STUDENT WORKSHEET / ACTIVITY 3.1 WHO ARE THE SPECIES AT RISK? 1/4

STUDENT WORKSHEET / ACTIVITY 3.1 WHO ARE THE SPECIES AT RISK? 2/4

PAINTED TURTLE

(Chrysempys picta)

Painted turtles are adaptable and can live wherever aquatic plants, insects, snails or tadpoles are abundant and logs or rocks are available for basking. Though they are by far the most common turtles in the province and can live for more than 40 years, losses of painted turtle nests and young are high. Mortality on roads and habitat degradation have caused the disappearance of these turtles in many areas.

DESCRIPTION

Olive, black or brown shell with pale yellow lines and red dabs on edge; dark grey skin with red and yellow streaks on head, neck and legs; yellow lower shell with dark centre blotch

SHELL LENGTH

10-25 cm

RANGE

Southern Ontario to about Temagami and Wawa. Western painted turtle subspecies from around White River to Lake of the Woods and Red Lake

STATUS

Secure provincially and nationally. Western painted turtle considered uncommon provincially





BLANDING'S TURTLE

(Emydoidea blanding)

The high-domed Blanding's turtle can live for more than seven decades - females do not even start breeding until they are between 20 and 25 years old. This species is usually the last turtle to finish nesting, in late June or early July, often moving far from water to find soft sand beneath a log or sparse vegetation for their clutches of 6 to 11 eggs.

DESCRIPTION

Black or dark brown shell with faint yellow or tan specks; dark brown or blue-grey head and legs; deep yellow throat and chin; yellow lower shell with black splotches

SHELL LENGTH

15-25 cm

RANGE

Discontinuous populations scattered throughout southern Ontario to about North Bay, Sudbury and Manitoulin Island

STATUS

Threatened provincially and nationally

SPINY SOFTSHELL TURTLE

(Apalone spiniferus)

Almost completely aquatic, spiny softshells probe beneath rocks, logs and roots for snails, crayfish and aquatic insect larvae or bury themselves in the silt and await their prey. The historic range of this species is the most limited of any Ontario turtle and, unfortunately, corresponds with the most heavily populated parts of the province. Softshell turtles have disappeared from most of the Ottawa Valley, around Lake Ontario and in the upper Thames River watershed.

DESCRIPTION

Map turtles congregate in clear, mud-bottomed sections of large rivers and bays and are often mutilated by Flat, grey-brown shell with black-bordered spots (faint powerboats. Five to ten percent of several hundred on females); grey or brown skin, with a dark-edged light marked turtles in a St. Lawrence River study bore propeller stripe on each side of the head; very long, narrow snout; wounds. Many more probably died as a result of such webbed feet; yellow lower shell wounds. Along with painted and snapping turtles, map turtles frequently drown in commercial fishing traps. Poor water quality renders them susceptible to shell rot, 17-45 cm resulting in soft red lesions on the upper shell. Map turtles are the least studied turtle in the province, and the extent of the dangers they face remains unclear.

SHELL LENGTH

RANGE

Far Southern Ontario to about Hamilton and The Pinery Provincial Park; Thames River Long Point on Lake Erie; an isolated population near Pembroke

STATUS

Threatened provincially and nationally





MAP TURTLE

(Graptemys geographica)

DESCRIPTION

Olive brown to greenish shell with yellowish irregular concentric markings like a contour map (faint on females); dark green skin with wavy yellow lines on head, neck and legs; yellow lower shell

SHELL LENGTH

10-27 cm

RANGE

Discontinuous populations along the Great Lakes and some larger rivers North to Pembroke and the French River

STATUS

Species of special concern provincially and nationally

STUDENT WORKSHEET / ACTIVITY 3.1 WHO ARE THE SPECIES AT RISK? 3/4

(Clemmys guttata)

SPOTTED TURTLE

Poaching by turtle collectors, habitat loss, and mortality on roads have combined to extirpate 40 percent of Ontario's known populations of the diminutive spotted turtle. Generally, it is the first turtle species to emerge in April, migrating to shallow pools in sphagnum swamps, grass marshes, and fens to bask and breed. In early autumn, spotted turtles gather in mossy pockets beneath submerged tree roots or rock shelves to spend the winter. Lying low for so much of the year may contribute to their impressive longevity, estimated to be up to at least 60 years.

DESCRIPTION

Black with yellow spots on shell, legs and head; lower shell mostly black or yellow with black blotches

SHELL LENGTH

8-12 cm

RANGE

Thinly distributed around Georgian Bay, Southwestern and Eastern Ontario

STATUS

Endangered provincially and nationally





WOOD TURTLE

(Glyptemys insculpta)

In addition to encountering the dangers all turtles do, the Wood turtle, Ontario's most terrestrial turtle species, is also threatened by the illegal pet trade. In 1994, a Wood turtle population of some 400 in Southwestern Ontario suddenly declined by at least half, almost certainly due to poaching. Although these turtles likely lived throughout most of Southern and Central Ontario, it is estimated that only 1000 to 1600 adults are left in widely separated, genetically isolated populations.

DESCRIPTION

Ridged, bumpy brown shell; brown skin with a reddish or orange tinge on neck and legs; yellow lower shell with black patches

SHELL LENGTH

13-20 cm

RANGE

Sparsely scattered between northern Huron County, Midland and the Niagara Peninsula; separate populations in Algonquin Provincial Park and from Sault Ste. Marie to Sudbury

STATUS

Endangered provincially, species of special concern nationally

STUDENT WORKSHEET / ACTIVITY 3.1 WHO ARE THE SPECIES AT RISK? 4/4

STINKPOT TURTLE

(Sternotherus odoratus)

Crawling at the bottom of deep, thick weed beds in muddy bays, slow streams and marshes, stinkpots are seldom seen, coming to the shallows at dusk to catch crayfish, tadpoles, snails and aquatic insects. Also known as musk turtles, they are named for a smelly yellowish liquid they release from glands at the edge of their upper shell if threatened. Stinkpots are known to live up to 55 years but, due to the destruction of wetlands, these turtles have disappeared from most of southern Ontario.

DESCRIPTION

Brown or grey shell with black flecks, often green with algae; dark skin, with two light lines on sides of head; black and yellow lower shell

SHELL LENGTH

8-13 cm

RANGE

Parry Sound to Severn River; Pembroke to Prince Edward County; a few locations on Lake Erie and the Detroit River

STATUS

Threatened provincially and nationally





SNAPPING TURTLE

(Chelydra erpentine)

Snapping turtles are far more widespread than most other turtle species. Their numbers are falling, however, and researchers argue that this species should be designated as at risk. Egg failure and deformities are common in snapping turtle populations where high levels of PCBs, dioxins, furans and other contaminants are found in southern Ontario's water bodies. Even in Algonquin Provincial Park, a long-studied snapping turtle population has fallen by at least 50 percent.

DESCRIPTION

Black, brown or olive shell; dark grey or brown skin; dull yellow or tan lower shell; long, jagged-ridged tail

SHELL LENGTH

20-50 cm

RANGE

Southern Ontario North to about Temagami and Elliot Lake; scattered populations around Chapleau and Lake Superior West to Red Lake

STATUS

Declining and now at risk

STUDENT WORKSHEET / ACTIVITY 3.2 FIELD TRIP: TURTLES 1/2

By Tim Tiner Reprinted from Ontario Nature http://onnaturemagazine.com/field-trip-turtles.html/2

In the mid-1990s, Ministry of Natural Resources (MNR) biologist Tim Haxton made a disturbing discovery while doing a survey of snapping turtles in the Haliburton area. Nearly one-third of the 279 turtle sightings he tallied were roadkills. He also encountered hostility toward the ponderous reptile. "It is a big issue up there. A lot of people like to swerve off the road and run them over," recalls Haxton.

While turtles may not account for a large proportion of animal fatalities on Ontario's roads, their biology is such that these mortality rates have a huge impact on a population's long-term survival. Already six of Ontario's eight hard-shelled turtle species are designated as at risk and rarely seen by most residents. No other single order of animals in the province, and probably in the world, is so imperilled. After 250 million years of soldiering through mass extinctions that felled, among many other species, the dinosaurs, turtles are now facing a similar fate. Most Ontario turtles range little beyond the southern edge of the Canadian Shield, making their home in the most intensely developed region in Canada where only some 30 percent of the original wetlands remains. Agricultural pesticides and industrial pollutants contaminate what's left of viable, albeit fragmented, turtle habitat. Body counts along the 3.6-kilometre causeway at the base of Long Point, on Lake Erie, have turned up 160 to 200 squashed turtles annually, including threatened and endangered species.

Turtles cannot spring back from heavy losses. The annual rate of reproductive success for these animals is



extremely low, as a long list of predators raid nests and prey on hatchlings.

On the other hand, a turtle's lifespan is long. Studies suggest that snapping turtles can live for more than a century. Many Ontario turtles first lay eggs when in their teens, and continue breeding for the rest of their lengthy lives, evening the odds that eventually some offspring will survive. Conversely, an additional annual loss of even 1 percent to 2 percent of adult females can have catastrophic consequences for the whole population. "Turtles seem like they'll last forever," says Bob Johnson, curator of reptiles and amphibians at the Toronto Zoo. "But [the dynamics] are in place that could see this blip of extinction, which could have been addressed if we saw what was happening."

Johnson is part of a team of leading turtle biologists who have drafted the Ontario Multi-Species Turtles at Risk Recovery Strategy that is being used to guide funding for ongoing research - as well as nest habitat creation and protection - by conservation authorities, universities, parks staff and the Toronto Zoo.





DANGERS TO TURTLES (describe each briefly)

STUDENT WORKSHEET / ACTIVITY 3.2 FIELD TRIP: TURTLES 2/2

- 1. Read the article. While you read it, circle 5 new words or phrases.
- 2. Use a dictionary to find the meaning of the words you circled. Write down the words and their meaning. Use each word in a sentence to practice.
- 3. Look at the last paragraph again what does the last sentence mean to you? Think of some changes that humans can make and list them.
- 4. Complete the chart below to summarize the article.

TURTLE HELPERS AND PROGRAMS (describe each briefly)















