



Benefits and challenges of an iNaturalist-based workflow for field collection



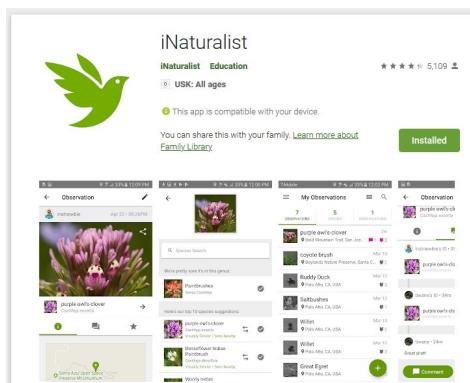
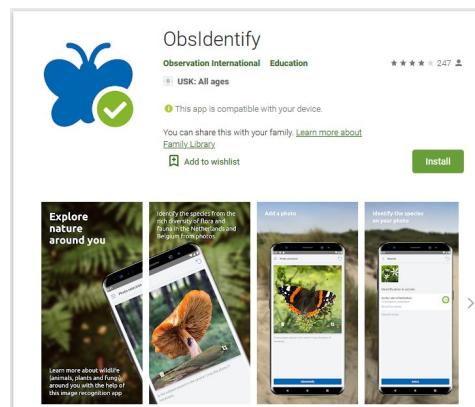
Bergen University Gardens

Michael Pirie [@PirieMike](mailto:michae.pirie@uib.no) &
Heidi Lie Andersen [@HeidiLieA](mailto:Heidi.Andersen@uib.no)
Bergen University Gardens, UiB, Norway



Presentation available at <https://doi.org/10.6084/m9.figshare.13187132>

Data entry – beyond the pencil/notepad and Excel spreadsheet



An example: iNaturalist <http://www.inaturalist.org>

The screenshot shows the iNaturalist homepage. At the top left is the iNaturalist logo with a magnifying glass icon. To its right are navigation links: Explore, Community, More, and Log In or Sign Up. The main feature is a large image of a pink flower cluster. In the bottom left corner of this image is a circular profile picture of a smiling person. Next to it is the text "Faerthen Felix - Western Snakeroot from Sagehen Creek, California, USA". To the right of the image is a purple box containing a white tree icon and the text "301,254 Species Observed". Below this box are two buttons: "SIGN UP" and "LEARN". At the bottom of the page is a green footer bar. On the left side of the footer are the logos for the California Academy of Sciences (a sun icon) and National Geographic (a square icon). To the right of these logos is the text: "iNaturalist is a joint initiative of the California Academy of Sciences and the National Geographic Society."

How It Works



1

2

3

iNaturalist Explore Your Observations Community Identify More 0 0

Euonymus verrucosus (Warty-barked Spindle) Edit



mikepirie 1,181 observations

Observed: Sep 1, 2019 - 5:36 PM CEST Submitted: Sep 2, 2019 - 1:12 AM CEST

Map Satellite

Rastiste, Serbia

Be the first to favorite this observation!

Date/time,
geolocality
with place
name

Names from
database;
collaborative
identification

Activity

mikepirie suggested an ID 4mo |

Euonymus verrucosus Warty-barked Spindle

wojciech suggested an ID

Euonymus verrucosus Warty-barked Spindle

Comment Suggest an Identification

Leave a comment

Done Mark As Reviewed

Community Taxon

Euonymus verrucosus (Warty-barked Spindle) Cumulative IDs: 2 of 2

0 2/3ds 2

Agree Compare About

Annotations

Attribute	Value	Agree	Disagree
Plant Phenology	Select		
Sex	Select		

Projects (3)

Add to a Project

Bergen University Gardens

Bergen University Gardens Serbia trip 2019

Bergen IrisBG export Observation Fields

Tags (2)

Add Tag

Euonymus verrucosus HLA266

Observation Fields (3)

associatedCollectorsSymbiota: Prie, M.D.; Moe, B.; Golubovic, M.; Lazarevic, P.; Zlatkovic, B.
recordNumberdw: 266
recordedBySymbiota: Andersen, H.L.

Choose a field

Extendable
data entry
(DarwinCore)

✓ Data Quality Assessment i

Quality Grade: Research

The Data Quality Assessment is an evaluation of an observation's accuracy. Research Grade observations may be used by scientists for research. Cast your vote below:

Research Grade Qualification	Yes	No
Date specified	✓	
Location specified	✓	
Has Photos or Sounds	✓	
Has ID supported by two or more	✓	
Date is accurate	✓	
Location is accurate	✓	
Organism is wild	✓	
Evidence of organism	✓	
Recent evidence of an organism	✓	
Community Taxon at species level or lower	✓	
Based on the evidence, can the Community Taxon still be confirmed or improved?		
<input type="checkbox"/> Yes	<input type="checkbox"/> No, it's as good as it can be	

Inappropriate content? [Flag As Inappropriate](#)



This observation is Research Grade! It can now be used for research and featured on other websites.

This observation is featured on 1 site



GBIF

Open
science!

DOCUMENT | 1 SEPTEMBER 2019
Euonymus verrucosus Scop.
Observed in Serbia
Plants • Tracheophyta • Magnoliopsida • Celastrales • Celastraceae • Euonymus
Species: *Euonymus verrucosus* Scop.
Location: Serbia
Mode of record: Human observation
Dataset: iNaturalist Research-grade Observations
Publisher: iNaturalist.org
Reference: https://www.inaturalist.org/observations/31902349
Lichtenstein Island Austria Slovenia Hungary Moldova
San Marino Italy Croatia Bosnia and Herzegovina Montenegro Kosovo Serbia
Macedonia Bulgaria Albania
Download contributions | Open Data | Share



Creator: Michael D. Price
Publisher: iNaturalist
Recorded By: Michael D. Price
Reference: https://www.inaturalist.org/observations/30051127
Created: 2014-09-07T17:51:51Z (2014-09-07T17:51:51Z)
Last updated: 2014-09-07T17:51:51Z (2014-09-07T17:51:51Z)
Identifier: https://www.inaturalist.org/observations/30051127
DOI: 10.15447/1748-6643-30051127

iNaturalist Explore Your Observations Community Identify More 0 0

Euonymus verrucosus (Warty-barked Spindle)

mikepirie 1,181 observations

Observed: Sep 1, 2019 - 5:36 PM CEST Submitted: Sep 2, 2019 - 1:12 AM CEST

Map Satellite Rastiste, Serbia

Be the first to favorite this observation!

Activity

- mikepirie** suggested an ID 4mo
 - Euonymus verrucosus* Warty-barked Spindle

- wojciech** suggested an ID 3mo
 - Euonymus verrucosus* Warty-barked Spindle

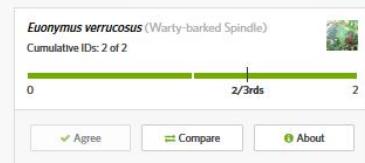
- Comment Suggest an Identification

Leave a comment

Done

Mark As Reviewed

Community Taxon



Annotations

Attribute	Value	Agree	Disagree
Plant Phenology	Select		
Sex	Select		

Projects (3)

- Add to a Project
- Bergen University Gardens
 - Bergen University Gardens Serbia trip 2019
 - Bergen IrisBG export Observation Fields

Tags (2)

- Add Tag
- Euonymus verrucosus
 - HLA266

Observation Fields (3)

associatedCollectorsSymbiota:
Pirie, M.D.; Moe, B.; Golubovic, M.; Lazarević, P.; Zlatković, B.
recordNumberdwc:
266
recordedBySymbiota:
Andersen, H.L.

Choose a field

Add to customizable sub-projects

Projects: collections of observations, such as:

- Bergen University Gardens staff

iNaturalist

Search Explore Your Observations Community Identify More Upload 0 0

The screenshot shows the iNaturalist project page for 'Bergen University Gardens'. At the top, there's a search bar, navigation links for 'Explore', 'Your Observations', 'Community', 'Identify', 'More', and an 'Upload' button. To the right, there are icons for 'Members' (7), 'About', and a user profile. The main header features a landscape photo of a coastal area with a white building. Below the header, the project name 'Bergen University Gardens' is displayed with a small icon. On the right side of the header, there are buttons for 'Edit Project' and 'Project Journal'. The main content area has tabs for 'Overview' (selected), 'Recent Observations', and 'Stats'. The 'Overview' tab shows statistics: 6,394 observations, 2,269 species, 507 identifiers, and 7 observers. Below these stats, a section titled 'Recent Observations' displays four cards with images and details: 'Phyllodoce caerulea Blue Mountain-Heath' (1d), 'Achillea millefolium Common Yarrow' (1 3d), 'Succisa pratensis Devil's-bit Scabious' (1 3d), and 'Solidago virgaurea European Goldenrod' (1 3d). Further down, there are three leaderboards: 'Most Observations', 'Most Species', and 'Most Observed Species', each with a list of users and their counts, along with 'View All' and 'View Yours' buttons.

About Members 7

Observations and collections made by staff members of the Bergen University Gardens, Norway.
Read More >

Edit Project Project Journal

Overview 6,394 OBSERVATIONS 2,269 SPECIES 507 IDENTIFIERS 7 OBSERVERS Stats

Recent Observations View All

Phyllodoce caerulea Blue Mountain-Heath 1d

Achillea millefolium Common Yarrow 1 3d

Succisa pratensis Devil's-bit Scabious 1 3d

Solidago virgaurea European Goldenrod 1 3d

1st beritgehrke 1,641

torsten 1,515

mikepirie 1,411

nannie 1,214

evakleffelgard 254

heidilieandersen1 184

View All View Yours

1st beritgehrke 844

torsten 802

mikepirie 755

nannie 619

evakleffelgard 186

bjoernmoe 161

View All View Yours

1st beritgehrke 67

Potentilla erecta 40

Vaccinium vitis-idaea 37

Calluna vulgaris 36

Vaccinium myrtillus 33

Potentilla argentea 30

Erica tetralix 30

View All View Yours

Rank	User	Observations
1st	beritgehrke	1,641
2nd	torsten	1,515
3rd	mikepirie	1,411
4th	nannie	1,214
5th	evakleffelgard	254
6th	heidilieandersen1	184

Rank	User	Species
1st	beritgehrke	844
2nd	torsten	802
3rd	mikepirie	755
4th	nannie	619
5th	evakleffelgard	186
6th	bjoernmoe	161

Rank	Species	Count
1st	Potentilla erecta	40
2nd	Vaccinium vitis-idaea	37
3rd	Calluna vulgaris	36
4th	Vaccinium myrtillus	33
5th	Potentilla argentea	30
6th	Erica tetralix	30

Projects: collections of observations, such as:

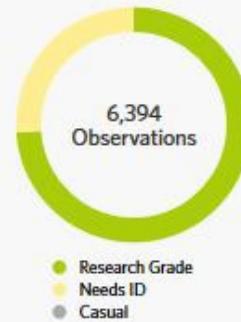
- Bergen University Gardens staff

Project Requirements

Observations in this project must meet the following criteria:

 Taxa	Kingdom Plantae (Plants)
 Location	Worldwide
 Users	mikepirie, bjoermoe, nannie, torsten, heldilleandersen, beritgehrke, evakleffelgard
 Projects	any
 Quality Grade	Research Grade, Needs ID
 Media Type	any
 Date	any
 Establishment	any

Stats



Journal

No journal posts yet. Check back soon!

Map of Observations



Recent Observations



Map data ©2020 Terms of Use

Projects: collections of observations, such as:

- Bergen University Gardens staff
- Field trips, research projects, local initiatives («Bioblitz»)



Bergen University Gardens Serbia trip 2019
AUG 25, 2019 - SEP 3, 2019

[Edit Project](#) [NEWS](#)

Overview 327 OBSERVATIONS 252 SPECIES 33 IDENTIFIERS 3 OBSERVERS [Stats](#) [View All](#)

Recent Observations



RG
Amelanchier ovalis
Snowy Mespilus 1 4mo



Acanthus hungaricus 4mo



Artemisia alba 4mo



Selaginella helvetica
Swiss Clubmoss 4mo

Rank	User	Most Observations	Most Species	Most Observed Species
1st	mikepirie	325	247	 <i>Erica carnea</i> 6
	bjoernmoe	1	1	 <i>Pinus nigra</i> 4
	heidilieandersen1	1	1	 <i>Rosa pendulina</i> 4
		View All	View All	View All
		View Yours	View Yours	View Yours



Projects: collections of observations, such as:

- Bergen University Gardens staff
- Field trips, research projects, local initiatives («Bioblitz»)
- Seed collections, living specimens, herbarium vouchers

Stats

Totals

203

Observations »

172

Species »

3

People »

Most Observations



mikepirie
197 observations



evakleffelgard
5 observations



bjoernmoe
1 observation

Most Species



mikepirie
160 species



evakleffelgard
5 species



bjoernmoe
1 species

Most Observed Species



Spring Heath
3 observations



Wild Strawberry
2 observations



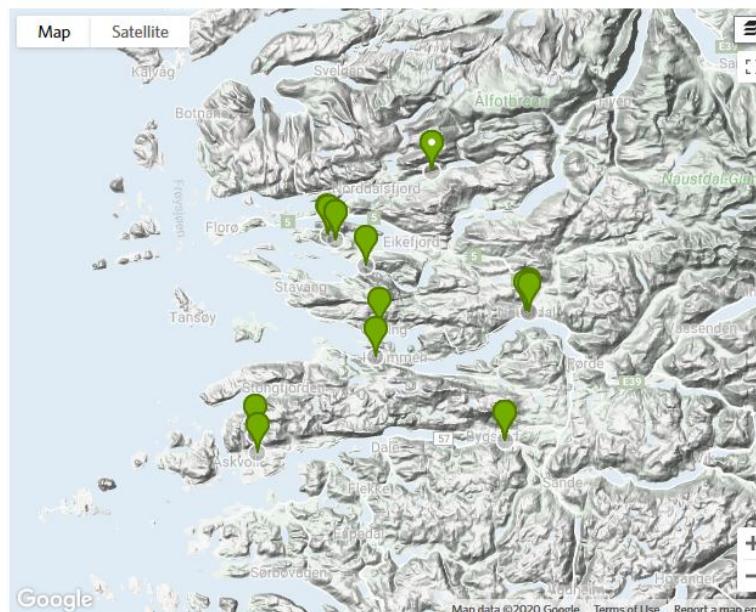
Spoonleaf Sundew
2 observations



Cotoneasters
2 observations



Wood Cow-Wheat
2 observations



Journal

Your project journal is a tool for communicating with project members. You can use it to make announcements, set priorities, or talk about your project's findings.

To get started, [create a post](#) »

» Members



3 members

» Your Membership

197 observations

» Export Observations

Atom / CSV

» Usage stats

Project Curator Tools

» Find Suitable Observations

» Find Unsuitable Observations

» Export with Hidden Coordinates

» Filter by Curator Identification

» Identify Observations

» New Journal Post

» Invite people

About

mikepirie created this project on September 03, 2019

Is this [inappropriate](#), [spam](#), or [offensive?](#) Add a Flag

**Data
export**

Export Observations

1 Create a Query

Create an observation query just like you would elsewhere on the site. You can also cut and paste an observations URL from another part of the site. You must specify a **taxon**, **place**, **user**, **project**, or **search query**.

quality_grade=any&identifications=any&projects%5B%5D=bergen-irisbg-export

Search

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

Show only 

Place SW Lat. SW Lon. NE Lat. NE Lon.

Taxon Observed on Day Month Year

Exact Rank Any Highest Rank Any Lowest Rank Any

User clear Username or User ID

Project bergen-irisbg-export Project ID or URL slug, e.g. 333 or my project

Taxon IDs clear Multiple taxon IDs separated by commas, e.g. 123,654

Date Range Start End Max and min dates observed in YYYY-MM-DD format, e.g. 2015-01-17

Created on clear Date observations were created, not observed, e.g. 2015-01-12, 2015-01, 2015

2 Preview

1 - 200 of 203

Photos / Sounds	Species / Taxon Name	Observer	Date observed	Place
	Genus <i>Eleocharis</i> Spikerushes	mikepirie	October 11, 2019 10:45 AM CEST	Gaular Municipality, Norway (Google, OSM) <input type="button" value="Needs ID"/> <input type="button" value="Edit"/> <input type="button" value="View"/>
	Callitrichia brutia Pedunculate Water-Starwort	mikepirie	October 11, 2019 10:45 AM CEST	Gaular Municipality, Norway (Google, OSM) <input type="button" value="Needs ID"/> <input type="button" value="Edit"/> <input type="button" value="View"/>

3 Choose columns

Choose the columns you want to export

Basic (All | None)

<input checked="" type="checkbox"/> id	<input checked="" type="checkbox"/> observed_on_string	<input checked="" type="checkbox"/> observed_on	<input checked="" type="checkbox"/> time_observed_at
<input checked="" type="checkbox"/> time_zone	<input checked="" type="checkbox"/> out_of_range	<input checked="" type="checkbox"/> user_id	<input checked="" type="checkbox"/> user_login
<input checked="" type="checkbox"/> created_at	<input checked="" type="checkbox"/> updated_at	<input checked="" type="checkbox"/> quality_grade	<input checked="" type="checkbox"/> license
<input checked="" type="checkbox"/> url	<input checked="" type="checkbox"/> image_url	<input checked="" type="checkbox"/> sound_url	<input checked="" type="checkbox"/> tag_list
<input checked="" type="checkbox"/> description	<input checked="" type="checkbox"/> id.Please	<input checked="" type="checkbox"/> num_identification_agreements	<input checked="" type="checkbox"/> num_identification_disagreements
<input checked="" type="checkbox"/> captive_cultivated	<input checked="" type="checkbox"/> oauth_application_id		

Geo (All | None)

Town, county, state, country fields based on coordinates. Analogous administrative levels will be used for observations where these place types do not apply. The private_* fields will only be included when using the user filter and you are the user, or when using the project filter and you curate the project.

<input checked="" type="checkbox"/> place_guess	<input checked="" type="checkbox"/> latitude	<input checked="" type="checkbox"/> longitude	<input checked="" type="checkbox"/> positional_accuracy
<input checked="" type="checkbox"/> private_place_guess	<input checked="" type="checkbox"/> private_latitude	<input checked="" type="checkbox"/> private_longitude	<input checked="" type="checkbox"/> private_positional_accuracy
<input checked="" type="checkbox"/> geoprivacy	<input checked="" type="checkbox"/> taxon_geoprivacy	<input checked="" type="checkbox"/> coordinates_obsured	<input checked="" type="checkbox"/> positioning_method
<input checked="" type="checkbox"/> positioning_device	<input type="checkbox"/> place_town_name	<input type="checkbox"/> place_county_name	<input type="checkbox"/> place_state_name
<input type="checkbox"/> place_country_name	<input type="checkbox"/> place_admin1_name	<input type="checkbox"/> place_admin2_name	

Taxon (All | None)

<input checked="" type="checkbox"/> species_guess	<input checked="" type="checkbox"/> scientific_name	<input checked="" type="checkbox"/> common_name	<input checked="" type="checkbox"/> iconic_taxon_name
<input checked="" type="checkbox"/> taxon_id			

Taxon Extras (All | None)

Note: these columns will slow down the generation of your export

<input type="checkbox"/> taxon_kingdom_name	<input type="checkbox"/> taxon_phylum_name	<input type="checkbox"/> taxon_subphylum_name	<input type="checkbox"/> taxon_superclass_name
<input type="checkbox"/> taxon_class_name	<input type="checkbox"/> taxon_subclass_name	<input type="checkbox"/> taxon_superorder_name	<input type="checkbox"/> taxon_order_name
<input type="checkbox"/> taxon_suborder_name	<input type="checkbox"/> taxon_superfamily_name	<input type="checkbox"/> taxon_family_name	<input type="checkbox"/> taxon_subfamily_name
<input type="checkbox"/> taxon_supertribe_name	<input type="checkbox"/> taxon_tribe_name	<input type="checkbox"/> taxon_subtribe_name	<input checked="" type="checkbox"/> taxon_genus_name
<input type="checkbox"/> taxon_genushybrid_name	<input checked="" type="checkbox"/> taxon_species_name	<input type="checkbox"/> taxon_hybrid_name	<input type="checkbox"/> taxon_subspecies_name
<input type="checkbox"/> taxon_variety_name	<input type="checkbox"/> taxon_form_name		

Observation Fields (All | None)

<input checked="" type="checkbox"/> field:associatedcollectorsymbiota	<input type="checkbox"/> field:habitat (s Afr)	<input type="checkbox"/> field:habitatdwc	<input type="checkbox"/> field:identifiedbydwc
<input type="checkbox"/> field:institutioncodedwrc	<input type="checkbox"/> field:locality_notes	<input type="checkbox"/> field:localitydwc	<input checked="" type="checkbox"/> field:recordedbysymbiota
<input checked="" type="checkbox"/> field:recordnumberdwc	<input type="checkbox"/> field:verbatimelevationdwc		

4 Create export

Challenges:

1. Trivial formatting/import issues

Screenshot of Microsoft Excel showing the 'Text to Columns' wizard dialog box. A red arrow points from the 'Text to Columns' icon in the ribbon to the dialog box.

The dialog box is titled 'Convert Text to Columns Wizard - Step 1 of 3'. It states: 'The Text Wizard has determined that your data is Delimited.' It asks: 'Choose the file type that best describes your data:' with two options: 'Delimited' (selected) and 'Fixed width'. Below this, it says: 'Choose the separator that best describes your data:' with 'Comma' selected. A preview window shows the first seven rows of the data.

The data in the preview window is as follows:

O	P	Q	R	S
taxon_species_name	taxon_hybrid_name	taxon_subspecies_name	taxon_variety_name	field:associatedcollectorsymbiota
Ramonda serbica				
Campanula lingulata				
Scabiosa fumaroides				
common dogwood				
Clematis vitalba				

The main Excel worksheet contains the following data:

	K	L	M	N	O	P	Q	R	S	T
1	species_guess	scientific_name	taxon_id	taxon_genus_name	taxon_species_name	taxon_hybrid_name	taxon_subspecies_name	taxon_variety_name	field:associatedcollectorsymbiota	field:identifi
2	Ramonda serbica	Ramonda serbica	442891	Ramonda	Ramonda serbica					
3	Campanula lingulata	Campanula lingulata	465859	Campanula	Campanula lingulata					
4	Scabiosa fumaroides	Scabiosa fumaroides	471229	Scabiosa	Scabiosa fumaroides					
5	common dogwood	Cornus sanguinea	155124	Cornus	Cornus sanguinea					
6	Clematis vitalba	Clematis vitalba	160697	Clematis	Clematis vitalba					
7	Digitalis lanata	Digitalis lanata	147321	Digitalis	Digitalis lanata					
8	Eryngium campestre	Eryngium campestre	162699	Eryngium	Eryngium campestre					
9	Pyrus spinosa	Pyrus spinosa	335885	Pyrus	Pyrus spinosa					
10	common hawthorn	Crataegus monogyna	51147	Crataegus	Crataegus monogyna					
11	Fumana procumbens	Fumana procumbens	448090	Fumana	Fumana procumbens					
12	Malus sylvestris	Malus sylvestris	61223	Malus	Malus sylvestris					
13	Potentilla cinerea	Potentilla cinerea	544665	Potentilla	Potentilla cinerea					
14	apples	Malus	54500	Malus	Malus					
15	Scorpion Senna	Hippocrateis emerus	208964	Hippocrateis	Hippocrateis emerus					
16	Cornelian cherry	Cornus mas	55858	Cornus	Cornus mas					
17	Wild strawberry	Fragaria vesca	50298	Fragaria	Fragaria vesca					
18	Spleenwort	Asplenium trichomanes	75609	Asplenium	Asplenium trichomanes					
19	Parietaria lusitanica serbica	Parietaria lusitanica serbica	415198	Parietaria	Parietaria lusitanica					
20	Wayfaring-tree	Viburnum lantana	124741	Viburnum	Viburnum lantana					
21	Downy Woundwort	Stachys germanica	82898	Stachys	Stachys germanica					
22	Purple Gromwell	Aegonychon purpurocaeruleum	546520	Aegonychon	Aegonychon purpurocaeruleum					
23	Wild Service-tree	Sorbus torminalis	198879	Sorbus	Sorbus torminalis					
24	Hollyhock	Alcea rosea	62205	Alcea	Alcea rosea					
25	Ornithogalum pyramidale	Ornithogalum pyramidale	489989	Ornithogalum	Ornithogalum pyramidale					
26	Potentilla	Potentilla	53186	Potentilla	Potentilla					
27	Salad Burnet	Sanguisorba minor	55736	Sanguisorba	Sanguisorba minor					
28	Rose campion	Silene coronaria	485191	Silene	Silene coronaria					
29	Ironwort	Sideritis montana	168946	Sideritis	Sideritis montana					
30	Satureja kitaibelii	Satureja kitaibelii	909023	Satureja	Satureja kitaibelii					
31	Veronica austriaca jacquinii	Veronica austriaca jacquinii	738839	Veronica	Veronica austriaca					
32	Achillea clypeolata	Achillea clypeolata	465494	Achillea	Achillea clypeolata					
33	Small Yellow Onion	Allium flavum	367138	Allium	Allium flavum					
34	Blackthorn	Prunus spinosa	55811	Prunus	Prunus spinosa					
35	St Lucie Cherry	Prunus mahaleb	126808	Prunus	Prunus mahaleb					
36	Allium rubriflorum	Allium rubriflorum	931075	Allium	Allium rubriflorum					
37	Arum maculatum	Arum maculatum	61318	Arum	Arum maculatum					
38	Digitalis grandiflora	Digitalis grandiflora	125025	Digitalis	Digitalis grandiflora					
39	Dipsacus	Dipsacus	53030	Dipsacus	Dipsacus					

Challenges:

1. Trivial formatting/import issues
2. Non-trivial taxonomy conflicts/ambiguity

iNaturalist Explore Your Observations Community Identify More

Upload 0 0 0

Kingdom Plantae > ... Genus *Callitrichie* *Callitrichie brutia*

Callitrichie brutia (Pedunculate Water-Starwort)

TOP OBSERVER tiggrx Leaderboard 2

LAST OBSERVATION October 11, 2019 View Observation

TOP IDENTIFIER No Identifica...

TOTAL OBSERVATIONS 6 View All Yours

Seasonality History Plant Phenology

View More

Map About Taxonomy Status Similar Species Curation

Taxonomy Details

iNaturalist Explore Your Observations Community Identify More

Upload 0 0 0

Back to *Callitrichie brutia*

Taxonomy details for *Callitrichie brutia* (Pedunculate Water-Starwort) View taxon framework relationship

Covered by a taxon framework for Class Magnoliopsida Sourced to Plants of the World Online

Relationship: Match

Plants of the World Online iNaturalist

Species *Callitrichie brutia* (parent: Genus *Callitrichie*) Match Species *Callitrichie brutia* (parent: Genus *Callitrichie*)

Kewscience | Plants of the World online

Family: *Plantaginaceae* Juss. Genus: *Callitrichie* L.

Callitrichie brutia Petagna

This species is accepted, and its native range is Canary Islands, N. & W. Europe to Medit. and Iran.

Distribution Accepted Infraspecifics Other Data Bibliography Sources

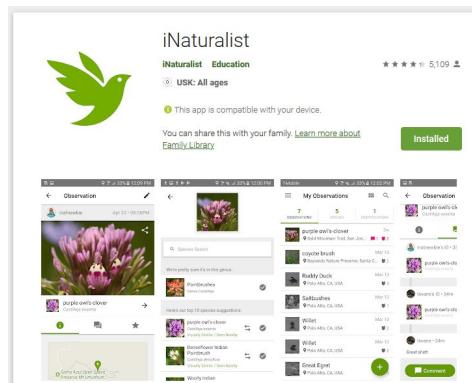
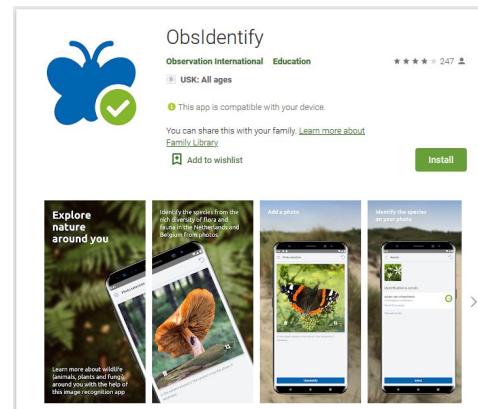
Distribution

KBD

Native Introduced

Discussion points:

1. Pros and cons of different platforms?



Heberling, J. M., & Isaac, B. L. 2018.
iNaturalist as a tool to expand the
research value of museum specimens.
Appl. Plant Sci., 6: e01193.
<https://doi.org/10.1002/aps3.1193>

Discussion points:

1. Pros and cons of different platforms?
2. Demand for IrisBG import tool(s)?

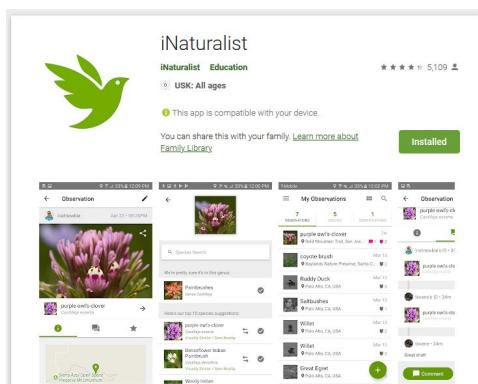
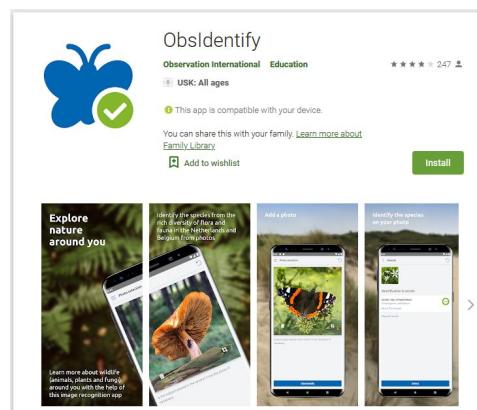
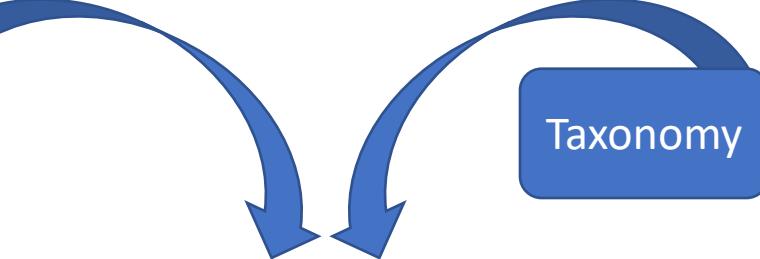
The diagram illustrates four popular mobile applications for plant identification, each with a screenshot of its interface and a green "Installed" button. A large blue curved arrow points from the top right towards the IrisBG logo.

- PlantNet Plant Identification**
plantnet-project.org Education
USK: All ages
4 stars 131,563 reviews
This app is compatible with your device.
You can share this with your family. Learn more about Family Library.
Installed
- Flora Incognita - automated plant identification**
Technische Universität Ilmenau Education
USK: All ages
4 stars 9,151 reviews
This app is compatible with your device.
You can share this with your family. Learn more about Family Library.
Add to wishlist
- ObsIdentify**
Observation International Education
USK: All ages
4 stars 247 reviews
This app is compatible with your device.
You can share this with your family. Learn more about Family Library.
Add to wishlist
- iNaturalist**
iNaturalist Education
USK: All ages
4 stars 5,109 reviews
This app is compatible with your device.
You can share this with your family. Learn more about Family Library.
Installed

IrisBG - Collection Management

Discussion points:

1. Pros and cons of different platforms?
2. Demand for IrisBG import tool(s)?
3. Protocols for incorporating new names?

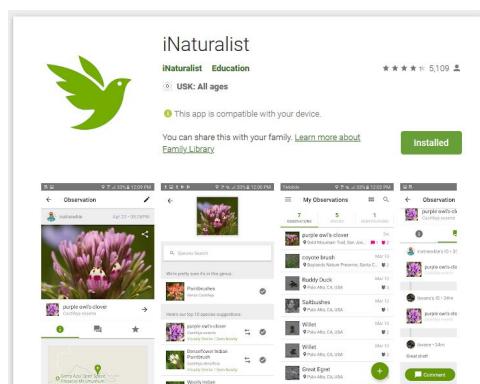
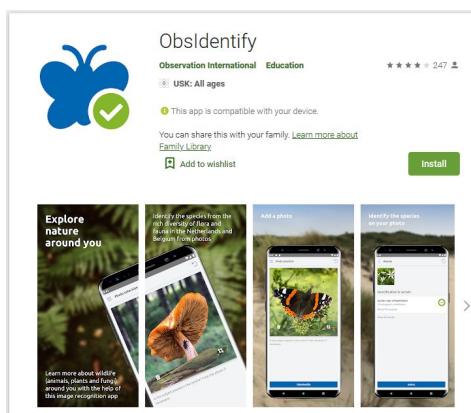


Discussion points:

1. Pros and cons of different platforms?
2. Demand for IrisBG import tool(s)?
3. Protocols for incorporating new names?
4. Need for a common taxonomy database?



IrisBG - Collection Management



Catalogue of Life

