

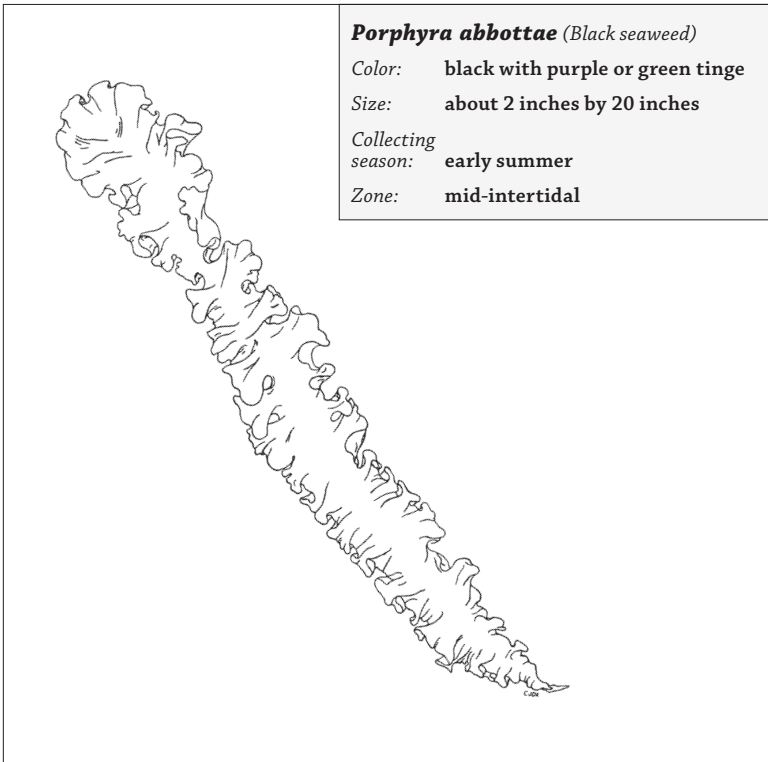
Porphyra

Black Seaweed, Nori, Laver

Porphyra is in the red seaweed group. Several species of *Porphyra* are found along the west coast and approximately 30 species exist worldwide. Locally it is called black seaweed.

Description

Black seaweed is an annual—it grows and dies back each year. Black seaweed begins to grow in early spring. It is recognizable by the near black strands hanging down rock faces. The near transparent fronds may be a dark rose-purple or a black-green color. The colors are most apparent when the fronds are wet; black seaweed appears nearly black when drying.



Several species of *Porphyra* occur in Southeast Alaska waters. All are edible and nutritious. In all species there is no apparent midrib or stipe and only a small holdfast. The edges of the fronds are ruffled.

Porphyra abbottae is the preferred species for harvesting. Individual fronds can grow up to 20 inches long and about 2 inches wide along the length of the frond. *Porphyra perforata* grows in a circular shape up to 12 inches in diameter, with the frond anchored by a holdfast which originates near the middle of the frond. You may find these two species in the same area or you may find only one type when you go out to harvest. *Porphyra torta* is the “earlier” or winter black seaweed, and is common around Ketchikan, Klawock, Craig, Sitka, and other areas. A fourth small species, *Porphyra nereocystis*, which usually is not found while on a seaweed picking outing, grows attached to the stipe of *Nereocystis* or bull kelp.

Habitat

Porphyra abbottae is commonly found in the outer coasts along the Southeast Alaska panhandle and less commonly in the inside waters of the Panhandle. It is found around mid- to lower intertidal ranges in areas with high wave action. When this seaweed begins growing in the spring it will often take over an entire rock. In the North Pacific, *Porphyra abbottae* begins

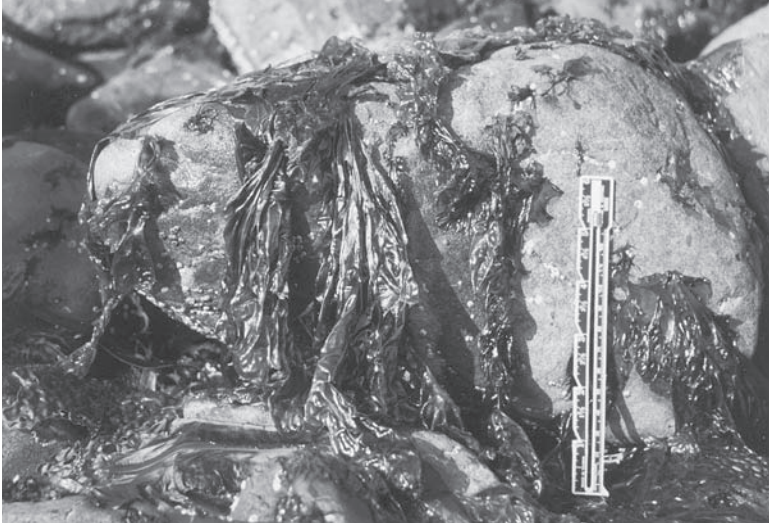
growing in the early spring, reaches its peak in late spring, and dies off over the summer.

The other local *Porphyra* species have slightly different growing seasons and habitat preferences. *Porphyra torta*, locally called winter black seaweed, can be found in late winter and into early spring, although in smaller quantities.



Dolly Garza

The lower-intertidal *Porphyra abbottae* (black seaweed) will often take over an entire rock.



Dolly Garza

Two species of black seaweed, *Porphyra perforata* and *Porphyra abbottae*, are often found growing right next to one another. The long, narrow *P. abbottae* is preferred for harvesting.

Harvesting

Timing is important when getting ready to harvest black seaweed. If you go out too early the seaweed will be short and hard to pick. If you are too late it may be encrusted with small snails or already dying back and turning a light brown. The time to pick can vary each year with changes in temperature, sun, and rain. The sun can speed the growth so you may pick earlier in the season during a sunny spring. Rain can wash the thin frond of its flavor so don't pick right after a rain. These variables require that you pay attention to the weather. You may need to do some scouting ahead of time and go out several times in your skiff to see if the seaweed is ready to pick. Early May is a benchmark for harvesting; however, it can be earlier or later depending on variables.

Test for readiness by picking a frond and stretching it along its length. It should be elastic and stretch. It can be 8-15 inches long. If it is too short, it will be hard to pick. By the time it gets longer small snails may have settled onto the fronds. Later in the

M. Turek



When *Porphyra abbottae* is 8-15 inches long and somewhat elastic, it's ready for picking.

summer, *Porphyra abbottae* turns a light brown as it begins to die away.

In your skiff be sure to take the necessary safety gear, which includes a life jacket and a hand-held radio, along with a pillowcase or mesh bag for collecting.

Pick by simply pulling on each frond or small group of fronds. They will come off the substrate easily. Your knuckles may get beat up after awhile, but the harvest is well worth it. Black seaweed grows in large quantities and is easy to harvest; therefore it can be easy to overharvest. Remember, the more you harvest the more processing work you will have to do after you get home.

A number of people harvest black seaweed, so the resource is well used. While black seaweed seems to be in high abundances in a few west coast locations, most of these sites are picked by several communities and numerous families.

Processing

Black seaweed is delicate and several steps must be taken to ensure a quality product. This delicate frond should **not** be rinsed in freshwater. If it is rinsed in freshwater, it will lose most of its taste.

The harvest should be laid out flat to dry on an old bed sheet. It can be put outside on a makeshift plywood table.



Russ Jones

Author Dolly Garza demonstrates drying black seaweed. The piles need to be pulled apart several times during the drying process.

A normal table height allows you to comfortably work on the seaweed.

Expose the seaweed to both a light breeze and sunlight. If you don't have these optimum conditions, try for a nice breeze or at least keep it out of the rain. The more radiant heat you have, the quicker the drying.

The many individual fronds will tend to stick together like glue as they dry, forming irregularly shaped balls. If the seaweed is allowed to dry like this the center will remain wet and eventually mold while the outside appears dry.

You need to pull these little piles of drying seaweed apart several times over the course of the day to ensure even drying. This often takes hours. The seaweed should also be turned over as you are pulling it apart. On a good day the seaweed can be dried in a 12-hour period. In damp weather it often takes two days. Bring the sheet in overnight, and then put it back out the next day. After it feels dry, the seaweed can be finished by oven roasting at around 175° for 10-20 minutes. The final oven roasting ensures that the moisture is removed. The seaweed can then be stored in an airtight container in a cool dry place.

Uses

Black seaweed is a prized food to Tlingit, Haida, and Tsimshian. It is an important trade item, because there are many areas where it does not grow, and because many Elders who enjoy eating it have stopped harvesting black seaweed because it is too much work to harvest. Members of non-Native rural communities also enjoy harvesting black seaweed in the spring.

Generally, black seaweed is dried and not used fresh. Dried black seaweed is eaten as a snack like popcorn. It can also be added to a meal like the Seaweed Chop Suey described in the recipe section.



Russ Jones

Black seaweed surfaces need to be exposed to the air, to aid the drying process.

Palmaria mollis

Ribbon Seaweed, Dulse

Palmaria is called ribbon seaweed in Southeast and Southcentral Alaska, and dulse in the Lower 48 states. It is one of the red seaweeds, in the group Rhodophyta. There are several species in the Gulf of Alaska region including *Palmaria mollis*, *Palmaria hecatensis*, and *Palmaria callophyloides*. While there are similarities in these three species, this discussion is specific to *Palmaria mollis*.

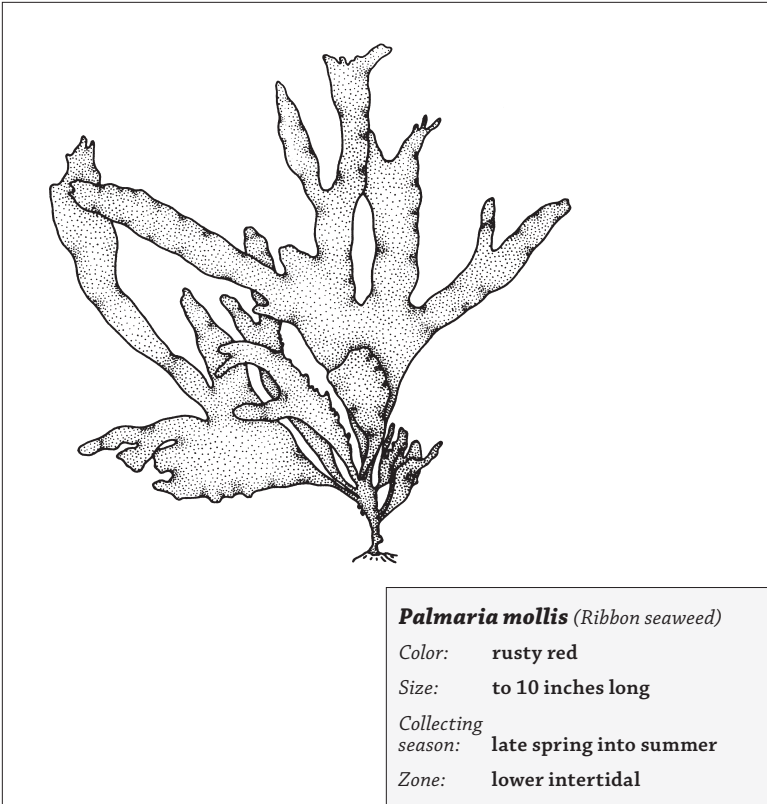
Description

Ribbon seaweed is brick red or reddish-brown in color. Several blades branch off a single small holdfast. There is no stipe or stem. Fronds sometimes appear like lobes while others may appear more irregular in shape. They grow longer than wide, up to 8-10 inches long and several inches wide. The blades are thick and almost feel leathery to the touch.



Dolly Garza

Palmaria mollis (ribbon seaweed) grows in the upper intertidal zone.



Habitat

Ribbon seaweed grows in a variety of habitats from sheltered bays to exposed rocks along the west coast. It grows in the lower intertidal zone at the -1.5 to -2 foot range. You will find clumps of it growing here and there, but it will not take over an area like black seaweed (*Porphyra*) or some of the browns (*Laminaria*) do. You will find ribbon seaweed in the late spring and summer and sometimes in the early fall.

Harvesting

Ribbon seaweed can be harvested from late spring into summer depending on weather and tidal action. Harvest by cutting or carefully tearing away the blades from the holdfast. Be sure

not to harvest all of the fronds in a small area, but leave some to provide shelter to small-shelled animals. Rinse the fronds in seawater.

Processing

Ribbon seaweed will dry to a leathery texture and will remain slightly pliable even when dried. Dry by laying it on a bed sheet in the sun, exposed to a light breeze. You may see columns or pillows of white forming on the surface of the fronds as they dry. This is salt and is edible. Some people dip the seaweed in a sugar water to prevent these deposits. Also, if you dry the seaweed quickly in sun, the salt pillows may not occur. Simply wipe off the salt formations with a slightly damp cloth, finish drying, and then store.

Uses

Dried ribbon seaweed has a tough, chewy texture. Some people prefer it cooked in a dish, or fried or roasted like a chip.



Dolly Garza

Palmaria mollis (ribbon seaweed or dulce)

Ulva fenestrata

Sea Lettuce

Ulva fenestrata is commonly called sea lettuce. It is one of the few large, bright green seaweeds in the group Chlorophyta found in the Gulf of Alaska. It is a delicate seaweed with a mild flavor.

Description

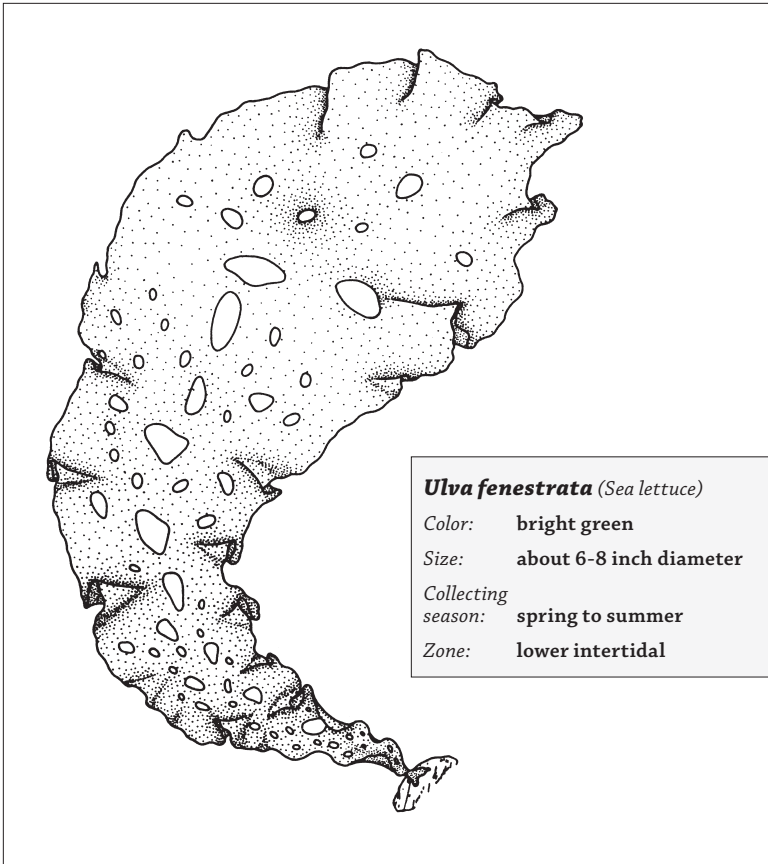
Sea lettuce is vivid green and cellophane thin. You can see the outline of your hand even through larger mature fronds. The frond is connected to rocks with a small, almost invisible holdfast. The frond grows as a single, irregular, but somewhat round shaped blade with slightly ruffled edges. The young fronds are small, thin, and very fragile, while the large fronds can grow to 6-8 inches and feel slightly thicker. There may be randomly spaced holes in the frond.

Sea lettuce can be confused with other green seaweeds which may not have the same flavor as *Ulva*.



Dolly Garza

Ulva fenestrata (sea lettuce) is a delicate seaweed, abundant in sheltered bays.



Habitat

Sea lettuce can be found in an array of habitats, but is seen more abundantly in sheltered bays or in areas with limited wave action. It grows in the lower intertidal, in the -1.5 to -2 foot tidal range.

Ulva and other green algae grow well in areas polluted with sewage, since they are nutrient scavengers. Be sure you are not collecting near a septic tank drain field or other polluted area.

Harvesting

Sea lettuce can be picked from spring into the summer depending upon weather and amount of sun. Harsh weather can batter it, leaving it too tattered for picking.

Sea lettuce often does not grow in large patches, so harvesting yields small amounts. Harvest with scissors or a small knife and carefully cut the blade from the holdfast. If the holdfast is accidentally pulled off, cut the holdfast from the frond before processing. Quickly rinse the sea lettuce in seawater to remove small animals.

Processing

The blades are small and thin and are best dried by laying them on an old bed sheet in the sun. A light breeze will help. As the blades dry, they will shrivel some and turn a darker green.

Uses

Sea lettuce is usually picked to dry and used as a seasoning. It is a delicate seaweed that dries to a small amount.



Sea lettuce shrivels and turns darker when it dries.

Dolly Garza

Salicornia virginica

Beach Asparagus

Description

Beach asparagus, *Salicornia virginica*, is a flowering plant in the goosefoot family, Chenopodiaceae. It is not a seaweed, but can be collected easily during expeditions to harvest seaweed.

Beach asparagus grows along the Pacific Northwest coast and the Atlantic coast, and a similar species (*Salicornia europaea*) is widespread in Europe. Beach asparagus is also known as sea asparagus, pickleweed, saltwort, and glasswort.

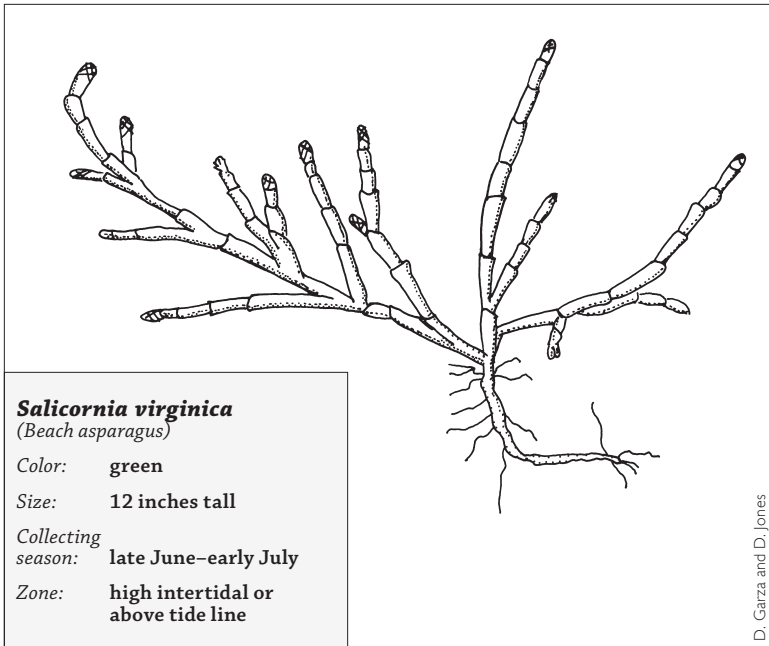
Beach asparagus is a native succulent perennial plant, growing up to around twelve inches in height. The stems are scaly and jointed. When mature, it has minute clustered greenish flowers at the tips of the stems. The tiny flowers turn a purple-red as they mature, causing the stems to slowly gain a light red tinge toward the tips.

Habitat

Beach asparagus is found along seashores, in the high intertidal area where the plant is covered by the ocean at high tides and exposed as the tide falls. Beach asparagus is generally found in sandy bays and along protected shorelines. It can develop large mats in favorable conditions.

When found along more rocky shores the plants may be more sparsely scattered. It grows more abundantly in southern Southeast Alaska and in protected bays. As you travel north it can be a little tricky to find, but it is worth the effort.

The plant dies back each year, then begins to grow again in the late spring in the same spot. By mid-June you will begin to see new growth. The plant grows quickly and will be ready to pick by the end of June or in early July. As the plant continues to



grow and begins flowering it becomes more “woody” and is less desirable for picking.

Harvesting

When preparing to pick, there are several considerations. If you are new to an area check with locals to find out where beach asparagus grows. Keep in mind that easy-to-pick spots are often harvested by older ladies who still enjoy this early summer activity. Don’t compete with them as they probably don’t have the strength or means to go to more distant locations.

In most cases you will go by skiff to find asparagus. Spend time before early July to locate a bay with a good mat of asparagus.

To pick beach asparagus you need a small paring knife and a pillowcase or large plastic bag (not a garbage bag).

Harvest beach asparagus when the stems are around 10 inches tall, filled out a bit (not too skinny), but not yet flowering (the reddish tips at the top of the stalks). Like most plants there

is a short window of opportunity for picking. If you pick too early the stems are skinny and short. If you pick too late and they've started flowering the stems will be woody and not as tasty.

To harvest, sit or kneel on the beach. Grab a small hunk of stems with one hand and use the paring knife to slice the stems off near the base of the plant.

Do not pull the plant out. If you do, it will be a lot of work to clean later. The trick is to pick clean. With every handful that you sever from the base of the plant, take five seconds and pick out the grass and other debris (such as dried seaweed). If you don't remove the debris on the beach you will have a lot more work to do when you get home.

Processing

Once you get home the work starts. You need to rinse your batch in cold water and pick out any of the debris you missed. If you are a clean picker this could take a half-hour. If not, it could take hours.

Beach asparagus will last for at least a week in your refrigerator; if you can, simply eat your harvest over the course of a week. Or you can freeze or can beach asparagus.

To prepare asparagus for freezing, start with blanching. Use a colander or large slotted spoon to put a bunch of asparagus into softly boiling water. Leave it in for about 30 seconds, then take out. Place in a large colander to drain excess water, then rinse with cold water. To freeze, place blanched and drained spears in plastic freezer bags, squeeze excess air out, label, and freeze.

To can beach asparagus, follow instructions for canning string beans.

Uses

Beach asparagus is eaten as a vegetable, similar to asparagus or green beans. See recipes for beach asparagus in the recipes section.