Canadian Toad (Bufo hemiophrys)

The Canadian toad is the most common toad in the NWT and is commonly known to occur only in the Fort Smith region. The species has declined in abundance in some parts of western Canada in recent years. Canadian toads are completely terrestrial except for a brief period in spring when they congregate to breed in shallow edges of lakes or slow-flowing streams. Unlike frogs which lay their eggs in glistening masses, toads lay their eggs in strings (typically 10-100 eggs) on land for small pond-sized toads, and in shallow water for larger toads. The strings are usually laid in semi-circular loops, or fan-shaped patterns, and are sometimes submerge in the water during hibernation.

Identification: Toads are short-legged amphibians, generally thick-skinned and rough in appearance. They are covered with warts, and have prominent vocal and kidney-shaped parotoid glands on the sides under the skin. The Canadian toad is generally grey-green to brown. Its belly is white to pale yellowish and may be spotted with grey. The voice of the Canadian toad is a short, low-pitched repeat of about 30 seconds.

Red-sided Garter Snake (Thamnophis sirtalis)

Mating occurs mainly in early spring when eggs emerge from hibernation but may also occur in the fall just before hibernation. The red-sided garter snake has a wide range in late spring or early summer. Canadian amphibians may give birth together at sites which offer protection from predators (for example brush or rock piles). In the north, individual females reproduce only every second year (also called anestrous) while in the south the females are too short to accumulate enough nutrients for females to give birth every second year. This size is usually small but the young are relatively large. The young are independent from birth and receive nourishment from the mother. In summer, garter snakes are found in many areas where their main food sources, wood and chironomids, are abundant. Hibernation occurs from autumn to spring in areas separated from summer habitats. Garter snakes migrate long distances each spring and fall. Garter snakes are frequently killed while crossing highways and road mortality may be a serious problem, particularly in the NWT where populations are small and productivity is low.

Identification: The background colour of this snake is black with yellow stripes, and red hair occur on the sides between the stripes. The anal scale is divided.

Other amphibians which may occur in the NWT include the western toad (also called the boreal toad and the long-tailed salamander). These species, if they occur, are most likely to be found on the western side of the territory near the coastline or the tundra. The long-tailed salamander is grey, brown or black with a prominent green or yellow stripe down the back and white blocks on the sides. They hide under rocks, under leaf litter or under leaves. They are very cryptic. The western toad is very similar in appearance and lifestyle to the Canadian toad. Identifying features provided in the references listed at the end of this brochure will help to distinguish the two species.

Useful References for Identifying Amphibians and Reptiles


For species of amphibians are known to occur in the Northwest Territories (NWT), including the red-sided garter snake. Reptiles are represented by a single species, the northern leopard frog. The limited extent of our current knowledge of the distribution and abundance of amphibians and reptiles in the NWT is restricted by the harsh climate. The form provided and mail it back or drop it off. In fact, combined with their uncommon occurrence and effects on some amphibian populations. Leopard frogs are common in most parts of the world and some species have completely disappeared. Although the cause of some declines is known to be the result of human activities, many species are at risk due to habitat loss and pollution of aquatic environments, which are well known to be the result of human activities, largely due to activities such as logging, agriculture, and development. The boreal chorus frog is fairly common and widespread in the NWT at least as far north as the mouth of the South Nahanni River. They occur in lakes and ponds throughout the year, although they may fatten up further they need this to be sustained. The boreal chorus frog hibernates under objects such as logs and leaf litter and, like the wood frog, can tolerate some freezing. Eggs are laid in small clumps, submerged and attached to aquatic vegetation or pond margins. Development and metamorphosis occur in about two months. The boreal chorus frog is uncommon in the breeding the following year. They are short-lived and may not live more than a few weeks. Following the breeding the chorus frog inhabits damps, gravel or gravelly soil, and may be found in the first year it emerges. It is important to improve the distribution and abundance of amphibians and reptiles in the NWT by keeping records of your observations and returning them to the form provided and mail it back or drop it off. In fact, combined with their uncommon occurrence and effects on some amphibian populations. Leopard frogs are common in most parts of the world and some species have completely disappeared. Although the cause of some declines is known to be the result of human activities, many species are at risk due to habitat loss and pollution of aquatic environments, which are well known to be the result of human activities, largely due to activities such as logging, agriculture, and development. The boreal chorus frog is fairly common and widespread in the NWT at least as far north as the mouth of the South Nahanni River. They occur in lakes and ponds throughout the year, although they may fatten up further they need this to be sustained. The boreal chorus frog hibernates under objects such as logs and leaf litter and, like the wood frog, can tolerate some freezing. Eggs are laid in small clumps, submerged and attached to aquatic vegetation or pond margins. Development and metamorphosis occur in about two months. The boreal chorus frog is uncommon in the breeding the following year. They are short-lived and may not live more than a few weeks. Following the breeding the chorus frog inhabits damps, gravel or gravelly soil, and may be found in the first year it emerges. It is important to improve the distribution and abundance of amphibians and reptiles in the NWT by keeping records of your observations and returning them to the form provided and mail it back or drop it off. In fact, combined with their uncommon occurrence and effects on some amphibian populations. Leopard frogs are common in most parts of the world and some species have completely disappeared. Although the cause of some declines is known to be the result of human activities, many species are at risk due to habitat loss and pollution of aquatic environments, which are well known to be the result of human activities, largely due to activities such as logging, agriculture, and development. The boreal chorus frog is fairly common and widespread in the NWT at least as far north as the mouth of the South Nahanni River. They occur in lakes and ponds throughout the year, although they may fatten up further they need this to be sustained. The boreal chorus frog hibernates under objects such as logs and leaf litter and, like the wood frog, can tolerate some freezing. Eggs are laid in small clumps, submerged and attached to aquatic vegetation or pond margins. Development and metamorphosis occur in about two months. The boreal chorus frog is uncommon in the breeding the following year. They are short-lived and may not live more than a few weeks. Following the breeding the chorus frog inhabits damps, gravel or gravelly soil, and may be found in the first year it emerges. It is important to improve the distribution and abundance of amphibians and reptiles in the NWT by keeping records of your observations and returning them to the form provided and mail it back or drop it off.
And Canadian toads have declined in Alberta, and this is likely among the least studied and most poorly known to be the result of human activities, largely due to habitat loss and pollution of aquatic environments.

Populations of amphibians have declined in many parts of the world and some species have completely disappeared. These differences in adaptation to land and in the water, respectively. The red-sided garter snake.

The chorus frog and wood frog are freeze-tolerant and hibernate on land within the frost zone. They are very tolerant and must hibernate below the frost zone, on land and in the water, respectively. The red-sided garter snake is able to survive slight sub-zero temperatures but are killed by freezing when exposed to the surface or by long-term sub-freezing temperatures. These differences in adaptation to cold are species-specific and occur in terms of distribution and abundance. The toad may occur in the extreme southwestern corner of Canada and has the most rapid metamorphosis and is highly active in the first year of life. The call of the wood frog is a drawn-out rising trill. Just prior to hibernation in spring, frogs may appear extremely dark above, whereas the remaining species are somewhat pale. The call of the wood frog is a drawn-out rising trill. The wood frog tadpole near metamorphosis. The underside is a light grey to pinkish. It has a blue line running from the eye to the groin. However, this striping may be absent, particularly in males. The underside is often with dusky mottling. There are very few distributional records for information is required on the distribution of all species in the NWT. There are very few distributional records for amphibians and reptiles in the NWT. There are very few distributional records for amphibians and reptiles in the NWT. There are very few distributional records for amphibians and reptiles in the NWT. There are very few distributional records for amphibians and reptiles in the NWT. There are very few distributional records for amphibians and reptiles in the NWT.
Four species of amphibians are known to occur in the Northwest Territories (NWT), including the Canadian toad, bullfrog, chorus frog, and northern leopard frog. In addition, the western toad may occur in the extreme southwestern corner of the territory. Reptiles are represented by a single species, the isolated garter snake.

As amphibians and reptiles are unique and widespread in the NWT, at least as far north as the mouth of the South Nahanni River, there are very few places they are not common. As a result, they are often further south but this needs to be verified. The northern leopard frog embraces myriad environments and dominates the aquatic fauna. It has an unmistakable white underbelly. It grows to a maximum length of 70 mm, is omnivorous and can be found in a variety of aquatic environments, and in late fall they return to lakes and ponds to hibernate in a deep burrow. This is a great family activity in the outdoors, and chances are you might see more than just frogs, toads, or snakes.

What life stage did you observe? Did you see or hear the amphibians? Time:

E-mail: contacts@ecologynorth.org

Notes were sent or heard:

Contact information (description of specimen, diagram, map, etc.):
The chorus frog is fairly common and widespread in the NWT at least as far north as the mouth of the South Nahanni River. They might occur further south but this needs to be verified. The boreal chorus frog hibernates under objects such as logs and leaf litter in the form provided, usually in the undergrowth. Eggs are laid in small clumps, submerged and attached to aquatic vegetation in pond areas. Development and metamorphosis occur in about two months from the time the eggs are laid in the beginning of the year. They are short-lived and probably do not live to breed in a second year. Following breeding the chorus frog inhabits ponds, grassy or marshy areas. In the NWT it tends to spend part of the summer underground. These frogs may climb on vegetation, but rarely above the height of tall grasses.

The boreal chorus frog (Pseudacris maculata) is fairly common and widespread in the NWT; at least as far north as the mouth of the South Nahanni River. They might occur further south but this needs to be verified. The boreal chorus frog hibernates under objects such as logs and leaf litter in the form provided, usually in the undergrowth. Eggs are laid in small clumps, submerged and attached to aquatic vegetation in pond areas. Development and metamorphosis occur in about two months from the time the eggs are laid in the beginning of the year. They are short-lived and probably do not live to breed in a second year. Following breeding the chorus frog inhabits ponds, grassy or marshy areas. In the NWT it tends to spend part of the summer underground. These frogs may climb on vegetation, but rarely above the height of tall grasses.

Identification: The wood frog is smooth skinned and variable in colour, ranging from green, brown, and tan to grey, brown, or green. It grows to a maximum length of approximately 110 mm. The call of the wood frog is a long drawn-out rattling snore, usually punctuated at the end with several rapid short grunts. Eggs are laid in small clumps, submerged and attached to aquatic vegetation in pond areas. Development and metamorphosis occur in about two months from the time the eggs are laid in the beginning of the year. They are short-lived and probably do not live to breed in a second year. Following breeding the chorus frog inhabits ponds, grassy or marshy areas. In the NWT it tends to spend part of the summer underground. These frogs may climb on vegetation, but rarely above the height of tall grasses.

Northern Leopard Frog (Rana pipiens) The northern leopard frog appears to be uncommon in the NWT and is rare to occur only in the vicinity of the Slave, Talbot, and Tazin rivers. This species has declined in its occurrence over much of western Canada in recent decades. The leopard frog breeds in lakes, ponds, marshes, and in the middle of steams and rivers. In some years this common frog displays widely into riparian and aquatic environments. In late fall they return to lakes or ponds and hibernate, lying dormant on the bottom throughout the winter. Ponds or lakes which contain such animals are usually completely frozen to the bottom, or where the dissolved oxygen content of the water is sufficient. The leopard frog can be found in a wide variety of aquatic environments, including rivers and streams, ponds and lakes, marshes, and shallow bogs. In late fall they return to lakes or ponds and hibernate, lying dormant on the bottom throughout the winter. Ponds or lakes which contain such animals are usually completely frozen to the bottom, or where the dissolved oxygen content of the water is sufficient. The leopard frog can be found in a wide variety of aquatic environments, including rivers and streams, ponds and lakes, marshes, and shallow bogs.

The boreal chorus frog is fairly common and widespread in the NWT at least as far north as the mouth of the South Nahanni River. They might occur further south but this needs to be verified. The boreal chorus frog hibernates under objects such as logs and leaf litter in the form provided, usually in the undergrowth. Eggs are laid in small clumps, submerged and attached to aquatic vegetation in pond areas. Development and metamorphosis occur in about two months from the time the eggs are laid in the beginning of the year. They are short-lived and probably do not live to breed in a second year. Following breeding the chorus frog inhabits ponds, grassy or marshy areas. In the NWT it tends to spend part of the summer underground. These frogs may climb on vegetation, but rarely above the height of tall grasses.
Several species of amphibians are known to occur in the Northwest Territories (NWT), including the Canadian toad, boreal chorus frog, wood frog, and northern leopard frog. In addition, the western toad may occur in the extreme southwestern corner of the territory. Reptiles are represented by a single species, the red-sided garter snake. The amphibians and reptiles of the NWT are found in a wide variety of habitats, ranging from the high Arctic to the southernmost parts of the NWT. This rich diversity of species is found in northern Canada, and is among the least studied and most poorly understood across the continent.

The limited extent of our current knowledge of the amphibians and reptiles in the NWT restricts our ability to make informed decisions regarding their conservation. Populations of amphibians have declined in many parts of the world and some species have completely disappeared. Although there is evidence that some declines are known to be the result of human activities, largely due to habitat loss and pollution of aquatic environments, the reasons for the decline of other species are not well understood. Changes in weather patterns and increased levels of ultraviolet radiation may also have negative effects on some amphibian populations. Leopard frogs and Canadian toads have declined in Alberta, and this may affect populations in the NWT that share the same habitats.

The state of knowledge of amphibians and reptiles in the NWT is restricted by the harsh climate. The limited extent of our current knowledge of the amphibians and reptiles in the NWT restricts our ability to make informed decisions regarding their conservation. You can help us learn more about amphibians and reptiles in the NWT by keeping records of your observations and returning these data to us. Take this brochure with you during your field activities, and keep notes of your observations throughout the summer. You can help us learn more about amphibians and reptiles in the NWT by keeping records of your observations and returning them to us. Take this brochure with you during your field activities, and keep notes of your observations throughout the summer.

Northern Leopard Frog (Rana pipiens)

The northern leopard frog is fairly common and widespread in the NWT at least as far north as the mouth of the South Nahanni River. Their preferred habitat is the floodplain where they occur further south but this needs to be verified. The northern leopard frog hibernates under objects such as logs and leaf litter and, like the wood frog, avoids these by hibernating in crevices and small caves. Eggs are laid in small clumps and are sometimes attached to aquatic vegetation. Development and metamorphosis occur in about two months after hatching from the egg, and the tadpoles spend part of the summer underground. Tadpoles may climb into low vegetation, but rarely above the height of tall grass.

Wood Frog (Rana sylvatica)

Wood frogs occur further north than any other amphibian in North America. They are common throughout the boreal forests of the NWT from the Alberta border south to the Mackenzie Delta. This wide range in the north is due to a variety of environmental adaptations to the northern climate. The wood frog hibernates under leaves and other objects in the snow. Following hatching in spring, metamorphosis and development from egg to frog take place in early summer, but may be delayed due to relatively low temperatures. After metamorphosis, the tadpole is attached to aquatic vegetation and grows in size. Eggs are laid in clumps, submerged and attached to aquatic vegetation. Identification: The wood frog is smooth skinned and has the most rapid development from egg to tadpole of any North American frog. It has the most rapidly developing egg, and has the most rapid development of metamorphosis and growth. Growth in the wood frog is restricted by the harsh climate.
The Canadian toad appears to be the most widely distributed and abundant of North American amphibians. In the Northwest Territories, the red-sided garter snake is also found only in the Fort Smith region. The karst topography in this area is conducive to effective and where the frost penetrates below the surface. It hibernates in the manner of digging deeper into the earth as the frost penetrates before the surface. The Canadian toad is probably restricted to areas where it can dig effectively, and where the ground freezes only to a relatively shallow depth.

Identification: Toads are short-legged amphibians, generally thick skinned and rough in appearance. They are covered with warts, and have prominent crooked or kidney-shaped parotoid glands over the shoulders. The Canadian toad is generally grey-green or brown. The belly is white to pale yellowish and may be spotted with grey. The voice of the Canadian toad is a short, soft trill, repeated at intervals of about 30 seconds.

Canadian Toad (Bufo hemiophrys)

The garter snake is among the most widely distributed and abundant of North American amphibians. In the Northwest Territories, the red-sided garter snake is also found only in the Fort Smith region. The karst topography in this area is conducive to effective and where the frost penetrates below the surface. It hibernates in the manner of digging deeper into the earth as the frost penetrates before the surface. The Canadian toad is probably restricted to areas where it can dig effectively, and where the ground freezes only to a relatively shallow depth.

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Canadian Toad (Bufo hemiophrys)
Canadian Toad (Bufo hemiophrys)

The Canadian toad appears to be the most widely distributed and abundant of North American amphibians. In the Northwest Territories, the species is primarily restricted to the Fort Smith region. The karst topography in this area provides the crevices and caves necessary for hibernation. Hibernation is often commended in large groups, possibly because suitable sites are rare. These sites appear to provide relatively warm conditions, never falling below 0°C. Water may also be necessary in the dens and these sites sometimes submerge during hibernation.

Identification

Toads are short-legged amphibia, generally thick skinned and rough in appearance. They are covered with warts, and have prominent Food-kidney-shaped glands under the skin. The Canadian toad is generally grey-green or brown. The belly is white to pale yellowish and may be spotted with grey. The voice of the Canadian toad is a short, soft trill, repeated at intervals of about 30 seconds.

Ecology North

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Amphibians and Reptiles in the Northwest Territories

Red-sided Garter Snake (Thamnophis sirtalis)

Mating occurs mostly in early spring when snakes emerge from hibernation but may also occur in the fall just before hibernation. The red-sided garter snake lives in late winter or early summer. Canadian amphibians may give birth to live young at sites which offer protection from predators (for example brush or rock piles). In the north, individual females reproduce only every second year. Most of the young are independent from birth and receive no parental care. In summer, garter snakes are found in marshy areas where their main food sources, wood and chironomid flies, are abundant. Hibernation occurs in late winter or early spring separated from summer habitats. The red-sided garter snake is most likely to be found in the extreme southwestern corner of the territory. The long-toed salamander is grey, brown or black with a prominent green or yellow stripe down the back and white flanks on the sides. They hide under rocks, under leaf litter or in damp soil and are very camouflaged. The western toad is very similar in appearance and likeness to the Canadian toad. Identifying features provided in the references listed at the end of this brochure will help to distinguish the two species. A photograph (particularly of the head and back) taken in the field can assist in later identification.

Useful References for Identifying Amphibians and Reptiles

Other amphibians which may occur in the NWT include the boreal toad (Bufo boreas), karst toad (Bufonorris), wood frog (Rana sylvatica) and the red-spotted newt (Notophthalmus viridescens). All cover photos by: M. Fournier

Red-spotted Newt (Notophthalmus viridescens)

The red-spotted newt is most likely to be found in the extreme southwestern corner of the territory. The long-toed salamander is grey, brown or black with a prominent green or yellow stripe down the back and white flanks on the sides. They hide under rocks, under leaf litter or in damp soil and are very camouflaged. The western toad is very similar in appearance and likeness to the Canadian toad. Identifying features provided in the references listed at the end of this brochure will help to distinguish the two species. A photograph (particularly of the head and back) taken in the field can assist in later identification.

Useful References for Identifying Amphibians and Reptiles

Other amphibians which may occur in the NWT include the boreal toad (Bufo boreas), karst toad (Bufonorris), wood frog (Rana sylvatica) and the red-spotted newt (Notophthalmus viridescens). All cover photos by: M. Fournier

Useful References for Identifying Amphibians and Reptiles

Other amphibians which may occur in the NWT include the boreal toad (Bufo boreas), karst toad (Bufonorris), wood frog (Rana sylvatica) and the red-spotted newt (Notophthalmus viridescens). All cover photos by: M. Fournier
**Canadian Toad (Bufo hemiophrys)**

The Canadian toad appears to be the most widely distributed and abundant of North American amphibians. In the NWT it is most often found as a seasonal visitor only in the Fort Smith region. The ketogenic topography in this area provides the crevices and caves necessary for hibernation. Hibernation is often common in large groups, possibly because suitable sites are rare. These sites appear to provide relatively warm conditions, never falling below 0°C. Water may also be necessary in the den, and these sites sometimes submerge during hibernation.

Mating occurs mostly in early spring when snakes emerge from hibernation but may also occur in the fall just before hibernation. The red-sided garter snake lives in late spring or early fall. Canadian toads may give birth to both at sites which offer protection from predators (for example brush or rock piles). In the north, individual females reproduce only every second year and there is also a two-year interval between successive clutches. In the south, the young are relatively large. The young are independent from birth and receive no parental care. In summer, garter snakes are found in many areas where their main food sources, wood and chum hogs, are abundant. Hibernation occurs in early spring and may be prolonged, delayed, or separated from summer. northern garter snakes migrate long distances each spring and fall. Garter snakes are frequently killed while crossing highways and road mortality may be a serious problem; particularly in the NWT where populations are small and productivity is low. Identification: The background colour of this snake is black with yellow stripes, and red bars occur on the sides below the stripes. The anal scale is divided. Other amphibians which may occur in the NWT include the western toad (a small toad and the long-toed salamander). These species, if they occur, are most often found in springs or around the periphery of a river or lake. The long-toed salamander is grey, brown or black with a prominent green or yellow stripe down the back and white flecks on the sides. They hide under rocks, under leaves, or in rock piles. It is not a highly mobile species. The western toad is very similar in appearance and likely to the Canadian toad. Identifying features provided in the references listed at the end of this pamphlet will help to distinguish the two species. A photograph (particularly of the head and back) taken in the field can assist in later identification.

**Red-sided Garter Snake (Thamnophis sirtalis)**

The same habitat as the western toad and the long-toed salamander. These species, if they occur, are most often found in springs or around the periphery of a river or lake. The long-toed salamander is grey, brown or black with a prominent green or yellow stripe down the back and white flecks on the sides. They hide under rocks, under leaves, or in rock piles. It is not a highly mobile species. The western toad is very similar in appearance and likely to the Canadian toad. Identifying features provided in the references listed at the end of this pamphlet will help to distinguish the two species. A photograph (particularly of the head and back) taken in the field can assist in later identification.

**Useful References for Identifying and Learning More About Amphibians and Reptiles**


Other amphibians which may occur in the NWT include the western toad (also called the bullfrog), and the long-toed salamander. These species, if they occur, are most often found in springs or around the periphery of a river or lake. The long-toed salamander is grey, brown or black with a prominent green or yellow stripe down the back and white flecks on the sides. They hide under rocks, under leaves, or in rock piles. It is not a highly mobile species. The western toad is very similar in appearance and likely to the Canadian toad. Identifying features provided in the references listed at the end of this pamphlet will help to distinguish the two species. A photograph (particularly of the head and back) taken in the field can assist in later identification.

**Reptiles**

*All cover photos by: M. Fournier*

**Amphibians in the Northwest Territories**

Amphibians and reptiles are important components of the biodiversity of the Northwest Territories. They are often used as bioindicators of the health of their ecosystem. They are also valued for their aesthetic qualities, their cultural significance, and the ecological services they provide, such as pest control. They are also an important part of the diet of many species, including humans.

Canadian Toad (Bufo hemiophrys)

The Canadian toad is the most widely distributed and abundant of North American amphibians. It is very common in the western toad region as it is found in almost every province in Canada. It is also very common in the NWT. The toad is a very common and important species in the NWT.

Red-sided Garter Snake (Thamnophis sirtalis)

The red-sided garter snake is found in most of the NWT. It is a small snake that is very common in the NWT. It is a very common snake in the NWT. It is also a very common snake in the NWT. The snake is a very common snake in the NWT.

Other amphibians which may occur in the NWT include the western toad and the long-toed salamander. These species, if they occur, are most likely to be found in the extreme southwestern corner of the territory. The long-toed salamander is very common in the NWT. It is a very common snake in the NWT. It is also a very common snake in the NWT. The snake is a very common snake in the NWT.
Several females may lay their eggs in close proximity. Ideal breeding pools in ponds and marshes should be at least 20 cm deep to dump woodchips, although they may remain around pond margins for much of the summer.

Identification: The wood frog is smooth skinned and variable in colour, ranging from brown, tan, grey or pink to purple. It has a dark eye mask, white jaw stripe and creamy underside with dusky mottling. There must be a light stripe running down the middle of the back.

When adults emerge from hibernation in spring, they may appear uniformly dark above, making it difficult to observe the characteristic dark eye mask and white jaw stripe. Adults range up to 30 mm in length but first year frogs are approximately half this size. Tadpoles undergo metamorphosis and emerge from the froglets in about 10 days.

The amphibians and reptiles of the NWT are unfortunately among the least studied and most poorly understood of any province or territory in Canada. More information is required on the distribution of all species in the NWT. There are very few detailed records for local frogs, northern leopards, Canadian toads, and red-sided garter snakes. There is only one unconfirmed record of the western toad in the NWT and restricted distribution in the NWT provides reason for conservation. It is important that we impress the state of decline of amphibians and reptiles in the NWT, as the future is likely to bring considerable change to the region.

Wood Frog (Rana sylvatica)

Wood frogs occur farther north than any other amphibian in North America. They are common throughout the boreal forest of the NWT from the Alberta border north to the Mackenzie Delta. This wide range in the north is due to a variety of latitude and altitude adaptations to the northern climate. The wood frog hibernates under leaves and other debris in the leaf litter and has a tolerance of up to -4°C sub-zero temperatures for its survival. The wood frog is well adapted to terrestrial living and is relatively low temperatures are the rule in boreal forest. After development from egg to tadpole, the wood frog is free to move on land. Eggs are laid in globular masses, submerged and often attached to sedges or other aquatic plants. Several females may lay their eggs in close proximity. Ideal breeding pools in ponds and marshes should be at least 20 cm deep for a successful mating season. The young wood frogs, now tadpoles, are approximately half this size. Tadpoles undergo metamorphosis and emerge from the froglets in about 10 days.

The boreal chorus frog is fairly common and widespread in the NWT at a few or north as the mouth of the South Nahanni River. They have been recorded only in the latitudes where they occur farther north, but this needs to be verified. The boreal chorus frog hibernates under leaves or snow and tolerates some freezing. Eggs are laid in small clumps, submerged and attached to aquatic vegetation in ponds and marshes. Development and metamorphosis occur in about two months after hibernation in the following year. They are short-lived and probably do not live to breed in a second season. Following breeding the chorus frog inhabits damps, gravel or sand. It is able to tolerate some freezing. Eggs are laid part of the summer underground. These frogs may clump together in masses, but are usually above the height of tall grasses.

Identification: The boreal chorus frog has skin which is somewhat granular (pebbly) in texture (particularly noticeable when newly emerged) and is usually green, grey, brown, or green. It grows to a maximum length of 9 cm. It has a dark eye mask, white jaw stripe and creamy underside with dusky mottling. There must be a light stripe running down the middle of the back.

The chorus frog and wood frog are freeze-tolerant and must hibernate below the frost zone, on land and in the water, respectively. The wood frog is able to survive slight sub-zero temperatures but algae by hibernating under water. The red-sided garter snake is able to survive slight sub-zero temperatures but algae by hibernating under water. The red-sided garter snake is able to survive slight sub-zero temperatures but algae by hibernating under water.
Canadian Toad (Bufo hemiophrys)

The Canadian toad appears to be uncommon in the NWT, and is currently known to occur only in the Fort Smith region. This species has declined in abundance in some parts of western Canada in recent years. Canadian toads are completely terrestrial except for a brief period in spring when they congregate to breed in moist mud, shallow edges of lakes or slow flowing rivers. Unlike frogs which lay their eggs in globular masses, toads lay their eggs in strings (typically less than 2 cm long) simultaneously. Their hind feet have hard projections for digging, which a toad can lock down, using a shuffling motion that allows it to sink into the ground. They may remain with only its head exposed for temporary hibernation. Hibernation is often communal (in large groups), possibly because suitable sites are rare. These sites appear to provide relatively warm conditions, never falling below 0°C. Water may also be necessary in the den and these toads sometimes emerge during hibernation.

Identification: Toads are short-legged amphibians, generally thick-skinned and rough in appearance. They are covered with warts, and have prominent head or kidney-shaped external gills on the sides of the head. The Canadian toad is generally grey-green or brown. The belly is white to pale yellowish and may be spotted with grey. The voice of the Canadian toad is a short, soft trill, repeated at intervals of about 30 seconds.

Canadian Toad

Canadian Toad

Canadian Toad

Canadian Toad

Canadian Toad

Canadian Toad

Red-sided Garter Snake (Thamnophis sirtalis)

Mating occurs mostly in early spring when snakes emerge from hibernation but may also occur in the fall just before hibernation. The red-sided garter snake lives in late spring or early summer. Garter snakes may be found in almost any area where they offer protection from predators such as brush or rock piles. In the north, individuals reproduce only every second or third year. In the south, the reproduction is more frequent, with a male receptive to a female when she is ready to lay eggs to accumulate sufficient nutrients for females to give birth every year. The young are relatively large, born from birth and receive no parental care.

In summer, garter snakes are found in many areas where their main food sources, wood and chironomids are abundant. Hibernation sites are dug by the snakes separated from summer haunts and garter snakes to migrate long distances each spring and fall. Garter snakes are frequently killed while crossing highways and road mortality may be a serious problem, particularly in the NWT where populations are small and productivity is low.

Identification: The background colour of this snake is black with yellow stripes, and red bars occur on the sides. A yellow patch may be present at the corner of the mouth. The western toad is very similar in appearance and likeness to the Canadian toad. Identifying features provided in the references listed at the end of this brochure will help to distinguish the two species. A photograph (particularly of the head and back) taken in the field can aid in later identification.

Useful References for Identifying Amphibians and Reptiles
