



Ocean Communicators Alliance

Marine Protected Area Docent Training Handbook

NORTH COAST



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California Coastal Commission

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¹ The California Ocean Communicators Alliance (OCA) is a group of more than 300 professionals in ocean-related organizations, agencies and businesses who, in the course of their work, reach millions of Californians with ocean messages. The National Oceanic and Atmospheric Administration (NOAA) Office of National Marine Sanctuaries, the California Natural Resources Agency, and aquarium partners organize and support the OCA. OCA members collaborate on common ocean messages and promote the Thank You Ocean public awareness campaign.

Purpose of the Ocean Communicators Alliance Marine Protected Area (MPA) Docent Training Handbook

Docents and naturalists play a critical role in helping to increase stewardship and educate the public on the importance of California's coast and ocean, and we hope this handbook will be a useful resource.

The North Coast Marine Protected Area Docent Training Handbook is intended to be a resource for docents and naturalists who communicate about marine protected areas (MPAs). Through this handbook, docents and naturalists will learn about MPAs and will be better equipped to communicate about them.

This handbook aims to include the most pertinent information about MPAs, with an emphasis on California's North Coast MPAs. It includes links to additional information and can act as a stand-alone document or a chapter within an organization's existing docent training handbook. As new information and resources are developed, this handbook may be updated.

**The North Coast Marine Protected Area (MPA) Docent Training Handbook
will introduce you to:**

**Federal Marine Protected Areas
California's Network of Marine Protected Areas
North Coast Marine Protected Areas
North Coast Tribes and Tribal Communities
Ocean Etiquette and Guidelines for Viewing Wildlife
Links to Additional Resources**

Please contact Miho Umezawa at miho@thankyouocean.org if you would like more information or have any questions. Thank you.

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What are Marine Protected Areas?

Marine protected areas (MPAs) are places designated to help protect and restore marine life and habitats in the ocean. MPAs are among the most useful tools for helping protect the ocean, complementing other conservation efforts by providing a place for marine life to recover and thrive. Around the globe, from Hawaii to Australia, in the Pacific and the Indian Ocean, and elsewhere, thousands of MPAs representing 1.8 percent of the ocean protect marine life from the pressures of human activities (MPAtlas, 2014).

MPAs are similar to national parks and forests on land in that they were created to protect and restore ocean habitats and increase the health, productivity, and resilience of ocean ecosystems. In addition, many coastal areas have been important to native peoples, who have relied upon marine resources and the environment for their livelihoods and cultural values. Some California MPAs protect cultural heritage as well as sites of historical significance. Overall, provide natural classrooms, cherished recreational spots, and opportunities for exploration.



Diagram of potential benefits to marine life and habitat inside and outside a marine protected area.

Why are MPAs Important?

By protecting ocean ecosystems, MPAs can be powerful tools for conserving and restoring ocean biodiversity. Some of these special ocean areas also protect cultural and geological resources and can help sustain local economies.

In conjunction with other marine resource management, MPAs contribute to healthier, more resilient ocean ecosystems that can better withstand a wide range of impacts.

Documented benefits of marine protected areas across the globe include:

- Higher abundance and larger size of fish, invertebrates, and plants
- Increased biodiversity
- Greater biomass of targeted (fished) species
- Increased body size of animals [this is a great way to illustrate the likely benefits of CA MPAs without overstating the case for the CA network]

Source: Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO)

Federal Marine Protected Areas

There are both federal and state MPAs in California. Over the past century, more than 1,700 MPAs have been created in U.S. waters by a mix of federal, state, and local legislation, voter initiatives, and regulations, for fishery management, conservation, and cultural heritage purposes. There are numerous federal agencies that manage MPAs that can include national parks, estuarine research reserves, marine sanctuaries, wildlife refuges, and fishery reserves. For example, there are **14 National Marine Sanctuaries** that encompass more than 170,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. The system includes 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument, located near the Northwestern Hawaiian Islands. The National Oceanic and Atmospheric Administration (NOAA) Office of National Marine Sanctuaries works cooperatively with the public and federal, state, and local officials, and tribal governments to promote conservation while allowing compatible commercial and recreational activities.

Within California waters, there are four national marine sanctuaries which include the [Channel Islands](#), [Cordell Bank](#), [Gulf of the Farallones](#), and [Monterey Bay](#) National Marine Sanctuaries. They encompass beautiful rocky reefs, lush kelp forests, whale migration corridors, spectacular deep-sea canyons, and underwater archaeological sites. These federal MPAs share boundaries with several state MPAs and have different regulations.



California Marine Protected Areas²

The waters off the coast of California are some of the most biologically rich in the world, but the ocean is showing significant signs of overuse and declining health due to habitat destruction, climate change, and depleted fisheries. As one approach to combat this decline, the Marine Life Protection Act (MLPA) was signed into law in 1999, and directed the State to redesign existing California MPAs to increase their coherence and effectiveness, and to the extent possible, function together as a network. Through this process, 124 MPAs were created, covering approximately 16 percent of all coastal state waters.

To account for regional differences, the State created **five** distinct regions along 1,100 mile coastline from south to north. The five regions include the **South Coast** (Point Conception to the California/Mexico border), **Central Coast** (Pigeon Point to Point Conception), **San Francisco Bay**³ (Golden Gate Bridge northeast to the Carquinez Bridge), **North Central Coast** (Alder Creek near Point Arena to Pigeon Point), and **North Coast** (California/Oregon border to Alder Creek near Point Arena).

The coastal, open ocean portion of California's new system of MPAs, completed in 2012, was designed through a collaborative public process. In each of the regions, a group of local, knowledgeable stakeholders worked together using science guidelines to map out protected areas for each region. These stakeholders included commercial and recreational anglers, tribal and government representatives, educators/researchers, and conservationists. Once the MPA proposals were completed, they underwent scientific and policy review. Final proposals were forwarded to the California Fish and Game Commission (Commission) for consideration and public feedback, and eventually adoption and implementation. The Commission sets the regulations designed by the regional stakeholder group that the California Department of Fish and Wildlife (CDFW) manages, enforces and implements

There are three main types of MPAs in California

In general,

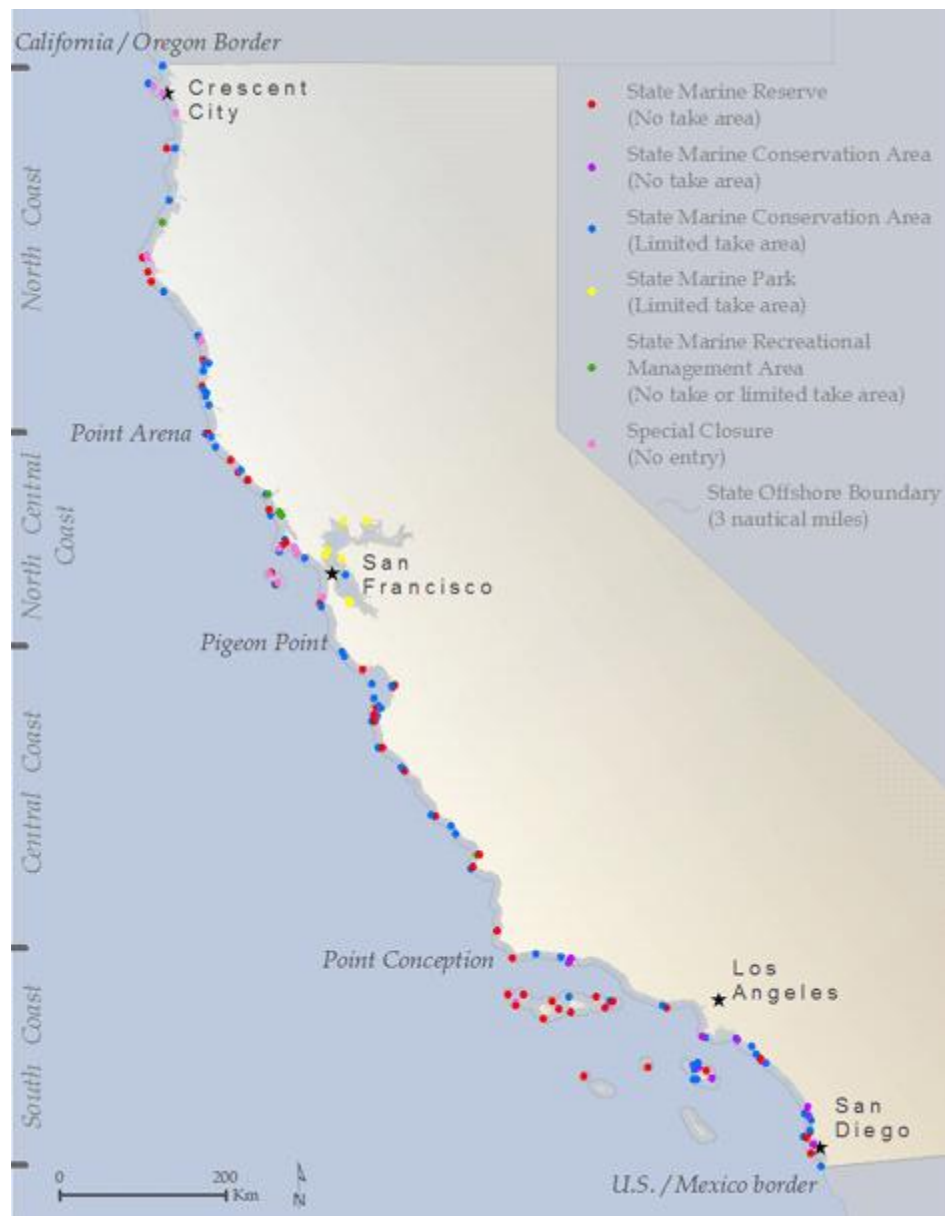
1. **State marine reserves** do not allow any type of extractive or damaging activity (take) with the exception of scientific collecting under a permit.
2. **State marine parks** do not allow commercial take, but some types of recreational take may be allowed.
3. **State marine conservation areas** where take, damage, injury, or possession of any marine resource (living, geological, or cultural) is prohibited except for species expressly allowed for recreational and/or commercial take (species and gear exceptions vary by location).

²This information and more detail are found on the California Department of Fish and Wildlife website:

<http://www.dfg.ca.gov/marine/mpa/faqs.asp>

³ The San Francisco region is not complete and being developed for consideration at a future date

Map of Statewide Network of Marine Protected Areas⁴



California Department of Fish and Wildlife

⁴ Because the San Francisco region is not complete and being developed for consideration at a future date, the MPAs in the San Francisco region (yellow dots) do not represent existing MPAs prior to the site designation process.

There are many ways to enjoy California's MPAs - You can swim, dive, surf, fish, kayak, watch birds and mammals, simply relax in nature, and explore marine life. While enjoying your MPAs, it is important that you understand the established regulations and follow them.

In addition, there are **State Marine Recreational Management Areas (SMRMAs)** which restrict the take of living marine resources, but allow for some recreational waterfowl hunting opportunities; and **Special Closures** where there is localized protection for sea bird nesting and rookery sites, and marine mammal haul-out sites. These may overlap with other MPAs.

Managing Marine Protected Areas

There have been many activities and projects established to ensure that MPAs are successfully implemented and managed. Numerous partnerships help support CDFW's mandate to manage California's network of 124 MPAs. CDFW is utilizing an adaptive management strategy whereby future management actions are informed by scientific monitoring. In managing MPAs, there are three critical components:

Monitoring

Monitoring provides essential information to support MPA management decisions and inform other ocean policy. Monitoring tracks the condition or 'health' of ocean ecosystems and evaluates the effectiveness of management actions. During the initial "baseline" phase of monitoring for each region (2013 – 2018 in the North Coast region) a broad set of partners, including university and agency researchers, tribal governments, citizen scientists and fishermen, have been working together to establish a benchmark of ecological and socioeconomic conditions when each regional MPA network took effect and document any initial socioeconomic and ecological changes in the region in the first few years following MPA implementation.

Baseline MPA monitoring is supported with funds from the California Ocean Protection Council, and implemented through a collaborative partnership among CDFW, the Ocean Science Trust, California Sea Grant, and the Ocean Protection Council. Long-term MPA monitoring, beginning after the baseline period in each region, is guided by the statewide MPA monitoring framework and regional monitoring plans. ***You can learn more about the progress and status of MPA monitoring in each region through [OceanSpaces.org](http://oceanspaces.org) (<http://oceanspaces.org/monitoring>)***

Enforcement and Compliance

Enforcement and compliance of MPA regulations can directly affect the success of MPAs. The CDFW is the primary agency responsible for enforcing MPA regulations. Partner entities including California State Parks, the U.S. Coast Guard, tribal government, and the NOAA assist CDFW in enforcing resource-related activities or provide an additional enforcement presence, but they do not always have the necessary authority or training to take independent action.

Education and Outreach

Public education and outreach are vital to managing MPAs. These activities help by informing the public about MPA regulations, and in general, what MPAs are and why they are important to California's marine environment. CDFW is working with many organizations, including other agencies, tribes, non-profit organizations and for-profit businesses to develop education and outreach resources. In addition, MPA County Collaboratives, made up of local governments, fishing groups, academic and research institutions, tribes and conservationists, are also helping to install signs, coordinate volunteer programs, and promote awareness.

Please see page 16 for the list of additional resources.

North Coast Tribes and Tribal Communities⁵

The North Coast region has the largest population of Indigenous Peoples and greatest number of Native American Tribes of any of the Marine Life Protection Act study regions (US Census 2010). Many tribal members continue to live in their Ancestral homelands and practice cultural traditions. Tribes and tribal communities are deeply rooted to the coast and ocean, and these resources are important to on-going cultural uses, such as spiritual, ceremonial, travel, subsistence, and gathering (Rocha, pers. comm. 2009; Erlandson et al. 2007; Anderson 2006). Their identities continue to be intimately linked to the ocean, beaches, rivers, estuaries, bays, lagoons and their associated plants and animals, rocks, landforms, and climatic and seasonal patterns.



Yurok Canoe on Trinity River, Edward Curtis

Unlike other parts of the California coastline, several North Coast tribes own land adjacent to the ocean or along the study region boundary and exercise direct jurisdiction. These tribal entities include Smith River Rancheria, Trinidad Rancheria, Yurok Tribe, and Wiyot Tribe. In addition, the Tolowa, Yurok, Wiyot, Mattole, Sinkyone, coastal Yuki and Pomo Tribal people have ancestral territories bounding the coastline; these Tribes use and manage these territories and have done so since time immemorial (Dowd, pers. comm. 2009; Rocha, pers. comm. 2009; Eidsness, pers. comm. 2010). However, coastal resources are shared by many tribes further inland and north and south of the study area. In addition, these inland tribes may have tribal members living along the coast. Other Tribes and Tribal people with coastal interests include, but are not limited to, the Hupa, Karuk, Wintu, Bear River Band, Hopland Band of Pomo Indians, Cahto Tribe of Laytonville, Pomo Tribes of Lake County and many others (NAHC 2009; Wiki, pers. comm. 2009; Heizer 1978).

Tribes and tribal communities continue to depend upon the rich diversity of marine and coastal resources as part of their daily lives. Important marine resources include salmon, clams and abalone (as both food sources and for the shells), mussels, seaweed, eels, crab, rockfish, steelhead, trout, sea bass, perch, lingcod, surf fish, candle fish (or eulachon) and sea salt (Young, pers. comm. 2009; Hostler, pers. comm. 2009; Dowd and Dowd, pers. comm. 2009). Subsistence fishing for crab, salmon, steelhead, surf fish (smelt), eels, mussels and clams, among other coastal resources, occurs regularly from rocky beaches and in other coastal areas. Marine shells such as abalone and olivella are especially important for repairing and making traditional regalia used in ongoing yearly intertribal ceremonies, such as the Brush Dance, White Deerskin Dance and Jumping Dance (Kroeber and Gifford 1948; Sundberg 2005).

California Indians have expressed the importance of retaining access to such places, resources, and activities as they are an integral part of their culture and identity. Historic and archaeological values are another important consideration for tribal people. For example, certain areas along the coast are highly valued for their historic, archaeological, and traditional cultural significance, including submerged burial grounds and village sites (Erlandson et al. 2007; Hildebrandt 2007; Moratto 1984).

⁵ This information and more detail are found on the California Department of Fish and Wildlife's *North Coast Regional Profile*: <http://www.dfg.ca.gov/marine/mpa/ncprofile2.asp>. For additional information about north coast tribes and tribal communities please view Appendix E of the Regional Profile.

North Coast Marine Protected Areas

Northern California's diverse marine habitats support thousands of species of invertebrates, plants, fish, marine mammals, and seabirds. The area's high productivity and exceptional biodiversity are in large part due to a strong, seasonal upwelling system that extends all along the West Coast and Mexico. Upwelling of nutrients from the depths to surface waters supports plankton blooms that form a rich foundation for the region's food web.

MPAs along the Northern California coast (California/Oregon border to Alder Creek near Point Arena) adopted by the Fish and Game Commission in June 2012 have been in effect in state waters since December 19, 2012. State waters in this area cover approximately 1,027 square

Number	Type	Description
6	State Marine Reserve (SMR)	An MPA designation that prohibits damage or take of all marine resources (living, geologic, or cultural) including recreational and commercial take
13	State Marine Conservation Area (SMCA)	An MPA designation that may allow some recreational and/or commercial take of marine resources (restrictions vary)
1	State Marine Recreational Management Area (SMRMA)	A MMA designation that limits recreational and commercial take of marine resources while allowing for legal waterfowl hunting to occur; provides subtidal protection equivalent to an MPA (restrictions vary)
7	Special Closure	An area designated by the Fish and Game Commission that prohibits access or restricts boating activities in waters adjacent to sea bird rookeries or marine mammal haul-out sites (restrictions vary)

miles of ocean, estuary, and offshore rock/island waters. The North Coast network includes 20 new or modified areas (19 MPAs and one marine recreational management area), covering approximately 137 square miles or about 13 percent of the North Coast. Seven special closures are also part of the network. The following summarizes the designations managed within the North Coast MPA network:

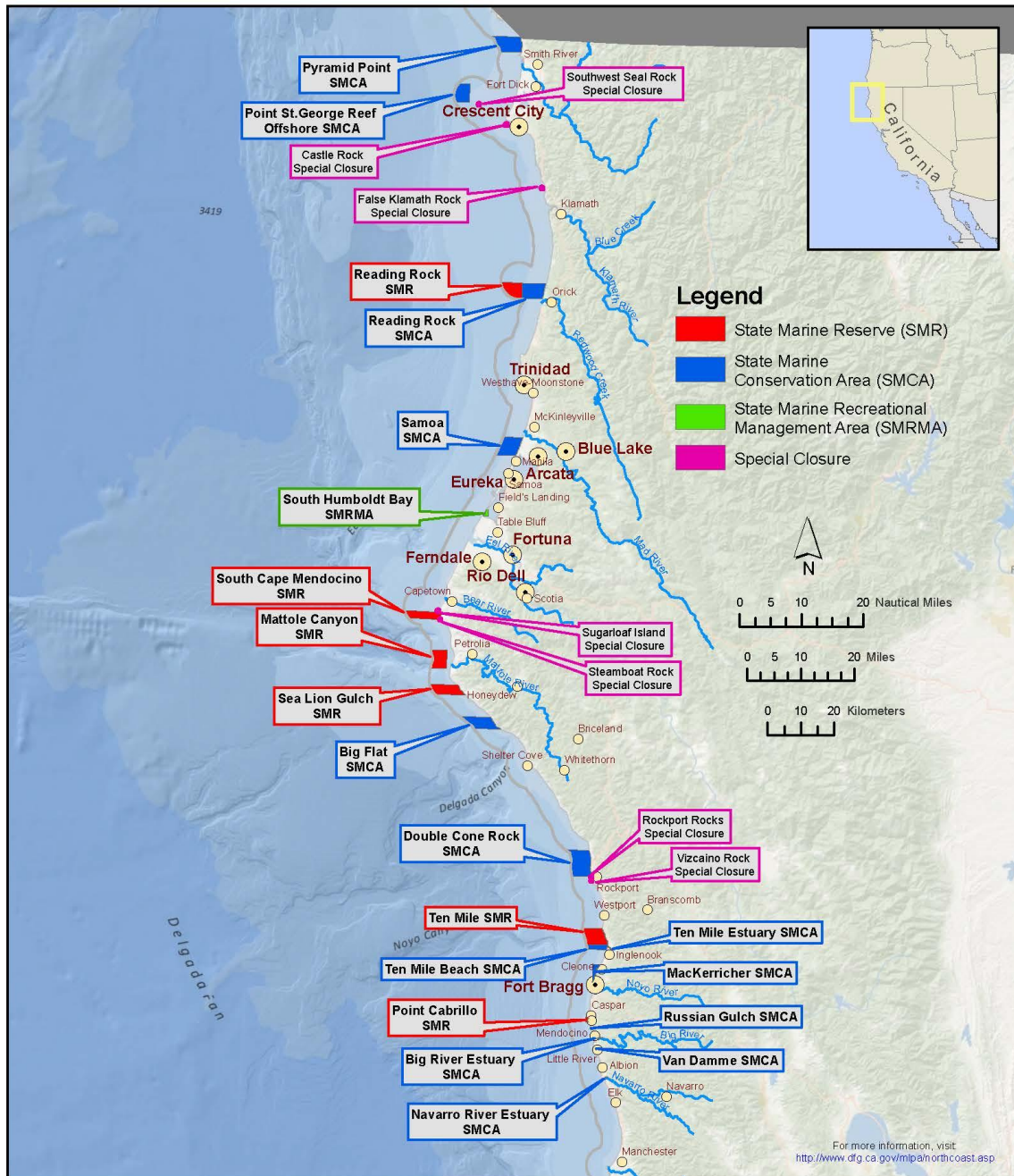


World Wildlife Fund

Map of North Coast Marine Protected Areas

Northern California Marine Protected Areas

Adopted June 6, 2012



Created by CDFG Marine Region GIS - June 13, 2012 - mr_gis@dfg.ca.gov

Species Benefiting from North Coast Marine Protected Areas You Might Find

Northern California has some of the least developed coastal areas in the state. Extensive kelp forests grow off rocky headlands, dominated by bull kelp. These forests support juvenile and adult rockfish, greenlings, lingcod, kelp crab, turban snails, and many other species of fish and invertebrates. Drifting kelp blades torn away by storms and other natural processes provide food for numerous creatures including the red abalone, the world's largest abalone.

Farther offshore, submarine canyons such as Mendocino, Mattole, Delgada and Spanish canyons provide habitat and foraging areas for fish, seabirds, marine mammals and invertebrates, including deepwater corals. Offshore rocks and islets in Northern California provide important nesting and foraging sites for marine birds. Castle Rock, near Crescent City, supports the largest population of common murre in California. California sea lions, northern elephant seals and harbor seals also use Northern California's rocky islets and shores, as well as sandy beaches, tidal flats, and estuaries, as haul-out and rookery sites.

Estuaries, where fresh water meets the sea, play an integral role in the lifecycles of Northern California marine plants and animals. Humboldt Bay, near Eureka, is the state's second largest estuary, and holds approximately 40 percent of the state's eelgrass. Estuary plants such as eelgrass are beneficial for humans and wildlife—not only do they support diverse marine species, they also cushion shorelines from wave energy and break down pollutants. Staghorn sculpin, surfperch, sharks, Chinook salmon, steelhead, smelt, and other fish depend on Northern California estuaries at some point in their lives for foraging, breeding, nurseries, or transit between freshwater spawning grounds and the sea. Invertebrates such as crabs, shrimps, and snails also inhabit estuaries, and shorebirds and seabirds roost and forage there.

Species in MPAs are more likely to benefit if they meet one or more of the below conditions:

- they occur within the North Coast MPAs,
- they are taken directly or indirectly in commercial or recreational fisheries, and
- they have life history characteristics that make them more conducive to protection by MPAs, such as: sedentary behavior, long life spans, a relatively small home range, slow growth, or association with habitats that need additional spatial protection.

Below is a list of species likely to benefit from MPAs in the North Coast region that visitors might encounter:



Image: Wikimedia Commons

Barred Surfperch (*Amphistichus argenteus*)

Barred surfperch give birth to living young from March to July. As few as four and as many as 113 have been counted, but the average is 33 per female. This species is relatively short lived with the oldest males being about 6 years old and 12 inches long. The oldest females are about 9 years old and up to 17 inches long. Tagging studies indicate barred surfperch move very little, usually less than 2 miles, although movements up to 31 miles have been recorded.



Snowy Plover (*Charadrius alexandrinus*)

Snowy plovers weigh between 1.2 and 2 ounces and are about 5.9 to 6.6 inches long. It makes its home on sand, dry mud or salt flats on the edges of ocean beaches, rivers, lakes or ponds in widespread areas around the world. It nests in shallow nooks in the sand—sometimes even using human footprints to keep its eggs. Snowy plover chicks are about the size of a person's thumb when they hatch. Males and females share incubation duties.



Image: Wikimedia Commons

California mussel (*Mytilus californianus*)

To collect enough food to survive, a mussel filters two to three quarts (about two to three liters) of water an hour! California mussels specialize in living on large boulders and bedrock. They can move slowly from place to place by systematically breaking and remaking byssal threads. A California mussel grows to full size in about three years.



Image: Rick and Nora Bowers/VIREO

Marbled Murrelet (*Brachyramphus marmoratus*)

The marbled murrelet is a small, chubby seabird that has a very short neck. During the breeding season it has dark brown to blackish upperparts and a white belly and throat that are greatly mottled. During the winter the upperparts become grey, dark marks form on the sides of the breast and a white ring develops around the eye. Males and females are similar in appearance and size.



Image: Andrew Trites

Stellar Sea Lion (*Phalacrocorax penicillatus*)

Adult males may be up to 10-11 feet in length and can weigh up to 2,500 pounds. Females are smaller than males, at 7.5-9.5 feet in length and weigh up to 770 pounds. Steller sea lions exhibit sexual dimorphism, in which adult males are noticeably larger than females and further distinguished by a thick mane of coarse hair. Steller sea lions forage near shore and pelagic waters. They are also capable of traveling long distances in a season and can dive to approximately 1300 feet in depth.



Image: Jackie Hildering

Bull Kelp (*Nereocystis luetkeana*)

Bull kelp is an annual seaweed—meaning it grows from a spore to maturity within a single year. It grows quickly, sometimes 10 inches in one day. Bull kelp forests offer protective shelter for young fishes and many invertebrates, such as sea urchins, sea stars, snails and crabs. Sea otters thrive in kelp forests too. They can find their favorite foods on the forest floor, then take an after-lunch nap in the forest's golden canopy—often wrapped in a flexible stem or two to keep from drifting away.

Monitoring Marine Protected Areas in the North Coast

MPA monitoring in the North Coast region is guided by the MPA monitoring framework, which has been developed by a variety of partners to ensure monitoring meets the requirements of the Marine Life Protection Act. In the North Coast region, the monitoring program was developed through a collaborative process with the North Coast community, including stakeholders, academics, elected representatives, and representatives from tribes and tribal communities. This collaboration between the local community, CDFW, Ocean Science Trust, Sea Grant, and the California Ocean Protection Council led to the funding of 11 baseline projects which began in 2014. Together, these monitoring efforts will provide a benchmark of conditions in the region against which to assess future ocean changes and MPA performance.

Over the course of the baseline period the 11 projects will monitor habitats inside and outside MPAs including kelp forests, rocky shores and beaches as well as commercially important fish populations and iconic seabirds. Projects will also document human uses and the socioeconomic dimensions of MPAs.

In addition, the North Coast region is the first MPA baseline program in the state to incorporate ***traditional ecological knowledge (TEK)***. TEK can be defined as the cumulative body of scientific knowledge, passed through cultural transmission by indigenous peoples over many generations. TEK is what informs customary management of natural resources by indigenous peoples, and it can be a highly credible means of understanding ecological features and species, identifying areas of concern and related threats.

Find more information: <http://oceanspaces.org/monitoring/regions/north-coast/planning>

Communicating about Marine Protected Areas

When communicating about MPAs, the first rule is to meet people where they are: connect and share values, and bridge from familiar ideas to new ones. Positive language also tends to be more effective such as emphasizing what you can do and see in these special places rather than the activities that are restricted. Certain technical language, such as “adaptive management” or “biological diversity” may make people lose interest. Instead, use language that will relate MPAs to things people already care about and know.



Times -Standard

It is also important to keep the message simple. Below are additional message tips:

1. **Avoid abbreviations** like “MPAs” when you first start talking about the issue in your materials or in face-to-face conversations. Instead, say “marine protected areas”.
2. **Lead with local examples** of protected areas, volunteer programs, etc.
3. **Focus on the outcome of California’s Marine Life Protection Act rather than the planning process.** Don’t talk about administrative process; rather emphasize that California’s MPAs were designed by local citizens and highlight the results. MPAs can be safe havens for sea life and are wonderful places for ocean enthusiasts to experience nature.
4. **Put people in the picture.** Although MPAs benefit marine wildlife and their surrounding habitat, it’s also important to note that they are not the only ones benefiting: fishermen may enjoy more bountiful catches, coastal businesses may see a boost in tourism, and tidepoolers and naturalists may see more wildlife.

The below four key messages resonate well across the state:

- **Fertile old female fish:** This message creates a good visual and helps people understand that MPAs provide a place where some species of ocean life can feed, breed, and thrive. Certain species of big, old fertile female fish benefit from MPA protection.
- **Analogous to underwater parks:** To help people understand the concept of MPAs, a good way to start the conversation is to say MPAs are *like* the parks people visit and enjoy on land. You may want to pair this basic message with the name of the area (e.g., State Marine Reserve, State Marine Park, State Marine Conservation Area) to limit confusion.
- **What about me?:** Your MPAs are open for exploration! You can swim, dive, surf, tide pool, kayak, and watch birds and mammals within the limits spelled out in each MPA’s regulations. Connect to an example of a local MPA and include a list of what you can do as well as explicit limitations.
- **Legacy:** MPAs ensure our kids and grandkids can enjoy a healthy, productive ocean

Additional MPA messages that have been effective include:

California pride: California is leading the nation in ocean protection through the adoption of the nation’s biggest network of scientifically-based MPAs.

Prosperity: Our coastal ocean supports a \$39 billion economy, and 75% of ocean-related jobs are in tourism and recreation. Protecting ocean hot spots is a smart investment that will pay major dividends in coming years.

Examples of Messaging to Various Audience Groups

North Coast members of the Ocean Communicators Alliance came up with short, pithy messages and ideas directed at specific audience groups during a workshop in 2013. Depending on one's audience, the messaging may change as some topics resonate better than others. You can find the workshop proceedings here:

http://www.thankyouocean.org/wp-content/uploads/2012/06/120607_FINAL-OCA-MPA-Workshop-REPORT.pdf

Audience Group	General MPA Messages to Consider
Community Leaders	<p><u>Messages could be rolled out in phases:</u></p> <ol style="list-style-type: none"> 1. First phase would be to introduce MPAs at public meetings, such as Council meetings and Board of Supervisors. 2. The second phase would be to begin outreach through social media (ex. Facebook, Ocean Spaces). 3. The third phase would be creating events and programs, such as “ocean wilderness day” as venues to disseminate these messages <ul style="list-style-type: none"> – Messages need to be featured in multiple venues to be effective. – Build on existing events such as Ocean Night, Arts Alive or other community events. – Partner with local businesses. (Ex. Have a local brewery make an MPA IPA or a vineyard for a MPA wine). – Messaging needs to be continually adapted to the community needs and incorporate feedback.
Preschoolers	<p><u>General ideas :</u></p> <ul style="list-style-type: none"> – Conveyed information in a fun way (Ex. SpongeBob). – Keep the message simple. (Ex. Tailor “fertile old female fish” message to preschool ages because they value animals). – Tell stories that help build kinship between animals and humans (this is common in tribal culture). – Focus on stewardship: <i>“An MPA is a special place where we can take care of fish and later see the results of that.”</i> – MPAs can be home-base or a safe zone for fish. (Ex. Create a game that relates to everyday activities and building that into curriculum). – Don't just tell them, but show them. If you can touch children's lives at this point, it will stay with them for life.

**Cross Cultural Audiences
that are Consumptive Users**

- Avoid stereotyping. Rather, identify groups that are using the resources, and tailor the message to those groups.
- The idea of legacy may resonate better because it allows them to continue harvesting.
- Appeal to their “culinary heritage”. (Ex. How do we ensure that they can continue fishing without overharvesting?)
- It is important to reach out with compassion and to not profile. We need to appreciate that they may be unaware of MPAs and specific regulations. For example, seaweed harvesting is, and has been a part of tribal culture.

Dive Deeper into Marine Protected Areas!

Can't get enough of MPAs? Here are additional MPA-related projects and activities around the North Coast region. This isn't a comprehensive list, but you can get more ideas by visiting <http://californiampas.org/pages/supportmpas.html>

Marine Protected Area County Collaboratives

<http://www.mpacollaborative.org/>



MPA Community Collaboratives provide local communities access to state agencies involved in MPA implementation and management. Community Collaboratives include governmental agencies (city, county, state, federal, and tribal), organizations, associations, and institutions that communicate regularly about the MPAs in a particular sub-region.

Reef Check California

http://reefcheck.org/rcca/rcca_home.php

Reef Check California aims to build a network of informed and involved citizens who support the sustainable use and conservation of our nearshore marine resources. To accomplish this, volunteers are trained to carry out surveys of nearshore reefs providing data on the status of key indicator species.



Ocean Etiquette and Guidelines when Viewing Wildlife

These marine wildlife viewing guidelines include stewardship principles intended to help inform the public about safe and responsible wildlife viewing practices. Sharing these guidelines will help make sure wildlife stay safe while enhancing the visitor's experience.



Look in the right place...at the right time

These two components are crucial for successful wildlife watching. Many species live only in specific habitats such as estuaries, tidepools, kelp forests, or the open ocean, and wildlife may be more sensitive during particular times of year. In addition to seasons, the times of day and tidal cycles are important factors in viewing wildlife. To maximize viewing opportunities, learn about the activity cycles of the species of interest before hand. Also know local access restrictions. Some areas may be closed seasonally to protect animals during sensitive times such as breeding and pupping.



Hands off

Never touch, handle, or otherwise disturb marine wildlife (some animals are protected by both federal and state laws). Touching wildlife or attempting to do so can injure the animal, put you at risk, and may also be illegal for certain species. The slimy coating on fish and many marine invertebrates protects the animal from infection and is easily rubbed off with a hand, glove, or foot.



Keep your distance

Use binoculars, spotting scopes, and cameras with zoom lenses to get a closer look. Marine wildlife may be very sensitive to human disturbance, and if cornered they can harm the viewer or leave the area. If wildlife approaches you, stay calm and slowly back away or place boat engines in neutral. When close encounters occur, do not make sudden moves or obstruct the travel path of the animals —let them have the unhindered “right of way”.



Follow Good tidepooler rules

Never remove animals, shells, or rocks; never pick up animals; walk gently; and never turn over rocks. Help make sure these organisms will still be here for many more generations.



Help others to become responsible wildlife watchers

Speak up if you notice other viewers behaving in a way that disturbs the wildlife or other viewers, or impacts sensitive habitats. Be friendly, respectful, and discrete when approaching others. Violations of the law should be reported to local authorities or call 1-888-DFG-CALTIP (1-888-334-2258).

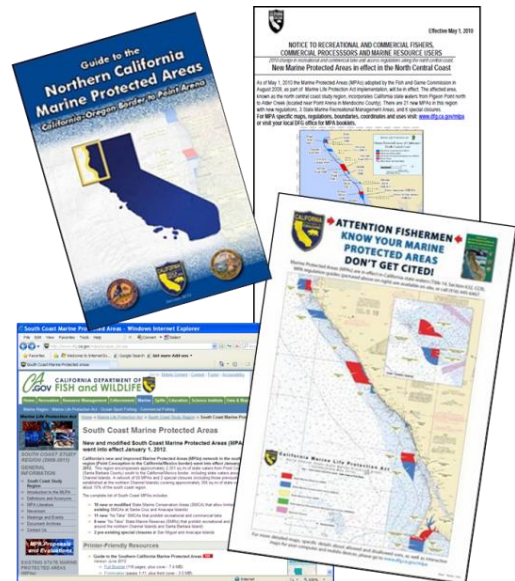
Additional Resources and Information

These resources provide links to additional information about each section. The links vary from education and outreach materials to scientific articles. This is not a comprehensive list of resources and we encourage you to explore the following websites for additional information:

- **MPA regulatory information (California Department of Fish and Wildlife):** www.dfg.ca.gov/marine/mpa
- **Compiled MPA educational resources:** <http://californiampas.org>

What are Marine Protected Areas?

- MPA Fact Sheet: http://www.californiampas.org/pubs/MPA_FAQ_sheet.pdf
- Thank You Ocean: MPAs: <http://www.thankyouocean.org/threats/marine-life-decline/mpas/>
- Ocean Conservancy: <http://www.oceanconservancy.org/our-work/marine-protected-areas/>
- MPA Literature: <https://www.dfg.ca.gov/marine/mpa/science1.asp>
 - [MPA Design](#)
 - [MPA Effectiveness - Inside and Adjacent to MPAs](#)
 - [MPA Effectiveness and Fisheries Management](#)
 - [Social and Economic Analysis](#)
 - [Larval Production and Transport](#)
 - [MPA Modeling](#)
 - [Human Impacts on the Marine Environment](#)



Federal Marine Protected Areas

- NOAA Office of National Marine Sanctuaries: <http://sanctuaries.noaa.gov/about/welcome.html>
- NOAA Office of National Marine Sanctuaries: Channel Islands National Marine Sanctuary: <http://channelislands.noaa.gov/>
- National Marine Protected Areas Center: <http://marineprotectedareas.noaa.gov/>
- National Marine Protected Areas Center: *Conserving Our Ocean One Place at a Time* http://marineprotectedareas.noaa.gov/pdf/fac/mpas_of_united_states_conserving_oceans_1113.pdf

California Marine Protected Areas

- California Department of Fish and Wildlife: <https://www.dfg.ca.gov/marine/mpa/intro.asp>

Map of Statewide Marine Protected Areas

- California Department of Fish and Wildlife: <https://www.dfg.ca.gov/marine/images/mpamaps/scmpas.jpg>

North Coast Marine Protected Areas

- California Department of Fish and Wildlife: Guide to Northern California Marine Protected Area: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=58020&inline=true>
- California Department of Fish and Wildlife: North Coast Brochure <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=57805&inline=true>

Maps of North Coast Marine Protected Areas

- California Department of Fish and Wildlife- Individual MPA and overview maps: http://www.dfg.ca.gov/marine/mpa/ncmpas_list.asp

California Department of Fish and Wildlife: Individual MPA Maps for the following MPAs:

- [Pyramid Point State Marine Conservation Area](#)
- [Point St. George Reef Offshore State Marine Conservation Area](#)
- [Southwest Seal Rock Special Closure](#)
- [Castle Rock Special Closure](#)
- [False Klamath Rock Special Closure](#)
- [Reading Rock State Marine Conservation Area](#)
- [Reading Rock State Marine Reserve](#)
- [Samoa State Marine Conservation Area](#)
- [South Humboldt Bay State Marine Recreational Management Area](#)
- [Sugarloaf Island Special Closure](#)
- [South Cape Mendocino State Marine Reserve](#)
- [Steamboat Rock Special Closure](#)
- [Mattole Canyon State Marine Reserve](#)
- [Sea Lion Gulch State Marine Reserve](#)
- [Big Flat State Marine Conservation Area](#)
- [Double Cone Rock State Marine Conservation Area](#)
- [Rockport Rocks Special Closure](#)
- [Vizcaino Rock Special Closure](#)
- [Ten Mile State Marine Reserve](#)
- [Ten Mile Beach State Marine Conservation Area](#)
- [Ten Mile Estuary State Marine Conservation Area](#)
- [MacKerricher State Marine Conservation Area](#)
- [Point Cabrillo State Marine Reserve](#)
- [Russian Gulch State Marine Conservation Area](#)
- [Big River Estuary State Marine Conservation Area](#)
- [Van Damme State Marine Conservation Area](#)
- [Navarro River Estuary State Marine Conservation Area](#)

Individual MPA Information for the following MPAs:

- [Pyramid Point SMCA](#)
- [Point St. George Reef Offshore SMCA](#)
- [Reading Rock SMCA](#)
- [Reading Rock SMR](#)
- [Samoa SMCA](#)
- [South Humboldt Bay SMRMA](#)
- [South Cape Mendocino SMR](#)
- [Mattole Canyon SMR](#)
- [Sea Lion Gulch SMR](#)
- [Big Flat SMCA](#)
- [Double Cone Rock SMCA](#)
- [Ten Mile SMR](#)
- [Ten Mile Beach SMCA](#)
- [Ten Mile Estuary SMCA](#)
- [MacKerricher SMCA](#)
- [Point Cabrillo SMR](#)
- [Russian Gulch SMCA](#)
- [Big River Estuary SMCA](#)
- [Van Damme SMCA](#)
- [Navarro River Estuary SMCA](#)

- [Southwest Seal Rock SC](#)
- [Castle Rock SC](#)
- [False Klamath Rock SC](#)
- [Sugarloaf Island SC](#)
- [Steamboat Rock SC](#)
- [Rockport Rocks SC](#)
- [Vizcaino Rock SC](#)

Species Benefiting from North Coast Marine Protected Areas You Might Find

- California MLPA Master Plan Science Advisory Team - List of Species Likely to Benefit from Marine Protected Areas in the MLPA North Central Coast Study Region: <http://www.dfg.ca.gov/mlpa/pdfs/binders/b2dc.pdf>
- Encyclopedia of the National Marine Sanctuary- Monterey Bay National Marine Sanctuary: <http://www8.nos.noaa.gov/onms/park/>
- Monterey Bay Aquarium: Animal Guide: <http://www.montereybayaquarium.org/animal-guide>
- NOAA Office of National Marine Sanctuaries. Responsibly Watching California's Marine Wildlife Draft Handbook for Ocean Users: http://sanctuaries.noaa.gov/library/national/ww_handbook.pdf

Monitoring Marine Protected Areas in the North Coast

- Ocean Spaces- North Coast Region: <http://oceanspaces.org/monitoring/regions/north-coast/planning>

Communicating about Marine Protected Areas

- North Coast OCA MPA Workshop Report: http://www.thankyouocean.org/wp-content/uploads/2013/09/130910_NC_OCA_MPA_Workshop_Report_FINAL.pdf
- MPA Global Success Stories: <http://californiampas.org/pages/about/success.html>
- Resource Media. July 2014. *Communicating the value of ocean protection*. <http://www.resource-media.org/communicating-the-value-of-ocean-protection/#.UTU9mNUhuN>

Ocean Etiquette and Guidelines when Viewing Wildlife

- Watchable Wildlife Incorporated. Marine Wildlife Viewing Guidelines: <http://sanctuaries.noaa.gov/library/national/oeguidelines.pdf>
- Watchable Wildlife Incorporated. Marine Wildlife Viewing Guidelines (SPANISH): http://sanctuaries.noaa.gov/library/national/oe guidelines_spanish.pdf
- NOAA Office of National Marine Sanctuary's Pocket Guide: <http://sanctuaries.noaa.gov/library/national/oeguidelines.pdf>
- NOAA National Marine Sanctuaries: <http://sanctuaries.noaa.gov/protect/oceanetiquette.html>

Dive Deeper into Marine Protected Areas

- California Marine Sanctuary Foundation's YouTube page: <https://www.youtube.com/user/MBNMSF>
- MPA County Collaboratives: <http://www.mpacollaborative.org/>
- Reef Check California: http://reefcheck.org/rcca/rcca_home.php
- Volunteer Opportunities: <http://www.californiampas.org/pages/supportmpas.html>

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