Oregon Sea Grant Extension
Sustainable Tourism &
Outdoor Recreation Program

Interpretative Fact Sheet
Bullwhip Kelp (*Nereocystis luetkeana*)

The following short article is from the *Oregon Coast 101 Species* collection used by the Guide and Outfitter Recognized Professional (GORP) training program. These articles are intended to provide interesting facts you can share with your clientele and add value to your services.

An Interpretive Fact Sheet has been written about each species. We are currently uploading these blogs and creating the links.

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Bullwhip Kelp (Nereocystis luetkeana)

tourism.oregonstate.edu/bullwhip-kelp-nereocystis-luetkeana/

By colliek2 August 28, 2020

Walk along the beach. All kinds of things wash ashore, including kelp.

There is a good chance you can find a fresh piece of dark olive-brown Bullwhip Kelp. Storms and strong waves will occasionally tear pieces of the plant and throw them onshore. Sometimes the rough water can destroy a whole kelp forest.

Bullwhip Kelp washed ashore

The idea of a kelp forest might be new to you. They are very similar to land, or terrestrial, forests…just wetter. A kelp forest has a canopy which supports sun-loving organisms and leaves. It also has a partially-shady middle section (with a very strong stalk) and darkly-shaded seafloor which acts as a nursery for new plants.

Where Found

Bullwhip kelp grows on rocks found in low to subtidal zones at depths up to 100 feet. It prefers semi-exposed habits and high-current areas. Offshore beds in deeper water may persist for several years.

Bullwhip kelp is found along the North American Pacific Coast from Alaska south to northwest Baja California, Mexico.

Plant Parts

Like land plants, kelp has leaves or 'blades' that can reach up to 13 feet long and nearly six inches wide. These leaves form the canopy cover and are often produced annually. Blades hang on for up to 18 months (depending on the weather and other conditions).

Numerous blades (30-64) sprout from a floating bladder. This bladder contains carbon monoxide which helps keep the blades in the sunny canopy.

Bladders connect to a long hollow flexible stalk, or stipe, which resembles an enlarged whip (i.e., the name sake). The stalk is very strong and has a fist-sized holdfast (think root-like structure) that grips onto the rocks.

Ecosystem support

Kelp forests offer protection and food for a variety of species besides human. This includes urchins, fish, invertebrates such as shrimp, snails (like Black turban snails), and brittle stars and worms. Marine mammals include whales, otters, seals, and sea lions, and shore bird such as great blue herons, snowy egrets, and cormorants also depend on kelp.

Gives a whole new meaning to 'kelp bed' eh?

Reproduction

Kelp can form large forests or small beds. Different species of kelp often grow together favoring different depths and exposure.

Bullwhip kelp drops mature spore patches to the seafloor near the parent's holdfast which creates dense forests. It is the only kelp to do that.

Uses

Bullwhip kelp is edible and can be enjoyed dried, raw and/or picked. For a pickle recipe see Monterey Bay Seaweed (http://www.montereybayseaweeds.com/the-seaweed-source/tag/bullwhip+kelp).

Pacific Northwest Coastal Tribes used the kelp for creating a number of different products such as fishing lines and nets, ropes, and lightweight storage containers. It was also used for steaming and shaping various woods to create halibut fishing hooks and Yew bows.

Fresh kelp could also be eaten or included in recipes for cakes, curry, and chutney. It has also been used for pharmaceutical supplies, poultry feed, dairy products, and finishing

agents.

But wait there's more…

There are theories that kelp forests may have helped colonize the Americas. *I can hear the disbelief in your laughing from here…*

Suppose that huge kelp forests stretched from northeast Asia to the northern American Pacific coasts.

These forests could have provided food and game, and buffered rough water and potentially acted as a highway for ancient colonists (and not just humans).

Next time you see this lowly plant washed ashore and shredded from a storm, consider… ***"Did this plant make it possible for you to wiggle your toes in the sand today?"***

Perhaps without it, explorers may not have survived the treacherous trip here. Certainly, food for thought!

REFERENCES:
–Wikipedia, Nereocytis (https://en.wikipedia.org/wiki/Nereocystis) and Kelp forests (…kelp_forests)
–Island Herbs (http://ryandrum.com/articlekelp.html)
–Bull Whip Kelp (https://bit.ly/2CINwuf)