Creating Research Checklists in Symbiota

A research checklist is a document checklist for a region. Checklists are documented by voucher specimens which may be in several different herbaria. The checklist tool enables linking to voucher specimens, if they are available online, or simply listing their catalog number if not. The voucher tool also enables tracking whether someone later deposits and additional potential voucher specimens in one of the contributing herbaria or if one of the linked records has had its identification changed.

# To set up a checklist:

1. Login to the Symbiota web site you are using. For these instructions, I used OpenHerbarium.org.
2. Click on “My profile”
3. Under the “Species Checklists” tab, click on the green plus sign to add a new species checklist.
4. Fill out the fields.
5. To add a “footprint polygon”, that is, to store coordinates that outline the area your checklist covers, click on the globe shown. This will bring up a google map. Drag the map until it shows the region covered by your checklist, then zoom in until you can see the boundaries of the area. Then click around the boundaries of your area. When you get back to the first corner, the area will shade in and you need to click the submit button near the top of the page.
6. The keying feature will not work unless the morphological database has been developed. So far, neither OpenHerbarium nor OpenZooMuseum has a morphological database. Despite that, I would leave it checked so that when there is such a database, it can be used with your checklists.
7. If you add a child checklist, then any species added to the child checklist will be added to your checklists. Alternatively, you can ask that your checklist be made a child of another checklist.
8. Leave the checklist private until you wish to share it with anyone who visits the web site (which may be never; there is nothing wrong with keeping private checklists).
9. Create the checklist.
10. To make the checklist public, two steps are necessary. The first is to change the privacy setting on the description page to public. The second is to ask the network manager to add it to the appropriate project.

# To add taxa to a checklist

There are two ways to add taxa to a checklist, either individually (the default process) or via batch upload. Start by adding them individually. This will help you become familiar with the information that can be uploaded and the care one needs to take in doing so. After that, you may wish to do a batch upload followed by individual additions as you discover new species in the area covered by your checklist.

1. Click the righthand pencil (labelled spp.) near the top of the page. This will bring up a panel on the lower right side of the screen.
2. Add the name of a taxon you wish to add. DO NOT INCLUDE THE AUTHORS OF THE NAME, just the name itself.

The program will not allow you to add a name that it does not have in the network database. If it tells you the name is not in the database:

1. Check that your spelling is correct. Use Tropicos (<http://tropicos.org>) or IPNI (http://www.ipni.org/) to check plant names; Index fungorum for fungal names, and a web search for animal names.
2. If your spelling is correct, send the name to me, mary.barkworth@usu.edu, and I shall add it.
3. Other fields (all of which can be left blank):
4. **Family**: If you enter the family name here, you will override the system default. I advise against entering anything. The default family in OpenHerbarium is that recommended by the Angiosperm Phylogeny Group (APG). We all need to learn current thinking even if it is not what we ourselves learned in school.
5. **Habitat**: If the species is usually found, *in your area*, near or in a path or under shrubs, you could add that information. You can als leave the field blank.
6. **Abundance**: This is the location for terms like “common”, “frequent”, or “only one plant seen”. These terms should be used as appropriate for the area covered by your checklist. The field can be left blank.
7. **Notes**: This is the place for comments such as “Cultivated ornamental”, “Grazed by camels”. The field can be left blank.
8. Internal notes: This field, unlike the others, will be visible only to people authorized to edit the checklist. If it is a private checklist, that means only you. You might make a note “need to check the species” or “no picture available”.
9. Source: This field is more likely to be used for research and teaching checklists, such as those for the University of Hargeisa campus. For such checklists, it is useful to know if the information came from a flora, some other publication, or a report by some individual. It can be left blank. One can also cite a specimen. The checklist tools include one for finding species collected from within the area defined by the footprint polygon or circle.
10. Click “Add species to list”.

# Batch upload species

If you have several species to add at one time, it is easiest to add them via a csv (comma separated values) listing. The easiest way to create the desired listing is to use Microsoft Excel or OpenOffice Calc and then save the file as a csv file.

You must be very careful to spell the scientific names correctly. There are various sources that are generally considered reliable sources of names. It is best to search for the name you want on one of these sites. If you have entered it correctly, they will find the name. If you have an error in your spelling (it happens to all of us), you will be told that there is so much name in the database. At that point, check your spelling. Try entering the first part of it.

For animals, I usually go the Catalog of Life (<http://www.catalogueoflife.org/col/>) first and then Wilipedia to obtain authors for upper level taxa but there are specialist websites worth consults. For vascular plants, there are two good sources: the International Plant Names Index (IPNI; <http://www.ipni.org>) and TROPICOS (<http://www.tropicos.org>), the nomenclatural database of the Missouri Botanical Garden. TROPICOS is also a good source for bryophytes. For fungi, Index fungorum (<http://www.indexfungorum.org/>) is the best source.

## **The spreadsheet**

One field in the spreadsheet MUST be called “sciname”. It is mandatory. The other fields that you can, but do not have to, include, are “family”, “habitat”, “abundance” and “notes”. For an explanation of what these terms means, see the boldfaced terms in the previous section. As noted there, I strongly recommend that you NOT enter the family name. See the sample table below for an upload format with one correctly spelled sciname and one incorrectly spelled name.

|  |  |  |  |
| --- | --- | --- | --- |
| Sciname | Habitat | Abundance | Notes |
| [***Asystasia gangetica***](http://openherbarium.org/taxa/index.php?taxauthid=1&taxon=241355&cl=6) | Middle of the field | Rare | Demonstration; correct spelling |
| [***Asystasia gangetca***](http://openherbarium.org/taxa/index.php?taxauthid=1&taxon=241355&cl=6) | Middle of the field | Unknown | Demonstration; wrong spelling |

The figure below shows the results of uploading this file.



Note that only one name, the one that was correctly spelled, was uploaded.

Clicking “Return to checklist” will bring up the page shown below:



Note: There are no images of *Asystasia gangetica* in the IntermountainBiota portal’s database.