Manitoba Envirothon



Herpetology Guide

Non-Avian Reptiles and Amphibians of Manitoba



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Introduction to Non-Avian Reptiles and Amphibians

Herpetology, from the Greek 'herpien' meaning 'to creep', is the study of amphibians (including frogs, toads, salamanders, newts, and caecilians) and reptiles (including snakes, lizards, amphisbaenidae, turtles, terrapins, tortoises, crocodilians, and the tuataras). Herpetology groups all pokilothermic-ectothermic terapods. Although many scientists would argue that this grouping is incomplete and inaccurate, as crocodilians and turtles are more closely related birds (aves) than other reptilians (e.g., lizards and snakes – see figure below) and reptiles are more closely related to mammals than amphibians, it has been used historically to group terapod species with similar characteristics. Modern classification has the group split into five categories – Amphibia (frogs and toads, salamanders, and caecilians), turtles (testudinia), Lepidosauria (lizards, snakes, tuatara), Crocodillia, and birds (Aves).



Manitoba is home to a variety of amphibians and non-avian reptiles. Although the diversity is limited due to the extreme temperatures found in our province, many species have adaptations that have allowed them to survive. Manitoba has eight species of reptiles, which consist of six squamates (five snakes and one lizard), and two turtles. We are also home to sixteen species of amphibians, which include four salamanders, twelve frogs.

AMPHIBIANS

Amphibians are a group of species that are often found living both in the water and on land. They represent one of the earliest groups of tetrapods to be found living on land. Amphibians are generally characterized by seven different characteristics. All amphibians have unique inner ear structures that allow them to be sensitive to low frequency noises. They all have a distinct type of green rods in their eyes as well as unique muscular structure operating their eyes. All amphibians have reduced ribs that do not encircle their bodies. Most amphibians have pedicellate teeth (one salamander genus and two frog genera are the exceptions). Very importantly, all amphibians have very thing glandular skin that allows them to breath through their skin. They have mucus glands to ensure their skin stays moist guaranteeing that gasses (e.g., oxygen) can pass through). Breathing through their skin is the primary method of breathing for many species (some variation between species). Animals that are classified as amphibian include frogs, toads, newts, salamanders and caecilians. Salamanders (Urodela) are elongate with a long tail. There are approximately 560 species of this amphibian. Frogs (Anurans) are tail-less short-bodied amphibians. This group includes approximate 5400 species and are often distinguished by locomotory specializations. Toads are included in this group, although there is no one group (lineage) of toads. Caecilians are a group of limbless, serpentine amphibians. They mostly live hidden in the ground, making them the least familiar order of amphibians. There are approximately 170 species of caecillians that often have skin or bone over their eyes (or no eyes) as they are blind. They have protrusible tentacles, which is unique to amphibians. Amphibians most often exhibit a 'biphasic' life cycle, where they have a larval life stage (e.g., tadpoles) and then metamorphose into an adult phase.

Manitoba has 15 species of amphibians, including four species of salamanders (e.g., eastern tiger salamander, mudpuppy, etc.) and 11 species of frogs (including toads). Interestingly, Manitoba is home to the mudpuppy, a paedomorphic () species that remains active in permanent bodies of water. To survive in Manitoba all species of amphibians must have adaptations like freeze-avoidance (aquatic and terrestrial hibernators) and freeze-tolerance (allow bodies to freeze, e.g., wood frog).

<u>Frogs</u>

American Toad

(Anaxyrus americanus)



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American toads have bad tasting liquid located in their skin that they squeeze out if attacked. This liquid can make some animals sick. This serves as protection since most animals will avoid eating them. American toads have hard bumps on their back feet, like little shovels, to help them dig into the ground.

Adult Sizes: Body up to 11 cm long.

Status and Range: This toad is widespread and abundant in Manitoba. Its range extends from the southeast corner of Manitoba to east of Winnipeg, then north along the east side of Lake Winnipeg in a band, to the north end of the lake.

Diet: Terrestrial insects (beetles and ants)

Denning and Habitat: In the winter these toads can burrow up to three feet deep to hibernate. These toads are nocturnal and rest during the day under rocks, logs or leaves on the forest floor.

Predators: Snakes are their main enemies. Large water bugs and wading birds will eat the tadpoles.

Life History: American toads mate and lay their eggs in May. They will breed in ponds filled by melting snow or in small year-round ponds. A large female toad can lay more than 1000 eggs. The eggs hatch in 3 to 4 days.

Canadian Toad

(Bufo hemiophrys)



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Canadian toads have bad tasting liquid in their skin that they squeeze out if they are attacked. It can make some animals sick so it serves as protection for the toad since most animals will avoid eating them. Canadian toads have hard bumps on their back feet, like little shovels, to help them dig into the ground. They are brown with darker and lighter patches on the back. They have lots of little bumps called warts on their backs. Underneath they are light grey with many small dots of grey or brown.

Adult Sizes: Body up to 8 cm long.

Status and Range in Manitoba: This toad is widespread and abundant in the Manitoba. Its range extends from the southeastern corner of the Manitoba, across the Interlake region to the Saskatchewan border and north to the border of the boreal forest.

Diet: Insects that crawl on the ground like beetles and ants

Denning and Habitat: Canadian toads live in forests and in grasslands near lakes or wetlands. In late autumn they dig deep into soft ground and spend the winter sleeping there. They dig with their back feet and must go down deep enough so the ground will not freeze.

Predators: Snakes are their main enemies. Large water bugs and wading birds will eat the tadpoles.

Life History: Canadian toads usually mate and lay their eggs in May. They use ponds filled by melting snow or small year-round ponds. Their eggs are laid in a long string instead of in a ball like frog eggs. A large female toad can lay more than 1000 eggs. The eggs hatch in 3 to 4 days.

Plains Spadefoot

(Spea bombifrons)



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The plains spadefoot is a very fast digger. Each spadefoot has a large, hard bump under its hind feet. It can use the "spade" on its hind feet to dig itself backwards into sand in just a few minutes. One of their most outstanding features is their vertical or "cat" like pupils.

Adult Sizes: Between 4 cm to 6 cm long.

Status and Range in Manitoba: The Plains Spadefoot is uncommon within Manitoba. It has a limited range that covers the southwestern corner of the province.

Diet: Ants, beetles and centipedes.

Denning and Habitat: The plains spadefoot hibernates in burrows beneath the frost line during winter. They live in the grasslands of central and western North America. It prefers the open prairies, away from forests or wetlands. It is most often found in areas with sandy soil.

Predators: In Manitoba the western hognose snake and the plains garter snake eat them. The tadpoles are eaten by water bugs and shore birds. Spadefoot tadpoles will cannibalize each other.

Life History: Spadefoot toads live in dry areas and only breed after a heavy rain. They breed in large rain puddles in June or July when the weather is warm. Females lay up to 250 eggs. The eggs hatch in 2 days and the tadpoles can become toadlets in as little as 14 days.

Great Plains Toad

(Anaxyrus cognatus)



The Great Plains toad is an amphibian that lives in very dry areas. The colour on the back is light brown with large, darker coloured patches. There are many small bumps (warts) in each of the patches. The belly is cream coloured or light grey.

Adult Sizes: Up to 11 cm long.

Status and Range in Manitoba: This toad is rare or uncommon in Manitoba. It is the only amphibian in Manitoba listed as Threatened. Its range consists only of the extreme southwest corner of Manitoba.

Diet: Ants, beetles, worms and centipedes.

Denning and Habitat: During the winter they burrow into the soil to hibernate. The Great Plains toad lives in grasslands. Great Plains toads also burrow to escape dry conditions, including high air temperatures and low air humidity.

Predators: Snakes are the main enemies of this toad. Its tadpoles are eaten by water bugs and birds.

Life History: The Great Plains toad breeds from May to July. Females will lay their eggs in small ponds or large rainwater puddles. The eggs take about 3 days to hatch. The tadpoles need about 40 days to grow before changing into toadlets.

Spring Peeper

(Pseudacris crucifer)



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They are usually light brown in colour with some dark bands or stripes. Spring peepers have an "X" marking on their backs.

Adult Sizes: Between 2 cm to 3 cm long.

Status and Range in Manitoba: This frog is common in southeastern Manitoba. Their range is on the east side of Lake Winnipeg, from the border to the United States, to the north end of the lake.

Diet: Small insects like mosquitoes and flies.

Denning and Habitat: Spring peepers spend winter under the leaves on the forest floor. They are one of the four kinds of frogs in Manitoba that can freeze solid and live. They live in forests and are usually found near ponds or other wetlands. They stay in low bushes or thick grass.

Predators: Their main enemies are small snakes such as young garter snakes. Their tadpoles are eaten by snakes and large water insects.

Life History: Spring peepers mate and lay eggs in late April or early May. They breed in ponds that fill from melting snow or in small year-round ponds. Females lay their eggs one at a time on the bottom of ponds. The eggs hatch in 3 to 5 days.

Leopard Frog

(Lithobates pipiens)



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The leopard frog is the largest frog in Manitoba. Its green colour and dark spots help it to hide among the plants near wetlands. The leopard frog's big webbed feet help it to jump on land and swim in water.

Adult Sizes: The body is up to 10 cm long. With the legs stretched out, it can be 30 cm long.

Status and Range in Manitoba: This frog is widespread and abundant in the province. Its range covers southern 2/3's of Manitoba.

Diet: Insects, spiders, worms, crayfish, snails, young snakes, small mice and baby birds. They will eat other frogs, even small leopard frogs.

Denning and Habitat: Leopard frogs live near lakes, ponds, or other wetlands. Sometimes they will move into grasslands or forests. These frogs spend winter on the bottom of large ponds or lakes.

Predators: Garter snakes, hognose snakes, snapping turtles, raccoons, skunks, mink, herons, crows, hawks and owls will eat the adults. Leopard frog tadpoles are eaten by water bugs, painted turtles, snakes and birds like herons or kingfishers.

Life History: Leopard frogs breed from late April to early June. They lay their eggs in ponds or streams or small lakes. Each female can lay as many as 5,000 eggs in one big clump attached to some floating plants or sticks. The eggs hatch in 5 to 7 days.

Wood Frog

(Lithobates sylvaticus)



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Wood frogs are the colour of dead leaves so they can hide on the forest floor.

Adult Sizes: Its body is about 5 cm long. With its legs stretched out it is about 15 cm long.

Status and Range in Manitoba: This frog is widespread and abundant throughout the province. Its range covers the entire province.

Diet: Insects, worms and other small animals without backbones.

Denning and Habitat: They spend winter under the leaves or under logs on the forest floor where they can freeze solid. Wood frogs live in forests, but can be found in meadows or marshes.

Predators: Garter snakes, herons, crows, raccoons, skunks, or weasels will eat adults. Their tadpoles are eaten by shorebirds, snakes and large insects like giant water bugs and diving beetles.

Life History: Most of the breeding is from mid-April to early May. They breed in ponds filled by melting snow or in small year-round ponds. Each female lays about 1000 eggs in a round bunch on plants floating on top of the water. The eggs hatch in 3 to 5 days. The tadpoles can become froglets about 40 days after hatching.

Gray Treefrog

(Hyla versicolor)



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There are really two kinds of gray treefrogs. One is the gray treefrog (*Hyla versicolor*) and the other is the Cope's gray treefrog (*Hyla chrysoscelis*). They look and act the same; you can only tell them apart if you hear their mating calls or examine their genetics. For this reason we include both here. Gray treefrogs can change colour to hide from predators, from very dark grey to bright green.

Adult Sizes: Up to 6 cm long.

Status and Range in Manitoba: These frogs are common in southern Manitoba. Cope's gray treefrog is found across southern Manitoba, and the grey treefrog is found in a band occuring from the southeast corner of the province north to the middle of Lake Winnipeg and west to near Saskatchewan border.

Diet: Moths, small beetles and flies.

Denning and Habitat: Treefrogs can freeze in winter, under the forest floor leaves. Gray treefrogs live in forests and they usually stay close to small ponds or wetlands.

Predators: Small owls, squirrels, and snakes will eat the adults. The tadpoles are eaten by large water insects, snakes, and wading birds like herons.

Life History: Treefrogs mate and lay eggs in May or early June. They breed in ponds filled by melting snow or in small year-round ponds. The females move to the pond when they have found a mate and lay their eggs quickly in a small bunch on some plants at the top of the water. The eggs hatch in 3 to 5 days. The tadpoles change to froglets after about 40 days.

Boreal Chorus Frog

(Pseudacris maculata)



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They are brown or green with dark stripes or patches. They can change their colour, from green to brown or make it lighter or darker. The chorus frog can climb up tree trunks and on branches. It hunts for food in low branches or on the ground. The boreal chorus frog is Manitoba's smallest frog.

Adult Sizes: The body of an adult is a maximum of 3 cm long.

Status and Range in Manitoba: This frog is widespread and abundant in Manitoba. They are found throughout the entire province except in the northern region.

Diet: Tiny insects like mosquitoes.

Denning and Habitat: During the winter boreal chorus frogs sleep under leaves or logs in forests, or under thick grass in meadows. Their bodies can freeze solid. They are found mainly in forests, but lives in grasslands, marshes and even in cities.

Predators: Snakes, birds, mice, shrews, and large insects. The tadpoles are eaten by birds and large insects.

Life History: Boreal chorus frogs mate very early in spring. Sometimes they can lay eggs by early April. They breed in small ponds filled by melting snow. Each female lays as many as 200 eggs in small clumps on plants or sticks under the water. The eggs hatch in about 3 days. The tadpoles grow for about 40 days before they become froglets.

Green Frog

(Lithobates clamitans)



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Male green frogs have an ear drum that is larger than their eye. They are green to greenish brown on top with a few small black spots, and dark or black stripes on the legs. Around the mouth the colour is usually bright green.

Adult Sizes: Up to 10 cm. Females are usually bigger than the males.

Status and Range in Manitoba: This frog is considered rare in Manitoba. It has been found only in a small section of SE Manitoba (around Nopiming Provincial Park). It occurs near Kenora, Ontario, so it possibly occurs in Whiteshell Provincial Park or in the region south towards Buffalo Point. It may also be found north of Nopiming Park.

Diet: Small animals like snails and spiders.

Denning and Habitat: Green frogs spend winter on the bottom of ponds, streams or lakes. The green frog is usually found near water, along lakes, ponds, streams or in other wetlands.

Predators: Snapping turtle, red-sided garter snake, and by wading birds like the great blue heron.

Life History: Green frogs mate from June to mid-August. They breed in large ponds or along the edges of small lakes. Male green frogs stay in their own small area. They do not bunch up to call for mates like most frogs. Females lay as many as 4000 eggs in one large bunch on plants at the top of the water. The tadpoles hatch out in about 7 days, but will not change into froglets until the next summer. It takes more than a year (nearly 400 days) for a green frog egg to become a froglet.

Mink Frog

(Lithobates septentrionalis)



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The mink frog gets its name because it smells like a mink. The mink is mammal in the weasel family. The eyes of a mink frog are further on top of its head than other frogs. This helps it to look up to hunt insects that are flying over its head.

Adult Sizes: Up to 8 cm long.

Status and Range in Manitoba: This frog is uncommon in Manitoba. It only occurs in a small section of southeastern Manitoba. It is commonly found in Nopiming and Whiteshell Provincial Parks, may be found southwards towards buffalo point, and north above Nopiming Provincial Park.

Diet: Insects that fly over the pond like dragonflies and moths.

Denning and Habitat: Mink frogs spend winter on the bottom of rivers, ponds or lakes. They live along the edges of streams, large ponds and small lakes.

Predators: Many birds and mammals will not eat a mink frog because they taste and smell bad. Snakes will eat the adults. The tadpoles are eaten by fish, snakes, large water insects and shore birds.

Life History: Mink frogs mate and lay eggs in June and early July. They breed in large ponds, streams or along the edges of small lakes. The females lay their eggs in large bunches attached to the leaves of water plants. Each female can lay 500 eggs. The eggs hatch in 7 days. The tadpoles will not change to froglets until the next summer.

Salamanders

Blue spotted Salamander

(Ambystoma laterale)



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These salamanders are shiny black with light blue spots on its sides and a dark grey or black belly. These salamanders protect themselves by making a sticky bad-tasting liquid that squeezes out if they are attacked. They will also wiggle their tail to get the animal to bite the tail instead of its head or body.

Adult Sizes: Between 10 cm to 12 cm long.

Status and Range in Manitoba: This salamander is quite common in eastern Manitoba. It is found from the southeast point of Manitoba westward to the Brokenhead River, and northwards along both sides of lake Winnipeg along the lower basin.

Diet: Worms, slugs, small insects and other tiny animals.

Denning and Habitat: They spend winter hibernating underground in the holes left by animals that burrow into the earth. Blue-spotted salamanders live in forests where the ground is damp.

Predators: Not many animals will eat these salamanders because of the taste. Snakes are their main predators.

Life History: Blue-spotted salamanders breed in ponds that fill from melting snow or in small permanent ponds. They mate and lay eggs in April or May. Females lay about 500 eggs, one at a time or in small bunches on sticks or plants on the bottom of the pond. The eggs take about 30 days to hatch.

Barred Tiger Salamander

(Ambystoma mavortium)



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The barred tiger salamander is the largest salamander in the world that lives on land. Some young tiger salamanders never grow up. They keep their gills and tail fin, and stay in the water all their lives.

Adult Sizes: Up to 33 cm long.

Status and Range in Manitoba: This salamander is common in the southwestern portion of the province west of the red river. It is especially common in the Prairie Potholes region as the ponds provide good breeding habitat.

Diet: Small animals such as spiders, worms and snails.

Denning and Habitat: During the winter they dig deep into the ground or go down a hole left by another animal to hibernate. Tiger salamanders live in forests and grasslands near ponds or wetlands.

Predators: Tiger salamanders taste bad to some birds and mammals. Adults are eaten by the plains garter snake. Young salamanders are eaten by wading birds like herons, and by turtles and snakes.

Life History: Tiger salamanders mate and lay their eggs in deep ponds in April and May. The female lays about 100 eggs. She lays them one at a time on rocks, plants or sticks on the bottom of the pond. It takes 20 days for the eggs to hatch. The young can change to adult shape and leave the pond in August, about 60 days after hatching. Sometimes the young salamanders take more than one summer to grow big enough to change to adult shape. They can stay in the pond over winter and keep growing through the next summer.

Eastern Tiger Salamander

(Ambystoma tigrinum)



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Their colour is variable, from dark grey to almost black with cream to yellow coloured bars, blotches or distinct spots.

Adult Sizes: Up to 33 cm long.

Status and Range in Manitoba: This salamander is uncommon in the province. It is thought to only occur in a small section of southern Manitoba from the Red River eastward to the edge of the boreal forest and northward to the southern basin of Lake Winnipeg.

Diet: Small animals such as spiders, worms and snails.

Denning and Habitat: These salamanders burrow below the frost line or uses animal burrows or other holes. May remain active throughout winter. They are found in moist grasslands or woodlands near wetlands.

Predators: Tiger salamanders taste bad to some birds and mammals. Adults are eaten by the plains garter snake. Young salamanders are eaten by wading birds like herons, and by turtles and snakes.

Life History: Adults move to ponds and mate early in spring, often by early April. Eggs attached to submerged vegetation hatch in 3-4 weeks and larvae can grow large enough to transform by late-July. In permanent ponds larvae may continue to grow and develop for several years before transforming to adult form and taking up a terrestrial habit. Some individuals remain permanently in larval form, but become sexually mature and can breed.

Common Mudpuppy

(Necturus maculosus)



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Adult mudpuppies keep their gills all their life. They have 3 pairs of gills that look like red feathers attached to the sides of the head.

Adult Sizes: Up to 49 cm, but most adult are around 20 cm to 30 cm long.

Status and Range in Manitoba: This salamander is probably common in southeastern Manitoba. It occurs in bodies of water from the southeast section of Manitoba, likely as far north as the lower basin of Lake Winnipeg. It is found in the Red River and in the Assiniboine River.

Diet: Small fish, crayfish, insects and snails.

Denning and Habitat: Mudpuppies live only in water. They can be found in lakes, ponds and rivers. They remain active during the winter.

Predators: Northern pike, small mouthed bass, great blue heron, diving ducks like common mergansers and snapping turtles.

Life History: Mudpuppies mate in the fall, and females lay eggs the next spring. In April or May they lay about 100 eggs. They stick them to rocks or sticks in the water. It takes about 30 to 50 days for the eggs to hatch. The female stays with her eggs until they hatch. A young mudpuppy grows its legs when it is about 1 month old. It may take more than 2 years for a mudpuppy to grow to adult size.

NON-AVIAN REPTILES

The term reptile derives from the Latin *rept-*, meaning 'crawled'. A reptile is classified as any extant ectothermic sauropsid. Sauropsid is a grouping based on the evolution of the amniotic eggs (eggs with an extraembryonic membrane(s) enclosing the yolk sac). Reptiles are considered to be a paraphyletic (incomplete) grouping as it excludes birds (as shown in above image). However, for the purposes of this document we will focus on non-avian reptiles. Most reptiles lay eggs (oviparous), however some species may have young hatch from eggs stored inside the mother (e.g., Red-sided garter snake), which is known as ovoviviparous, and some lizards and snakes may have young live born (viviparity).

Turtles are all from the family Testudines that includes over 300 species, grouped into two distinct categories. Pleurodira ("side+ neck") includes turtles that can bend neck horizontally to retract head. However this group is now restricted to the southern hemisphere. Cryptodira ("hidden+ neck") includes turtles that can bend neck in vertical S shape to retract head. Most turtles are found in this group (~230 species). Tortoises are a true grouping, including approximately 50 species. Sea turtles specifically adapted to live in the sea with flippers, and other physiological adaptations allowing them to dive deep in the sea. Turtles are classified by the structure of their shell and skeleton as well as many anatomical adaptations (e.g., their blood can bypass their lungs when they are holding their breath). Although current evidence suggests turtles are the most closely related to crocodilians and birds, this grouping is still hotly contested.

Lepidosoaurs include tuatra (2 spp.) and squamates (lizards (4800 spp.) and snakes (>2900 spp.)). These species are predominantly terrestrial, with water-impermeable overlapping scales. Tuataras have spines on there back and the only two remaining species are now found on small islands off the coast of New Zealand. They have two rows of teeth on their upper jaw and one row of teeth on their lower jaw. Interestingly, they are also nocturnal and have lifespans of up to 100 years. Lizards and snakes are known as squamates, as snakes evolved from lizards. They are characterized by changes to their skulls and jaws (e.g., larger gape allowing them to swallow food and more muscles to increase biting force), as well as their determinant growth (do not continually grow through their life, like fish, crocodiles, and birds). Squamates are split into two major groups, the Iguania (including iguanas and chameleons) and Scleroglossa (including geckos, skinks, monitor lizards, amphisbaenians (elongate legless burrowing lizards), and snakes). Approximately 80% of squamates are oviparous. Viviparity (live birth) and ovovivparity is found in over 45 lizards and 35 snakes. All boas and vipers, some iguanids, chameleons, geckos, amphisbaenians, sea snakes, and approximately 45% of skinks have live birth. Interestingly, six families of lizards (~15 spp.) and one species of snake exhibit parthenogenesis, where they produce viable eggs with out mating.

Manitoba has six squamates and two species of turtles. Most of the squamates are very limited in their distribution due to temperature constraints. Intriguingly, the world record for highest snake density is found in Manitoba. Red-sided garter snakes congregate in the fall and spring at rock outcrops where they hibernate during the winter. The great concentration of snakes in one area facilitates mating in the spring, which females store until they have had enough food to gestate their eggs.

Squamates

Red Sided Garter Snake

(Thamnophis sirtalis parietalis)



The red-sided garter snake is the most abundant snake in Manitoba. It is one distinct subspecies of the common garter snake. To differentiate the red-sided garter from the plains garter compare the lateral yellow lines along the sides of their body. Red-sided garters have the yellow line on scale row 2 and 3, while plains garter have theirs on row 3 and 4.



Plains garter



Red-sided garter

Adult Sizes: Females are typically larger than males of all year classes. Adult females are over 90 cm long while males reach a maximum length of 75 cm.

Diet: Frogs, leeches, tadpoles earthworms, and rodents.

Denning and Habitat: These snakes hibernate during the winter. Den sites include tree roots, shale cliffs, rock piles, sewers, foundations, animal burrows, rocky outcrops and sinkholes. Dens contain from a few to over 10,000 individuals. The preferred habitat of the red-sided garter snake is near ponds in areas of moderate moisture.

Predators: Magpies, owls, hawks, black bears, skunks and racoons.

Life History: In the spring, snakes emerge from the dens and breed in the area immediately surrounding the den sites. As each female emerges from the dens they are pursued by a number of males that entwine themselves around her forming a mating ball. In late summer the young are born, a female may give birth to 20 young on average.

Plains Garter Snake

(Thamnophis radix)



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The Plains garter snake is one of the coldest tolerant snakes, occasionally emerging from hibernation during warm winter days.

Adult Sizes: Up to 110 cm long, most are less than 70 cm.

Status and Range in Manitoba: This snake is common in the province. It occurs in the southwestern portion of Manitoba to the borders of the aspen parkland and boreal forest.

Diet: Frogs, toads, worms, tadpoles and small fish.

Denning and Habitat: Plains garter snakes hibernate in small abandoned mammal burrows, especially ground squirrel burrows, but may also hibernate around building basements. Their preferred habitat is grasslands or open woodlands close to ponds, lakes, streams and marshes within the prairie.

Predators: Magpies, owls, hawks, black bears, skunks and racoons.

Life History: Plains Garter snake is live-bearing rather than egg-laying. Mating takes place in late April or early May shortly after emergence from the winter dens. Males do not remain near the den entrances for extended periods as occurs in the Red-Sided Garter Snake. From 5-40 young are usually born in mid to late summer.

Western Hognose Snake

(Heterodon nasicus)



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The most characteristic feature of this snake is that its rostrum, or "nose", is upturned like a pig's, giving this species its common name. They have a variety of defense mechanisms including rolling over and playing dead, with their tongue out (the colouring on the bottom of their bodies represents rotting flesh) and they mimic the sound of a rattle snake to ward off predators.



©naturenorth.com

Adult Size: Up to 150 cm in total length, though most are less than 80 cm.

Status and Range in Manitoba: This snake is rare in the province. It only occurs in the southwest corner of Manitoba.

Diet: Toads, smaller snakes or lizards. They occasionally eat small birds or mammals and will also eat the eggs of other reptiles or ground-nesting birds

Denning and Habitat: They hibernated below the frost line either burrowing in sandy soil or making use of animal burrows. The hognose snake lives in grasslands or open woodlands in areas with loose, sandy soils.

Predators: Hawk, crow, coyote, fox, and raccoon.

Life History: Mating takes place in May. Clutches of 2 to 25 eggs are laid in July in a nest excavated in loose or sandy soil. Hatchlings emerge in late August or September.

Smooth Green Snake

(Opheodrys vernalis)



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They are bright green, with no markings. Their belly is white or cream coloured.

Adult Size: Up to 80 cm long, though most are less than 50 cm.

Status and Range in Manitoba: This snake is common in Manitoba. It likely occurs all across the southern region of the province.

Diet: Caterpillars, grasshoppers, spiders and beetle larvae are common foods, but they are reported to eat worms and slugs, too.

Denning and Habitat: This snake hibernates below the frost line in loose soils. Ant hills may be important overwintering sites for this species. Their habitat includes grasslands in areas with loose, sandy soils.

Predators: Larger snakes, birds, foxes, raccoons, house cats.

Life History: Mating takes place in May; up to 15 eggs are laid in late July. Hatching occurs about 4 weeks later, in late August.

Northern Redbelly Snake

(Storeria occipitomaculata occipitomaculata)



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Northern Redbelly Snakes are best known for their bright red bellies as the names describes. Their back can range from black to light brown.

Adult Size: Up to 40 cm long, but most are less than 30 cm.

Status and Range in Manitoba: This snake is common in the province. It likely occurs throughout the southern region of the Manitoba.

Diet: Worms, slugs and beetle larvae.

Denning and Habitat: They hibernate below the frost line in loose soils. Ant hills may be important overwintering sites for this species. Their most common habitat consists of moist woodlands or areas near wetlands.

Predators: Birds, raccoons, foxes

Life History: Mating takes place in May. Females give birth to live young, usually 10-12 in a litter, in August or September

Northern Prairie Skink

(Plestiodon septentrionalis)



The Northern Prairie Skink is a smooth, shiny, alert lizard. The Northern Prairie Skink has an interesting protective adaptation. When pursued by a predator, the skink will use its tail as a "decoy" by detaching it. The tail will continue to twitch distracting the predator while the skink scurries for cover.

Adult Sizes: Between 12 cm to 20 cm.

Status and Range in Manitoba: This skink is rare in the province. It is federally classified as an Endangered Species. It is found in two areas in southwestern Manitoba. One is a small region in the Lauder Sandhills, southwest of Brandon. This isolated population lives in an area of only about 1 ha in size. The larger skink population is found within the Assiniboine Delta region.

Diet: Crickets, grasshoppers, and spiders. Other insects and insect larvae are second choice foods

Denning and Habitat: Skinks hibernate below the frost line. Their habitat includes grasslands with sandy soil. They use litter as cover as well as burrowing in sand just under the surface.

Predators: Western hognose snake, kestrels, crows, raccoons, skunks and large frogs or toads.

Life History: During the breeding season from mid-May to early June, male skinks jaws and throat begin to turn a distinctive, bright orange. After a gestation period of around forty days the female lays an average of eight eggs in a small nest cavity. The female skink broods her clutch of eggs until they hatch, afterwards the female will leave the nest.

Turtles

Common Snapping Turtle

(Chelydra serpentina)



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Snapping turtles have a long neck and long tail which stretched out can be twice the length of its shell. Colour is dark brown, younger specimens appear nearly black. Snapping turtles are unable to retract their heads into their shell.

Adult Sizes: shell length of up to 50 cm, though most adults are closer to 30 cm shell length. Females are larger than males.

Status and Range in Manitoba: This turtle is common in Manitoba. It occurs in the southern third of the province.

Diet: Common Snapping Turtles eat many food sources. They eat aquatic animals, including fish, amphibians, crayfish, snails and other invertebrates, but also consume aquatic plants and carrion. Small mammals and birds floating on the water surface may be eaten as well.

Denning and Habitat: Overwinters on the bottom of larger, permanent water bodies. Its habitat consists of permanent water bodies such as lakes.

Predators: Common snapping turtles have few predators as adults, but their eggs are eaten by crows, mink, skunks, foxes, and raccoons.

Life History: Mating probably takes place in May. Clutches of up to 80 eggs are laid in June in loose or sandy soil. Hatchlings emerge in September.

Western Painted Turtle

(Chrysemys picta belli)



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The Western painted turtle is a distinct subspecies of painted turtle. It is the largest and most brightly patterned of the various subspecies.

Adult Sizes: Shell length of up to 25 cm, though most are much smaller. Females are larger than males

Status and Range in Manitoba: This turtle is common in Manitoba. It occurs in the southern third of the province.

Diet: Painted Turtles consume both plants and animals, but are less predacious than Snapping Turtles. They eat a wide array of aquatic animals, plants and carrion.

Denning and Habitat: They inhabit permanent water bodies. Western painted turtles overwinter on the bottom of the same water bodies.

Predators: Adults are eaten by racoons, hawks, and crows. The eggs are eaten by garter snakes, crows, skunks, raccoons, badgers, and foxes

Life History: Mating takes place in May. Females lay up to 20 eggs in June in loose or sandy soil, often some distance from the water. Hatching occurs in late September or October, but the young remain in the nest over winter and emerge the following spring. Hatchling western painted turtles freeze solid while in the nest.

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