

Rachel Carson National Wildlife Refuge
321 Port Road
Wells, Maine 04090
207/646 9226

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September 2008



U.S. Fish & Wildlife Service

Rachel Carson

*National Wildlife
Refuge*

*Amphibians and
Reptiles*

Spotted salamander
Leo P. Kenney



This goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.

Welcome to Rachel Carson National Wildlife Refuge. The refuge consists of eleven divisions located along Maine's southern coast between Portland and Kittery. Protecting estuaries, salt marshes and adjacent upland areas, the 5,300 acre refuge provides important habitat for wildlife.

Reptiles and amphibians ("herps") contribute to the great diversity of wildlife on the refuge. Reptiles are scaly, dry-skinned, cold-blooded animals that lay shelled eggs on land. Amphibians have moist, unscaled skin, are cold-blooded, and lay jelly-covered eggs in water. During the breeding season in early spring, many herps, especially frogs, may be observed around ponds, vernal (seasonal) pools and streams. Frogs and toads fill spring evenings with their distinctive calls.

Reptiles and amphibians occurring on the refuge are protected by federal law. Collecting is prohibited. The protection of these animals, and the wetlands where many are found, is crucial to their survival.

Spotted salamander species and wood frogs only breed in vernal pools. In addition to federal laws, the state of Maine has special regulations protecting this important habitat.

The following list of 31 species includes those whose range overlaps refuge lands. The common and scientific names follow Maine Amphibians and Reptiles; M. Hunter, A. Calhoun, and M. McCollough; University of Maine Press, 1999. Should you spot a rare or unusual species, please contact the refuge manager at Rachel Carson NWR, 321 Port Road, Wells, ME 04090 or call 207/646 9226.

*Species listed as endangered (E) threatened (T) or species of concern (C) by the Maine Department of Inland Fisheries and Wildlife. (There are no known federally threatened or endangered herps on the refuge.)

Reptiles *Reptilla*

Snapping Turtle (*Chelydra serpentina*)

This species has a rough, brown shell, a long, jagged tail, sharp claws, and a hooked upper mandible. They are a common bottom-dweller of shallow, brackish ponds and marshes. Snapping turtles eat plant shoots and hunt underwater for fish and other animals.

Common Musk Turtle (Stinkpot)* (*Sternotherus odoratus*)

(C) Maine's smallest, aquatic turtle. They have a smooth, brown shell; the head has two yellow stripes running from neck to nose. It inhabits slow-moving streams and shallow, mud-bottomed, permanent ponds. They produce a strong, musky odor when disturbed.

Spotted Turtle* (*Clemmys guttata*)

(T) Identified by its black, smooth shell with yellow or orange spots on its shell, head, and neck. It is widely distributed but a rare find. They inhabit ponds, marshes and wet meadows. Spotted turtles may be observed during warm months basking on logs.

Wood Turtle* (*Clemmys insculpta*)

(C) This medium-sized turtle has a brown shell, smooth tail, and yellow-green eyes. Legs and neck are orange. They prefer uplands near rivers and brooks. Wood turtles are terrestrial during spring and summer, and return to water in the fall to mate.

Blanding's Turtle*

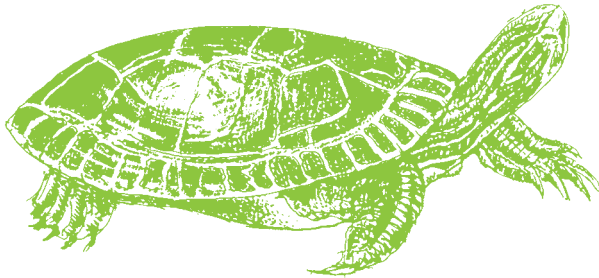
(*Emydoidea blandingii*)

(E) Primarily aquatic, this species has a rounded, brown shell flecked with tan spots and streaks. The chin and throat are yellow. They are strong swimmers and often extend their unusually long necks to breathe while submerged. Blanding's turtles frequent marshes, shrubby swamps and slow-moving waters.

Eastern Box Turtle*

(*Terrapene carolina*)

(E) A domed, yellow and brown-black shell identifies this species. They are found in fields, open woods and meadows near water. They may be Maine's rarest reptile; their population has plummeted due to commercial collecting for the pet trade.



Eastern painted turtle

©Robert Savannah

Eastern Painted Turtle

(*Chrysemys picta picta*)

The colorful painted turtle has a green, smooth shell; green, red and yellow vertical stripes on its head; and bright yellow spots behind their eyes. They may be found in quiet, slow-moving water with abundant, submerged vegetation. Painted turtles may be observed basking on logs or rocks on warm, sunny days.

Ringneck Snake

(*Diadophis punctatus*)

This small, dark brown snake has a yellow-orange collar and yellow belly. Ringneck snakes burrow under leaves, rocks and woodpiles in moist soil. They are rarely observed by day, being active mostly after dusk.

Milk Snake

(*Lampropeltis triangulum*)

This strongly patterned snake is tan-grey with red blotches. The checkered belly is black and white. They are sometimes found close to disturbed areas. When in dry leaves, they shake their tail, creating a rattlesnake-like sound. Milk snakes may be found in woody or brushy areas and meadows.

Northern Water Snake

(*Nerodia sipedon*)

The northern water snake is darkly banded. They are primarily aquatic and may be observed swimming or basking in slow-moving water. They eat fish and amphibians.



Smooth green snake

©Robert Savannah

Smooth Green Snake

(*Liochlorophis vernalis*)

The only all-green snake in Maine. They are found in grassy upland meadows and are excellent climbers. They prey on insects, snails and salamanders.

Brown Snake*

(*Storeria dekayi*)

(C) A small, dark brown, banded snake. They live in damp woods and often hide under rocks and vegetation. They can be quite adaptive and may live in developed areas near buildings.

Redbelly Snake

(*Storeria occipitomaculata*)

Back is brown-gray with tan spots behind the head. Four stripes run down the back and underparts are red. Redbelly snakes frequent shorelines of freshwater ponds, lakes and streams. They are also found in woodlands, mowed fields and marshes. Slugs are their primary prey.

Eastern Garter Snake

(*Thamnophis sirtalis sirtalis*)

This species has three yellow-brown stripes and two rows of black spots. The belly is greenish-yellow. They inhabit moist fields, lawns, forests, meadows and marshes. Maine's most abundant reptile; dozens may

be found together at one time.

Eastern garter snake

©Cindie Brunner



Ribbon Snake*

(*Thamnophis sauritus*)

(C) Similar in appearance to garter snake; has yellow-brown stripes along sides. A semi-aquatic species; they seldom wander far from water. Though difficult to find, ribbon snakes are most often observed swimming or hanging from shrubs alongside streams.

Eastern Racer

(*Coluber constrictor*)

(E) Terrestrial species, quick moving with glossy black back.

Amphibians

(*Amphibia*)

American Toad

(*Bufo americanus*)

This brown, warty toad has a white belly with black specks. They are found in moist woodlands. American toads breed on the edges of shallow ponds during March and April. Listen for their long (30+ second), high-pitched, trill in the spring and early summer.

Gray Treefrog

(*Hyla versicolor*)

This small, warty frog may be brown or green. They have unique toepads that enable them to climb. They live and breed (late April and May) in woodlands with shallow pools of standing water. Their call is a very short trill.

Spring Peeper

(*Pseudacris crucifer*)

The abundant, "X-back," spring peepers are the smallest frogs in Maine. Their skin is brown-gray and wartless. Peepers are among the first amphibians to breed in March and April. Mates find each other in fresh, shallow, standing water. Males sound a loud, high-pitched peep heard commonly on and adjacent to the refuge. Adults live in moist woods and meadows.

Bullfrog

(*Rana catesbeiana*)

Largest frog in the United States. Skin varies from light green-olive to brown. Breeds during May and June on shorelines of large, permanent water bodies with emergent vegetation. Adults stay close to wet habitats. Mating call is a deep "jug-o'-rum," heard for long distances.

Green Frog

(*Rana clamitans*)

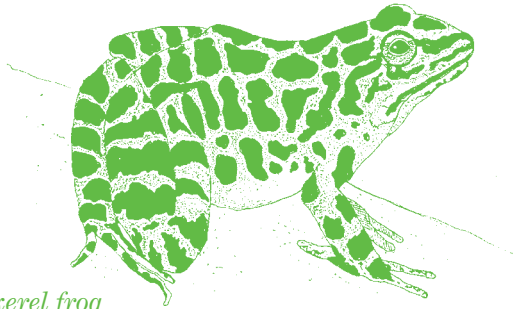
Greenish with dark brown or gray spots. Adult males have a yellow throat patch. They breed in permanent water bodies from May

to August. Adults stay close to wet, marshy areas. Green frogs emit a loud cry when leaping from danger. Their mating call resembles the pluck of a loose banjo string.

Pickerel Frog

(*Rana palustris*)

Well camouflaged by their brown skin and square patches on their backs. Underside of hind legs is yellow-orange. They breed during March and April near densely vegetated areas near permanent bodies of water. Often found far from water in summer. Mating call is a low grunt or croak.



Pickerel frog

Northern Leopard Frog

(*Rana pipiens*)

(C) Similar in appearance to the pickerel frog, this species has irregular rows of brown, oval spots. They breed from April to May around vegetated edges of swamps and flooded meadows. Leopard frogs may be found in wet woods during the summer months. They have three calls described as a snore, trill, and scream.

Wood Frog

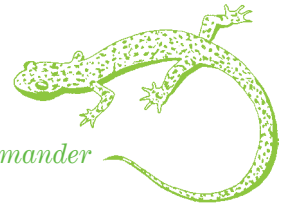
(*Rana sylvatica*)

Faces appear masked. They are one of the first species to appear in spring, just after ice break-up. Breeding takes place in vernal pools; adults may be found in leaf litter. Wood frogs emit a sound similar to a quacking duck.

Blue-spotted Salamander

(*Ambystoma laterale*)

Dark blue or black body with white specks. Tails are less than half of their body length. They emerge from the ground to breed in vernal pools during the first thaw (March). These woodland salamanders may be found under small branches, leaf litter, and moss.



Spotted Salamander

Spotted Salamander

(*Ambystoma maculatum*)

Large salamander, around 17 cm. This species is brownish-black or brownish-blue with yellow spots. Breeding takes place in vernal pools, otherwise adults live in forests under leaves, stumps or underground.

Eastern Newt

(*Notophthalmus viridescens*)

Greenish-brown adults are aquatic and have two rows of red dots along their back. Tail has a pronounced keel. Both larvae and adults live in aquatic environments with abundant submerged vegetation, however, the juvenile phase is land based. Juveniles are bright orange, called “efts”, and are found in moist woodlands.

Northern Dusky Salamander

(*Desmognathus fuscus*)

This species is dark brown or black; they darken with age. A light-colored line extends from their eye to the back of their jaw. They live and breed near swift-moving springs and streams.

Spring Salamander

(*Gyrinophilus porphyriticus*)

(C) Maine's largest salamander (up to 19 cm). They are pink-orange with black mottling. Requires clean, cold,

forested streams with high oxygen supply.

Northern Two-lined Salamander

(Eurycea bislineata)

Smallest salamander in Maine. They have yellow backs with two dark lines running the length of the animal. They live on the edge of streams and rivers, hiding under rocks and woody debris.

Four-toed Salamander

(Hemidactylium scutatum)

(C) This species has four toes on the hind feet (not five). Back is red-brown; belly is white with black specks. Favors forested areas with wet sphagnum moss. Adults are generally terrestrial.

Northern Redback Salamander

(Plethodon cinereus)

Color varies from black with a red, stripe on the back, to black to red with black spots. Tails are rounded in cross-section. This species hides under leaf litter, logs, bark, or rocks in moist woods.



Northern Spring peeper

U.S. Fish and Wildlife Service

Rachel Carson is one of more than 548 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 these 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.

NOTES

Date: _____ Time: _____

Observers: _____

Weather: _____

Species Seen:
