

OCEAN
INFORMATION
RESOURCES



Integrated **Marine**
Observing System

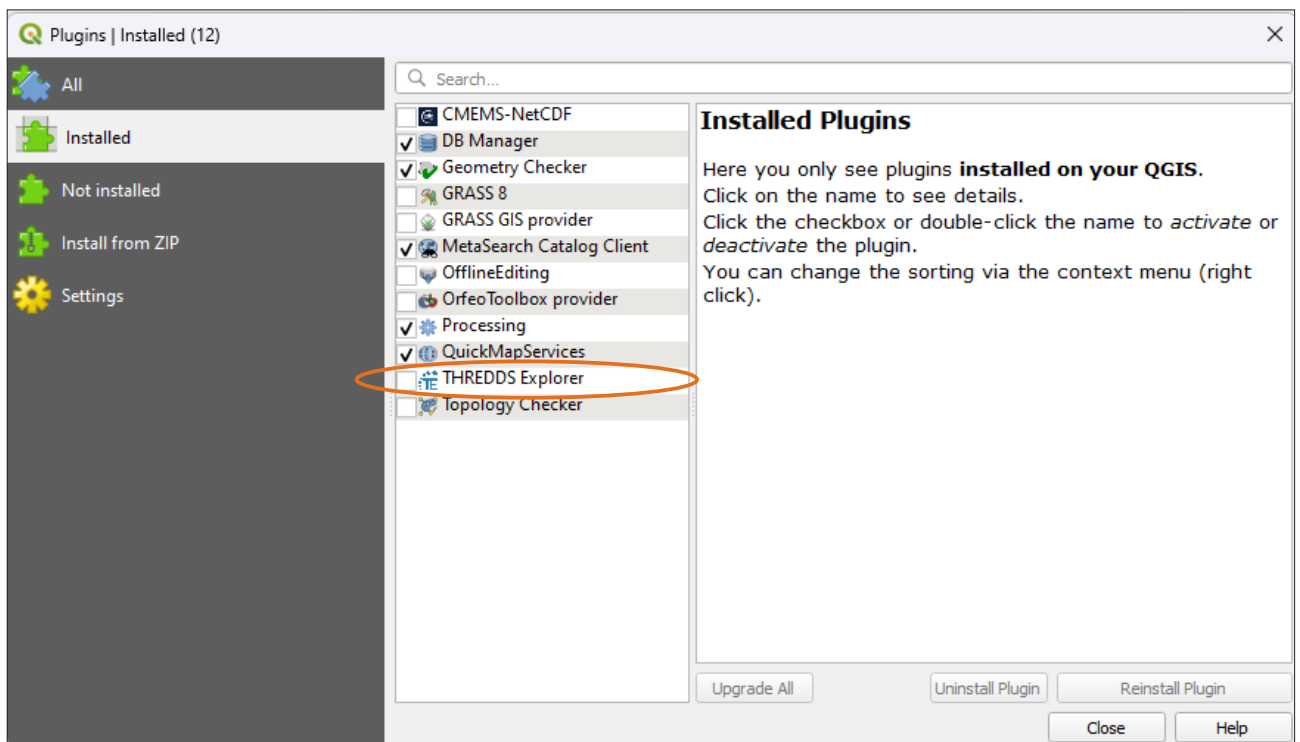
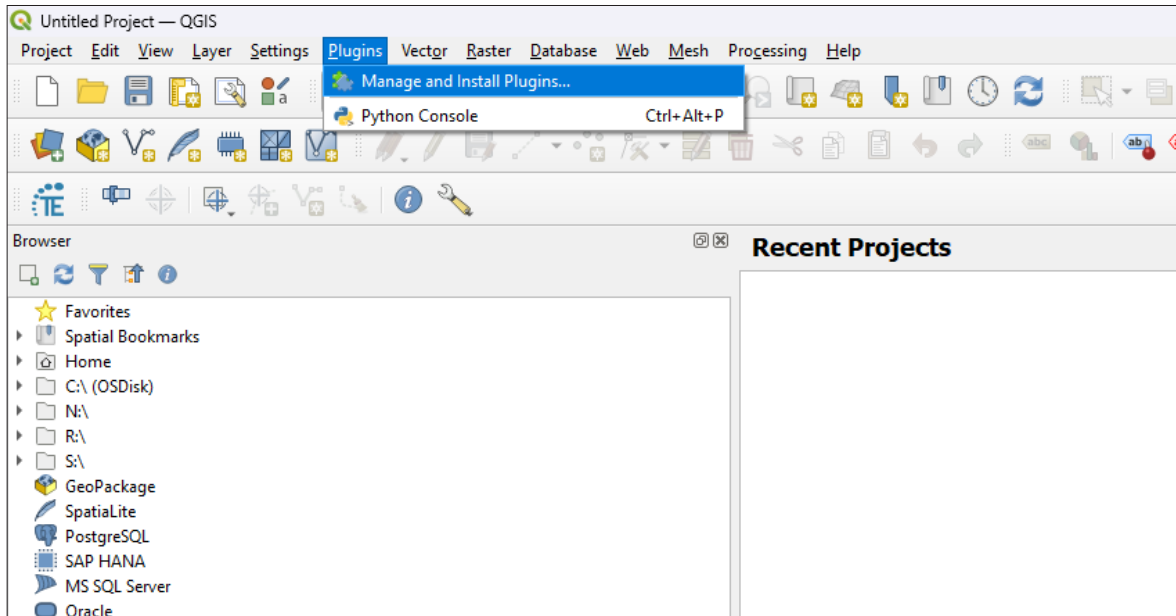


ACCESSING IMOS AUSTRALIAN OCEAN DATA NETWORK OCEAN COLOUR DATA USING QGIS

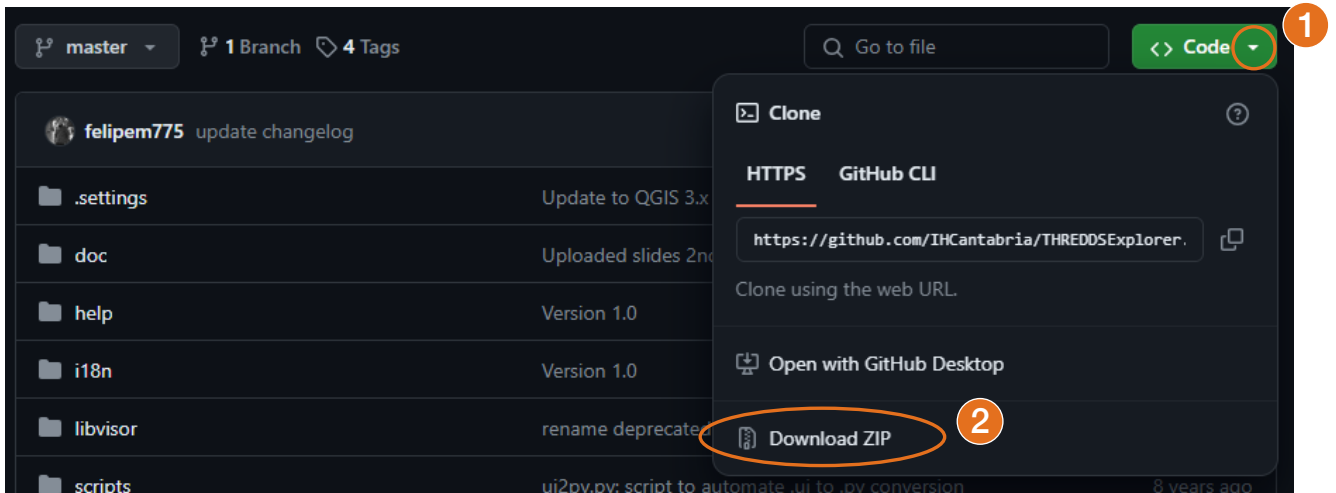
In this guide, we demonstrate how to use QGIS to access IMOS satellite data products from the AODN using a THREDDS plugin. The tutorial shows the use of multiple datasets from Satellite Remote Sensing: Ocean Colour.

A) PREREQUISITE

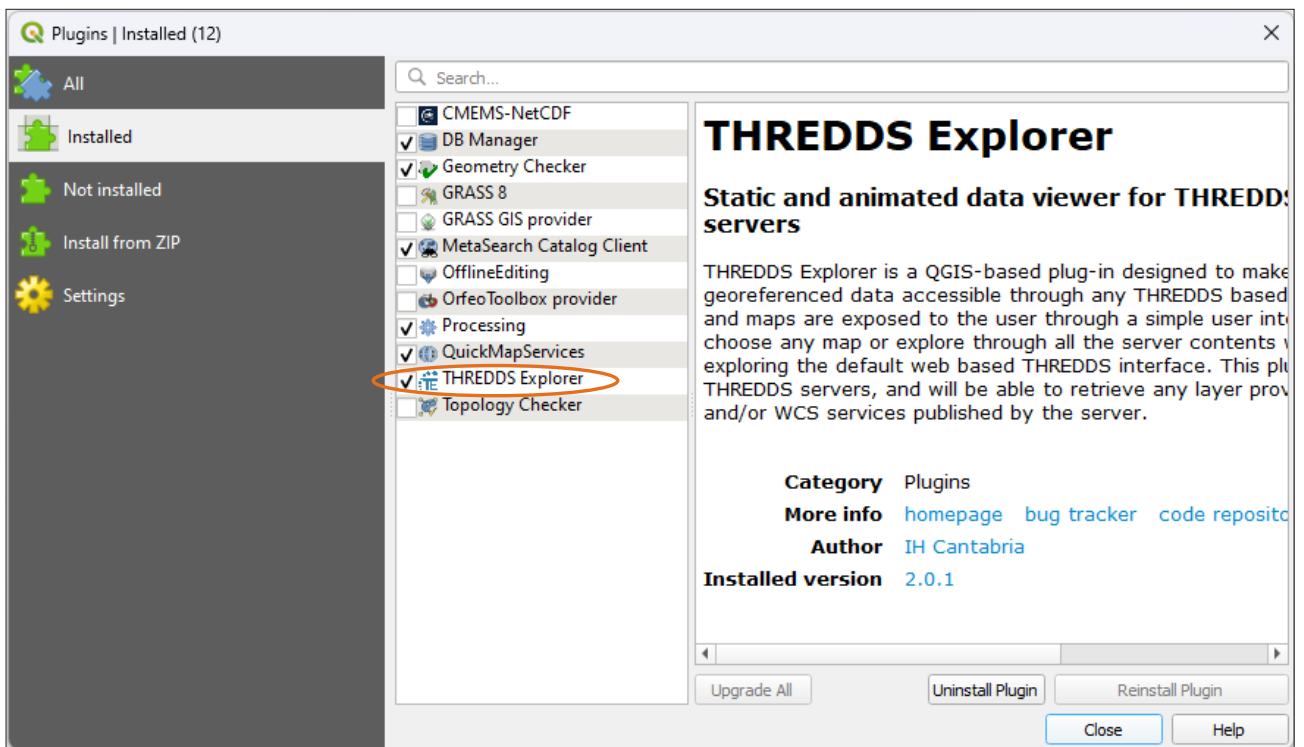
1. Open Qgis. We are using version Prizren 3.34. Other versions may present issues with THREDDS Explorer compatibility.
2. Check if THREDDS Explorer is installed. (If known to be installed, skip steps 2-5). Navigate to 'Plugins > 'Manage and Install Plugins' and check if the package is installed but not active. If it is installed but unchecked, activate it.



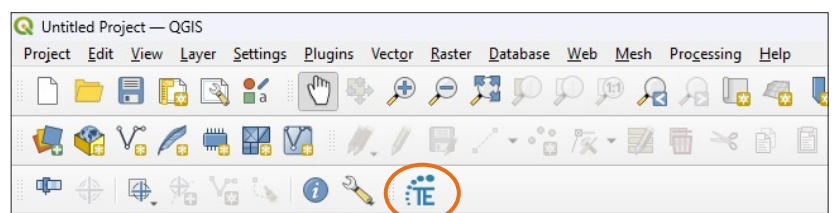
- If not installed, navigate to the download site: <https://github.com/IHCantabria/THREDDSExplorer>, click on the 'code' button arrow, and select 'download zip'.



- Extract the folder keeping the directory in tact to the plugins directory, located at: 'C:\Users***USERNAME***\AppData\Roaming\QGIS\QGIS3\profiles\default\python\plugins' where username portion to be replaced by the current user login.
- Restart QGIS, and navigate once again to the Plugin Manager and activate 'THREDDSE Explorer'.

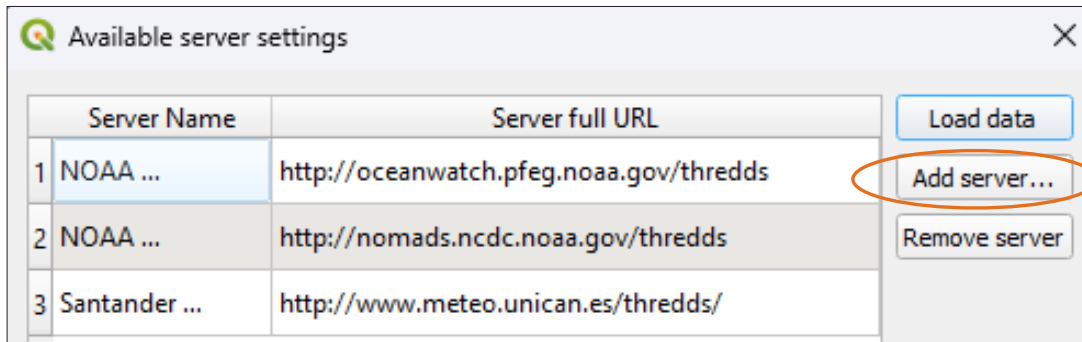


This icon should appear on the ribbon bar:

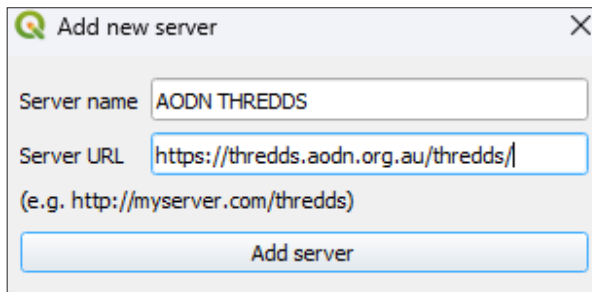


B) DATA ACCESS

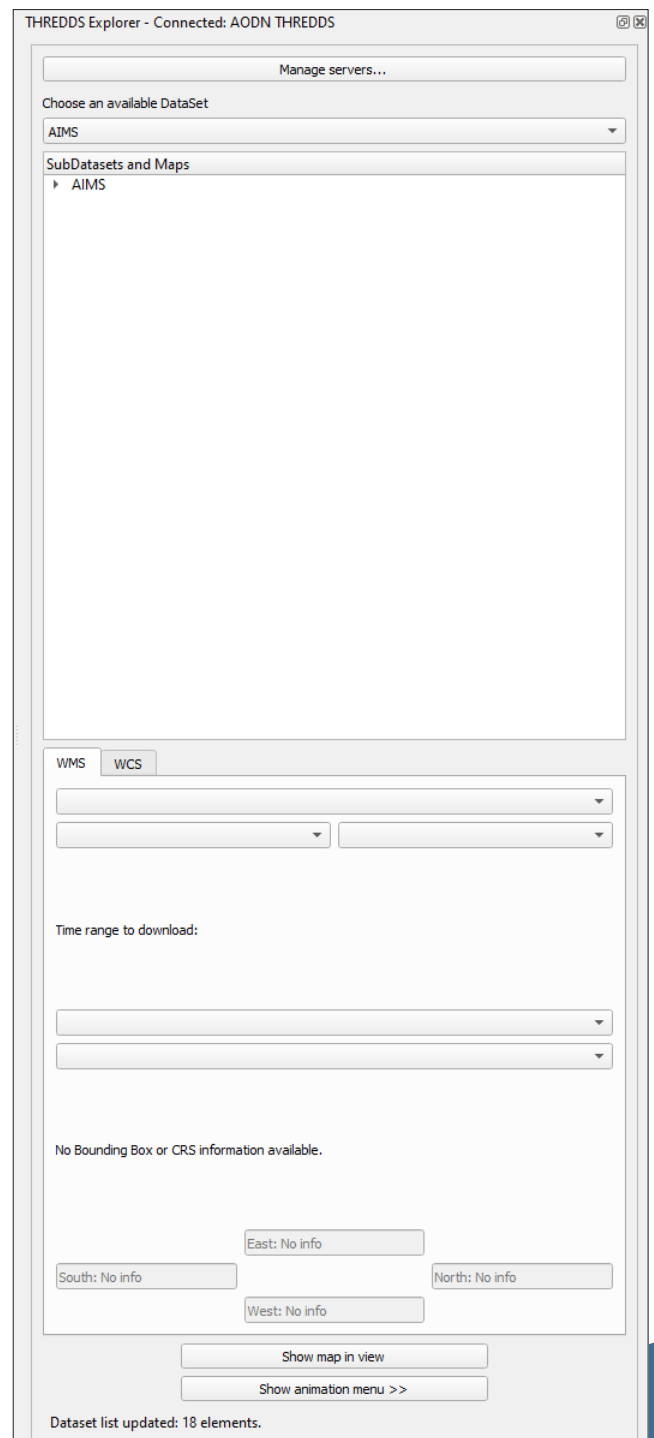
6. Load your base map if desired. In this tutorial, we will use the Esri Satellite XYZ. Open THREDDS Explorer, and click on 'Add Server'.



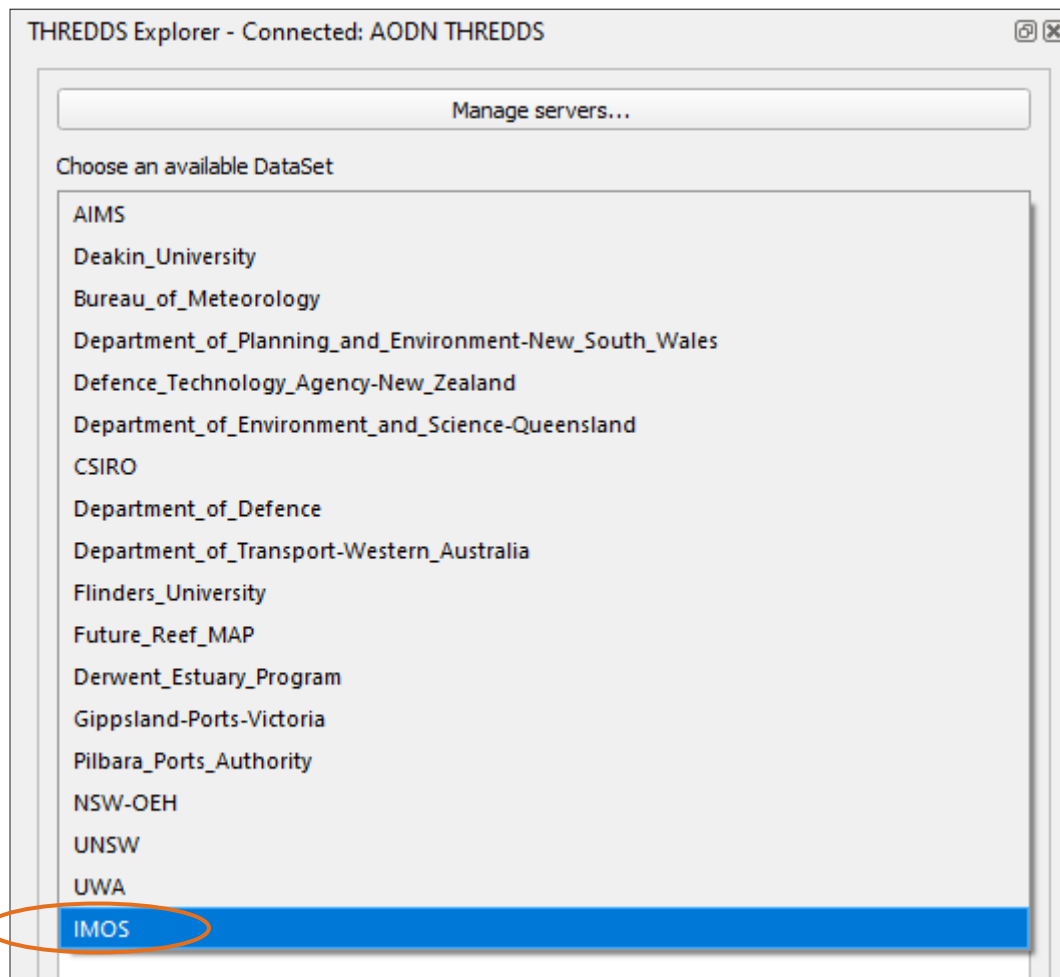
7. Add the AODN THREDDS server as the name and <https://thredds.aodn.org.au/thredds/> as the Server URL.



8. You will be presented with a navigation window as per below, which may be embedded.



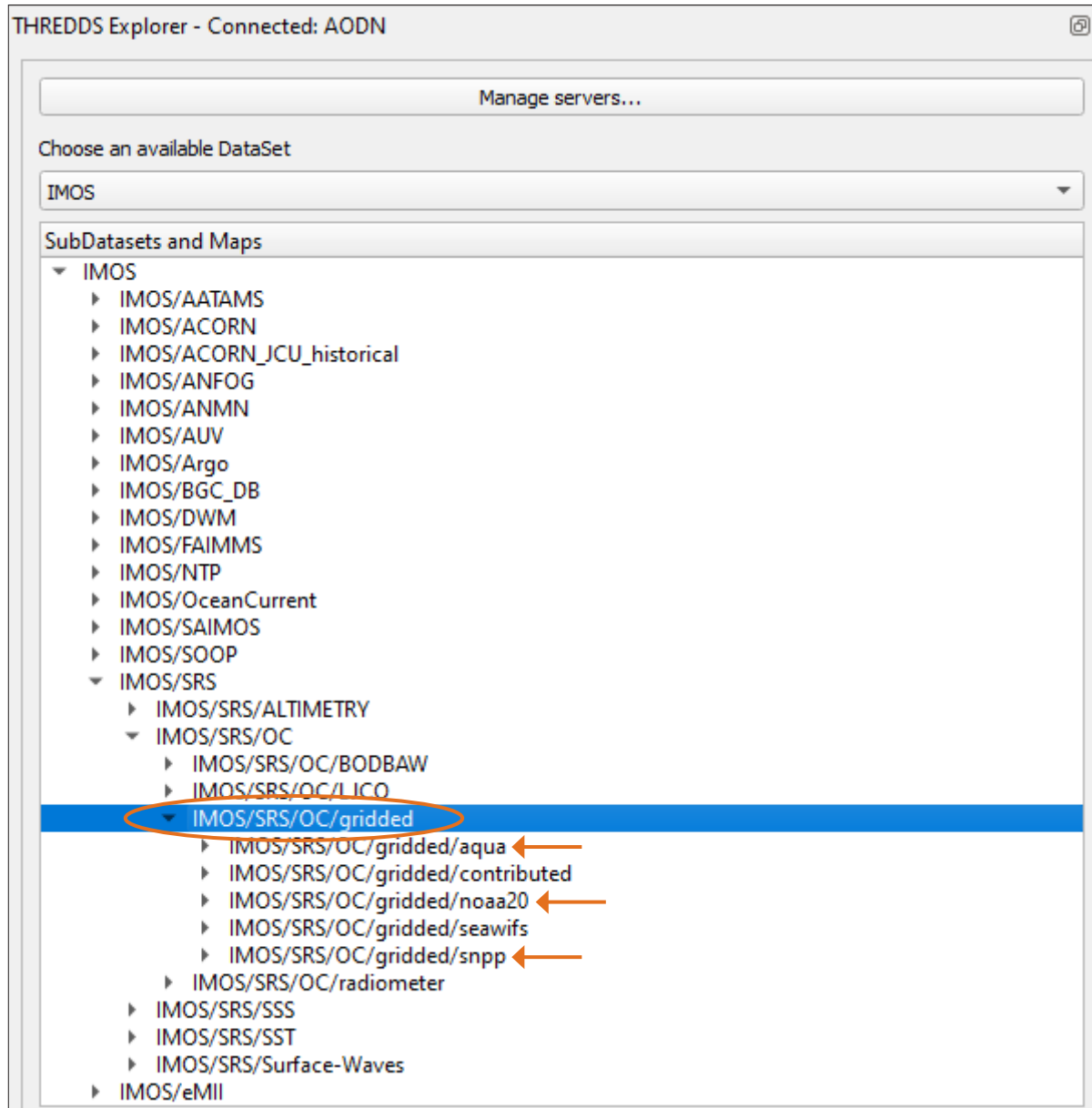
9. Select the IMOS dataset from the drop down menu.



Please note that not all datasets have GIS compatibility and will not display on a GIS software. Our main focus will be on importing one set of chlorophyll data into the software.

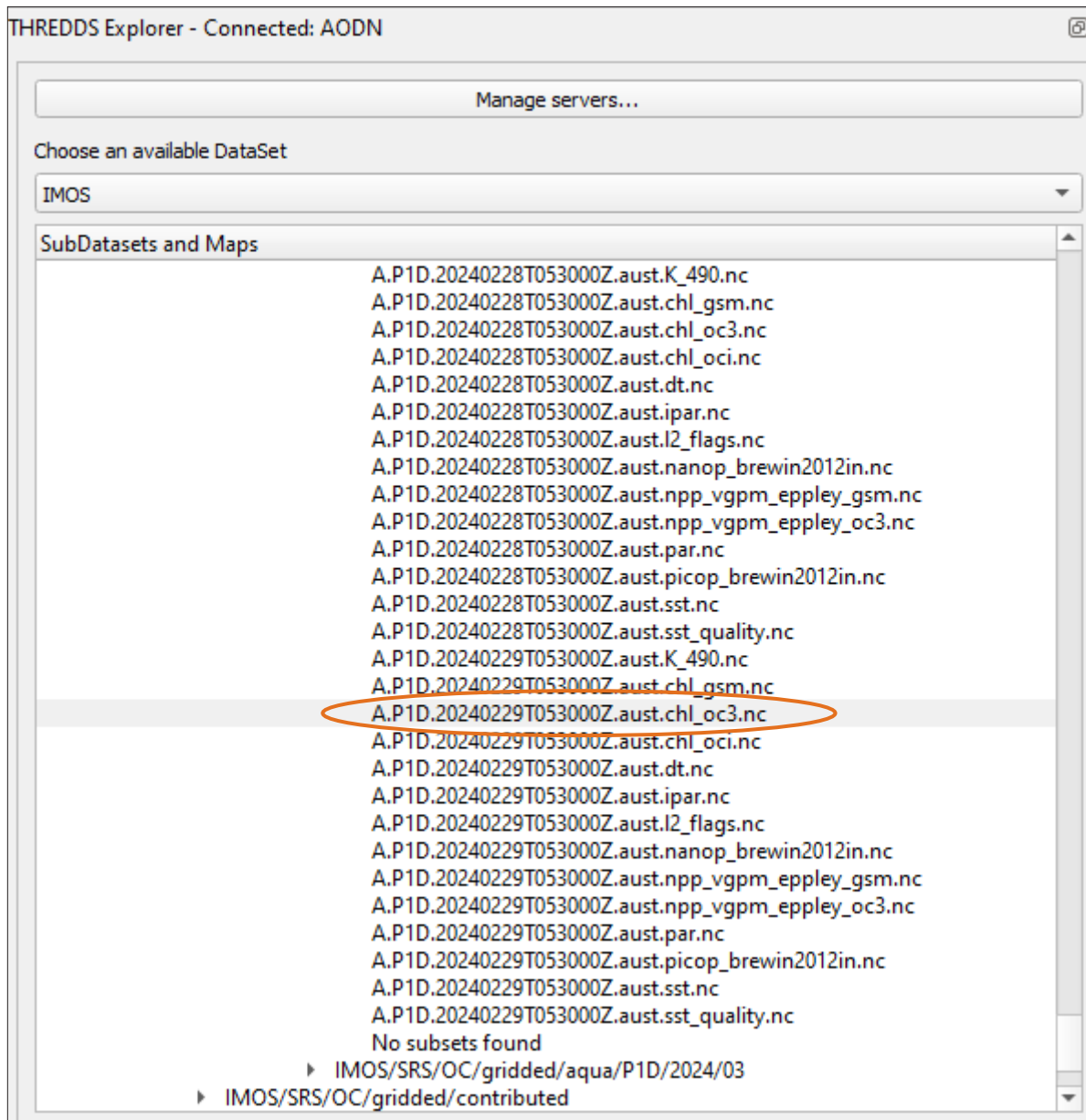
10. In this example we will add a Ocean Colour remote sensing data to the map. We will use 3 different datasets. For the most recent datasets, in the “SubDatasets and Maps” section, navigate to >IMOS/SRS/OC/gridded/.

There are multiple satellite products available in this section. For this tutorial, we will use the three datasets ‘AQUA’, ‘NOAA20’ and ‘snpp’.



For further information regarding IMOS remote sensing products, visit the catalogue [here](#).

As all three satellites have differing orbits, the best coverage is achieved if they are combined in one overlay. To achieve this, select the same day products from each of the three. In this example, we have selected the 29th of February 2024 and used the 'chl_O3' product for each.



11. For each of the srs products imported, we need to ensure they all have the same colour pallet. In this example, we are using OCCAM selected in the WMS tab of THREDDS Explorer.

WMS WCS

chl_oc3

boxfill occam

Time range to download:

2024-02-29T05:30:00.000Z

2024-02-29T05:30:00.000Z

CRS = CRS:84

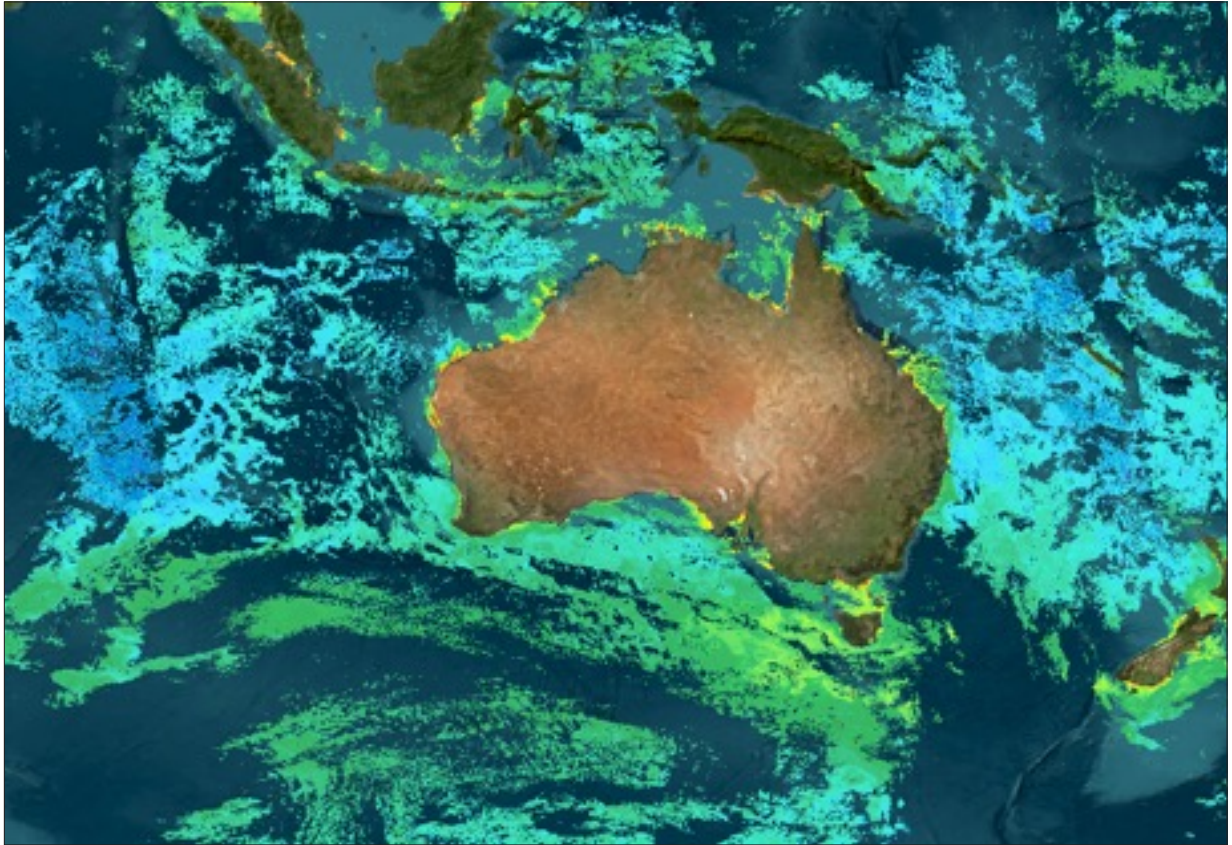
Bounding Box information (decimal degrees):

80.0 10.0 180.0 -60.0

Show map in view

Show animation menu >>

11. If imported correctly, the output will be similar to this:



Please note that the resolution is scalable for smaller maps.

FOR MORE RESOURCES

For more Ocean Information Resources, visit bit.ly/3U0ybIZ

CONTACT US

For more information, please email info@aodn.org.au




NCRIS
National Research
Infrastructure for Australia
An Australian Government Initiative

Australia's Integrated Marine Observing System (IMOS) is enabled by the National Collaborative Research Infrastructure Strategy (NCRIS). It is operated by a consortium of institutions as an unincorporated joint venture, with the University of Tasmania as Lead Agent. www.imos.org.au

PRINCIPAL PARTICIPANTS



**UNIVERSITY of
TASMANIA**
(Lead Agent)



Australian Government



AUSTRALIAN INSTITUTE
OF MARINE SCIENCE



Australian Government
Bureau of Meteorology



CSIRO



Government
of South Australia



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SIMS is a partnership involving four universities.

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Curtin University



Australian Government
Department of Climate Change, Energy, the Environment and Water
Australian Antarctic Division



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PROGRAM



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IMOS thanks the many other organisations who partner with us, providing co-investment, funding and operational support, including investment from the Tasmanian, Western Australian and Queensland State Governments.

IMOS acknowledges the Traditional Custodians and Elders of the land and sea on which we work and observe and recognise their unique connection to land and sea. We pay our respects to Aboriginal and Torres Strait Islander peoples past and present.