



Amazing Grasslands

More than just grass!

The Okanagan and Similkameen are known for the beautiful shrub-grasslands that cover the rolling hills of our valleys. These ecosystems are critical in supporting hundreds of different species of plants, animals, and insects. In addition to their beauty, our grasslands also provide us with excellent recreation opportunities and important grazing lands. It is important we treat our grasslands with respect to ensure these benefits can continue for years to come.



Great Basin Spadefoot



Sage Thrasher

Grasslands are
one of the
world's most
endangered
ecosystems.



Healthy grasslands



Grasslands in bloom

Grassland Superpowers



- Healthy grasslands have fewer invasive plants and can be less susceptible to severe wildfire due to less fuel build-up
- Grassland plants have deep, extensive root systems which prevents soil erosion and nutrient loss, and stabilizes slopes
- Many of the pollinators that we depend on also depend on the many wildflowers that occur in healthy grasslands

You can help!

- Always **stay on trails when enjoying the outdoors**. Grassland soil is covered by a delicate crust of moss and lichen which is vital for erosion protection and soil structure. Constant traffic by hikers, bikers, and especially ATV tires destroy this crust, which can take decades to fully heal.
- Try to make sure you **control the spread of invasive species**. These foreign plants aggressively push native species out of the way and disrupt the natural balance between them. They also often grow more abundantly, building up fuel loads and increasing the risk of severe wildfire.
- If you own livestock, be sure to **follow best management practices for livestock** on grasslands. Even though some other grassland systems can tolerate heavy grazing, our grasslands must be grazed gently.

Species Spotlight: Desert Amphibians

No water? No problem.

Most amphibians (frogs, toads, newts, salamanders) live either in water or in areas with high humidity and moisture. Their skin has to stay damp at all times because they partly breathe through their skin, and cannot absorb oxygen if their skin dries out. Despite this however, there are two different species of amphibian in the Okanagan and Similkameen that can survive in our dry, desert-like grasslands. Blotched Tiger Salamanders and Great Basin Spadefoots have adaptations that help them to survive where others cannot



Spadefoots use the fingernail-like "spades" on their hind feet to burrow deep into sandy soils



I Will Survive

One thing that both Tiger Salamanders and Spadefoots have in common is the ability to burrow and hibernate for part of the summer. It is much cooler and more humid underground, which helps them avoid the hot weather



Blotched Tiger Salamanders (*middle*) are fairly large, dark coloured salamanders with big yellow-green blotches all over. Adults can be 25 cm (10 in) long! To avoid the heat and dry weather, these salamanders live and hunt almost entirely underground. Because of this, they are very rarely seen, except during rainy nights and summer storms when they emerge to move around and do some extra hunting.



Desert amphibians are dependent on temporary ponds that form after spring rains but dry up in midsummer (top photo)

Great Basin Spadefoots (*bottom*) are squat, grey-brown toad-like amphibians with a large "spade" on each of their hind feet (*photo top right*). These spades allow them to dig themselves up to 1 m (3 ft) deep underground to avoid hot, dry weather. When breeding, spadefoots are able to use temporary pools that form from snowmelt because it takes just 6 weeks for their eggs to hatch and develop into adults!

Some salamanders never grow up!

Most of the time, baby Tiger Salamanders transform (or "metamorphose") into adults once it is time to leave their pond, trading gills for lungs and tail fins for strong back legs. Very rarely though, instead of metamorphosing, a salamander larvae will mature into an adult but never leave the water, keeping its gills and tail fins, and giving up life on land! When this happens, it's called being "neotenic". Neoteny can arise when, for whatever reason, it is too hard for a salamander to physically leave its pond (a water reservoir with high sides for instance). In these rare situations, neotenic salamanders can become more common than regular ones and can even form their own populations!



White Lake