GlobalHAB symposium on automated in situ observations of plankton
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SMHI

THE EUROPEAN IFCB NETWORK AND SHARING OF ANNOTATED IMAGES FOR CLASSIFIER DEVELOPMENT USING HTTP://NORDICMICROALGAE.ORG

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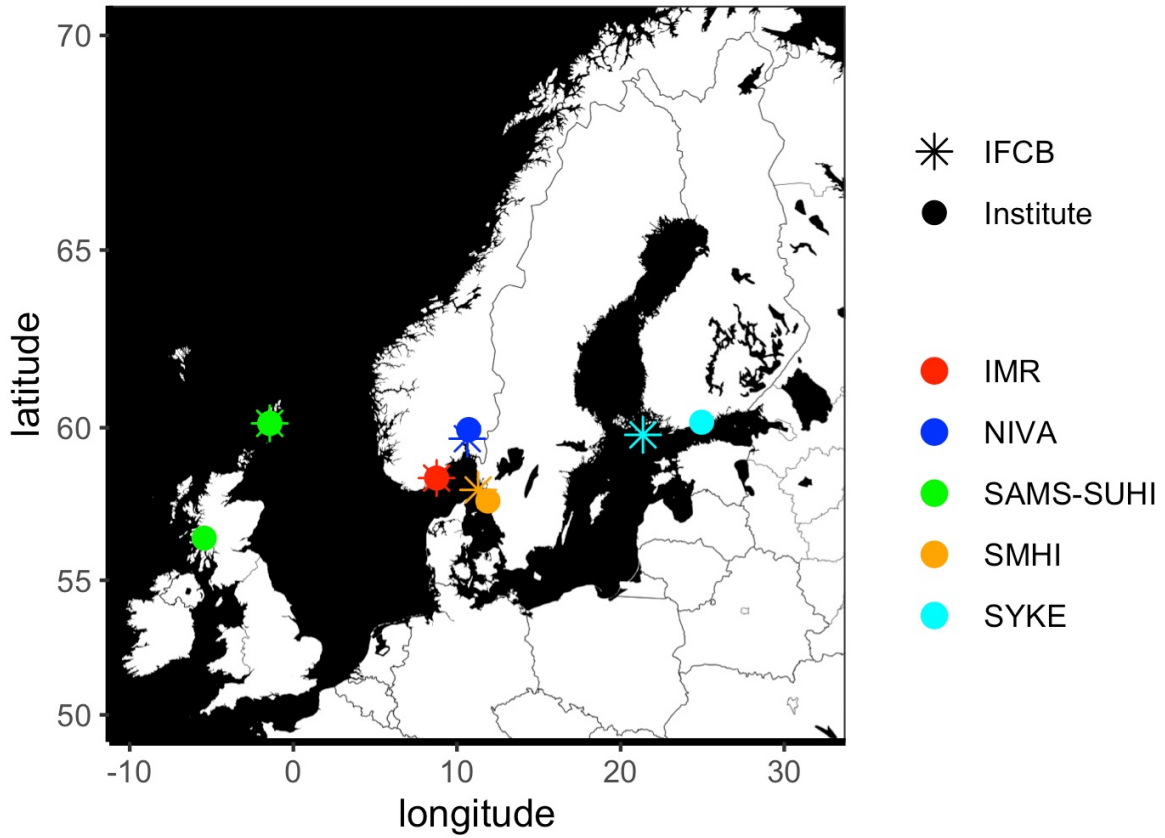
European IFCB network

- Started in 2020
- Video conferences approximately every 2 months
- Main aim is to promote collaboration and to share experiences and annotated images(?)
- New instruments
  - Germany
  - Italy
  - France

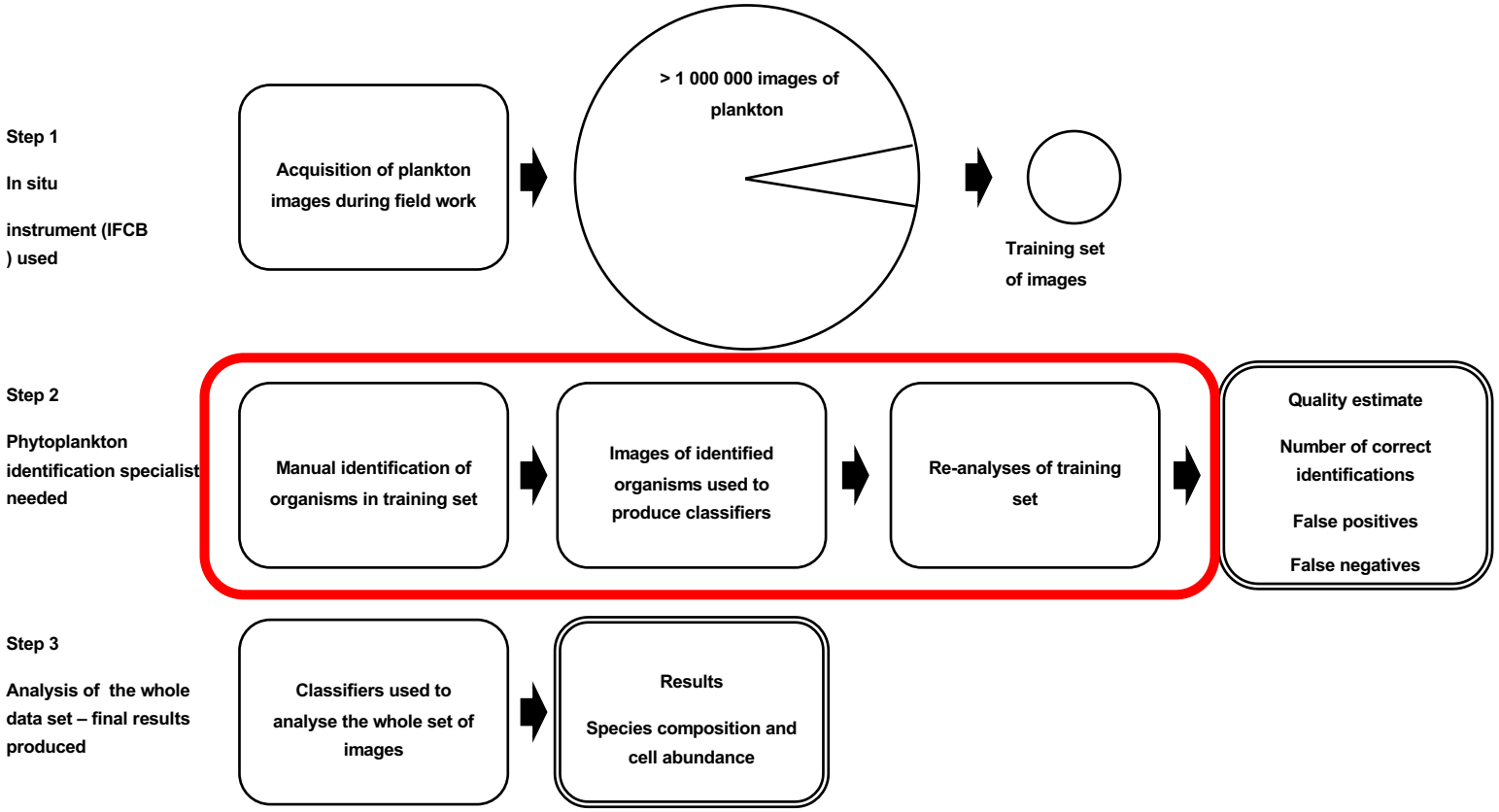


EuroGOOS Biological Working Group BIOWG

- Established 1 October 2021
- One of the objectives is to establish best practices for automated plankton observations - imaging systems
- Virtual meetings
- Meeting in person in autumn 2022?

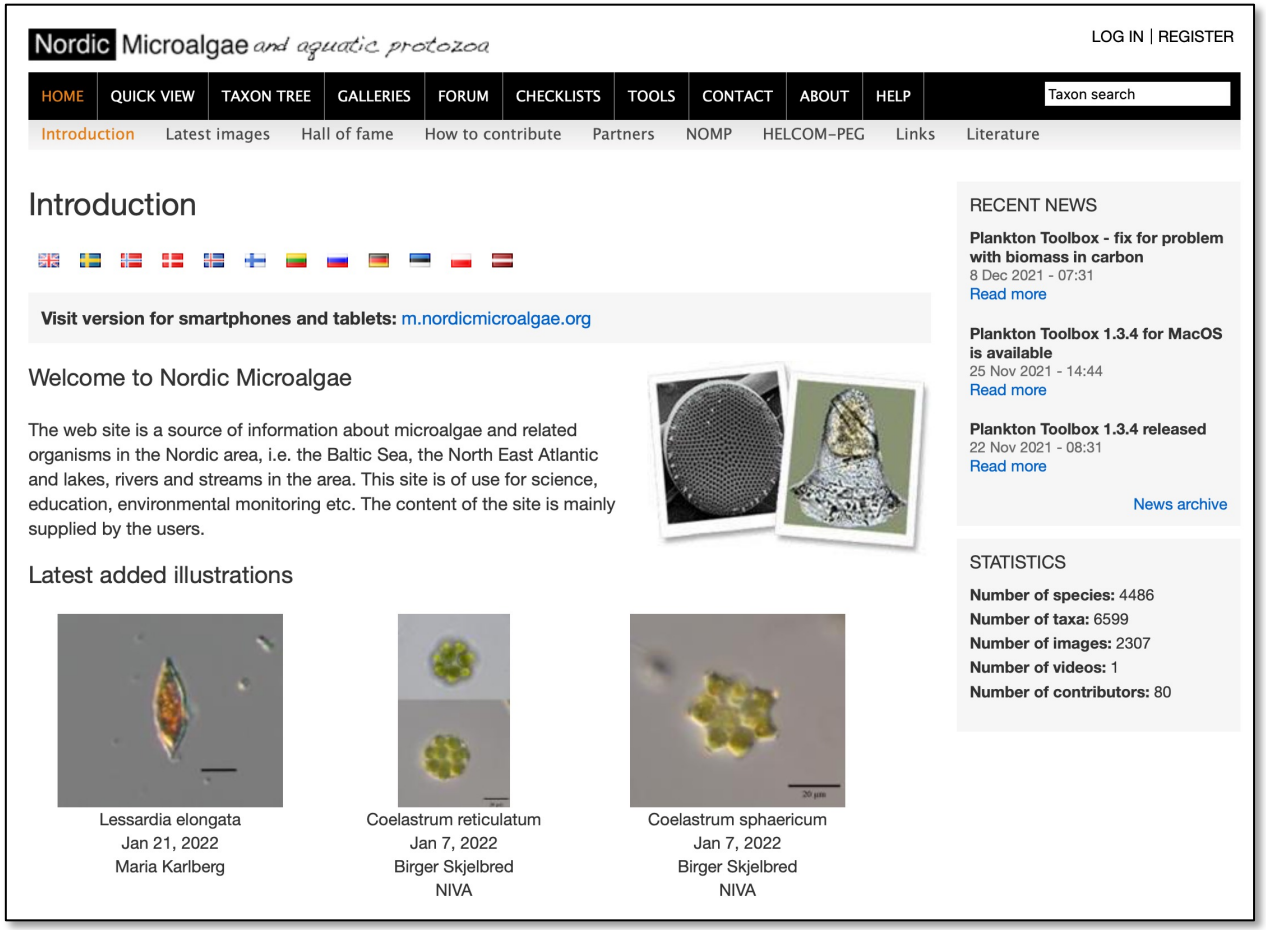
https://eurogoos.eu/biological-observations-working-group/

Data flow and production of classifiers



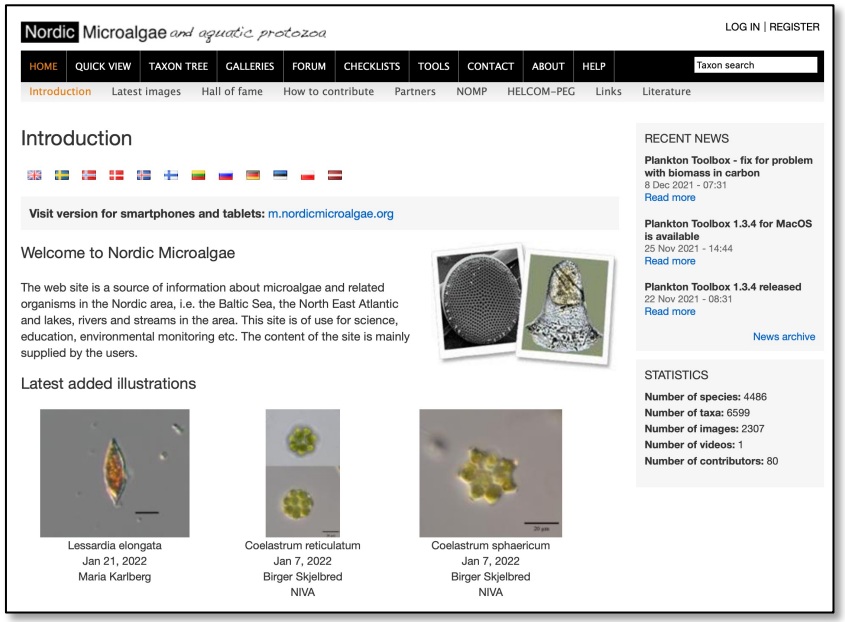
Nordic Microalgae web site and database

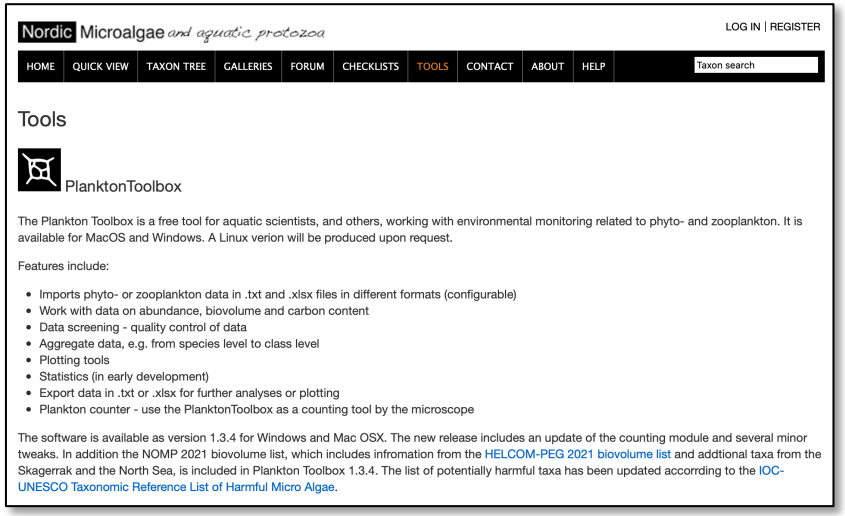
- New version coming very soon
  - Phylogeny/taxonomic tree from WoRMS
- Launched in 2011
- Original web site from 1996 - Checklist of phytoplankton in the Kattegat and the Skagerrak
- Long term financial support from Swedish Research Council
- Part of Swedish Biodiversity Data Infrastructure - SBDI



Nordic Microalgae web site and database

- Content contributed by users
- Currently 2307 images, most from microscopy
- Includes link to free software Plankton Toolbox
  - Useful for analysing phytoplankton samples using microscopy and analysing data
  - No programming skills needed





Annotated images in Nordic Microalgae

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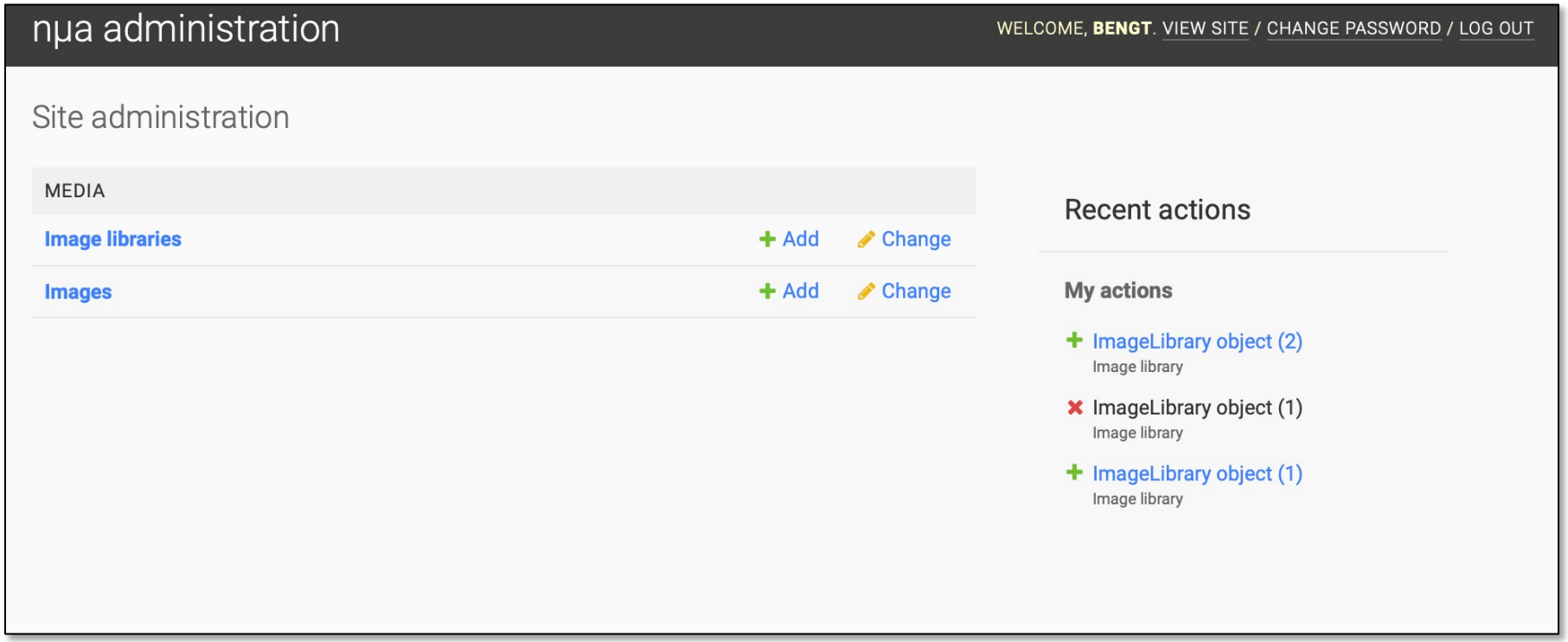
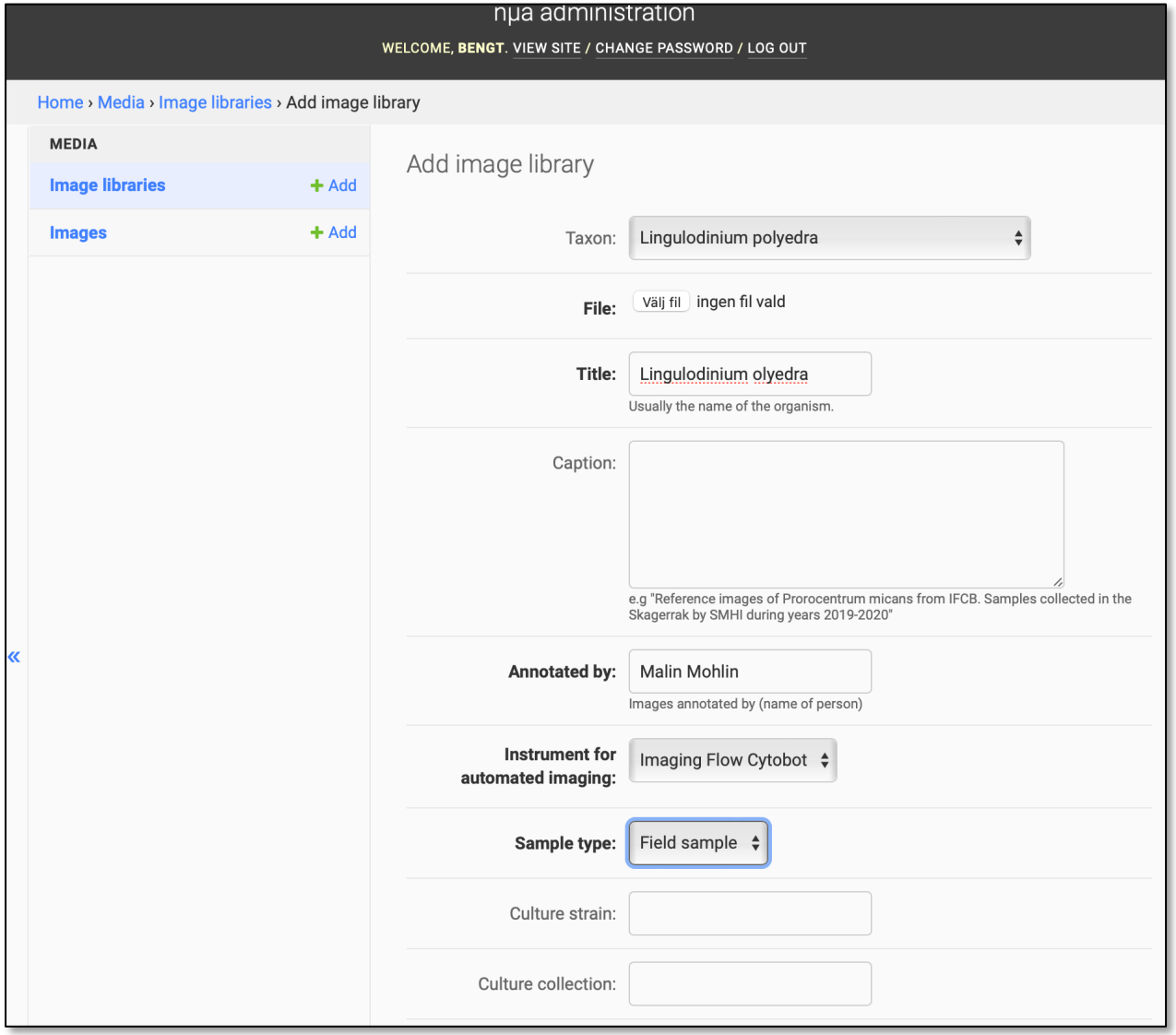
- Aim -sharing of annotated images among phytoplankton identification experts world wide
- Support several types of instruments, today
  - IFCB
  - CytoSense
  - FlowCam (different types)
- Registered users can upload annotated images
- Upload zip-package containing hundreds or thousands of images

Upload images

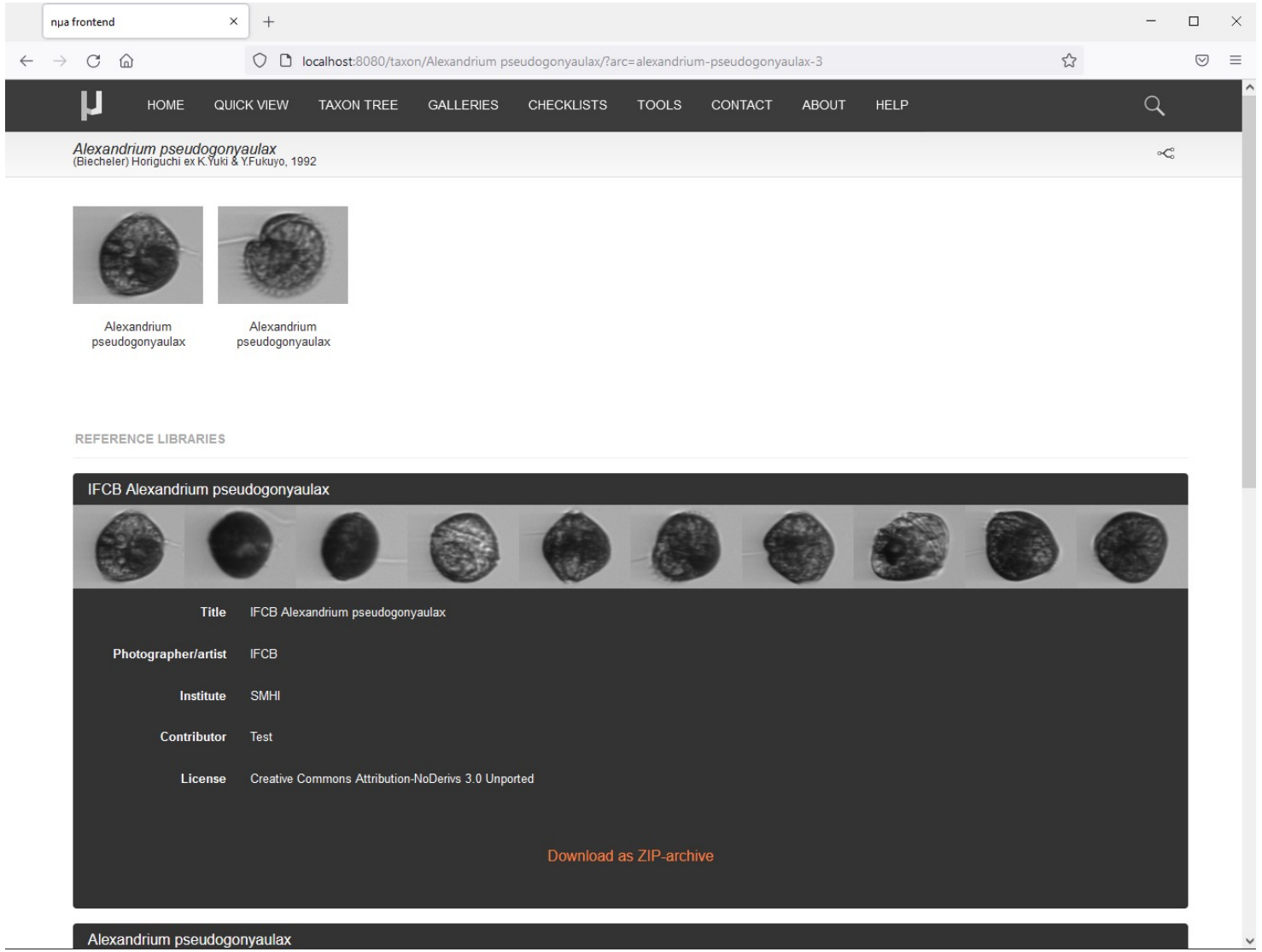


Upload images

1. Place annotated images in one folder
2. Compress folder to zip-file
3. Log into web site
4. Add Image library
5. Enter meta data (save metadata as template)
6. Upload



Example of view of annotated images



Another view of annotated images

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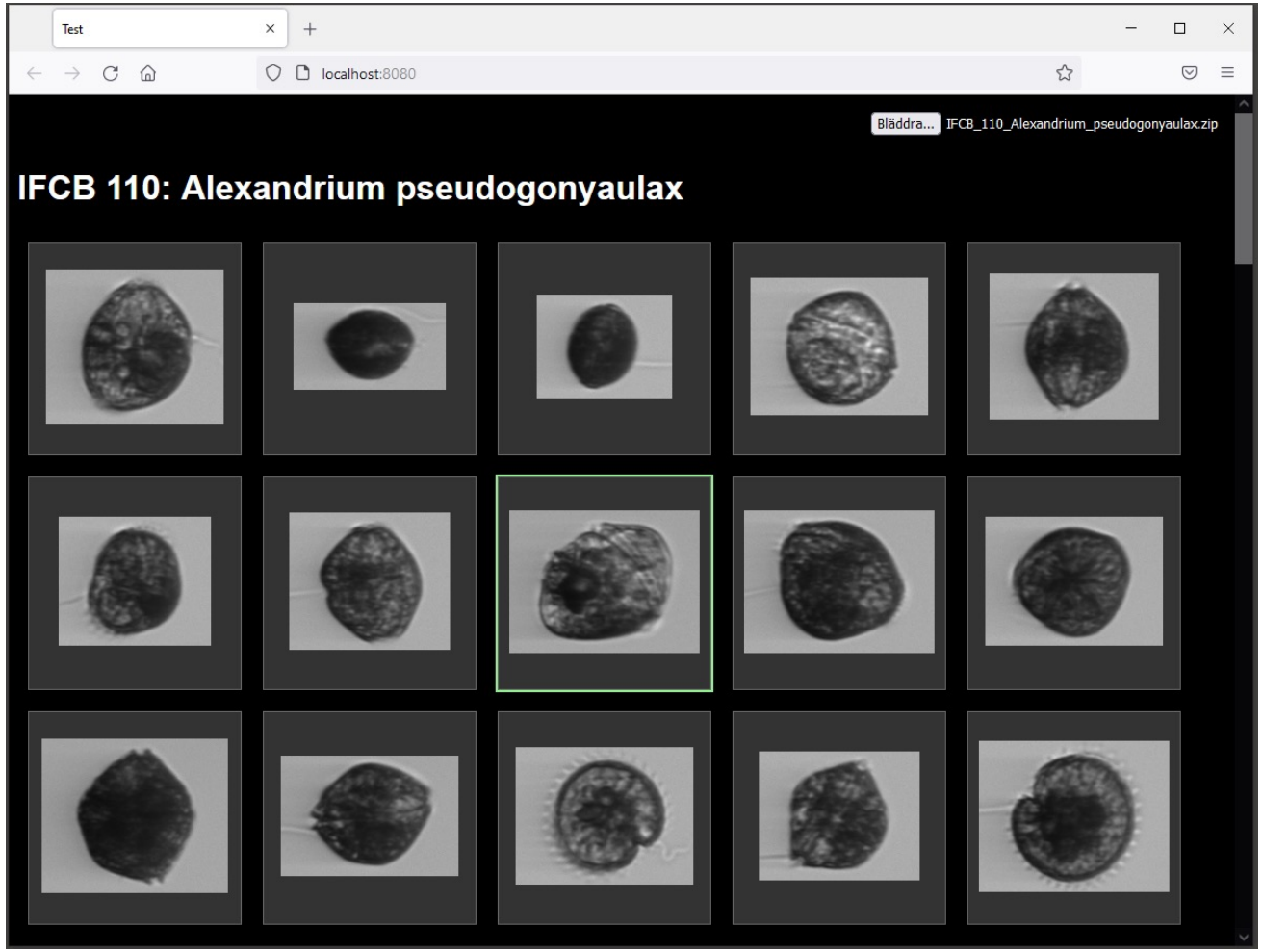
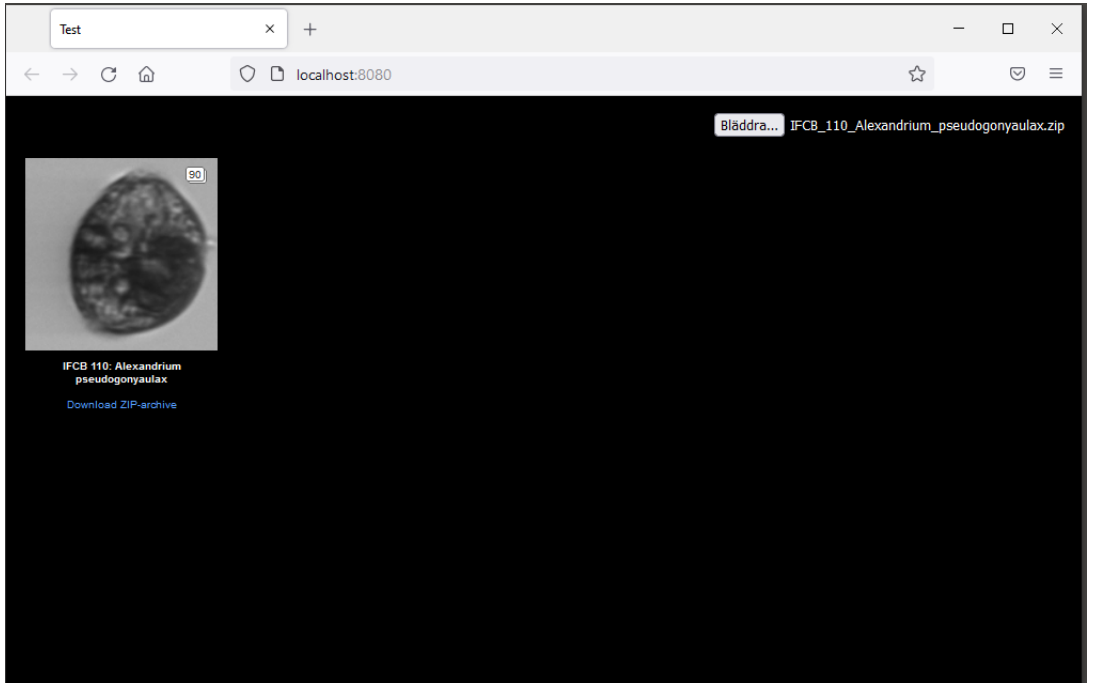


Download annotated images as zip-file

- Free data
- Images in database
- Download images selected based on several criteria
  - select images uploaded by one or several persons
  - Select images based on geographic area
  - Etc.
- Meta data follows images - described in standardised text file



improve your classifiers

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- (Vetenskapsrådet - forskningsinfrastruktur)
  - Lifewatch
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