

Gathering Local Knowledge, Building Transparency

Place matters in the marine environment.

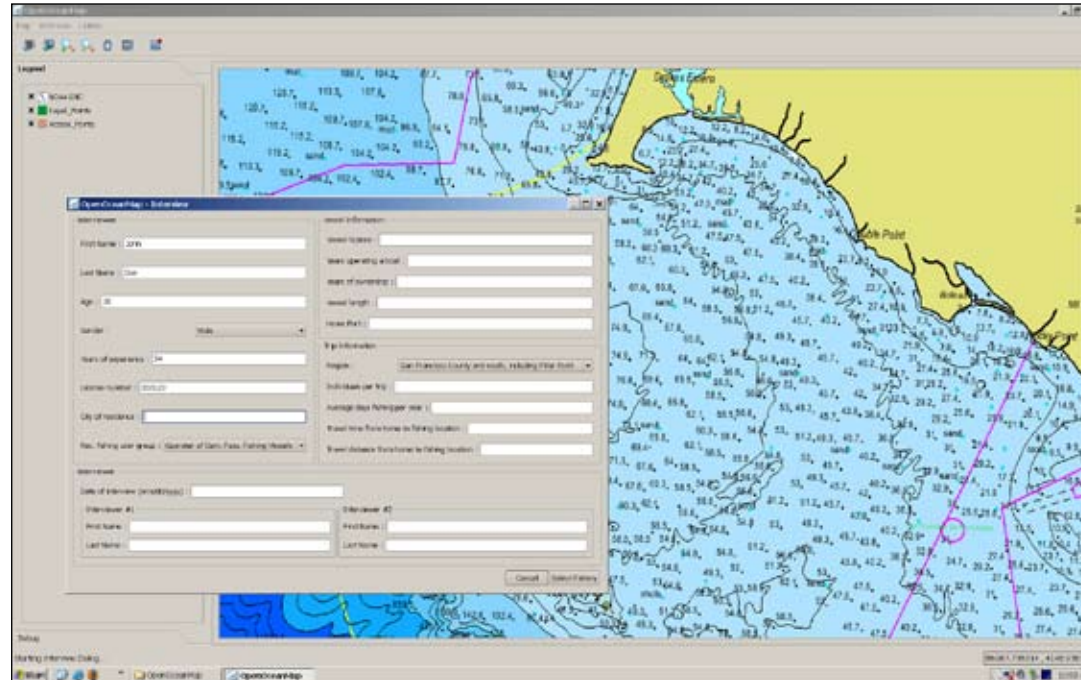
Marine creatures seek out specific habitats, and fishermen value specific fishing grounds. A spatial understanding matters for marine policies as well. Around the world, Marine Protected Areas (MPAs) have succeeded in protecting sensitive ecosystems by restricting human activities in designated waters. But with many communities dependant upon the near-shore environment for their livelihoods, the creation of Marine Protected Areas can become a contentious process.

Ecotrust's OCEAN (Ocean Communities "3E" ANalysis) toolkit enables managers, scientists and communities to consider economy, ecology and equity in an integrated, spatially specific approach to fisheries management. OCEAN builds transparency into the MPA designation process, enabling dialog among diverse stakeholders. Looking forward, we anticipate that the OCEAN toolkit will be able to similarly support decision making for other types of "ocean zoning" projects.

Learn more:
www.ecotrust.org/ocean

The OCEAN Toolkit

The OCEAN toolkit serves four main functions: data collection, spatial design, decision support and monitoring. Our use of open source technologies facilitates adaptability of the OCEAN toolkit across institutional and international boundaries.



Data Collection

Through portside interviews or a web-based interface, OCEAN facilitates the collection of local knowledge about the relative importance of marine areas.

Spatial Design

Bounded by constraints and seeking to maximize objectives, OCEAN runs a numerical optimization analysis that allows us to create and compare MPA design scenarios.

Decision Support

Through a structured process in which communities rank MPA designation criteria, OCEAN provides decision support and then uses multi-criteria analysis to enable the evaluation of multiple scenarios.

Monitoring

After an MPA designation, we utilize OCEAN to run statistical analyses on fish population data to assess the benefits of ecosystem protection. (Still in development.)

Ongoing OCEAN Project Areas

Ecotrust developed the OCEAN analytical framework while working with communities from the West Coast's groundfish fishery to Alaska's Bering Sea Pollock fishery. We are currently utilizing the OCEAN toolkit in three projects along the West Coast.

Port Orford, Oregon

Ecotrust is working with the Port Orford Ocean Resource Team to collect use and habitat data to create a community-based nomination for MPAs in the Port Orford stewardship area.

California's Marine Life Protection Act (MLPA) Initiative

Ecotrust is working with the MLPA Initiative to design a network of MPAs along the state's 1,100 miles of coastal waters.

Loreto Marine National Park, Mexico

Ecotrust is working with Comunidad y Biodiversidad A.C. (COBI) to bring fishermen, scientists, guides and others to the table for decisions about MPAs.