

## How To Release a Hooked Turtle

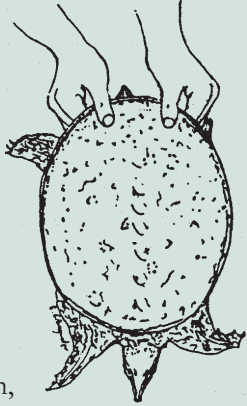
Bait on a fishhook may look like a tasty meal to a turtle but this can lead to accidental hooking. Sometimes an unlucky cast will snag a turtle's shell or leg.

Here's how to remove hooks and prevent unnecessary death to the unfortunate animal.

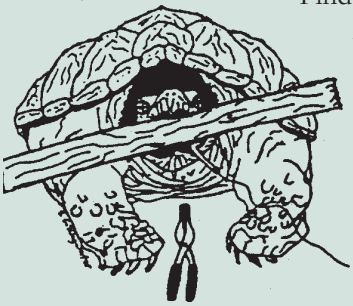
Grasp the carapace (upper shell) near the tail with your thumbs up. *Don't hold by the tail. This can injure a turtle.* Hold the turtle with its head down and belly towards you, well away from your body.

Or, support the turtle with one hand underneath the lower shell (plastron) and hold the base of the tail with the other hand for control.

Cover the turtle with a heavy cloth, shirt, jacket or bag to calm it down.



Find a strong stick or rod and let the turtle bite it. Gently, but firmly hold the turtle's head in its shell with the stick. The turtle will not be able to push its head out or drop the stick. This will keep the head still and the mouth open but occupied.



With a pair of pliers, or if necessary, by hand, gently remove the hook the same way it went in. If the hook is all the way through the flesh, cut the barb to make removing the hook easier. If you cannot remove the hook, cut the fishing line close to the hook.

Once the hook is removed, release the turtle immediately. Be very careful and stay alert. Don't underestimate the strength of an animal in fear!



AGENCY OF NATURAL RESOURCES  
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# Vermont's Spiny Softshell Turtle



LAWRENCE PENCE

## Their Future is in Our Hands

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DIANE PENCE

An odd looking turtle to be sure, the spiny softshell is easily distinguished from other turtles found

in Vermont by their very pointed snout and their leathery shell. But these are not the only things that make this shy turtle unique.

Spiny softshells depend on beaches for their survival. They need undisturbed sand or gravel beaches to lay their eggs. Even basking, which aids digestion and egg maturation prior to laying, is important for softshell population health. Unfortunately, suitable habitat on Lake Champlain has been negatively impacted by development.

Today, this species is found in and near the lower Lamoille River and around Missisquoi Bay, including parts of Quebec. Yet, historic records indicate the spiny softshell were more common in the past.

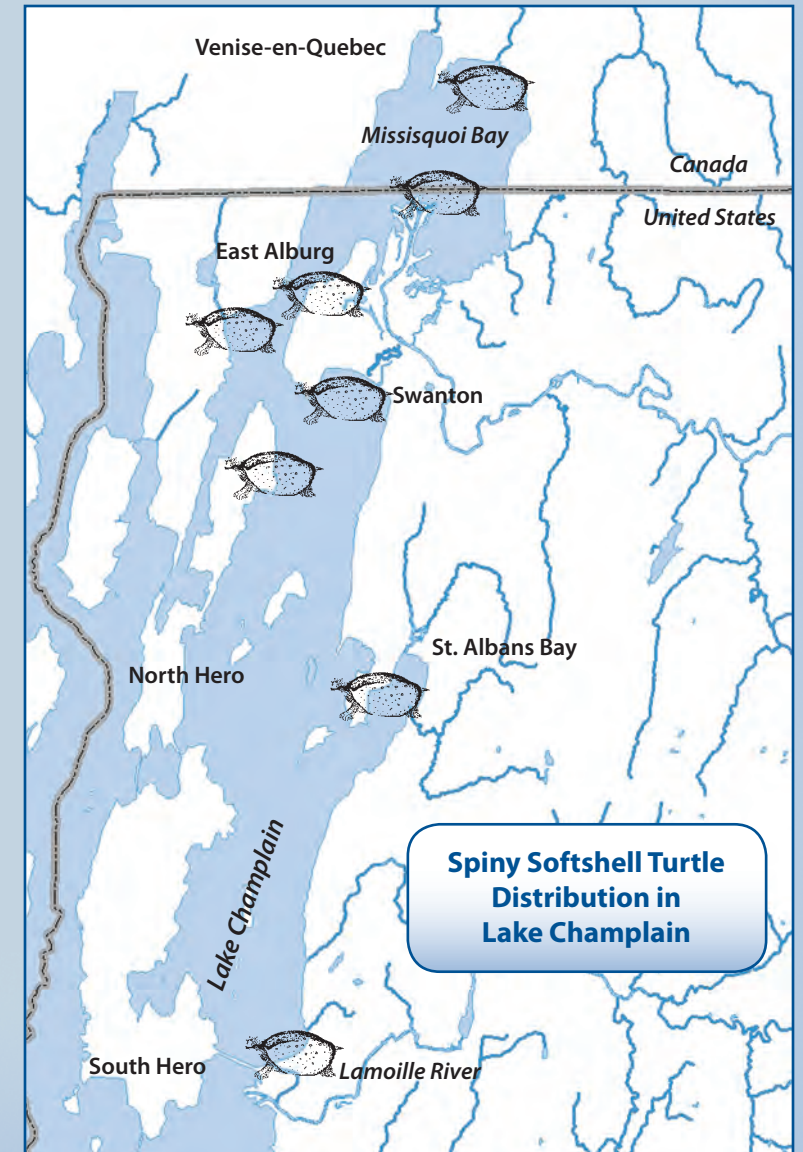
The softshell arrived in Lake Champlain at the end of the glacial era, approximately 10,000 years ago. In 1853, Vermont's famous naturalist, Zaddock Thompson, reported spiny softshells in the lake. By 1936 researchers considered them to be very rare in Lake Champlain, and speculated that occasional hooking mortality, predation and pollution of the Winooski River could be reasons for their scarcity. Habitat loss likely played a role too, and the Winooski River no longer supports a population.

In 1987, the spiny softshell was state-listed as threatened in Vermont. In 1991, spiny softshells were nationally listed as threatened in Canada and officially listed as threatened in Quebec in 1999.

Today, we estimate that spiny softshell turtles number over 200 in Lake Champlain and consist of two main groups or populations. The lower Lamoille River population is estimated to be 60 individuals.

Estimates for the Missisquoi Bay population range from 120 to 200. No population has ever been documented on the New York side of Lake Champlain and no other populations are currently known to exist in New England or Quebec.

Given the rare nature of this unique turtle and the limited habitat, it is important to avoid the loss or degradation of suitable habitat. If we respect the needs of these threatened turtles, we can hopefully enjoy this unique species for generations to come.



## Softshell Turtle Truths

❖ This turtle was named spiny softshell because the front edge of the carapace (upper shell) behind the turtle's head is studded with knobby projections called tubercles.

The carapace is flattened and covered with soft leathery skin instead of bony plates. Small sharp projections roughen the carapace surface, making it feel like sandpaper.

❖ Females spiny softshells are much larger than males. Females can reach a shell length of up to 21 inches and weigh as much as 25 pounds. Males reach a maximum carapace length of about eight inches.

❖ Spiny softshell turtles eat crayfish, aquatic insects, earthworms, tadpoles, frogs, and minnows.

❖ Female spiny softshells are sexually mature at about twelve years old. Their shell length at maturity will be seven to eight inches. Males shell length at maturity will be about half that size. Softshell turtles in Vermont and Quebec may take longer to mature because their growth may be slower at our northern location.

❖ Mating typically takes place in April and May. Females dig nests in open areas along the shore of the lake or river in June. A female will lay about 20 eggs, which she buries in the sand or gravel. Good sun exposure is a must, because soil temperature determines how long the eggs take to develop and hatch.



*Basking is critical for digesting food and developing eggs.*

❖ Hatchlings come out of the nest, or emerge, between late August and October. Timing of emergence is critical because spiny softshell turtles hibernate under water. Hatchlings must reach water before the ground freezes to avoid certain death.

❖ Spiny softshells in Lake Champlain hibernate for almost six months, generally from November to April. They tend to use the same overwintering sites every year. These sites are called hibernacula.

❖ Spiny softshell turtles like habitat that has some aquatic vegetation and a soft bottom for feeding.

❖ Spiny softshells come out of the water in sheltered places and bask in the sun for hours at a time. Fallen trees with underwater limbs, mudflats, sandbars, rock causeways, and floating platforms offer good basking sites.

❖ Adult female spiny softshells travel long distances, especially in early May and late August. This is when they move between their nesting and summer areas and their overwintering sites.

❖ Spiny softshells may live more than 50 years.



## Threats

❖ Direct loss of nesting, basking and winter hibernation sites through changes to shoreline and development.

❖ Dams on rivers. They alter the shape of the river, act as barriers to movement and migration, and change water flow and levels. Changing water levels can cause nest flooding and egg mortality.

❖ People disturbing the turtles when they are nesting or basking, causing this shy species to abandon their activity and retreat to the safety of water.

❖ Aquatic activities, such as boating and fishing, during the nesting period may delay or discourage nesting or physically damage animals. Anglers may mistakenly hook turtles while fishing. Boat traffic causes a risk of boat propellers injuring turtles.

❖ Raccoons and skunks love turtle eggs and hatchlings and these predators tend to find them easily. Waste food left behind by picnickers in areas where turtles nest can attract predators and increase the risk of predation. Uncontrolled dogs can also be a threat to softshell turtles.



*The Missisquoi River Delta provides habitat for softshells.*



*Spiny softshell turtles will nest on gravel beaches.*

## What You Can Do

❖ Do not disturb turtles on their nesting and basking sites. Stay at least 300 feet away and honor warning signs when posted. Use binoculars to get a great view.

❖ Boaters and anglers should maintain a respectful distance from nesting and basking sites to avoid accidental hooking or injury from boat propellers.

❖ Remove garbage from beaches to avoid attracting skunks and raccoons to nesting sites throughout the summer.

❖ Keep livestock and house pets away from nesting sites during the summer.

❖ Learn how to properly release a hooked turtle to reduce stress and injury to both parties. If you hook a turtle while fishing or when it is on land, put it back in the water and contact Fish & Wildlife at 802-241-3700.

❖ Get involved. Observe and report turtle sightings and nesting activities in your area.

❖ Support spiny softshell conservation programs. Purchase a Conservation License Plate. Donate any amount to the Nongame Wildlife Fund on your Vermont income tax form, on hunting and fishing license applications or by direct donation (see below).

Spiny softshell recovery efforts in Vermont are funded by tax-deductible contributions to the Nongame Wildlife Fund. Direct gifts are accepted, payable to:

**Nongame Wildlife Fund**  
Vermont Fish & Wildlife Dept.  
103 S. Main St., 10 South  
Waterbury, VT 05671-0501



Vermont Fish & Wildlife Department's Nongame and Natural Heritage Program (NNHP) manages and enhances Vermont's native plants, natural communities, and animals that are not hunted or fished. Our mission includes preserving Vermont's rich and varied natural heritage for present and future generations.