



SELDOVIA VILLAGE TRIBE

**STEAM**

SCIENCE • TECHNOLOGY • ENGINEERING • ART • MATHEMATICS

**Spring Is Here!**

**Let's Head for the Beach!**

**Here is all you need:**

- Good eyes
- Rubber boots
- Layers of warm clothes
- Intertidal Biodiversity Checklist & pencil



**What will make this more FUN?**

- Beachcomber's Guide (Conrad & Carmen Field)
- Kachemak Bay Macroalgae Card (included)
- Rain pants to keep you dry
- Small bucket
- Aquarium net



**Sharing your findings:**

- Check off each different marine invertebrate, fish, and alga that you observe on your checklist and tally your total species.
- Take a photo of your checklist/tally and/or your favorite photos taken during your intertidal scavenger hunt and post them in the comment section of the STEAM post on our Facebook page! If you need to, email your photo to [scuster@svt.org](mailto:scuster@svt.org) and she can post it for you!

**Check your tide book for the best low-tides for intertidal exploration, such as:**

- Be sure to get to the beach one hour before low tide to explore!
- Wednesday 4/8: (9:21 a.m.) -4.1'
- Thursday 4/9: (10:12 a.m.) -4.9'
- Friday 4/10: (10:56 a.m.) -4.7'

Post a photo of your intertidal scavenger hunt on our **SVT Community Services** Facebook page & get your name entered into a drawing for a \$10 Amazon gift card!

#STEAMchallenge

NAME \_\_\_\_\_

LOCATION \_\_\_\_\_

DATE \_\_\_\_\_

# Intertidal Biodiversity Checklist

## Poriferans

### Sponges



- Purple Encrusting Sponge  
*Haliclona permollis*
- Breadcrumb Sponge  
*Halichondria panicea*
- Hermit Crab Sponge  
*Suberites subera*

## Cnidarians

### Anemones



- Christmas Anemone  
*Urticina grebelni*
- Burrowing Anemone  
*Anthopleura artemisia*
- Frilled Anemone  
*Metridium senile*
- Brooding Anemone  
*Epiactus prolifera*
- Scarlet anemone

### Sea Jellies/Hydrroid



- Compass Jelly  
*Chrysaora melanogaster*
- Lion's Mane  
*Cyanea capillata*
- Moon Jelly  
*Aurelia aurita*
- Many-ribbed Hydromedusa  
*Aequorea sp.*
- Sea Spruce  
*Abietinaria sp.*



## Brachiopod

### Lampshell



- Common Lampshell  
*Terebratalia transversa*

## Mollusks

### Chitons



- Lined Chiton  
*Tonicella lineata*
- Black Katy Chiton  
*Katharina tunicata*
- Hairy/Mossy Chiton  
*Mopalia ciliata*
- Tiger Chiton  
*Tonicella insignis*
- Brick Chiton  
*Lepidozона mertensii*

### Limpets



- Whitecap Limpet  
*Acmaea mitra*
- Plate limpet  
*Tectura scutum*
- Shield Limpet  
*Lottia pelta*

### Nudibranchs



- Opalescent Nudibranch  
*Hermisenda crassicornis*
- Barnacle Nudibranch  
*Onchidoris bilamellata*
- Monterey sea lemon  
*Archidoris montereyensis*
- Maned/Shaggy Mouse Nudibranch  
*Aeolidia papillosa*

### Bivalves



- Pink Scallop  
*Chlamys rubida*
- Pacific Blue Mussel  
*Mytilus trossulus*
- Pacific Rock Oyster  
*Pododesmus macrochima*
- Butter Clam  
*Saxidomus giganteus*
- Steamer Clam  
*Protothaca staminea*
- Pink Baltic Macoma  
*Macoma balthica*
- Nuttall Cockle  
*Clinocardium nuttallii*
- Razor Clam  
*Siliqua patula*

## Mollusks

### Snails



- Hairy Triton  
*Fusitriton oregonensis*
- Sitka Periwinkle Snail  
*Littorina sitkana*
- Puppet Margarite  
*Margarites pupillus*
- Channeled Dogwinkle  
*Nucella canaliculata*
- Frilled Dogwinkle  
*Nucella lamellose*
- Ridged Whelk  
*Nuptunea lyrata*
- Moon Snail  
*Crytonatica aleutica*
- Hairy Cancellate Snail  
*Trichotropis cancellata*
- Blue Topsnail  
*Calliostoma ligatum*

### Cephalopod



- Pacific Octopus  
*Octopus dofleini*

## Echinoderms

### Sea Stars



- Blood Star  
*Henricia leviuscula*
- True Star  
*Evasterias troschelli*
- Six-rayed Star  
*Leptasterias hexactis*
- Sun Star  
*Solaster stimpsoni*
- Red-banded Star  
*Orthasterias koehlerii*
- Leather Star  
*Dermasterias imbricata*
- Daisy Brittle Star  
*Ophiolis aculeata*
- Notched Brittle Star  
*Ophiura sarsi*

## Arthropods

### Barnacles



- Thatched Barnacle  
*Semibalanus cariosus*
- Acorn barnacle  
*Balanus glandula*

### Amphipods/Isopods



- Small Beach Hopper  
*Orchestia traskiana*
- Skeleton Shrimp  
*Caprella alaskana*
- Rockweed Isopod  
*Peridotea vosnesenski*
- Pillbug Isopod  
*Gnorimospaeroma* sp.

### Crabs



- Orange Hermit Crab  
*Ellasochirus gilli*
- Widehand hermit crab  
*Ellasochirus tenuimanus*
- Hairy hermit crab  
*Pagurus hirsutiusculus*
- Bering Hermit Crab  
*Pagurus beringanus*
- Carapace crab  
*Haplogaster mertensii*
- Umbrella crab  
*Cryptolithodes stichensis*
- Butterfly crab  
*Cryptolithodes typicus*
- Heart crab  
*Phyllolithodes papillosus*
- Helmet crab  
*Telmessus cheiragonus*
- Black-clawed Crab  
*Cancer oregonensis*
- Dungeness Crab  
*Cancer majister*
- Decorator Crab  
*Oregonia gracilis*
- Graceful Kelp Crab  
*Pugettia gracilis*

## Arthropods

### Shrimp



- Broken-back Shrimp  
*Heptocarpus* sp.
- Sand Shrimp  
*Crangon* sp.

## Annelids

### Segmented/Flat



- Clam Worm  
*Nereis vexillosa*
- Iridescent Sandworm  
*Nephtys caeca*
- Split-branch Feather Duster  
*Schizobranchia insignis*
- Free-living scale worm  
*Harmothoe imbricata*
- Cone Worm  
*Pectinaria granulata*
- Pink Polychaete  
*Glyceridae capitana*
- Sabellid Carpet Worm
- Terbellid Sphaghetti Worm
- Calcareous Tube Worm  
*Serpula vermicularis*
- Spiral Tube Worm  
*Spirorbis spirillum*
- Leafy flatworm  
*Kaburakia excelsa*

### Nermeateans

#### Ribbon Worms



- Green Ribbon Worm  
*Emplectonema gracile*
- Long Red Ribbon Worm  
*Tubulanus polymorphus*

### Tunicate

- Sea Peach  
*Halocynthia aurantium*



### Fish

- Tidepool Sculpin
- Gunnel
- Prickleback
- Snailfish



## Brown algae



- Bull Kelp  
*Nerocystis luetkeana*
- Ribbon kelp  
*Alaria marginata*
- Split kelp  
*Saccharina groenlandica*
- Sugar Kelp  
*Saccharina latissimi*
- Shotgun Kelp  
*Agarum clathratum*
- Rockweed/Popweed  
*Fucus distichus*
- Witches Hair  
*Desmarestia aculeata*
- Soda Straws  
*Scytosiphon lomentaria*

## Green Algae

- Green Sea Lettuce  
*Ulva lactuca*
- Stringy Sea Lettuce  
*Ulva linza*
- Sea Cellophane  
*Monostroma grevillea*
- Arctic Sea Moss  
*Arcosiphonia* sp.



## Red Algae

- Stiff Red Ribbon  
*Palmaria hecatensis*
- Frilly Red Ribbon  
*Palmaria callophyloides*
- Nori  
*Porphyra* sp.
- Red Eyelet Silk  
*Sparlingia pertusa*
- Cup and Saucer  
*Constantinea sublifera*
- Red Sea Sac  
*Halosaccion glandiforme*
- Sea Brush  
*Odonthalia floccosa*
- Black Tassel  
*Pterosiphonia bipinnata*
- Pink Coralline Crust



# Kachemak Bay Macroalgae

## Brown Algae – Phylum Ochrophyta



**Sugar kelp** *Saccharina latissima*. Up to 3.5 m long; short stipe; branched holdfast; med-thin ruffled blade often with rows of bumps; edible; low intertidal to subtidal.



**Split kelp** *Saccharina groenlandica*. Up to 2 m long; long stipe; branched holdfast; thick blade often splits into 2-3 segments; edible; low intertidal to subtidal.



**Shotgun Kelp** *Agarum clathratum*. Up to 1 m long; medium length stipe; branched holdfast; stiff blade riddled with holes; not edible; low intertidal to subtidal.



**Ribbon kelp** *Alaria marginata*. Up to 3 m long; stipe with 20-40 elliptical leafy sporophylls; med-thin blade with solid midrib (ribbon); edible; mid to low intertidal.



**Rockweed or popweed.** *Fucus distichus*. Up to 50 cm tall; discoidal holdfast; flattened, strap-like blades with midribs; branches into 2 equal parts; distinctive air bladders at tips at maturity; edible; high to low intertidal.



**Bull kelp** *Nereocystis luetkeana*. Canopy forming kelp; stipe 10-36 m long ending in a gas-filled float from which up to 10 m long blades develop; branched holdfast; edible; low intertidal to subtidal.



**Soda straws** *Scytosiphon lomentaria*. Up to 50 cm tall; discoidal holdfast; unbranched tubes with constrictions; grows in clusters; mid to low intertidal.



**Witch's hair** *Desmarestia aculeata*. Up to 2 m tall; discoidal holdfast; branches in an alternate pattern; low intertidal to subtidal.



**Ulva linza**. Up to 45 cm tall; tubular at base but flattened above; long, narrow, ruffled blades 2 cell layers thick; mid to low intertidal.



**Sea lettuce.** *Ulva lactuca*. Up to 30 cm tall; green blade of 2 cell layers; often with small holes; edible; mid to low intertidal.



**Sea cellophane** *Monostroma grevillei*. Up to 20 cm tall; starts out as a sac and splits as it matures; one cell layer thick; low intertidal to subtidal



**Arctic sea moss** *Acrosiphonia* sp. Up to 6 cm tall; forms dark green mats; wrings out like a sponge; mid to low intertidal.

## Green Algae – Phylum Chlorophyta

## Red Algae - Phylum Rhodophyta



**Stiff red ribbon** *Palmaria hecatensis*. 20 cm tall; discoidal holdfast; thallus is leathery; blades are strap-like or with 1 or 2 lobes with rounded tips; edible; mid to low intertidal.



**Frlly red ribbon** *Palmaria callophyloides*. 10-15 cm tall; discoidal holdfast; crisp, shiny thallus; highly branched; very pretty; mid to low intertidal.



**Cup and saucer** *Constantinea sublifera*. Up to 20 cm tall; blades saucer-shaped; attach in middle to lower side to a branched stipe; new blades form a cup within the saucer in September; veins on undersurface; low intertidal to subtidal.



**Red eyelet silk** *Sparlingia pertusa*. Up to 60 cm tall; discoidal holdfast; somewhat crisp; blade is perforated with small holes, tapering to stipe; low intertidal to subtidal.



**Pink coralline rock crust**. Extensive, thin, hard, pink crusts of calcium carbonate; smooth surface; high intertidal to subtidal.



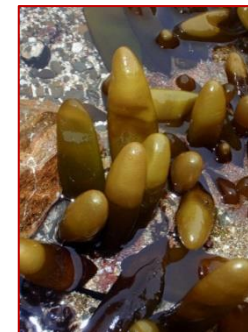
**Nori** *Porphyra* sp.. Up to 20 cm tall; sheet-like thallus; one cell thick; edible; high to mid intertidal.



**Sea brush** *Odonthalia floccosa*. Up to 40 cm tall; discoidal holdfast; profuse alternate arranged branches; clusters of short branchlets at tips of branches; low intertidal.



**Coral seaweed** *Corallina* sp.. 3 or more cm tall; often form dense mats; calcareous; feather-like branches; profuse opposite branches; mid to low intertidal.



**Red sea sac** *Halosaccion glandiforme*. Up to 8 cm tall; small discoidal holdfast; sacs taper to a short stipe; tiny pores allow seawater inside the sacs; grows in clumps; mid to low intertidal.



**Black tassel** *Pterosiphonia bipinnata*. Up to 1222 cm; very fine profuse branches; herbivores like to graze on it; forms mats when tide is out; mid to low intertidal.



**Sea fern** *Neoptilota asplenioides*. Up to 30 cm tall; fern-like; coarsely branched; bright red; branches flattened; low intertidal to upper subtidal.