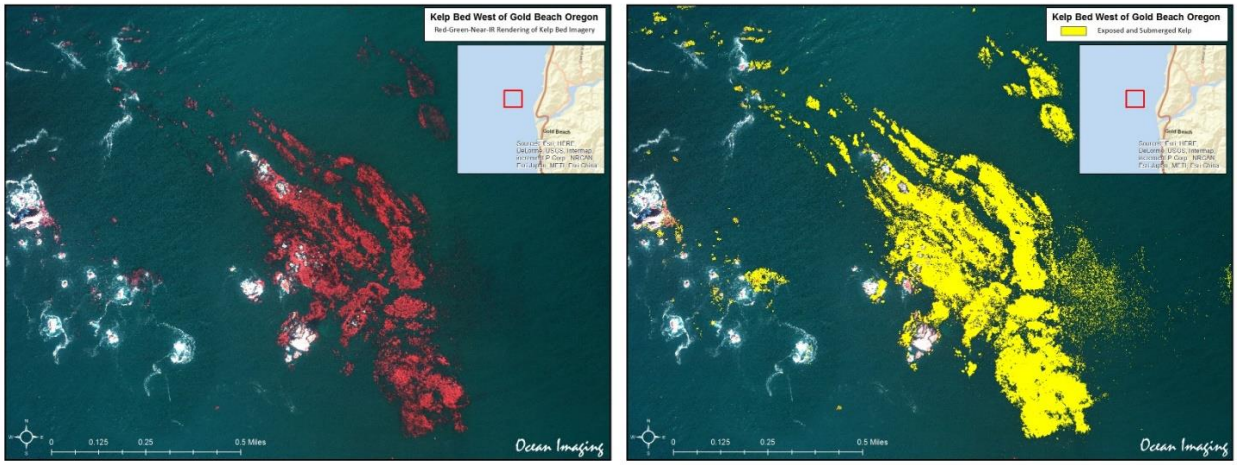
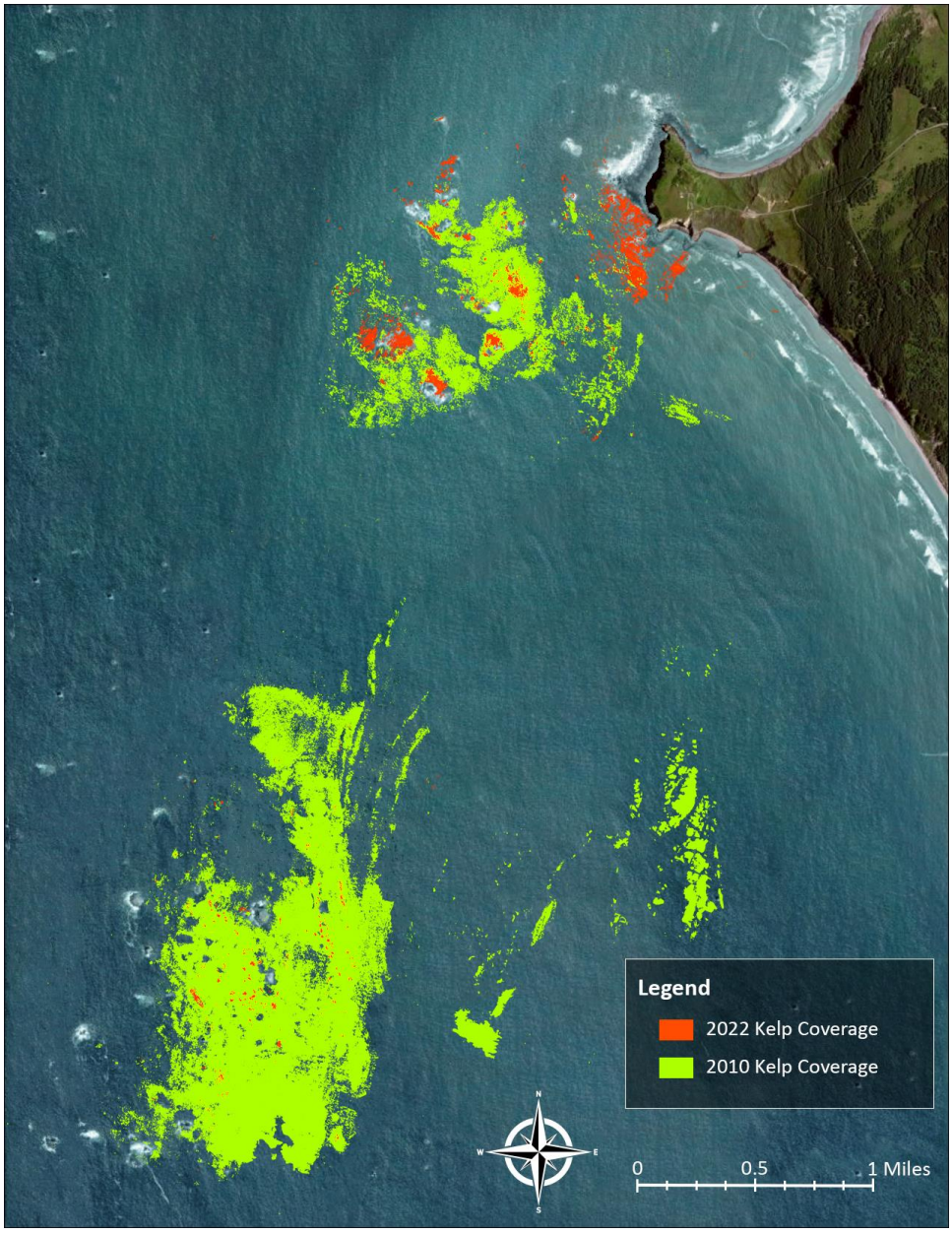
Ocean Imaging

2022-2023 - Ocean Imaging Works with Oregon Department of Fish and Wildlife to Map Coastal Kelp Beds



As has been emphasized in previous OI News stories, Giant Kelp (Macrocystis pyrifera) and Bull Kelp (Nereocystis) forests along the west coast of North America and around the world are a valuable resource and provide a critical habitat and nursery grounds to hundreds of marine species such as seals, sea urchins, abalone, sea otters, octopuses, numerous fish species and even whales. These underwater ecosystems are well known for their rich biodiversity and carbon storing capacity. These large brown algae can grow up to a foot a day but can also be nearly wiped out by a single storm. Over the past several years the health of kelp beds along the Oregon Coast has been highly variable with beds in some areas showing extreme decline. In areas such as the waters off Port Orford and Cape Blanco that were once robust, thriving kelp forests are now virtually barren due to exploding populations of purple sea urchins which will graze the kelp beds down to almost nothing. Ocean Imaging (OI) has been mapping kelp around the world since the late 1990s. Starting back in 2001, OI has continuously helped map and monitor the health of these important U.S. West Coast ecosystems for such organizations as NASA, the California Department of Fish and Wildlife, Sea Grant, The Nature Conservancy, the West Coast Ocean Alliance and the U.S. Navy. Now OI has completed its most recent mapping effort to assist the Oregon Department of Fish and Wildlife to map the most important beds along their coastline. While the results of the mapping effort were not necessarily surprising, beds like the one west Port Orford reveal some alarming differences between the 2022 data and the kelp analyses generated (also by OI) in 2010 (see below). OI

plans to continue to map these valuable habitats to monitor their prevalence and health for years to come.



Bull Kelp canopy coverage analyses from 2010 (green) and 2022 (red). Note the dramatic change in coverage over the 12-year period.