

Amphibians and Reptiles

By Dennis R. Skadsen

The herpetofauna of northeast South Dakota includes one salamander, four species of toads, five species of frogs, three species of turtles, one lizard, and five species of snakes. Three species of snakes and one turtle are considered accidental, and one species - the mudpuppy, may be extirpated. The following list is compiled from several references including; Backlund (2004), Fisher (1998), Kiesow (2006), and observations by the author, local conservation officers, and other reliable sources. Common and scientific names follow Moriarty and Hall (2014).

Amphibians and Reptiles Observed in Day, Grant, Marshall, and Roberts Counties, South Dakota.

❖ Amphibians

Salamanders



Tiger Salamander (photo by Dennis Skadsen)

Western Tiger Salamander (*Ambystoma mavortium*)

Eastern Tiger Salamander (*Ambystoma tigrinum*)

The tiger salamander is common throughout northeast South Dakota but with the recent taxonomic split it is unclear which species the Western or Eastern tiger salamander is the most widespread. DNA analysis is the only sure way to differentiate between the two. Salamanders lay their eggs in wetlands where the larvae hatch and mature to adults. Most adults are terrestrial; however, some adults remain in the larval or neotenic form spending their entire lives in the water. Neotenic adults can become quite large and often are mistakenly identified as mudpuppies (see below).



Tiger Salamander larvae (photo by Dennis Skadsen)

Mudpuppy (*Necturus maculosus*)

Over (1923) stated the species is found only in Big Stone Lake and E.C. O'Roke (1924) reported collecting a single specimen from Waubay Lake in 1924; however, neither reports were confirmed by museum specimens. In 2016, an unreported mudpuppy specimen collected from Big Stone Lake in 1981 (see photo below) was found in a closet at South Dakota State University. This represents the only

confirmed record for the State. Mudpuppies were not caught during extensive fisheries surveys conducted by the Minnesota Department of Natural Resources in recent years on Big Stone Lake and Lake Traverse, and by University of South Dakota researchers utilizing Environmental DNA testing of Big Stone Lake.

The severe droughts of the 1930s may have drastically reduced the distribution of this species and based on recent studies it may no longer occur in northeast South Dakota. Often the larvae and neotenic adult form of the tiger salamander is mistaken for mudpuppies; however, mudpuppies have four toes on the hind feet while the tiger salamander has five toes. Any observations or specimens of the mudpuppy should be reported to the S.D. Dept. of Game, Fish, and Parks.



Big Stone Lake Mudpuppy (Photo by Drew Davis)

Frogs and Toads

- American Toad** (*Anaxyrus americanus*)
- Great Plains Toad** (*Anaxyrus cognatus*)
- Canadian Toad** (*Anaxyrus hemiophrys*)

All three-species listed above are considered common and abundant in northeast South Dakota. All adults are terrestrial and can often be found some distance from water.



Canadian Toad (photo by Dennis Skadsen)



Woodhouse's Toad (photo by Dennis Skadsen)

Woodhouse's Toad (*Anaxyrus woodhousii*)

No museum or literature records existed prior to 1998. Fisher (1998) reported the species calling in Marshall and Roberts Counties in 1997 and 1998 and collected a

specimen near Rosholt in 1998. However, neither Skadsen nor Jessen could find Woodhouse's toad during surveys conducted in 2004 (Backlund 2004). This species may be at the northern limits of its range in northeast South Dakota and populations may vary from year-to-year.



American Toad (Photo by Brandy Fenenga)



Gray Treefrog (photo by Doug Backlund)

Cope's Gray Treefrog (*Hyla chrysoscelis*) Eastern Gray Treefrog (*Hyla versicolor*)

The status of these two frogs in northeast South Dakota is still unclear. The only way to distinguish between the two in the field is by their calls; however, they're very similar. Karyotyping needs to be completed on several specimens from northeast and southeast South Dakota to confirm the status of these two species in the state. The Eastern gray treefrog was once considered the only species of treefrog occurring in northeast South Dakota, however Jessen and Skadsen (Backlund 2004) heard Cope's gray treefrogs calling from most sites surveyed in 2004. Jessen (2005) states he heard only one Eastern gray treefrog calling in Big Coulee, Roberts County during a 2005 survey. Skadsen heard Cope's gray treefrogs calling at the West Unit of the Pickerel Lake State Recreation Area in June 2009, and the east unit of the park in 2017. Jessen (in Backlund 2004) heard a treefrog calling at Hartford Beach State Park in 2004 but was unsure as to which species he was hearing; however, in June 2009 Skadsen heard Cope's gray treefrogs calling at Camp Iyataka a few miles north of Hartford Beach along Big Stone Lake.

Observations of treefrogs were once confined to the wooded coulees located along the eastern escarpment of the Prairie Coteau. However, in recent years they have been heard and captured as far west as Pickerel Lake State Recreation Area, and as far east as the city of Wilmot, SD. Treefrogs most likely have expanded their range due to the extremely wet conditions of the last twenty years.



Boreal Chorus Frog (photo by Dennis Skadsen)

Boreal Chorus Frog (*Pseudacris maculata*)

Common throughout northeast South Dakota. Our smallest frog is the most frequently heard species, calling from late April through early June from all types of wetlands.



Northern Leopard Frog - Burnsi variety (photo by Dennis Skadsen)

Northern Leopard Frog (*Lithobates pipiens*)

Common throughout northeast South Dakota. All three color morphs, normal, burnsi and kandiyohi have been observed in this area.



Northern Leopard Frog – normal color (photo by Dennis Skadsen)



Northern Leopard Frog – Kandiyohi variety (photo by Dennis Skadsen)



Wood Frog (photo by Dennis Skadsen)

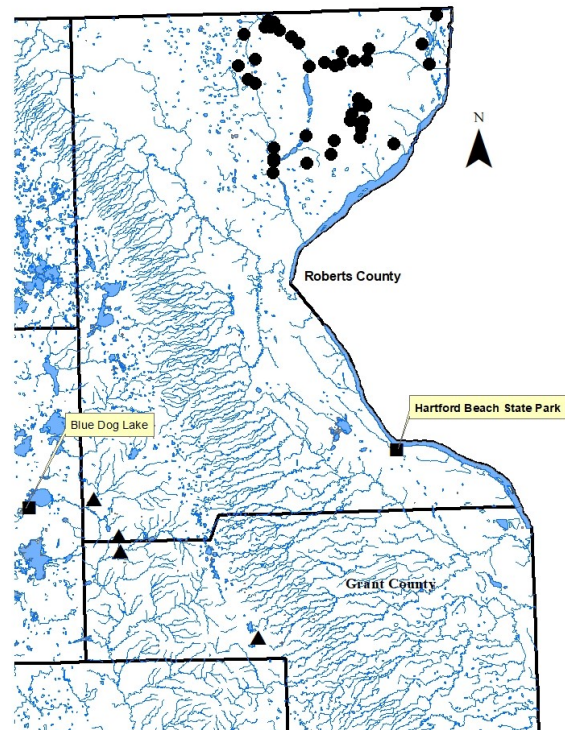
Wood Frog (*Lithobates sylvaticus*)

Prior to the severe droughts of the 1930s wood frogs were apparently common throughout northeast South Dakota. Over (1923) reported the species as common in the coulees of Marshall and Roberts Counties but no museum specimens from these areas have been found. Confirmed museum specimens include five wood frogs collected near the outlet of Blue Dog Lake (Day County) in 1929; and one specimen collected at Hartford Beach along Big Stone Lake (Roberts County) in 1923. In 1960, Fishbeck and Underhill (1960) reported that wood frogs no longer occurred in the coulees of Marshall and Roberts Counties as reported by Over, and surmised droughts, as well as over-harvesting of lumber and grazing of the coulees, may had led to the species demise in northeast South Dakota.

The wood frog's status in the state was unknown until 1997 when Fisher (1998) found the species during surveys in northeast Roberts County. Further surveys by Jessen and Skadsen in 2004 found calling wood frogs at Cottonwood Lake and several

wetlands near Rosholt, SD in northeast Roberts County (Backlund 2004). In May of 2016, a single juvenile wood frog was collected by the author on the Ortley Game Production Area along Owen's Creek near Ortley, SD. This site is located four miles east of the 1929 Blue Dog Lake collection site, and it is possible a population of wood frogs remained undetected in this area until 2016. In 2019, several hundred wood frogs were heard calling on the Ortley Game Production Area in April. Male wood frogs were also heard calling at two locations in Grant County, the first reported for this county. Figure 1 shows current and historical collection sites.

Figure 1. Wood Frog Observation Sites



❖ Reptiles

Turtles

Snapping Turtle (*Chelydra serpentina*)

Painted Turtle (*Chrysemys picta*)

The snapping turtle and painted turtle are both common throughout northeast South Dakota and can be observed in a variety of aquatic habitats that include streams, rivers, wetlands, and lakes. While the painted turtle is usually docile, the snapping turtle can inflict a nasty bite if improperly held or cornered while on land. They usually do not bite humans while in the water.



Painted Turtle (photo by Dennis Skadsen)



Snapping Turtle laying eggs along Owen's Creek (photo by Dennis Skadsen)



Spiny Softshell female (photo by Linda Simmons)

Spiny Softshell (*Apalone spinifera*)

The spiny softshell's range is restricted to the lower reaches of the Yellowbank and Whetstone Rivers in Grant and Roberts Counties. May also occur in Big Stone Lake.

Lizards



Prairie Skink (photo by Dennis Skadsen)

Prairie Skink (*Plestiodon septentrionalis*)

The only lizard found in northeast South Dakota appears to be common despite the continuing loss of grassland habitat. As the name implies this skink is found on native prairies and other grasslands. The skink has an interesting defense mechanism to escape predators. When handled incorrectly or captured by a predator the skink's tail will detach. The wiggling detached tail will distract the predator allowing the skink to escape unharmed although tail-less. The tail will eventually re-grow.

Snakes

Smooth Greensnake (*Opheodrys vernalis*)

Reportedly uncommon, but this may be due to this snake's secretive manner. The green snake is relatively small with an average length of only 16 inches. It is most often encountered in grasslands sunning on pocket gopher mounds or flat rocks.



Plains Hog-nosed Snake (photo by Dennis Skadsen)

Plains Hog-nosed Snake (*Heterodon nasicus*)

This species has only been observed along the western slope of the Coteau in Day County in the area locally known as the Crocker-Crandall Hills. The upturned snout of the Western hog-nosed snake is used like a shovel to dig burrows in sandy soil. Strictly nocturnal, this species is hard to detect.



Smooth Greensnake (photo by Dennis Skadsen)



Northern Red-bellied Snake (photo by Dennis Skadsen)

Northern Red-bellied Snake (*Storeria o. occipitomaculata*)

The Northern red-bellied snake is common throughout northeast South Dakota in suitable habitat. This snake is one of our smallest seldom reaching a length longer than ten inches. This species can be found along the wooded shorelines of area lakes and in forested coulees like Sica Hollow State Park.

Plains Gartersnake (*Thamnophis radix*)
Common Gartersnake (*Thamnophis sirtalis*)

Both species common throughout northeast South Dakota, however the common gartersnake is more apparent in the lowlands like the Little Minnesota and Whetstone Valleys of Roberts and Grant Counties.



Common Gartersnake (photo by Dennis Skadsen)

❖ **Accidental Species**

Blanding’s Turtle (*Emydoidea blandingii*)

Accidental. A Blanding’s turtle observed in northern Robert’s County in 2005 was likely an escaped or released pet. There are no known natural populations of this species in northeast South Dakota and only a few records exist for the southeast corner of the state where the species is considered extremely rare.

Dekay’s Brownsnake (*Storeria dekayi*)

Accidental. The only South Dakota record of the brownsnake is for a specimen collected near Big Stone City in 1922. An extensive survey for the species in 2004 found no evidence the species is extant in northeast South Dakota.

Gophersnake (*Pituophis catenifer*)

Accidental. A gophersnake (or bullsnake) was captured near Pickerel Lake in 1969. Another gophersnake was observed several months later near Bitter Lake; however, the Pickerel Lake specimen may have been released at that locale.



Prairie Rattlesnake (*Crotalus viridis*)

Accidental. Monument located east of Blue Dog Lake denotes the date, place, and person who killed a prairie rattlesnake in 1935. A descendant of the man who placed the marker in his pasture believes the snake was brought in with hay transported from western SD.

❖ Endangered and Threatened Species

None of the above species are currently listed as state or federally endangered at this time. However, the following species are tracked by the South Dakota Natural Heritage Program managed by the SD Dept. of Game, Fish, and Parks. Observations of these species should be reported to the SD GFP.

Mudpuppy
Cope's Gray Treefrog
Eastern Gray Treefrog
Wood Frog
Spiny Softshell Turtle
Blanding's Turtle
Smooth Green Snake
Northern Redbelly Snake

❖ Suggested References

Amphibians and Reptiles in Minnesota
By John J. Moriarty and Carol D. Hall
2014. University of Minnesota Press, Minneapolis.

Field Guide to Amphibians and Reptiles of South Dakota.
By Alyssa M. Kiesow
2006. S.D. Dept. of Game, Fish, and Parks, Pierre.

(Includes a CD of calls and songs for all frogs and toads occurring in South Dakota)

Peterson Field Guide to Reptiles and Amphibians, Eastern/Central North American, 4th Ed.
By Roger Conant and Joseph T. Collins.
1998. Houghton Mifflin Company, Boston.

❖ Literature Cited

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O'Roke, E.C. 1924. The Amphibians of South Dakota. Proc. S.D. Acad. Sci. 9:13-15.

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