Cleveland Metroparks Documentation

Release 1.0

Geosolutions S.A.S.

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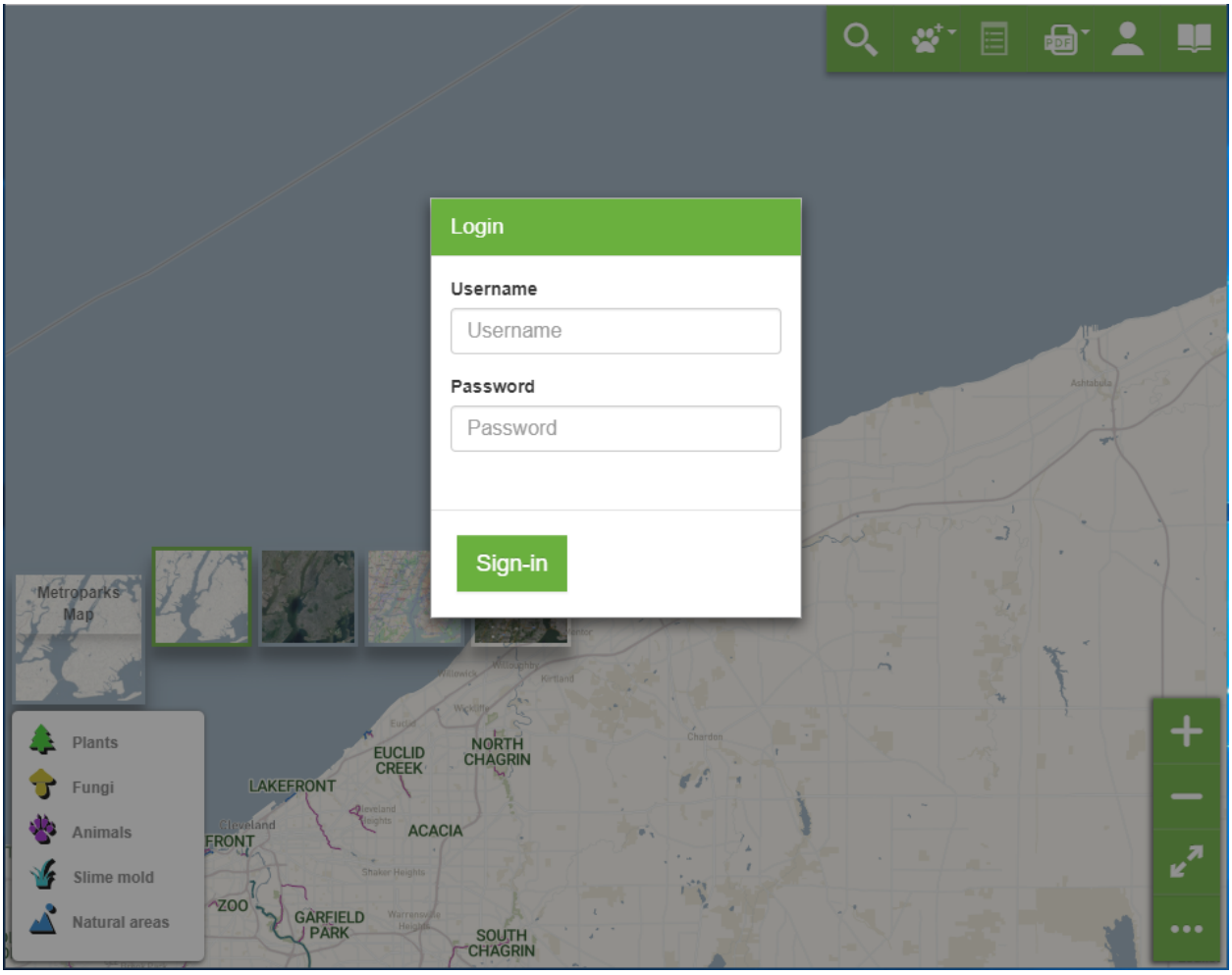
CHAPTER 1

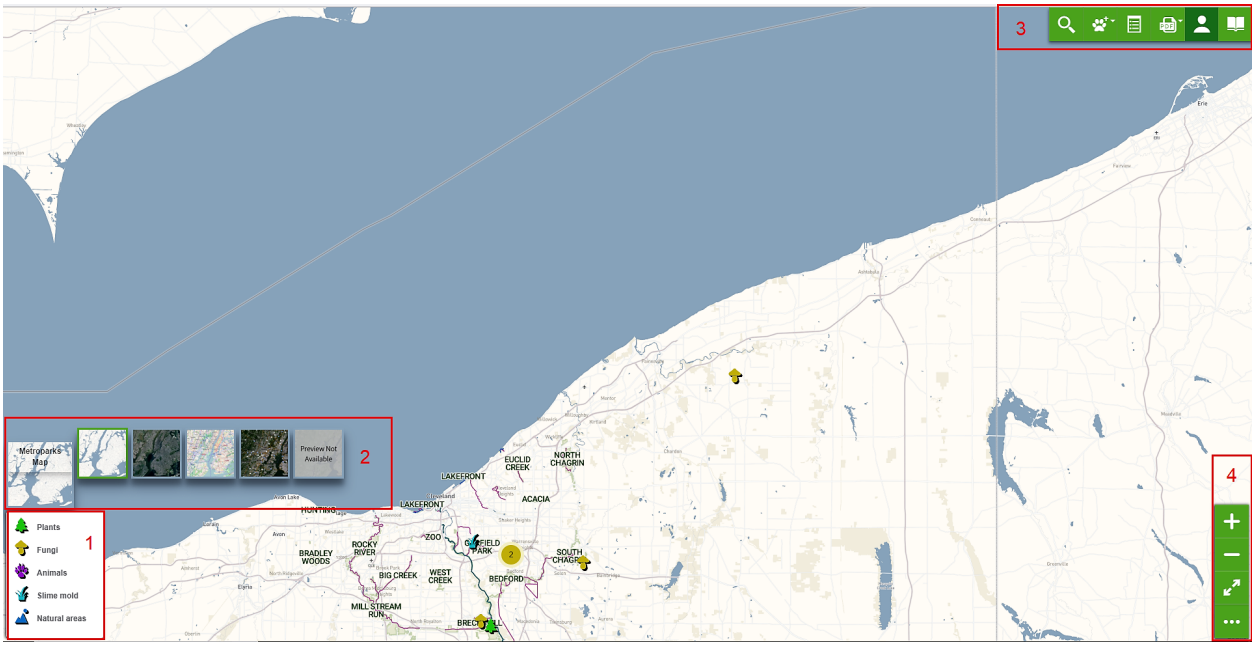
Portal Interface Overview

Since the portal is private you will be asked to log in when you open for the first time the web portal or the mobile application.

Insert your *Username* and *Password* provided by the administrator. After logging in, the data frame will be unlocked and you will be able to navigate and explore the map.

1. On the bottom left, you can find a legend of the features.
2. Above the legend, there is a map thumbnail that allows you to switch between several basemaps such as topographic or aerial basemaps.
3. On the top right, you can find the top toolbar where you can search, add, edit a feature and create reports. The top toolbar represents the core of the portal and will be explained in detail in the last section.
4. On the bottom right, you can find a side toolbar that allows you to control the map zooming.


Login
Username
Username
Password
Password
Sign-in
Metroparks Map
Plants
Fungi
Animals
Slime mold
Natural areas
EUCLID CREEK
NORTH CHAGRIN
LAKEFRONT
ACACIA
ZOO
GARFIELD PARK
SOUTH CHAGRIN


1
2
3
4
Metroparks Map
Preview Not Available
Plants
Fungi
Animals
Slime mold
Natural areas

CHAPTER 2

Managing Permissions and Roles

The authentication and the authorization services are based on **LDAP** (Lightweight Directory Access Protocol). LDAP is an industry standard application for accessing and maintaining distributed directory information services over an Internet Protocol network. It plays the role as a central place to store usernames and passwords which allows many different applications and services to connect to the LDAP server to validate users.

2.1 Authentication

The Cleveland Metroparks LDAP Server tree is implemented as in the figure below:

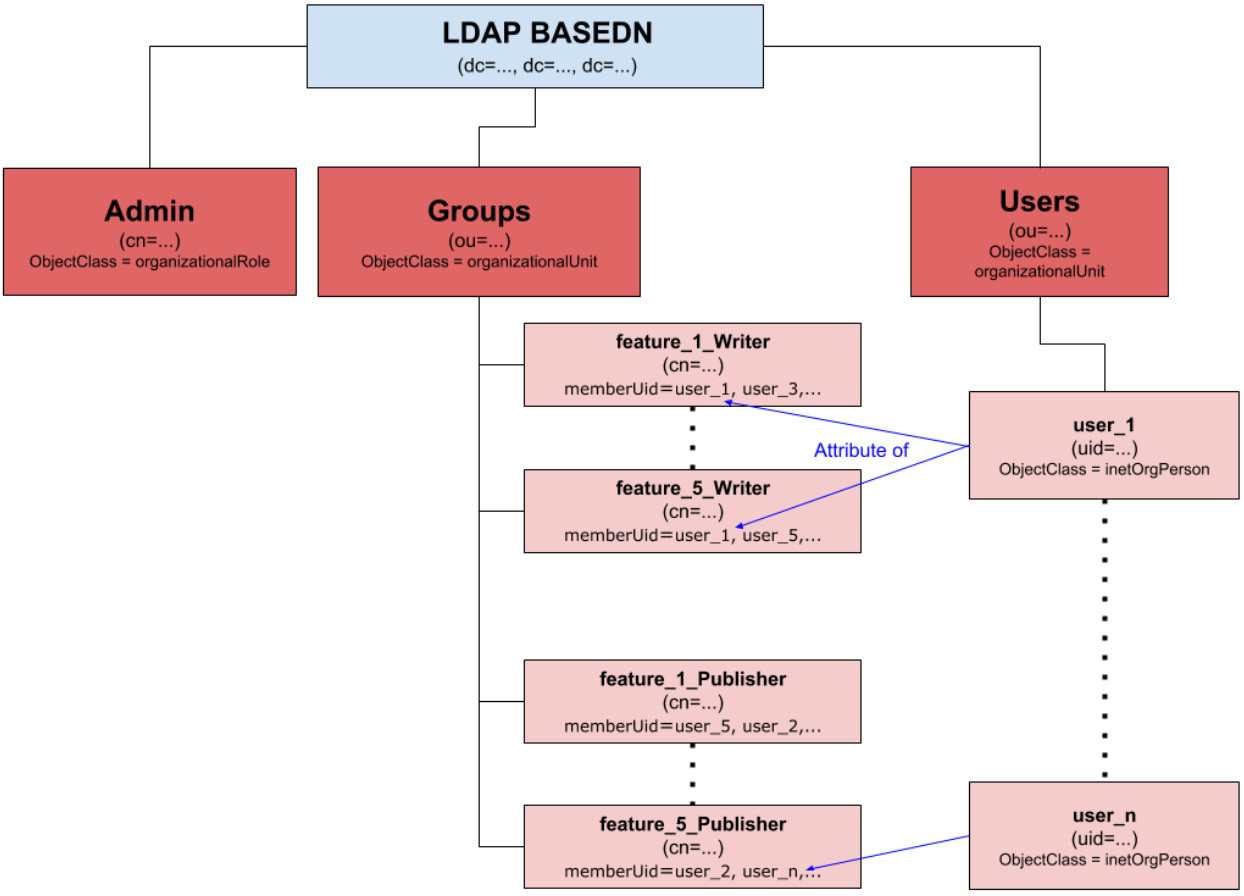
In the figure above, assigning the user *uid* as an attribute in the *memberUid* field of a certain group, the user will make part automatically of that group. Moreover, it will be authenticated to compute some operations according to its role. Anonymous users can not access any of the NFD data.

```
AUTH_LDAP_SERVER_URI = "ldap://localhost:389"


"""
Configuration for OpenLDAP
"""
AUTH_LDAP_BIND_DN = "cn=admin,dc=nfd,dc=geo-solutions,dc=it"
AUTH_LDAP_BIND_PASSWORD = "1geosolutions2"
AUTH_LDAP_USER_SEARCH = LDAPSearch("dc=nfd,dc=geo-solutions,dc=it",
    ldap.SCOPE_SUBTREE, "(uid=%(user)s)")


AUTH_LDAP_GROUP_SEARCH = LDAPSearch("ou=groups,dc=nfd,dc=geo-solutions,dc=it
↪",
    ldap.SCOPE_SUBTREE
)
AUTH_LDAP_GROUP_TYPE = PosixGroupType()
```

(continues on next page)


LDAP BASEDN
(dc=..., dc=..., dc=...)
Admin
(cn=...)
ObjectClass = organizationalRole
Groups
(ou=...)
ObjectClass = organizationalUnit
Users
(ou=...)
ObjectClass = organizationalUnit
feature_1_Writer
(cn=...)
memberUid=user_1, user_3,...
feature_5_Writer
(cn=...)
memberUid=user_1, user_5,...
Attribute of
user_1
(uid=...)
ObjectClass = inetOrgPerson
feature_1_Publisher
(cn=...)
memberUid=user_5, user_2,...
feature_5_Publisher
(cn=...)
memberUid=user_2, user_n,...
user_n
(uid=...)
ObjectClass = inetOrgPerson

(continued from previous page)

```
AUTH_LDAP_FIND_GROUP_PERMS = True
AUTH_LDAP_CACHE_GROUPS = True
AUTH_LDAP_GROUP_CACHE_TIMEOUT = 300
AUTH_LDAP_MIRROR_GROUPS = True

AUTH_LDAP_USER_FLAGS_BY_GROUP = {
    "is_staff": "cn=nfdadmins,ou=groups,dc=nfd,dc=geo-solutions,dc=it",
    "is_superuser": "cn=nfdadmins,ou=groups,dc=nfd,dc=geo-solutions,dc=it",
    "is_plant_writer": "cn=plant_writer,ou=groups,dc=nfd,dc=geo-solutions,
↪dc=it",
    "is_plant_publisher": "cn=plant_publisher,ou=groups,dc=nfd,dc=geo-
↪solutions,dc=it",
    "is_animal_writer": "cn=animal_writer,ou=groups,dc=nfd,dc=geo-solutions,
↪dc=it",
    "is_animal_publisher": "cn=animal_publisher,ou=groups,dc=nfd,dc=geo-
↪solutions,dc=it",
    "is_slimemold_writer": "cn=slimemold_writer,ou=groups,dc=nfd,dc=geo-
↪solutions,dc=it",
    "is_slimemold_publisher": "cn=slimemold_publisher,ou=groups,dc=nfd,
↪dc=geo-solutions,dc=it",
    "is_fungus_writer": "cn=fungus_writer,ou=groups,dc=nfd,dc=geo-solutions,
↪dc=it",
    "is_fungus_publisher": "cn=fungus_publisher,ou=groups,dc=nfd,dc=geo-
↪solutions,dc=it",
    "is_naturalarea_writer": "cn=naturalarea_writer,ou=groups,dc=nfd,dc=geo-
↪solutions,dc=it",
    "is_naturalarea_publisher": "cn=naturalarea_publisher,ou=groups,dc=nfd,
↪dc=geo-solutions,dc=it"
}

AUTH_LDAP_USER_ATTR_MAP = {
    "first_name": "cn",
    "last_name": "sn",
    "email": "mail"
}
```

2.2 Authorization

2.2.1 Groups and Roles

The existing features in the portal are **Animals**, **Plants**, **Fungi**, **Slime mold**, and **Natural areas**. Each feature has two corresponding groups on LDAP tree **Feature_Writer** and **Feature_Publisher** (e.g. **Animals_Writer** and **Animals_Publisher**).

Feature_Writer members are allowed to **add** new features belonging to that group, which will be saved but **not published** by default. They are allowed to **edit** their own features and to **edit** features added by other members belonging to that group. Modifying an existing feature will create automatically a **new version** of that feature and will automatically **unpublish** it.

Note: Unpublished features won't be visible to other users not belonging to that group.

Feature_Publisher members can **view** all the features belonging to that group and accordingly if unpublished they can **publish** it. This allows other authenticated users to access them (beyond the author and the rest of members of the **Feature_Writer** or **Feature_Publisher**).

Note: Only **published** features are visible (in READ only mode) to authenticated users not belonging to any of the above groups for the specific feature.

A user can be a member of both, just one or none of the above groups for each feature.

CHAPTER 3

Data Management Workflow

This section will guide you through a workflow on how to manage data. In addition, it will allow you to understand concretely the groups and users roles introduced in the previous section.

Let us start with a concrete example to understand better the workflow.

Remember that:

- a writer can view, add, and edit features of the corresponding group;
- a publisher can view and publish features of the corresponding group.

Suppose that the team consists of three members:

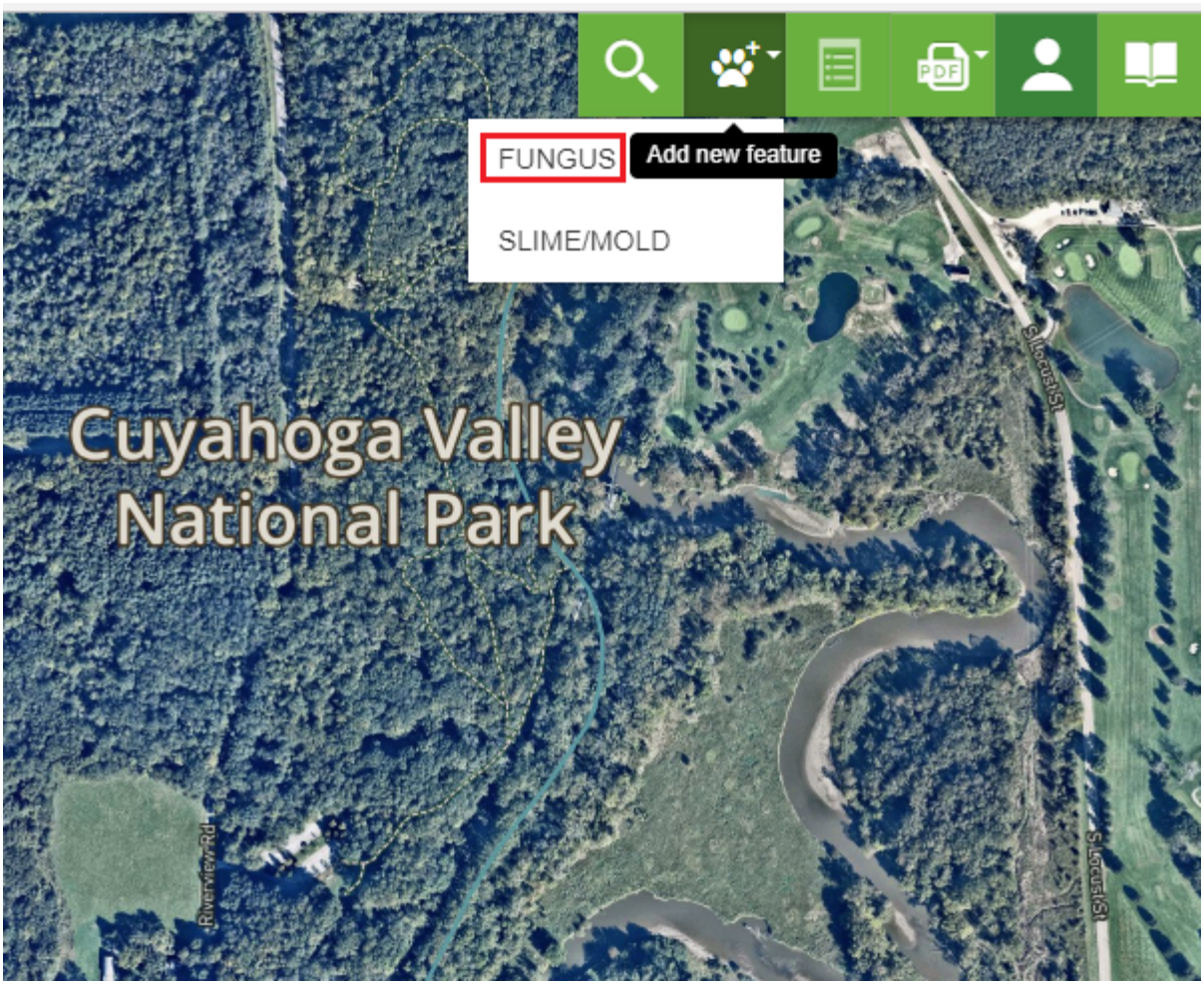
- user_001: belongs to **Fungus_Writer** group.
- user_002: belongs to **Animal_Writer**, **Plant_Writer**, **Fungus_Publisher** groups.
- user_003: belongs to **Animal_Publisher**, **Plant_Publisher** groups.

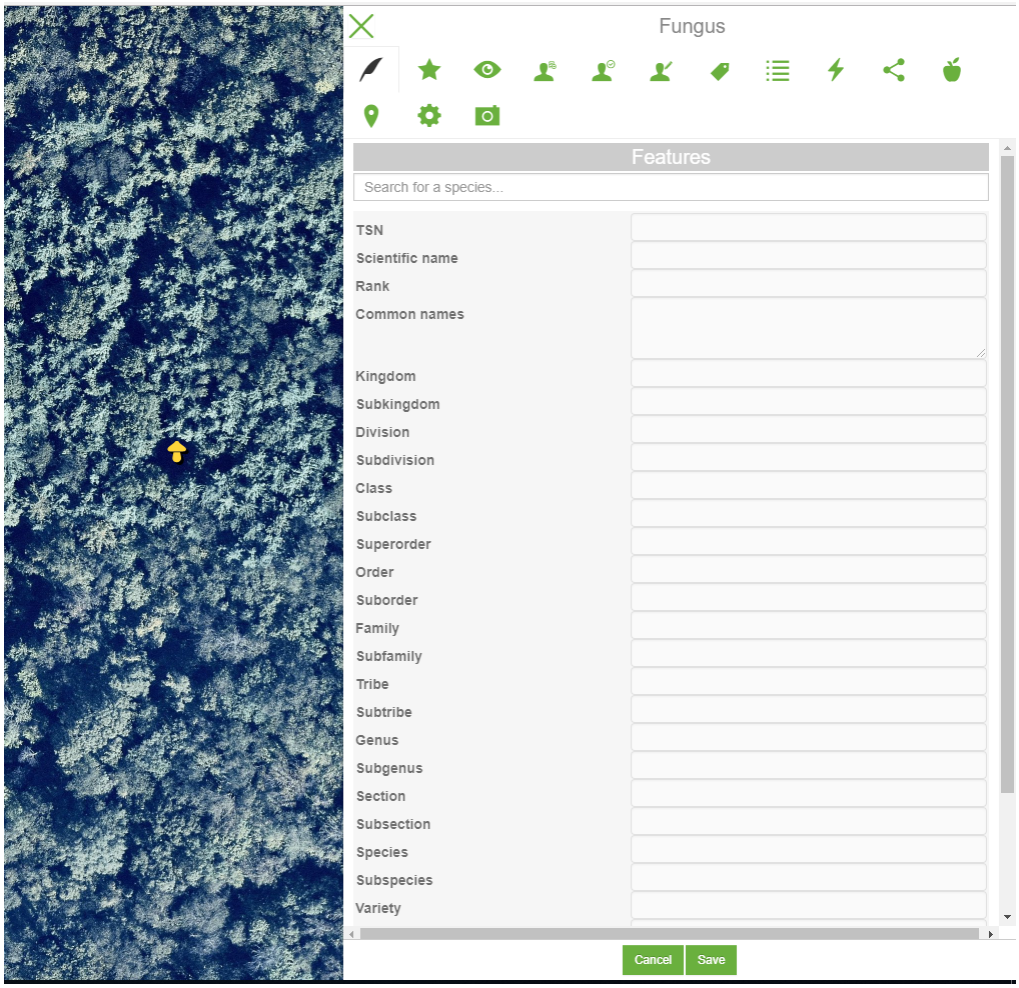
3.1 Adding Features

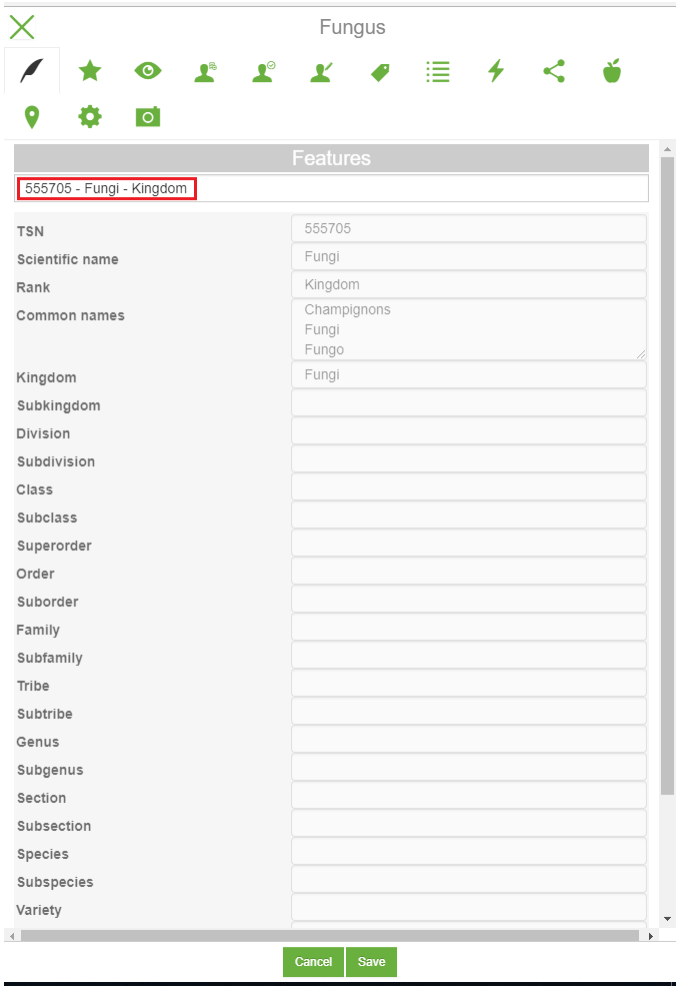
Walking around the Cuyahoga Valley National Park and equipped by a Tablet-GPS, *user_001* detects a Fungus specie. In order to register the observation, he will:

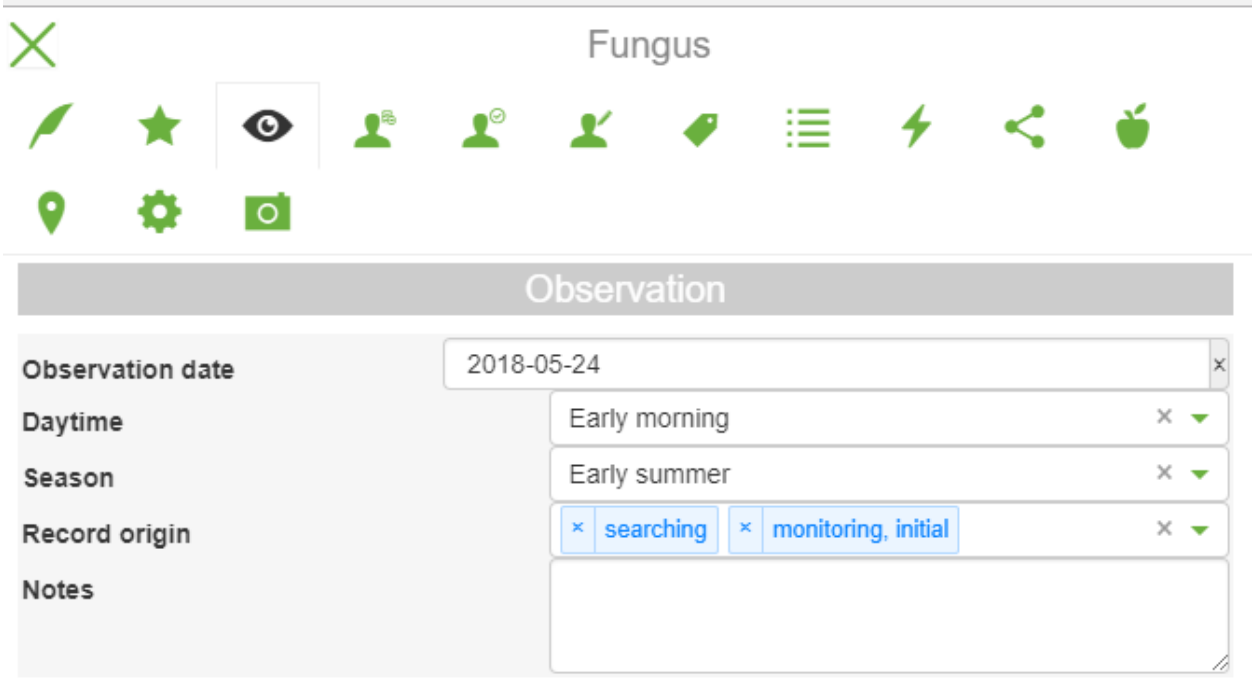
1. **Log in** in the portal. From the top toolbar, **Click** on the *Add new feature* list menu then on *Fungus*.
2. **Place** the marker on the map. A form will open automatically.
3. The first page is **required** and contains informations about the specie and must be filled by searching the specie from the *Search* bar. Since *user_001* is not an expert, will **Search** the kingdom *Fungi* then **Click** on it. All the field till the Kingdom field will be extracted and filled automatically from the database. The second page contains further informations on the element status.

4. On the third page, **Fill** the *Observation* date and time.

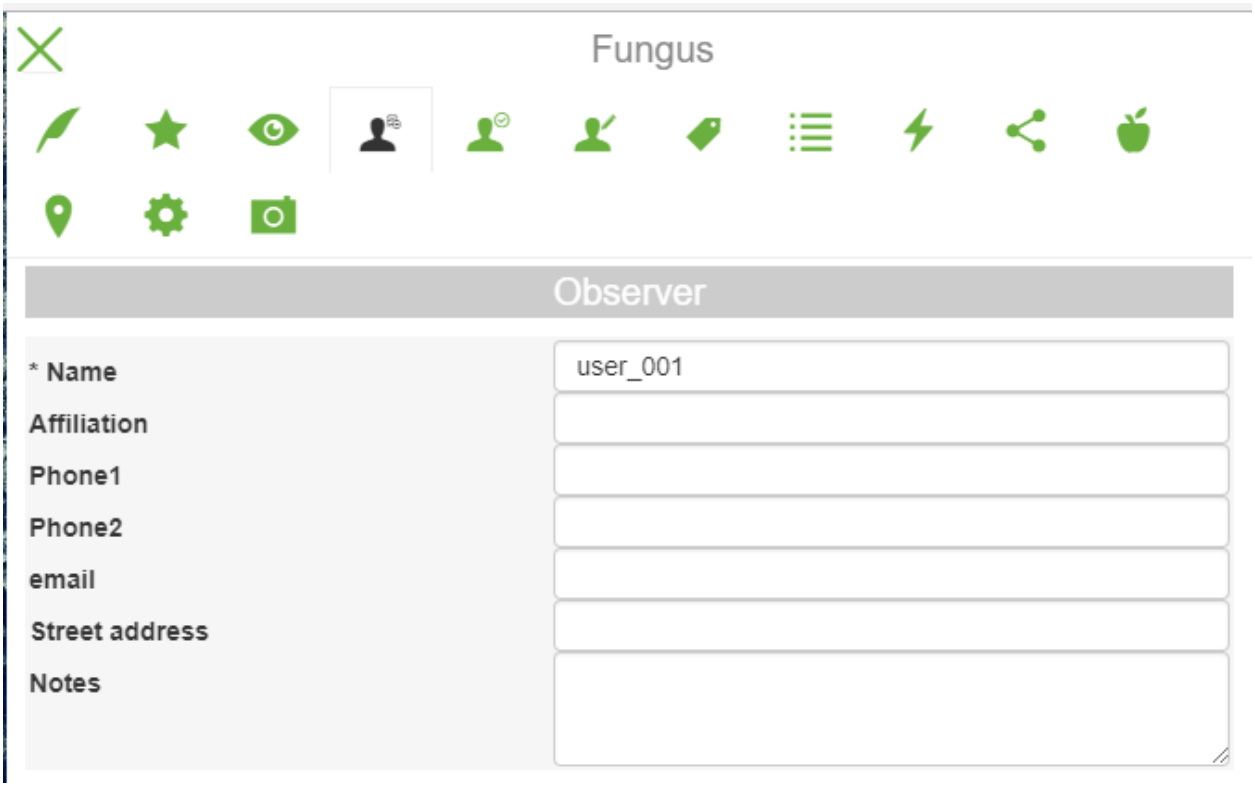

FUNGUS
Add new feature
SLIME/MOLD
Cuyahoga Valley
National Park
Riverview Rd
S Locust St
S Locust St


Fungus
Features
Search for a species...
TSN
Scientific name
Rank
Common names
Kingdom
Subkingdom
Division
Subdivision
Class
Subclass
Superorder
Order
Suborder
Family
Subfamily
Tribe
Subtribe
Genus
Subgenus
Section
Subsection
Species
Subspecies
Variety
Cancel
Save


Fungus
Features
555705 - Fungi - Kingdom
TSN
555705
Scientific name
Fungi
Rank
Kingdom
Common names
Champignons
Fungi
Fungo
Kingdom
Fungi
Subkingdom
Division
Subdivision
Class
Subclass
Superorder
Order
Suborder
Family
Subfamily
Tribe
Subtribe
Genus
Subgenus
Section
Subsection
Species
Subspecies
Variety
Cancel
Save


Fungus
Observation
Observation date
2018-05-24
Daytime
Early morning
Season
Early summer
Record origin
searching
monitoring, initial
Notes

5. The *Observer* page is **required** and contains the personal details of the observer. The next page is reserved to the verifier and will be treated later.



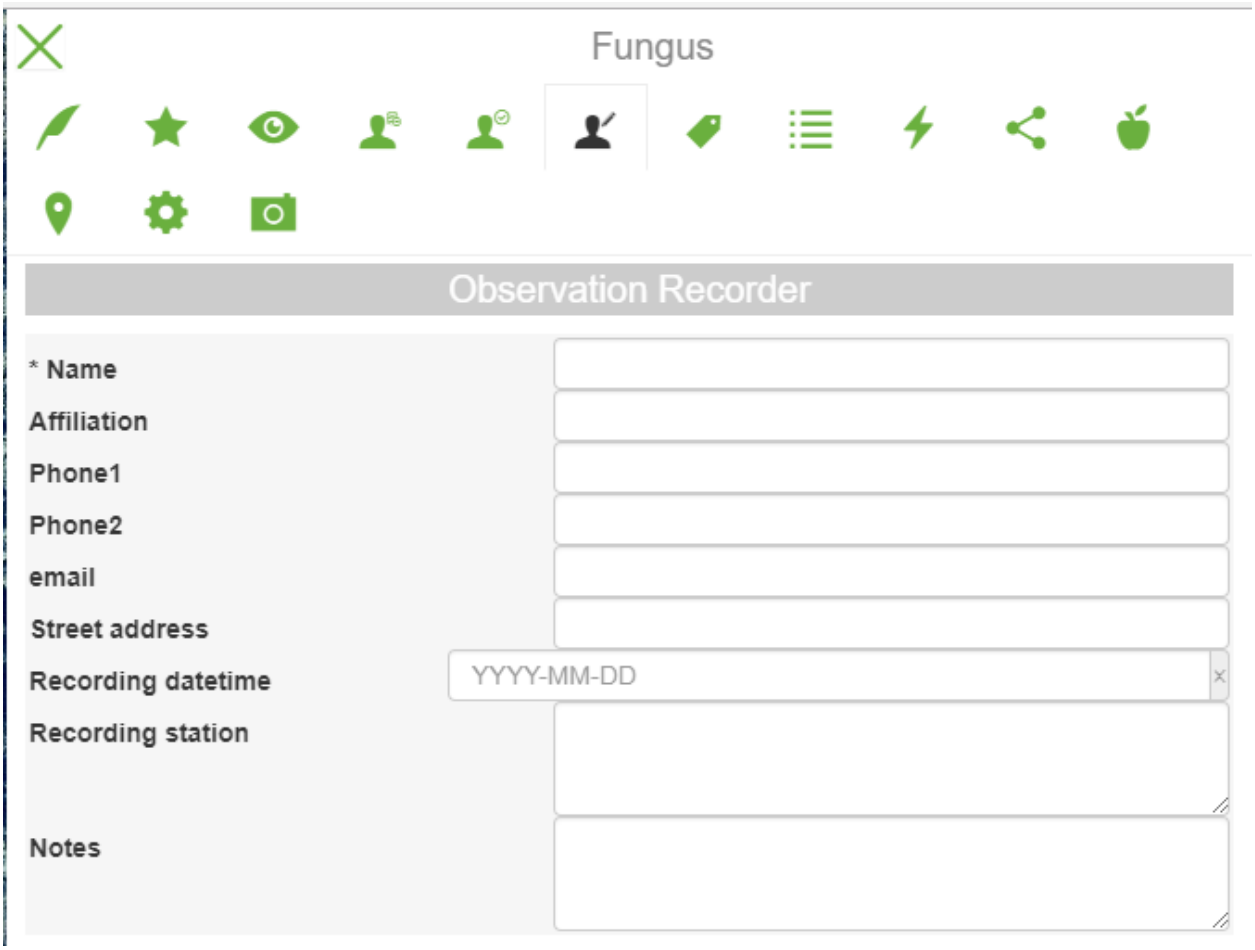
6. The *Observation Recorder* page should be filled by the observer indicating if he used a *Recording station* for example. The next five pages contain detailed informations about the status of the observation and the surrounding environment, you can check them by yourself.

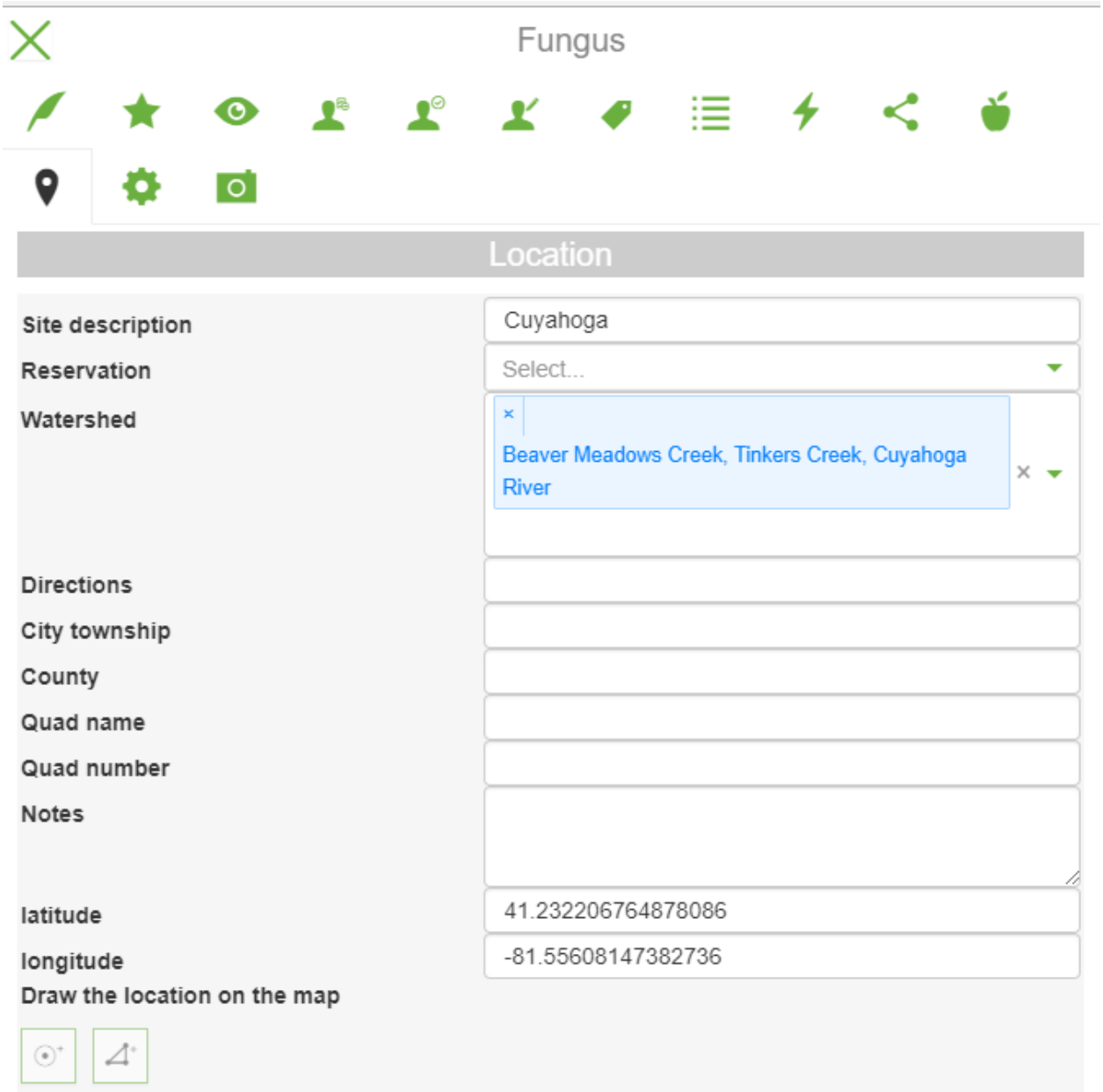
7. **Fill** the *Location* by providing the site name and other informations.
8. The management page allows to verify the feature and if a publisher to released it. It will be treated in the sequel.
9. On the last page, **Upload** an image of the observation.
10. **Click** on *Save* to save the observation.

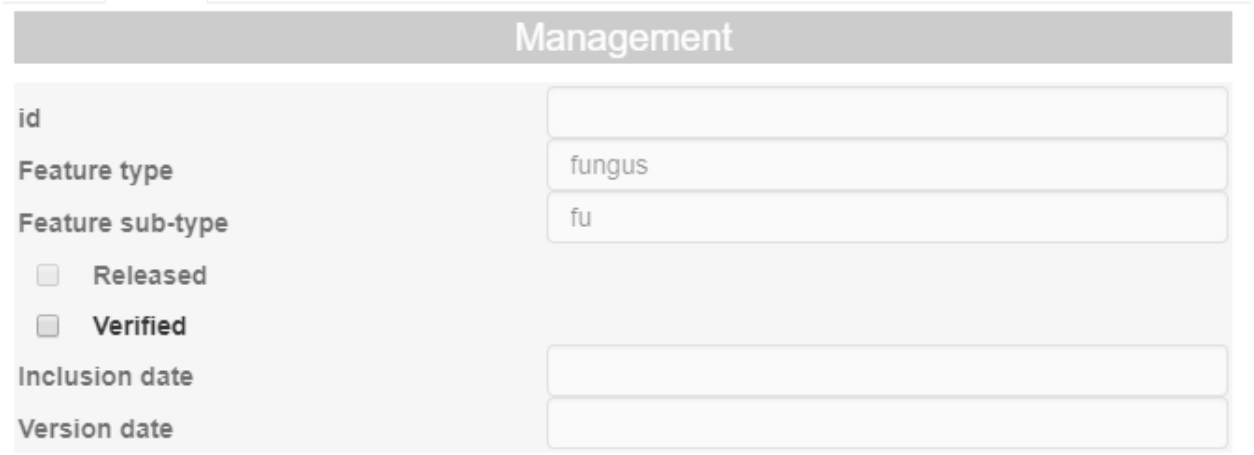
3.2 Editing Features

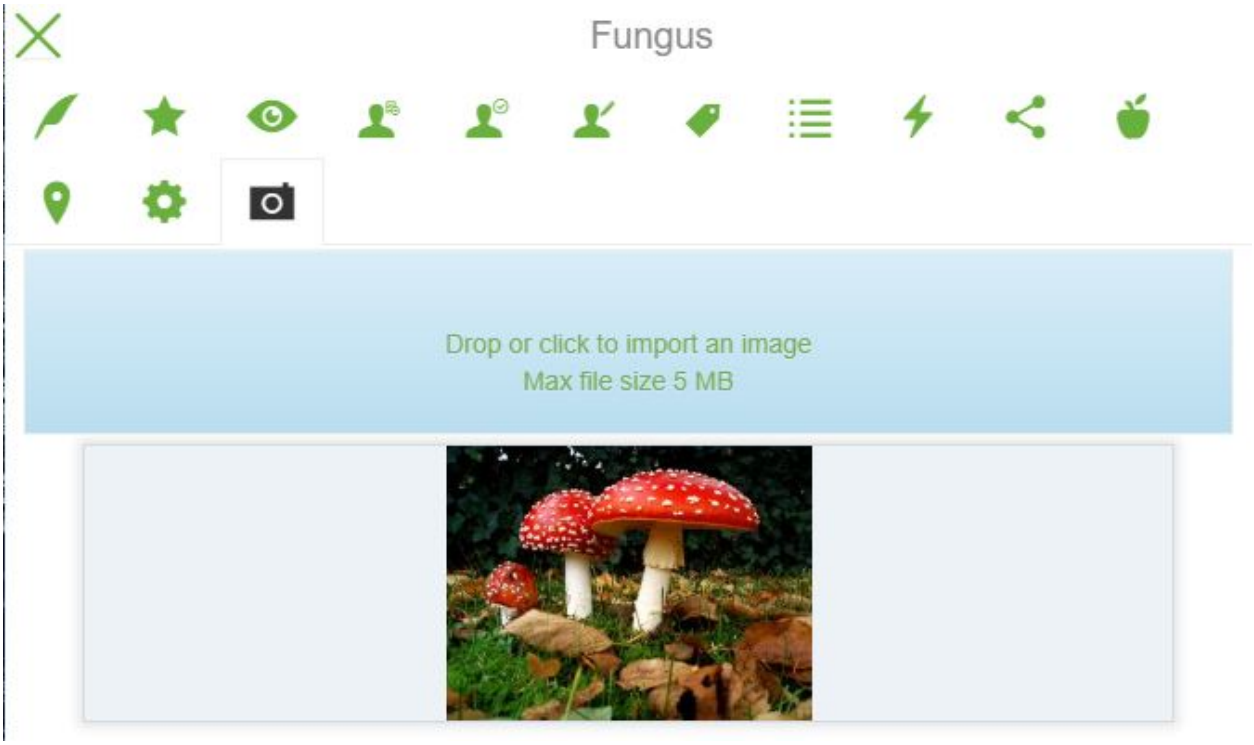
Once at the office, *user_001* shows the details and the image of the observation to an expert (Verifier) and the latter provided him with further detailed informations. From his desktop, he will:

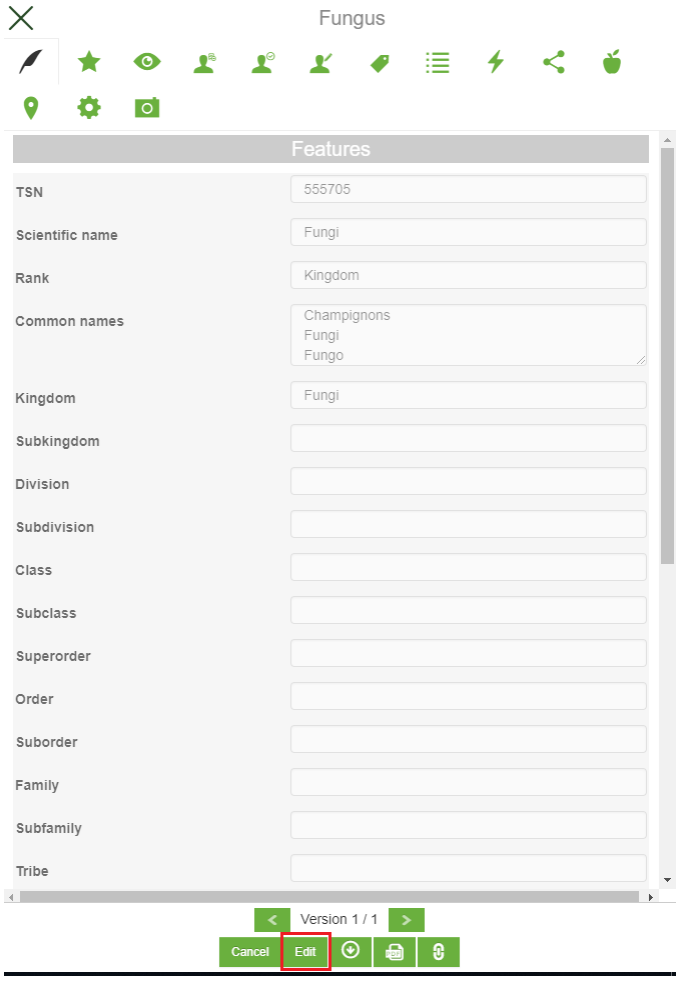
1. **Log in** then **Click** on the *Marker*. The info page will open. **Click** on *Edit*.
2. On the first page, **Search** from the database the *Family* name provided by the verifier then **Add** it.
3. **Navigate** to the *Observation Verifier* and **Fill** the form.
4. After that, *user_001* decides to edit the location since it is not accurate due to bad signals of the GPS for example. **Navigate** to the *Location* page then **Use** one of the tools at the bottom to move the marker or to draw an polygon to delimit the area.

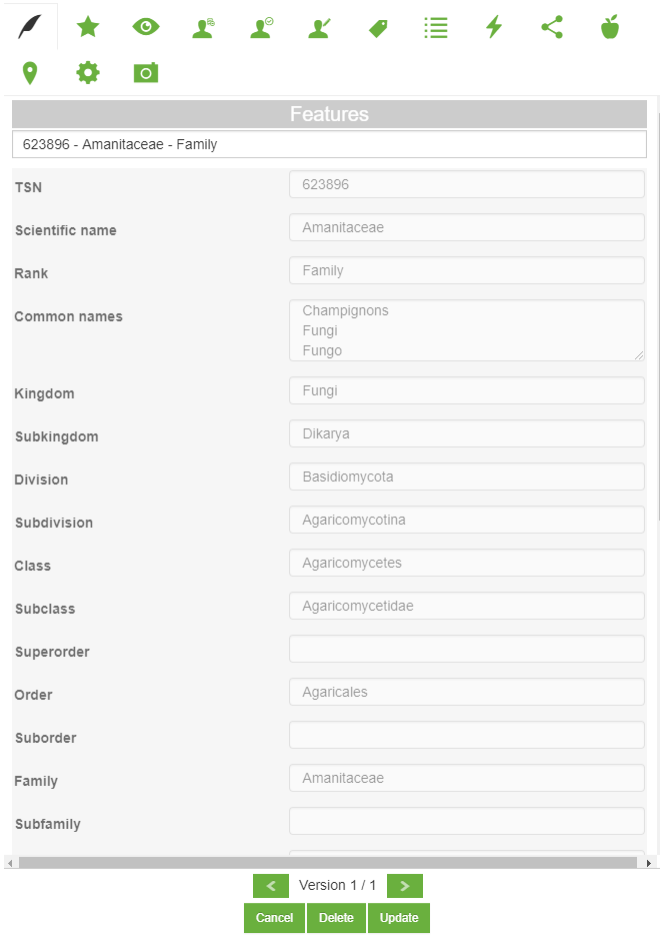

Fungus
Observation Recorder
* Name
Affiliation
Phone1
Phone2
email
Street address
Recording datetime
YYYY-MM-DD
Recording station
Notes

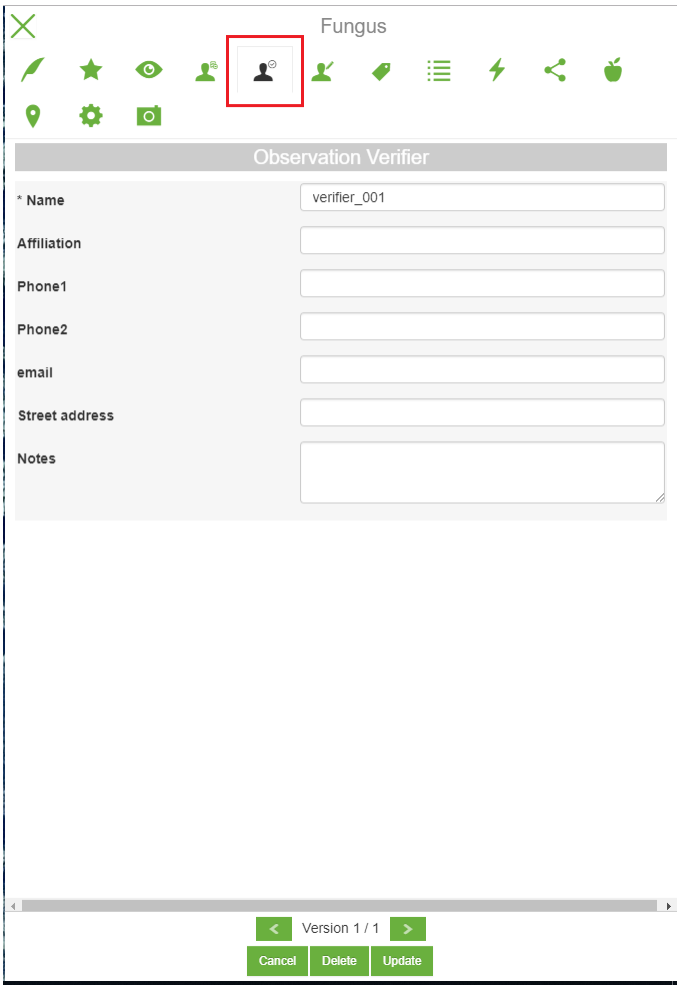

Fungus
Location
Site description
Cuyahoga
Reservation
Select...
Watershed
Beaver Meadows Creek, Tinkers Creek, Cuyahoga River
Directions
City township
County
Quad name
Quad number
Notes
latitude
41.232206764878086
longitude
-81.55608147382736
Draw the location on the map

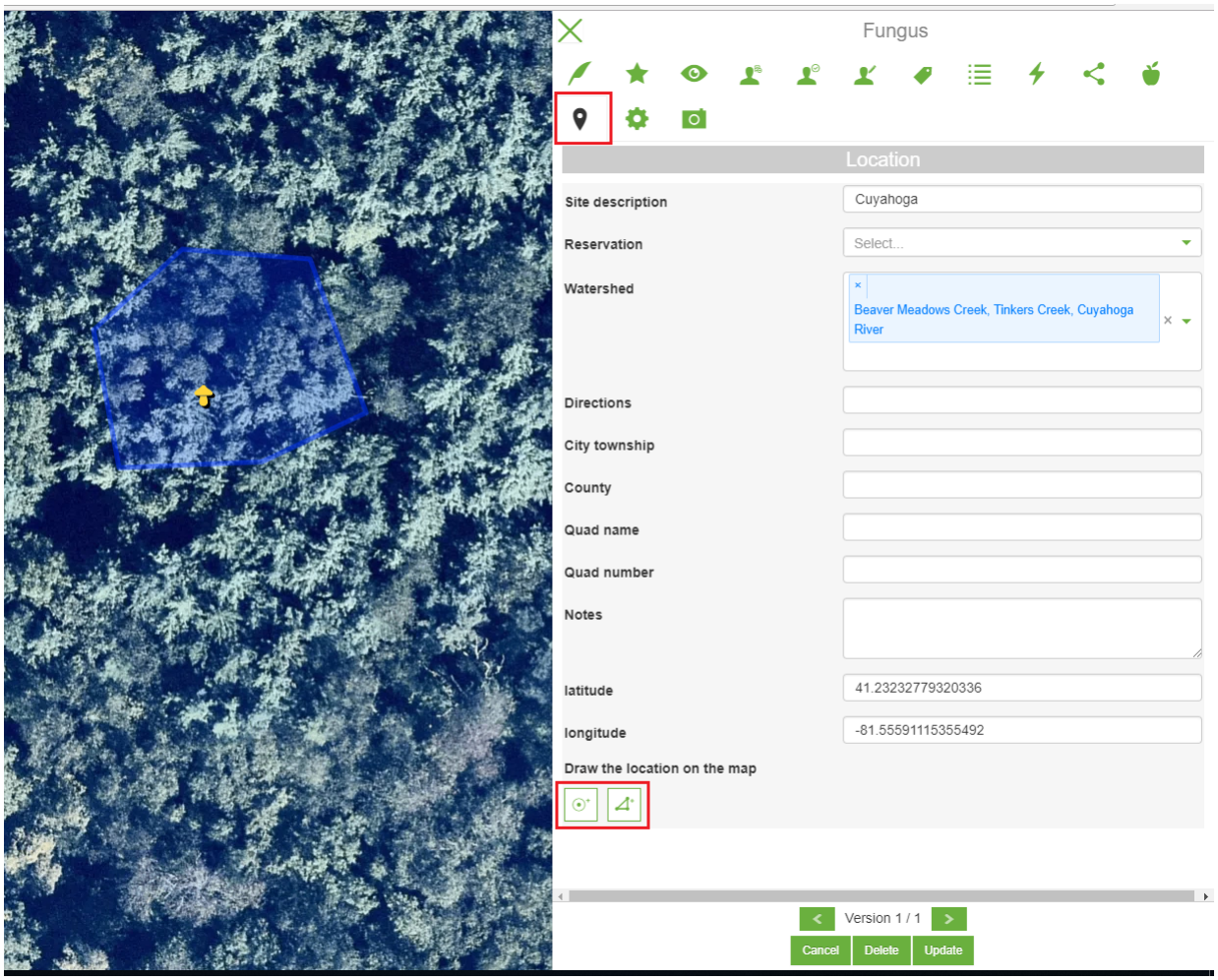

Management
id
Feature type
fungus
Feature sub-type
fu
Released
Verified
Inclusion date
Version date


Fungus
Drop or click to import an image
Max file size 5 MB

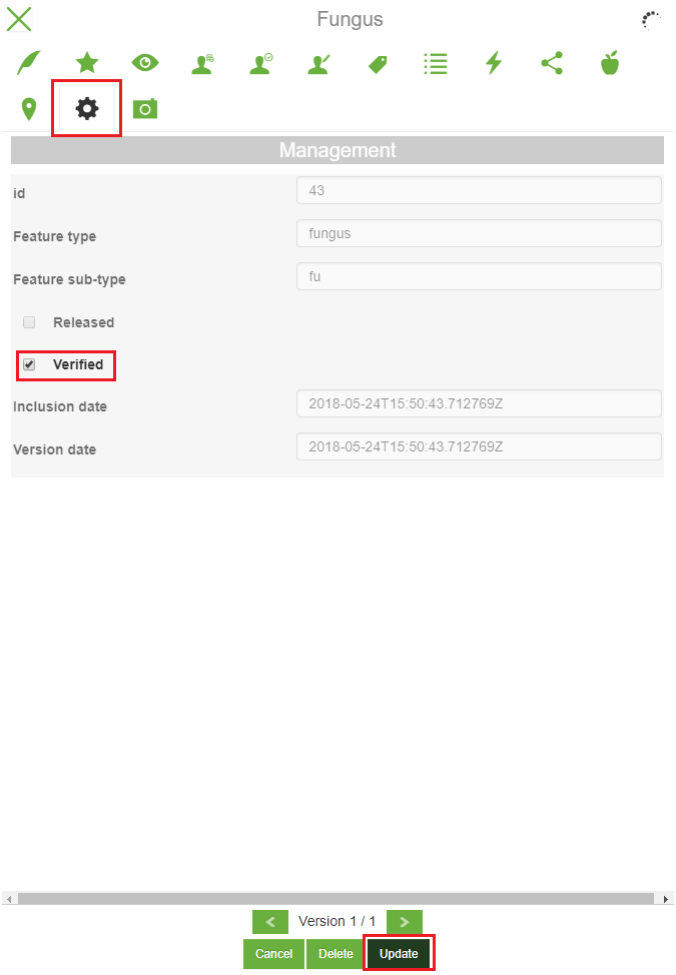

Fungus
Features
TSN
555705
Scientific name
Fungi
Rank
Kingdom
Common names
Champignons
Fungi
Fungo
Kingdom
Fungi
Subkingdom
Division
Subdivision
Class
Subclass
Superorder
Order
Suborder
Family
Subfamily
Tribe
Version 1 / 1
Cancel
Edit


Features
623896 - Amanitaceae - Family
TSN
623896
Scientific name
Amanitaceae
Rank
Family
Common names
Champignons
Fungi
Fungo
Kingdom
Fungi
Subkingdom
Dikarya
Division
Basidiomycota
Subdivision
Agaricomycotina
Class
Agaricomycetes
Subclass
Agaricomycetidae
Superorder
Order
Agaricales
Suborder
Family
Amanitaceae
Subfamily
Version 1 / 1
Cancel
Delete
Update


Fungus
Observation Verifier
* Name
verifier_001
Affiliation
Phone1
Phone2
email
Street address
Notes
Version 1 / 1
Cancel
Delete
Update


Fungus
Location
Site description
Cuyahoga
Reservation
Select...
Watershed
Beaver Meadows Creek, Tinkers Creek, Cuyahoga River
Directions
City township
County
Quad name
Quad number
Notes
latitude
41.23232779320336
longitude
-81.55591115355492
Draw the location on the map
Version 1 / 1
Cancel
Delete
Update

5. Now that the feature is verified. **Navigate** the *Management* page then **Check** the *Verified* box then **Update**.

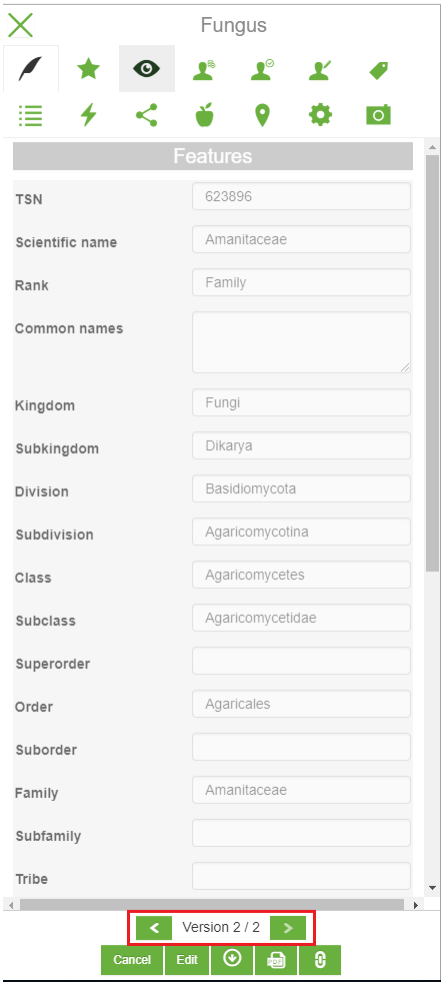


6. At this point, after an editing session a new **version** will be created but still unpublished.
7. Finally, he will be also able to **Save** a *Permalink* to the clipboard corresponding to the current stage of the feature.
8. Now, *user_003* belongs to other category groups (different from the Fungus category), if logged in will not see the fungus added by *user_001* since it is not published yet.

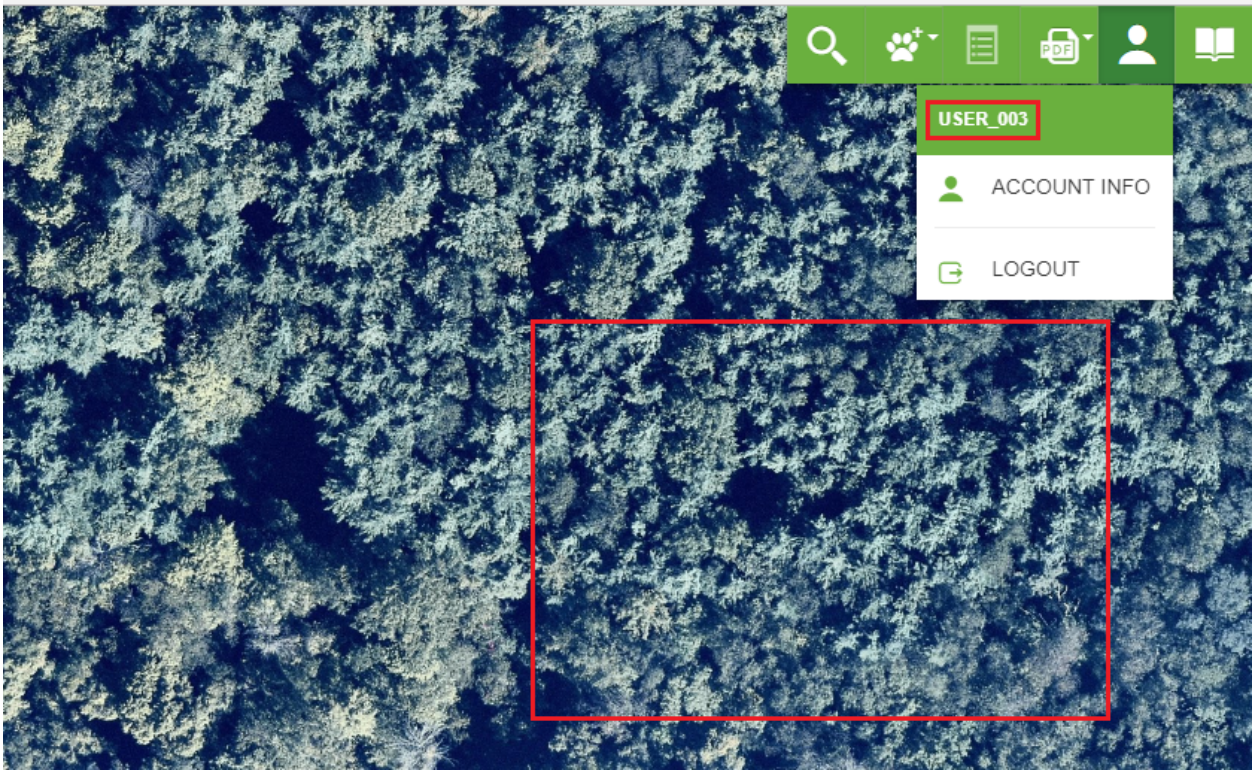
3.3 Publishing Features

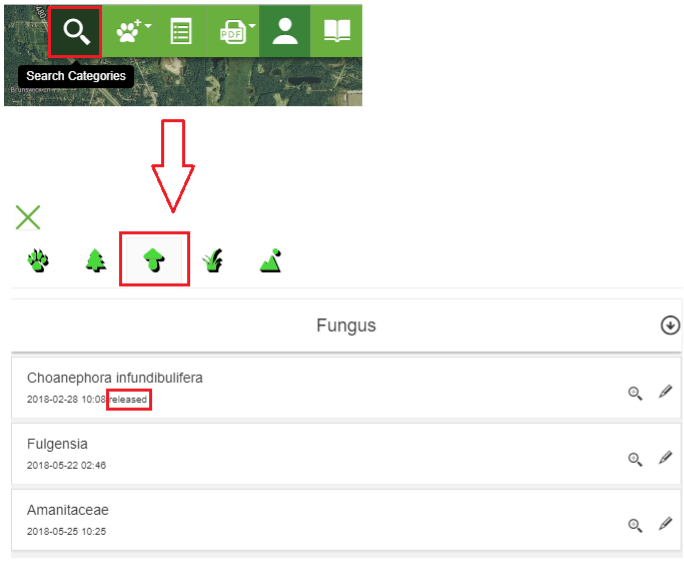
User_002 is a **Fungus_Publisher**. He decided to check new updates in the portal and log in with his account. Then he will:

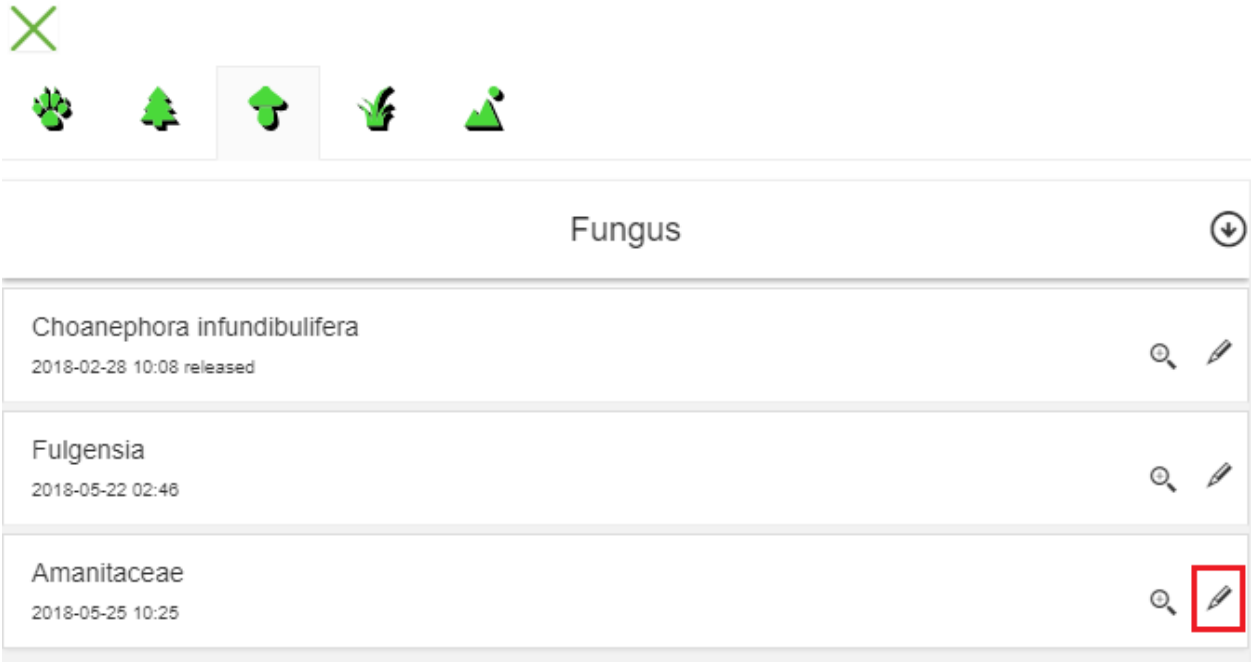
1. **Click** the **Search** button from the top toolbar. **Click** the *Fungus* category. A list of fungus features will be shown. He will be able to distinguish the unpublished from the published features having the *released* note.
2. **Click** on the pencil icon to edit it.
3. **Click** on *Edit* then **Navigate** to *Management* page.


Fungus
Features
TSN
623896
Scientific name
Amanitaceae
Rank
Family
Common names
Kingdom
Fungi
Subkingdom
Dikarya
Division
Basidiomycota
Subdivision
Agaricomycotina
Class
Agaricomycetes
Subclass
Agaricomycetidae
Superorder
Order
Agaricales
Suborder
Family
Amanitaceae
Subfamily
Tribe
Version 2 / 2
Cancel
Edit

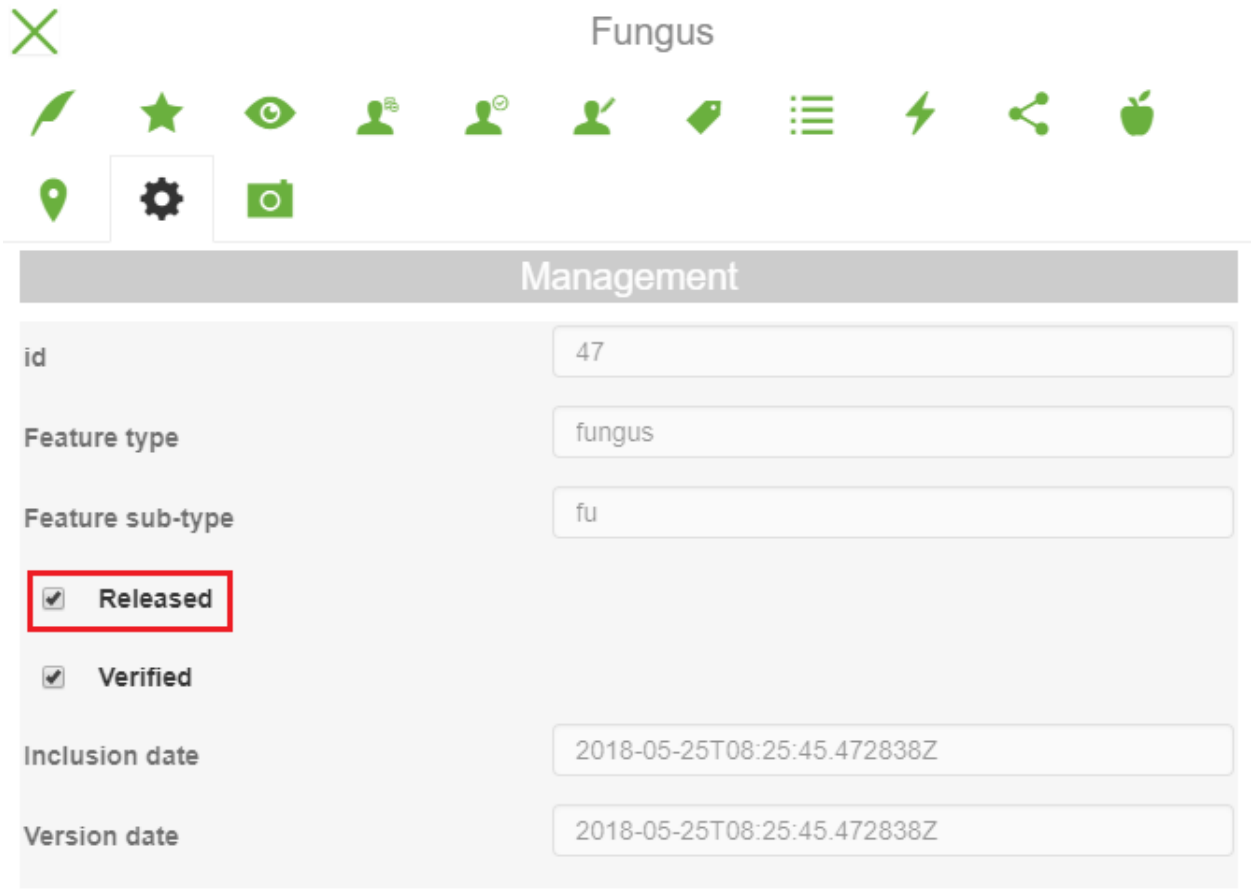
Cancel
Edit


USER_003
ACCOUNT INFO
LOGOUT

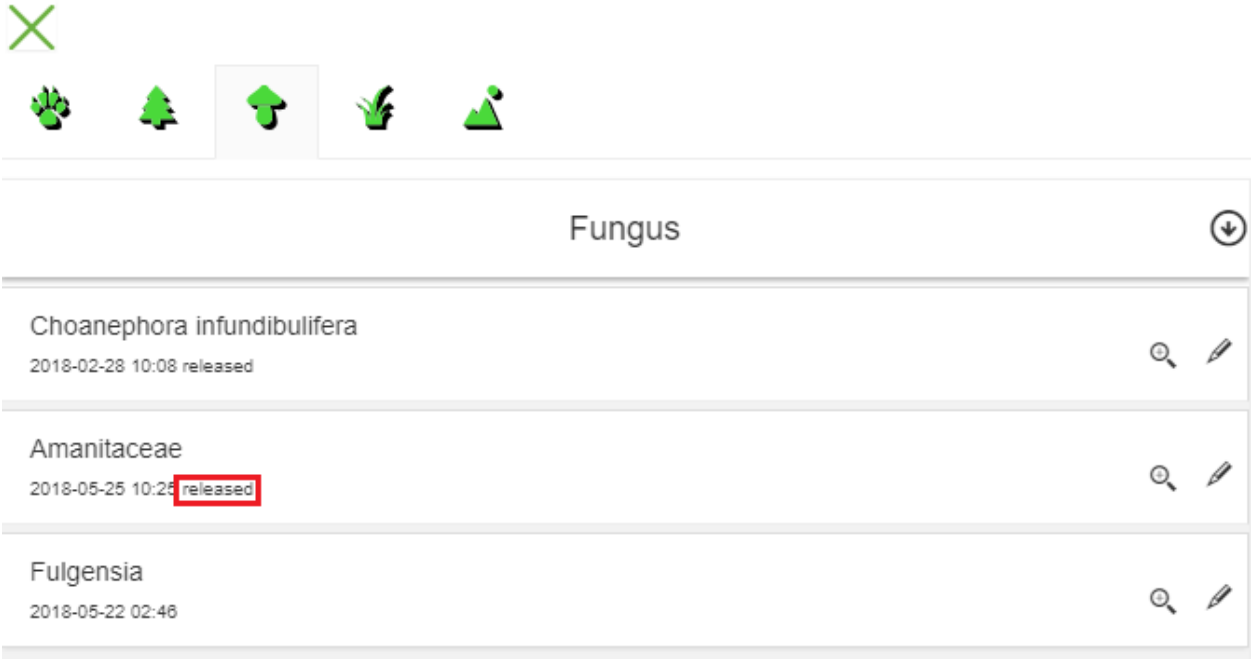

Search Categories
Fungus
Choanephora infundibulifera
2018-02-28 10:05 released
Fulgensia
2018-05-22 02:46
Amanitaceae
2018-05-25 10:25


Fungus
Choanephora infundibulifera
2018-02-28 10:08 released
Fulgensia
2018-05-22 02:46
Amanitaceae
2018-05-25 10:25

Fungus
Management
id
47
Feature type
fungus
Feature sub-type
fu
Released
Verified
Inclusion date
2018-05-25T08:25:45.472838Z
Version date
2018-05-25T08:25:45.472838Z
Version 2 / 2
Cancel
Edit


Fungus
Management
id
47
Feature type
fungus
Feature sub-type
fu
Released
Verified
Inclusion date
2018-05-25T08:25:45.472838Z
Version date
2018-05-25T08:25:45.472838Z

4. **Flag** the *Released* box then **Update**
5. Now the new feature has two versions and only the second one is published and viewable by all users.



3.4 Exporting Data and Generating Reports

At this point, the curious *user_003* wants to check again the portal and logs in. He will be able to:

1. **View** the last version of the new added feature since that the first version was not released.
2. **Explore** its contents but **not** to **Edit** it (the edit button is switched off).
3. **Export** the data in *csv*, *excel* or *zipped shape file* formats.
4. **Generate** a report for the single feature in *Pdf*.
5. **Generate** a statistical report in *Pdf* for all the *Fungus* category.

Note: Non authourized users can **not** save *Permalinks*. For example, *user_003* cannot save permalinks for Fungus.

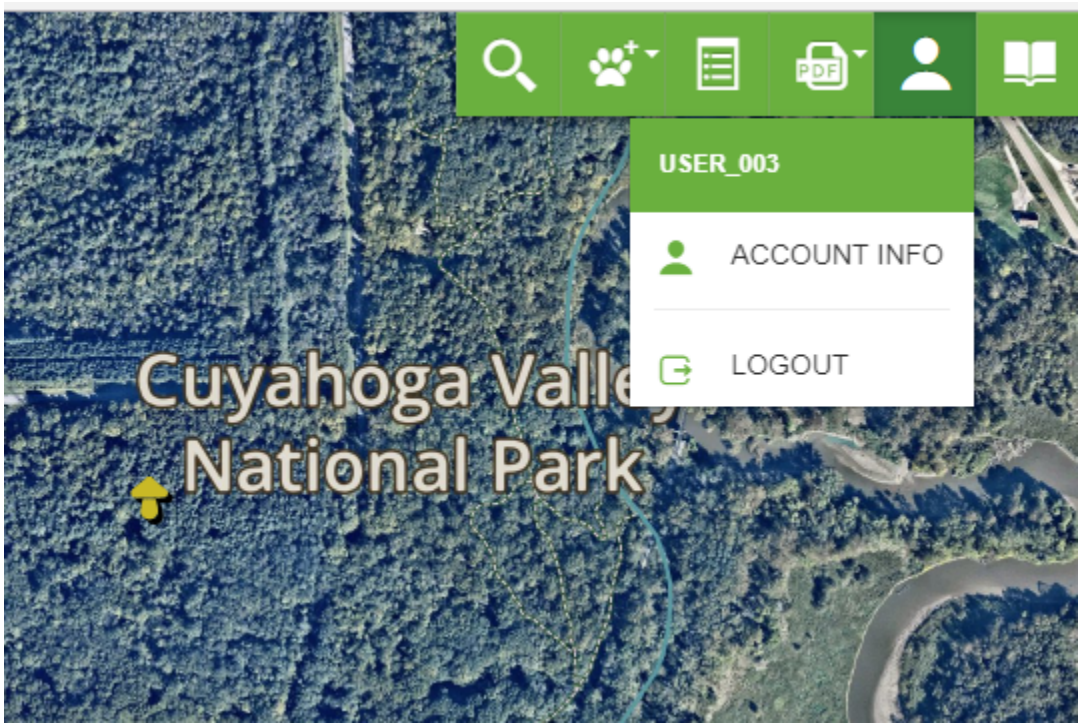
Cleveland Metroparks Geoportal is a WebGIS portal built to give support to the conservation and the maintenance of the health and diversity of the natural resources within the park district. It is exclusively reserved for users of the NFD team and allows them to store, view and edit data, records, and field observations in a geographic web-based system.

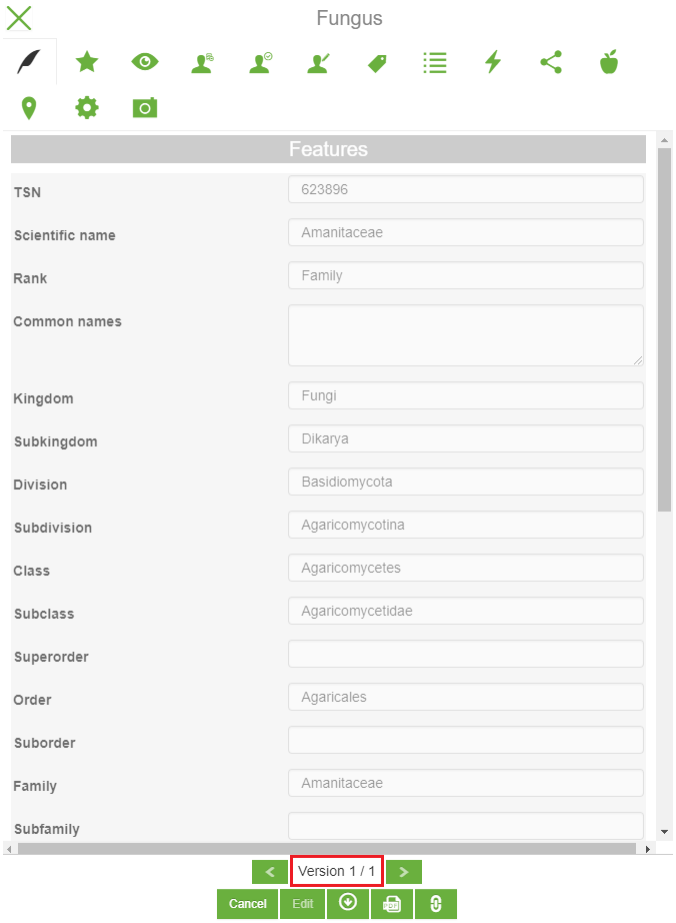
This documentation will give the NFD team members an overview of the portal and will guide them through its main functionalities.

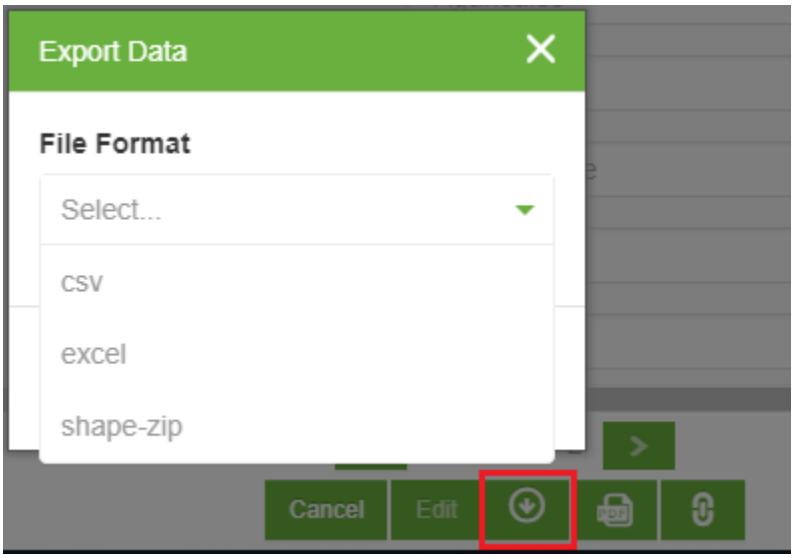
Portal Interface Overview This section will introduce the interface of the portal and its components.

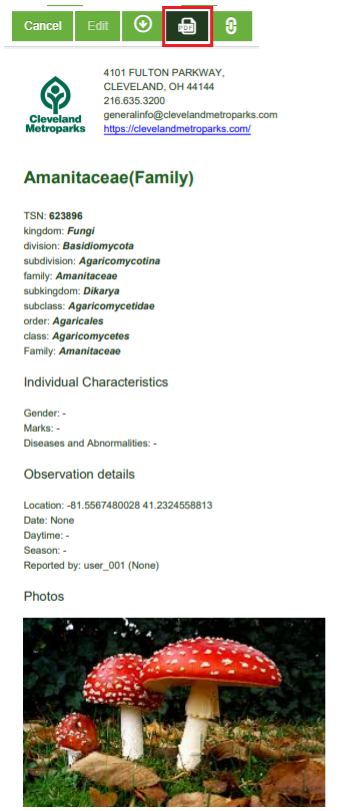
Managing Permissions and Roles This section will show how to manage users permissions and roles.

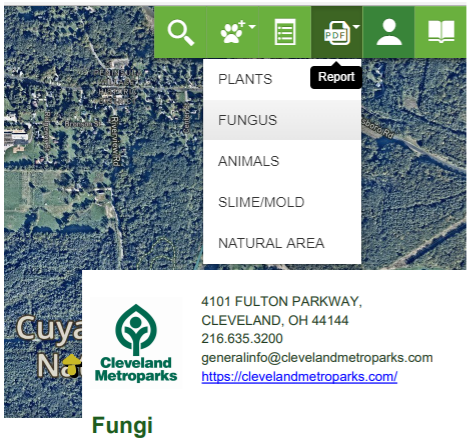
Data Management Workflow This section will guide you through a workflow on how to manage, export data and generate reports.


USER_003
ACCOUNT INFO
LOGOUT
Cuyahoga Valley
National Park


Fungus
Features
TSN
623896
Scientific name
Amanitaceae
Rank
Family
Common names
Kingdom
Fungi
Subkingdom
Dikarya
Division
Basidiomycota
Subdivision
Agaricomycotina
Class
Agaricomycetes
Subclass
Agaricomycetidae
Superorder
Order
Agaricales
Suborder
Family
Amanitaceae
Subfamily
Version 1 / 1
Cancel
Edit


Export Data
File Format
Select...
csv
excel
shape-zip
Cancel
Edit


Cancel
Edit
4101 FULTON PARKWAY,
CLEVELAND, OH 44144
216.635.3200
generalinfo@clevelandmetroparks.com
https://clevelandmetroparks.com/
Amanitaceae(Family)
TSN: 623896
kingdom: Fungi
division: Basidiomycota
subdivision: Agaricomycotina
family: Amanitaceae
subkingdom: Dikarya
subclass: Agaricomycetidae
order: Agaricales
class: Agaricomycetes
Family: Amanitaceae
Individual Characteristics
Gender: -
Marks: -
Diseases and Abnormalities: -
Observation details
Location: -81.5567480028 41.2324558813
Date: None
Daytime: -
Season: -
Reported by: user_001 (None)
Photos



Fungi

3 Registered Occurrences

phylum	family	species	Occurrences
-	Amanitaceae	-	1
-	Choanephoraceae	Choanephora infundibulifera	1
-	Teloschistaceae	-	1