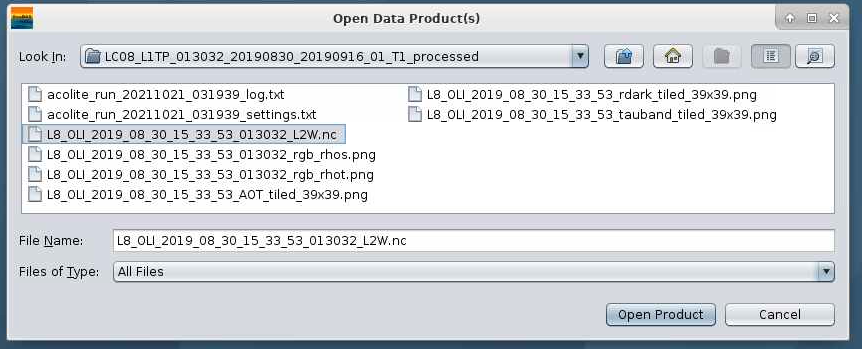
SeaDAS Tutorial: Applying Color Ramps to ACOLITE Turbidity Products

This tutorial provides step-by-step instructions for applying color ramps and legends to ACOLITE turbidity products derived from the Dogliotti turbidity equation. The user inputs their own image and the resulting product is a colorized visualization of turbidity. This visualization provides the user with a better understanding of turbidity in their image and can be used to support further analysis of turbidity patterns. Below, Landsat 8 OLI imagery of Fire Island, NY in 2019 is used as an example.

1. Download SeaDAS 7.5.3 version from the link below.
   1. [NASA SeaDAS](https://oceandata.sci.gsfc.nasa.gov/SeaDAS/installer/7.5.3/)
   2. Click the appropriate file for Linux, Mac, or Windows to begin the install.
   3. Once the download is completed, right-click on the installer to open the file and finish the install process.
2. Once SeaDAS is installed on your computer, open the application.
3. Go to the **folder** icon in the left corner to open a data file.
4. Locate the folder
5. in which you stored the “.nc” file (ex. L8\_OLI\_2019\_08\_30\_15\_33\_53\_013032\_L2W.nc). Left-click on the “.nc” file inside the folder to highlight it and then click the **Open Product** button in the bottom right corner.The data file will be added to the **File Manager** window with two folders beneath called “**Metadata**” and “**Rasters**”.



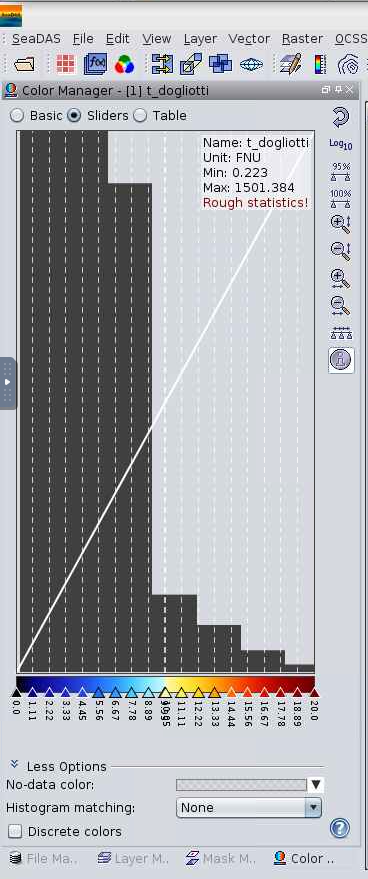
1. Left-click the “**Rasters**” folder and locate the “**t\_dogliotti**” layer. Double-click to add the image to the viewing window. The image will appear as a gray-scale image.



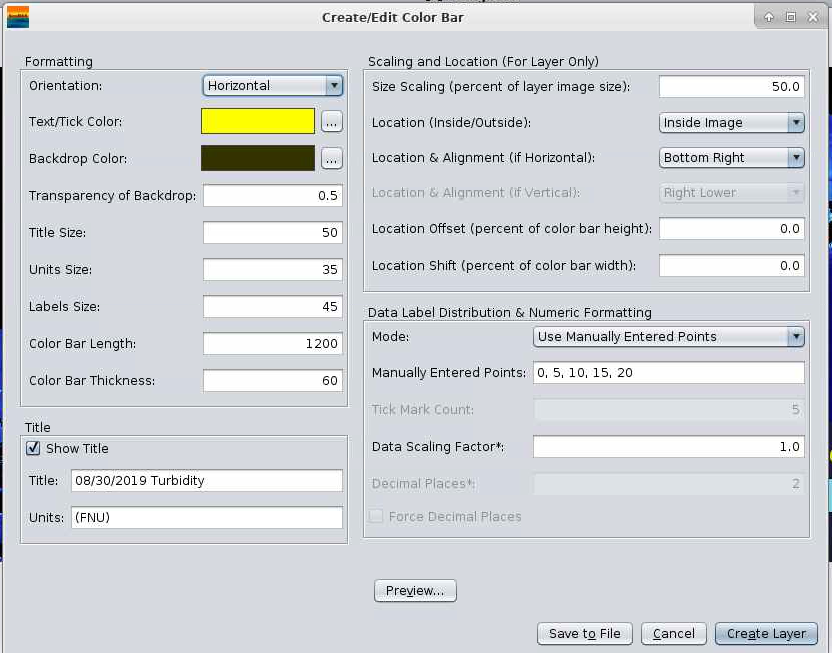
1. To change the color ramp, go to the **Color Manager** tab located at the bottom of the **File Manager** window.
2. In this tab, change the **Cpd File** section to anomalies2\_universal.cpd.
3. Change the **Range** section to have **Min: 0** and **Max: 20**.



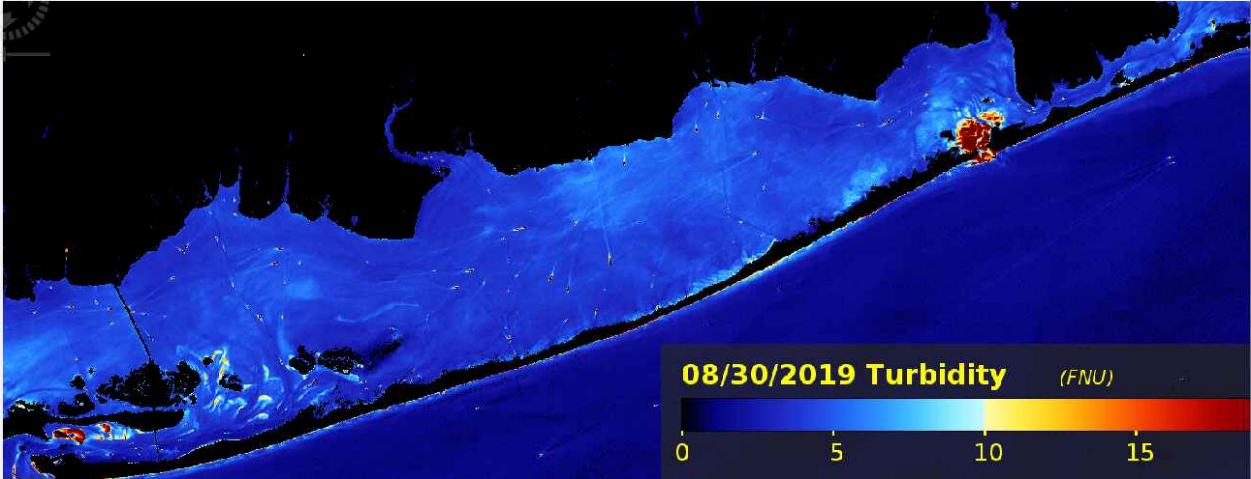
1. To create a land and cloud mask, go to the **Sliders** option on the **Color Manager** tab. Click on the dark blue triangle that has “0.0” below the graph and select it to be “black”.



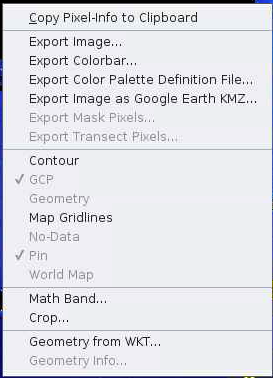
1. To add a color bar, go to the top of the tool bar and click on the **rainbow scale** button. This will open the **Create/Edit Color Bar** window.
   1. Go to the **Title** section and enter: **Date, Turbidity** (ex.08/30/2019 Turbidity).
   2. Click on **Create Layer** to add the color bar to the image.



1. The image should look similar to the one provided below.



1. To export the image as a .jpeg, right-click on the image and pop-up window will appear. Click on **Export Image...**



1. Locate an output folder destination in which you wish to save the created .jpeg file. Under **Files of Type:** change to JPEG and click on save.