## UC SANTA BARBARA



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## SeaSketch helps stakeholders explore changes to MPAs

As California strives to complete the first update of its Marine Protected Areas (MPAs), stakeholders and managers of the state's marine resources are getting a valuable assist as they update the boundaries and allowed uses of California's MPAs. SeaSketch California, an open-source marine spatial planning tool developed in the lab of UC Santa Barbara researcher Will McClintock, has been doing the heavy lifting of enabling public participation as planners contemplate recommendations and petitions to the MPAs for this round of review.

"California was a pioneer in this method of engaging the public in designing MPAs using a participatory mapping platform," said McClintock, a researcher at UCSB's National Center for Ecological Analysis and Synthesis. "California and UCSB have had a huge impact globally on how MPAs and other ocean zones are designed, and this California project is the latest reflection of that."

California's marine protected areas are a network of regions located both onshore and within roughly three nautical miles of the coast. They encompass diverse ecosystems from beaches to offshore and seafloor habitats, and are given a variety of designations that indicate permitted uses, be they commercial, recreational, scientific or no-take zones. Enacted into policy by the California Legislature in 1999 via the Marine Life Protection Act, they aim, according to the California Department of Fish and Wildlife (CDFW), "to protect California's marine natural heritage."

The challenge with maintaining the biodiversity that MPAs strive to protect is that it's a moving target. As the climate changes, its effects impact the many marine habitats and food webs in California's marine areas. Add to that the priorities and requirements of stakeholders who use the region for fishing, recreation and other purposes, and it's clear that an iterative, adaptive management process that merges science with public participation is necessary.

"(McClintock) has built an important platform," said Staci Lewis, who leads MPA management in the state through the California Ocean Protection Council (OPC), which plans to launch SeaSketch California on March 13. The public is invited to check out the collaborative marine spatial planning tool at (link). "This is an academic-state-public partnership for a transparent, science-based participatory process."

Those who were around for the initial establishment of the California MPAs a decade ago may find the platform familiar; it is based on MarineMap, an earlier iteration of SeaSketch that pioneered the use of real-time mapping and feedback to capture and comment on proposed MPAs.

"A user of the tool would post their idea into a forum and then the members of the California Fish and Game Commission, the Department of Fish and Wildlife and in fact members of the public can see that suggestion and take it into consideration," McClintock explained. "They could take that idea and then apply that to the entire network and see how it could change levels of protection for different habitats in the entire network as well as in that particular zone." For this round of review, the agencies will be evaluating a set of petitions that could modify the boundaries and uses of existing MPAs. SeaSketch California would allow the participants to visualize these changes and how they align with critical scientific guidelines and habitat protection goals.

"SeaSketch California opens the door to accessibility and inclusivity," said CDFW environmental scientist Kara Gonzales, "and it's a way to get the public to the table."

While California may be the first user (via MarineMap) of this open-source marine spatial planning tool, it is not the only one. SeaSketch has been deployed around the world to assist the governments in Fiji, Samoa, Kiribati, Vanuatu, Azores, Brazil, Belize, Maldives and Bermuda engage in marine spatial planning, given their unique

constraints, opportunities and priorities. McClintock has also been working in Argentina and Uruguay to familiarize stakeholders and agencies there with participatory planning processes that can be enabled by the platform.

However, California could be the true test of the open-source marine spatial planning tool and the public participation it enables.

"I work all over the world," McClintock said, "and there's no other place where stakeholders are as strongly opinionated as they are here."

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