



The Smithsonian
Associates



Machine Tagging Tutorial

Step 1: Sign in or create an account

Flickr offers the option of signing in with your Yahoo, Facebook, or Google account. If you do not yet have an account that you can use to log in, select “Sign up” from the Flickr home page and complete the registration form to create an account.

Step 2: Find a set to work on.

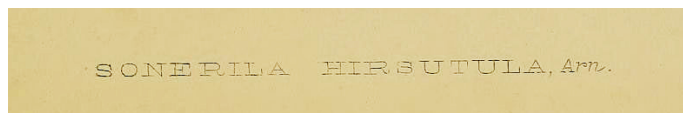
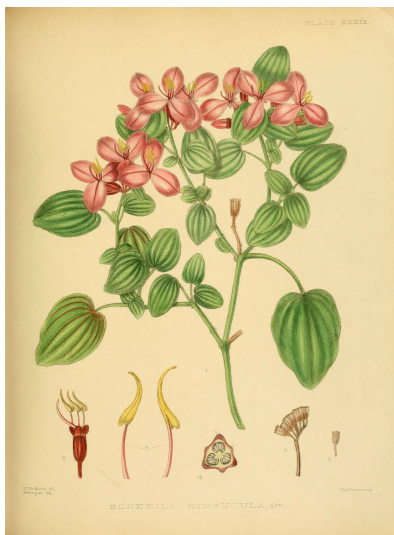
The BHL photostream is organized into thematic collections and each scanned work gets its own Flickr set. The best strategy is to find an untagged set and work your way through it. To make it easier to find untagged sets, BHL has created the Smithsonian Associates for those attending the May 28th event:

<https://www.flickr.com/photos/biodivlibrary/collections/72157644750662394/>.

Step 3: Find the name used in the scanned work.

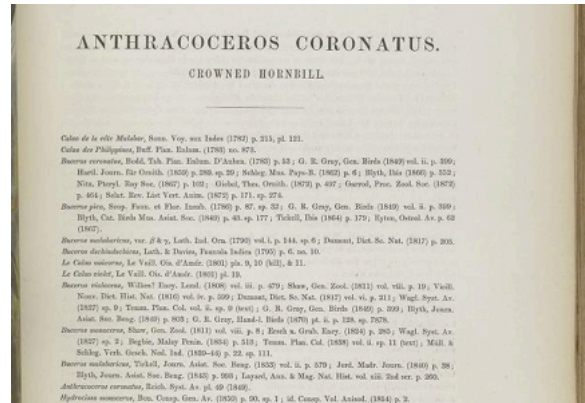
3.1 Level One:

Many images will have a scientific name right on the image. You may have to look at the large version of the image to be able to read it. For example, the image shown on the left has the name *Sonerila hirsutula* at the bottom of the scanned sheet.



3.2 Level Two:

If there is no name on the sheet, you need to go hunting for the name in the original work on the BHL web site. For example, the image below does not have any text on the scanned sheet. However, in the image description, there is a link to the relevant page in the scanned book. When you follow this link, you see that the image is associated with a description of the species *Anthracoceros coronatus*.



3.3 Level Three:

For extra credit (i.e., karma points), you can add a hunt for the current accepted name of organisms in BHL plates to your workflow. Since most BHL images are scanned from old literature, many of the names will be out of date. If the old name is listed as a synonym in the EOL database, this is not a problem. Images tagged with the old name will automatically be associated with the appropriate taxon page. However, if the old name is not yet featured on EOL, it would be good if taggers did a little bit of detective work to find the current name for the taxon in the BHL plate. See page 3 for steps you can follow to 'Update Taxon Names for BHL Images.'

Step 4: Tag the image

Add the machine tag in the form:

taxonomy:binomial="Genus species"

Remember that you must put quotes around any tags that have spaces in them. If you can only find the name of the genus or family, you can tag the image with whatever name you find. If there are several organisms shown in the same image, you can add tags for all organisms, but please do not mix ranks, i.e., don't add family, genus, and binomial tags to an image if those tags apply to different organisms. For more information, see page 5 of this document for Frequently Asked Questions about EOL machine tags.

Update Taxon Names for BHL Images

(Also available online at http://eol.org/info/bhl_taxonomy)

Step 1: Check if the name from the original work is represented on EOL

Simply type the name in the EOL search box at <http://eol.org> and see if there are any search results. If EOL returns one or more exact matches to the name you searched for, you can use this name to tag the image. EOL may also have the name listed as a synonym of another name. In that case, you can either use that name or the original name. The image should end up on the right EOL taxon page either way.

If the name cannot be found at all, the EOL search may suggest an alternative spelling. If this is the case, examine the suggested name carefully and try to figure out if this name may be appropriate for the organism pictured. For example, if you are looking at a picture of a beetle, and the suggested name is that of a bird, you clearly have to keep looking.

Step 2: Check other sources for names that are not in EOL

If you cannot find the name of the organism in EOL, it's time to seek help from other sources. Here are some sites that provide information about names and synonyms for different organisms:

- **The Plant List** – Plants (<http://www.theplantlist.org/>)
- **Species Fungorum** – Fungi (www.speciesfungorum.org/Names/Names.asp)
- **World Register of Marine Species (WoRMS)** - Everything that lives in on and near the sea
- **Marine Species Identification Portal** - Has some names that are missing from WoRMS (<http://www.marinespecies.org/>)
- **AlgaeBase** - Terrestrial, marine and freshwater algae (<http://www.algaebase.org/>)
- **FishBase** – Fish (<http://www.fishbase.org/search.php>)
- **Amphibian Species of the World** - Frogs, Toads, Salamanders, Caecilians (<http://research.amnh.org/vz/herpetology/amphibia/>)
- **The Reptile Database** - Lizards, Snakes, Crocodiles, Turtles (http://reptile-database.reptarium.cz/advanced_search)
- **Mammals Species of the World** – Mammals (<http://www.departments.bucknell.edu/biology/resources/msw3/browse.asp>)
- **Avibase** – Birds (<http://avibase.bsc-eoc.org/avibase.jsp?lang=EN>)
- **World Odonata List** - Dragonflies & Damselflies (<http://www.pugetsound.edu/academics/academic-resources/slater-museum/biodiversity-resources/dragonflies/world-odonata-list2/>)
- **Orthoptera Species File Online** - Grasshoppers, Katydid, Crickets (<http://orthoptera.speciesfile.org/HomePage/Orthoptera/HomePage.aspx>)
- **Blattodea Species File Online** – Cockroaches (<http://blattodea.speciesfile.org/HomePage/Blattodea/HomePage.aspx>)
- **Mantodea Species File Online** – Mantids (<http://mantodea.speciesfile.org/HomePage/Mantodea/HomePage.aspx>)
- **Phasmida Species File Online** - Walking Sticks (<http://phasmida.speciesfile.org/HomePage/Phasmida/HomePage.aspx>)

- **Aphid Species File Online** – Aphids (<http://aphid.speciesfile.org/HomePage/Aphid/HomePage.aspx>)
- **Psocodea Species File Online** - Bark lice & parasitic lice (<http://psocodea.speciesfile.org/HomePage/Psocodea/HomePage.aspx>)
- **Global Butterfly Names** – Butterflies (<http://www.ucl.ac.uk/taxome/gbn/>)
- **Hymenoptera Name Server** - Bees, Wasps, Ants (<http://atbi.biosci.ohio-state.edu/>)
- **World Spider Catalog** – Spiders (<http://research.amnh.org/oonopidae/catalog/>)

For example, if you have a mystery name for a plant, go to the [The Plant List](#) and type in the name. With some luck, The Plant List will tell you that the name is a synonym of some other name, which is what you should then use to tag the image.

If you tag an image based on information from another site, it would be great if you could leave a comment on the image explaining where the name in the machine tag came from.

Step 3: Search the web for clues

If all else fails, do a simple web search to see if there is any web site out there that may provide further information about the name from the original work.

Step 4: Try to identify the organism(s) in the picture as best you can

If all else fails, simply tag the image with the taxon you recognize. For example, if it's a mammal, you can use `taxonomy:class=mammalia` and if it's a moth, you can use `taxonomy:order=lepidoptera`. This will at least make the image available for import to EOL. Once it is on EOL, a curator may be able to identify it.

Frequently Asked Questions

Extended version available online at

https://www.flickr.com/groups/encyclopedia_of_life/discuss/72157629880163919/

What is a machine tag?

A machine tag is just like a normal tag, but it follows a special format. Machine tags always have 3 parts:

```
namespace:predicate=value
```

For the EOL machine tags, the namespace is "taxonomy" because the tag is used to provide taxonomic information. The predicates provide information about what kind of a name is provided in the machine tag, and the value is the actual name.

How should I tag my photos for EOL use?

For most photos, all you need to do is create a binomial tag with the genus and species name like this:

```
taxonomy:binomial="Genus species"
```

Example: `taxonomy:binomial="Panthera tigris"`

Note that you need to have quotes in your binomial machine tag to keep it from breaking apart at the space between the genus and species name.

Tags are not case sensitive, i.e., either `taxonomy:binomial="PANTHERA TIGRIS"` or `taxonomy:binomial="panthera tigris"` will work just as well. You can also put the quotes around the entire tag instead of the taxon name, i.e., `taxonomy:binomial=panthera tigris"` will also work.

Should I add tags for the genus, family, etc.?

In addition to the binomial tag, you can also provide tags for other taxonomic ranks above the species level. These tags will help us to find the correct taxon for your image if there are several taxa with the same name (homonymy). Also, if you add an image for a species that is not yet in one of the EOL classifications, providing tags for additional ranks will result in the display of your image on the pages for all those taxa.

The following supra-specific ranks are supported:

```
taxonomy:kingdom=*
```

```
taxonomy:phylum=*
```

```
taxonomy:class= *
```

```
taxonomy:order=*
```

```
taxonomy:family=*
```

```
taxonomy:genus=*
```

Replace the * with the name of the taxon.

Instead of using the binomial tag to indicate the species, you can also use a genus tag in combination with a species tag, e.g.:

taxonomy:genus=Panthera
taxonomy:species=tigris

Can I use a common name to place my photo on an EOL taxon page?

You can add machine tags for common names, e.g.,

taxonomy:common=tiger

However, we do not currently use common name tags to place images on EOL taxon pages. For the time being, we are harvesting and storing these names, but we are not doing anything with them yet.

What if there is more than one species in the photo?

You can tag more than one organism in your photo, but make sure that all organisms are tagged at the same taxonomic level. Ideally, you would provide the binomial for all species. If you don't know the species for all of the organisms, PLEASE don't mix binomial tags with genus or family tags. This would confuse our harvester since it is not able to sort out whether the different taxonomic tags represent different organisms or the taxonomic hierarchy for a single organism.

Do I have to tag my image with the same name that's used on the EOL taxon page?

Your image will end up on the relevant EOL page even if you tag it with a different name, just as long as EOL has the names mapped as synonyms. Taxonomy is a very dynamic field, and the names of organisms are constantly changing. EOL classification providers are continuously updating their hierarchies to keep up with modern nomenclature, but EOL still has many names that are out of date. Sometimes we will have several pages for the same species, under different names. We are working on tools that will let EOL curators sort out such problems.

What if the organism in my image does not have an EOL page?

Many names are still missing from EOL. If you tag your image with a name that is unknown to EOL, we will create a new page for the name in your tag. So please be sure to check your spelling, so you won't create new, misspelled taxa by mistake.

How do I keep my machine tags from breaking into several pieces?

Make sure to put quotes around the tags if they have spaces in them. For example, use "taxonomy:binomial=Panthera tigris" or taxonomy:binomial="Panthera tigris"

If you just enter taxonomy:binomial=Panthera tigris without the quotes, you will get two tags: taxonomy:binomial=Panthera and tigris.