

A Checklist of Amphibians and Reptiles within the Grand River Watershed



2018

ABOUT THE CHECKLIST

This checklist includes 43 species of herpetofauna (20 amphibians and 23 reptiles) that have been recorded within the Grand River watershed recently and/or historically.

Amphibians have smooth, moist skin and generally include salamanders, toads, and frogs. Reptiles have scales, claws, and an external ear opening, and include turtles and snakes.

The checklist is based on information gathered from many sources. These sources include the GRCA, the Ministry of Natural Resources and Forestry (MNR), Environment Canada, and Ontario's Reptile and Amphibian Atlas.

For each species, common and scientific names are provided in column one. Global and provincial ranks are provided in columns two and three. Federal and provincial status is provided in columns four and five. Additional comments about each species are provided in column six.

Global and provincial ranks provide an overall indication of the conservation priority for a species. Many factors are considered during the ranking process. These factors include a species' abundance, population trends, and threats such as habitat loss or disturbance, natural predators, and road mortality. Species listed as *special concern*, *threatened*, or *endangered* are legally protected by the Federal Species at Risk Act (SARA) and/or Provincial Endangered Species Act (ESA). According to this checklist, 18 species and 1 genetic hybrid are considered a high priority for conservation and are at "at risk" of extinction in Ontario and/or in Canada. More details can be found in the 'Key to the Checklist' below.

This checklist is intended to be used by consultants, municipalities, government agencies, naturalists, and students. The checklist will be updated as necessary.



Blanding's Turtle

Emydoidea blandingii

Photo credit: Anthony E. Zammit

KEY TO CHECKLIST

GRANK/SRANK - Global and Subnational Ranks (Source: NatureServe and Ontario Natural Heritage Information Centre):

GX/SX	Presumed Extinct/Extirpated	Species not located in anywhere in the wild/in Ontario despite intensive searches and virtually no likelihood of rediscovery.
GH/SH	Possibly Extirpated	Known from only historical occurrences but still some hope of rediscovery. There is evidence that the species may be extinct throughout its range, but not enough to state this with certainty.
G1/S1	Critically Imperiled	Critically imperiled globally/in Ontario because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines, making it especially vulnerable to extirpation from the province.
G2/S2	Imperiled	Imperiled globally/in Ontario because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors, making it very vulnerable to extirpation from the province.
G3/S3	Vulnerable	Vulnerable globally/in Ontario due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors, making it vulnerable to extirpation.
G4/S4	Apparently Secure	Uncommon but not rare globally/in Ontario but some cause for long-term concern due to declines or other factors.
G5/S5	Secure	Common; widespread, and abundant globally/in Ontario.
SE	Exotic	Non-indigenous species globally/in Ontario.
GU/SU	Unrankable	Currently unrankable globally/in Ontario due to lack of information or due to substantially conflicting information about status or trends.
Q	Questionable Taxonomy	This modifier is only used at a global level.
T	Intraspecific Taxon	Denotes that the rank applies to a subspecies.

Federal Status (Source: Species At Risk Act 2002, Schedules 1-3)

EXT	Extinct	A wildlife species that no longer exists in the wild in Canada.
END	Endangered	A wildlife species facing imminent extirpation or extinction in Canada.
THR	Threatened	A wildlife species that is likely to become Endangered in Canada if nothing is done to reverse the factors leading to its extirpation or extinction.
SC	Special Concern	A wildlife species that may become Threatened or Endangered in Canada because of a combination of biological characteristics and identified threats.
DD	Data Deficient	A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction.
NAR	Not At Risk	A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

Provincial Status (Source: Endangered Species Act, 2007, O. Reg. 139/14, s.2)

EXT	Extirpated	A wildlife species that no longer exists in Ontario.
END	Endangered	A species facing imminent extinction or extirpation in Ontario which is a candidate for regulation under Ontario's ESA.
THR	Threatened	A species that is at risk of becoming endangered in Ontario if limiting factors are not reversed.
SC	Special Concern	A species with characteristics that make it sensitive to human activities or natural events.
DD	Data Deficient	A species for which there is insufficient information for a provincial status recommendation.
NAR	Not At Risk	A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

Species	GRank	SRank	Federal Status (SARA)	Provincial Status (ESA)	Comments
AMPHIBIANS					
Spotted Salamander, <i>Ambystoma maculatum</i>	G5	S4			Inhabits deciduous or mixed forests containing vernal ponds with no fish; widespread but under-reported.
Jefferson Salamander, <i>Ambystoma jeffersonianum</i>	G4	S2	THR	END	Inhabits deciduous, coniferous, or mixed forests containing vernal ponds; widely scattered occurrences in the watershed; uncommon to very common.
Blue-spotted Salamander, <i>Ambystoma laterale</i>	G5	S4			Inhabits deciduous, coniferous, or mixed forests containing vernal pools that do not contain fish or Jefferson Salamanders; Common and widespread in the southern half of the watershed.
Jefferson X Blue-spotted Salamander, Jefferson genome dominates <i>Ambystoma hybrid population 1</i>	HYB	S2		END	Unisexual, polyploids occur only where Jefferson Salamander is present; legally protected in Ontario.
Four-toed Salamander, <i>Hemidactylium scutatum</i>	G5	S4	NAR	NAR	Inhabits sphagnum bogs and swamps; recently recorded in the vicinity of Cambridge, Glen Morris, and Ayr; occurred historically in Brant, Haldimand, and Wellington Counties.
Eastern Red-backed Salamander, <i>Plethodon cinereus</i>	G5	S5			Inhabits deciduous or mixed forests, including moist white pine or hemlock forests; overwinters in mammal burrows and hides under fallen logs and leaf litter; occasionally cannibalistic; common and widespread in the watershed.
Mudpuppy, <i>Necturus maculosus</i>	G5	S4	NAR	NAR	Inhabits deep lakes, rivers, and streams; occasionally reported from scattered locations in the watershed.
Red-spotted Newt, <i>Notophthalmus viridescens</i>	G5	S5			Inhabits swamps and moist woodlands containing vernal pools, springs, and small streams lacking fish; benthic and burrowing behavior is common; common and widespread in the watershed.
American Toad, <i>Anaxyrus americanus</i>	G5	S5			Common and widespread in the watershed; like many amphibians, adults migrate up to several hundred meters between breeding pools and nonbreeding

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					terrestrial habitats; breeds mid-April to end of June.
Fowler's Toad, <i>Anaxyrus fowleri</i>	G5	S2	END	END	Restricted to the north shore of Lake Erie; not reported since 1986, the species is now possibly extirpated from the Port Maitland area; breeds May to June
Gray Treefrog, <i>Dryophytes versicolor</i>	G5	S5			Common and widespread in the watershed; often uses standing snags or hollow trees; breeds May to June.
Western Chorus Frog, (Carolinian Population) <i>Pseudacris triseriata pop. 1</i>	G5TNR	S4	NAR	NAR	Common and widespread in the Carolinian Zone (south of Cambridge); for a detailed explanation of subspecies status, see the 2008 status report by COSEWIC, available on the Species at Risk Public Registry; breeds mid-March to end of May.
Western Chorus Frog, (Great Lakes/St. Lawrence - Canadian Shield Population) <i>Pseudacris triseriata pop. 2</i>	G5TNR	S3	THR	NAR	Common and widespread north of Cambridge; for a detailed explanation of subspecies status, see the 2008 status report by COSEWIC, available on the Species at Risk Public Registry; breeds mid-March to end of May.
Spring Peeper, <i>Pseudacris crucifer</i>	G5	S5			Common and widespread in the watershed; found in a variety of woodlands; breeds April to end of June.
American Bullfrog, <i>Lithobates catesbeiana</i>	G5	S4			Historically widespread, now restricted to healthy marsh systems with permanent ponding; breeds May to end of July.
Green Frog, <i>Lithobates clamitans</i>	G5	S5			Common and widespread in the watershed; found in healthy marsh systems with permanent ponding; breeds May to end of July.
Pickerel Frog, <i>Lithobates palustris</i>	G5	S4	NAR	NAR	Geographically restricted in the watershed, preferring wetlands with cold water streams; breeds mid-April to mid-July.
Northern Leopard Frog, <i>Lithobates pipiens</i>	G5	S5	NAR	NAR	Common and widespread in the watershed; prefers shallow marsh areas; breeds mid-April to mid-July.
Mink Frog, <i>Lithobates septentrionalis</i>	G5	S5			Geographically restricted in the watershed; commonly observed at Luther Marsh and occasionally in marsh areas north of Guelph; breeds May to mid-July.
Wood Frog, <i>Lithobates sylvatica</i>	G5	S5			Common and widespread in the watershed; requires woodlands with vernal pools; breeds April to mid-May.

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REPTILES					
Snapping Turtle, <i>Chelydra serpentina</i>	G5	S5	SC	SC	Common and widespread in the watershed.
Midland Painted Turtle, <i>Chrysemys picta marginata</i>	G5T5	S5			Common and widespread in the watershed.
Spotted Turtle, <i>Clemmys guttata</i>	G5	S3	END	END	Rare and possibly extirpated in the watershed.
Wood Turtle, <i>Glyptemys insculpta</i>	G4	S2	THR	END	Historical (pre-1998) occurrences only; declining in Ontario.
Blanding's Turtle, <i>Emydoidea blandingii</i>	G4	S3	THR	THR	Very localized in the watershed and uncommon.
Northern Map Turtle, <i>Graptemys geographica</i>	G5	S3	SC	SC	Common along the middle to lower sections of the Grand River, between Cambridge and Port Maitland; occasionally reported between Inverhaugh and Bloomingdale; historically found along the Speed River (1924-1925) and Mill Creek (1952).
Eastern Musk Turtle, <i>Sternotherus odoratus</i>	G5	S3	SC	THR	Last reported in the early 1950s in the Ancaster area and south of Burford.
Red-eared Slider, <i>Trachemys scripta elegans</i>	G5T5	SE1			Exotic in Ontario.
Eastern Spiny Softshell, <i>Apalone spinifera spinifera</i>	G5T5	S3	THR	THR	Restricted to Lake Erie and possibly the lower reaches of Grand River, below Wilke's Dam.
Northern Ring-necked Snake, <i>Diadophis punctatus edwardsii</i>	G5T5	S4			Very few reports from scattered locations in the watershed.
Eastern Foxsnake, (Carolinian Population) <i>Pantherophis gloydi pop. 2</i>	G3TNR	S2	END	END	Restricted to southern portions of Haldimand County; very uncommon.
Eastern Ratsnake, (Carolinian Population) <i>Pantherophis spiloides pop. 2</i>	G5T1	S1	END	END	Restricted to southern portions of Brant and Haldimand Counties; very uncommon
Eastern Hog-nosed Snake, <i>Heterodon platirhinos</i>	G5	S3	THR	THR	Recently (2016) recorded in southwest Brantford; historically recorded in scattered locations between New Hamburg (circa 1944-1985) and Port Maitland (circa 1926-1929).
Milksnake, <i>Lampropeltis triangulum</i>	G5	S3	SC		Widespread in the middle to southern portions of the watershed, south of Fergus, but uncommon.

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Northern Watersnake, <i>Nerodia sipedon sipedon</i>	G5	S5	NAR	NAR	Common and widespread in the watershed.
Queensnake, <i>Regina septemvittata</i>	G5	S2	END	THR	Restricted to the middle Grand River and cold water tributaries such as Whitemans Creek.
Dekay's Brownsnake, <i>Storeria dekayi</i>	G5	S5	NAR	NAR	Common and widespread in the watershed.
Northern Red-bellied Snake, <i>Storeria occipitomaculata</i>	G5	S5			Widespread in the watershed but uncommon.
Butler's Gartersnake, <i>Thamnophis butleri</i>	G4	S2	THR	END	Restricted to the Luther Marsh area; geographically isolated from other populations located in southwestern Ontario.
Eastern Ribbonsnake, <i>Thamnophis sauritus</i>	G5	S3	SC	SC	Widespread but uncommon
Eastern Gartersnake, <i>Thamnophis sirtalis</i>	G5	S5			Common and widespread in the watershed
Smooth Greensnake, <i>Liochlorophis vernalis</i>	G5	S4			Widespread but uncommon
Massasauga, <i>Sistrurus catenatus</i>	G3	S3	THR	THR	Historical occurrences only (circa 1830, 1952); no longer present in the watershed.

FOR FURTHER INFORMATION

[Ontario Reptile and Amphibian Atlas:](https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/)

[Species at Risk Public Registry:](http://sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1)

[Species at Risk in Ontario:](http://www.ontario.ca/environment-and-energy/species-risk-ontario-list)

[NatureServe:](http://www.natureserve.org/)

<https://ontarionature.org/programs/citizen-science/reptile-amphibian-atlas/>

<http://sararegistry.gc.ca/default.asp?lang=en&n=24F7211B-1>

www.ontario.ca/environment-and-energy/species-risk-ontario-list

www.natureserve.org/

Report your sightings at:

www.inaturalist.org/



Eastern Ribbonsnake

Thamnophis sauritus

Photo credit: Anthony E. Zammit