



Western (Northern Pacific) Pond Turtle

Scientific name: *Emmys marmorata marmorata*
(formerly *Clemmys marmorata marmorata*)

The Northern Pacific Pond Turtle is considered extirpated. That means it is no longer found in Canada, but still exists elsewhere. The subspecies formerly found in B.C. commonly is called the “Northern Pacific” Pond Turtle. The Northern Pacific Pond Turtle, still found in parts of the northwestern United States, is genetically and morphologically distinct from the subspecies found in southern parts of the United States.

The Northern Pacific Pond Turtle is easily identified because of its drab colouration. Both the native Painted Turtle and the introduced Red-eared Slider have some combination of red and yellow markings. In contrast, the Northern Pacific Pond Turtle has a low, smooth carapace (shell covering the back) that is brown to black in colour. Sometimes the carapace has mottling, marbling, or a series of fine lines visible on close examination. The plastron (shell covering the belly) is yellowish with dark blotches. The skin is grey, and the scutes (scales) covering the skin are large and noticeable. Pond Turtles reach a maximum carapace length of 18 cm.

Pond turtles are very shy animals with very good eyesight. They can see people (and predators) from far away, and quickly disappear under water at the slightest sign of danger.

Making a living

Since the Northern Pacific Pond Turtle has not been seen in B.C. since 1959, there is little local knowledge about this species. From studies done elsewhere, it appears that the life history of these turtles can vary quite a bit, depending on local environmental conditions.

In general, Northern Pacific Pond Turtles hibernate over winter at the bottom of ponds or in nearby woodland areas. Once the weather warms up, the turtles actively feed and bask. Mating has been observed during most summer months.

Female Northern Pacific Pond Turtles can lay multiple clutches (batches of eggs) of 3 to 11 eggs during a single summer. Females appear to nest anytime between May and August, depending on their location. They carefully prepare a nest site on land by digging out a flask shaped hole with their hind legs. Periodically, females urinate in the hole while digging, softening the soil.

Hatchlings (baby turtles) at one site in California did not emerge from their nest until the following spring. They might have hibernated at their nesting site, or their development may have been delayed until early spring.

Northern Pacific Pond Turtles seem to be quite adaptable. During a drought, they can estivate (stop eating and reduce their activity) in the mud of any surviving pools of water.

Unlike the Painted Turtle, Northern Pacific Pond Turtles are quite territorial about their basking sites. Large turtles can aggressively bully younger, smaller turtles into giving up a sought-after log or mat of vegetation. The turtles will threaten each other with open mouths, showing the bright pink and yellow colouring of their inner mouths. They'll also ram and push each other, and if feeling particularly feisty, even bite.

What's for dinner?

Northern Pacific Pond Turtles are opportunistic foragers and scavengers. They tend to feed around sunrise, munching on plants, algae, aquatic invertebrates, fish, frogs, snakes, and small animal carrion. Females eat more vegetation while males tend to be meat-lovers, enjoying a more carnivorous diet than their female counterparts. Like many pond turtles, Northern Pacific Pond Turtles swallow food only under water – they seem to have difficulty gulping their dinner dry.

Places and spaces

Northern Pacific Pond Turtle like riparian areas such as slow-moving streams, large rivers, sloughs, and even brackish (slightly salty) water. They have been found in a wide variety of habitats however, including agricultural ditches and sewage treatment ponds.

Northern Pacific Pond Turtles need deep water and vegetation to help them avoid predators. They also need basking areas or large basking objects to help them thermoregulate. Both sexes come onto land, but terrestrial habitats are most important to nesting females. Females need open, south-facing sites to dig their nests and lay their eggs. The south-facing slope helps ensure the eggs have enough heat to develop.

Past, present, and...future?

The first biological survey of B.C. in 1866 notes that Northern Pacific Pond Turtles were common in almost every lake and pond in southern B.C. However, there is some debate about this report. Some biologists feel that this species never existed naturally in our province, and that the turtles seen were either misidentified or had been introduced for food. Others believe that because the report accurately describes the Northern Pacific Pond Turtle, the species did exist in B.C. and has since disappeared. If you see a Northern Pacific Pond Turtle, you might be able to help solve the puzzle by contacting your local branch of the Ministry of Water, Land, and Air Protection.

If these turtles were native to B.C., what happened? In the 1800s, pond turtles were a common market place item, bringing between 3 and 5 dollars per dozen. Unfortunately, the species was over-exploited, and since that time North American populations have declined drastically. The remaining small populations are susceptible to pollution, disease, predation of hatchlings by introduced predators such as Bull Frogs, and habitat loss through waterway development. Over-harvesting and habitat loss could have contributed to its disappearance in B.C.

In parts of the United States, turtles are being captive bred, and researchers are releasing youngsters to the wild. This may be a promising solution in B.C. These researchers feel that urban aquatic environments could be appropriate habitat for the Western Pond Turtle if managed properly, opening up more potential habitat for this declining species.