

ENGAGING STUDENTS ON MARINE PROTECTED AREAS

California's marine protected areas (MPAs) provide opportunities for students from elementary through graduate school to learn about ocean habitats and wildlife and engage in hands-on science and stewardship. Collaborative Network members have been working with schools, summer camps, aquaria, and youth groups around the state to provide students with a diverse range of education opportunities that inspire and delight. MPA education



links the classroom to the natural world, and connects teachers with programs in their community that can help bring lessons to life and inspire future generations of stewards.

SNAPSHOT OF MPA EDUCATION PROGRAMS

- **PORTS:** PORTS is a free distance learning program of California State Parks that provides lesson plans and live, interactive video presentations for K-12 students on a range of subjects including MPAs. PORTS is a vital resources for inland schools, and reached more than 46,000 students in the past year, mostly from low-income communities.
- **MPA Field Trips:** Every coastal county has at least one program that involves a field trip to their local MPA. Sonoma, San Mateo and Orange County collaborative members have developed effective videos to help prepare students for safe and responsible tidepooling.
- **MPA Watch:** MPA Watch partners work with local high schools, colleges, and universities around the state to engage students in citizen science monitoring of human use inside MPAs and at control sites. WILDCOAST has trained 100 members of Girl Scout Troop 5912 of San Ysidro (pictured above) in the first Junior MPA Watch Program in the state.
- **Tribal Education and Outreach:** The Wishtoyo Foundation provides MPA programs to over 6000 K-12 students a year on a recreated Chumash Village site overlooking the Pacific in Malibu, and has partnered with the Los Angeles Collaborative on an event celebrating maritime indigenous peoples and MPAs. The Tolowa Dee-ni', Potter Valley and Stewarts Point Rancheria educate tribal students on Del Norte, Mendocino, and Sonoma MPAs.
- **Boat Based Programs:** Crystal Cove Alliance partners with a local sportfishing company to provide students an opportunity to engage in on-the-water scientific research and monitoring in MPAs. Similar programs have just been launched in San Diego and Morro Bay.
- **Exhibits:** MPA exhibits dot the coast in museums, visitors centers and aquaria. Stewards of the Coast and Redwoods' Mobile Marine Education Van educates Sonoma County students on MPAs. Collaborative members developed an MPA exhibit at the Santa Cruz Children's Museum of Discovery that educates children five and under. Friends of the Dunes' exhibit uses CDFW materials that target visitors to their center at the Samoa SMCA.

KEY INSIGHTS AND IDEAS

➤ Tap into existing resources for curriculum

Creating a meaningful lesson plan around MPAs requires preparation and hard work. Content that works for a high school biology class won't work for first graders. Luckily, there are excellent tools and resources available for a range of ages and subjects. South Coast aquaria have created an MPA specific curriculum guide, and the San Francisco-based Aquarium of the Bay has produced a curriculum guide for high school students with a focus on MPAs at the Farallon Islands.

➤ Incorporate MPA content into broader lesson plans and public exhibits

Museums, visitors centers, and educators have used existing materials to fold MPA content into public exhibits, field trips, docent-led tours, classes and other activities that are already underway.

➤ Start with the local, and emphasize interactive learning

Students learn best about places they can actually visit and experience. Educators recommend focusing on local MPAs before discussing the statewide MPA network. Field trips to a nearby MPA, research center, or aquarium can be a vehicle for learning about local species, habitats, and MPA protections. Grant programs like Coastal Conservancy's Explore the Coast and Coastal Commission's Whale Tail may be able to help cover the costs of field trips, and encourage projects that reach audiences who are underserved, including those from multicultural, low-income, and inland areas.

➤ Build partnerships with outdoor education nonprofits

There are many outdoor education organizations that specialize in connecting youth—including underserved youth—to the coast. WILDCOAST partnered with Outdoor Outreach on an Explore the Coast grant that has enabled them to bring dozens of students from inner city schools to the coast for kayaking, nature walks, and MPA monitoring training. These trips provided many kids with their first experience getting on the water or camping.

➤ Think beyond natural sciences

While MPAs are an obvious fit for science lessons, they are also excellent venues for history, government, and cultural studies. The Wishtoyo Foundation has made tribal history a core part of their education programming and Camp SEALab at CSUMB has developed a simulated MPA planning exercise for 5-10th grade students.

➤ Learn about what works from existing programs

Collaborative Network program coordinators are eager to share their experiences to help replicate successful programs statewide, and share resources for educators.

For more information about Collaborative Network education programs, please contact Calla Allison at calla.allison@resources.ca.gov

COLLABORATIVE MEMBERS PARTICIPATING IN STUDENT OUTREACH PROGRAMS

WILDCOAST	O'Neill Sea Odyssey	Sea Life Aquarium	Humboldt County Board of Education
State Parks	Heal the Bay	Birch Aquarium	Mendocino High School SONAR
Greater Farallones NMS	San Diego Coastkeeper	Ocean Institute	California Marine Sanctuary Foundation
Tolowa Dee-ni' Nation	Crystal Cove Alliance	Cabrillo Aquarium	Stewards of the Coast and Redwoods
Laguna Ocean Foundation	Newport Landing	Aquarium of the Pacific	California Academy of Sciences
Outdoor Outreach	Monterey Bay NMS	Friends of Fitzgerald	Santa Monica Pier Aquarium
Potter Valley Tribe	LIMPETS	Santa Barbara Sea Center	Friends of the Dunes
Central Coast Aquarium	Wishtoyo Foundation	USC Sea Grant	Santa Cruz Children's Museum
Point Lobos Foundation	Grey Whales Count	Monterey Bay Aquarium	Pacific Grove Museum of Natural History
City of Laguna Beach	Bodega Marine Lab	State Parks PORTS Program	Stewarts Point Rancheria