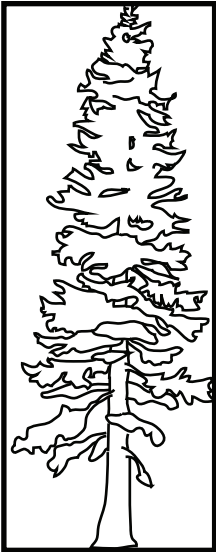


Field Guide

Trees:

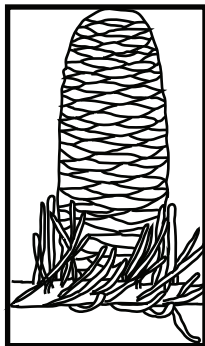
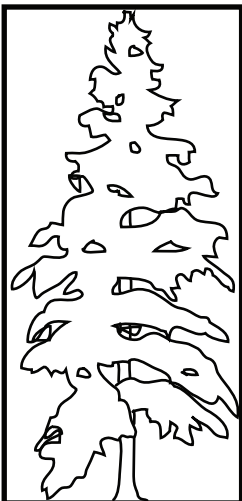


Douglas-fir *Pseudotsuga menziesii* –

A large coniferous tree that can grow up to 85 meters in height. The wood has been valued in construction since the 18th century.

Needles: Flat needles with rounded tips. Tops of needles are bright green and waxy, with undersides being light-green to grey. Needles grow on all sides of twigs.

Bark: When young, bark is grey with sap-filled blisters. As tree matures, bark becomes thick, corky and grooved. Mature bark color is grey to brown.



Grand Fir *Abies grandis* –

A large coniferous tree that can grow up to 80 meters when fully mature. Grand fir is a common species used for Christmas trees.

Needles: Needles are flat with notched ends. Dark-green in color, needles have two white bands on the underside. Needles are arranged in rows on opposing sides of the twig, forming two neat rows.

Bark: Bark is thin and smooth when young, aging to become thick and grooved. Color of bark ranges from grey to greyish-brown.



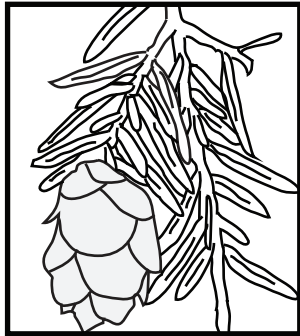
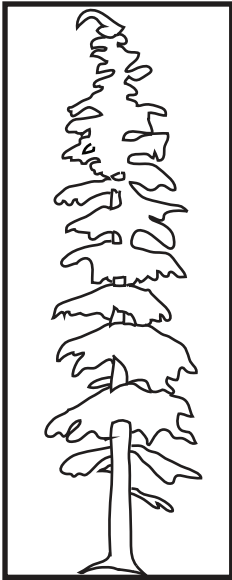
Sitka Spruce *Picea sitchensis* –

A coniferous tree that commonly grows to heights of 70 meters. Roots and pitch was often used in First Nations craft and tool making.

Needles: Sharp-tipped needles with four sides. Needles grow in a spiral around branches. Bottom surface of needles are light-green to white in color.

Bark: Bark is light-brown to grey looking flakey as tree ages. Scales or flakes come off of trunk easily, exposing a purplish grey of inner bark.

Trees:

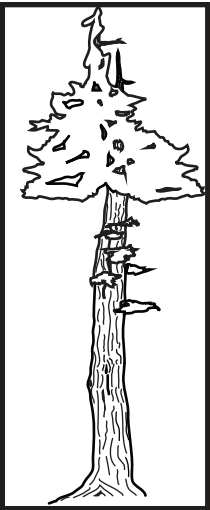


Western Hemlock *Tsuga heterophylla* –

A coniferous tree that commonly grows as high as 50 meters. It can be identified by its drooping crown or top.

Needles: Small bushy needles that are unequal in length. Undersides of needles are light green, with top of needles being dark and glossy in colour. The organization of needles on the branch are non-patterned, but together create flat sprays.

Bark: Grey to brown, becoming grooved and thick with age.

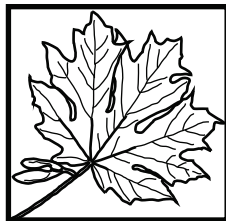
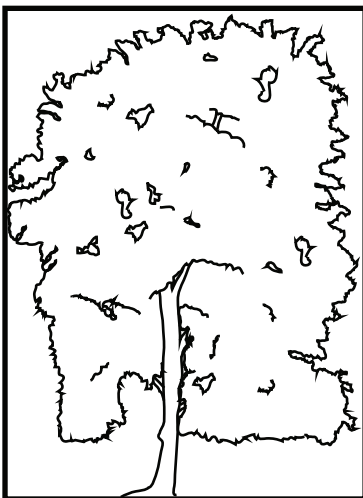


Western Red Cedar *Thuja plicata* –

A coniferous tree that can grow upwards of 60 meters in height, and live to be over 1,000 years old. Traditionally used by Northwest Coastal First Nations.

Needles: Arranged as a flat fan with overlapping scale-like pattern

Bark: Grey to brown, strand or string-like pattern



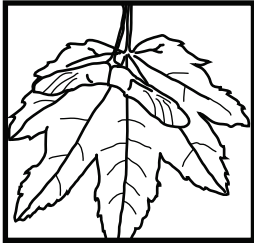
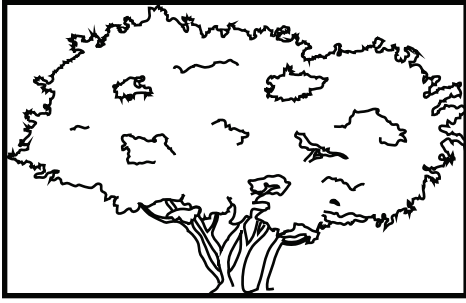
Bigleaf Maple *Acer macrophyllum* –

The largest species of maple tree, growing to heights of 36 meters. This deciduous tree can be tapped for making maple syrup; however, its low sugar content means a large volume of sap is required to make a small amount of syrup.

Leaves: Typically lacking leaves and branches on lower trunk. Leaves grow up to 30 centimeters across, making them the largest maple leaf in Canada. Similar to vine maple, leaves have seven lobes. Leaves turn color in Fall.

Bark: Bark is grey to brown, developing grooves with age.

Trees:

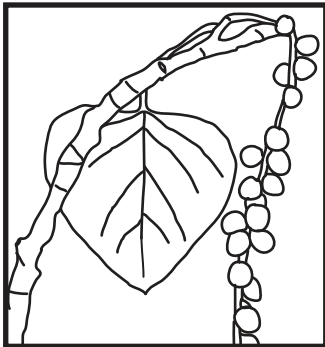


Vine Maple *Acer circinatum* –

A deciduous tree that grows to a height of 20 meters. Vine maples take shape as a bushy or vine-like shrub often forming thickets. The dense and flexible wood was occasionally used for bow making by coastal First Nations.

Leaves: Ranging from 6 to 11 centimeters, leaves have 7 to 9 lobes. Lobes are triangular. Leaves are green, and turn yellow or orange in the fall.

Bark: Bark is grey to green and smooth.

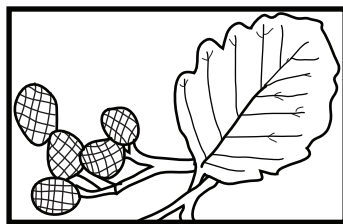
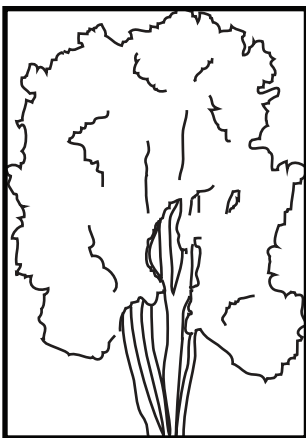


Black Cottonwood *Populus balsamifera* –

This deciduous tree can reach heights of 50 meters, with a thick trunk. Coastal First Nations used the resin from buds to treat coughs and other sicknesses.

Leaves: With a pointed tip, leaves range from 6 to 12 centimeters in length. Leaves are dark green, with a pale green underside. Leaves turn color in Fall.

Bark: Bark is grey and smooth, aging to grey and deeply grooved.



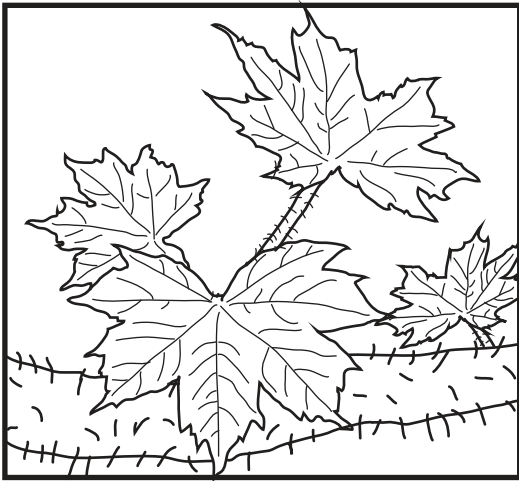
Red Alder *Alnus rubra* –

A deciduous tree that grows to a height of 24 meters. Coastal First Nations used the bark for dyeing materials such as wool, wood and feathers.

Leaves: These oval shaped leaves are bright green with jagged edges. Leaves remain green in colour through fall until they drop off.

Bark: Bark is white and grey as tree ages from green bark. Exposed under layers show an orange-red color.

Shrubs & Plants:

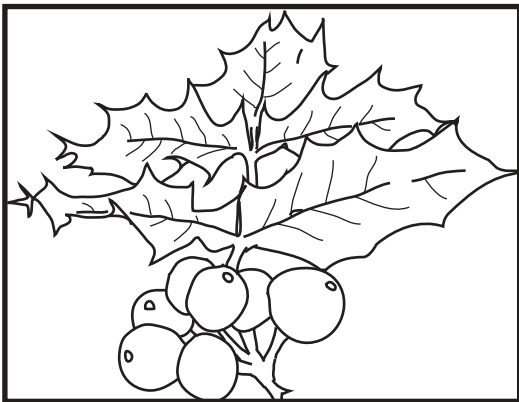


Devil's Club *Oplopanax horridus* –

This spiny plant can grow up to 3 meters in height. First Nations used the roots and bark of devil's club to sooth boils and skin irritations.

Leaves: Leaves are large and bright green. Spines protrude from bottom veins of leaves. Leaves fall off in autumn.

Stalks: Stalks are vine-like, with large spines protruding randomly. Bark is light brown.

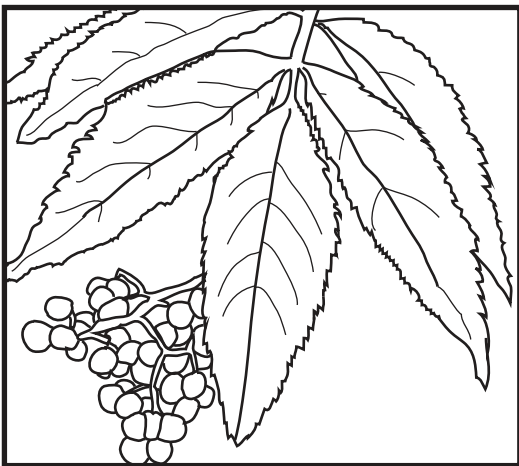


Oregon Grape *Berberis nervosa* –

A small evergreen shrub, growing no taller than 1 meter. Oregon grape berries are edible, and produce a deep purple color for dyes. Berries are sour or bitter.

Leaves: Dark green, glossy leaves. Leaves grow in groups of two up stalks. Each leaf has sharp teeth on edges.

Stalk: Green to brown with no bark.



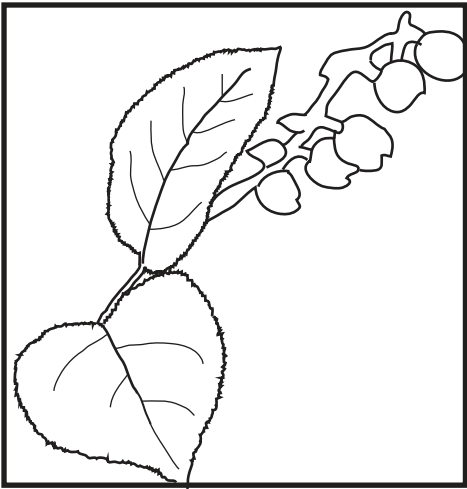
Red Elderberry *Sambucus racemosa* –

This large shrub can grow up to 6 meters in height. The juice and fruit of the berries is edible. However, the seeds are toxic. Coastal First Nations collected and ate the berries in late summer, mixing them with other berries to enhance the flavor. When berries were eaten, the seeds would be spat out.

Leaves: These long leaves are bright green with serrated edges and a pointed tip. Leaves fall off in autumn.

Stalks: These brown stalks are brittle and full of pith.

Shrubs & Plants:

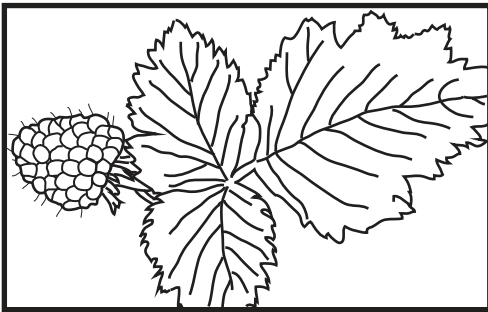


Salal *Gaultheria shallon* –

This evergreen, small to medium shrub dominates much of the coastal forest floor. Its dark blue berries are edible, and were an important food source for First Nations.

Leaves: Alternating on a branch, these leaves are bright green and glossy. The edges of leaves are serrated, and tips come to a point.

Stalk: Branches are red to brown.

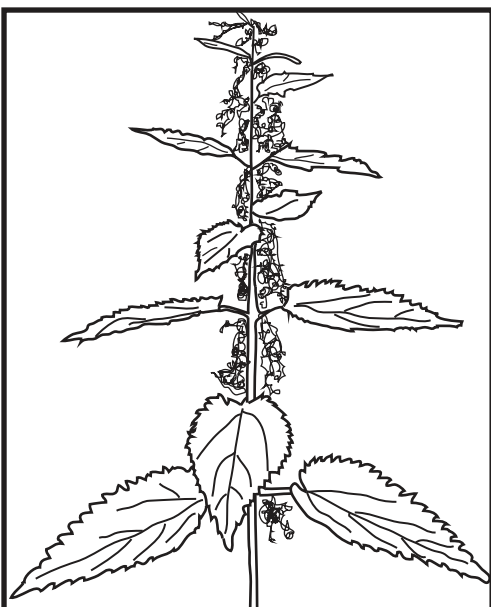


Salmonberry *Rubus spectabilis* –

An abundant shrub growing up to 3 meters in height. Berries are edible. According to coastal First Nations, the ripening of the berries signal the time young salmon begin their journey downstream.

Leaves: Small, bright green leaves in clusters of three. Edges of leaves are saw-toothed or serrated. Leaves are absent through winter.

Stalk: Branches have small prickles and peeling



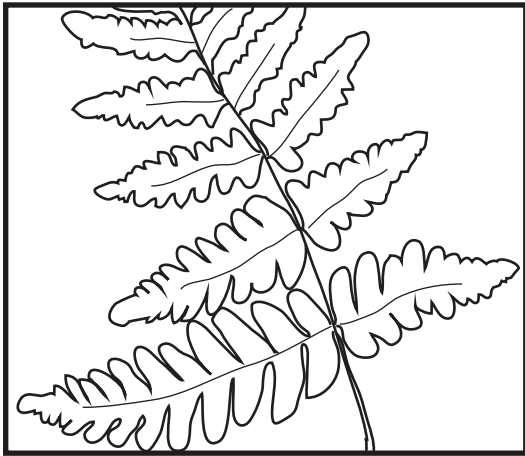
Stinging Nettle *Urtica dioica* –

This season plant can grow up to 3 meters by end of summer. Once mature, the plant causes itching and numbness to skin if touched. First Nations used stinging nettle stalk to make twine. The young leaves were also a source of food and tea.

Leaves: Serrated leaves are covered in fine hairs, which cause skin irritation. Leaves alternate up the stalk in pairs.

Stalk: Stalk is bright green and non-brittle. Typically, stalk grows very straight.

Shrubs & Plants:

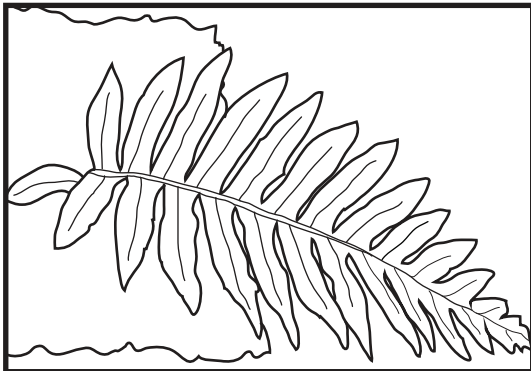


Bracken Fern *Pteridium aquilinum* –

A deciduous fern that grows to 3 meters in height. Coastal First Nations ate the rhizomes and used the leaves as lining in traditional pit ovens.

Leaves: Hairy triangular leaves with pairs of leaflets becoming shorter from stalk to tip. Leaflets are serrated with round-tipped teeth.

Stalks: Light green and hairy.

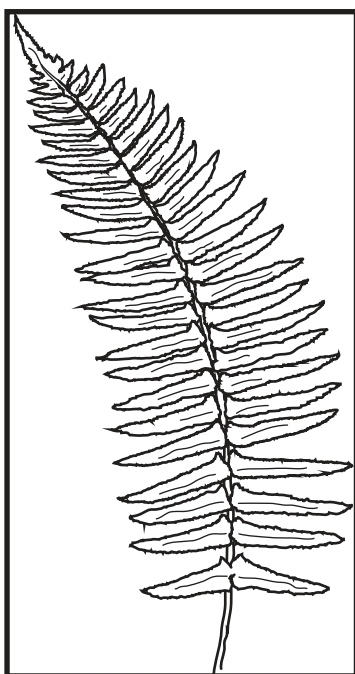


Licorice Fern *Polypodium glycyrrhiza* –

This evergreen typically grows on vertical moss beds, on either deciduous trees or rocks. The rhizomes have a strong licorice flavor. First Nations used the rhizomes as a flavoring for tea, or simply chewed on them.

Leaves: Leaflets grow longer than 3 centimeters, and alternate in slightly offset pairs.

Stalks: This green to yellow stalk grows up to 50 centimeters in length.



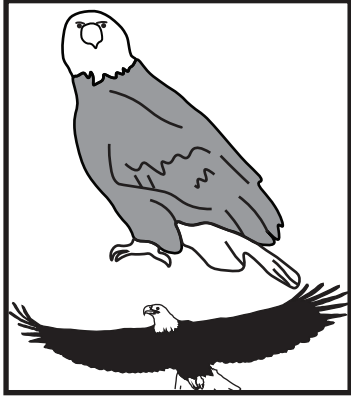
Sword Fern *Polystichum munitium* –

This evergreen is one of the largest coastal ferns, growing up to 1.5 meters in height. Coastal First Nations ate sword fern rhizomes in spring to fend off starvation.

Leaves: Blade or spear shaped. Leaflets alternate and are serrated. At the base of each leaflet is a lobe point up the stalk.

Stalks: Green stalks with light brown hairs.

Birds:

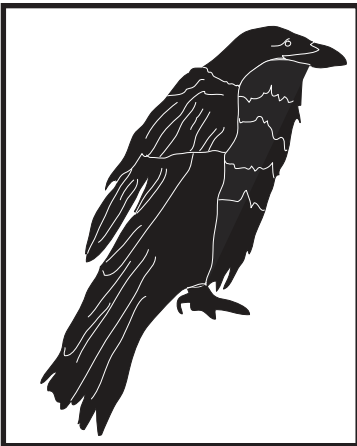


Bald Eagle *Haliaeetus leucocephalus* –

Large predatory birds that feed primarily on fish. Found year-round in coastal BC, and seasonally throughout Canada and the United States. Eagle populations near coastal salmon spawning rivers increase from mid-November to mid-February.

Head: White plumage with large hooked yellow beak. Juveniles have brown plumage.

Torso: Dark brown plumage. White tail. Juveniles have brown plumage on torso and tail with mottled-white speckles throughout.



Common Raven *Corvus corax* –

Common Raven

Medium size birds that feed on insects, invertebrates, carrion, small mammals, amphibians, fruit, and seeds. Found through all of western North America and all across Canada. Ideal habitat includes forests conifer forests, coastlines, and mountains.

Head: Black plumage with blunt black beak.

Torso: Black to deep-dark blue plumage.



Great Blue Heron *Ardea herodias* –

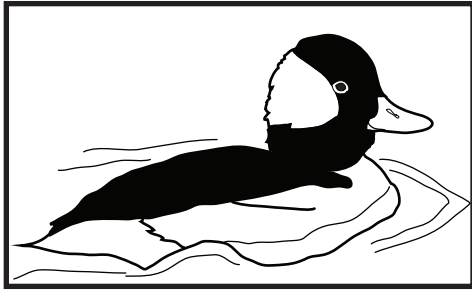
Tall, long-legged and long-necked birds that feed primarily on fish, but also eat other small animals.

Common along the pacific coast of North America and southern United States year-round. Range includes southern Canada during summers and Mexico in winters. Ideal habitat includes, streams, rivers, lakes, and marches.

Head: Black crest on top of head, grey around eyes and white face. Beak is grey and yellow.

Torso: Dark grey to blue back, black sides, and white stomach. The long neck is grey.

Birds:

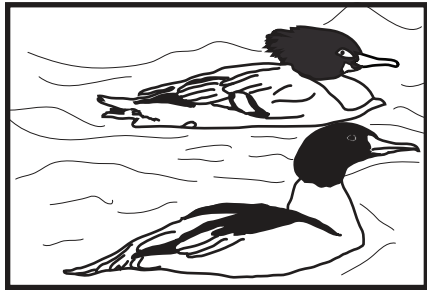


Bufflehead *Bucephala albeola* –

Small diving ducks that feed primarily in shallow water. Diet consists of insects, aquatic plants, seeds and mollusks. Common on the west coast of North America throughout winter and across Canada as far east as Quebec in summer. Habitat ranges from lakes and ponds to estuaries.

Head: Black to deep-purple or dark-green. White patch behind eye.

Torso: Wings are black with white feathers visible in flight. Abdomen has white plumage.

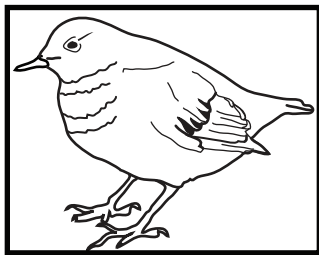


Common Merganser *Mergus merganser* –

Large diving ducks that feed on aquatic plants, fish, mollusks, insects and crustaceans. Found year round along the west coast of North America from Alaska to northern California. Habitat includes fresh water lakes and ponds.

Head: Hooked beak. Males have green feathers covering entire head. Females have brown feathers covering head, with ruffled feathers on back of head.

Torso: Males are white and black. Females are grey.

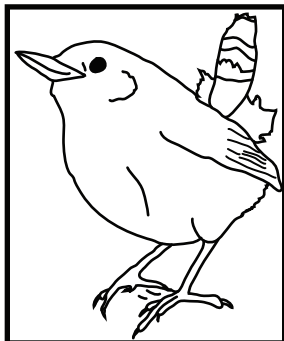


American Dipper *Cinclus mexicanus* –

Small round birds that feed on small fish, fish eggs, and insects. Found year round throughout western North America. Habitat primarily consist of mountain streams and creeks.

Head: Dark short bill. Dark grey plumage.

Torso: Dark grey feathers.



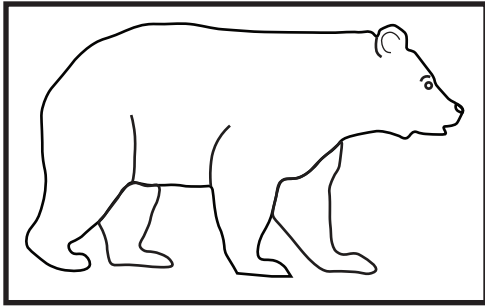
Pacific Wren *Troglodytes pacificus* –

Very small birds that feed on arachnids and insects. Can be found year round along the west coast of North America from Alaska to northern California. Habitat primarily consists of coniferous forests.

Head: Brown with beige speckles and eyebrow. Beak is short and sharp.

Torso: Brown feathers with beige, black and white speckling.

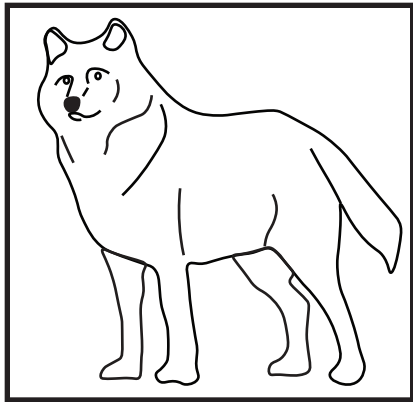
Mammals:



Black Bear *Ursus americanus* –

Large omnivore whose diet ranges from wild vegetation and berries, to carrion and salmon. Abundant throughout British Columbia in most forest habitats. A common visitor of salmon spawning creeks in the fall.

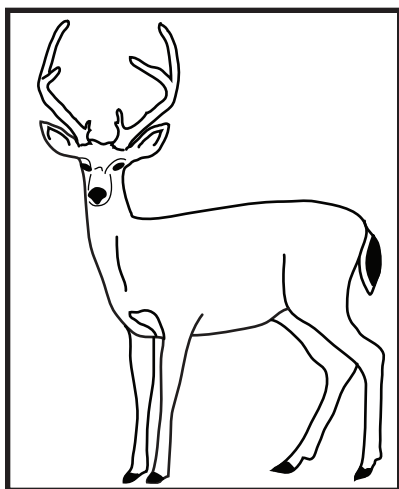
Description: Fur colour can vary between black, cinnamon, white, and blonde. Distinguishable from grizzly bears by lack of hump on shoulders and uniform colouring.



Grey Wolf *Canis lupus* –

Large carnivores that are carnivorous. Prey typically include birds and mammals, but may subsist of fish and other ocean dwelling creatures for coastal populations. Range covers all of British Columbia. Habitat ranges from northern plains to coastal temperate rainforest.

Description: Largest of the wild dogs. Fur can range from light grey to brown, and black. Mottled variations also exist.

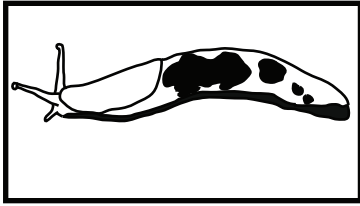


Black-tailed Deer *Odocoileus hemionus*

Medium sized herbivore that feeds primarily on shrubs, herbs and grasses. Range covers all of British Columbia. Habitat ranges from coniferous forests to grasslands with shrubs.

Description: Fur is brownish-red in summer and bluish-grey in winter. White patch on rump is common. Tail typically has black tip or black on top.

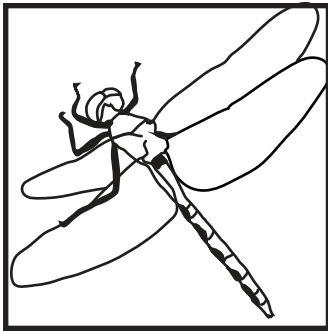
Other Common Coastal Fauna:



Banana Slug *Ariolimax columbianus* –

Long slugs that feed on leaves, feces, and other organic material. Their range within the province spans most of the coast. Habitat is the temperate rainforest.

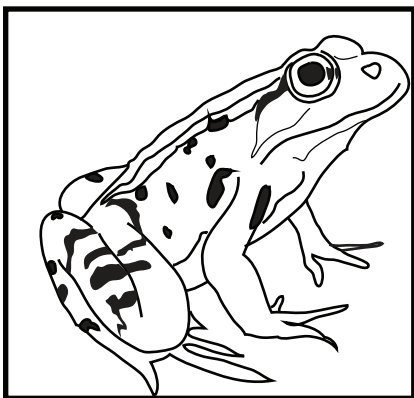
Description: Long slug (up to 25cm). Varies in colour from yellow to red, green or black.



Dragonfly Order: Odonata –

Long-bodied flying insects that feed on smaller insects. Range includes most of BC. Habitat ranges from open wetlands and meadows to lakes.

Description: Many variations in colour. Four wings. Long tail. Dragonflies will rest with wings open, whereas damselfly—which are similar—will rest with wings closed and straight back.

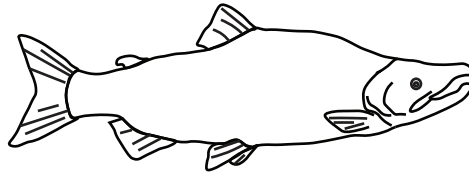


Red-legged Frog *Rana aurora* –

Small frogs that feed on insects and small invertebrates. Range includes coastal British Columbia as north as the top of Vancouver Island and as west as Hope in the Fraser Valley. Habitat includes lower elevation forests adjacent to wetlands. Spends most time in small bodies of water.

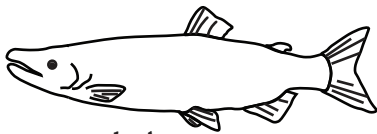
Description: Reddish-brown to brown skin with small black spots. Black to dark brown face mask. Red on belly and inner thighs.

Salmon Lifecycle



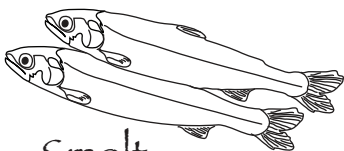
Spawning Adult

In autumn, male and female salmon return to the creek of their birth to spawn. After spawning, they die, and the nutrients from their bodies feed the forest ecosystem.



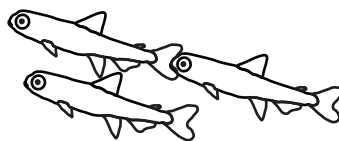
Adult

Smolts remain close to the coastline as they continue to grow into young adults. Depending on species, adult salmon spend one to four years feeding in the open ocean



Smolt

Once fry are ready to leave fresh water and head to the ocean, they are called smolts.



Fry

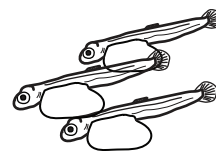
After all the nutrients in the yolk sac are used up, fry leave the protection of their gravel and rock nest in search of food. Some species stay in fresh water for up to a year.



Egg

Eyed

Fertilized eggs develop beneath rocks and gravel in the creek until spring. The first visible sign of life is the development of eyes.



Alevin

Once hatched, alevin emerge carrying a yolk sac full of all the nutrients they need for the next two to three months.

