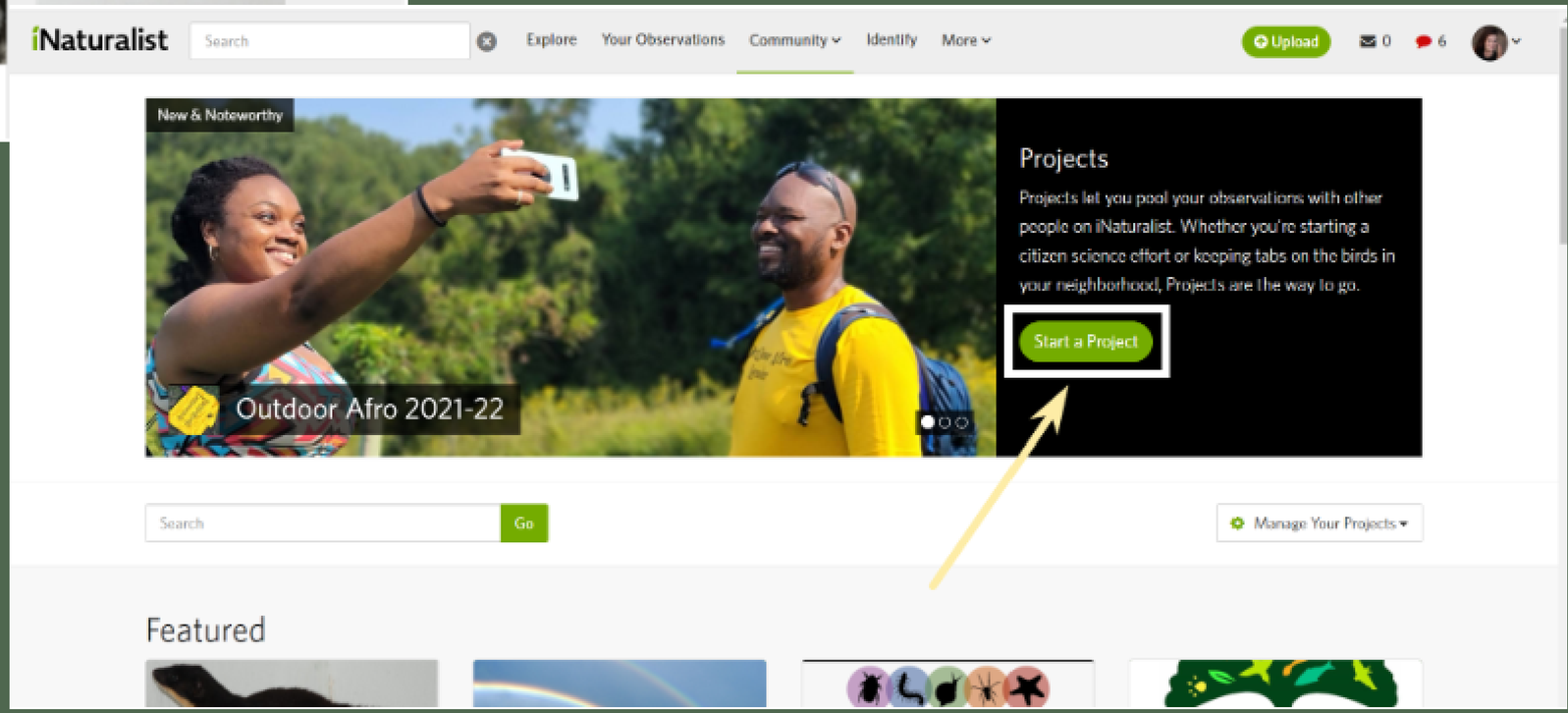
Ler Mais ›

Project Journal

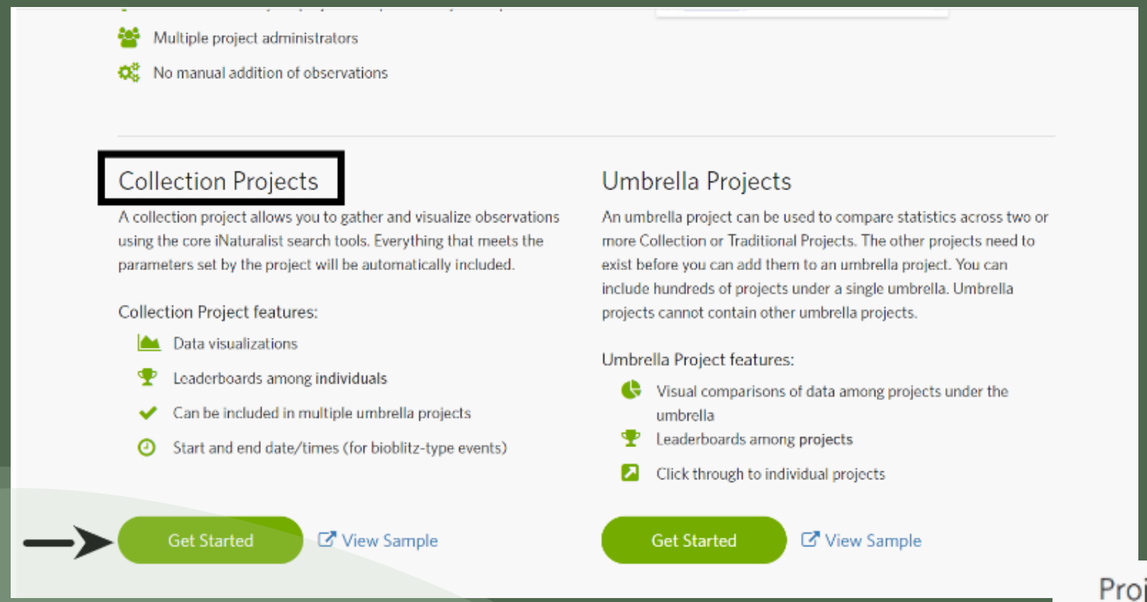
Visão geral	1.218 OBSERVAÇÕES	495 ESPÉCIES	180 IDENTIFICADORES	32 OBSERVADORES	Estatísticas

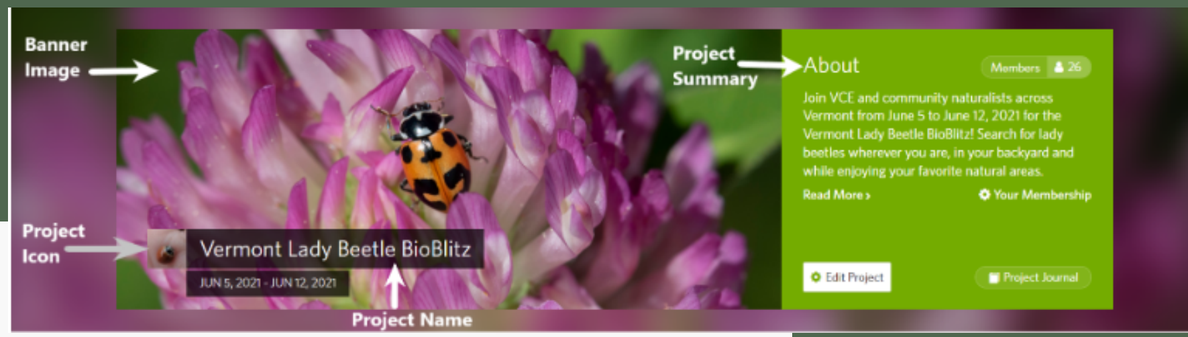
Create your own project

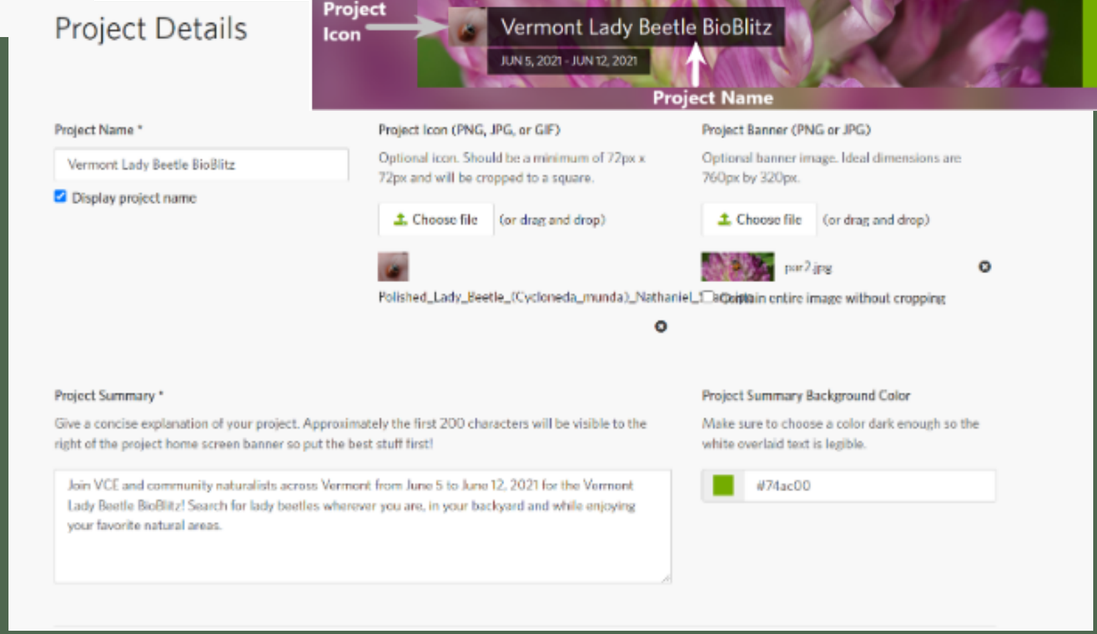




Create your own project







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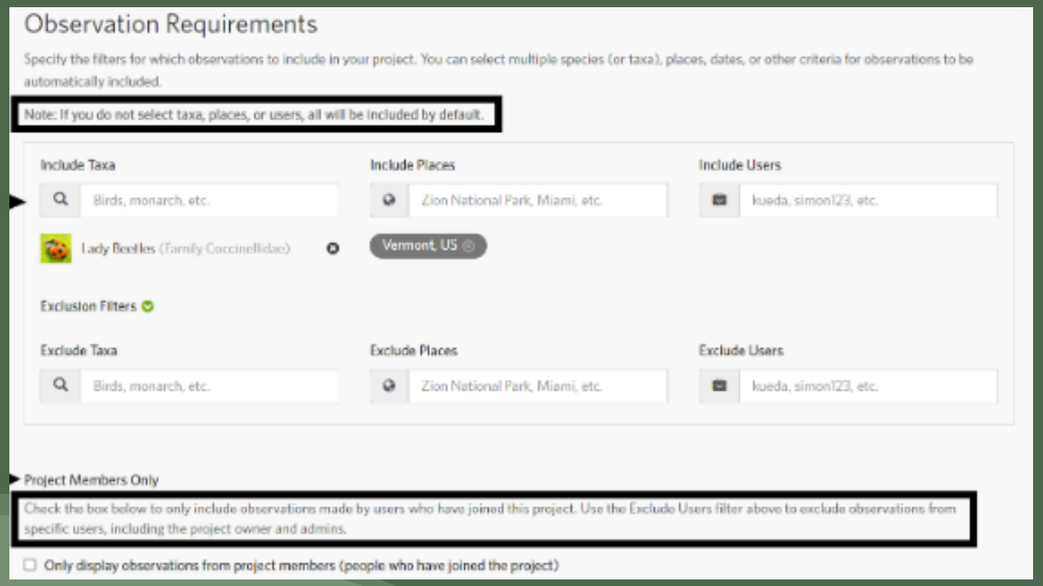
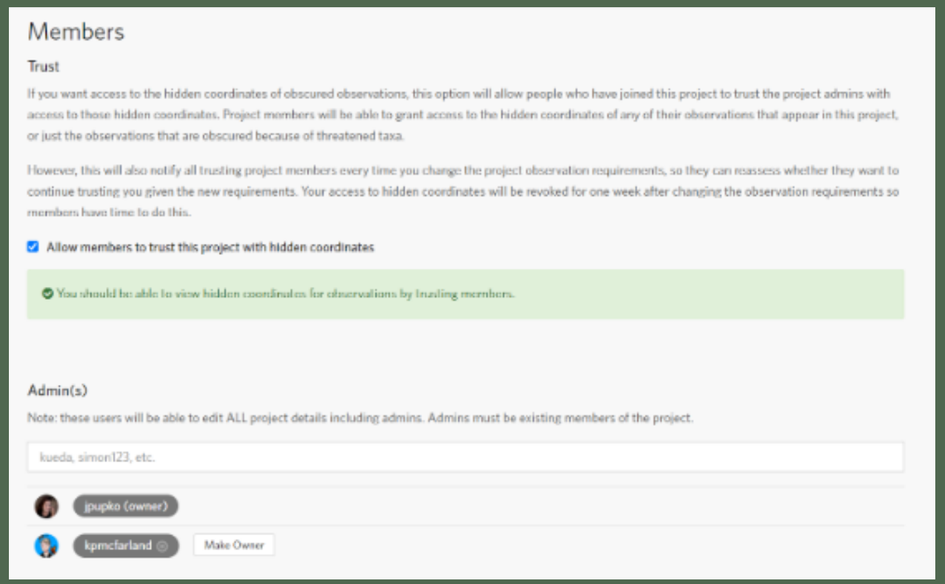
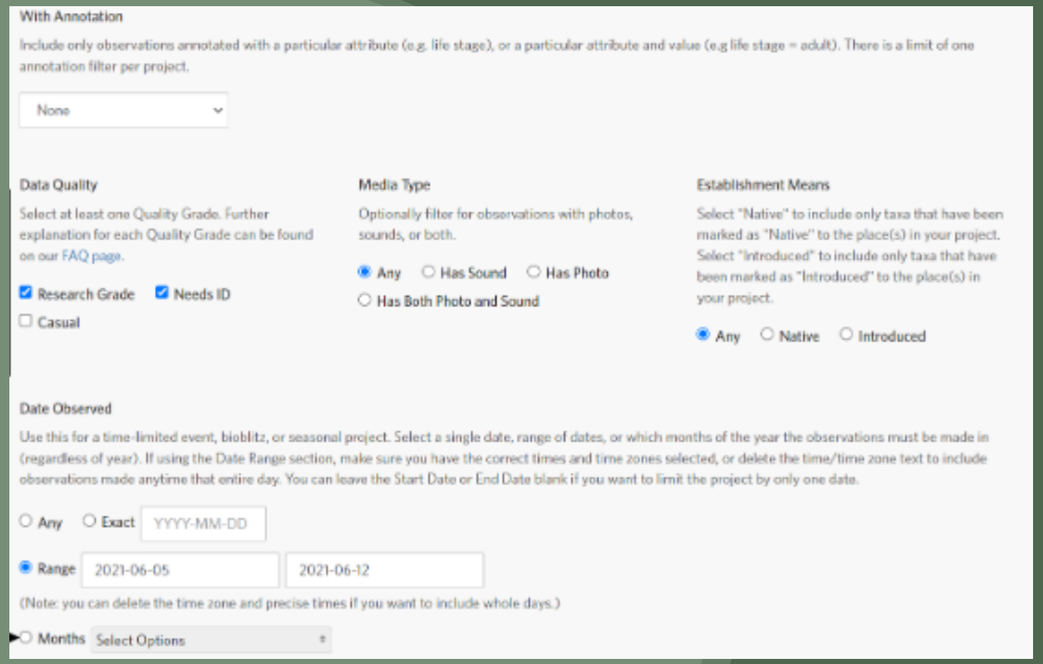
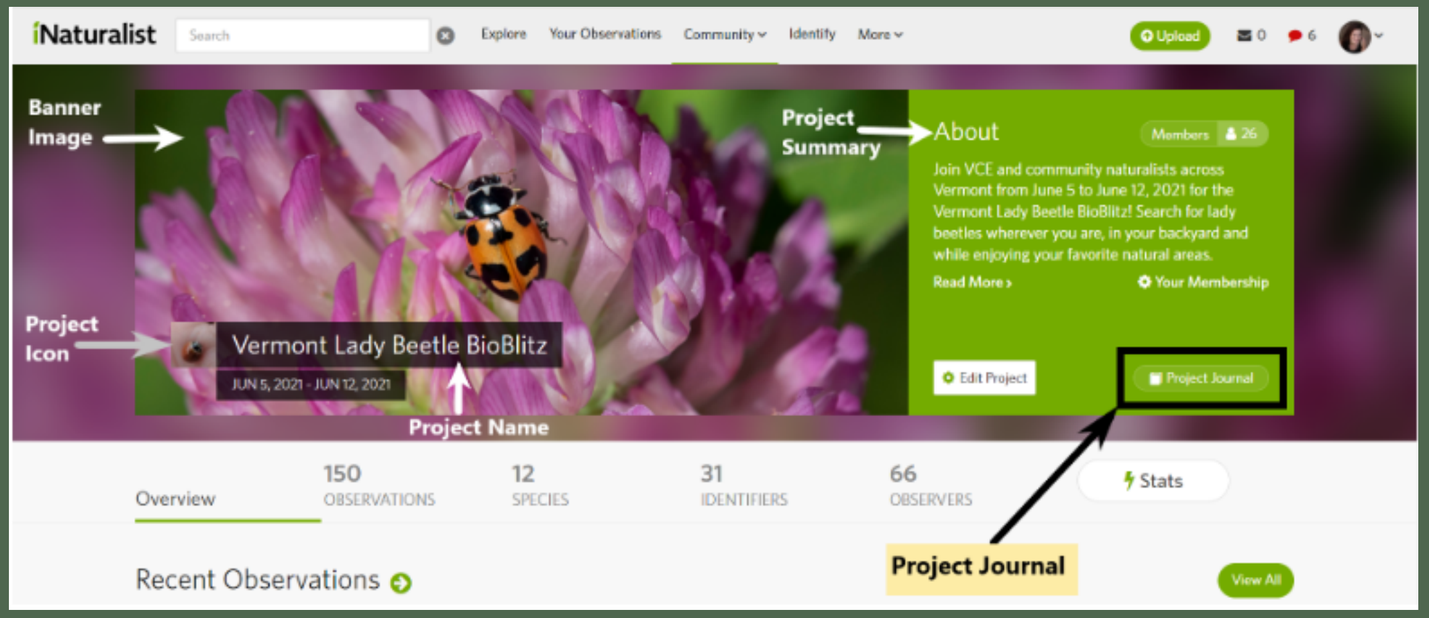








Create a citizen Science Biodiversity project in iNaturalist platform

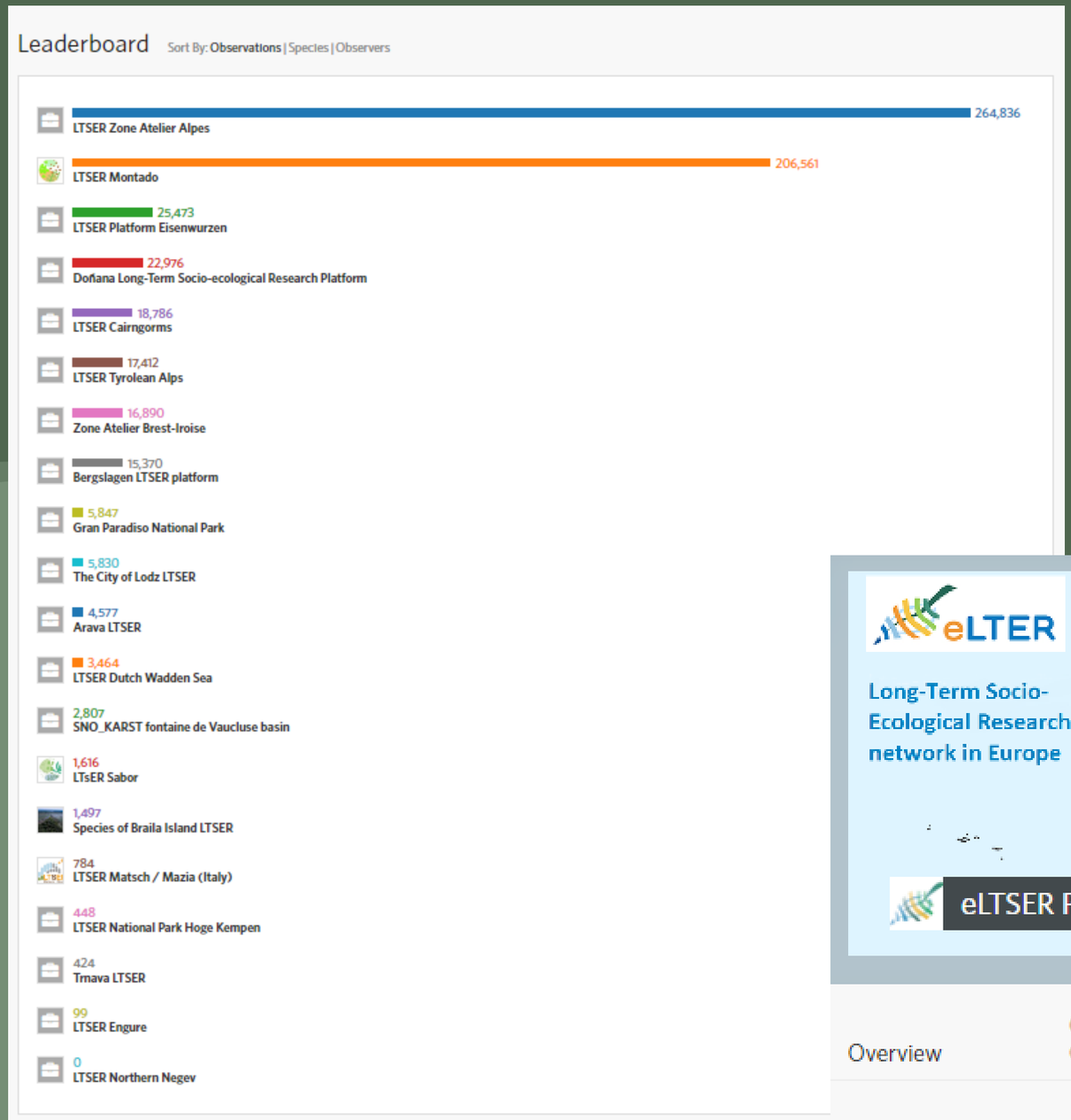
Activity 6

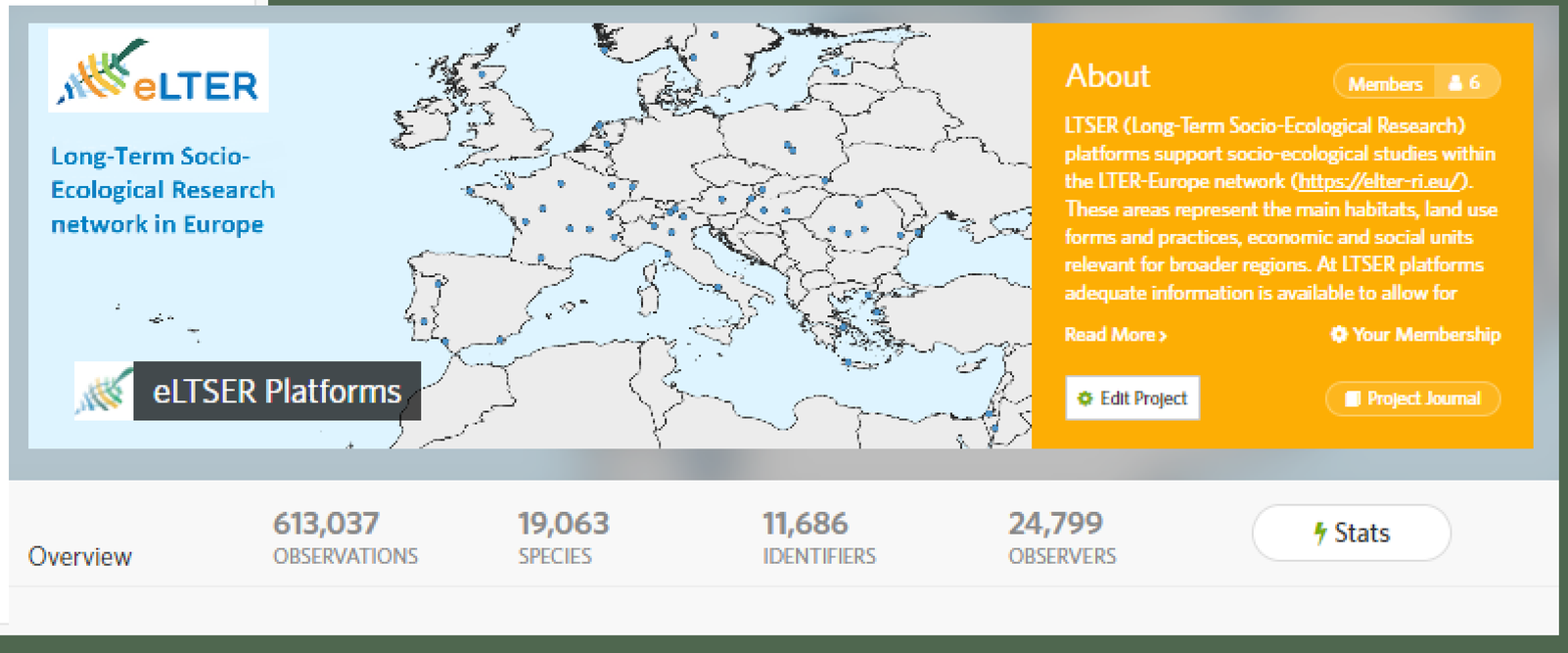
Create a Citizen Science project in iNaturalist platform

LTSER umbrella project

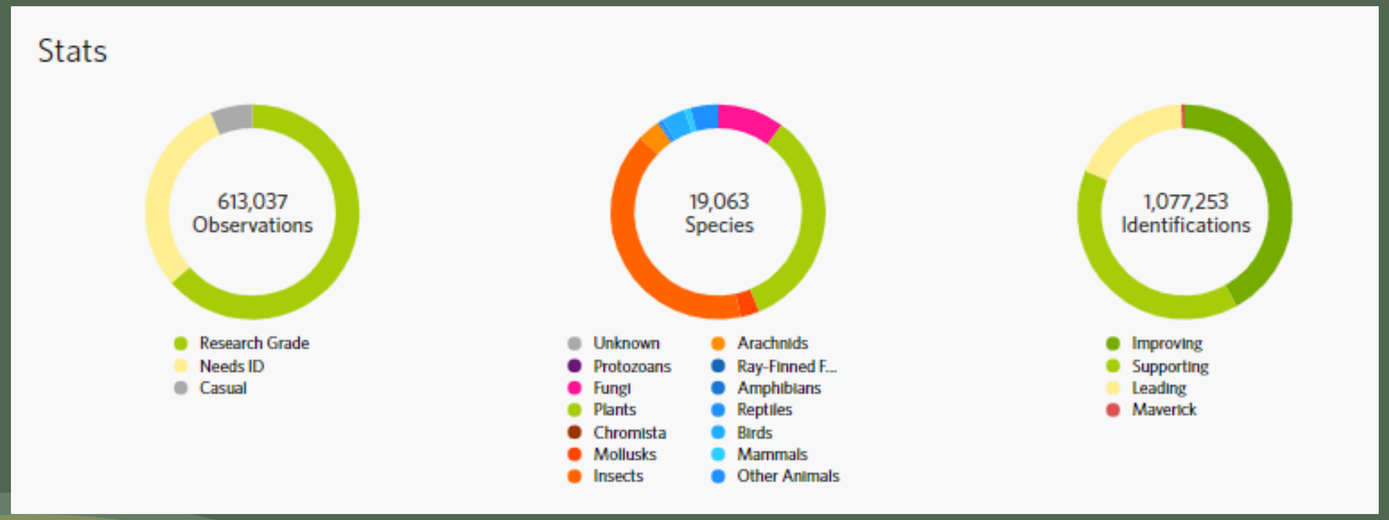
LTSER Platforms

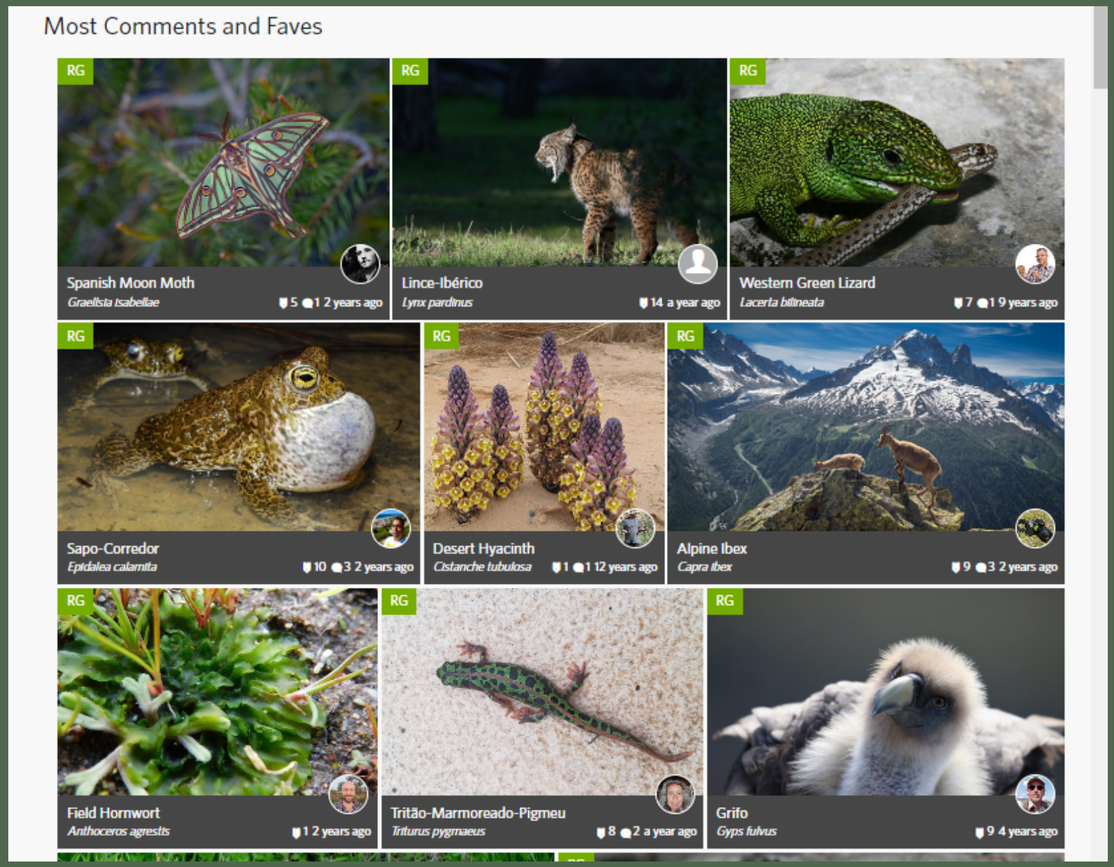
20 platforms



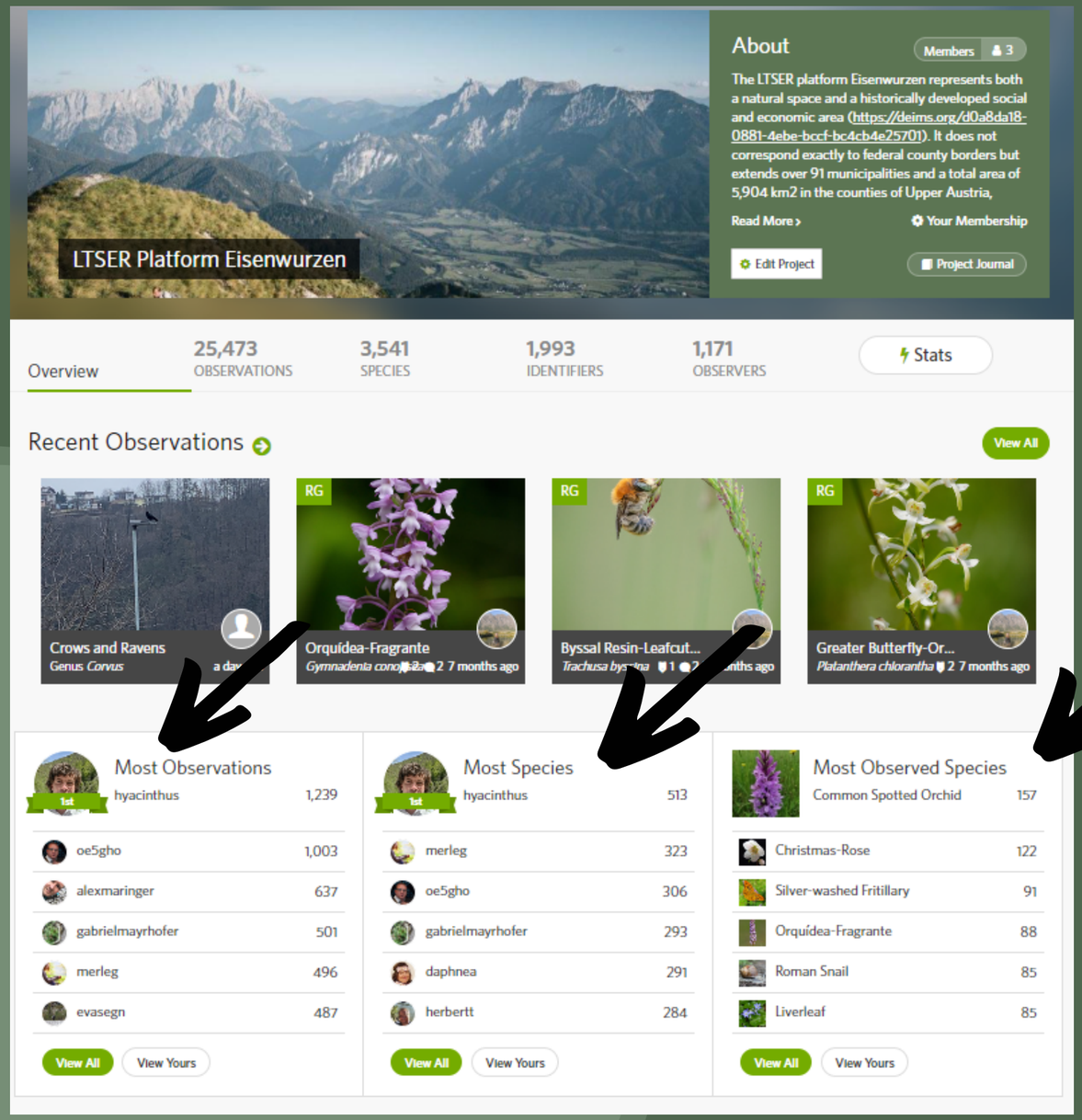


LTSER Platforms

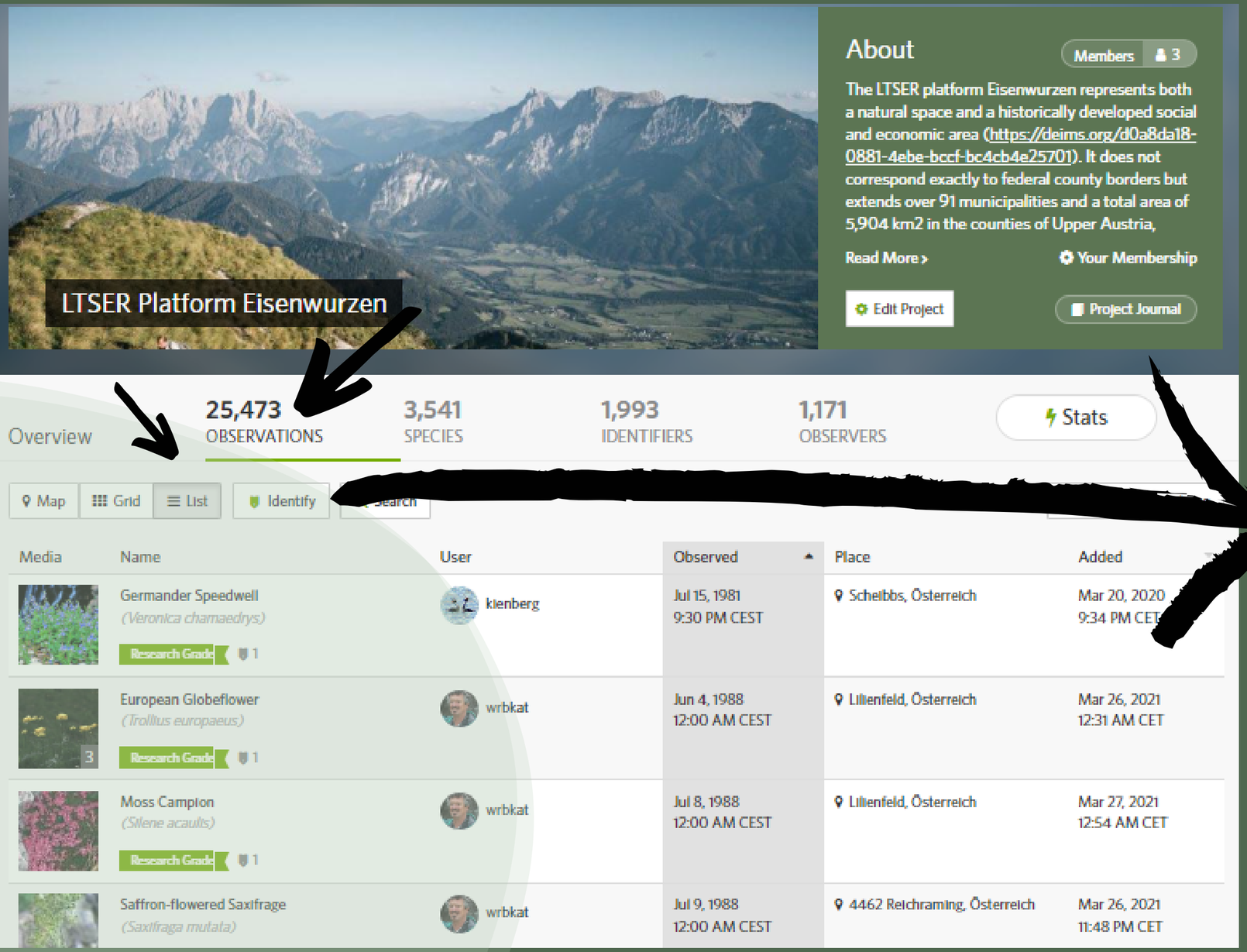


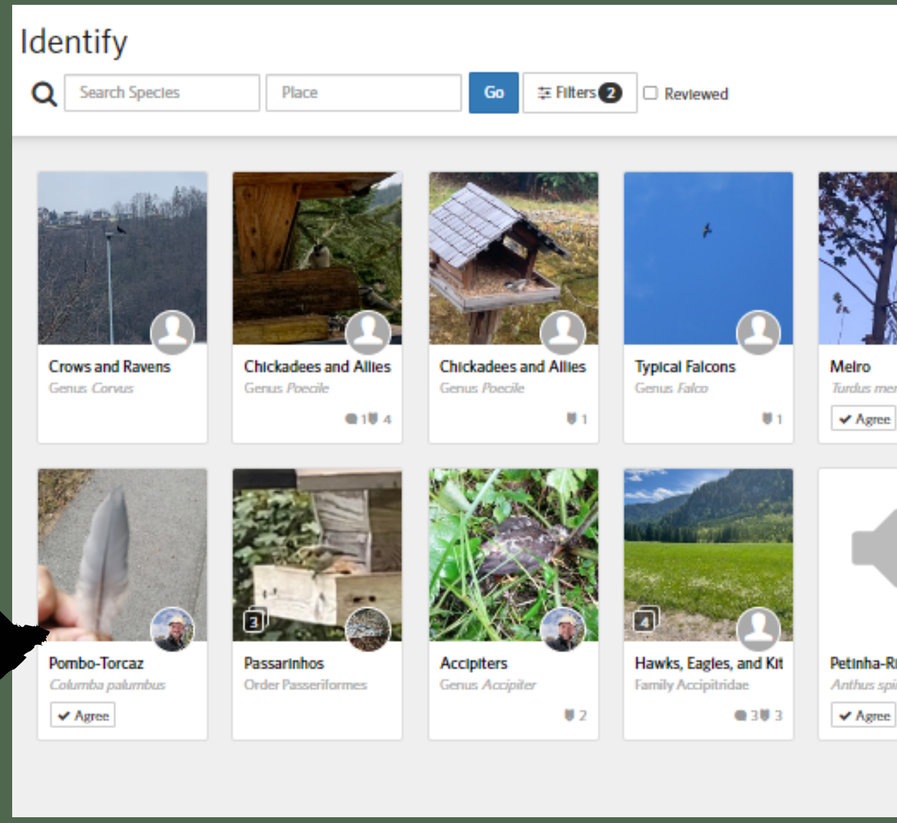


LTSER Platforms

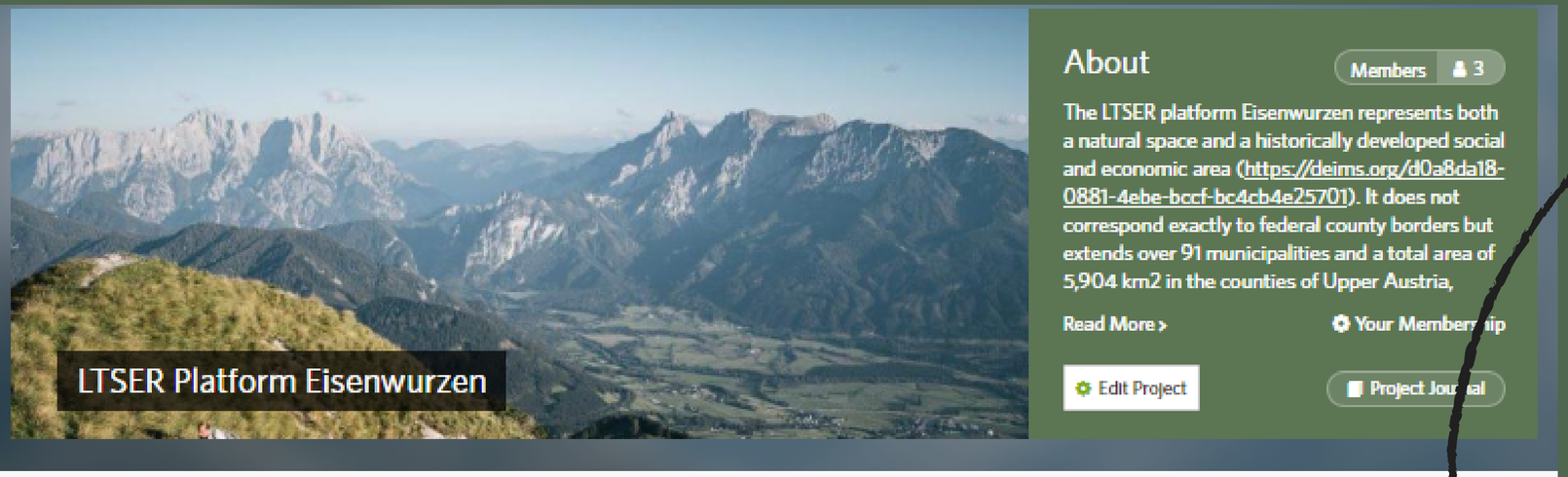


LTSER Platforms





LTSER Platforms



About

Members 3

The LTSER platform Eisenwurzen represents both a natural space and a historically developed social and economic area (https://deims.org/d0a8da18-0881-4ebe-bccf-bc4cb4e25701). It does not correspond exactly to federal county borders but extends over 91 municipalities and a total area of 5,904 km2 in the counties of Upper Austria,

Read More › Your Membership

Edit Project Project Journal

Overview **25,473** OBSERVATIONS **3,541** SPECIES **1,993** IDENTIFIERS **1,171** OBSERVERS Stats

Map Grid List Identify Search Export Observations

Media	Name	User	Observed	Place	Added
	Germander Speedwell *(Veronica chamaedrys)* Research Grade 1	klenberg	Jul 15, 1981 9:30 PM CEST	Scheibbs, Österreich	Mar 20, 2020 9:34 PM CET
3	European Globeflower *(Trollius europaeus)* Research Grade 1	wrbkat	Jun 4, 1988 12:00 AM CEST	Lilienfeld, Österreich	Mar 26, 2021 12:31 AM CET
	Moss Campion *(Silene acaulis)* Research Grade 1	wrbkat	Jul 8, 1988 12:00 AM CEST	Lilienfeld, Österreich	Mar 27, 2021 12:54 AM CET
	Saffron-flowered Saxifrage *(Saxifraga mutata)*	wrbkat	Jul 9, 1988 12:00 AM CEST	4462 Reichraming, Österreich	Mar 26, 2021 11:48 PM CET

Export Observations

1 Create Query

Create an observation query just like you would elsewhere on the site. You can also cut and paste an observations URL from an site. Your query should return **no more than 200,000 observations.**

quality_grade=any&identifications=any&projects%5B%5D=ltser-platform-eisenwurzen

Search search all fields

Filter w/ photos w/ sounds Quality grade Any Research Needs ID Reviewed Any Yes No
Identifications any most agree some agree most disagree Captive / Cultivated Any Yes No

Geoprivacy any Taxon Geoprivacy any

Show only

Place Start typing place name... SW Lat. SW Lon. NE Lat. NE Lon.

Not in place Start typing place name...

Taxon Start typing taxon name... Observed on Day Month Year

Not in taxon Start typing taxon name...

Exact Rank Any Highest Rank Any Lowest Rank Any

Verifiable Any Yes No

Threatened Any Yes No

Introduced Any Yes No

Native Any Yes No

Popular Any Yes No

User clear
Username or User ID

Ident. user clear
Username or User ID

Project ltser-platform-eisenwurzen clear
Project ID or URL slug, e.g. 333 or my-project

Taxon IDs clear

Activity 7

What questions can we answer using this tool?

Thinking about the taxonomic groups that we have already identified as relevant, as well as the stakeholders, what kind of questions could we help to answer using this type of projects?

Thank you

Obrigada!

LTsER MONTADO

cE3c
centre for ecology, evolution and environmental changes