



Plastron:
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Western Painted Turtle

Scientific name: *Chrysemys picta bellii*

The Western Painted Turtle is named after the bright yellow stripes on its head, neck, tail and legs, and the glowing red on its plastron (shell covering the belly) and under-edge of its carapace (shell covering the back). Occasionally, the carapace also has a light yellow pattern or worm-like markings. The red and yellow patterns contrast with the olive-green of the skin, and the dark colouring of the upper carapace.

Painted Turtles have webbed hind feet, and slender claws on their front feet. Males have much longer claws than females. Painted turtles can grow to over a foot in length, with the carapace measuring up to 25 cm long - roughly the size of a dinner plate!

The Painted Turtle is the only native pond turtle left in B.C. It can be confused with the introduced Red-Eared Slider. To tell the two species apart, look for the telltale red "ear" mark on the Slider. Painted turtles do not have any red markings on the neck or head.

Making a living

Most adult Painted Turtles spend the winter hibernating in the mud at the bottom of ponds and lakes. Once temperatures warm up and the ice leaves the water, Painted Turtle courtship begins.

Courtship is relatively short, usually lasting between 5 and 15 minutes. It begins with a chase, during which many males swim after a single mature female. The first male to reach the female swims in front of her, facing her with front legs stretched out. Occasionally, he strokes her head with his long claws. This apparently entices the female to follow him. Once the female is willing, the two sink to the bottom of the pond to mate. Interestingly, Painted Turtle females do not always wait for the males to initiate mating: occasionally, a female turtle will pursue the suitor of her choice!

In June or July, female turtles lay 6 to 18 oval eggs, about 3 cm long or the length of a two-dollar coin, in a carefully prepared nest. Nests are built between dusk and dawn. Females are very watchful for predators, and scan the shore several times before venturing on land. They look for open, south-facing sites with loose soil and without a lot of plants, roots, and rocks. These sites can be up to 150 m away from the water, and females may have to cross roads to reach a good site.

Once satisfied with the site, a female begins by digging with her front legs. She quickly switches to her more powerful hind legs, creating a flask-shaped hole about a foot deep. Females often urinate on the soil while they are digging, which may soften the soil. Once the eggs are laid, the female fills the nest with soil, compacting it with her feet and plastron, and then covering it with vegetation and debris.

If predators do not find the nest, the hatchlings (baby turtles) break out of their eggs around September. Even though their shallow nests can reach -5° C, most hatchlings stay in the nest until the following spring. Survival is quite low due to freezing and predation of both eggs and hatchlings.

Female Painted Turtles reproduce about every second year, and when they do reproduce, they lay only one clutch (batch of eggs) in a summer. This means that relatively few juveniles are produced every year. Luckily, the few juveniles that survive to maturity experience much higher survival.

To avoid the predators that do persist (such as raccoons and skunks), Painted Turtles like to bask on vegetation mats and logs completely surrounded by water. On a warm summer afternoon, Painted Turtles can be found stacked a few turtles deep at particularly good basking sites.

What's for dinner?

The Western Painted Turtle is an opportunistic omnivore, enjoying a wide variety of aquatic delicacies. This includes insects, snails, earthworms, frogs, tadpoles, algae, aquatic plants, and carrion (dead animal matter). As juveniles, Painted Turtles are more carnivorous. As they mature, they tend towards herbivory, although this seems to depend on what is available to them. Regardless, Painted Turtles always swallow food under water, as they seem to have difficulty swallowing dry food.

Painted Turtles in northern climates eat more protein than their southern counterparts. This helps them grow more quickly, providing more energy and resources to survive the cold winters.

Places and spaces

The Western Painted Turtle is the most northerly occurring turtle in North America. They can survive under water in ponds that are 2° C and covered with half a metre of ice!

In B.C., Painted Turtles are found in pockets throughout the southern interior, as far north as Golden. This includes the Okanagan Valley, Kamloops Lake, Shuswap Lake, and the Creston and Nelson Area. They are less common on the coast. Painted Turtles are found in low numbers in parts of the Fraser Valley from Vancouver to Hope, southeast Vancouver Island, and Sechelt-Powell River area. Pet turtles dumped by their owners may have started these coastal populations.

Painted Turtles prefer the margins and shallows of lakes and ponds, ditches and sluggish streams with muddy bottoms and lots of aquatic plants. These areas provide important habitat for feeding, basking, shelter from predators, and hibernation. Painted Turtles also require nearby upland nesting areas without vegetation.

Past, present, and...future?

At present, the Western Painted Turtle is on the provincial blue list. This means they are considered vulnerable to habitat loss, and susceptible to human and natural disturbances. Habitat is being lost because of pollution and waterway interference due to damming, agriculture, and urbanization of waterfronts.

The Western Painted Turtle is at the northern limit of range in B.C. These populations are unique compared to southern populations because turtles here grow faster, grow bigger, mature slower, and reproduce less often, but make more eggs. They deserve protection, both as unique (and beautiful) components of their aquatic ecosystems, and as B.C.'s only remaining native pond turtle.

If you see a Painted Turtle, the best thing to do is to keep your distance. Be aware when in turtle habitat so that you don't trample nest sites. And never take wild turtles home as pets. Painted Turtles often starve to death in captivity. Often their plight is not apparent because their outer shell conceals their real condition. Love 'em and leave 'em – that's the best policy!