

Five-lined Skink – Sometimes Less is More

Did you know that Ontario has a species of lizard? If you've ever camped in or visited a place with sunny, rocky outcrops within The Land Between Ecotone, such as the **Kawartha Highlands Provincial Park**, or the **Queen Elizabeth II Wildlands Provincial Park**, you may have been surprised to see our only species of lizard darting back and forth between the ancient rock crevices in search of insects and sunny warm spots to bask in.



Photo: Tracey McCann

The common five-lined skink (*Plestiodon fasciatus*) is not so common throughout most of Ontario anymore. Two sub-populations exist: the Carolinian population, found in southwestern Ontario in places such as **Rondeau Provincial Park** and **Pinery Provincial Park**, and the Southern Shield population, found only in The Land Between. The Carolinian population is Endangered in Ontario, and great efforts are underway to preserve them. The Southern Shield populations, however, is listed as a Species of Special Concern, meaning it is monitored and may become threatened if care isn't taken. 100% of this unique population

in Ontario resides within the open granite bedrock barrens of the The Land Between.

But what makes this place so special, and why have skinks declined? Five-lined skinks, like all reptiles, are 'poikilotherms', which means they depend on their environment to regulate their temperature. Another name for this is 'cold-blooded', but a well-warmed skink can have a blood temperature much lower or higher than a human, anywhere from 25-36°C. Rocky outcrops provide ideal basking spots for these lizards, because they hold heat for a long time. Due to a change in elevation causing shorter and cooler summers, skinks do not occur very far north of the Canadian Shield, so their survival in Ontario depends on us!

One major threat contributing to skink declines, other than the direct threat of habitat loss due to road construction and housing developments, is the loss of micro-habitats due to human disturbance. A micro-habitat is a small, special area, such as the underside of a rock or moist log, within a larger habitat, such as a pine barren or open woodland. Small animals, like skinks, have adapted to use these areas, which are often naturally scarce. Many keen people, while looking for animals under rocks, tend to carelessly displace these rocks afterwards. Rocks taken for gardens or to create vast armies of stone cairns remove invaluable habitat that may have been used by skinks in that area, relatively undisturbed, since the last ice age. It is incredibly powerful to imagine generations of skinks using the same cozy crevices under rocks, only to have them removed to become part of a cairn used for a 2-minute selfie, or for a short-term afternoon activity. Flipped rocks and pieces of wood must always be returned to the exact position you found them, it is incredibly important to the survival of skinks and other animals in many human disturbed areas. Less direct habitat disturbance means more skinks!

Humans aren't the only threats to five-lined skinks, however. In the wild they have to

By Basil Conlin

content with black bears, who are very good at flipping rocks and eating as many skinks as they can grab. In addition, snakes, birds, rodents, fox, skunk, coyotes, basically any carnivore in Ontario wouldn't turn up the opportunity to eat a skink if given the chance. To content with a life of persecution, the five-lined skink has evolved an amazing ability. If a predator grabs the brightly coloured tail of a skink, it would be surprised to find that the tail has wiggled off! Skinks, and many other species of lizards (as well as amphibians such as salamanders) have the amazing ability to sever and drop their own tail to avoid being eaten. The tail then regrows, although it is never as long or as colourful as the original, and the lizard survives pretty much unscathed. Young five-lined skinks have bright blue tails in order to draw attention away from their heads.

The scientific term for this amputation is 'caudal autonomy', caudal meaning 'tail' and autonomy meaning 'separation of'. Lizards have what are known as 'fault lines' along the vertebra in their tail which can be severed automatically if put under enough stress. While this is a great way for lizards to avoid being eaten in the wild, it must be remembered when encountering skinks not to handle them or grab them by the tail. A skink stores a lot of energy in its tail, and if it loses its tail later in the summer before it has to hibernate, it might not be able to regenerate the losses. Less handling can ensure that healthy urban skink populations survive for years to come.

Our five-lined skinks are a unique and important part of Ontario's cultural and natural heritage! You can help make sure they are protected by reporting your sightings!