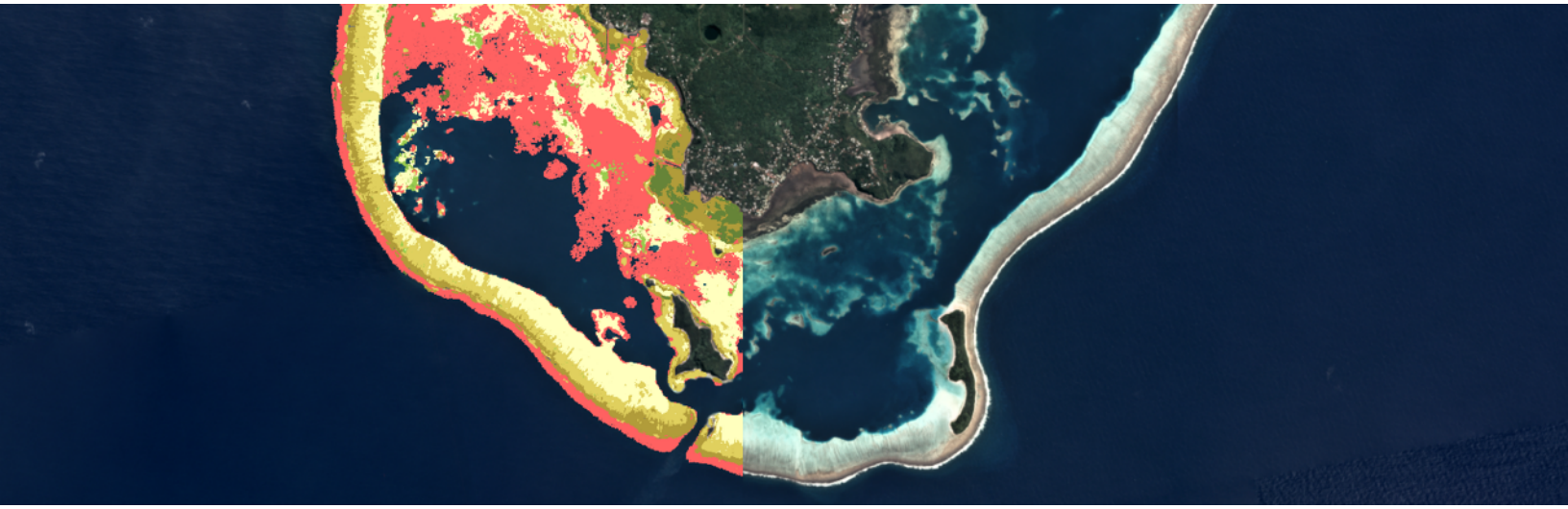
ALLEN **CORAL ATLAS**



THE ALLEN CORAL ATLAS is a game-changing coral conservation tool developed in partnership with coral reef scientists, universities, NGOs and private entities.

BACKGROUND

Named for Microsoft co-founder and philanthropist Paul G. Allen in recognition of his key role in bringing the Atlas to life and his overall commitment to filling data gaps necessary to solve the world's greatest challenges, the Allen Coral Atlas utilizes high-resolution satellite imagery and advanced analytics to map and monitor the world's coral reefs in unprecedented detail (30° N and S latitude).

The initiative's goal is to assist stakeholders ranging from local communities to regional and national governments reach their coral reef conservation goals. With the Atlas, coral conservationists, reef managers and scientists have access to information that has never been before available at this scale.

TECHNIQUE

The Allen Coral Atlas habitat maps are created with a semi-automated machine learning process that utilizes new and existing habitat data, water depth, satellite imagery data from Planet's Dove satellites, and Object-based analysis to rapidly classify large coastal marine areas into the benthic and geomorphic mapping classes.

The bleaching monitoring system employs satellite imagery, advanced algorithms and Google Earth Engine to detect changes in the spectral signature of coral reefs and determine areas that may be bleaching. Areas that are undergoing marine heatwaves are monitored on a biweekly basis for potential bleaching.

FEATURES

- Benthic layer (<10m depth)
- Geomorphic layer (<15m depth)
- Seamless high resolution global imagery (2018, 2019, and 2020)
- Bathymetric data (download only)
- Bleaching Monitoring system
- Turbidity Monitoring system

ABOUT THE ALLEN CORAL ATLAS

First ever global, high resolution mapping and monitoring system of the world's tropical shallow coral reefs, available worldwide in 2021.

To learn more, visit allencoralatlas.org

PARTNERS

ASU's Center for Global Discovery and Conservation Science: Leading strategy and innovation, website engineering, and developing dynamic reef monitoring system

National Geographic Society: Leading field engagement and outreach

Planet: Delivering pre-processed global high resolution satellite imagery

University of Queensland: Creating benthic and geomorphic habitat maps and leading field verification

Vulcan: Leading policy outcomes and communications strategy

The Atlas was developed through a partnership of leading technologists, scientists and data managers with initial funding by Paul G. Allen.