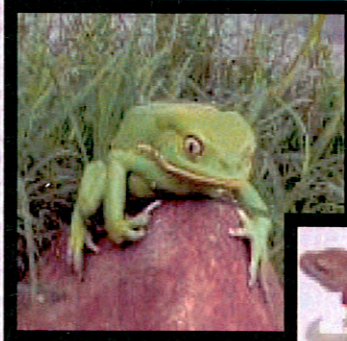
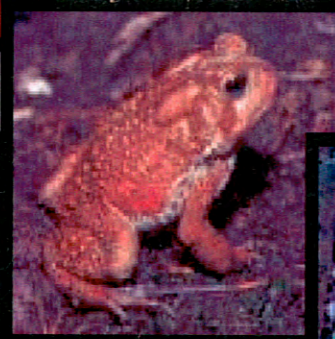


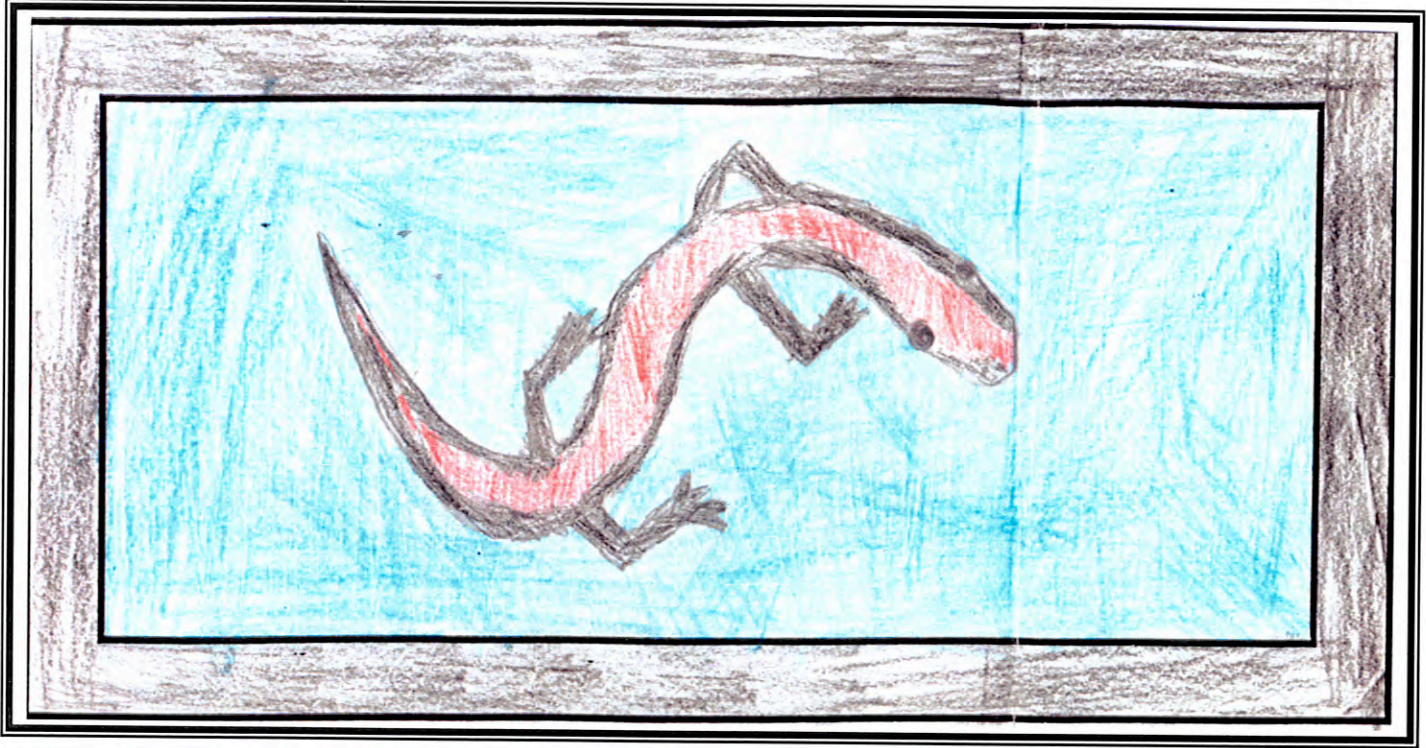
FIELD GUIDE TO LOCAL AMPHIBIANS



Written by: The Fourth Grade Class at
Shutesbury Elementary School
June, 2005

Naturalist: Hannah

A Field Guide To The Red-Back Salamander



Scientific Name: Plethodon Cinereus

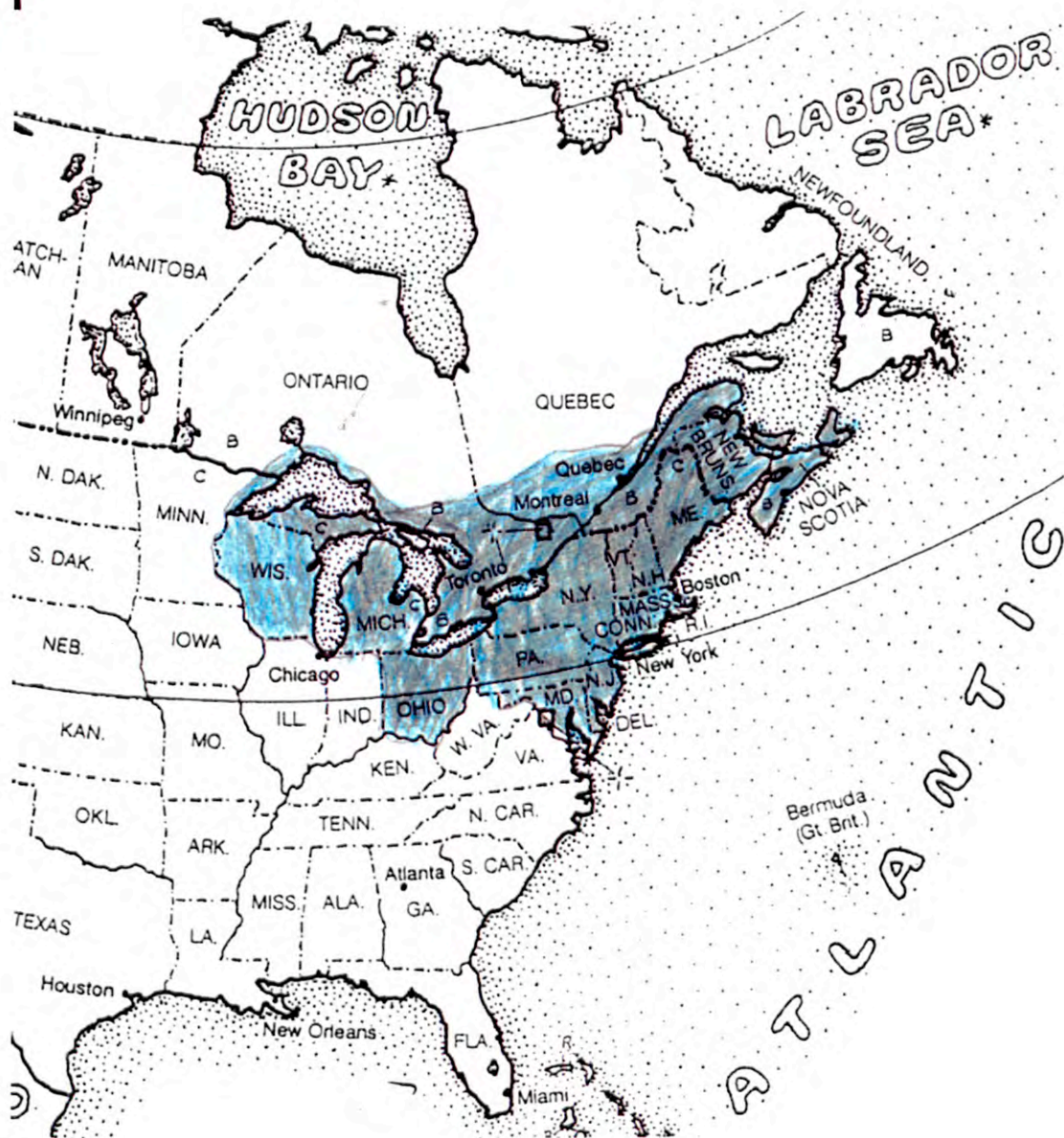
Description: They are small slender animals, rarely growing more than four inches in length. The male is shorter than the female. The legs are small and weak, and are equipped with short, thick toes. They are black with gray dots and a red stripe on their back.

Life History: When the cold winter comes, the salamanders hibernate by burrowing into the ground. They usually will lay their eggs under a rotten log. The female lays 3 to 12 eggs. The eggs either lay on the floor of the nest or hang on the top. It takes one to two months for the eggs to hatch. The life span of the adults is at least three years.

Habitat: The red-back is an extremely common species found in woodlands and forests. They prefer moist wooded areas, but they are also found in rather dry locations.

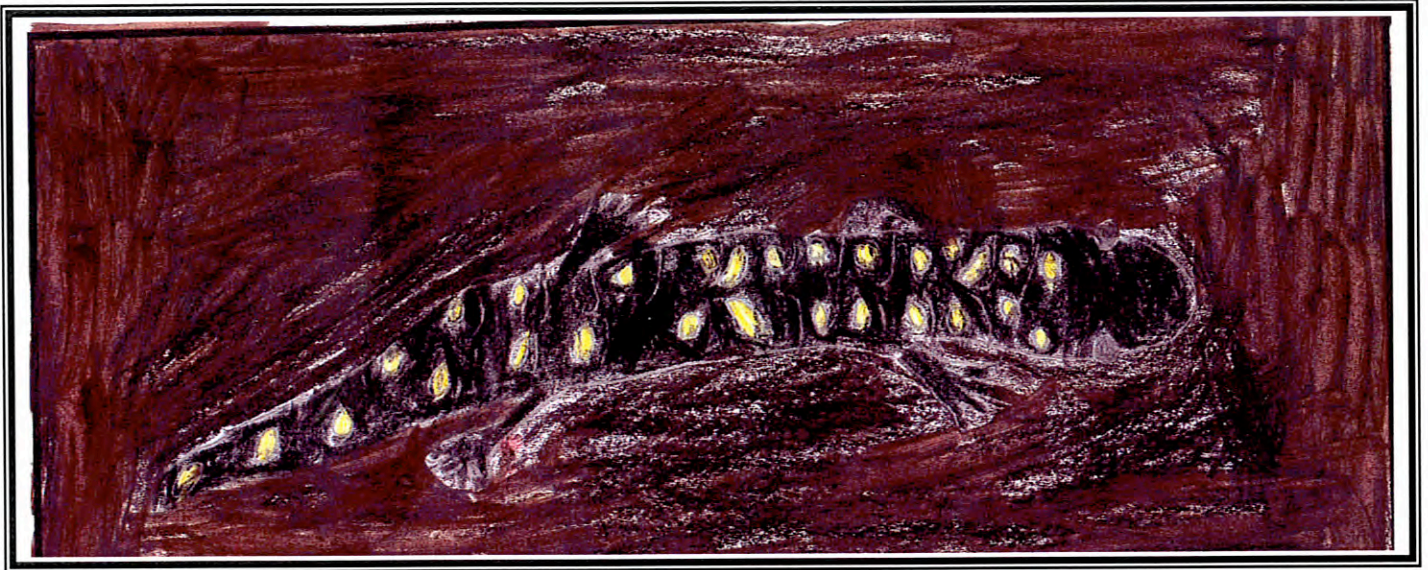
Habits and Food: They eat ants, beetles, flies, crickets, spiders, moths, mites, centipedes, and snails. They hide in the day and hunt in the night.

Range Map



Naturalist: Mac

A Field Guide to Spotted Salamander



Scientific Name: Ambystoma Maculatum

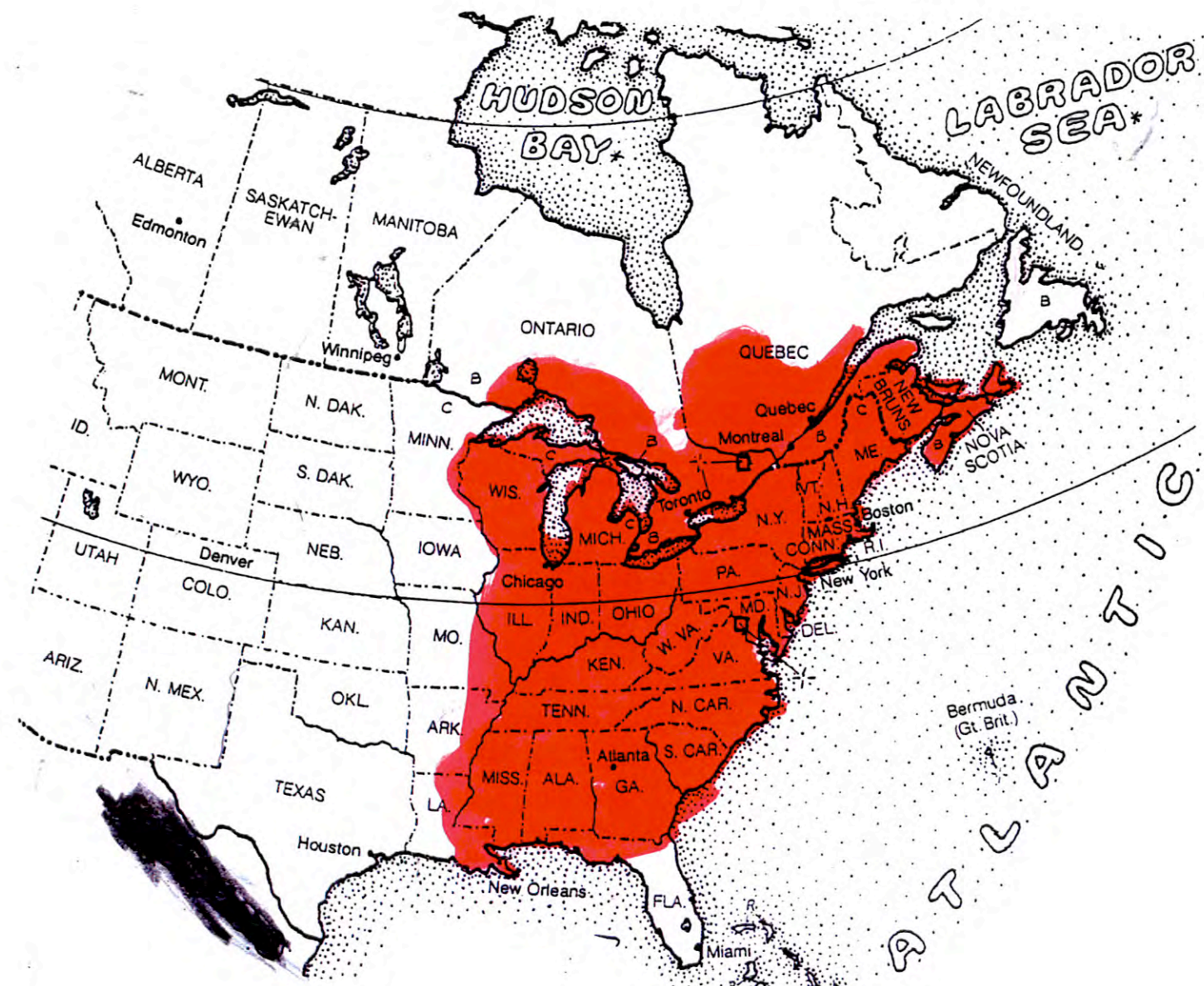
Description: It has yellow spots on its back. And it's black all over except the yellow spots. The spotted salamander is a mole salamander. It gets to be 8" inches long.

Life History: First it starts out in an egg in the water. The spotted salamander has clumps of eggs 30 to 50 individual eggs. Then it becomes a larva. Then it grows legs and turns into a spotted salamander and takes its first step on land.

Habitat: It lives on stream banks, beneath stones, boards, and logs, and in moist woods. You can also find them in vernal pools during mating season.

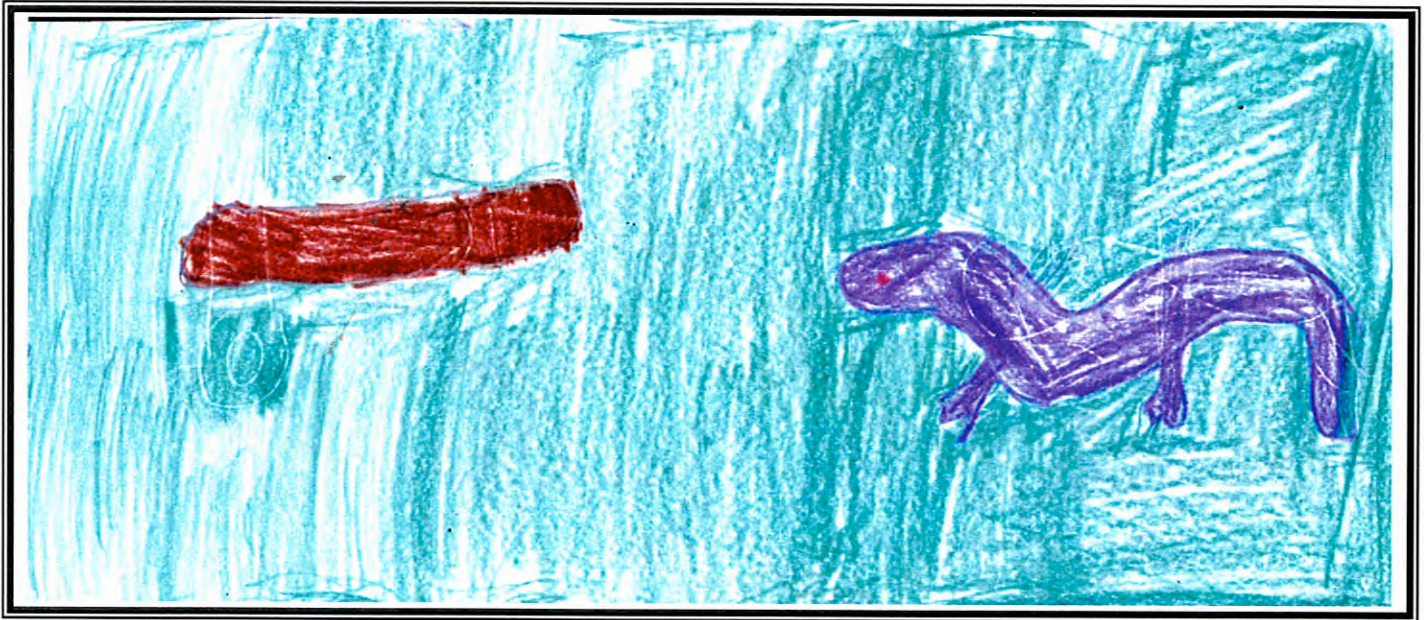
Habits and Food: It eats earthworms, snails, slugs, insects, spiders, particularly larva and adult beetles. It's nocturnal and when it wakes up it finds food.

RANGE MAP



Naturalist: Erin

A Field Guide to The Northern Spring Salamander



Scientific Name: *Gyrinophilus porhyriticus*

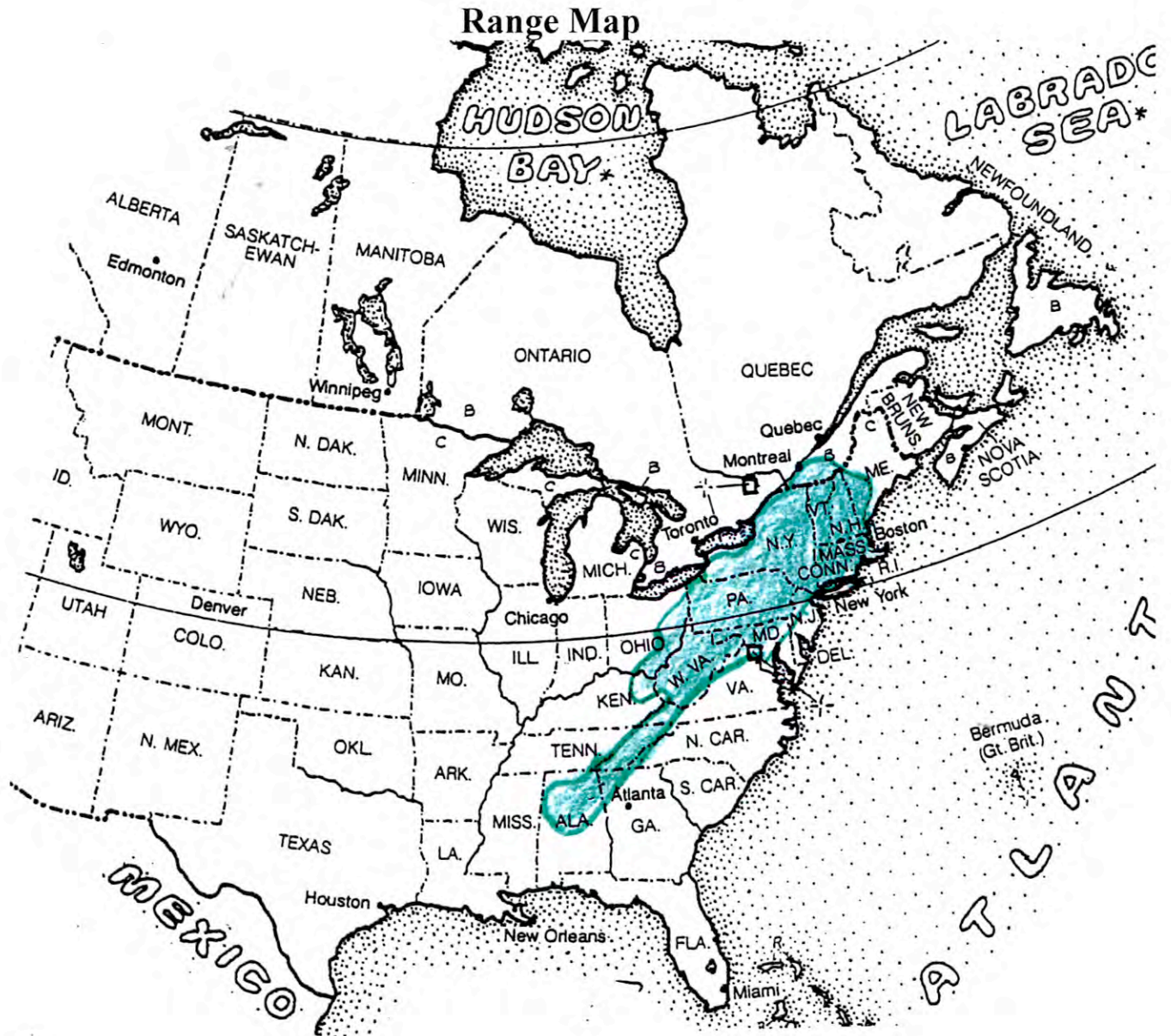
Description: The Northern Spring Salamander has a long tail that is rounded on the sides. The top and bottom have a knifelike edge. The head is long and slender with moderate-sized eyes. It breathes through its skin and membranes in its mouth. The legs are long and feet are big. The front feet have four toes and the back legs have five. The other name for the Spring Salamander is Purple Salamander. The Spring Salamander is one of the largest lungless salamanders. An adult can grow up to 9" long.

Life History:

When they mate the female and the male nose each other and the male rubs a part of its body on her nose. When she is excited enough, the male deposits his spermatophore, and the female draws it into her body through the cloaca. They breed from mid – October to the winter months. Eggs are deposited from April to summer and into fall. Eggs are laid in running water under logs and stones, usually in a group, sometimes attached singly. Spring Salamander lives as a larva for an average period of about four years.

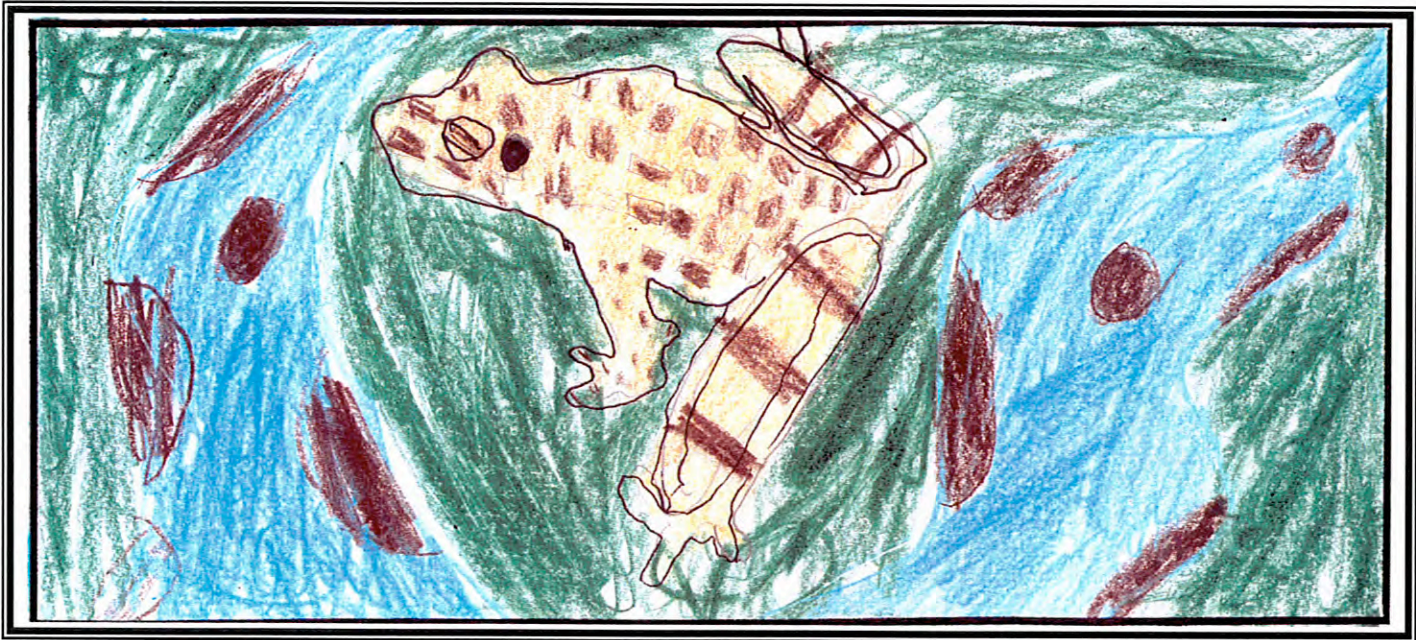
Habitat: The Spring Salamander hides during the day under logs, rock and leaves close to mountain streams, brooks, wells, and other cool moist habitats.

Habits and Food: The Spring Salamander eats worms, insect's crustaceans, insect larvae, spiders, millipedes, and small frogs and salamanders. When a Spring Salamander is uncovered they will swim away or try to hide in the ground.



Naturalist: Angus

A Field Guide To The Pickerel Frog



Scientific Name: Rana Palustris

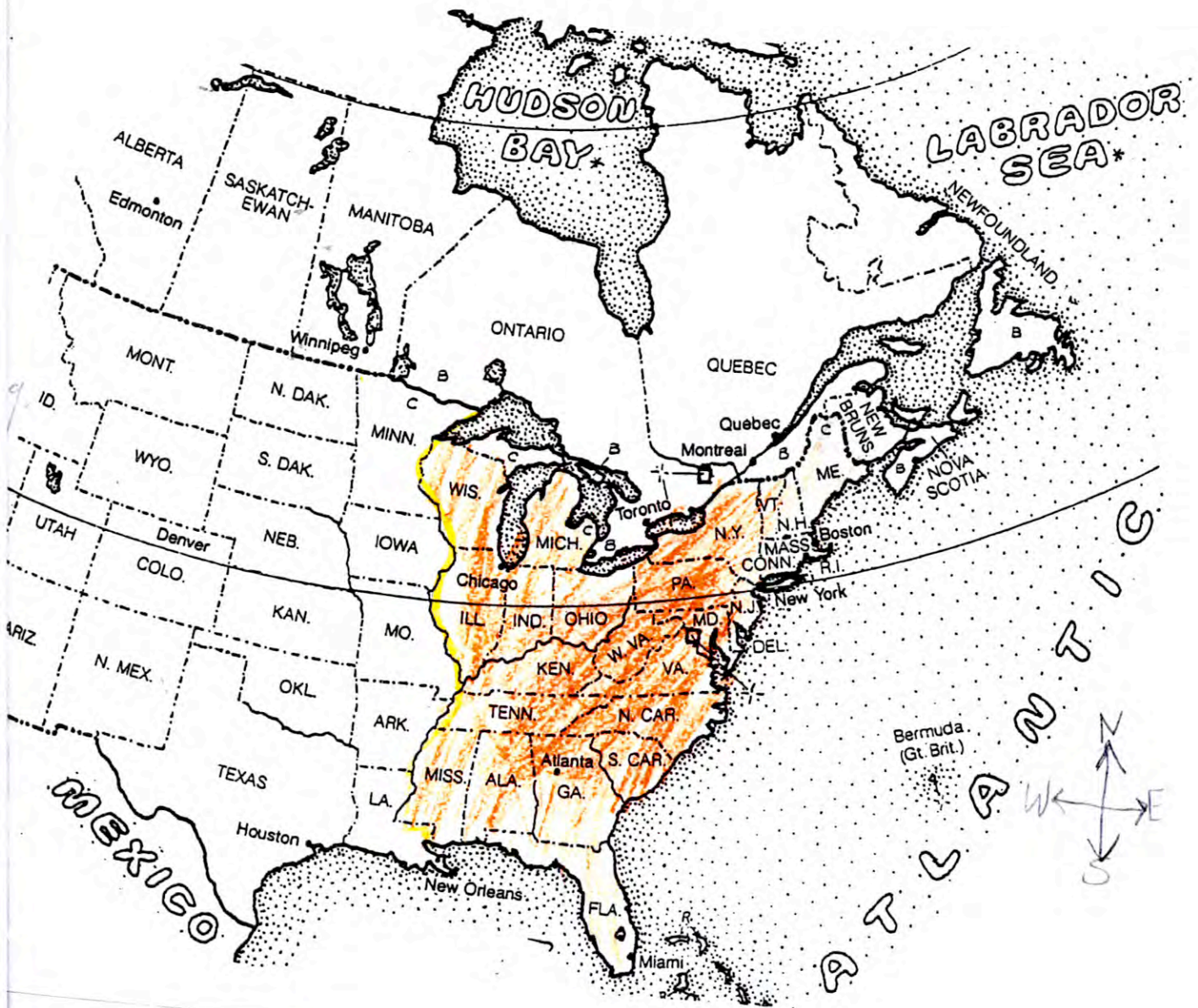
Description: The pickerel frog is yellow with brown squares. The Pickerel Frog does not get bigger than a green Frog. It gets its name because fishermen use them to catch pickerel fish. The frog grows to be five inches long. The spots are squares or rectangles. The under side of the legs are orange.

Life History: The eggs are dark and light and are laid in May in shallow water. The eggs are usually found in cool but, sometimes in warm water. Two thousand to the thousand eggs are laid. The pickerel frog tads are large. They have olive backs shading into yellow and cream. The belly and the area in front of the gills are white. The tadpole stage is 70 days. In winter, it hibernates. After the mating season it leaves the pond where the eggs are laid. I could not find the information but I think the life span is two to three years like the other kinds of frogs.

Habitat: It hibernates in mud at the bottom of ponds or in ravines under stones in October to March.

Habits and Food: It hunts insects and caterpillars in weeds and tall grass. In adults 95% of food items are insects and other small things that live on the earth. They also eat snails, small crayfish, and isopods.

Range Map



Naturalist: Brian

A Field Guide To The American Toad



Scientific Name: *Bufo americanus*

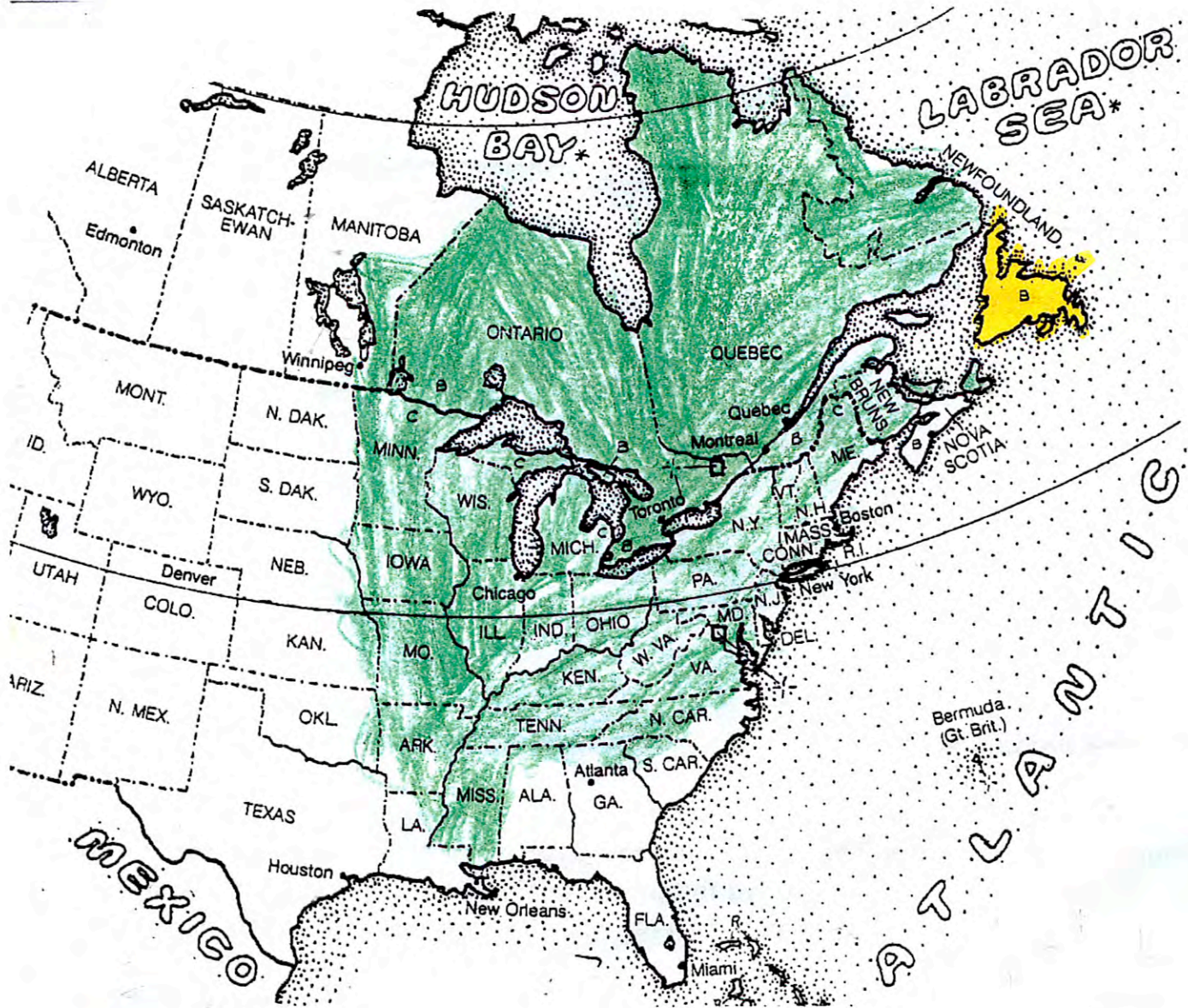
Description: The American toad has red spots and clawed feet. Its belly is brown; it has small eyes, feet and arms, and white dots behind each arm and leg. It has a short, wide head. It's plump looking and has dry, warty skin. Behind each eye is a light brown lump, which is called the parotid gland. A gland produces fluid that the animal needs to survive. The toads color is yellow to deep reddish brown.

Life History: The American toad eggs number up to 8,000 and are laid in a single row in two long strings of jelly. These strings are usually no more than 0.25". The eggs hatch into tadpoles in three days to almost two weeks. The tadpoles transform into tiny toads in about eight weeks. The lifespan of the adults is 5-10 years in natural situations. They can live up to 35 years in captivity.

Habitat: The American toad can show up anywhere from thick woodlands to open fields, barns, and stables.

Habits and Food: The American toad lives under logs most of the time in the day and comes out at dusk to feed on caterpillars, grasshoppers, carpenter ants, cut worms, beetles, and chinch bugs.

RANGE MAP



Naturalist: Elliot

A Field Guide to The Bullfrog



Scientific Name: *Rana catesbeiana*

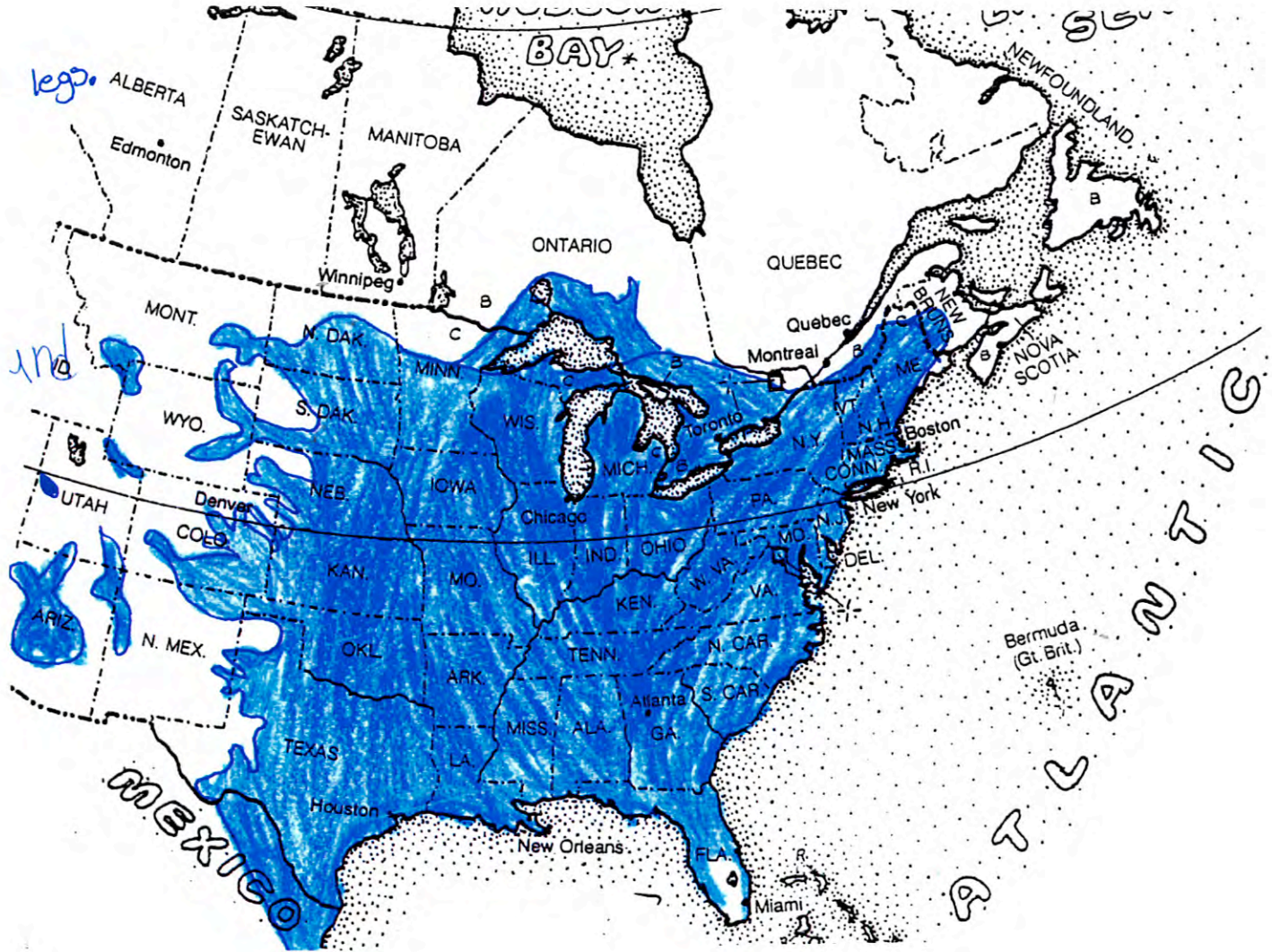
Description: The Bullfrog is one of the largest frogs alive. The Bullfrog is about 2 feet long with it's legs extended to full length. The male challenge call is a loud "hic" or "hic-cup". The Alert call is a loud "miaow" when leaping to safety. The distress call is up to 10 seconds of a whaling sound. The male advertisement call is the familiar deep bass "jug-o-rum". Bullfrogs are usually some shade of green, but brown, yellow, albino, and even blue colored bullfrogs have been found. Bullfrogs have very smooth skin.

Life History: When a female is ready to deposit her eggs, you may be able to observe her choosing her mate. Her choice is primarily based on the quality of the male's territory. The size of the egg is 2 cm. Eggs take 5-20 days to hatch. Tadpoles take 2-3 years to grow in to adults.

Habitat: Bullfrogs like shallow ponds and damp areas.

Habits and Food: Bullfrogs eat everything that can fit in their mouths. They eat fish, other frogs, young turtles, snakes, small birds, mice, crayfish, insects, snails, and spiders.

Range Map for Bullfrogs



Naturalist: Gabe

A Field Guide to The Marbled Salamander



Scientific Name: *Ambystoma Opacum*

Description:

The Marbled Salamander is 3 1/2" to 4 1/2" long with a black chubby body covered with white spots in a marbled pattern. There are 11 to 12 coastal grooves on his belly.

Life History:

In the spring they are rarely found, but they begin feeding and moving around not long after the ground thaws. The breeding season migration of adult Marbled salamander happens in late fall. 50 to 232 eggs are laid singly in vernal pools. It takes 15 to 207 day to hatch. The larvae live under water from winter to June. An adult life stage is at least 4 years.

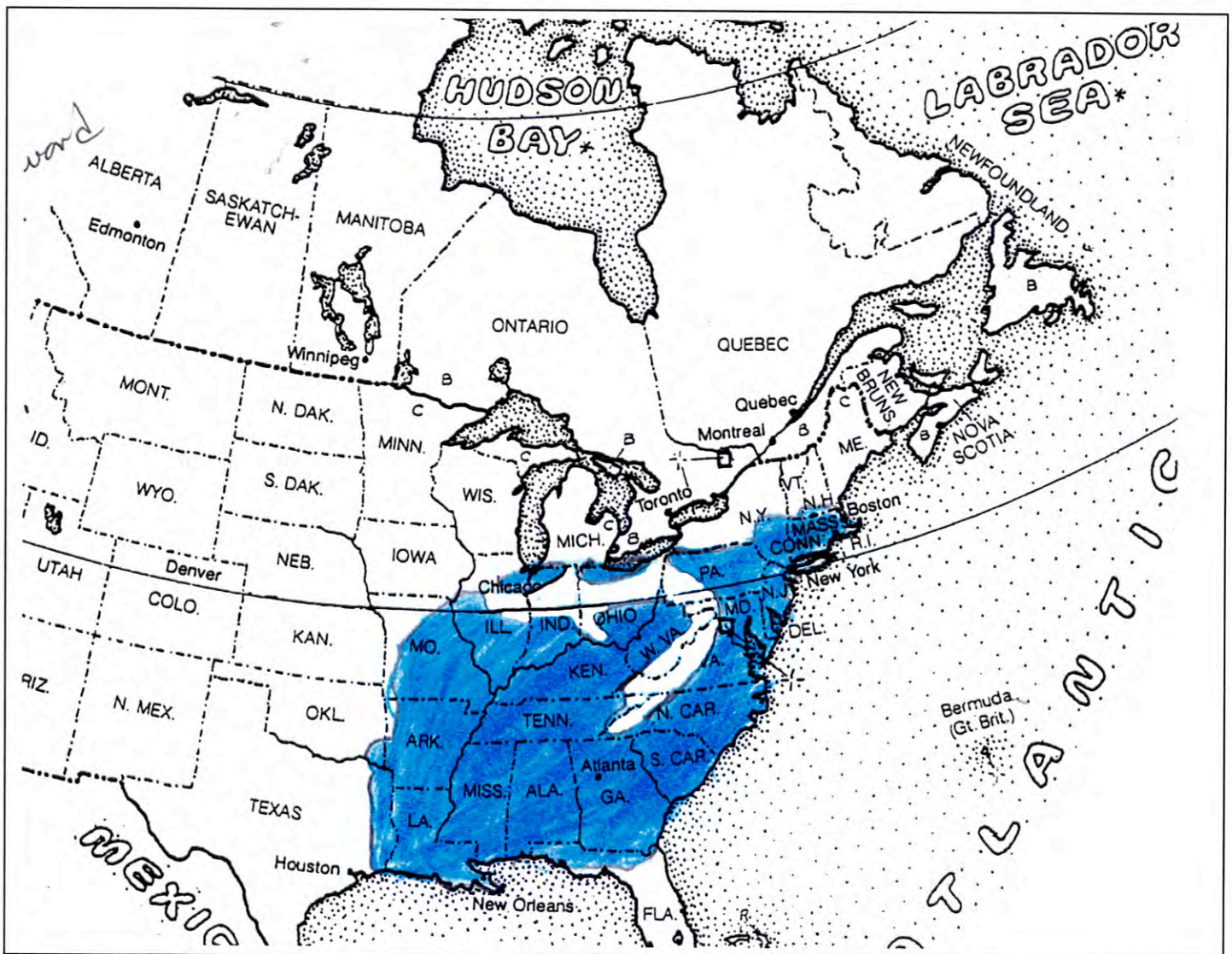
Habitat:

Sandy and gravelly areas of mixed deciduous woodlands right near vernal pools are great places for Marbled salamanders.

Habits and Food

Marbled salamanders have a big appetite. They eat arthropods, which include insects, arachnids, and centipedes. They eat insects in their adult and larval stages. Also earth worms and mollusks, which include clams, snails, slugs, squid, and octopus. They are nocturnal animals so they come out and walk around looking for food in the night.

RANGE MAP



Naturalist: Jake

A Field Guide to The Red-Spotted Newt



Scientific Name: *Notophthalmus viridescens*

Description:

The Red-spotted Newt is $2 \frac{7}{8}$ – 4 inches long and always has red spots. When it is in its adult stage it is an olive-green and lives in water. The Red Eft, which is a bright orange color, lives on land and looks nothing like the adult newt that it will become. The Efts can range from 1 inch to 4 inches in total length.

Life History:

This species lays its eggs individually in the water on plants under water. The eggs hatch in 3-5 weeks, based on the temperature of the water. The larval period lasts from 12-15 weeks, after the larvae hatch they migrate from the water to a terrestrial habitat during the rainy seasons of August to late fall. In 2-8 years they are sexually mature, which means they can have eggs of their own. The lifespan of the adults is 5-15 years. Once they enter the adult stage, they may have eggs at least once a year.

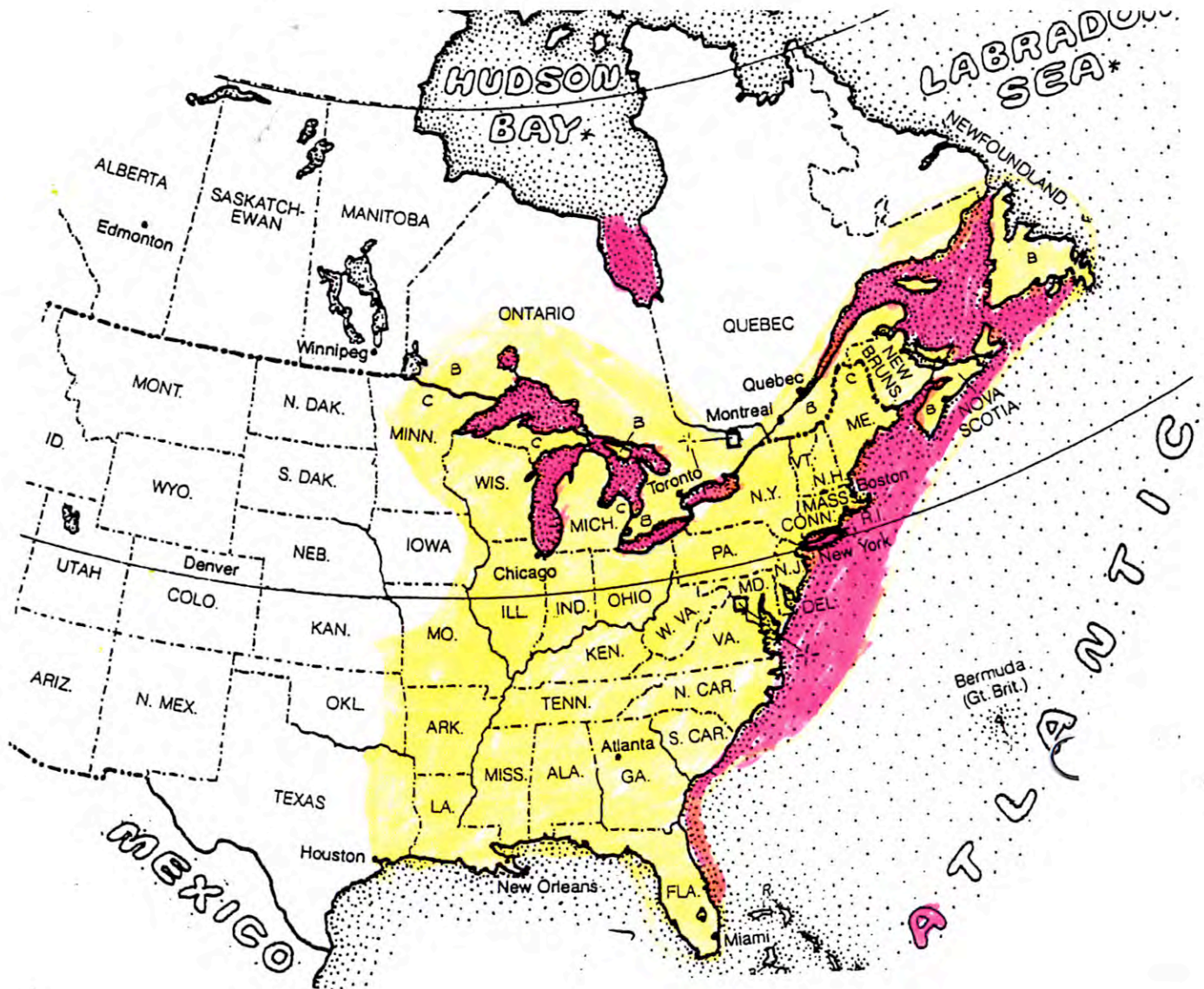
Habitat:

They live in ponds and lakes, which are usually full of lots of submerged vegetation. Also, they are found in backwaters (a still body of water connected to a river but not affected by its current), streams, swamps, ditches, and neighboring damp woodlands.

Habits and Food:

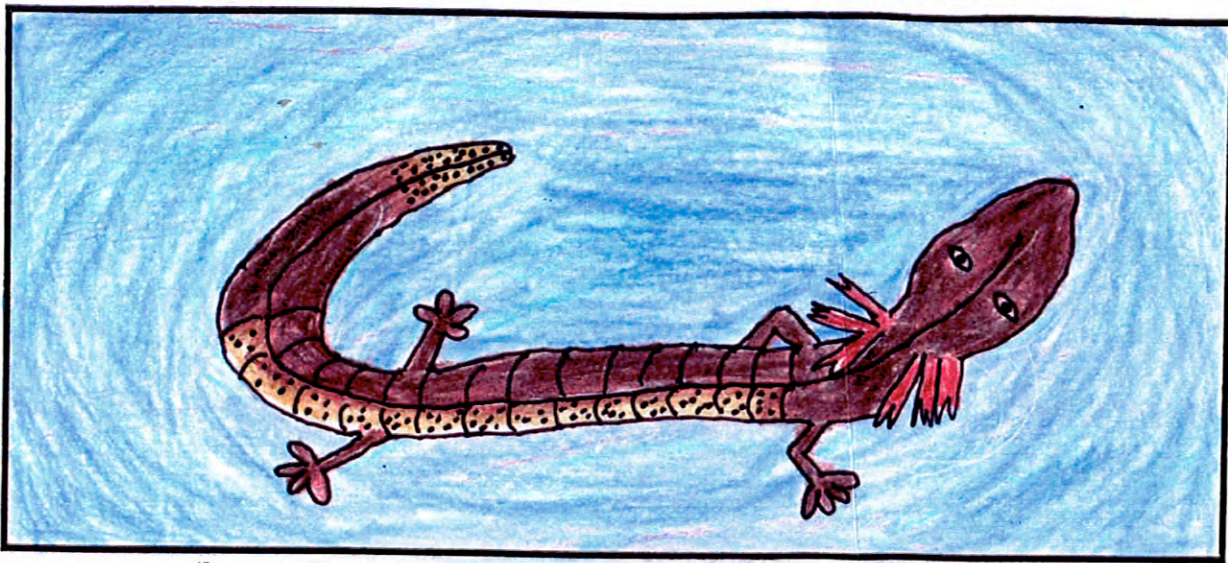
Both adults and larvae are confident feeders. Their foods consist of insects and their larvae (particularly mayfly, midge, and mosquito larvae), tadpoles, and frog eggs. Also, they eat worms, leeches, spiders, mites, and occasionally small minnows. Salamander eggs are a major food source, and so are snails. Adults may feed on their own larvae. This is an important part of their diet, mostly in July and August.

Range Map



Naturalist: Rebecca

A Field Guide to The Mudpuppy



Scientific Name: *Necturus maculosus*

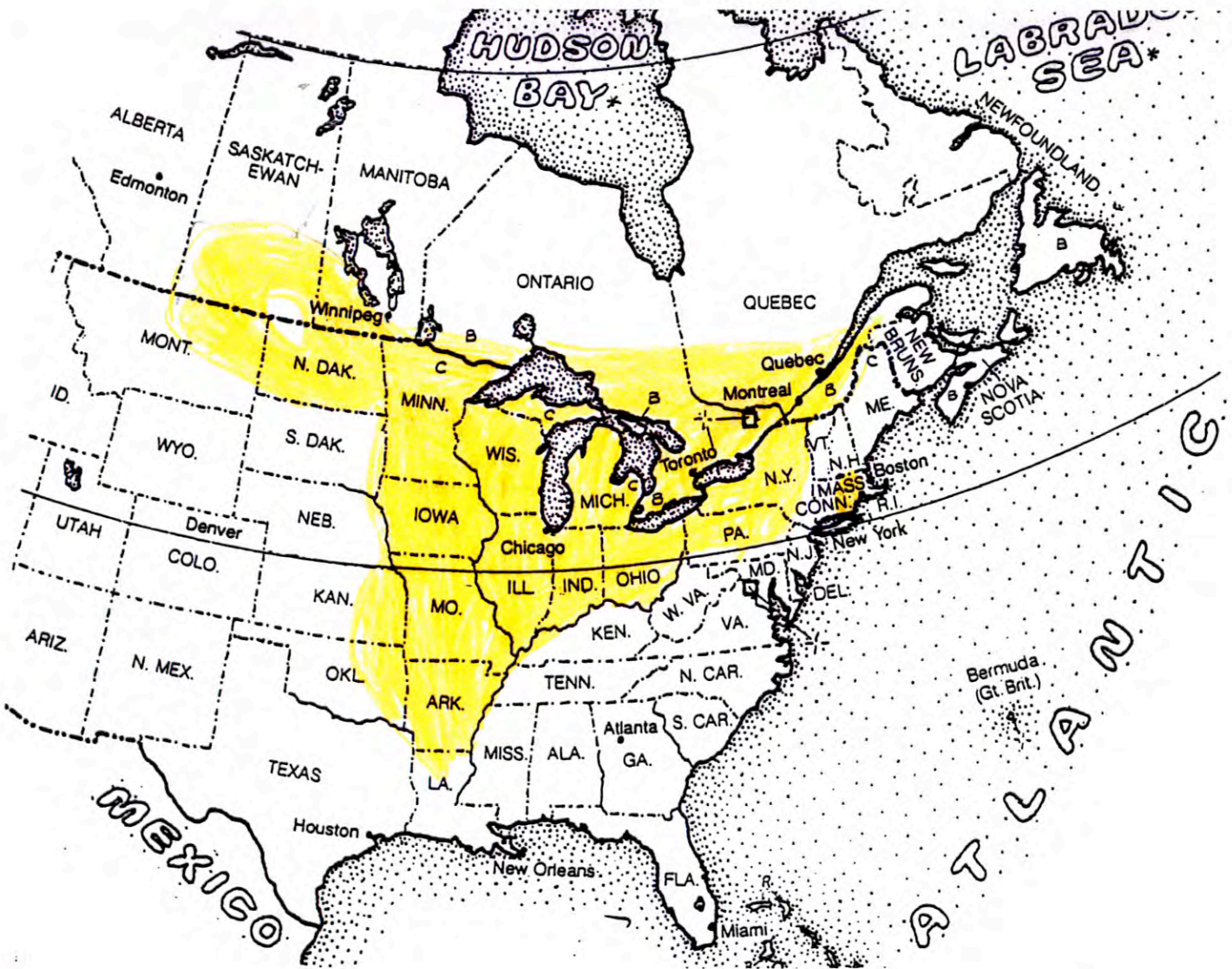
Description: The Mudpuppy is large and stout. The adult size is 11.5'' - 17''. There are usually 15 costal grooves. The legs are short, but have a strong build. It's color ranges from black, to gray, to reddish-brown. It also has three red, feathery gills.

Life History: Mudpuppies lay their eggs in April, May, or June. 30-200 eggs are attached individually on the underside of a rock above a small depression in the bed of a stream, river, or lake. Newly hatched mudpuppies stay close to each other and the female. Larval mudpuppies grow an inch and a half each year, starting at an inch. Mudpuppies become sexually mature at about 5 years.

Habitat: Mudpuppies live in clear or muddy waters of lakes, ditches, rivers, or large streams.

Habits and Food: Mudpuppies are carnivorous. The following is what they eat: aquatic insects, snails, fish, frogs, other salamanders, and the eggs of fish and amphibians. In clear water the mudpuppy is nocturnal, but in muddy and weedy waters it moves around during the daylight.

RANGE MAP



Naturalist: C.J.

A Field Guide To The Red-Spotted Newt



Scientific Name: *Notophthalmus viridescens*

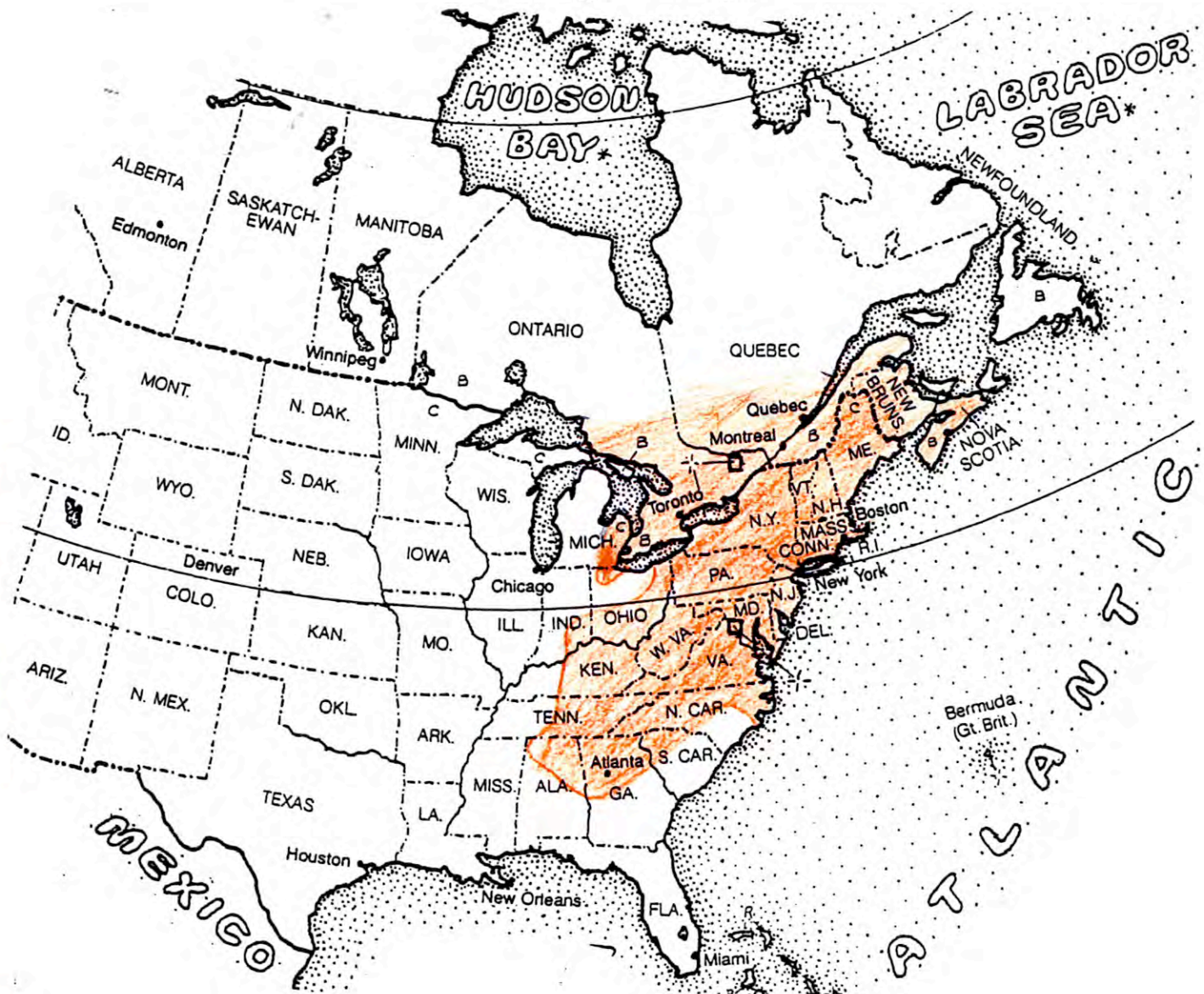
Description: The Red-Spotted Newt is $2 \frac{7}{8}$ – 4 inches long. The Red-Spotted Newt lives in the water and is green with red spots. The Red Eft is $1 \frac{3}{8}$ – $3 \frac{3}{8}$ inches long. The Red Eft is orangish with bright orange spots with a black outline. The adult spotted newt is olivish with orange spots and a black outline. A male newt is larger than a female. Most Red Efts are chubby and some have a long tail.

Life History: A female Red-Spotted Newt lays 200-400 eggs individually. The larva is just less than half an inch in length and is yellowish green. They lay eggs in spring (April to June), Fall (August to October) and sometimes in November or December. There are no egg masses. They are laid in the water attached to water plants. The eggs hatch from 3 to 5 weeks. The larval period is 12 to 16 weeks. They transform into Red Efts from larvae in late summer early autumn.

Habitat: Red-Spotted Newt adults are found in ponds and in weedy areas in lakes, marshes, and ditches.

Habits and Food: The Red-Spotted Newt eats insects, their larvae, mayfly, caddis fly, midge and mosquito larvae, springtails, tadpoles, frog eggs, worms, leeches, small mollusks and crustaceans, spiders, mites, occasionally small minnows, salamander egg2s, also molted skin, and snails. The Red Eft is toxic to animals. Their bright skin advertises toxic skin. After birds taste a Red Eft they learn not to eat them. Their larvae are also distasteful, although, several species of fish, insects, and even adult newts are known to eat them.

Range Map



Naturalist: Lenna

A Field Guide to The Gray Treefrog



Scientific Name: *Hyla Versicolor*

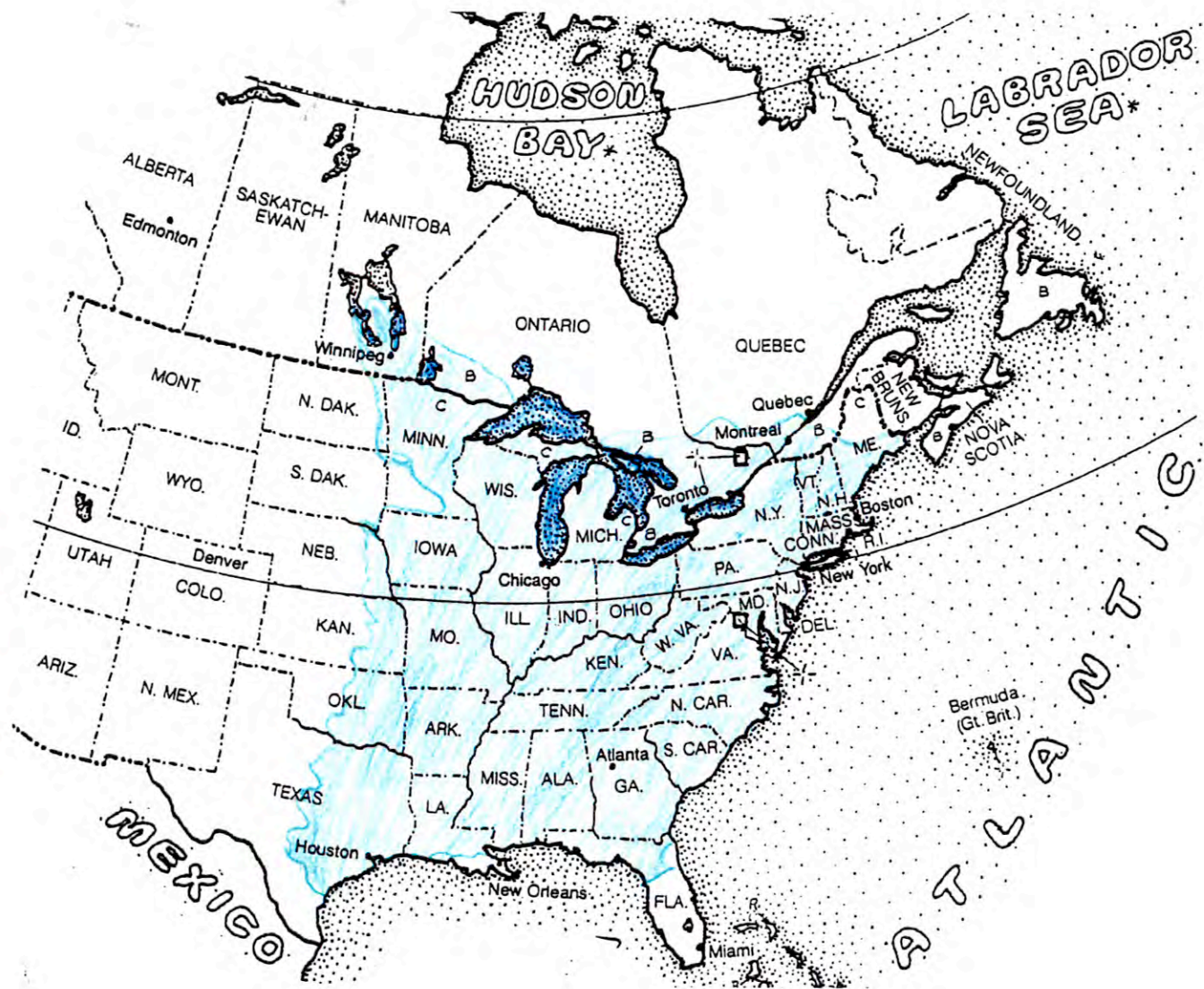
Description: The gray treefrog has rough skin. Its skin can be green, brown, or gray with several dark spots on its back, and a light spot under each eye depending on its age and hiding spot. It camouflages to protect it from its predators. They range in size from 1.25" to 2". They have big toe pads and a whitish stomach except for the orange groin and under side of the hind legs.

Life History: The Gray Treefrog breeds from April to July. They lay over 1,000 eggs. They're laid in groups with less than 40 eggs each. The eggs hatch into tadpoles in less than a week. The tadpoles have fairly bright orange crested tails speckled with black. It takes six to nine weeks for the tadpoles to turn into frogs. The adult can live for over six years.

Habitat: The Gray Treefrogs are usually found in trees or shrubs near water. Although you can even find them in stonewalls, old wood, or swimming pools.

Habits and Food: The Gray Treefrog eats small insects like spiders, plant lice, mites, snails, moths and flies. You may mistake the Gray Treefrog's thrilling Call as a bird. During the day the Gray Treefrog usually stay in trees but in the evening they come down to low shrubs or the ground.

RANGE MAP



Naturalist: ELIAS

A Field Guide to Blue-spotted / Jefferson Salamander



Scientific Name: *Ambystoma jeffersonianum*

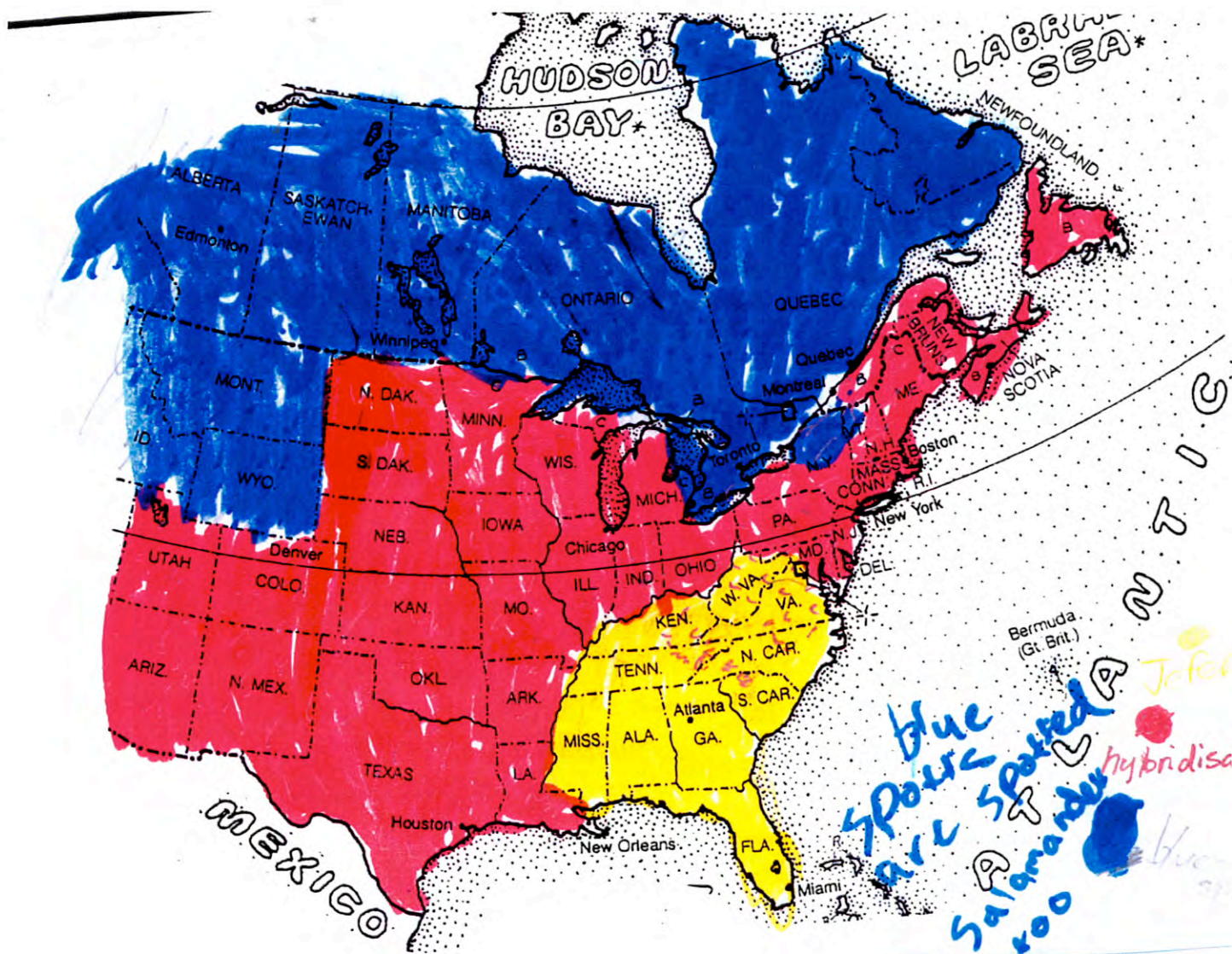
Description: The Blue Spotted Salamander measures from 4 to 6 inches long and the Blue Spotted is easily confused with the Jefferson Salamander. There so much a like that they sometimes mate with each other! The Blue-spotted and Jefferson salamanders have mated for so many years that now scientists think they are one species. This salamander is dark brown or black with it's blue dots, of course.

Life History: The eggs look like pearls and they are usually near the bottom of a spring pool. Individual egg masses may contain 1 to 30. Larvae develop in the egg for about 3 to 4 weeks. The larvae have external gills just behind their head and a pair of balancers just forward of the gills. The blue spotted develops from larvae to salamander from 2 to 4 weeks.

Habitat: They're mole salamanders that you will usually find in a forest. You usually should look in vernal pools during the two weeks of mating time in the early spring. Look near vernal pools, because that's where they live. Look around and under logs and rocks, but you will usually only find them at night. Eastern Canada is a good place to find Blue Spotted Salamanders.

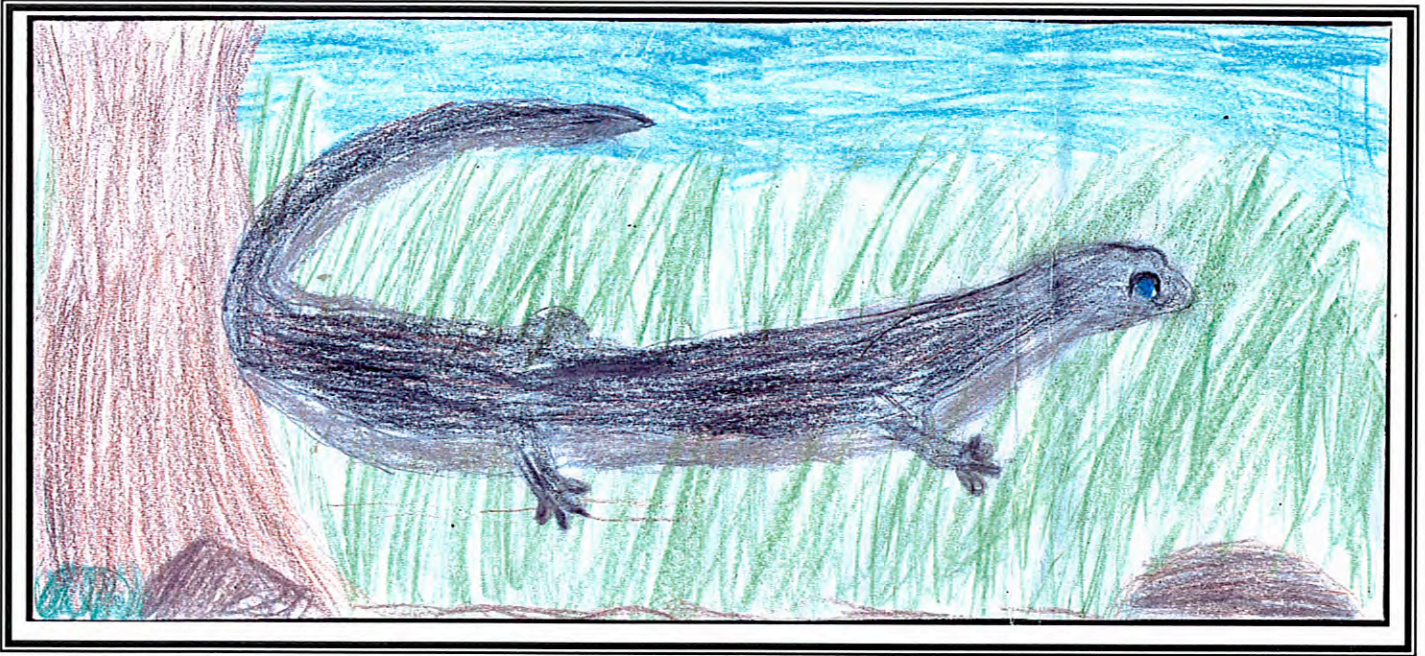
Habits and Food: All the Mole salamanders are carnivores including the Blue spotted. They will eat beetles, spiders, earthworms, mollusks, and other small invertebrates. They are kind of water animals. They can swim and of course like other amphibians they like being wet. You can find them swimming and they are found on land, and they breath air like every other amphibian. They are nocturnal creatures.

RANGE MAP



Naturalist: Eliza

A Field Guide To The Dusky Salamander



Scientific Name: *Desmognathus F. Fuscus*

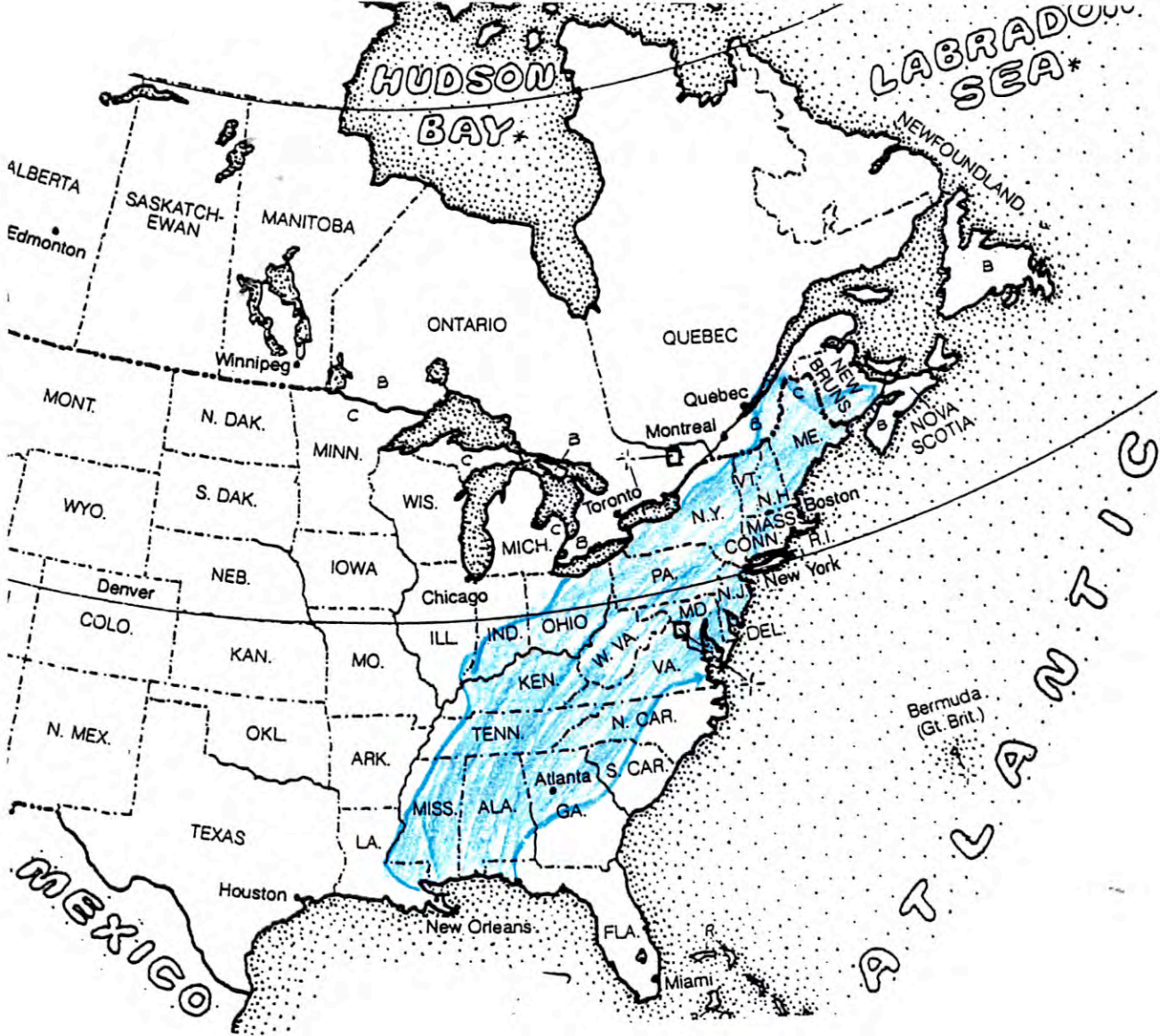
Description: The Dusky Salamander's tail is vertically flattened and thin at the tip. The tail is not quite the same length as the body. The upper bodies color is any shade of light brown, red, and black. The adult size is 2.5 in. to 4.25 in. from the head to the tail. The average size of an adult is 3.5 in.

Life History: The eggs are laid in the summer under logs or pieces of bark. The eggs are laid in clusters of sixteen eggs. The eggs are creamy white. After the babies are laid the mother curls around the babies to protect them from danger. When they born their legs are already developed. After hatching the larva makes its way to a water source. After the larva grows for 7 to 9 months it's ready to soon become an adult salamander.

Habitat: The Dusky salamander lives beneath stone in shallow water. It also lives along edges of streams, in wooded and rocky places. It lives around edges of springs and the shoreline of small waterfalls.

Habits and Food: The Dusky Salamander hunts in watery places and land places. It hunts down grubs, worms, crustaceans, spiders, and sometimes mollusks, and sometimes larvae of own species. The Dusky Salamander is awake at night and that's when they go hunting. They also go when it's stormy and raining. They sleep in the day.

RANGE MAP



Naturalist: Leslie

A Field Guide to The Bullfrog



Scientific Name: *Rana Catesbeiana*

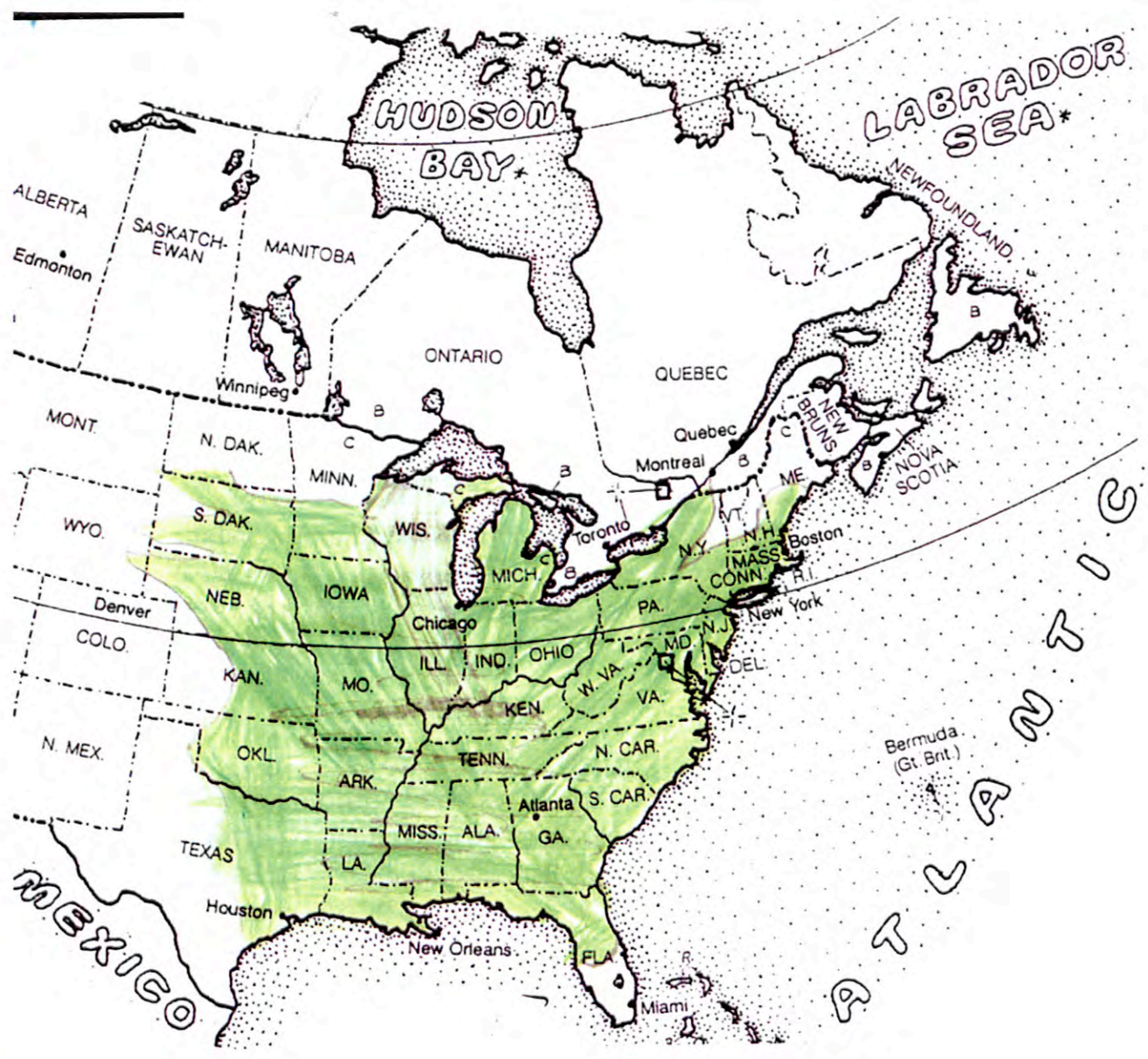
Description: Bull Frogs are usually 3 1/2 inches to 8 inches long. They are the largest frogs in North America. The Bull Frog is brownish green or greenish brown with bars on the legs. The male's ear drum is just behind the eye and is bigger than the eye with a ridge of skin around it. The male Bullfrog's call sounds a lot like 'jug-o-rum'. The female Bullfrog is light greenish brown with light brown spots on its back. The female's ear drum is about the same size as the eye, if not a little bit smaller.

Life History: The eggs of a Bull frog are laid in sheets of jelly that may be five square feet and may contain 20 thousand eggs. They hatch from eggs in late June and the beginning of July. Bullfrog tadpoles are usually 6-7 inches long when full grown. They spend two years as tadpoles, and then become frogs. Adult Bullfrogs usually live from 5-6 years.

Habitat: Bullfrogs are usually found near shore lines of large bodies of water providing vegetation. They tend to remain in the same place through out the summer if water levels are stable.

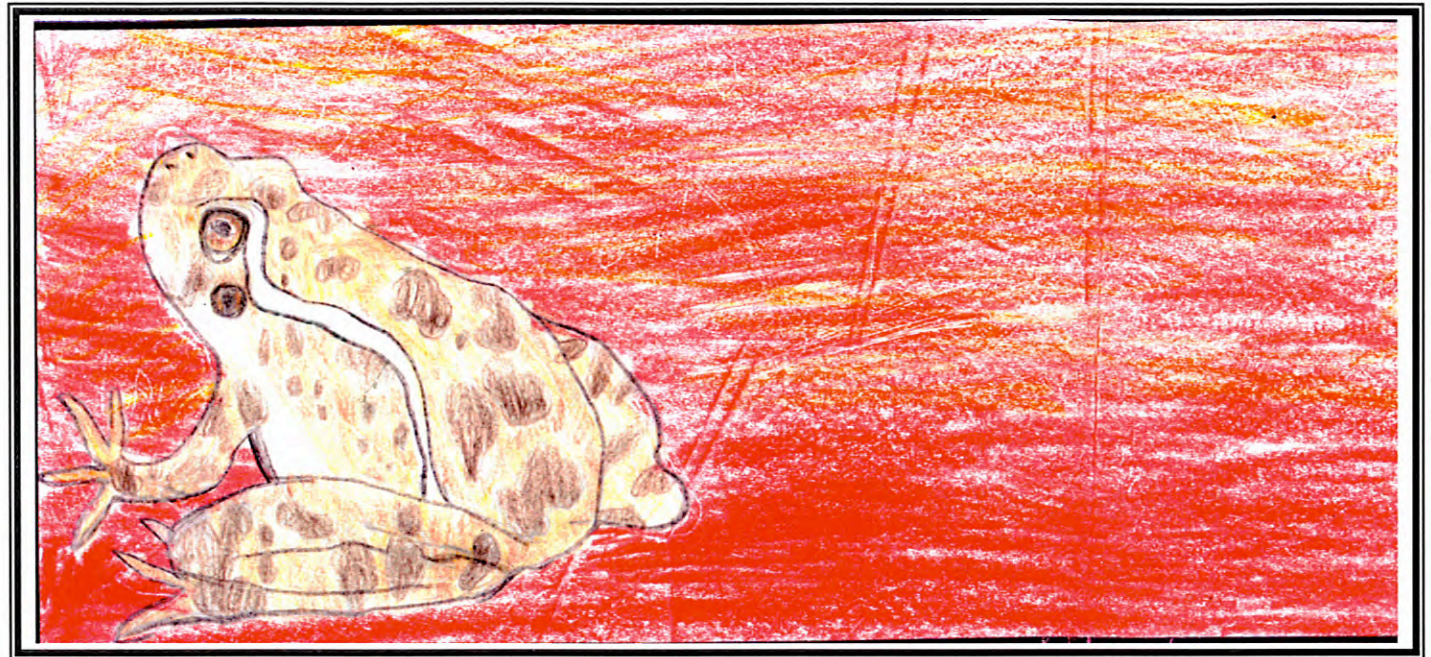
Habits and Food Bull frogs eat any available small animals including fish, other frogs, salamanders, newts, young turtles, small birds, mice, crayfish, insects, snails, and snakes. Bullfrogs are nocturnal. When they are frightened they will hide near vegetation, or take to the water.

RANGE MAP



Naturalist: Josia

A Field Guide to Northern Leopard Frogs



Scientific Name: Rana Pipiens

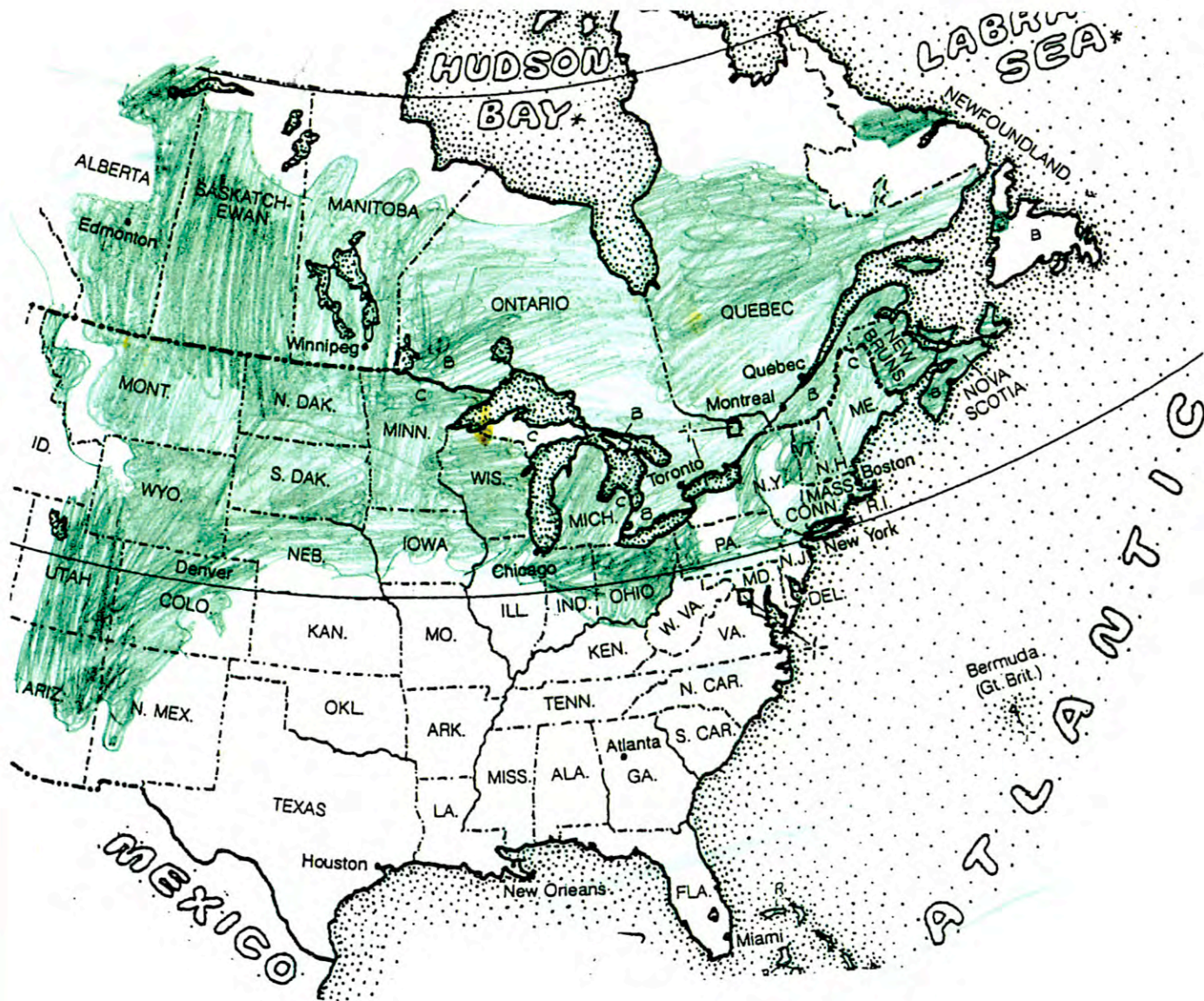
Description: A Northern Leopard frog is a brown or green frog with two or three rows of irregularly placed spots between dorsolateral ridges. The spots are ROUNDED with light borders, and they may run together. There is a light line on the upper jaw. All Northern Leopard Frogs have WHITE thighs. The size of a Northern Leopard Frog in its adult stage is two to five inches long.

Habitat: Northern Leopard Frogs are commonly found in wet open meadows and fields, and wet woods during the summer months.

Habits and Food: Northern Leopard Frogs will eat insects, especially beetles, caterpillars, wasps, bugs, crickets, grasshoppers and ants. They also take sow bugs, spiders, small crayfish, and myriopods. There are occasional records of the frogs taking small birds and snakes. Almost 99% of their food is made up of insects and spiders.

In the spring, the males wake the females from hibernation by puffing themselves up and croaking in low, guttural sounds, followed by short, sharp, notes.

RANGE MAP



Naturalist: Kyle

A Field Guide To The Green Frog



Scientific Name: *Rana clamitans*

Description: The green frog has a large external eardrum and prominent dorsolateral ridges that do not reach the mid section. Typically it is green on the upper lip. The belly is white with darker patterns of lines or spots, sometimes both. It can get to be 2-4 inches long. The male has a yellowish throat. They have white thighs.

Life History: The eggs are laid in giant masses of 3,000 – 4,000 eggs. The eggs hatch in 3-6 days. Then they are tadpoles. The tadpoles are herbivorous which means they eat vegetable. They take up to 2 years to turn into frogs. They are in hibernation until early spring and do not breed until mid-May in Connecticut. They mate April to August throughout their range.

Habitat: Green frogs live close to shallow water, in swamps, brooks, and edges of ponds and lakes. It may also be found among debris and fallen down trees.

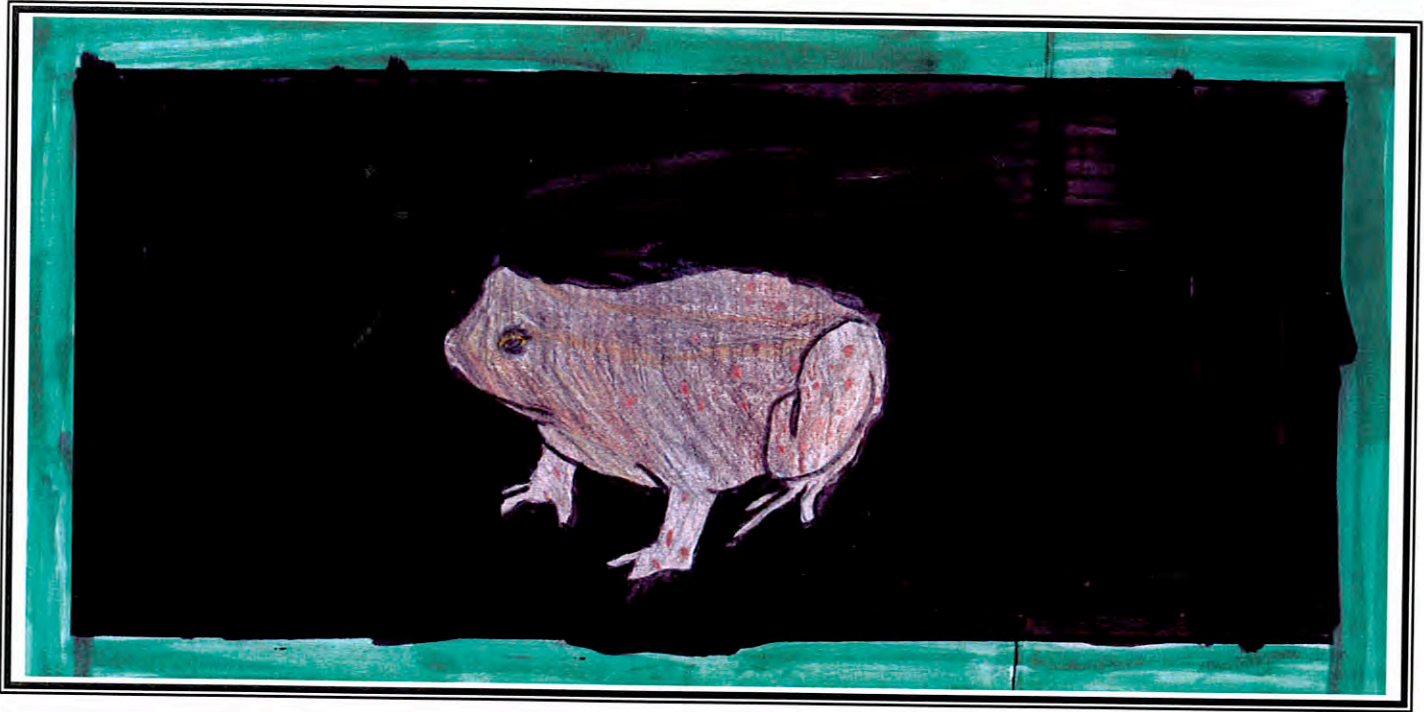
Habits and Food: They eat insects, their larvae, worms, small fish, also crayfish and other crustaceans, newts, spiders, small frogs, and mollusks. Beetles, flies, grasshoppers, and caterpillars make up over 60% of food items. They eat by grabbing food with their mouths. The most likely time to see one is when the sun is going down. They prowl around at night looking for food.

Range Map



Naturalist: Samantha

A Field Guide to The Eastern Spade Foot Toad



Scientific Name: *Scaphiopus h. holbrookii*

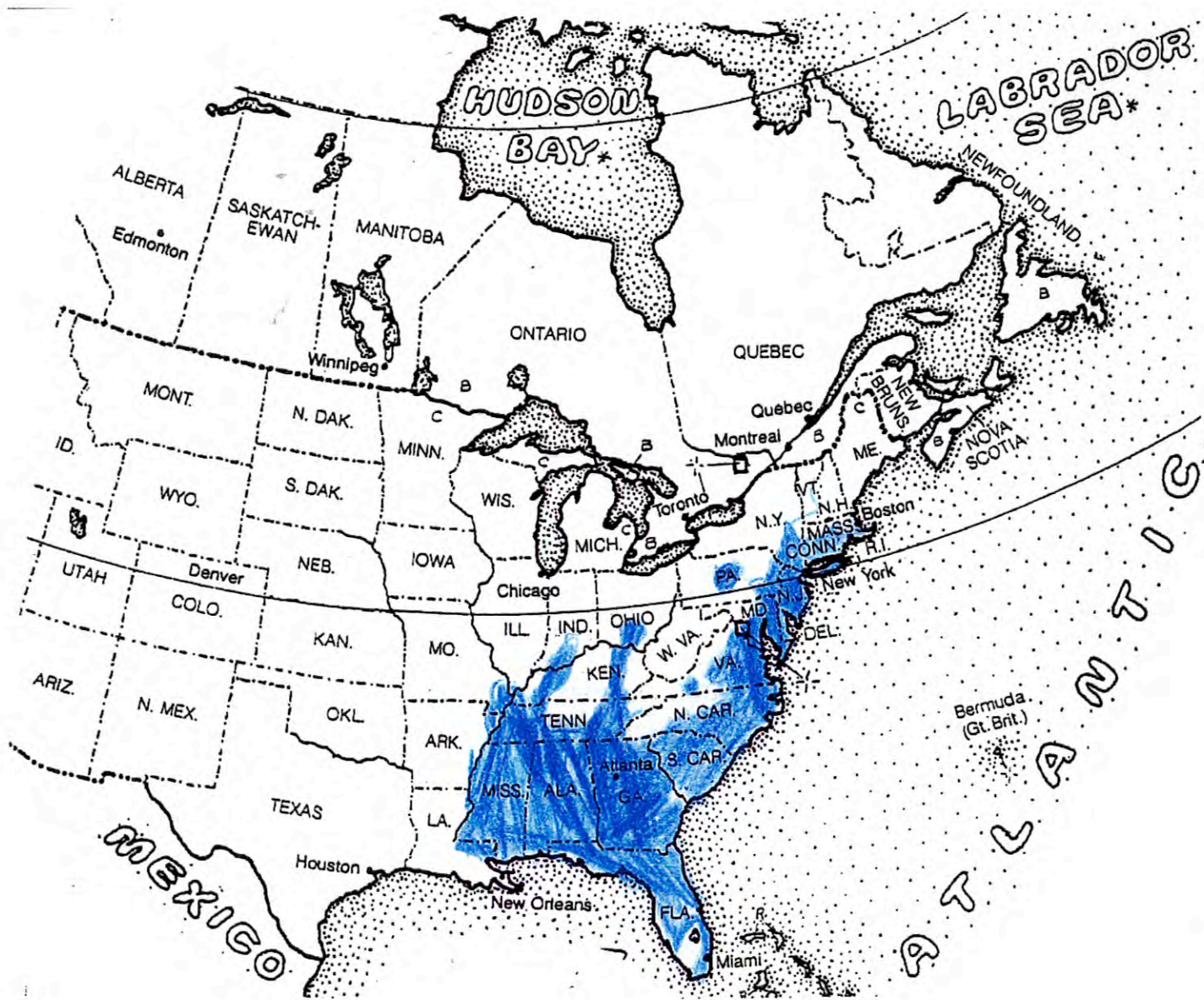
Description: Wavy, light yellow lines come down from the head and contrast with the brownish ground color of this burrowing toad. It lives in sandy eastern woodlands. The adult body is 1.75" to 2.5". The name comes from the single, dark colored, horny, sickle-shaped structure – the spade on each foot. This assists in burrowing.

Life History: In the northeast, this species usually breeds during or after summer rain. The eggs are laid in irregular shaped, packets up to 12" long and about 1" wide. They hatch very quickly, usually within two days. The tadpoles transform into toads in 16 to 20 days. The adult lifespan is at least five years.

Habitat: Eastern Spadefoot toads usually go to fields and wooded areas that have very sandy soil. There is no pattern to their migrations to and from breeding sites, it changes according to the weather.

Habits and Food: Spadefoot toads have the reputation to be difficult to find because of their irregular appearance at breeding ponds, and completely nocturnal habits. The spadefoot toad eats fleas, spiders, crickets caterpillars, true bugs, other ground dwelling arthropods (insects, arachnids, and centipedes), earthworms, and snails. Moths are eaten when they can be caught. Tadpoles are planktonic feeders for the first few days, later becoming carnivorous and sometimes even becoming cannibalistic.

RANGE MAP



Naturalist: Charlie

A Field Guide to Green Frogs



Scientific Name: *Rana clamitans*

Description: A green frog varies from green to olive to brown in color. They are medium sized and can be up to 10cm. Long from snout to rump. Male green frogs have a yellow throat. Green frogs have a mark behind the eye.

Life History: Between May 1 and August, the female lays about four thousand black and white eggs in a square foot area of a shallow pond or lake. The *Rana clamitans* tad is olive green, mottled with brown. Its belly is deep cream. This tad does not metamorphose into a frog until the second summer. Adult Green frog stays alive at least 5 years if they don't get eaten by other animals.

Habitat: The Green frog lives close to shallow water, springs, swamps, brooks, and edges of ponds and lakes. May be found among rotting wood of fallen trees.

Habits and Food: Green frogs can feed on land on shores near water. Usually they eat in water. They eat insects and their larvae, worms, small fish, crayfish and other crustaceans, newts, spiders, small frogs, and small clams are taken. They also eat beetles, flies, grasshoppers, and caterpillars.

Range Map

