

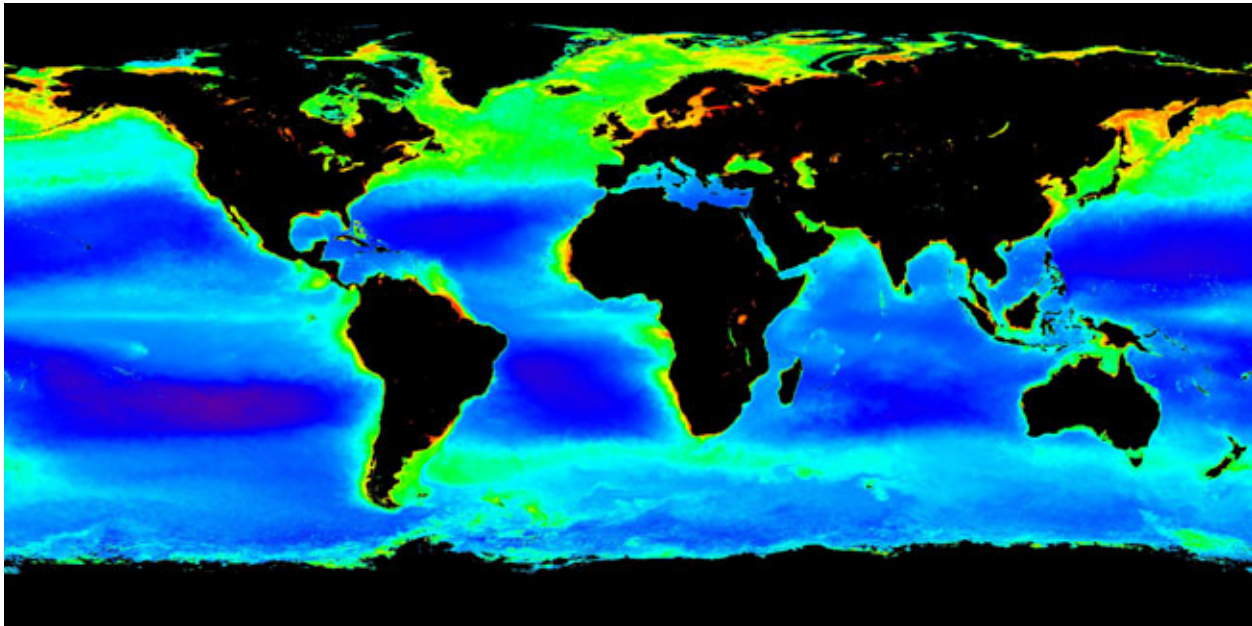
Global Mapping of Ocean Ecosystem Health by FAU Harbor Branch and NASA

Scientists at Florida Atlantic University's Harbor Branch Oceanographic Institute (HBOI) along with other members of NASA's Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) Investigation Team are on a mission to map ocean ecosystem health from space. HBOI's Drs. [James Sullivan](#) and [Michael Twardowski](#) are part of the PACE Science Team, a group of scientists coordinating the science plan for a next generation satellite, launching into space in 2022.

Once active, PACE will be the most advanced global ocean color and aerosol mission ever launched and will add to climate data records while unveiling new insights on life in our ocean. Ocean color from space is the only way scientists can map critical ocean health parameters on a global scale. PACE's data will reveal interactions between the ocean and atmosphere, including how they exchange carbon dioxide and how light and nutrients fuel phytoplankton growth in the surface ocean. Extending and expanding NASA's 40 year record of satellite observations of our living planet will allow scientists to take the Earth's pulse in new ways for decades to come.

By observing the biosphere from space, scientists can learn more about climate change, air quality and about issues closer to home, like harmful algal blooms in the Indian River Lagoon. Through the imagery, scientists can see the distribution of algal blooms, determine what kind of phytoplankton is responsible for the disturbance, and create predictive models. Since the 1970's, ocean color satellite data has provided direct benefits to society in areas such as water resources monitoring, fisheries management, air quality forecasting and disaster monitoring.

The project is funded by NASA Ocean Biology & Biogeochemistry (OBB) Program. To learn more, visit <https://pace.gsfc.nasa.gov/>



Global phytoplankton abundance. Credit: NASA

Source: https://pace.oceansciences.org/gallery_more.cgi?id=890