



Northwestern Alligator Lizard

Scientific name: *Elgaria coerulea principis*

The Northwestern Alligator Lizard is a short-legged, long-bodied lizard, with a triangular head (bearing little resemblance to an actual alligator!). Growing to a maximum of 20 cm in total length, their size and colouration make them quite cryptic. Adults usually are brown in colour with a pale belly. Occasionally they sport dark blotches or a broad bronzy stripe down the centre of the back. Upon close examination, you might see a fold of skin running down each side. This allows the body to expand when the lizard is breathing, full of food, or in the case of females, full of eggs. Juveniles often are more metallic looking, with black sides and a bronze back.

Alligator Lizards are very secretive; their first defence is to flee and hide. If caught, a lizard may release a smelly mix of feces and musk, bite, or even 'release' (autotomize) its tail. The dropped tail acts as a decoy, distracting the potential predator. Over time, the lizard will regenerate a shorter, fatter tail. As the tail is an important fat reserve, tail autotomy usually is a tactic of last resort. As evidenced by the number of lizards with regenerated tails, however, it also is a successful tactic.

Making a living

Alligator Lizards spend the winter hibernating in underground dens (hibernacula). Upon emergence from the dens in spring, the mating chase begins. Male lizards forgo any displays. Instead, an interested male simply chases down a likely female, bites her head in his large jaws, and mates with her - sometimes for many hours!

In B.C., Northwestern Alligator Lizards appear to remain near their hibernacula year-round. After mating, the young develop inside their mother's body. Come mid-August to mid-September, the pregnant females give birth to between 4 and 6 live young. Carrying the young all summer allows females to protect their developing young and provide them the best possible heat and humidity. However, it also restricts how much females can eat and requires them to bask more often, exposing them to passing predators. Female Alligator Lizards mate every 2 years on average, as they require a year after breeding to eat, grow, and regain their stores of body fat.

During the summer, most Alligator Lizards can be found basking in sunny areas or soaking up heat under warm rocks. These lizards usually are found in groups; however, there is little interaction between individuals. They often share their habitat - at some cost - with two species of snake, the Common Garter Snake and Western Terrestrial (Wandering) Garter Snake. These snakes, as well as most other snake species, shrikes, Red-tailed Hawks, and house cats predate upon Northwestern Alligator Lizards.

What's for dinner?

Adult Northwestern Alligator Lizards munch on large insects such as beetles, caterpillars, and grasshoppers, as well as spiders, snails, scorpions, and millipedes. Obviously prey that bite and sting do not deter them! Juvenile lizards eat many of the same prey items, simply choosing these items in a smaller size.

Places and spaces

Northwestern Alligator Lizards are found in most of southern B.C., including Vancouver Island and the Gulf Islands. They cope well with cooler, wetter climates. This allows them to live in many different habitat types, including montane forests, dry woodlands, grasslands, and riparian zones such as the banks of streams, creeks and ocean beaches.

Alligator Lizards commonly are associated with Douglas-fir and Hemlock forests, both on the coast and in the interior. Within these forest types, lizards use features such as rocky outcrops and talus slopes (for hibernating and for basking), and grassy openings scattered with debris such as logs and rocks. Lizards need the sunny openings to bask in – they cannot do without them. Luckily for them, these openings often are created through disturbances such as logging. This species often benefits from some level of forest disturbance, making it one of the more resilient reptile species in B.C.!

Past, present, and...future?

This species is at the northern limit of its range, and likely is limited from living further north by the cold winters. Peripheral populations such as these are considered extremely important, however, as often they carry different genes than their more central relatives. This contributes to the diversity of the species.

Because of their dependence on rocks as cover objects and over-wintering sites, Alligator Lizards can be affected by rock removal for road construction or landscaping. They also are disturbed easily, and may hide for hours after encountering a predator (or a curious human). In addition, these lizards appear to be quite sedentary, meaning that individuals do not move between populations very often.

Fortunately, while we don't know a lot about the population structure or size of the Northwestern Alligator Lizard in B.C., biologists feel that the distribution and resilience of the species are working in its favour. Provincially, the species is yellow-listed, meaning it appears to be secure and not at risk of extinction. The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) also has designated this subspecies as not at risk.