

**Common Name:** black leather chiton / black katy chiton  
**Scientific Name:** *Katharina tunicata*  
(KA-tah-REE-nah TUNE-i-KAY-ta)



©Bernard P. Hanby

### **Defining Characteristics**

- Max size 12 cm
- Attaches to seafloor with muscular foot
- File-like tongue to rasp food from rocks



**Common Name: mossy chiton**  
**Scientific Name: *Mopalia muscosa***  
(MOP-ah-LEE-ah MUS-koh-sah)



©Bernard P. Hanby

### **Defining Characteristics**

- Max length of 10 cm
- Plates are dark brown, grey, or black
- Dark bristle like hairs around the girdle (edge)

### **Habitat and Range**

- Intertidal to near-shore shallows
- Tidepools or rocks
- Alaska to Mexico

### **Prey and Predators**

- Prey on red and green algae
- Predators include sea stars, seabirds

### **Reproduction**

- Separate male and female sexes
- Gametes (sex cells) are released into the water column where fertilization takes place

### **Additional Information**

- Sometimes called “sea cradles” because they curl up when disturbed
- Like other chitons, it has eight shell plates, or valves, encircled by a leathery girdle. This one has brush-like bristles.
- Move at night at high tide

**Common Name: rough keyhole limpet**

**Scientific Name: *Diodora aspera***

(DEE-oh-door-ah as-pear-ah)



©Bernard P. Hanby

### **Defining Characteristics**

- Max size of 7 cm across
- Cone shaped shell with a small hole at the point of the cone

### **Habitat and Range**

- Intertidal to near shore waters
- Rocky substrates
- Alaska to Baja California

### **Prey and Predators**

- Prey on algae, bryozoans, moss animals
- Predators are sea stars

### **Reproduction**

- Separate male and female sexes
- Both sperm and eggs are released into in mass quantities

### **Additional Information**

- Gas exchange occurs through a tiny hole in the top of its shell
- Often covered with barnacles
- Extends its mantle when a sea star predator is present so the sea star has no place to grab
- May host a scale worm that will bite predator sea stars

**Common Name: Pacific blue mussel**  
**Scientific Name: *Mytilus trossulus***  
(MY-till-us TROSS-you-lus)



©Bruce Obee

### **Defining Characteristics**

- Max size of 11 cm
- Blue, black, or tan shells
- Attach to rocks and other surfaces with hairy threads called ‘byssal’ threads, sometimes called a beard

### **Habitat & Range**

- Intertidal to near-shore shallows
- Common at sheltered locations
- Form large colonies on rocks or pilings
- Arctic to Mexico

### **Prey & Predators**

- Prey on detritus, plankton
- Predators are humans

### **Reproduction**

- Spawn during June and July
- Each mussel may produce up to 20 million eggs
- External fertilization

### **Additional Information**

- Although they are named “blue” mussels, they can also be brown or black
- Eat by pumping and filtering water through gill filaments which filter out small particles
- Will filter between 40 and 60 L of water a day

**Common Name: giant rock scallop**  
**Scientific Name: *Crassadoma gigantea***  
(CRASS-a-dome-a jie-GANT-ee-ay)



©Bernard P. Hanby

### **Defining Characteristics**

- Max size of 25 cm across
- Brown with a bright orange mantle
- Purple stain inside the shell at the hinge
- Blue eye spots on the orange mantle

### **Habitat & Range**

- Intertidal waters to 80 m deep
- Rocky substrates
- Alaska to Mexico

### **Prey & Predators**

- Prey on phytoplankton, organic particles
- Predators include humans, sea stars

### **Reproduction**

- Separate male and female sexes, females are normally larger
- Some may be hermaphrodites
- Spawn mid-May to mid-June

### **Additional Information**

- Eyespots are sensitive to light and warn of danger
- Juveniles swim, adults cement themselves to rock
- Swim by jet propulsion
- A boring sponge is often found on the shell of this scallop

**Common Name: black turban snail**  
**Scientific Name: *Tegula funebris***  
(TEH-goo-la FUNE-e-bra-lis)



©Bernard P. Hanby

### **Defining Characteristics**

- Max size of 20 – 40 mm
- Thick, dark purple to black shell
- Inside of the shell is pearly
- All most all have eroded tips

### **Habitat & Range**

- Intertidal to subtidal waters to 3 m deep
- Exposed coasts, commonly aggregate among rocks
- Alaska to Mexico

### **Prey & Predators**

- Prey on algae, kelp, diatoms
- Predators are sea otters, sea stars

### **Reproduction**

- Separate male and female sexes
- Females produce eggs
- Internal fertilization by males

### **Additional Information**

- Empty shells are often used by hermit crabs
- Commonly harvested by First Nations
- When fleeing a predator on a sloping substrate, the snail may simply detach itself and roll or drop away
- If the snail gets flipped over by a wave it can right itself by picking up pebbles with its foot (the extra weight helps the rolling process)
- Lifespan up to 25 years

**Common Name: Oregon triton / hairy triton**  
**Scientific Name: *Fusitriton oregonensis***  
(FUUSE-ee-try-ton OR-egg-on-en-sis)



©Bernard P. Hanby

### **Defining Characteristics**

- Max size of 15 cm
- Shell is light brown in colour and covered with gray-brown shaggy bristles called *periostracum* (hair-like projections)
- 6 whorls of the shell

### **Habitat & Range**

- Intertidal to 100 m deep
- Alaska to California, and Japan

### **Prey & Predators**

- Prey on tunicates, sea urchins
- Predators are sea stars, seabirds

### **Reproduction**

- Males and females are different but appear similar, female usually larger
- Internal fertilization
- Lays eggs
- Courting behaviour begins 6 months prior to egg laying

### **Additional Information**

- Largest intertidal snail
- Empty shell may become home for large hermit crab
- With its shell covered in thick fuzz, this animal belongs to a family known as “hairy snails”
- Holds the record for the longest larval development of any marine invertebrate, can delay metamorphosis for over 4 years until presented with appropriate habitat

**Common Name: giant nudibranch / rainbow nudibranch**  
**Scientific Name: *Dendronotus iris***  
(DEN-dro-no-tus EYE-ris)



©Bernard P. Hanby

### **Defining Characteristics**

- Max size of 30 cm long
- Colourful branches on its back
- Varies in colour from white to grey, or orange to red

### **Habitat & Range**

- Subtidal to 215 m deep
- Sand and muddy substrates
- Alaska to Mexico

### **Prey & Predators**

- Prey on the tentacles of tube-dwelling anemones
- Predators are unknown

### **Reproduction**

- Simultaneous hermaphrodites (contain both male and female reproductive organs at the same time)
- Internal fertilization (self fertilization rare)
- Lay eggs in spiral patterns
- Mate during July and August in shallower waters

### **Additional Information**

- Also known as sea slugs
- Graceful dancer, undulating its body to move through the water
- Name means naked gill
- Ingested nematocysts (stinging cells from prey) are stored and adapted to become part of the defense system of nudibranchs

**Common Name: lion nudibranch / hooded nudibranch**  
**Scientific name: *Melibe leonina***  
(MEL-i-bee LEE-o-NEE-nah)



<http://www.coldwaterimages.com/img/melibe0.JPG>

### **Defining Characteristics**

- Max size of 9 cm
- Large, expandable oral hood with tentacles (resembles a lion's mane)
- Large, flattened, leaf-like projections (*cerata*) on its back
- Translucent colourless to yellow-brown or green-brown and spotted

### **Habitat & Range**

- Intertidal to shallow subtidal
- Rocks, eelgrass, and kelp
- Alaska to Baja California

### **Prey & Predators**

- Prey on small crustaceans
- Predators are fish, crabs, sea stars

### **Reproduction**

- Simultaneous hermaphrodites (contain both male and female reproductive organs at the same time)
- Internal fertilization (self fertilization is rare)
- Lay eggs in spiral patterns

### **Additional Information**

- "*Leonina*" means lionine, named after the hooded tentacles resembling a lion's mane
- Can shed cerata when fleeing from predators as a distraction
- You can smell a sweet, fruity aroma when many of them are in a tank or one is removed from water

**Common Name: opalescent nudibranch / long-horned nudibranch**

**Scientific Name: *Hermissenda crassicornis***  
(HER-mee-send-ah CRASS-ee-cor-nis)



©Bernard P. Hanby

### **Defining Characteristics**

- Max size of 8 cm
- Bold strip across its head between sensory organs
- Wide range of colours though always have bright orange areas on back with blue stripes along side
- *Cerata* (dorsal projections) contain nematocysts, stinging capsules obtained from prey

### **Habitat & Range**

- Intertidal to 35 m
- Rocks, eelgrass beds, floats
- Alaska to Baja California

### **Prey & Predators**

- Prey on hydroids, anemones, sea squirts, worms
- Predators are other nudibranchs

### **Reproduction**

- Simultaneous hermaphrodites (contain both male and female reproductive organs at the same time)
- Internal fertilization (self fertilization rare)
- Lay eggs in spiral patterns
- Short lived

### **Additional Information**

- *Cerata*, resembling soft porcupine quills have bright colours that are used as a warning mechanism to defend their territory
- Aggressive fighters, battle each other by biting. The one who bites the other's tail generally wins and consumes the loser

**Common Name: giant pacific octopus**

**Scientific Name: *Enteroctopus dofleini***

(EN-ter-oc-toe-puss do-FLEE-nee)



©Bernard P. Hanby

### **Defining Characteristics**

- Arm span averages 9 m, one found 24 m
- Average adult weight of 33 kg (72 lb)
- 8 arms – no fins
- Pale to dark reddish brown mottled pattern
- Travel by jet propulsions

### **Habitat & Range**

- Intertidal waters to 1 500 m deep
- Sandy and rocky shore and tidepools
- Alaska to Mexico

### **Prey & Predators**

- Prey on crustaceans, molluscs, fish
- Predator are harbour seals, sea otters, sperm whales

### **Reproduction**

- Females lay up to 100 000 eggs during her 3 year life span and dies after a couple of weeks of caring for her young
- Males deposit a *spermatophore* (sperm packet) over a metre long and live for 4-5 years

### **Additional Information**

- World's biggest octopus, but it can squeeze into small crevices
- Can change colour to blend in with surroundings (*chromatophores*, specialized cells)
- The only hard part in its body is a parrot-like beak
- “*cephalopod*” means head-foot

**Common Name: common squid / opalescent squid**

**Scientific Name: *Loligo opalescens***

(low-lee-go oh-pal-ess-sence)



[www.seaotter.com/.../html/opalescens.jpg.html](http://www.seaotter.com/.../html/opalescens.jpg.html)

### **Defining Characteristics**

- Average length for males is 27 -28 cm and females is 20 cm
- 8 long arms with 2 short tentacles
- Prominent fins on the elongated mantle
- The mantle is 4 – 5 times as long as it is wide

### **Habitat and Range**

- Open costal waters, 20 – 180 m
- Southern BC to Isla Guadalupe, Mexico

### **Prey and Predators**

- Prey on shrimp-like crustaceans, fishes, benthic polychaete worms and their own young
- Predators are sea birds, fish, seals, sea lions, whales

### **Reproduction**

- Lay approximately 180 – 300 eggs per cylindrical capsule, first capsules attach to bottom, and subsequent eggs are attached to each other (form clusters)
- Spawning occurs during different months depending on location
- Spawn in shallow waters in sandy bays
- Elaborate mating behaviour

### **Additional Information**

- Have chromatophores (specialized cells) that allow them to change colour from translucent white to reddish brown and gold
- This species schools in large numbers to reproduce
- Several species of *Loligo* have been used in neurophysiological research