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Columbia Spotted Frog *Rana luteiventris*

LENGTH: 5 TO 10 CM

WALLACE EDWARDS



At A Glance

The Columbia Spotted Frog and the Oregon Spotted Frog (*Rana pretiosa*) were long considered members of the same species. While tough to tell apart, these two frogs have non-overlapping ranges (live in different areas) and can be identified by where they are found.

The Columbia Spotted Frog is a medium-sized frog with irregular black spots, usually light-centred, on the head, back, sides and legs. Adult frogs can be green, brown or reddish-brown while juveniles are brown or olive green. Two dorsolateral folds (ridges of skin) run from the frog's head partway along the back. The eyes are set so that they are angled slightly upwards, like those of the Oregon Spotted Frog. Undersides tend to be cream-coloured with mottled reddish or salmon-coloured pigmentation on the lower abdomen and hind-legs, but can also be yellow in some populations. Adult females are slightly larger than the males and can grow to a length of 5 to 10 centimetres (snout to rump). Webbing on the feet extends to the ends of the toes. Tadpoles are dark brownish-green, with gold flecks above and iridescent yellow to bronze below. Intestines are visible through the skin, and the broad-finned tail is often twice the length of the body.

The Red-legged Frog (*Rana aurora*) looks somewhat similar to the Columbia Spotted Frog. However, the Columbia Spotted Frog tends to crouch to the ground rather than sit up straight as the Red-legged Frog does. Red-legged Frogs also have eyes that angle outwards, flecks rather than spots, and brighter legs than the Columbia Spotted Frog. The webbing on their feet does not extend to the end of the toes.

Home Sweet Home

Rarely found far from water, Columbia Spotted Frogs make their homes in or near permanent lakes, ponds, slow-moving streams and marshes in a wide variety of wetlands, forest types, grassland, sage brushland and even alpine tundra between 950-2000 metres above sea level. Water bodies deep enough that they do not freeze on the bottom are required for over-wintering of adults, juveniles and possibly larvae. Shallow wetlands are preferred for other seasonal activities. Columbia Spotted Frogs prefer thick algae and abundant aquatic vegetation for cover and like to hide in rushes, sedge and grass.

This is the Life

As ice melts from lakes, ponds and marshes keep your ears well tuned, and you might be lucky enough to hear the soft call of the Columbia Spotted Frog. Often heard only during the breeding season, the call consists of a weak series of 6-9 clucking noises, like clicking your tongue against the roof of your mouth. Males form groups while floating near the water's edge and call for females, who arrive a day or two later.

Courtship and egg-laying take place in the water, and eggs are laid in the vegetated shallows at depths of 3 to 30 cm. Deposited in spherical clusters of jelly about 15 cm in diameter, these clusters float freely in the water and can contain up to 1500 eggs! Larvae usually metamorphose (become adults) in a single year, but in northerly populations, larvae will overwinter as tadpoles and mature into adults the following year. Males may take up to 2-4 years to reach sexual maturity, while females may not breed until their fifth or sixth year. A typical lifespan of the Columbia Spotted Frog may be 10 years or more.

YELLOW-LISTED SPECIES MANAGED
THROUGH ECOSYSTEM MANAGEMENT ARE
SPECIES THAT ARE SECURE, WELL DISTRIBUTED
IN APPROPRIATE HABITAT AND WILL SURVIVE
IN HABITATS THAT ARE MANAGED FOR
REPRESENTATIVENESS AND CONNECTIVITY.



**Present range of the
Columbia Spotted Frog
in British Columbia**



no kidding!

*Because the **Columbia Spotted Frog** lacks an amplifying vocal sac, male mating calls are so weak, they only carry 15-30 metres. If Pacific Treefrogs were calling simultaneously, the calls of the **Columbia Spotted Frog** would be lost in the shuffle.*

*Although in southern or lower elevation parts of their range, tadpoles of **Spotted Frogs** may grow very rapidly, developing limb buds and growing up to 36 mm in about 30 days, in more northerly or higher elevation populations, they may overwinter as tadpoles and metamorphose the following year.*



Columbia Spotted Frogs can complete their entire life cycle in or near the same lake or pond, but will also migrate seasonally and use different water bodies for breeding, summer feeding and overwintering. This migrating habit makes these frogs particularly sensitive to habitat fragmentation, such as road building, which makes it tough for frogs to safely move from place to place.

What's on the Menu?

Columbia Spotted Frogs serve up a wide variety of land and aquatic insects, snails, crustaceans and spiders. Larvae munch on algae and organic debris, and in turn provide an important food source for hungry dragonflies, diving beetles, garter snakes and fish. Adult Columbia Spotted Frogs may be eaten by River Otters, Raccoons, herons, garter snakes, introduced Bullfrogs and trout.

Where and When

The mountainous regions of Alberta and most of B.C. are home to the Columbia Spotted Frog. In the breeding season these frogs can be found along the margins of permanent water bodies. In summer, adult frogs are most active by day and will forage on land, but never stray far from water. In the winter months, Columbia Spotted Frogs hibernate by burying themselves in the muddy bottoms of lakes and ponds that do not freeze to the bottom.

How They're Doing

With a fairly wide geographic range in Canada, the Columbia Spotted Frog is one of the most commonly seen amphibians. However, little is known about the sizes or trends in this frog's Canadian populations. As a "habitat generalist", this frog feels at home in many different wetland habitats in B.C. This means that if one kind of habitat is disturbed, there are still several other kinds of habitat to live in. However, because it takes such a long time for the Columbia Spotted Frog to reach an age where it can reproduce, this species may be particularly sensitive to population disturbance. This species is on the provincial Yellow List of species managed at the ecosystem level.

The Columbia Spotted Frog is protected under the British Columbia *Wildlife Act*.

How You Can Help

Conservation of wetland habitat is essential for the continued abundance of the Columbia Spotted Frog, which could be affected by habitat loss and degradation, predation by introduced species and the potentially negative effects of rising UV radiation levels. Get involved with wetland conservation programs such as Wetlandkeepers, Naturescape and Wild BC, and find out how you can help protect B.C.'s precious wetlands by monitoring a pond or lake near you. Keep your eye out for the Columbia Spotted Frog and other amphibians where you live and share your observations with BC Frogwatch. These observations help inform biologists of the range, distribution and habits of amphibians in B.C.

You can find out more about
BC Frogwatch, the Biodiversity Branch
and the Conservation Data Centre at

<http://wlapwww.gov.bc.ca/wld>



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COLUMBIA

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