

U.S. Fish and Wildlife Service

Erie is one of more than 470 refuges in the National Wildlife Refuge System administered by the U.S. Fish and Wildlife Service. The National Wildlife Refuge System is a network of lands and waters managed specifically for the protection of wildlife and wildlife habitat and represents the most comprehensive wildlife management program in the world. Units of the system stretch across the United States from northern Alaska to the Florida Keys and include small islands in the Caribbean and South Pacific. The character of the refuges is as diverse as the nation itself.

The Service also manages National Fish Hatcheries, and provides Federal leadership in habitat protection, fish and wildlife research, technical assistance and the conservation and protection of migratory birds, certain marine mammals and threatened and endangered species.

For further information, contact:

Refuge Manager
Erie National Wildlife Refuge
RD 1, Wood Duck Lane
Guys Mills, Pennsylvania 16327
Telephone: (814) 789-3585

Office Hours: 8:00 a.m. to 4:30 p.m.
Monday - Friday



DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

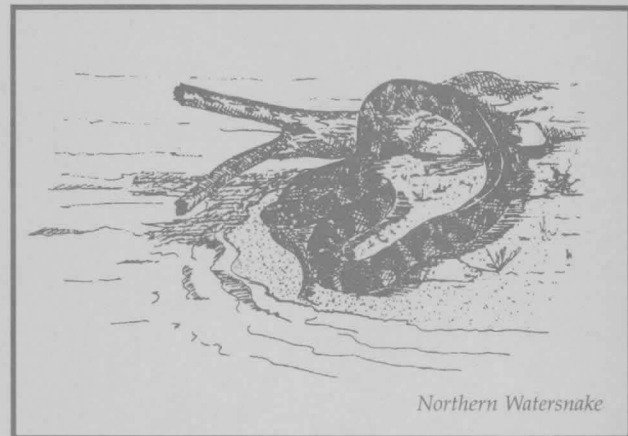
RL-51590-7

June 1991

Amphibians and Reptiles



Redback Salamander



Northern Watersnake

Erie
National Wildlife Refuge
Pennsylvania

Erie National Wildlife Refuge,

established in 1959, is located in Crawford County in northwestern Pennsylvania. The refuge consists of two separate land units. The Sugar Lake Division, containing 5,205 acres, is 10 miles east of Meadville on the outskirts of the village of Guys Mills. The Seneca Division, containing 3,463 acres, is 10 miles north of the Sugar Lake Division, near Cambridge Springs.

Wetlands including swamps, beaver ponds, man-made impoundments, marshlands, wet meadows and creeks are interspersed by wooded slopes, croplands and grasslands in the refuge. This diversity of habitats provides homes for a wide assortment of amphibians and reptiles. Many of them are easily overlooked because they are secretive and/or nocturnal. Frogs, which can be identified from their voices, are most obvious on spring nights when the refuge wetlands echo with their breeding songs. Salamanders, on the other hand, make no sounds and can often only be found hiding under stones, logs or leaves. Although usually shy and elusive, snakes may be seen on cool sunny days absorbing the warmth of the sun. Painted turtles are, also, commonly seen basking in the sun on logs or stumps in ponds. Other turtles may wander onto roads during the summer months. All of these animals, whether we see them or not, play active roles in the complex community life that the refuge supports.

The following list was compiled from refuge staff observations, consultation with experts, student internships and literature research. Common and scientific names follow Collins, Joseph T., *et al.*, *Standard Common and Current Scientific Names for North American Amphibians and Reptiles*, 1978.

Amphibians

The first vertebrates to emerge onto land, amphibians have never adapted to a totally terrestrial existence. Their eggs must be laid in water or in moist places since they lack shells that prevent desiccation. Most young pass through an aquatic larval or tadpole stage after which they usually metamorphose into air breathing adults which have moist glandular skin and two pair of legs with clawless toes. Amphibians include salamanders, toads and frogs.

Salamanders

Eastern Hellbender

(Cryptobranchus a. alleganiensis)

A huge grotesque salamander that has a broad flattened head and folds of loose skin along its sides. Totally aquatic in running waters of rivers and large streams. Eats crayfish.

Mudpuppy

(Necturus m. maculosus)

This large completely aquatic salamander retains three bushy red gills on each side of neck throughout life. Habitats include lakes, ponds, rivers and streams.

Spotted Salamander

(Ambystoma maculatum)

A purplish-black salamander marked with two rows of large round yellow spots extending from head to tail tip. An underground burrower in moist woods.

Red-spotted Newt

(Notophthalmus v. viridescens)

Aquatic larva transforms into terrestrial bright red-orange immature Red Eft. After 1-3 years the eft returns to water and changes into red-spotted aquatic adult. Found in moist woods and nearby quiet shallow water.

Northern Dusky Salamander

(*Desmognathus f. fuscus*)

Often is grayish or brownish with darker spots or blotches but can be quite variable in coloration and pattern. Terrestrial on the moist banks of woodland streams.

Mountain Dusky Salamander

(*Desmognathus ochrophaeus*)

Typically has a light stripe down back and tail with a row of dark chevron-like spots down its center. Found in damp areas under stones, logs or leaves usually near a stream.

Northern Two-lined Salamander

(*Eurycea b. bislineata*)

Named for two dark lines, one on each side, running from eye to tail. Belly is yellow. Found under stones and debris at woodland stream borders. Wanders away from water.

Longtail Salamander

(*Eurycea l. longicauda*)

A yellow to orange salamander marked with black "herringbone" pattern along sides of long tail. Terrestrial under logs and stones in woods near streams and in caves.

Northern Spring Salamander

(*Gyrinophilus p. porphyriticus*)

Pinkish or salmon colored clouded with brown, this is our largest lungless salamander. Found in cool springs and streams and in wet depressions beneath logs and stones.

Four-toed Salamander

(*Hemidactylium scutatum*)

Named for the fact it only has four toes on each hind foot, this small salamander has a reddish-brown back and white belly with black spots. Found near boggy woodland ponds.

Redback Salamander

(*Plethodon cinereus*)

Exhibits two color phases - one with reddish stripe down back and the other with plain gray or black back. Both have bellies sprinkled with "salt and

Slimy Salamander

(*Plethodon g. glutinosus*)

A large black salamander sprinkled with silvery white dots. Terrestrial in moist wooded ravines and hillsides. Skin gland secretions cling to your hands like glue.

Northern Red Salamander

(*Pseudotriton r. ruber*)

A red or reddish-orange salamander with its upper surface dotted with black spots. Prefers clear cold running water of springs or streams with sand or gravel bottoms.

Toads and Frogs**Eastern American Toad**

(*Bufo a. americanus*)

This is the widespread and abundant "hoptoad" that has one or two warts in each dark spot. Found in most habitats with some moisture and shallow pools available for breeding.

Northern Spring Peeper

(*Hyla c. crucifer*)

Known for its spring breeding song, this small treefrog has a dark X-shaped mark on back. Abundant in areas of brushy secondary growth or cutover woodlands near ponds or swamps.

Gray Treefrog

(*Hyla versicolor*)

Depending on environment or activity, this treefrog changes color from gray to green to brown, but always has yellow-orange on undersides of hind legs. Found in thickets and woodlands near shallow water.

Bullfrog

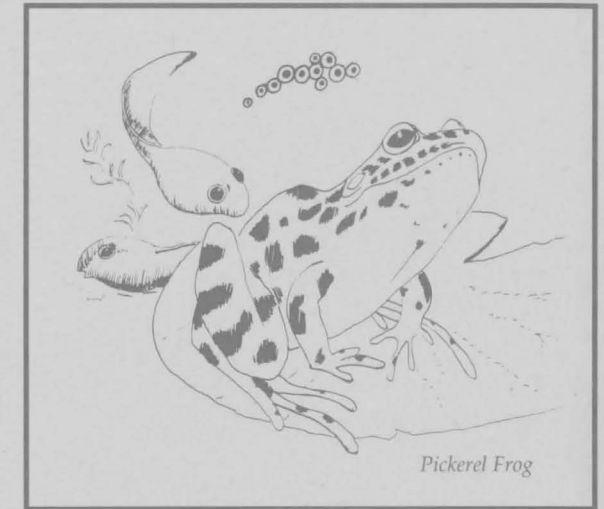
(*Rana catesbeiana*)

Greenish often mottled with gray or brown, this is our largest frog. Aquatic, preferring large bodies of water, such as ponds, lakes, or bogs. Known for its bass "jug-a-rum" call.

Green Frog

(*Rana clamitans melanota*)

The color of this common frog varies from green to brown with darker spots or blotches; however, head and back are usually bright green. Found wherever there is shallow fresh water.



Pickerel Frog

Pickerel Frog

(*Rana palustris*)

Marked with two rows of squarish dark spots on brownish back and bright orange on undersides of hind legs. Prefers cool clear water of ravine and meadow streams. Wanders away from water in summer.

Northern Leopard Frog

(*Rana pipiens*)

Marked with irregular rows of roundish dark spots on greenish or brownish back. Found in shallow fresh water habitats but wanders far afield in summer.

Wood Frog

(*Rana sylvatica*)

A pinkish to brownish frog with a "robber's mask" or dark patch extending backward from each eye. Found in moist wooded areas.

Reptiles

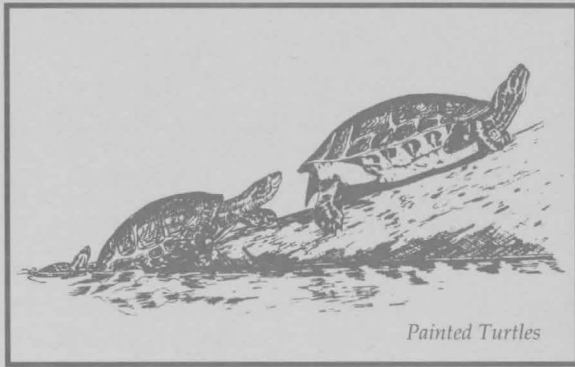
Reptiles are distinguished from amphibians by several adaptations that permit them to live and breed in dry places. Their eggs are shelled and can be laid on dry land. Their skin is dry and scaly, offering greater protection. They have well developed lungs from birth and either no limbs or four limbs with claws. Reptiles include turtles, lizards and snakes.

Turtles

Common Snapping Turtle

(*Chelydra s. serpentina*)

A large turtle with a long saw-toothed tail and a short temper. At home in freshwater lakes and ponds where it is omnivorous.



Painted Turtles

Midland Painted Turtle

(*Chrysemys picta marginata*)

Look for a smooth black shell with red designs around its lower outer edge and yellow stripes on head and throat. Prefers shallow water of ponds and marshes. Commonly seen sunning on logs.

Spotted Turtle

(*Clemmys guttata*)

Recognized by round yellow spots on upper shell and head. Found in shallow streams and margins of ponds, lakes and marshes.

Wood Turtle

(*Clemmys insculpta*)

A large turtle with a rough sculptured shell and orange on neck and legs. Semi-aquatic; at home in the water, but may be found wandering in woods, meadows or on the road.

Eastern Spiny Softshell

(*Trionyx s. spiniferus*)

Distinguished by a pointed head and a flat pancake-like leathery shell with spiny edges. Occurs in rivers and quiet water where sand and mud bars are available.

Snakes

Northern Ringneck Snake

(*Diadophis punctatus edwardsi*)

A plain dark snake with a yellow collar and belly, this secretive species is often found under stones and rotting logs in woods. Salamanders are an important food.

Black Rat Snake

(*Elaphe o. obsoleta*)

A large, thick-bodied snake that is shiny black above and has a blotched or checkered belly. An excellent tree climber, it is often found on field edges or woods. Kills its prey by constriction.

Eastern Milk Snake

(*Lampropeltis t. triangulum*)

Marked with brown or red-brown blotches above and black and white checks on belly. Found in a wide variety of habitats. Frequently enters barns in search of rodents.

Northern Water Snake

(*Nerodia s. sipedon*)

Displays dark blotches on sides and back and usually has dark half-moon markings on belly. Aquatic; common in all freshwater habitats where it feeds on fish, frogs and salamanders.

Eastern Smooth Green Snake

(*Opheodrys v. vernalis*)

A gentle little snake that is plain green above and whitish below. Often called "grass snake" for its terrestrial habits in meadows and fields. Feeds on insects and spiders.

Queen Snake

(*Regina septemvittata*)

A slender brown aquatic snake that has a yellow stripe along lower sides of body and a yellow belly with brown stripes. Found in small stony creeks and rivers where it eats crayfish.

Northern Brown Snake

(*Storeria d. dekayi*)

A little brown snake with a light central back stripe bordered by small black spots. Inhabits swamps, marshes, moist woods, open fields and gardens. Feeds on earthworms and slugs.

Northern Redbelly Snake

(*Storeria o. occipitamaculata*)

A bright red belly is the best identifying mark for this dark-backed snake. Found in open woods and sphagnum bogs. Feeds on earthworms and insect larvae.

Shorthead Garter Snake

(*Thamnophis brachystoma*)

Marked with three longitudinal yellowish stripes similar to Eastern Garter Snake but its very small head is distinctive. Low herbaceous cover in meadows and old fields is preferred. Diet is mostly earthworms.

Northern Ribbon Snake

(*Thamnophis sauritus septentrionalis*)

A dark-bodied slender snake with three bright yellow longitudinal stripes. Semi-aquatic; rarely found far from shallow water where it swims on the surface.

Eastern Garter Snake

(*Thamnophis s. sirtalis*)

Color is variable but often exhibits three yellowish longitudinal stripes with a double row of black spots between stripes. Common in many habitats.