Phylum Arthropoda

Acorn Barnacle *Balanus glandulus*
~ 6 smooth plated sides
~ diameter usually less than 1.5 cm
~ stays moist by staying closed
~ opens up and feeds when under water

Thatched Barnacle *Semibalanus cariosus*
~ 6 wall plates composed of vertical tube-like ribs giving a thatched look
~ eats by kicking food into its mouth
~ lives up to 15 years

Beach Hopper *Traskorchestia traskiana*
~ sometimes called sand fleas
~ length less than 1.8 cm
~ has 14 legs and looks like a shrimp
~ found at high tide line under algae

Isopod *Idotea spp.*
~ various species
~ 1.5 cm, flattened body
~ lives under rocks
~ scavenger

Hermit Crab *Pagurus spp.*
~ 28 Species in Alaska
~ lives in a snail shell for protection
~ fight among selves for food and shells
~ not true crabs

Graceful Kelp Crab *Pugettia gracilis*
~ carapace resembles a sheriff's badge
~ length about 5 cm
~ found living on and eating kelp
~ often attaches kelp to carapace

Pygmy Rock Crab *Cancer oregonensis*
~ heavy-looking, claws have black tips
~ adults are reddish brown
~ legs covered with small hairs `
~ up to 5 cm wide

Phylum Mollusca

Blue Mussel *Mytilus trossulus*
~ smooth shell with growth lines
~ attaches to rocks with byssal threads
~ a favorite food of sea stars

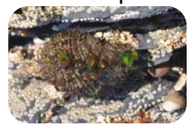
Seaslug *Nudibranch*
~ *Latin: nudus*, naked + *brankhia*, gills
~ breaths through feathery gills
~ sheds its shell after its larval stage

Black Katy Chiton *Katharina tunicata*
~ has 8 shell plates
~ butterfly-shaped plates are often left by birds in the woods
~ a food source for native Alaskans

Shield Limpet *Collisella pelta*
~ snail with a cone-shaped shell
~ uses a muscular foot to attach to rocks
~ rasps food from rocks with file-like tongue called a radula

Sitka Periwinkle *Littorina sitkana*
~ round spiral shell, up to 1.5 cm long
~ most are brown or gray
~ some have lighter bands

Snails and Welks
~ protected by a hard calcium shell
~ has plume-like gills and eyes on tentacles
~ has a single muscular foot with a cover called an operculum which protects it from predators and water loss



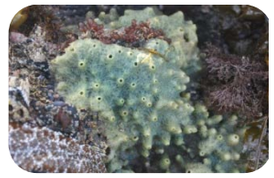
Hairy Triton
Fusitriton oregonensis

Frilled Dogwinkle
Nucella lamellosa

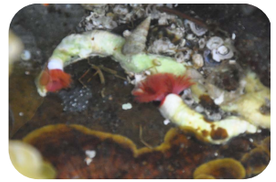
Dire Welk
Lirabuccinum dirum

File Dogwinkle
Nucella lima

Other Phyla



Yellow-Green Encrusting Sponge
Halichondria panicea Phylum Porifera
~ simplest multi-cellular organism
~ no organs; body acts as a filter for feeding



Calcareous Tube Worm
Phylum Annelida
~ tubes formed from calcium carbonate found in sea water
~ crown serves the dual purpose of respiration and filter feeding

Clam Worm *Nereis vexillosa*
Phylum Annelida
~ can grow to 30 cm
~ secretes an acid that it uses to burrow through clam shells
~ important food source for birds

Gunnels and **Pricklebacks**
Phylum Chordata
~ many members of these two families look similar
~ lives under rocks

Tide Pool Sculpin *Oligocottus maculosus*
Phylum Chordata
~ big head and tapering body
~ large pectoral fins
~ can change color to blend in

Sea Anemone
Phylum Cnidaria
~ cylindrical shape with an oral disk at the top
~ tentacles have stinging cells called nematocysts
~ tentacles fold in to capture prey

Christmas
Urticina crassicornis

Burrowing
Anthopleura artemisia

Rose
Urticina piscivora

Marine Algae

Sea Lettuce *Ulva spp.*
~ at least 11 different species
~ thin, transparent blade consisting of two cell layers
~ edible

Black Pine Algae *Neorhodomela larix*
~ color is brownish-black to black
~ looks like “dreadlocks”
~ often has Sea Cauliflower attached

Sea Sac *Halosaccion glandiforme*
~ sometimes called “deadman’s fingers”
~ water-filled sacs make good squirt guns when gently squeezed

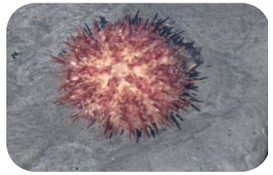
Crustose Corallines *Clathromorphum, Lithothamnion, Melobesia, and Mesophyllum*
~ exact species hard to identify
~ calcium carbonate in cell walls
~ contain chlorophyll
~ are photosynthetic

Sea Cauliflower *Leathesia marina*
~ thick, convoluted outer layer
~ very slimy when torn
~ often attaches to Black Pine Algae

Rock Weed or Pop Weed *Fucus distichus*
~ can reach lengths of 25 cm
~ fronds have air bladders on tips that contain reproductive structures
~ provides shelter for other organisms

Bull Kelp *Nereocysitis luetkeana*
~ holdfast attaches alga to ocean floor
~ stalk ends in round bulb-shaped float
~ bulb has flat blades attached
~ bulb used for containers by native Alaskans

Phylum Echinodermata



Green Sea Urchin
Stronglocentrotus droebachiensis
~ can be red, purple, green or white
~ has 5 teeth operated by a jaw structure called an Aristotle’s lantern

Common Star
Pisaster ochraceus

Sea Star
~ Class Asteroidea
~ has a water vascular system that operates its tube feet
~ can regenerate lost limbs

Rainbow Star
Orthasterias koehleri

Blood Star
Henricia leviuscula

Six-Rayed Star
Leptasterias hexactis

Sunflower Star
Pycnopodia helianthoides

Mottled Star
Evasterias troschelii

Intertidal Zone The intertidal zone is the area between the highest high tide and the lowest low tide of the year. It is broken up into zones based upon vertical height and tide coverage. Intertidal animals are adapted to life in specific zones.

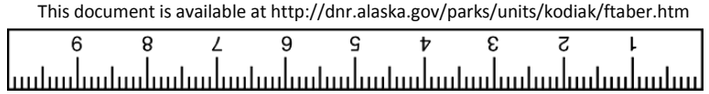
Zone One The splash zone of life extends from the highest splash of ocean spray and storm waves to the average of all high tides. Most of these organisms are land dwellers that can withstand exposure to salt water and air that can dry them out.

Zone Two The high intertidal zone extends from the average high tide mark to mean sea level. Most of the animals of Zone Two are accustomed to tolerating air exposure.

Zone Three This zone is below mean sea level. It is uncovered by most low tides and covered by most high tides. There are a variety of different habitats in this zone.

Zone Four This zone is only uncovered during minus tides. Only a few animals are exposed to wave action, sun and wind. This zone has the greatest diversity of intertidal life.

Images and documentation compiled for
Fort Abercrombie State Historical Park
by volunteers, Nancy & Melissa Meitle, Summer 2011.
This document is available at http://dnr.alaska.gov/parks/units/kodiak/ftaber.htm



Fort Abercrombie State Historical Park

Guide to Marine Life

Tidepool Etiquette

Use a tide table to plan your visit at low tide.

Handle animals gently.

Put the animals back exactly where you found them.

If you pick up a rock, replace it as you found it.

Leave all animals on the beach for others to enjoy.

ALASKA STATE PARKS