Quick Guide for Accessing ECOSTRESS Swath Data in NASA Earthdata Search

Updated November 2022

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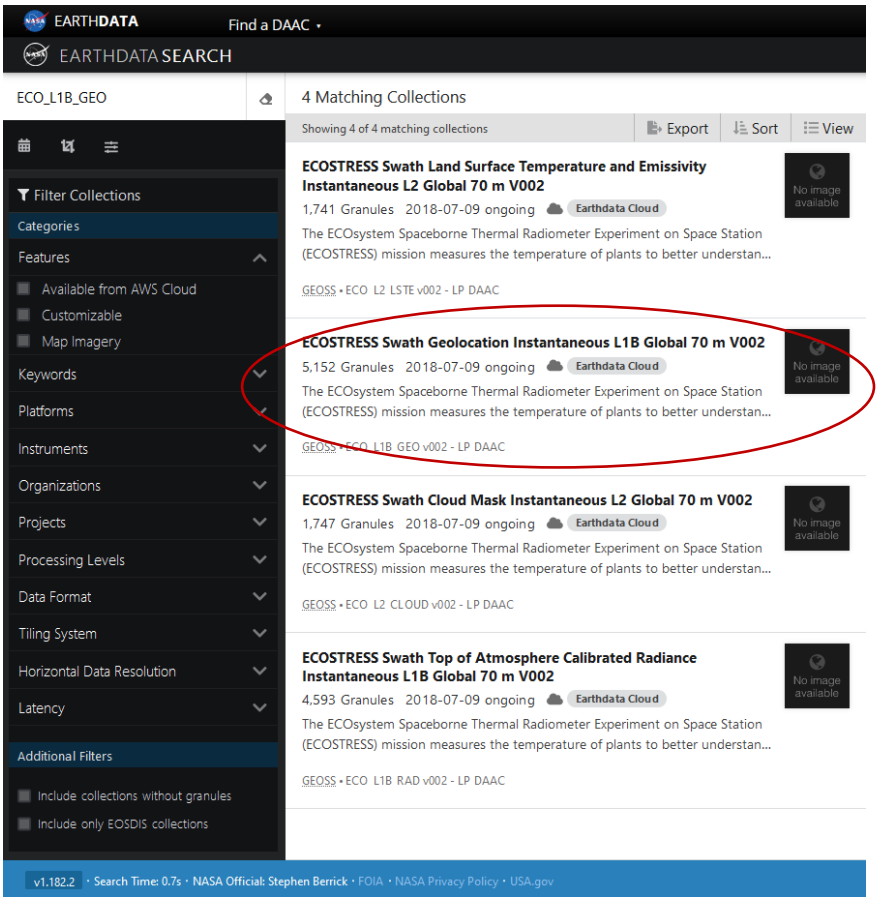
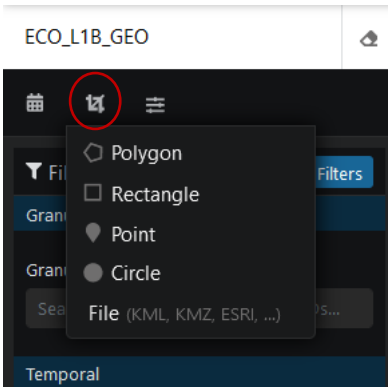
How to search and download ECOSTRESS swath data in NASA Earthdata Search

ECO_L1B_RAD, ECO_L1B_ATT, ECO_L2_LSTE, and ECO_L2_CLOUD swath data products cannot be searched by spatial extent and must be searched by orbit number instead. To find a data product over an area of interest, start with the ECO_L1B_GEO product as it can be searched spatially. Once an ECO_L1B_GEO granule is selected, it can be downloaded for georeferencing the L1B and/or L2 data products via the Swath to Grid python script. The orbit number in the ECO_L1B_GEO granule is then used to search for the specific scene that matches the L1B and L2 products. The following steps will guide you through this process.

1. Go to NASA Earthdata Search - https://search.earthdata.nasa.gov/.
    - Select Earthdata Login in the upper right corner to sign in using your Earthdata Login account.
2. In the search field, type the shortname of the data product, such as "ECO_L1B_GEO."
3. Select ECO_L1B_GEO dataset from list of returned collections.

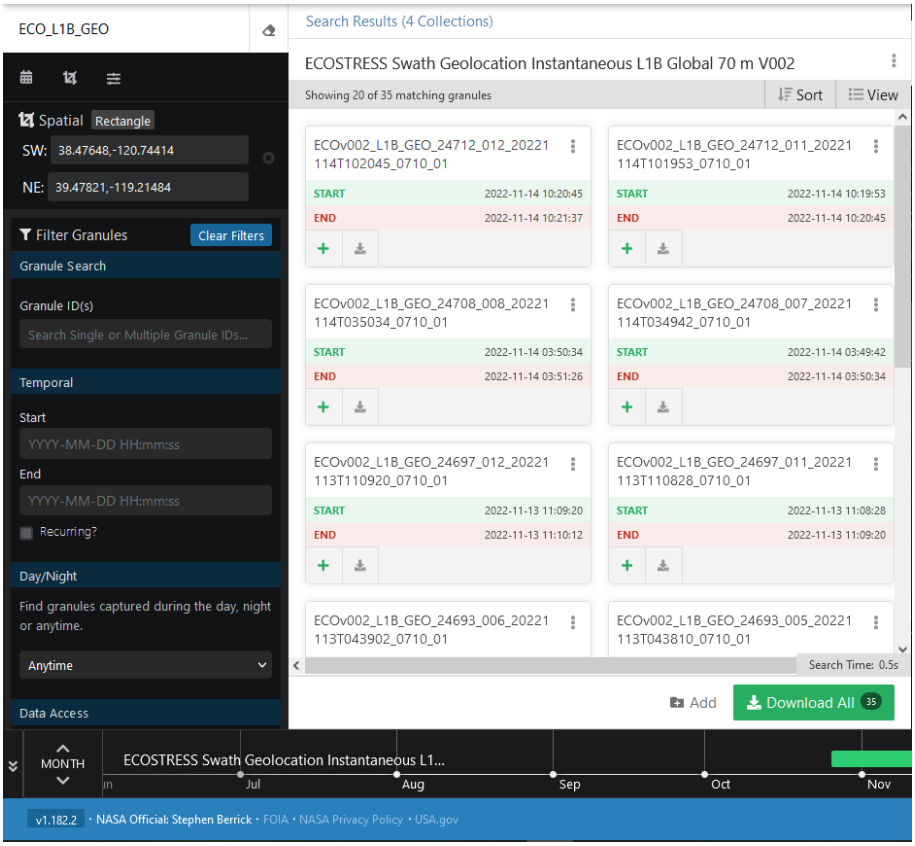


4. Desired granules can be found by utilizing the spatial filtering tools over a specified area of interest (AOI).



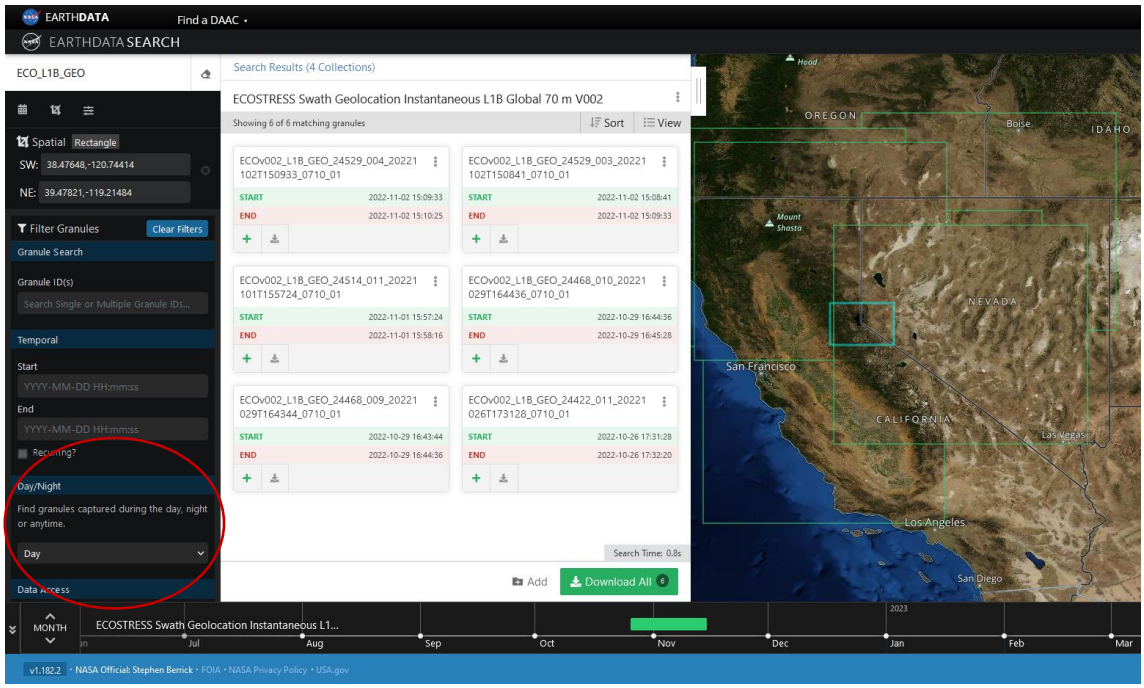
5. In this example the AOI is Lake Tahoe, and a bounding box was drawn over the area to locate granules that intersect this area or are within the bounding box.

6. The search results will list granules that intersect with the AOI.

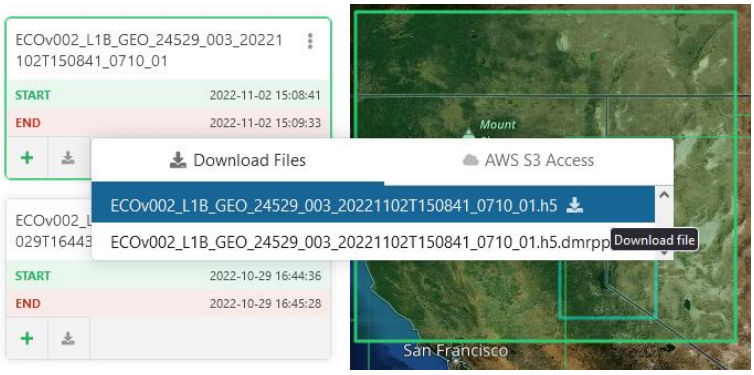


- The filtering options on the left side can be used to narrow the granule selection with Granule Search, Temporal, Day/Night, Data Access, Orbit Number, Equatorial Crossing Longitude, and Equatorial Crossing Date.

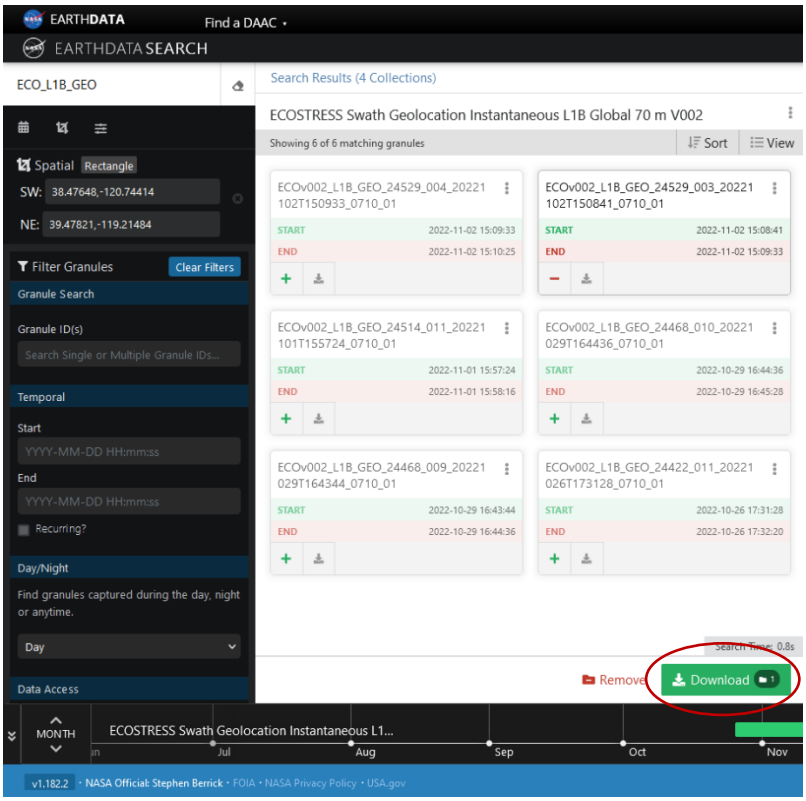
7. In the example, a daytime image was chosen utilizing the Day/Night filter.



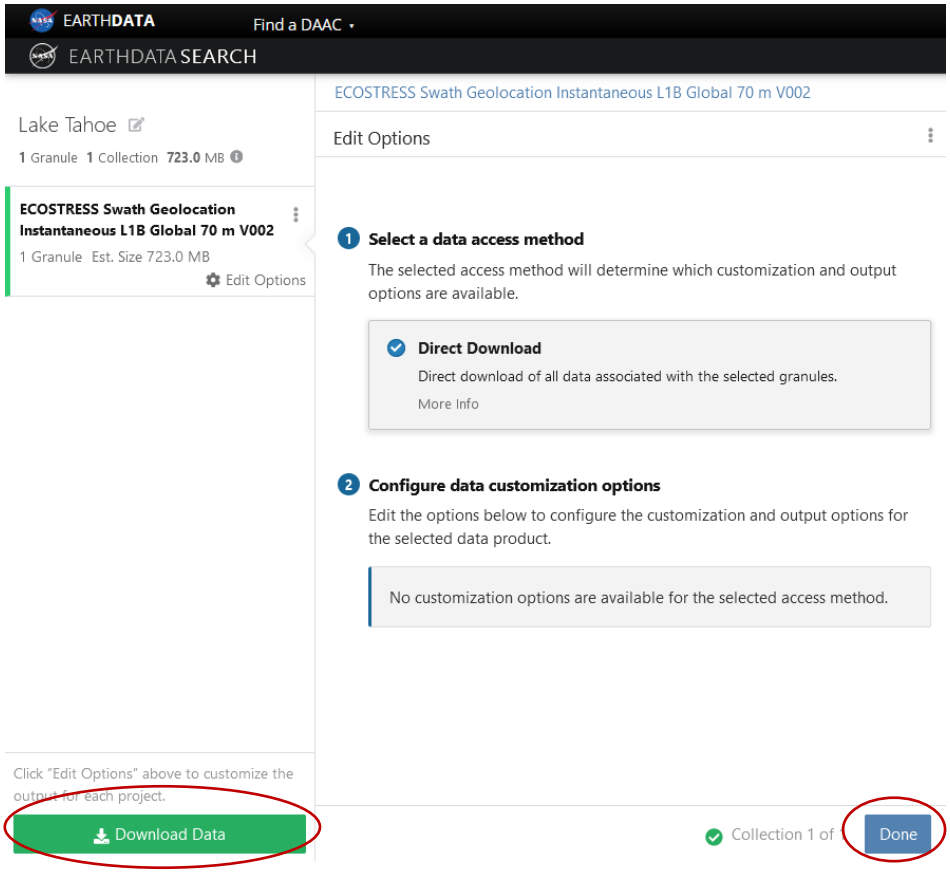
8. To choose a granule for download, select the + to add the granule to a project for download.
    - A single granule can alternatively be downloaded by selecting ↓ and downloading from the granule listing.



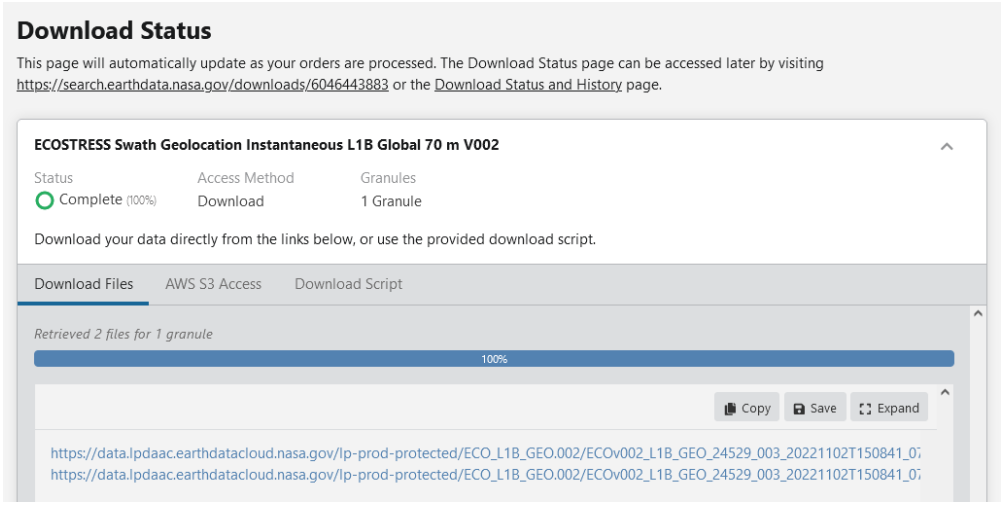
9. When a granule is selected, it will be added to a project. Select Download to proceed to the Project page.



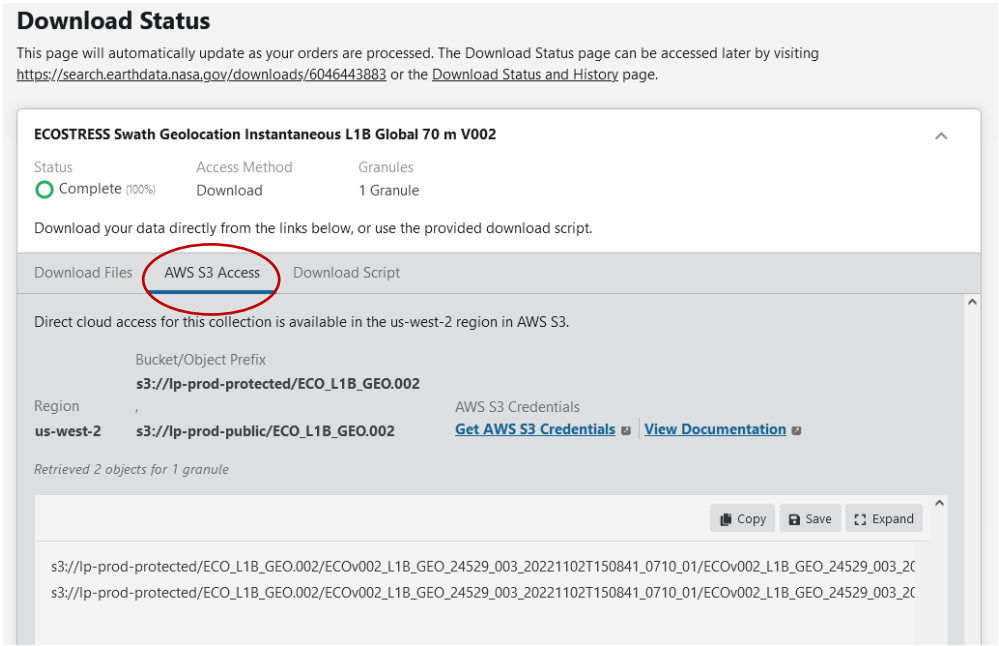
10. Select Done and then Download Data.



11. The Download Status page will display links to the selected datasets for download.



- Note that cloud-based granules will also include AWS S3 Access.



Searching and downloading ECOSTRESS data products from a specific orbit number

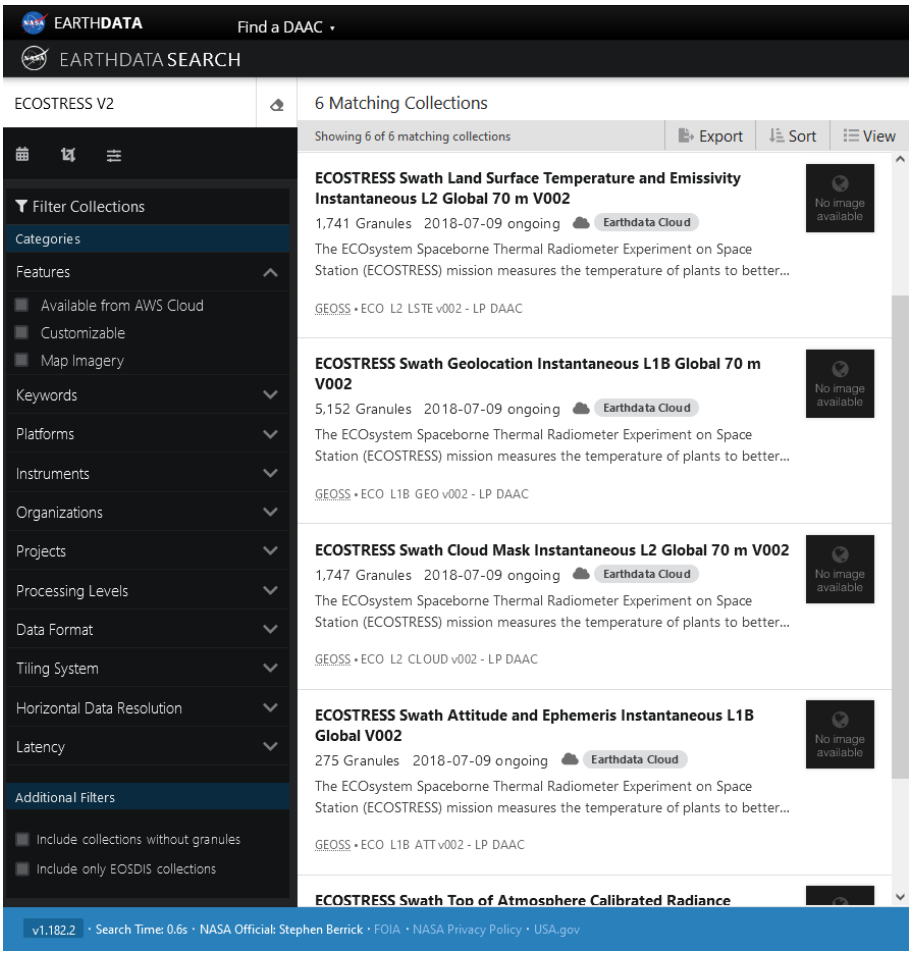
1. To find a matching scene of the corresponding L1B or L2 data products, locate the orbit number and scene in the ECO_L1B_GEO granule.

   ECOv002_L1B_GEO_24529_003_20221102T150841_0710_01

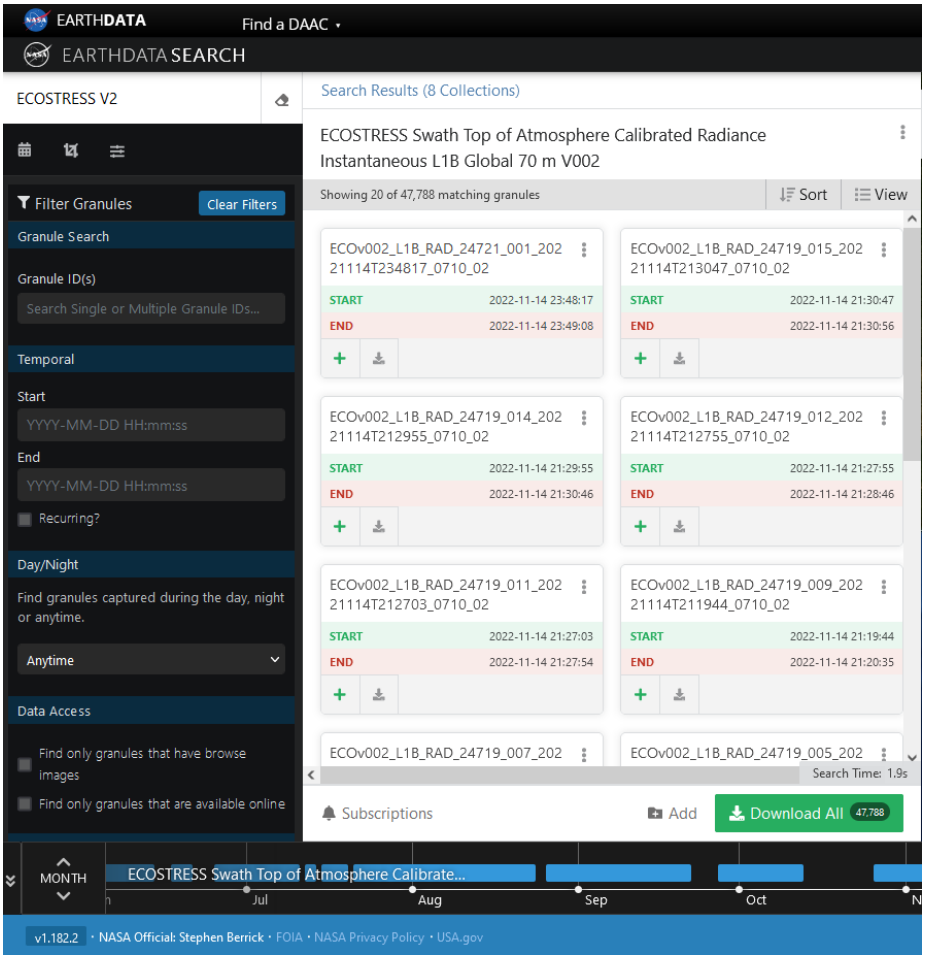
   24529 = orbit

   003 = scene

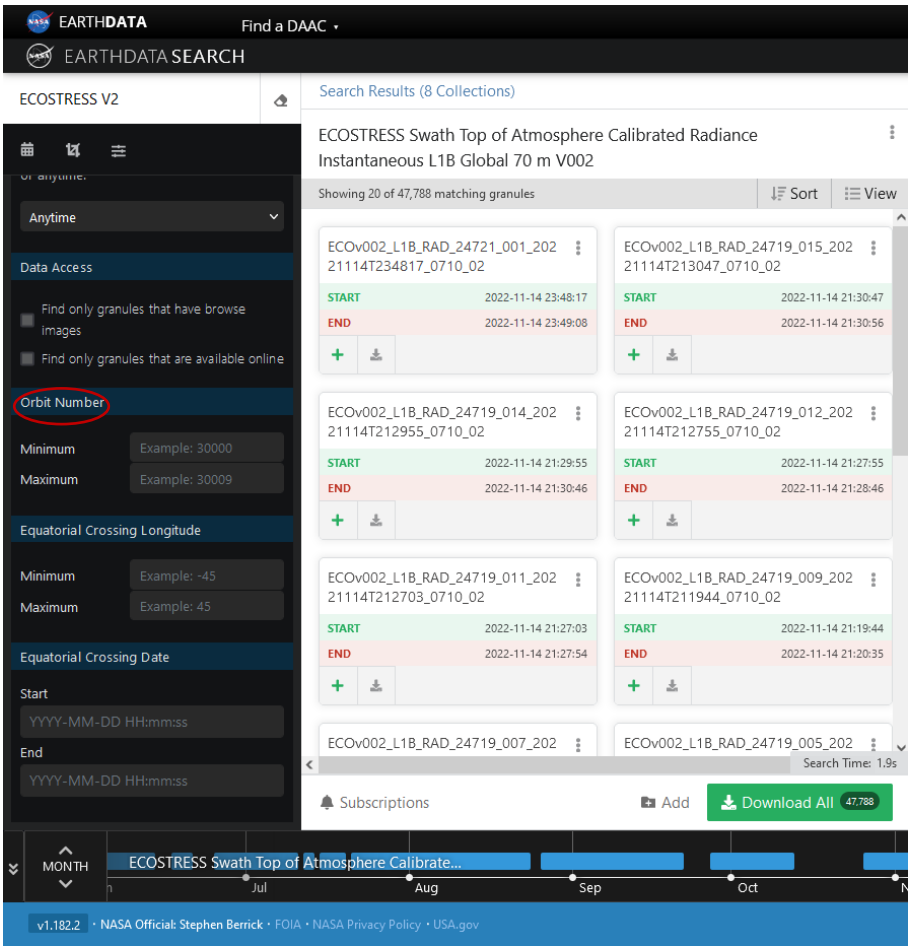
2. In the search field, type the shortname of the data product, such as “ECO_L1B_RAD,” or simply search “ECOSTRESS v2.” Select desired dataset from the list of returned collections.



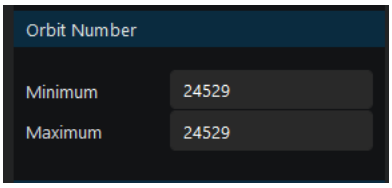
3. In this example ECO_L1B_RAD was selected from the list.



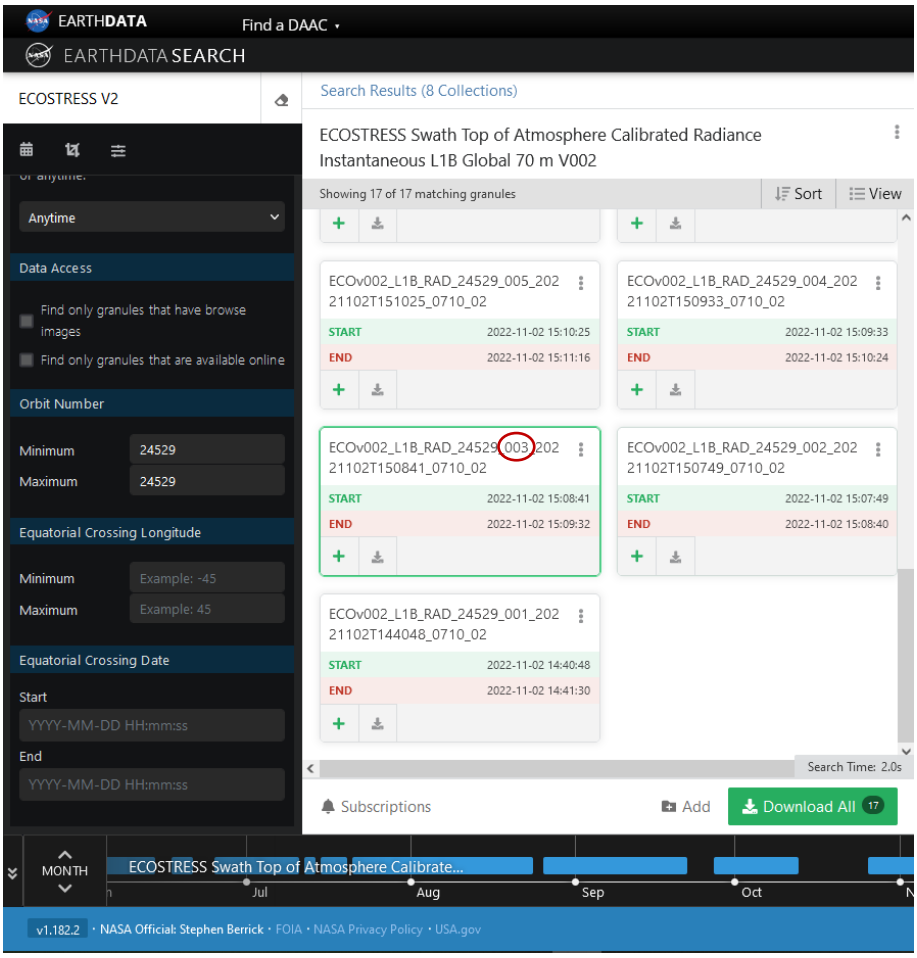
4. On the left side, scroll down on the filter options and locate the “Orbit Number” field.



5. In this field enter the orbit number from the above ECO_L1B_GEO granule for both the “Minimum” and “Maximum.”

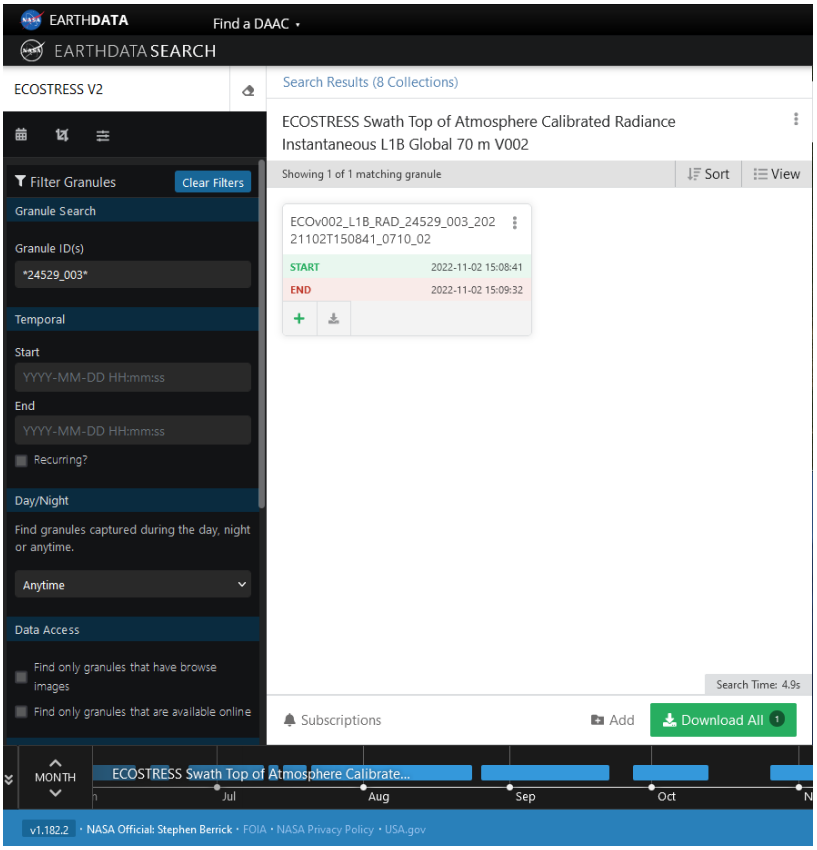


6. Now scroll through the search results to find the granule that has the matching scene, in this case “003.”



- An alternative search can be done for the orbit and scene by entering *24529_003* in the Granule ID(s) field.

7. Once the scene is found, either select the + to add to the project to be downloaded from a project or ⬇ to download from the "Search Results" screen.



8. Once both the ECO_L1B_GEO and ECO_L1B_RAD files have been downloaded, use the ECOSTRESS Swath to Grid Conversion Script to create a projected GeoTIFF of the ECO_L1B_RAD data product.