



## ENDANGERED SPECIES

Status: State Threatened

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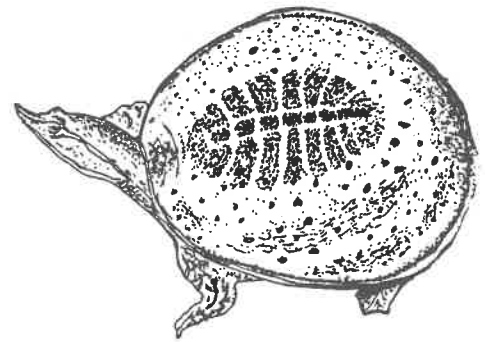
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# SPINY SOFTSHELL

(*Apalone spinifera*)

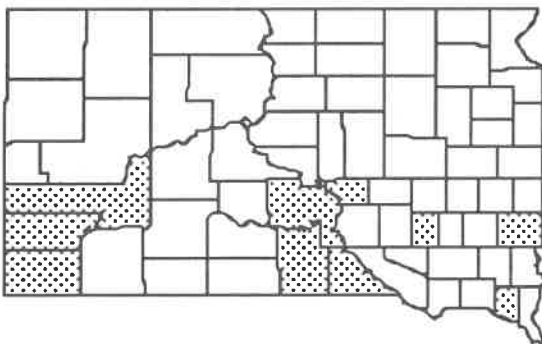
### Description

The extremely flexible, flattened, leathery shell and elongated snout make softshell turtles easy to distinguish from other South Dakota turtles. Along the front of the upper shell of some softshells are spines or, more often, bumps. These spines and the rough texture of the *carapace* will distinguish the "spiny" species from the similar smooth softshell turtle, also found in South Dakota. Female spiny softshells can be large, up to 17 inches (43.2 cm) in shell length, while the males are much smaller, with shell lengths reaching only 8 inches (20.3 cm). Color can range from olive to light brown on the upper shell (*carapace*) to whitish on the underparts (*plastron*). Young turtles may be spotted and have a light line along the outer edge of the *carapace*.



This turtle species was originally widespread throughout the Western Mississippi River drainage from Canada to Mexico. In South Dakota, the occurrence of spiny softshells has been documented in Buffalo, Clay, Custer, Davison, Fall River, Gregory, Lyman, Minnehaha, Pennington, and Tripp counties.

### Distribution



Spiny Softshell Collection Sites

### Natural History

This species prefers rivers and streams with soft muddy or sandy bottoms. The dark, flattened shell allows the turtle to quickly cover itself in the soft sand or mud bottoms to escape detection or to ambush its prey. Furthermore, nostrils at the end of the long, pointed snout allow these turtles to float just below the surface of the water with only the tip of the snout visible. Crayfish make up a substantial part of their diet, but they will feed on a wide range of small prey and some plant material. Prey items

include aquatic insects, small fish, snails, clams, and amphibians.

When a female is sexually mature, at about 6 years of age, she can produce from 12 to 25 white eggs, which she lays in late spring or early summer. The nest is usually very close to water. She digs the nest in soil from 4 to 10 inches (10 to 25.4 cm) deep to deposit her eggs. Hatchlings, 1.5 to 1.75 inches (38 to 44 mm) long, usually spend their first winter in the nest and emerge the following spring.

Often seen openly basking on logs or floating along the surface, the softshell is very wary of intruders. Spiny softshells are fast moving and aggressive. They can inflict wounds with their sharp claws as well as their horny jaws. When captured, they hiss and snap their jaws violently, trying to bite their captor. During the winter in South Dakota, these turtles are not seen, since they *hibernate* underwater beneath several inches of mud.

## Significance

While some people highly prize this species for its meat, many sport anglers

consider the spiny softshell a pest. Much more adapted to swift, shallow streams than other turtles, the spiny softshell plays an important predator role in South Dakota's river systems by feeding on populations of smaller prey animals. These turtles also are a food resource for larger predators.

## Conservation Measures

Because the spiny softshell turtle is listed as threatened in South Dakota, collection, capture, and disturbance of this species require a special permit. Populations are monitored and habitats protected through the South Dakota Natural Heritage Program. Threats to the turtle population include: alteration of natural stream and river flows, which change riverbed conditions; changing water quality and quantity through industrial and agricultural practices; and nest disturbance by humans and coyotes, the main known predators of spiny softshells in South Dakota. Inventory studies are needed to accurately determine the status and range of this species in the state.

## Glossary

**Carapace** - the upper part of the turtle's shell.

**Hibernation** - spending the winter in a dormant state in which body processes are slowed.

**Plastron** - the lower or underside of the turtle's shell.

## References and Resources

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