

A GUIDE TO THE
REPTILES AND AMPHIBIANS
OF THE STATE PARKS
SOUTHEASTERN AREA

by

JAMES E. and PAMELA J. GERHOLDT

P.O. BOX 86

WEBSTER, MN 55088

612-652-2996

INTRODUCTION

This packet contains species accounts of all reptiles and amphibians that may possibly occur in your park. All of these may not be found in your park, but most should be. Each of these accounts includes a color photo. All photos are by Barney Oldfield.

An audio tape of all frog and toad species found in the southeastern part of Minnesota is also included.

Each packet includes a supply of DNR green slips for reporting specimens and sightings. These should be sent to Kathy Bolin, who will process them. Also included is a copy of Field Herpetology: Methods for the Study of Amphibians and Reptiles in Minnesota by Daryl Karns. This should be especially useful to you.

Each species account follows the same format and are brief both for convenience and ease of use. Sizes given are as follows:

- Snakes - total length (rattlesnakes to base of rattle)
- Lizards - Snout-vent length
- Turtles - straight line carapace length
- Salamanders - snout-vent length
- Frogs and Toads - body length

These packets are intended to be used as a field guide to the reptiles and amphibians of your park. Hopefully, they will be useful not only to you, but also to your park visitors when a species is observed by them. If you have any questions, or any criticisms, please let us know.

DOCUMENTATION OF AMPHIBIAN AND REPTILE OBSERVATIONS

In an effort to increase our knowledge of the distribution of amphibians and reptiles in Minnesota, the Nongame Wildlife Program is requesting reports of observations from the staff of the Division of Parks and Recreation in Region 5. Green slips have been provided for this purpose. In order to maintain the quality of these reports, we request the following information be provided on all green slips submitted.

1. Name of Species: This should be determined from either the information that has been provided or some other reliable reference source, or left as unknown. Try to use as precise a name as possible.
2. Location: The more precise the better. General descriptions (e.g. "5 miles S of Stillwater") are not acceptable. The correct location should be descriptive and have the legal description (e.g. "MN, Washington Co., West Lakeland, Jct. of Co. Rd. 21 and 19th St. N (T29N R20W Sec 27 $\frac{1}{4}$ NE $\frac{1}{4}$ NW)"). The map on the back side of the green slip should be used for this purpose.
3. Specimen Verification: These are critical for confirming observations. Please use the Remarks section of the green slip to record the type of verification that accompanies the green slip.
 - A. Voucher: This could be a roadkill, or even an empty turtle shell. The holding of live animals is discouraged (see 3.B. below). The possession of a live Blanding's or Wood Turtle and Five Lined Skink is illegal without a permit! Roadkill specimens can be preserved in formalin or frozen (use a ziploc bag). Any voucher specimen should always be accompanied by a tag or some other means of associating the voucher with a green slip.
 - B. Photograph: Clear photographs of a specimen are acceptable. The photos should be full frame of the animal. If possible dorsal (back), ventral (underside), and a closeup side view of the head should all be taken. The photos should be slides, and should have the name of the photographer, date of photo, and location printed on the border.
 - C. Tape Recordings: Recordings can be used to identify frogs and toads.
 - D. Written Descriptions and Drawings: These are discouraged since there are a number of species that are easily confused. If a written description or drawing is all you can provide then please be as detailed as possible.

RACER (*Coluber constrictor*)

Description - This is a medium sized, slender snake. The adult size ranges from 36 to 60 inches, with the record size being 72 inches. The dorsal ground color ranges from blue, gray, to brown. The chin and throat may be yellow or white, with the rest of the ventral surface being white. The young are much like a Milk or Fox Snake in appearance, attaining the adult coloration in the third year, at a length of 2½ to 3 feet. The scales are smooth and the anal plate is divided.

Habitat - This snake prefers open habitat such as woodland margins and field edges. Sandy plains and gravel hillsides are ideal.

Habits - This is a fast moving snake, but can only hit about 10 mph. It is usually terrestrial, but may forage into low bushes. It is diurnal and may be active in the heat of a hot summer day. It is a nervous species and will vibrate its tail if disturbed. It will also defend itself with some vigor.

Food - Insects, snakes, lizards, frogs, and small rodents. The food is grabbed and swallowed alive. Constriction is not used.

Breeding - This is an egg laying species. From 6 to 25 eggs are laid in late June or early July, hatching in late August or early September. The eggs measure about 20 x 30 mm and the young are 8 to 9 inches at hatching.

Key Diagnostic Feature - Unmarked ventral surface.

Status - Special Concern.

TIMBER RATTLESNAKE (*Crotalus horridus*)

Description - This is a large, heavy bodied snake. The adult size ranges from 36 to 54 inches, with the record size being 74 inches. The dorsal ground color is yellow to brown with dark brown or black crossbars. Rarely, the ground color may be gray. The ventral surface is yellow to white with some black speckling. The tail is black and tipped with a rattle. A facial pit is located in front of and below the eyes. The scales are heavily keeled and the anal plate is single.

Habitat - Steep bluffs and rock ledges along the Mississippi River and inland. In the summer they may be found in adjacent forest and cropland areas.

Habits - This is a normally docile species and may not rattle or strike, even if disturbed. They are primarily terrestrial, but may be found in low shrubs.

Food - Mice, voles, chipmunks, squirrels, ground squirrels, and birds. A bat has also been recorded. The prey is killed by envenomation.

Breeding - This is a live bearing species. From 6 to 15 young are born in late August of early September. They measure 8 to 12 inches at birth.

Key Diagnostic Feature - Dark crossbars and rattle on tail.

Status - Special Concern.

RINGNECK SNAKE (*Diadophis punctatus*)

Description - This is a small slender snake. The adult size ranges from 10 to 14 inches, although the record size is over 16 inches. The dorsal ground color varies from blue-black, blue-gray, or slate to brown. The ventral color is yellow to orange or red, with numerous spots. There is a distinctive neck ring that matches the ventral color. The scales are smooth and the anal plate is divided.

Habitat - This is a snake of the woodlands. Rocky hillsides in open woods are ideal. Plentiful ground cover is essential.

Habits - This is a secretive species and is often found in groups under the same rock. When annoyed, it may hide its head and expose its brightly colored tail in a corkscrew like shape. It may also feign death.

Food - Snakes, lizards, salamanders, frogs, insects, and earthworms. Despite its small size, this snake is a powerful constrictor.

Breeding - This is an egg laying species. From 1 to 6 elongate eggs are laid in June and July. Nesting may be communal. The eggs measure about 7 x 27 mm and may hatch in a few weeks to over 2 months. This species may sometimes produce live young.

Key Diagnostic Feature - Bright neck ring and bright ventral surface with spots.

Status - None.

RAT SNAKE (*Elaphe obsoleta*)

Description - This is a large, medium bodied snake. The adult size ranges from 42 to 72 inches, with the record size being 101 inches. The dorsal ground color is black with faint markings and blotches of yellow or white. The ventral surface is gray or brown with some white or yellowish diffusions. The chin and throat are white or cream. The young have a pattern of dark blotches on a lighter gray ground color. The scales are weakly keeled and the anal plate is divided.

Habitat - This is a woodland species, preferring moist forests and forest edges in the summer and rocky outcrops and bluffs in the fall and spring. The few Minnesota records have all been from the tops and backsides of wooded bluffs.

Habits - This is an arboreal species and may be found high up in trees, where it may retreat to holes when threatened. The tail may be vibrated.

Food - Small mammals, nestling birds, eggs, tree frogs, and lizards. The prey is constricted.

Breeding - This is an egg laying species. From 6 to 22 eggs are laid in late July, often in rotting wood. Nesting may be communal and hatching takes place in September. The eggs measure about 22 x 44 mm and the young are 11 to 16 inches.

Key Diagnostic Feature - Light chin and throat and darker ventral surface.

Status - Special Concern.

FOX SNAKE (*Elaphe vulpina*)

Description - This is a large, medium bodied snake. The adult size ranges from 36 to 54 inches, with the record size being just over 70 inches. The dorsal ground color is yellow, tan, or gray with 34 to 43 bold, darker blotches. The ventral surface is yellowish with scattered rectangular markings. The head of the adult is usually solid brown or orange, while the young have head markings. The scales are weakly keeled and the anal plate is divided.

Habitat - This is a snake of river bottoms and adjacent woodlands. It is often associated with wooded bluffs.

Habits - This snake may often be seen sunning on logs and on trees along the larger rivers and their tributaries. It is diurnal and relies heavily on its protective coloration. It will vibrate the tail when annoyed.

Food - Small mammals, birds, eggs, and frogs. Frogs are likely an important food for the young. The prey is constricted.

Breeding - This is an egg laying species. From 8 to 27 eggs are laid in late June in old stumps, under logs, or in moist humus. Hatching usually takes place in late August. The eggs measure about 28 x 45 mm and the young are 10 to 12 inches in length.

Key Diagnostic Feature - Patterned ventral surface and divided anal plate.

Status - Special Concern.

WESTERN HOGNOSE SNAKE (*Heterodon nasicus*)

Description - This is a medium sized, stout bodied snake. The adult size ranges from 16 to 25 inches, with the record size being just over 35 inches. The dorsal ground color is a light yellowish tan to a grayish olive, or even a rich brown. There is a series of dark, oval middorsal blotches with smaller ones along the sides. The ventral surface is white to yellowish with masses of dark pigment, sometimes with orange or yellow mixed in. The head is marked with long dark blotches, and the rostral is sharply upturned. The scales are keeled and the anal plate is divided.

Habitat - This is a snake of the sand prairies.

Habits - When first disturbed, this snake will "hood", hiss, and strike. The mouth is not opened and it will not bite. The next step is to open the mouth, protrude the tongue, and roll over on its back and "die". If turned back on its belly, it will immediately roll right back over onto its back!

Food - Frogs, toads, lizards, and mice. Toxic saliva numbs the prey.

Breeding - This is an egg laying species. From 4 to 14 eggs are laid in June and July, hatching in August and September. They measure about 20 x 35mm and the young are 5½ to 7 ¾ inches at hatching.

Key Diagnostic Feature - Sharply upturned rostral and dark underside of the tail.

Status - Special Concern.

EASTERN HOGNOSE SNAKE (*Heterodon platirhinos*)

Description - This is a medium sized, stout bodied snake. The adult size ranges from 20 to 33 inches, with the record size being 45½ inches. The dorsal ground color varies from gray to brown, with a series of dark brown blotches. In some specimens these blotches are faint or absent. The ventral surface is mottled, and the underside of the tail is light. The rostral is upturned, but not as much as in the Western Hognose. The scales are keeled and the anal plate is divided.

Habitat - Sandy areas are required for this species.

Habits - When first disturbed, this snake will "hood", hiss, and strike. The mouth is not opened and it will not bite. The next step is to open the mouth, protrude the tongue, and roll over on it back and "die". If turned back on its belly, it will immediately roll right back over onto its back!

Food - Primarily toads, and frogs. Toxic saliva numbs the prey.

Breeding - This is an egg laying species. From 8 to 61 eggs are laid, usually in June. Incubation takes about 2 months. The eggs measure about 20 x 31 mm and the young are 7 to 8 inches long.

Key Diagnostic Feature - Upturned rostral and light underside of the tail.

Status - Special Concern.

MILK SNAKE (*Lampropeltis triangulum*)

Description - This is a medium sized, rather slender snake. The adult size ranges from 24 to 36 inches, but the record size is 52 inches. The dorsal ground color is gray to light brown with a series of large middorsal reddish brown to brown blotches. A border of black spots surrounds these and a row of smaller blotches runs down each side. The ventral surface resembles a checkerboard. The young are much brighter than the adults. There is usually a Y or V shaped marking on the neck. The scales are smooth and the anal plate is single.

Habitat - Moist wooded valleys, preferring rocky areas.

Habits - This is a terrestrial species, but may sometimes be found foraging in bushes. It is called Milk Snake because of the mistaken belief that it hangs around barns to milk the cows. Obviously, the cow would not tolerate such a mouthful of little sharp teeth. Ouch! The tail may be vibrated if the snake is disturbed.

Food - Rodents, snakes, lizards, and insects. The prey is killed by constriction.

Breeding - This is an egg laying species. From 6 to 18 eggs are laid in rotten logs or stumps in June, hatching in late August or early September. The eggs measure about 20 x 45 mm, and the young measure about 6 to 8 inches at hatching.

Key Diagnostic Feature - Y or V on neck and checkerboard pattern on belly.

Status - Special Concern.

NORTHERN WATER SNAKE (*Nerodia sipedon*)

Description - This is a medium sized, heavy bodied snake. The adult size ranges from 24 to 42 inches, with the record size being 53 inches. The dorsal ground color is gray, brown, or tan with 30 or more dark brown to red brown bands or blotches. The ventral surface is white with bright red half moons and dark gray speckling. The young are more brightly colored than the adults, and the pattern becomes obscure with age. The scales are keeled and the anal plate is divided.

Habitat - The edges of streams, rivers, and swamps. In Minnesota, running streams seem to be a preferred habitat.

Habits - This is a foul tempered snake, biting and voiding the cloaca if restrained. They are semi-aquatic and may be seen on logs or the roots of trees where they bask. If disturbed, they take refuge in the water. They may also flatten their body, making them look larger and fiercer.

Food - Frogs, toads, salamanders, tadpoles, fish, and small mammals. The prey is simply overpowered and swallowed alive.

Breeding - This is a live bearing species. From 10 to 48 young are born in August and September. They measure about $7\frac{1}{2}$ to 9 inches at birth.

Key Diagnostic Feature - Ventral surface with bright red half moons.

Status - None

SMOOTH GREEN SNAKE (*Opheodrys vernalis*)

Description - This is a small slender snake. The adult size ranges from 14 to 20 inches, with the record size being only 26 inches. The dorsal ground color is a bright emerald green, but may be gray to brownish green in some specimens. The ventral surface is whitish to light yellow. The scales are smooth and the anal plate is divided.

Habitat - This snake prefers an open, grassy area. Prairie, savannah, and edges of forests may harbor colonies.

Habits - This is normally a docile species, but there are exceptions. It may gape widely and strike if disturbed. It is terrestrial.

Food - Spiders, crickets, caterpillars, ants, and slugs. Soft bodied caterpillars are an important food item. The prey is grasped and swallowed.

Breeding - This is an egg laying species. From 3 to 11 eggs are laid June and July, often in tree hollows. Nesting is communal. Incubation only takes about 30 days, and there are records of 4 days. The eggs measure about 13 x 23 mm, and the young are 4 to 6½ inches at hatching.

Key Diagnostic Feature - Green dorsal color. Racers this small are still patterned.

Status - None.

BULLSNAKE (*Pituophis catenifer*)

Description - This is a large, heavy bodied snake. The adult size ranges from 50 to 72 inches, with the record size being just over 102 inches. The dorsal ground color is usually a straw yellow and the snake is marked with a series of dark dorsal blotches. These blotches vary from black to brownish. The tail has a banded pattern and the head is yellow with irregular darker markings. The ventral surface is whitish with scattered black or brown mottled rectangles. The rostral is enlarged, which gives the snake a pointed nose. The scales are heavily keeled and the anal plate is single.

Habitat - This is a snake of areas of loose sandy and gravel soils. Dry sand prairies and goat prairies are a favorite.

Habits - An angry Bullsnake is a sight to remember. The tail is vibrated, the mouth gapes, and the snake hisses loudly and strikes. It is often seen sunning near the mouth of rodent burrows.

Food - Mice, ground squirrels, gophers, rabbits, and sometimes frogs are consumed. The prey is killed by constriction, or in some cases, by pinning it against the side of a rodent burrow.

Breeding - This is an egg laying species. From 10 to 19 eggs are laid in late June or early July, hatching in late August and early September. They measure about 34 x 48 mm and the young are 16 to 17 inches at hatching.

Key Diagnostic Feature - Enlarged rostral and single anal plate.

Status - Special Concern.

MASSASAUGA (*Sistrurus catenatus*)

Description - This is a medium sized, stout bodied snake. The adult size ranges from 20 to 30 inches, with the record size being just over 39 inches. The dorsal ground color is gray or light brown with a series of large dark middorsal blotches. 2 or 3 rows of smaller blotches run along the sides. The ventral surface is black with irregular light markings. The tail is tipped with a rattle. A facial pit is located in front of and below the eyes. The scales are keeled and the anal plate is single.

Habitat - This is a snake of the swampy bottomlands along the Mississippi River.

Habits - This snake will remain quiet if encountered, relying on its protective coloration. The tiny rattle is often difficult to hear. It may be found sunning itself on the top of a muskrat house.

Food - Voles, deer mice, shrews, blackbirds, garter snakes, and frogs. The prey is killed by envenomation.

Breeding - This is a live bearing species. From 5 to 20 young are born in late August, either in rodent burrows or under a fallen log. The young average 8 to 9 inches at birth.

Key Diagnostic Feature - Large middorsal blotches and rattle on tail.

Status - Special Concern.

BROWN SNAKE (*Storeria dekayi*)

Description - This is a small, medium bodied snake. The adult size ranges from 9 to 13 inches, with the record size being about 19 inches. The dorsal ground color is light brown or gray with a light middorsal stripe bordered on each side by a row of dark spots. There is a dark blotch on each side of the neck. The ventral surface is pinkish to white with small dark spots along the edges of the scales. The young have a light band around the neck. The scales are keeled and the anal plate is divided.

Habitat - This snake prefers moist areas. Marshes, fields, and hardwood forests are ideal.

Habits - This snake is usually found underneath surface litter. It may flatten itself out and threaten if disturbed, and may emit a mild musk from the cloaca.

Food - Earthworms, slugs, and snails. Prey is swallowed alive.

Breeding - This is a live bearing species. From 5 to 24 young are born in the late summer or early fall. They range from just over 3 inches to just over 4 inches at birth.

Key Diagnostic Feature - Dark blotch on each side of the neck.

Status - None.

REDBELLY SNAKE (*Storeria occipitomaculata*)

Description - This is a small, medium bodied snake. The adult size ranges from 8 to 10 inches, with the record size being 16 inches. The dorsal ground color is reddish brown to steel gray with a broad middorsal light stripe. There are 2 narrow dark stripes down each side. The ventral surface is a bright red and is unmarked. There are usually 3 pale yellow or whitish spots on the back of the head. The young have darker dorsal surfaces and paler ventral surfaces. The scales are keeled and the anal plate is divided.

Habitat - This snake is found in a wide variety of habitats. Hardwood forests, boreal forests, and sphagnum bogs are all utilized. It may also be found in farmland.

Habits - This snake is usually found beneath surface litter. It will rarely attempt to bite, but may emit a mild musk. Death feigning has been recorded, with the snake stiffening itself into a "stick".

Food - Slugs, earthworms, snails, and beetle larvae. The prey is swallowed alive.

Breeding - This is a live bearing species. From 2 to 14 young are born in the late summer or early fall. Females may congregate at this time. The young measure from 2 3/4 to 4 inches at birth.

Key Diagnostic Feature - Bright red unmarked ventral surface.

Status - None.

PLAINS GARTER SNAKE (*Thamnophis radix*)

Description - This is a medium sized, slender snake. The adult size ranges from 20 to 28 inches, with the record size being 41 inches. The dorsal ground color is dark brown to olive to black with a middorsal and 2 lateral stripes that are yellow to yellow-orange. The lateral stripes are on the third and fourth dorsal scale rows. The ventral surface is yellow to yellow-green. There are black bars on the lip scales and a row of black spots between the lateral stripes and the ventral surface. The scales are keeled and the anal plate is single.

Habitat - This is a snake of the prairie sloughs and pond edges. They may also be found in open meadows.

Habits - This snake is less prone to bite than the Common Garter but will still emit a smelly discharge from its cloaca when disturbed. A specimen from Rice Co. was seen to hide its head in its coils and wave its tail in a defensive manner.

Food - Frogs, toads, earthworms, salamanders, salamander larvae, fish, insects, and small mammals. The prey is grasped and swallowed alive.

Breeding - This is a live bearing species. From 5 to 92 young are born in July and August. The young measure about 7½ inches at birth.

Key Diagnostic Feature - Lateral stripes on the third and fourth dorsal scale rows and black bars on the lip scales.

Status - None.

COMMON GARTER SNAKE (*Thamnophis sirtalis*)

Description - This is a medium sized, slender snake. The adult size ranges from 18 to 26 inches, with the record size being a little over 48 inches. The dorsal ground color ranges from a black to brown to olive-green. There is a yellow middorsal stripe and 2 lateral yellow stripes. The lateral stripes are on the second and third dorsal scale rows. The ventral surface is yellowish to greenish. There are normally no black marks on the lip scales. There may be red or orange bars present on the sides. The scales are keeled and the anal plate is single.

Habitat - This is a snake of many habitats. It may be found in woods, along rivers and streams, in marshy areas, pond edges, and even in city parks and vacant lots.

Habits - When disturbed, this snake emits a foul smelling musk from its cloaca. It may also bite. It is active both during the day and at night.

Food - Frogs, toads, salamanders, fish, and earthworms. Birds and small mammals may also be eaten. The prey is overpowered and swallowed alive.

Breeding - This is a live bearing species. From 3 to 73 young are born in the late summer or early fall. The young are about 6 inches long at birth.

Key Diagnostic Feature - Lateral stripes on the second and third dorsal scale rows and normally no black marks on the lip scales.

Status - None.

SIX-LINED RACERUNNER (*Cnemidophorus sexlineatus*)

Description - This is a small lizard. The average adult size is 1 3/8 to 3 1/8 inches. It is streamlined with a long snout and a long tail. The ground color is brown to dark brown with 6 light yellow or yellow-green stripes on the back. Adults have gray or light brown tails and juveniles have greenish tails. Females and juveniles are white to light gray underneath and the males are tinged with blue underneath. Both sexes are a bright greenish on the sides.

Habitat - Dry prairies on the sides of hills and dry mesic prairies above river floodplains. May also be found in dune areas and may extend to adjacent woodlands.

Habits - This is a shy species and is diurnal. They move in dashes and jerks while foraging. When pursued, they take refuge in burrows. The tail may be shed.

Food - Insects.

Breeding - Breeding takes place in the spring and 3 to 8 eggs measuring about 9 x 17 mm are laid in the sand in June. Hatching takes place in August.

Key Diagnostic Feature - Long slender tail and 6 dorsal stripes.

Status - None.

FIVE-LINED SKINK (*Eumeces fasciatus*)

Description - This is a small lizard. The average adult size is 2 3/8 to 3 1/8 inches. The skin is smooth and shiny. The ground color is black, with 5 distinct light yellow dorsal stripes but these may fade in adult males. The tail is bright blue in the young and adult females. The middorsal stripe changes to a "V" on the head.

Habitat - Rocky bluff bases, forest edges, oak savannas, and dry northern hardwood forests. Areas with stumps, rotten logs, and sawdust piles are prime habitat.

Habits - This is a shy species, and will seek refuge quickly. They are diurnal and are most often found under surface litter. The tail is lost readily and may writhe about in an attempt to distract the predator.

Food - Insects, spiders, and snails.

Breeding - Breeding takes place in the spring and 6 to 13 white eggs are laid in June, usually in rotting logs or stumps or in humus. They measure about 8 x 11 mm. They are brooded by the female. The males develop reddish lips and heads during the breeding season.

Key Diagnostic Feature - 5 distinct light dorsal stripes and a "V" on the head.

Status - Endangered.

PRAIRIE SKINK (*Eumeces septentrionalis*)

Description - This is a small lizard. The average adult size is 1 3/4 to 3 1/8 inches. The skin is smooth and shiny. The ground color is olive to olive-brown, with 3 wide tan or light brown stripes separated by 2 narrow black lines on the back and tail. There are 3 black stripes separated by 2 narrow white stripes on either side of the body. There is no "V" on the head. Juveniles have bright blue tails.

Habitat - This is a prairie species, favoring open sandy areas. Gravel pits are also a favored habitat.

Habits - This is a shy species, and will seek refuge quickly. They are diurnal and may be seen foraging. They are often found under surface litter. The tail is lost readily and may writhe about in an attempt to distract a predator.

Food - Insects and spiders.

Breeding - Breeding takes place in the spring and 5 to 13 eggs are laid in June and July. They measure about 8 x 13 mm. They may be brooded by the female, and hatch in 1½ to 2 months. The males develop orange-red lips and throats during the breeding season.

Key Diagnostic Feature - No "V" on the head.

Status - None.

SLENDER GLASS LIZARD (*Ophisaurus attenuatus*)

Description - This is a large lizard, and lacks limbs. The average adult size is 22 to 42 inches in total length. The ground color is tan, buff, brown, or bronze. The ventral surface is light yellow. The dorsal surface is striped and there are 3 dark brown stripes. Eyelids and ear openings are present.

Habitat - Dry grasslands and sand prairies.

Habits - This is a secretive species, and wary. They may be seen foraging in the heat of the day. The tail is readily lost, and may break into several pieces.

Food - Insects, spiders, snails, and small snakes and lizards.

Breeding - Up to 15 eggs may be laid in June, and the female may brood them. The eggs measure about 7.5 x 10mm.

Key Diagnostic Feature - No legs, but with eyelids and ear openings.

Status - Possible border entrant.

SMOOTH SOFTSHELL (*Apalone mutica*)

Description - This is a large turtle. The average adult size for males is 5 to 7 inches, and for females 7 to 14 inches. The carapace is smooth, leathery, and almost round. The front has no spines or tubercles. The ground color of the carapace is light brown or tan with numerous dark dots and dashes in the young and adult males, and irregular dark blotches in the adult females. The plastron is white. The head, neck, and legs are olive or light brown above and white or light gray below. There is a peach colored stripe bordered with black extending from in front of the eye to the neck. The nostrils, when seen from the front, are round.

Habitat - This is strictly a river turtle. They are only found in areas of moving water, especially in sandy regions.

Habits - This turtle may be seen basking on sandbars or foraging on the river bottom. They tend to retreat into their shells when disturbed, and rarely attempt to bite. They are extremely wary.

Food - Molluscs, fish, crustaceans, insects, and amphibians.

Breeding - From 15 to 25 eggs are laid in the sand in June or early July. They measure about 20 to 24 mm in diameter, and are round. The young hatch in about 2 months, and are 1 3/8 to 1 3/4 inches in length.

Key Diagnostic Feature - No spines or tubercles on the front of the carapace, and round nostrils.

Status - None.

SPINY SOFTSHELL (*Apalone spinifera*)

Description - This is a large turtle. The average adult size for males is 5 to 9 $\frac{1}{4}$ inches, and for females 7 to 17 inches. The carapace is smooth, leathery, and almost round. The front has prominent spines. The ground color is green, olive-green, or brown with small dark brown spots that turn into large spots towards the center. In adult females, these spots turn into large blotches. The plastron is white, but may have dark areas of bone showing through. The head, neck, and legs are olive-green and speckled with black and streaked with yellow. There are 2 greenish-yellow stripes on each side of the head and neck. The nostrils, when viewed from the front, are almost round, with horizontal ridges.

Habitat - This is primarily a river turtle, but may be found in large lakes and stream fed ponds. They much prefer a sandy or muddy bottom.

Habits - This can be an extremely vicious species, quite the opposite of the Smooth softshell. It should be handled with great care.

Food - crayfish, aquatic insects, fish, molluscs, and carrion.

Breeding - From 15 to 38 round brittle eggs are laid in the sand in June and July, measuring about 24 to 30 mm in diameter. The young hatch in about 2 months and are 1 $\frac{1}{4}$ to 1 $\frac{3}{4}$ inches.

Key Diagnostic Feature - Spines on the front of the carapace and horizontal ridges in the nostrils.

Status - None.

SNAPPING TURTLE (*Chelydra serpentina*)

Description - This is our largest turtle. The average adult size is 8 to 12 inches, but the record is a 19½ inch giant from Itasca Co. The carapace is rough and widens towards the rear. There are 3 longitudinal keels in the young and subadults. These tend to disappear with maturity. The color of the carapace is brown, olive-green to almost black. It is often covered with algae. The plastron is small and yellowish in color. The head is massive and has a pointed snout. The neck is covered with tubercles and the toes are webbed. The tail is serrated on the top.

Habitat - Probably every body of water in Minnesota larger than a mud puddle has its resident Snapping Turtle. Fast moving water is avoided.

Habits - This turtle normally basks in the water, floating at the surface or laying in shallow water. In the water they are shy and generally passive. Out of the water they are dangerous. Snappers may hibernate in large numbers, and this makes them vulnerable to turtle hunters.

Food - This species is omnivorous. Recorded food items include insects, crayfish, molluscs, worms, leeches, fish, salamanders, frogs and toads, snakes, turtles, birds, small mammals, algae, and aquatic plants. Predation on waterfowl is rare!

Breeding - from 10 to 96 small round white eggs measuring about 33 mm in diameter are laid in June and July. The nests may be dug just about anywhere, including roads and driveways. The young emerge in the fall, but some may overwinter in the nest. They measure about 1 inch at hatching.

PAINTED TURTLE (*Chrysemys picta*)

Description - This is a medium sized turtle. The average adult size is 5 to 7 inches, with the record size being 9 7/8 inches. The carapace is oval and smooth. The ground color of the carapace is olive-green to black with reddish margins. The plastron varies from light yellow to pink, orange, or bright red with a dark blotch in the center. The head, neck, and legs are greenish and striped with yellow and red.

Habitat - These turtles are found almost anywhere there is a pond, lake, marsh, or slow moving stream.

Habits - This species is often seen basking on logs, and is extremely wary. Individuals will literally hurl themselves into the water at the slightest disturbance. After a while, their heads will appear in the water to see if the danger is past.

Food - This is an omnivorous species, feeding on snails, crayfish, insects, fish, tadpoles, carrion, and algae, cattail, and duckweed.

Breeding - From 4 to 20 eggs are laid in late May and June. They measure about 19 x 30 mm. The young hatch beginning in early September, but may overwinter in the nest, either as young or eggs.

Key Diagnostic Feature - Bright orange to red plastron.

Status - None.

WOOD TURTLE (*Clemmys insculpta*)

Description - This is a medium sized turtle. The average adult size is $5\frac{1}{2}$ to $7\frac{1}{2}$ inches, with the record size being 9 inches. The carapace is is very rough, or sculpted. The rear margins are serrated. It is dull brown with flecks of black and yellow. The plastron is yellow with black blotches on the sides of each scute. The skin is dark brown on the head, legs, and tail, and yellow on the neck.

Habitat - Forested areas along fast moving streams.

Habits - This is primarily a terrestrial species. They may be seen foraging ashore at midday, and sunning on logs in the early morning and late afternoon. It seldoms attempts to bite and is among the more intelligent of the turtles.

Food - This is an omnivorous species, feeding on insects and molluscs, and blackberries, dandelions, strawberries, and other plants.

Breeding - From 4 to 17 eggs may be laid on sandbars during the latter part of June. They measure about 23 x 32 mm. The young hatch in September and are about $1\frac{1}{2}$ inches in length.

Key Diagnostic Feature - Rough sculpted carapace.

Status - Threatened.

BLANDING'S TURTLE (*Emydoidea blandingii*)

Description - This is a medium sized turtle. The average adult size is 5 to 7½ inches, with the record size being 10 9/16 inches. The carapace is watermelon shaped and smooth. It is a blue-black with flecks of yellow. The plastron is bright yellow with dark brown blotches on the rear outer third of each of the scutes. The skin is blue-black or brown with small light brown or yellow spots. The underside of the chin is bright yellow. A hinge is present on the plastron, allowing the turtle to close up the front of the shell.

Habitat - Grassy marshes, mesic prairies, sloughs, prairie pot-holes, slow moving rivers, and shallow lakes.

Habits - This is a semiaquatic species, frequently foraging in moist areas near the water. They seldom attempt to bite, and are very timid. Their bright yellow chins may often be seen sticking out of the water.

Food - Snails, crayfish, insects, frogs, tadpoles, fish, and vegetation.

Breeding - From 6 to 15 white eggs are laid in June. They are about 25 x 37 mm. The young emerge in September and measure up to 1½ inches at hatching.

Key diagnostic Feature - Bright yellow chin and plastral hinge.

Status - Threatened.

COMMON MAP TURTLE (*Graptemys geographica*)

Description - This is a medium sized turtle. The average adult size is 4 to 6½ inches in males and 7 to 10 ¾ inches in the females. The carapace has a low keel and is serrated at the rear. It is green, olive, or brown with a network of green to yellow and orange lines. The plastron is solid yellow or cream colored. Juveniles and males may have dark lines along the seams of the plastral scutes. The head, neck, and legs are a dark green streaked with a lighter green, yellow, or orange. A prominent yellow or green spot is located behind each eye.

Habitat - This turtle is found primarily in large lakes and rivers with a moderate current, soft bottom, and aquatic vegetation. They may also be found in small ponds and marshes.

Habits - This is a wary species, and often basks in large numbers. They may bask as high as 15 feet above the water.

Food - Molluscs, snails, crayfish, insects, and fish. The powerful jaws of the females easily crush the shells of the molluscs.

Breeding - From 10 to 20 white flexible eggs are laid in June and July. The eggs measure about 24 x 35 mm. The nesting usually occurs at night. The eggs hatch in September, but some clutches may overwinter in the nest. The hatchlings are about 1½ inches in length.

Key diagnostic Feature - Unmarked plastron.

Status - None.

OACHITA MAP TURTLE (*Graptemys oachitensis*)

Description - This is a medium sized turtle. The average adult size is $3\frac{1}{2}$ to $6\frac{1}{4}$ inches in males and $4\frac{3}{4}$ to $10\frac{1}{4}$ inches in females. The carapace has a middorsal keel, with 3 black knobs. It is green, with black blotches on the rear margin of each of the scutes. These are ringed with yellow or orange. This pattern is often faded in adults. The plastron is marked with a network of yellow and dark green. The head is dark green with yellow markings. These are variable, but there is always a large spot on each side of the lower jaw.

Habitat - This is strictly a river turtle, seeming to prefer fast moving water.

Habits - This is a shy species and may be seen basking with Common Map Turtles and False Map Turtles.

Food - Insects, fish, molluscs, and aquatic vegetation. Males seem to be more carnivorous than the females.

Breeding - From 8 to 15 white flexible eggs are laid in late May through July. They are about 22 x 34 mm in size. The eggs hatch in late August and September, but some late clutches may not hatch until the following spring. The hatchlings measure about $1\frac{1}{4}$ inches, and are almost round.

Key Diagnostic Feature - Markings on plastron and large spot on each side of the lower jaw.

Status - None.

FALSE MAP TURTLE (*Graptemys pseudogeographica*)

Description - This is a medium sized turtle. The average adult size is $3\frac{1}{2}$ to $5\frac{7}{8}$ inches in males and $4\frac{3}{4}$ to 11 inches in females. The carapace has a middorsal keel, with 3 black knobs. It is olive-green and there is usually one dark blotch on the rear margin of each scute. These blotches are ringed with yellow or orange. This pattern is often faded in adults. The plastron is marked with a network of yellow and dark green. The head is dark green with variable yellow markings. The lines in these markings are always narrow.

Habitat - This is primarily a river turtle but may be found in lakes and marshes. Slow moving sections of the rivers are preferred.

Habits - This is an extremely vary species. They often bask in large numbers with other map turtles and prefer basking sites surrounded by water. They are very timid when captured.

Food - Insects, snails, clams, crayfish, fish, algae, duckweed, pondweed, eelgrass, and arrowhead have all been recorded.

Breeding - From 8 to 22 white eggs are laid in late May through July. These eggs measure about 22 x 34 mm. They hatch in late August and September, but may remain in the nest until spring. The young are almost round, and measure about $1\frac{1}{4}$ inches.

Key Diagnostic Feature - Markings on plastron and narrow lines on head.

Status - None.

TIGER SALAMANDER (*Ambystoma tigrinum*)

Description - This is a large salamander. The average adult size is 7 to 8 inches, with the record size being just over 13 inches. The ground color is black to dark brown with small to large irregular yellow to cream spots and blotches. In some specimens these are absent. The belly is olive-yellow, marbled with darker pigment. There are 4 toes on each front foot and 5 toes on each hind foot.

Habitat - Almost any permanent body of water and the surrounding environs.

Habits - This is a burrowing species and is seldom seen above ground with the exception of the spring and fall. In the spring the adults move to the water to breed, and in the fall the newly transformed young leave the water and move to the land. At both times they may become trapped in window wells and stairways and are often seen crossing roads.

Food - Insects and their larvae, earthworms, and spiders.

Breeding - Eggs are laid in the spring in a loose mass near the bottom of the pond or lake and are attached to vegetation. They hatch in 3 to 4 weeks, and the young transform in late August. They leave the water and move to the land when stimulated by a hard rain. This usually occurs at night.

Key Diagnostic Feature - Yellow or cream spots and blotches and 5 toes on the hind feet.

Status - None.

MUDPUPPY (*Necturus maculosus*)

Description - This is our largest salamander. The average adult size is 8 to 13 inches, with the record size being 17 inches. The ground color is gray to a rust brown with large darker blue gray spots. It has 4 toes on each foot and red bushy external gills. Larval Ambystoma have 5 toes on the hind feet.

Habitat - Large permanent rivers and lakes. This species has been found at a depth of 30 meters.

Habits - Mudpuppies are totally aquatic. They are often caught on baited hooks by fishermen. They are primarily bottom dwellers, but may be attracted to the lanterns of fishermen while night fishing.

Food - Crustaceans, insects, fish and their eggs, earthworms, molluscs, and amphibians.

Breeding - Females build a nest cavity under a rock in shallow water in the late spring. The opening of the cavity faces the shore or downstream. The eggs, which may number 100, attach by a thin pedicle to the upper surface of the cavity. The incubation is about 2 months, and the female guards the eggs and also aerates them during this period.

Key Diagnostic Feature - 4 toes on each foot.

Status - None.

CENTRAL NEWT (*Notophthalmus viridiscens*)

Description - This is a small salamander. The average adult size is 2½ to 4 inches. The skin is dry and granular. The ground color is dark olive-green to yellow with 2 rows of small red spots on the dorsal surface. These may be absent. The belly is bright yellow to orange-yellow. The entire newt is covered with small dark spots. The terrestrial stage, the eft, is dark rusty-brown above and yellowish-orange below.

Habitat - Permanent ponds and lakes, marshes, river backwaters, and ditches.

Habits - The larvae and adults are aquatic, with a terrestrial stage in between. In some cases this stage may be omitted. The adults have the ability to transform into the land stage if the source of water dries up, and later change back when the water returns.

Food - Insects and their larvae, molluscs, crustaceans, and snails.

Breeding - Eggs are laid in April and are laid singly or in dense clusters with a thick jellylike substance covering each egg. The eggs hatch in 20 to 40 days. Transformation occurs in August with the young either changing into efts, or directly into the adult stage.

Key Diagnostic Feature - Sharply contrasting colors on the back and underside and covered with small dark spots.

Status - None.

NORTHERN CRICKET FROG (*Acris crepitans*)

Description - This is a small frog. The average adult size is 5/8 to 1½ inches. The skin is warty and moist. The toes are heavily webbed and toe pads are absent. The ground color may be green, light tan, or dark brown. A dark brown triangle is usually present between the eyes, pointing to the rear. A light line reaches from the eye to the shoulder, and there is often a middorsal stripe of tan, rusty brown, bright red, or bright green. There is a dark stripe on the thigh.

Habitat - Marshes along rivers, fens, and low prairies usually near permanent water in open country. Prefers open mud flats and stream banks with abundant vegetation.

Habits - This frog calls from late May through July. Rain may initiate calling. The voice is a gick, gick, gick, etc., and resembles 2 pebbles being rubbed together.

Food - Insects.

Breeding - About 200 eggs are attached to vegetation in flowing water. The tadpoles transform in early August.

Key Diagnostic Feature - Dark triangle between the eyes and voice.

Status - Special Concern. This species should be upgraded to at least Threatened, and possibly Endangered.

AMERICAN TOAD (*Bufo americanus*)

Description - This is a medium sized toad. The average adult size is 2 to 3½ inches, with the record size being 4 3/8 inches. The skin is thick, dry, and covered with warts. 2 large kidney shaped paratoid glands are located behind the eyes. The toes are incompletely webbed and toe pads are absent. The ground color varies from black, red brown, brown, light tan, to a greenish. There is a light middorsal stripe and the warts are dark bordered. The belly is white or pale yellow and mottled with a gray, black, or brown. The paratoid glands are separated from the postorbital ridge or connected by a spur.

Habitat - Almost everywhere, prairies, marshes, forests, gardens, agricultural areas, and parks. This species does not require permanent bodies of water.

Habits - This toad begins calling in late April or early May. The voice is a long musical trill, lasting from 6 to 30 seconds.

Food - Insects and their larvae, earthworms, slugs, and snails.

Breeding - The eggs are laid in long streamers several meters long. These streamers may contain 4,000 to 8,000 eggs. The eggs hatch in 2 to 8 days and the tadpoles transform in late June to early July.

Key Diagnostic Feature - The paratoid glands are separated from the postorbital ridge or connected by a spur and voice.

Status - None.

COPE'S GRAY TREEFROG (*Hyla chrysoscelis*)

Description - This is a small frog. The average adult size is $1\frac{1}{4}$ to $1\frac{5}{8}$ inches. The skin is smooth and moist. The toes are heavily webbed and toe pads are present. The ground color may vary from light green to brown or gray. There may or may not be dark dorsal markings. The groin is light yellow and the undersides of the thighs are a bright yellow-gold with black or brown reticulations. This species is difficult to distinguish from Hyla versicolor. The voice is the best identification!

Habitat - A prairie species that thrives in small woods or forests adjacent to open areas.

Habits - This frog calls in May and June. The voice is a low, harsh nasal trill.

Food - Insects.

Breeding - From 10 to 40 eggs are laid in loose clusters and attached to vegetation, or they may float on the surface.

Key Diagnostic Feature - Voice.

Status - None.

GRAY TREEFROG (*Hyla versicolor*)

Description - This is a small frog. The average adult size is 1½ to 2 inches. The skin is smooth and moist, but is somewhat warty. The toes are heavily webbed and toe pads are present. The ground color varies from gray, brown, light green, to a dark green. Dark blotches are present, usually one of which is "X" or star shaped. The groin is light yellow and the undersides of the thighs are a bright yellow-gold with or without dark reticulations. This species is difficult to distinguish from Hyla chrysoscelis. The voice is the best identification!

Habitat - Primarily forests.

Habits - This frog calls from late April to late June. The voice is a musical trill.

Food - Insects.

Breeding - Loose clusters of up to 30 eggs are attached to vegetation near the surface of the water. They hatch in 3 to 6 days and the tadpoles transform in 6 to 8 weeks.

Key Diagnostic Feature - Voice.

Status - None.

SPRING PEEPER (*Pseudacris crucifer*)

Description - This is a small frog. The average adult size is $\frac{3}{4}$ to $1\frac{1}{4}$ inches, with the record size being only $1\frac{3}{8}$ inches. The skin is smooth and moist. The toes are heavily webbed and toe pads are present. The ground color is light tan, gray, or dark brown. There is a large dark "X" mark, which may be broken or have extra bars. The limbs are banded with dark bars on top. The belly is white.

Habitat - Marshy areas, roadside ditches, ponds, and pools of riverbottom areas in open and wooded country.

Habits - This frog is the voice of spring. The call is a high piping whistle, a single clear note that is repeated about once a second. A large chorus may resemble sleigh bells.

Food - Insects.

Breeding - 800 to 1,000 small eggs are laid singly or in small clusters of 2 or 3 and attached to vegetation. The eggs hatch in 2 or 3 days and the tadpoles transform in 6 to 8 weeks.

Key Diagnostic Feature - Dark "X" on back and voice.

Status - None.

WESTERN CHORUS FROG (*Pseudacris triseriata*)

Description - This is a small frog. The average adult size is $\frac{3}{4}$ to $1\frac{1}{2}$ inches. The skin is smooth to granular, moist, and warty. The toes are not heavily webbed and the toe pads are small. The ground color is light gray, buff, or dark brown, with 3 stripes extending from the back of the head along the body. These may be broken. A dark stripe runs from the nostril through the eye and along the side above the forelimbs to the groin area. There is a white stripe under this dark stripe on the lips. The belly is white.

Habitat - Moist prairies, riverbottom forests, edges of forests, woodland pools, and prairie potholes. In the summer it may be found far from water.

Habits - This frog is usually the first to call in the spring, even before the Spring Peeper. Although it is often heard, it is seldom seen. The voice is similar to running a finger over the teeth of a comb, a vibrant, regularly repeated crreek or prrep. It speeds up and rises in pitch toward the end of the call.

Food - Insects and spiders.

Breeding - The eggs are laid in late April. The clutches may contain 20 to 100 eggs and are usually wrapped around a grass stem or twig below the surface of the water. The eggs hatch in 6 to 18 days and the tadpoles transform in $1\frac{1}{2}$ to 3 months.

Key Diagnostic Feature - Striped pattern and voice.

Status - None

BULLFROG (*Rana catesbeiana*)

Description - This is a very large frog. The average adult size is 3½ to 6 inches, with the record size being 8 inches. The skin is smooth to coarse, and moist. The toes are heavily webbed and toe pads are absent. The ground color is green, greenish yellow, or brown. The belly is white with gray reticulations. There are well developed folds behind the ears.

Habitat - Lakes, ponds, rivers, and creeks. Permanent water is necessary.

Habits - This frog calls in June and early July. The voice is a vibrant series of bass notes with the sound of "jug-o'-rum". A distress call may also be given, sounding much like the yowl of a cat.

Food - Literally anything that moves. Insects, snails, crayfish, other frogs, fish, snakes, mice, small turtles, and birds.

Breeding - The egg mass may contain 1,000 to 5,000 eggs. It is laid as a large surface film several layers thick. The eggs are black and white. The tadpoles transform in July and August of their second year.

Key Diagnostic Feature - Large size, unmarked dorsal surface, and voice.

Status - Special Concern.

GREEN FROG (*Rana clamitans*)

Description - This is a large frog. The average adult size is $2\frac{1}{4}$ to $3\frac{1}{2}$ inches, with the record size being 4 inches. The skin is smooth or finely granular, and moist. The toes are heavily webbed and toe pads are absent. The ground color is dark to light brown, olive green to emerald green, or yellow green. The back is covered with dark flecks and the legs are marked with a dark brown. The belly is white with gray reticulations. Prominent dorsolateral folds extend to the groin or the middle of the back.

Habitat - Just about every type of permanent water, favoring open ponds over dense woodland.

Habits - This frog begins to call in May and may continue up to July. The voice is a low twang, much like a banjo string. It may be repeated 3 or 4 times.

Food - Insects, crayfish, slugs, snails, and sometimes frogs.

Breeding - The egg mass may contain 1,000 to 4,000 eggs and floats at the surface of the water. The tadpoles transform in 70 to 85 days, and some may overwinter as tadpoles and transform the following June.

Key Diagnostic feature - Dark spots on underside and voice.

Status - None.

PICKEREL FROG (*Rana palustris*)

Description - This is a medium sized frog. The average adult size is 1 3/4 to 3 inches, with the record size being 3 7/16 inches. The skin is smooth and moist. The toes are heavily webbed and toe pads are absent. The ground color is light tan or yellow. The back has 2 rows of square chocolate brownish blotches, with 1 or 2 rows of squarish blotches on the side. The belly is white or light yellow. Distinct dorsolateral folds extend to the groin region.

Habitat - This species requires cold spring water in order to breed. It may be found in forests with dense canopies along streams.

Habits - This frog begins to call in April. The voice is a lot like the Leopard Frog, but higher in pitch, less guttural, and quieter.

Food - Insects.

Breeding - The light brown eggs are laid under the water in a loose globular mass attached to vegetation. They hatch in 12 to 18 days and the tadpoles transform in 60 to 80 days.

Note - The skin secretions of this species are toxic! Do not place other frogs in the same containers!

Key Diagnostic Feature - Squarish spots and voice.

Status - Special Concern.

NORTHERN LEOPARD FROG (*Rana pipiens*)

Description. This is a large frog. The average adult size is 2 to 3½ inches, with the record size being 4 3/8 inches. The skin is smooth and moist. The toes are heavily webbed and toe pads are absent. The ground color is green or brown, and may be a metallic bronze or copper. The back has 2 or 3 rows of irregularly spaced chocolate brown spots outlined with cream color. These spots may be absent. The belly is white. There are pronounced dorsolateral ridges.

Habitat - Prairies and meadows. This species may be found along almost any body of water.

Habits - This frog may migrate up to a mile from its hibernation spot to a permanent pond for breeding. This migration is usually stimulated by a rain, in late April or May. The voice is a long deep snore lasting several seconds, or it may be a rapid, loud croak similar to the sound of rubbing a finger over a wet balloon. A predator distress call is also a sound produced by this species. It is a loud scream that is remarkably similar to the sound of a child in distress.

Food - Insects, snails, slugs, and spiders.

Breeding - The egg mass may number up to 6,000 eggs. The mass is attached to vegetation under the water. The eggs hatch in 13 to 20 days and the tadpoles transform in 70 to 100 days.

Key Diagnostic Feature - Dark spots and voice.

Status - None.

WOOD FROG (*Rana sylvatica*)

Description - This is a medium sized frog. The average adult size is $1 \frac{3}{8}$ to $2 \frac{3}{4}$ inches, with the record size being $3 \frac{1}{4}$ inches. The skin is smooth, with slight bumps on the back, and moist. The toes are heavily webbed and toe pads are absent. There are a few black spots along the dorsolateral folds. A conspicuous black "robbers mask" is present just in front of the eyes on each side of the head. There is a dark patch extending backward from the eye to the shoulder. The belly is white.

Habitat - As the name implies, this frog is found in a wide assortment of woods and forests.

Habits - This frog is the earliest of the true frogs to call in the spring, starting in March and April. The voice is a hoarse clacking sound resembling the quack of a duck.

Food - Insects.

Breeding - The eggs are laid in a loose globular mass that contains 500 to 800 eggs and is attached to branches or to plants just under the surface of the water. These hatch in 15 to 20 days and the tadpoles transform in $1 \frac{1}{2}$ to 2 months.

Key Diagnostic Feature - Dark mask and voice.

Status - None.