



Bull Kelp

Nereocystis luetkeana

Luetkeana honors Captain Friedrich Benjamin von Lütke, captain of the Russian expedition during which the “type” specimen was found.

WHERE IT’S FOUND

Bull kelp dominates the Pacific Coast’s subtidal kelp forests, reaching from Santa Cruz, CA to parts of Alaska’s Aleutian Islands.

MEET THE SEAWEED

Developing anew each season, bull kelp grow at an astounding pace of six to ten inches per day. The thin, rope-like stipe grows upwards from a modest holdfast, which secures the kelp to the rocky sea floor. Bull kelp only stops elongating when its distinctive bladder, growing as big as a lemon, senses the ocean’s surface. The kelp then transfers its growth to thin, golden blades, which spread across the surface to catch the summer sunlight.

By the end of the season, *sori*, dark brown patches containing millions of spores, emerge on the kelp’s blades; mature clusters fall away and land on the ocean floor to begin new life the next spring. With the storms and rough waters of winter, the kelp’s holdfast dislodges and the entire organism drifts into deeper waters or washes up on shore. When the kelp appears on the shore, beach hoppers and kelp flies consume the wrack piles, in turn becoming delicious food for shorebirds.

THE HEALTH OF THE BULL KELP

A 2014 ocean heatwave dubbed “The Blob” combined with other factors to dramatically decrease kelp coverage along Northern California’s coast. The warmth prevented deeper, cooler waters with critical nutrients from approaching the surface, preventing the nutrient-hungry bull kelp from receiving what it needed to survive. The North Pacific Ocean has been cooler in recent years, but the creeping rise in ocean temperatures will continue to threaten algal populations and kelp forests across the globe.

Bull kelp is a favorite refuge and residence for sea otters, who sleep on the kelp’s long cylindrical bladders as they float on the water’s surface. Poached for over a hundred years for their thick pelts and driven to near-extinction in California, otters finally reappeared in the Golden State in 1938 in a remote cove near Carmel. Pioneering zoologist Edna Fisher studied them there, describing how otters depend on the bull kelp for camouflage, protection, and play. As the sea otter population rebounds in Alaska and British Columbia, kelp forests and fish populations along those shores have also rebounded as healthy, robust ecologies.

