

Cnidarians: Jellies, anemones, hydroids & corals





Doug Stark

Aggregating / pink-tipped anemone
Anthopleura elegantissima



Doug Stark photos

Moonglow / burrowing anemone
Anthopleura artemisia



Stubby rose / red-beaded anemone
Urticina coriacea

Doug Stark photos



Doug Stark photo

Painted anemones ...
Urticina crassicornis & ...



Doug Stark & Mary Jo Adams photos

Plumose anemones
Metridium sp.



Proliferating /
brooding anemone

*Epiactis
prolifera*

WORMS

PHYLUM NEMERTEA: RIBBON WORMS

- Mucus coating
- Proboscis, inject venom
- excrete poison (few predators)



Mary Jo Adams

Green ribbon worm

Emplectonema gracile

Nemertea - Ribbon worms



red ribbon worm / orange nemertean
Tubulanus polymorphus

Nemertea - Ribbon worms



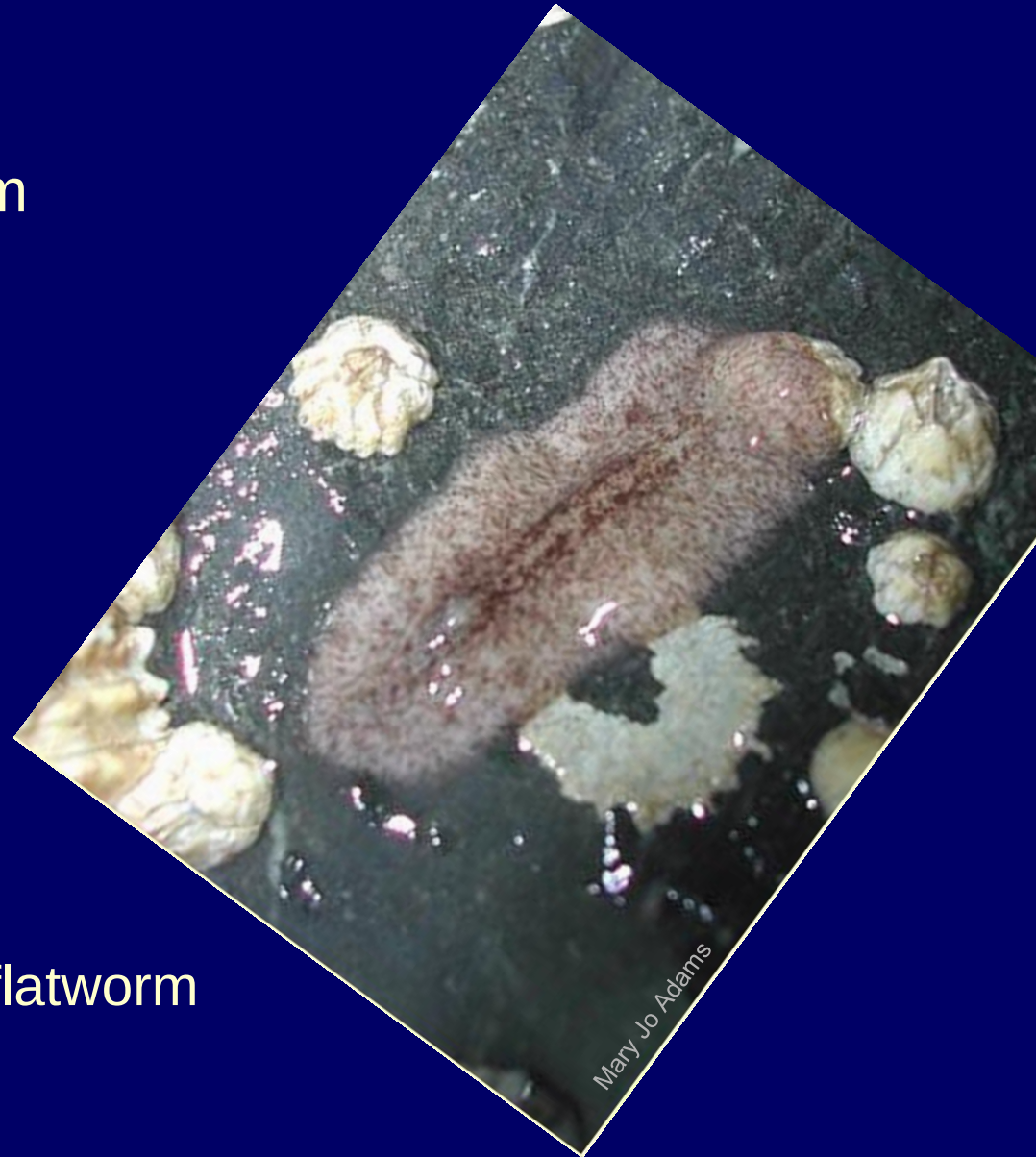
Purple ribbon worm
Paranemertes peregrina

“Don't let the fragile appearance of this species fool you. Paranemertes is a voracious predator known to attack, kill, and consume polychaete worms larger than itself.”



PHYLUM PLATYHELMINTHES: FLATWORMS

- Simple digestive system
- Breathes through skin using flattened shape
- Often under rocks



Free Living flatworm

Mary Jo Adams

PHYLUM ANNELIDA: SEGMENTED WORMS

polychaetes,

“Poly” = many, “chaeta” = bristles

- Burrow or free-moving
- Deposit feeders, carnivores
- Eversible jaws



Aphroditidae

– sea mouse worms



Sea mouse
Aphrodita sp.



SEGMENTED WORMS:

NEPHTYIDAE



Sand worm or “goddess worm”

Nephtys sp.

Nereidae

Giant pile worm



Sabellidae - Feather duster worms



Parchment tube worm / feather duster worms

Tidepools



Mary Jo Adams



Jim Ramaglia photo

Calcareous tube worm Serpulidae

Spirorbidae

Dwarf calcareous tube worms



Cirratulidae – fringed tube worms



A honeycomb of shorter calcareous tubes

Annie Prevost



Dodecacaria fewkesi



Bamboo worm
Maldanidae

Arenicolidae - Lugworms



Lugworm

Abarenicola pacifica

Terebellidae - spaghetti worms (fine tentacles at anterior end)



See spaghetti-like tentacles
sticking out from under rock



Polynoidae – scale worms



Free living scaleworm



18-scaled worm
Halosydna brevisetosa

MOLLUSKS

Gastropods: SNAILS AND SEA SLUGS



Checkered periwinkle
Littorina scutulata

& Sitka periwinkle
Littorina sitkana



Mary Jo Adams



Chink shell
Lacuna



Dire whelk
Lirubuccinum dirum



Mary Jo Adams

Blue topsnail
Calliostoma ligatum



Striped dogwinkle on barnacles

Nucella ostrina. & *Chthamalus dalli*



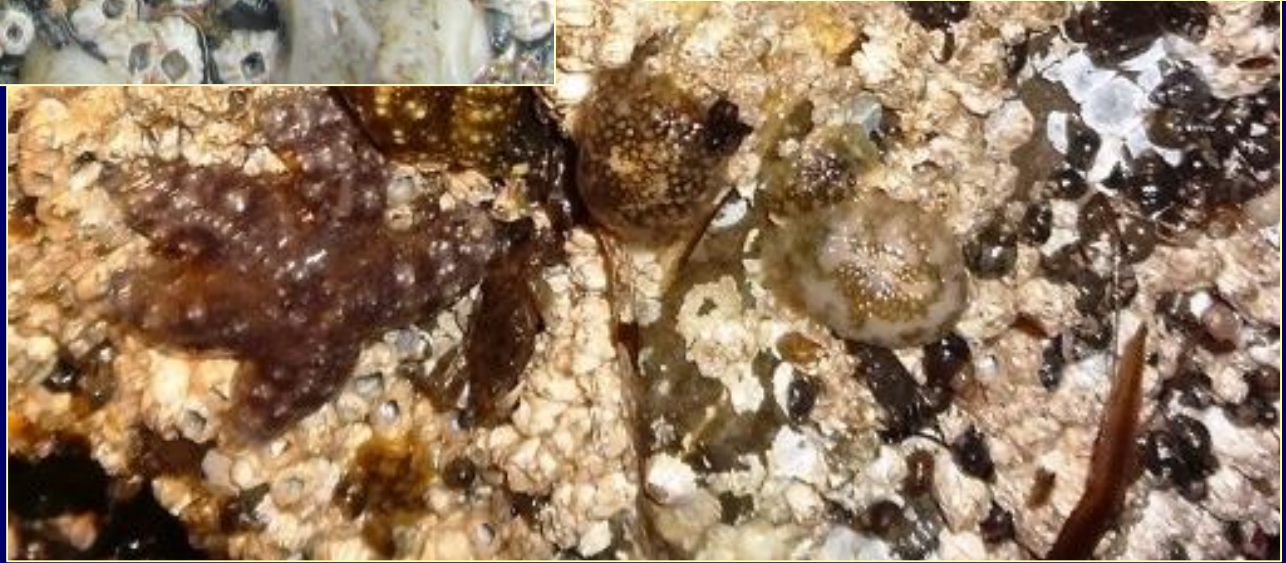
Frilled whelk
Nucella lamellosa

*Beach Naturalists at Birch
Bay State Park*



Bubble snails!

Haminoea or Aglaja sp.



Chris Brown

Barnacle-eating nudibranch
Onchidoris bilemellata



Opalescent nudibranch
Hermisenda crassicornis



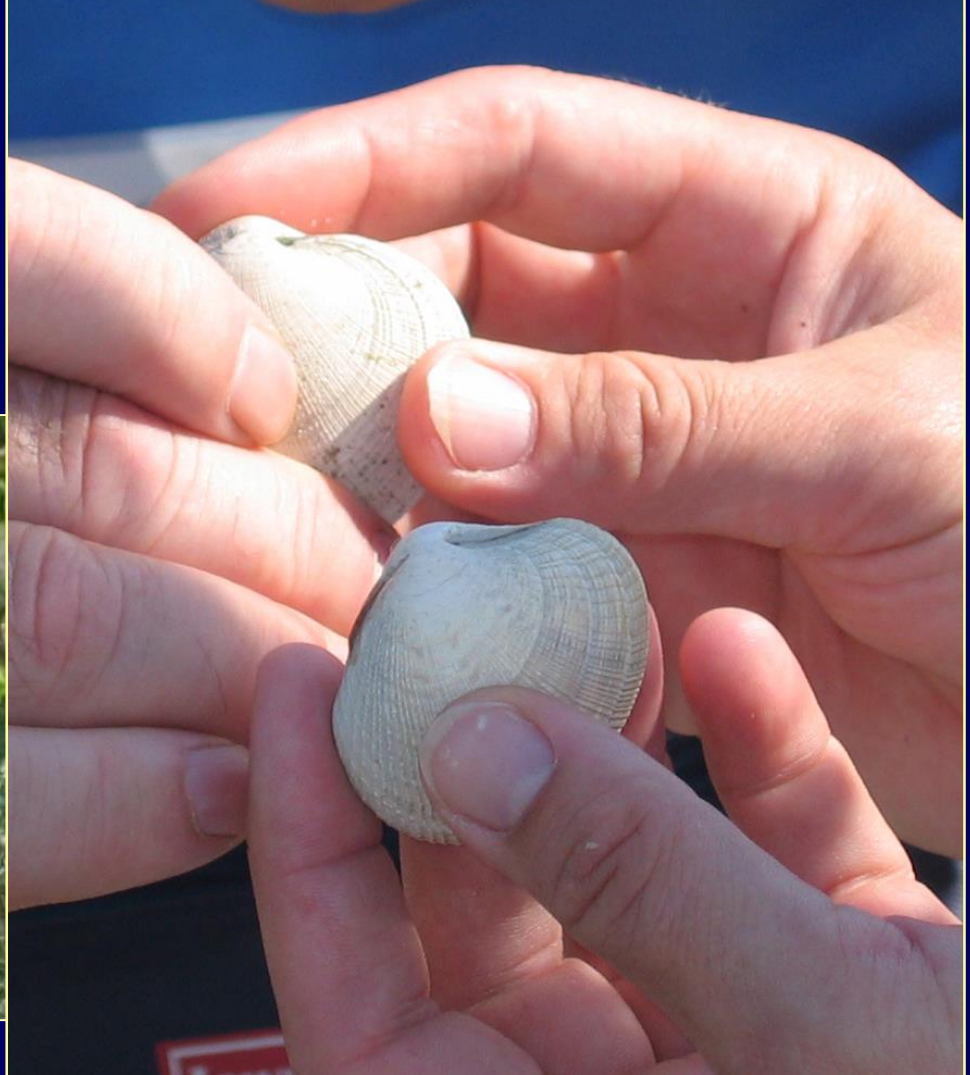
Shaggy mouse *Aeolidia papillosa*

51

“Steamers!”



Whatcom County photo



Doug Stark

Heart Cockle
Clinocardium nuttallii

& Pacific littleneck
Leukoma (Protothaca)
staminea

***cp. Manila (Japanese
littleneck)***

Venerupis philipinarium

Manila / Japanese littleneck

Native Pacific littleneck



Doug Stark photo

What's squirting us?

Horse clam neck



Pacific gaper /
Horseneck clam



Doug Stark photo

Pea crab from fat gaper/horse clam

(Mollusks continued)
Bivalves: Clams, oysters,



Mary Jo Adams photo

Jingle shell oyster / Green false jingle

Pododesmus macrochisma



Pacific Oysters

Crassostrea gigas



Dan Cheney

Olympia oysters

Mopalia chitons



Mossy chiton

Mopalia muscosa



Hairy chiton

Mopalia ciliata

CHITONS



Woody chiton
Mopalia lignosa

Lined chiton
Tonicella lineata



Woody chiton • *Mopalia lignosa*



Limpets

Doug Stark photo

63



L. digitalis
Mary Jo Adams

L. pelta
Doug Stark

T. persona

T. scutum

Plate limpet
Tectura scutum



Mask limpet (inflated limpet)
Tectura persona



Mary Jo Adams

Eelgrass limpet
Lottia alveus paralella

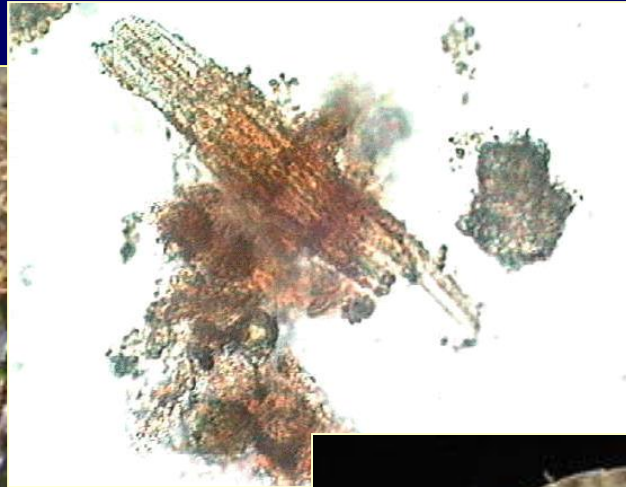
Crustaceans



Jim Ramaglia photo



Doug Stark photo



Detritus



Amphipod - "Sand flea"



Eelgrass Isopods
Idotea resecata



Rockweed isopod
Idotea wosnesenskii

Mary Jo Adams



Purple shore crab
Hemigrapsus nudus

Hairy shore crab
Hemigrapsus oregonensis

Mary Jo Adams



Mary Jo Adams

Black-clawed crab
Lophopanopeus bellus



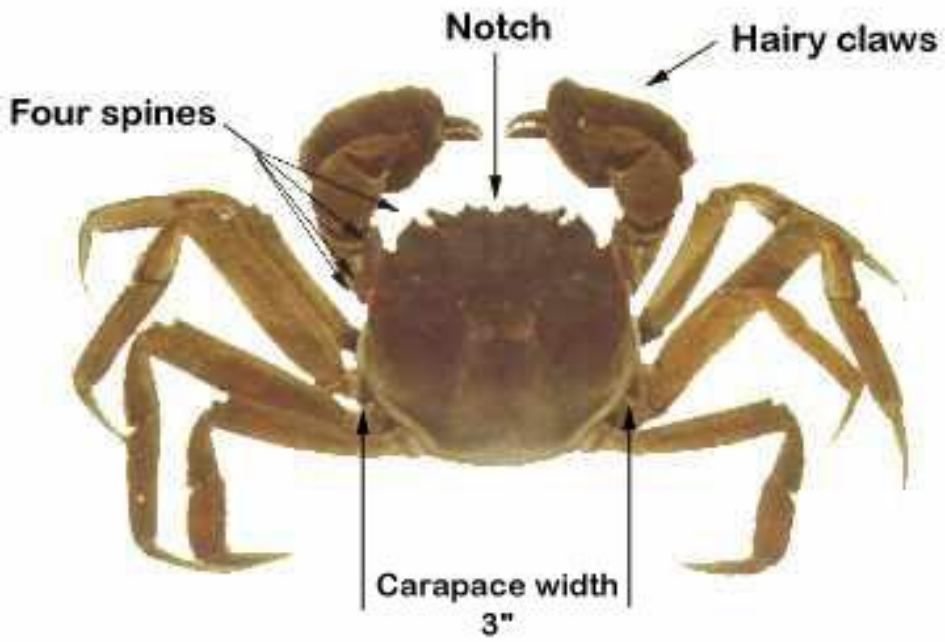
Mary Jo Adams photos

European green crab
Cancer maenus



Doug Stark photo

Dungeness Crab
Cancer magister



Mitten Crab (invasive)
Eriocheir sp.



Doug Stark

Graceful cancer crab

Cancer gracilis



Skeleton shrimp
amphipod

Caprella sp.

Cancer productus

Color varies but is often
brick red

Black tipped claws

Wide "fan" shaped carapace



Doug Stark photo

Red rock crab
Cancer productus



Hairy hermit crab



Grainy hand
hermit crab



Bering
hermit crab



Doug Stark photo

Decorator crab
Oregonia gracilis



broken back shrimp
Heptacarpus sp.

Echinoderms



“Oh my
gracious! It’s
Pisaster
ochraceous!”

Pat Kennedy photo



Doug Stark photo

Purple sea stars
Pisaster ochraceus



“Giant” pink sea star
Pisaster brevispinus



Mottled sea star
Evasterias troschelii





Mary Jo Adams

Brooding star / six-ray star
Leptasterias hexactis



Sunflower star
Picnopodia helianthoides



Baby Sunflower Star



Sun star
Solaster stimpsoni



Mary Jo Adams

Long armed brittle star
Amphiodia occidentalis



Beach Naturalists

Eccentric Sand Dollar
Dendraster excentricus



Green Sea Urchin

- *Strongylocentrotus droebachiensis*

Nancy Bergman photos



Doug Stark photo

Orange sea cucumber
Cucumaria miniata



Tidepool sculpin
Porichthys notatus



Tracy Clark "Divebums" site

Staghorn sculpin / "bullhead"



Ron wolf

Northern clingfish
Gobiesox maeandricus



Three spine stickleback
Gasterosteus aculeatus

Doug Stark



Saddleback gunnels in sea lettuce

Wendy Harris

Ulva sp.



Whatcom County

Starry flounder



Gull with plainfin midshipman
Porichthys notatus

Wendy Harris

