

No one species occurs throughout the country, although the Wood Frog (*Rana sylvatica*) has been recorded in both Yukon Territory and the Northwest Territories (it occurs north to the mouth of the Mackenzie River, within the Arctic Circle) and has been collected in every province except Newfoundland. Newfoundland actually has no native amphibians or reptiles because it has been separated from the mainland by a relatively deep channel since the glacial retreat 10,000 years ago. Amphibians and reptiles spreading north and repopulating the country were presumably excluded by an impassable, to them, saltwater barrier. Other large islands, such as Prince Edward Island and Vancouver Island, had land connections with the mainland for a sufficient period to receive the advancing immigrants before the melting of the receding continental ice sheet raised the sea level to the point where the bridge was inundated.

The most northerly occurring reptile is a snake—the Common Garter Snake (*Thamnophis sirtalis*) which has been recorded at Fort Smith, N.W.T. This snake is also the most widely distributed reptile in the country and, although apparently absent from Yukon Territory, it has been recorded in one form or another (five or six races of it occur in Canada) in every province except Newfoundland.

Three species of rattlesnake, one having two distinct races, are Canada's only poisonous reptiles, although several harmless species, particularly in the east, are repeatedly mistaken for rattlesnakes, copperheads or water moccasins. The latter two forms have never been collected in Canada. Specimens erroneously identified as one or the other have always turned out to be the Fox Snake (*Elaphe vulpina*), the Milk or House Snake (*Lampropeltis triangulum*), the Northern Water Snake (*Natrix sipedon*) or some equally harmless, although relatively large (by Canadian standards any snake three feet or more in length is large) species. Most difficult of the poisonous snake fables to comprehend is the evil reputation attached to a little (rarely over 12 inches) snake, red underneath and brown, black or grey above. From Nova Scotia to eastern Saskatchewan the Red-bellied Snake (*Storeria occipitomaculata*) is often referred to as the Copper Snake and given deadly qualities by the uninformed and the easily intimidated, yet the tiny mouth and short teeth of this small snake could not succeed even in scratching a human tormentor and it certainly has no poison.

The three poisonous snakes that do occur in Canada are the Massasauga (*Sistrurus catenatus*) in southern Ontario, particularly the Georgian Bay and Bruce Peninsula areas; the Timber Rattlesnake (*Crotalus horridus*) in southern Ontario which may be extinct in Canada since the last known colony was in the Niagara Gorge and a specimen has not been taken there for over 25 years; and the Western Rattlesnake which occurs as two distinct races—the light-coloured Prairie Rattlesnake (*Crotalus viridis viridis*) in southwestern Saskatchewan and southeastern Alberta and the darker Pacific Rattlesnake (*Crotalus viridis oreganus*) in the southern dry interior valleys of British Columbia.

The gradually increasing harshness of the climate is the most common factor preventing the northward spread of a reptile or amphibian species in Canada, although for some species specialization to a particular habitat may prevent wider distribution. The most vulnerable stage is the egg—the most northerly ranging frog (the Wood Frog) has an egg best adapted for development at low temperatures. The most northerly occurring reptile, the Common Garter Snake, bears its young alive and therefore is its own mobile incubating chamber, able to move to the warmest spots at each period of the day and assure the rapid development of the embryos essential in a northern environment.

Although a wide variety of freshwater and terrestrial situations are inhabited by Canadian amphibians and reptiles, only a few marine turtles, migrating from tropical regions during the summer, utilize the saltwater habitat. No amphibian tolerates this environment, although occasionally toads will lay their eggs in brackish pools along the coast.