California's Nearshore Ecosystem

California's nearshore ecosystem, defined as the area from the coastal high tide line offshore to a depth of 120 feet, is one of the most productive ocean areas in the world. This area, comprising only about 2,550 square miles, generates from the harvest of its resources, almost $40 million in ex-vessel revenue, a little less than one-third of the value of all California's fisheries. The area is home to a wide variety of fishes, giant kelp, marine invertebrates (spiny lobster, abalone, sea urchin, crabs), and marine mammals, as well as a large number of sea and shore bird species.

The nearshore area is composed of a variety of habitats ranging from high-relief rocky reef to broad expanses of sand and mud. There are distinct differences in the prevalent oceanographic conditions from north to south. Much of the state's shoreline is heavily influenced by the cold California Current, which sweeps south from the Gulf of Alaska. As a consequence, the extreme northern portion of the coast is inhabited by plant and animal species also found off Oregon and Washington. The nearshore area here is dominated by species commonly found off Oregon such as black rockfish and cabezon, redtail perch, and night and surf smelt. Along the central coast, south of Cape Mendocino, where rocky-reef habitat dominates, prevailing onshore northwest winds cause the upwelling of nutrient-rich waters from the ocean bottom and high biological productivity. Kelp beds, consisting of giant kelp to the south and bull kelp to the north, are home to a variety of nearshore rockfish, abalone and sea urchin. Sea bird nesting areas and marine mammals such as sea otters and sea lions are also important members of this community. South of Point Conception, warm waters from the south join with the cold California Current to provide habitat for a wide variety of seasonal sub-tropical visitors like yellowtail, white seabass, Pacific bonito, and California barracuda, all found in close association with the abundant stands of giant kelp found around the offshore islands and along the mainland. Major resident species such as kelp bass, sheephead, halfmoon and olive rockfish sustain a year-round nearshore fishery.

Major issues are the impact of environmental events like El Niño on animal and plant species, over-harvest of species such as abalone and nearshore rockfish, interactions between fisheries and marine mammals, pollution from human activities, and competition among user groups, both consumptive and non-consumptive.

Management authority for most species found in the nearshore continues to be split between the legislature and the Fish and Game Commission, with the legislature retaining the authority to manage commercial fisheries and the commission delegated the authority to set recreational angling regulations. Notable exceptions are the white seabass and nearshore finfish fisheries, which are subjects of fishery management plans under development by the department for adoption by the commission late in 2001. These two fisheries are being managed under the provisions of the Marine Life Management Act of 1998. This act establishes the framework for the eventual management of all the state's marine fisheries through the creation of fishery management plans and commission regulatory action. A key provision of this act is an overarching goal of sustainable use.

The next decade will be a critical one for the management of the resources of the nearshore, as we attempt to successfully address the major issues listed above.

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