

# Exercise: Access and Visualize Orbital Swath Chlorophyll Concentration for Lake Titicaca Using Ocean Color

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30 July 2018



# Objective

- Learn how to search and download MODIS chlorophyll Level-2 data for past and near real-time monitoring

# Access and Visualize Chlorophyll Concentration Data

1. Go to the OceanColor Web data portal: <http://oceancolor.gsfc.nasa.gov>
2. Under the **Data** tab, select **Level 1 & 2 Browser**. This will bring you to the data search and selection page.



# Access and Visualize Chlorophyll Concentration Data

3. On this page you can select the desired data product:
  - **Check** the box next to **MODIS Aqua**
  - **Check** both the **Day** and **Night** boxes
4. On the calendar below the map, select **July 29, 2018** (you can highlight multiple dates on the calendar to view images for more dates)
  - Note: Set the **Display Results** to view more dates at a time
  - Enter latitudes and longitudes for Lake Titicaca under **specify boundary coordinate of a single location**

specify boundary coordinates or a single location:

N:	-15		
W:	-70	-68	:E
S:	-17		

Find swaths



# Access and Visualize Chlorophyll Concentration Data

- Click **Find Swaths**. Here you can view the available data and request to order the products. You will see the results of the search on the screen.
- Click on the top right icon to see the color bar

↑

Thursday, 4 July 2002 through Monday, 30 July 2018

Chlorophyll

Display results 10 at a time. Reconfigure page

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2002												
2003												
2004												
2005												
2006												
2007												
2008												
2009												
2010												
2011												
2012												
2013												
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2015												
2016												
2017												
2018												



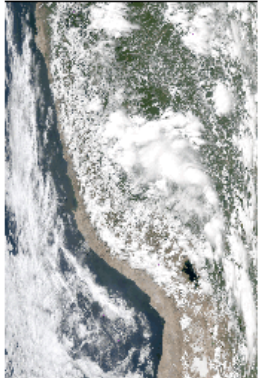
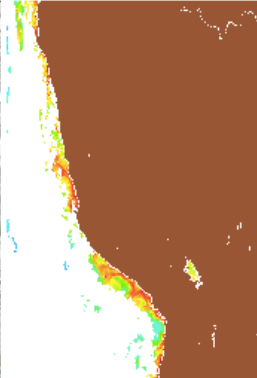
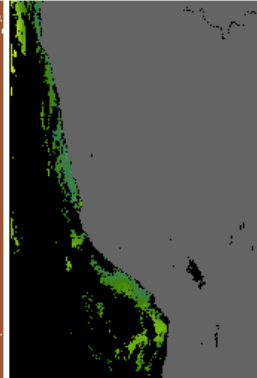
# Access and Visualize Chlorophyll Concentration Data

- By clicking on the image, you will be taken to the dataset's webpage. From here you can download the compressed files and documentation. These files can be further processed and visualized in SeaDAS.
- Repeat the above steps for the most recent date in July when the MODIS swath is available over Lake Titicaca.

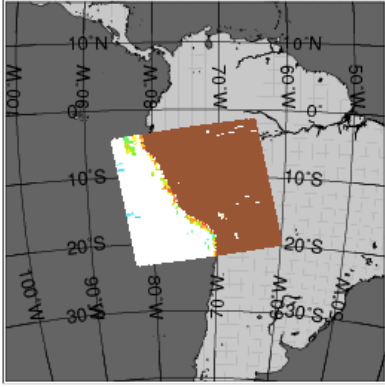
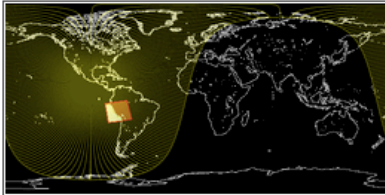
Chl SST SST4

[A2018114183500.L0\\_LAC](#) 322,857,317 bytes  
[A2018114183500.L1A\\_LAC](#) 244,853,597 bytes  
[A2018114183500.L2\\_LAC\\_OC.nc](#) 34,774,564 bytes  
[A2018114183500.L2\\_LAC\\_IOP.nc](#) 41,517,588 bytes  
[A2018114183500.L2\\_LAC\\_SST.nc](#) 19,739,486 bytes  
(The above hyperlinks point to [compressed files](#).  
Documentation on these products can be found [HERE](#).)


[Deselect this scene](#)

Quasi True Color	Chlorophyll	Sea Surface Temperature (11 $\mu$ )
		

Tuesday, 24 April 2018  
2018114



Search Criteria  
Time Period: Entire mission (daytime)  
Sensors: Aqua  
Area of Interest: region bounded by 15.0S and 17.0S a



# Questions Based on the Data

1. What was the range of chlorophyll concentration in Lake Titicaca on July 19, 2017?
2. How does the value compare with the mean chlorophyll amount you obtained from Giovanni in the previous exercise?
3. What is the most recent date when you can see a swath over Lake Titicaca? What is the chlorophyll concentration range for this swath?