



# ALL ABOUT BLANDING'S TURTLES

## Fast Facts

- The shape of a Blanding's turtle's mouth makes it look like it's always smiling
- Blanding's turtles live in a variety of habitats throughout the year, but they are primarily found in wetlands
- Blanding's turtles are omnivores
- In the wild, Blanding's turtles can live to be 80 years old
- Threatened (COSEWIC) and endangered (IUCN), with habitat loss and fragmentation, pet trade and predators as threats

## Description

The Blanding's turtle is a happy looking reptile. Just check out its mouth! It curves upward at the corners, giving the impression that these turtles are always smiling. That's not the only thing that makes these freshwater turtles look cheerful. Their pleasant appearance is emphasized by their sunny yellow underside and chin which distinguishes them from other turtle species found in the same or similar habitats.

Despite their sunny appearance, Blanding's turtles are rather shy. When startled, they will dive under the water and hide there for hours at a time. If they happen to be too far from the water to swim away, the Blanding's turtle will tuck its legs, head and tail inside its shell for protection. A Blanding's turtle shell is more secure than most because the bottom part of their shell is hinged and can be closed up to completely seal the turtle inside! Blanding's turtles are a medium-sized reptile species, with the male turtles' shell measuring up to 28 cm.

## Habitat

Blanding's turtles live in a variety of different habitats depending on their life stage during the year. They move to different locations throughout their annual life cycle as they switch from activities like mating, laying eggs, basking in the sun and hibernating. As these diverse habitats disappear it has a big impact on their population. Blanding's turtles are primarily an aquatic species but are known to travel over large distances on dry land when searching for nesting sites. During the spring and summer Blanding's turtles prefer shallow, warm bodies of water with dense plant growth to find food and shelter from predators. They also need sunny basking areas to warm up because they are cold-blooded, meaning their body temperature matches that of the surrounding environment. They live mostly in swamps, marshes or ponds, but can occasionally be found in slow-moving rivers.

To lay their eggs, female Blanding's turtles will travel up to 1 km (and sometimes farther) to find the perfect nesting spot. In fact, Blanding's turtles make some of the largest overland movements of any species of turtle in Ontario. They look for sandy beaches and shorelines along lakes and ponds, roadsides or gravel roads. After laying their eggs females return to the wetland and, once hatched, the turtle hatchlings must fend for themselves. As the weather gets colder, Blanding's turtles look for places to spend the winter. These turtles hibernate underwater by burying themselves in the soft, mucky bottom of ponds, wetlands and lakes, and will often return to the same hibernation spots year after year. In April, the turtles awake and move to shallow water to feed on plants and bask in the sun. Blanding's turtles can be found in Canada and the United States, with most of their population centred in the Great Lakes region and surrounding area. Although they can be found as far south as Missouri, the Blanding's turtle is thought of as a northern species, with about 20% of its range found in Ontario, Quebec and parts of Nova Scotia.

## Ecology

Blanding's turtles are known as an "umbrella species", meaning they are a representative animal for their habitat. Since Blanding's turtles live in or use a variety of different habitat areas throughout the year, by protecting the Blanding's turtle we are protecting all the habitats they visit, and as a result, the other species that make these habitats their homes too. Blanding's turtles are also an "indicator species"; the health of a Blanding's turtle population reflects the health of their habitat. In other words, if the Blanding's turtle population is thriving, the rest of the habitat is likely also doing well.



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Adult Blanding's turtles have built in protection against predators; that's their big strong shell! It's a different story for nestlings, young Blanding's turtles are small and defenseless with soft shells, which makes them a target for hungry predators. This nest predation as well as the loss of adult females can cause big declines in the populations of Blanding's turtles.

## Diet

Blanding's turtles are omnivores, which means they eat both plants and animals. Usually searching for food during the daytime, these turtles will eat animals like insects (especially dragonfly and damselfly larvae), freshwater snails, leeches, small crustaceans, tadpoles, frogs and carrion (dead animals). They will even eat fish like threespine stickleback, ninespine stickleback, white perch or yellow perch. They will also munch on berries and plants. While most aquatic turtles eat in the water, Blanding's turtles sometimes eat their meals on dry land.

## Reproduction

Like many turtle species, it can take a long time before a Blanding's turtle is old enough to have offspring. Female turtles can take anywhere from 14 to 25 years to reach maturity, and will usually only lay clutches of eggs every two or three years. When it's time to nest, they look for sunny, well-drained soil and dig into the ground. They can lay up to a 12 eggs at a time.

Whether male or female turtles hatch from eggs depends on the temperature of the nesting site. If the temperature is warm, then it's likely the eggs will hatch female turtles, but if the temperature is cooler the baby turtles will be male. Blanding's turtle eggs make a tasty snack for animals like raccoons, coyotes, foxes and skunks, but young turtles that are lucky enough to reach their full size can live to be 80 years old in the wild!

## Conservation Status

- Threatened (COSEWIC) and endangered (IUCN)
- Main threat is habitat loss and fragmentation, but the pet trade and predators are also of serious concern

Freshwater turtles are a big conservation concern all around the world with 40% of all species of freshwater turtles listed as threatened globally. While it is difficult to say exactly how many Blanding's turtles live in Canada due to lack of research, it is estimated that the Ontario population is about 10,000.

Habitat loss and fragmentation are the greatest threat to the Blanding's turtle. Even if development affects only a small part of the Blanding's turtles' habitat range, it can end up causing very big problems because the turtles require so many different habitat types. Roads, for example, make it very difficult for Blanding's turtles to safely travel to the best nesting sites, forcing them to either lay their eggs in poor conditions or risk being struck by vehicles.

Turtles caught in the wild and kept as pets is another serious threat to this species' ability to survive and reproduce successfully. Due to their unique and happy appearance, the illegal pet trade targets Blanding's turtles. As human settlements come in closer contact with the Blanding's turtles' shrinking habitats, it is becoming easier for poachers to capture the turtles. Similarly, cities bring animal species that have adapted remarkably well to urban life; raccoons and foxes are known to prey on turtle eggs.

The news isn't all bad. There are many things you can do to help protect the Blanding's turtle. Become a citizen scientist by keeping an eye out for Blanding's turtles, particularly during their most active months between May and October. If you see a Blanding's turtle report your sighting to the Toronto Zoo's Ontario Turtle Tally Database or the Natural Heritage Information Centre. You can also volunteer to take part in population surveys through the Ontario Stewardship Program. By helping to build these databases of Blanding's turtle sightings and habitats you'll be giving scientists important



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information on current population estimates so they can provide the best protection possible for this wetland species! And of course, do your part to protect wetland habitats and encourage your friends and family to do the same. Learn more about protecting wetlands in your neighbourhood by taking part in the Toronto Zoo's Adopt-A-Pond program and take small but important actions every day. Actions like saving water, picking up litter and helping to keep our shared environment clean, multiplied by everyone in our province, will go a long way to protecting this charismatic turtle!

## References

- IUCN Red List. *Emydoidea blandingii*. <http://www.iucnredlist.org/details/7709/0/>
- Ministry of Natural Resources. Blanding's Turtle (*Emydoidea blandingii*).  
[http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/stdprod\\_070894.pdf](http://www.mnr.gov.on.ca/stdprodconsume/groups/lr/@mnr/@species/documents/document/stdprod_070894.pdf)
- Ontario Nature. Blanding's Turtle (*Emydoidea blandingii*).  
[http://www.ontarionature.org/protect/species/reptiles\\_and\\_amphibians/blandings\\_turtle.php](http://www.ontarionature.org/protect/species/reptiles_and_amphibians/blandings_turtle.php)
- Nature Canada. Endangered Species Spotlight: Blanding's Turtle.  
[http://www.naturecanada.ca/endangered\\_know\\_our\\_species\\_blandingsturtle.asp](http://www.naturecanada.ca/endangered_know_our_species_blandingsturtle.asp)
- Species at Risk Public Registry. Species Profile: Blanding's Turtle (Great Lakes/St. Lawrence River Population).  
[http://www.sararegistry.gc.ca/species/speciesDetails\\_e.cfm?sid=846](http://www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=846)
- Refsnider JM and MH Linck (2012). Habitat use and movement patterns of Blanding's turtles (*Emydoidea blandingii*) in Minnesota, USA: a landscape approach to species conservation. *Herpetological Conservation and Biology* 7:185-195.  
<http://publications.gc.ca/collections/Collection/CW69-14-222-2005E.pdf>