

# Dataset Labeling

July 2020

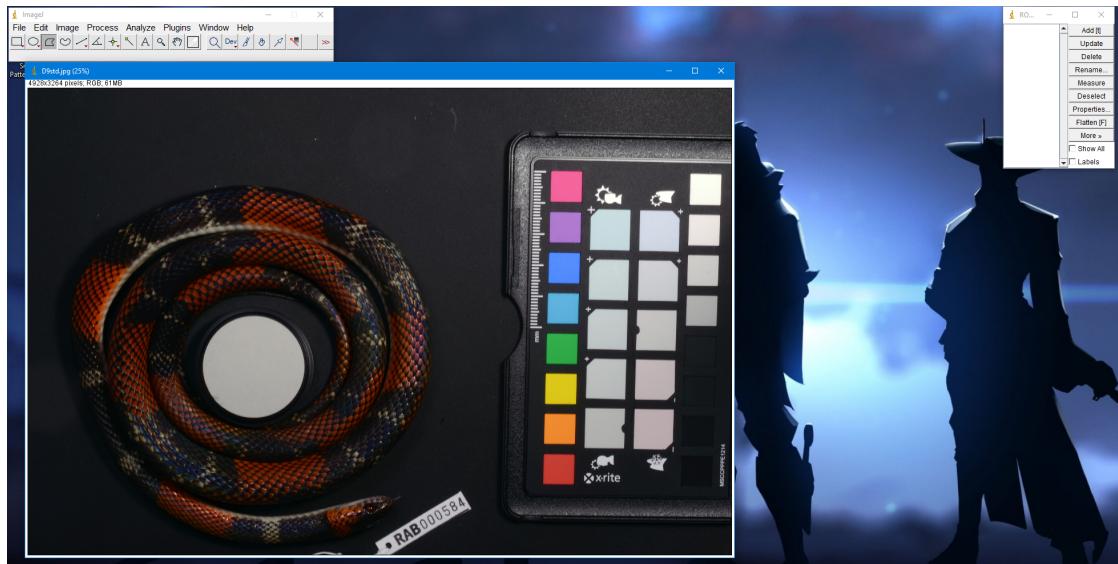
## 1 Setup

Move the JSON ROI folder into the ImageJ plugins folder.

## 2 Labeling

Open up the image to label inside ImageJ by either dragging it or going to File/Open

Press 't' to bring up the roi manager.



Select the polygon tool to label each object in the image.

For the snake, first outline the entire snake, then go to Edit/Selection/Make Inverse to invert the selection



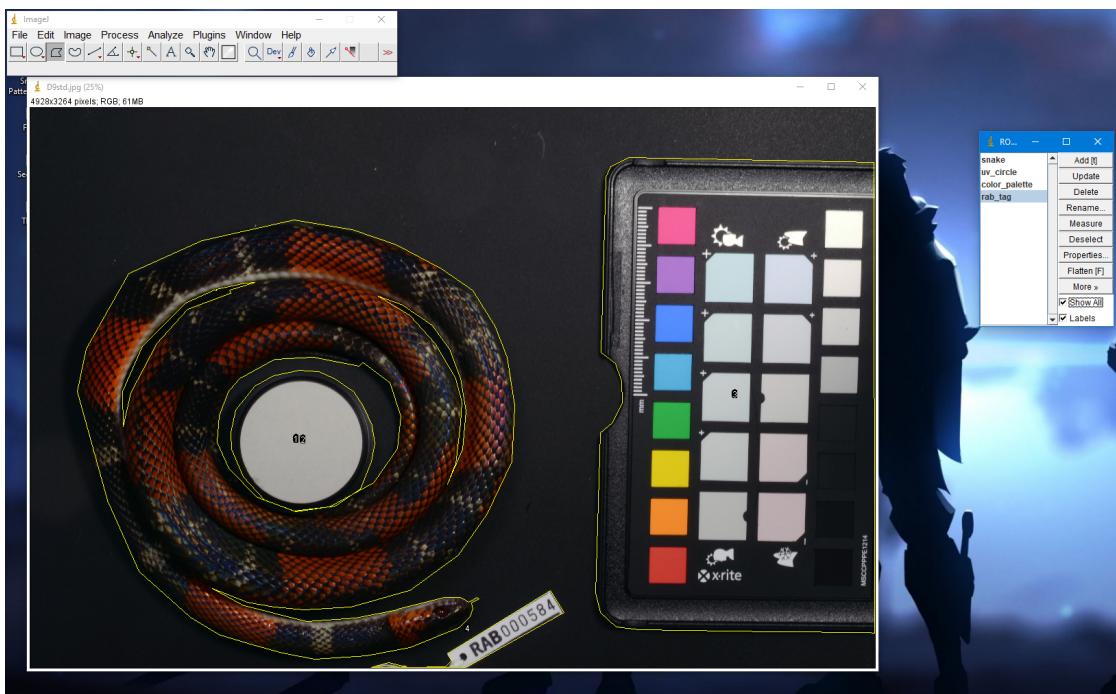
Then while pressing shift select the part that are not snake within the original selection. This will create a composite (donut-like) shape.



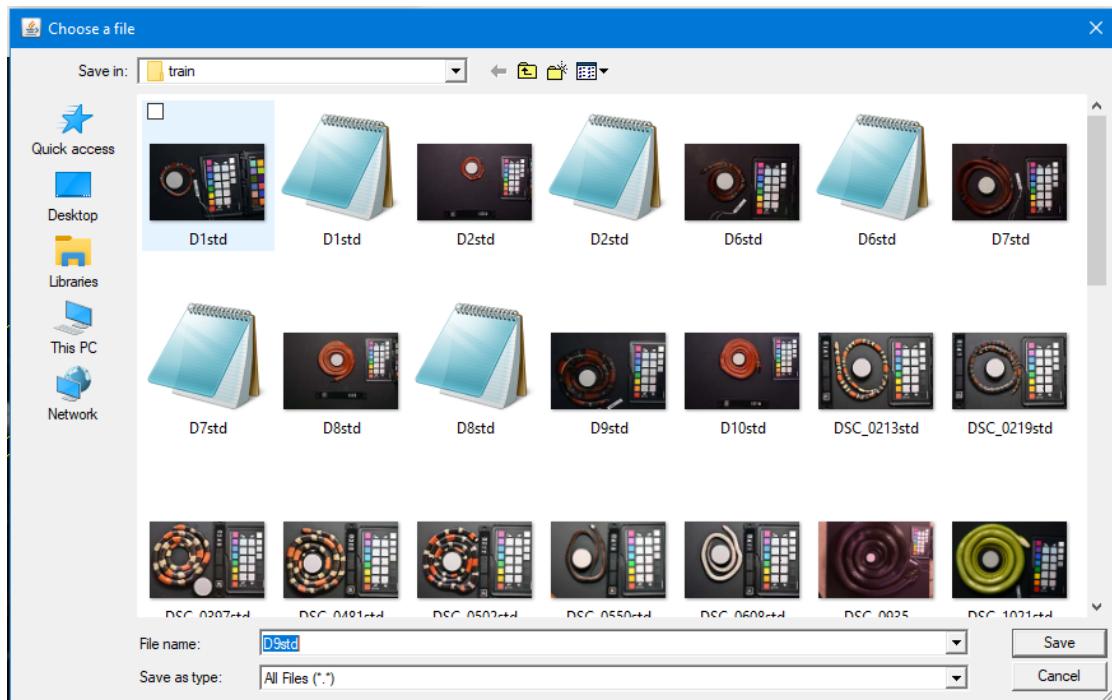
Finally, go to Edit/Selection/Make Inverse to invert the selection again. Click add on the roi manager (or 't' for a shortcut), select the roi from the roi manager, then click rename to rename the roi to 'snake'.

Next, select the other objects in the image and add them to the roi manager one at a time by clicking add (or 't' for a shortcut), select the roi from the roi manager, then click rename to rename the roi to the name of the object. Do not make a composite selection for any of the remaining objects. They should all be selected with a single polygon shape.

The naming scheme for this dataset is as follows: 'snake', 'uv\_circle', 'color\_palette', 'rab\_tag', and 'rab\_plate'



To export the labels to a json file, go to Plugins/JSON ROI/export and a save dialogue will pop up. The default name for the json file will be the same as the image file. There is no need to change the name since the training script links the json file to the jpeg file by filenames. Just click save.



Close roi manager and th current open image before moving on to the next image. Click discard to any save messages that pop up after closing any windows.

### 3 Editing Labels

If exported labels need to be edited for any reason, open the image, press 't' to bring up the roi manager, then go to Plugins/JSON ROI/import and select the json file to import. The rois will then be loaded and the file can be edited. Then, use the same method as in the 'Labeling' section to export the json file.