

# ALLEN CORAL ATLAS

## Tips for Using the Geoserver Web Map Service (WMS) and Web Feature Service (WFS)

Our benthic and geomorphic habitat maps are available via a [Web Map Service \(WMS\)](#) and [Web Feature Service \(WFS\)](#) at the links below to facilitate further analysis or exploration of the data, subject to our [Terms of Use](#). If you have ideas for application integrations with the Atlas, please let us know at [support@allencoralatlas.org](mailto:support@allencoralatlas.org).

Note that this API is not designed or intended for downloading large quantities of data frequently. If this is what you need, we encourage you to use the download feature on the Atlas website.

Use these links to get connected with most geospatial tools:

<https://allencoralatlas.org/geoserver/ows?service=wms&version=2.0.0&request=GetCapabilities>

<https://allencoralatlas.org/geoserver/ows?service=wfs&version=2.0.0&request=GetCapabilities>

This is a sample WMS query that should return a small amount of benthic map data near American Samoa:

[https://allencoralatlas.org/geoserver/ows?service=wms&version=2.0.0&request=GetMap&layers=coral-atlas:benthic\\_data\\_verbose&crs=EPSG:4326&styles=polygon&bbox=-172.14209,-13.84543,-172.08869,-13.814&width=2048&height=2048&format=geojson](https://allencoralatlas.org/geoserver/ows?service=wms&version=2.0.0&request=GetMap&layers=coral-atlas:benthic_data_verbose&crs=EPSG:4326&styles=polygon&bbox=-172.14209,-13.84543,-172.08869,-13.814&width=2048&height=2048&format=geojson)

These screenshots illustrate successful connection configurations in QGIS 3.16:



and ArcGIS Online:

The screenshot shows the 'Add Layer from Web' dialog box. At the top, it asks 'What type of data are you referencing?' with a dropdown menu set to 'A WMS OGC Web Service'. Below this is a URL field containing 'https://allencoralatlas.org/geoserver/ows?service=wms'. There is a checkbox for 'Use as Basemap' and a link for 'Add Custom Parameters'. A 'GET LAYERS' button is positioned above a list of layers. The list includes 'Layers (click to rename)', 'Allen Coral Atlas benthic data' (checked), and 'Allen Coral Atlas geomorphic data' (unchecked). At the bottom of the dialog are 'ADD LAYER' and 'CANCEL' buttons.

## Tips:

- Geospatial tools such as QGIS and ArcGIS may attempt to download large quantities of data by default, which can cause errors and result in sluggish behavior. Consult your tool's WMS/WFS documentation to constrain the amount of data it tries to consume.
- Many tools and programming languages have a default time limit for data requests (30 seconds is common). If you are experiencing timeout errors, consider requesting less data (for a smaller area) or increasing your timeout limit (eg, 60 seconds).
- Habitat (benthic and geomorphic) map data do not include the color styling that you see in the Atlas, so your geospatial tool might display habitat maps with the same color for every polygon. Consult your tool's documentation to style the map data such that different habitat classes are displayed in different colors.
  - [QGIS styling instructions](#)
  - [ArcGIS Online styling instructions](#)
- For security reasons, programmatic requests with certain User-Agent headers will be blocked, returning a 403 Forbidden response. If you encounter this

issue, use a custom User-Agent header such as `User-Agent : geoserver-client`.

## Citation Guidance:

For media, data publications, WMS, API, web-based stories, screenshots, and quoting directly from the website please use the following citation:

Allen Coral Atlas maps, bathymetry and map statistics are © 2018-2022 Allen Coral Atlas Partnership and Arizona State University. and licensed CC BY 4.0 (<https://creativecommons.org/licenses/by/4.0/>)

For research publications:

Allen Coral Atlas (2022). Imagery, maps and monitoring of the world's tropical coral reefs. [doi.org/10.5281/zenodo.3833242](https://doi.org/10.5281/zenodo.3833242)