A Review of Macrocystis pyrifera

Written By Ella Engel

The Vision is an 80-foot expedition boat that typically sleeps in the Santa Barbara Harbor, but routinely spends her days anchored off Santa Cruz Island. Between time aboard her and her 58-foot cousin, the Sunfish, who lies to rest just 30 miles down the coast in Oxnard Harbor, I spent the better part of my summer journeying across the Santa Barbara Channel and migrating between the islands that define it. Somehow, as a 20-year-old, I had been entrusted with the role of guiding Channel Islands National Park visitors through sea caves in kayaks and ensuring the safety of divers as they explored the island's underwater world. My summer days were spent submerged in salt water, and many of my nights were spent tucked away in the cozy upper bunk on the starboard side of Vision's dorm room.

With the glamorous titles of Kayak Guide and Divemaster came marginally less glamorous deckhand duties. Being the shortest of the male-dominated crew by nearly a foot (the two other female crew members were miraculously both 6 feet tall) meant I got left with 'just for ella jobs,' which included crawling into narrow spaces and scrubbing the designated hard-to-reach places in the engine room. Between delirious hours awake on night watch and carrying 40-pound scuba tanks up from the swim step, there was one deckhand duty I did truly love — removing kelp from the anchor.

The magnet that pulls scuba-divers and free-divers out to the Channel Islands — a force strong enough to propel them through a rough channel crossing and weaseling into 7 millimeters of neoprene to refrain from freezing — is the islands' enchanted kelp forests.

Diving through a kelp forest is entering a new world, one in which the sun itself is a being as much as any other living thing; one where vision is heightened by silence. Avery Schuyler Nunn has one of the more eloquent written descriptions of this indescribable beauty: "sunlight filters through the kelp canopy, turning the water into stained glass, a masterpiece in motion." On a sunny day, the sun streams through the transparent kelp mimicking works displayed in great cathedrals. It's enough to make one forget anything aside from nature's serene existence.

In search of giving guests aboard the boat a glimpse through that stained glass window, the captain always positioned the boat directly a top of a kelp forest. With prime diving accessibility, came a bit of extra work for the crew. Nearly every time we pulled up the 250-pound anchor, it was completely invisible, engulfed in a ball of kelp. Over the course of our first live-aboard expedition, the process of removing this inevitable ocean weed was refined to a science.

After perfectly halting the anchor in place, Kylee, another deckhand, would grab my ankles, allowing me to hinge past the waist and dangle off the bow, giving me the perfect trajectory to accurately hack away at the kelp monster who had swallowed the anchor whole.

Using our cutting-edge gear — a bread knife from the galley we renamed the kelp knife — we would unveil the dark rusty anchor within 5 minutes or so, and forcefully slam it back onto its rightful place as the mast-head of the ship.

The blood rushing to my head as I frantically swung away at ropes of kelp was always a task I secretly looked forward to, but not everyone on the boat shared my love for it. Other crew members would throw out spiteful comments about the kelp's presence, always something along the lines of, "This damn kelp makes our lives so hard."

But the truth is, we were all there because of the kelp. Everything off the islands was.

Over the course of the summer, it became increasingly apparent to me just how foundational the kelp was to every single aspect of the islands' underwater ecosystems.

For example, for the Norris Top Snail, also referred to as the kelp snail or brown turban snail, kelp is its home, its food source, and its protection all bundled into one. It contributes to, and is responsible for every single bit of its existence.

The Norris's Top Snail starts each morning at the bottom end of a strand of Giant Kelp, and spends the entirety of the day eating its way to the top, each bite inching closer to the suns penetrating rays. After eventually completing its long yet noble daily mission by reaching the top of the strand, just nearly piercing the surface, the snail begins its long journey back down to the bottom of the kelp stock. It does this every single day. Down and up and down.

The snails' daily trail, their great conquering climb, is one up the redwood Tree of the Pacific Ocean, Macrocystis Pyriferia, more commonly known as Giant Kelp. Much like redwoods, Giant Kelp is the largest of its kind, with the ability to grow to be 200 feet long. So, if strung up next to an average-height redwood, it would nearly reach the top.[1]

Completely unlike redwood trees, Giant Kelp grows remarkably fast, which is, truthfully, the main reason I didn't feel so bad knifing away at it. While it takes redwoods about a year to grow two feet, it takes Giant Kelp only a single day. Unlike pretty much any other living organism, if you spent a day sitting and observing it, you could literally watch it grow.

While giving my kayak tours, I offered visitors an opportunity to sample a piece of kelp if they were interested, warning them that it tasted exactly how they might expect it to taste: slimy and salty. Once in a while, an adventurous go-getter would take me up on my offer and choke down a piece of kelp, but most shunned this idea rather quickly. After expressing their weariness, I would inform visitors that even if they hadn't taken me up on my offer, they probably had eaten kelp at one point or another. I would go on to explain that this same kelp is used as an emulsifier in ice cream and toothpaste, a practice that's been occurring since the 50s.

1. The tallest redwood tree ever recorded is 379.7 feet tall, and is located in Redwood National Park, but its exact location is kept secret to protect it from visitors.

Before people knew kelp had already been in their mouths earlier that day from their morning teeth brushing, they were disgusted by the thought of eating it. But it had also never occurred to them to turn over the tube of toothpaste and investigate the ingredients on the back; they wouldn't find it listed as Giant Kelp, or by its scientific name, *Macrocystis Pyriferia,* but instead listed as alginate*,* which they may willingly accept as a 'regular' ingredient without thinking twice. This seems to be a common theme with humans — full force consciously dismissing the odd, and accepting the same so-called odd far more than we actually realize.

Who are we to be disgusted by the concept of eating kelp, but use it to prevent our cavities? And who are we to complain about kelp wrapping around our boat's anchor, when the kelp is the reason there is a diving industry in California in the first place? Who are we to so deeply enjoy the kelp's indescribable beauty, and do so little to ensure it remains? In her book, *Braiding Sweetgrass,* Robin Wall Kimmerer says, "In some Native languages, the term for plants translates to 'those who take care of us.'" And, while kelp is not, in strict definitions a plant, this notion holds.[2] Kelp certainly takes care of all of us who have built our lives around the ocean, but also many of us who have not.

It strains my mind to consider how it's possible to commodify nature, capitalize on its beauty, while at the same time completely disregard its importance. Kelp is beautiful. But kelp's beauty is not defined by its ability to create a magnificent dive site for humans. Its beauty is inherent and plain, with or without the human gaze.

Many deckhands in California perhaps would not, but I give Macrocystis Pyriferia 5 stars.

2. Despite its leafy look, kelp is an algae, not a plant. Kelp does not have a root system, nor leaves or stems. So much for every organism being a plant or animal right?

Ella is a student at UC Santa Barbara studying Environmental Studies and Professional Writing. Ella writes to speak on behalf of our natural world and it's creatures who have been left voiceless in the conversation of conservation.