

Species at Risk

Great Basin Spadefoot

Spea intermontana



STATUS

The Great Basin Spadefoot is protected under the federal *Species at Risk Act* as a Threatened species and is blue-listed provincially.

HABITAT DESCRIPTION

The Great Basin Spadefoot is found in grassland and open woodland habitats. In British Columbia, they are found in south-central areas where the climates are arid or semi-arid. The spadefoot requires an aquatic habitat for breeding such as temporary ponds, small pools or shallow areas of lakes. Spadefoots require terrestrial habitat for foraging as well as soils that allow for burrowing underground during unfavorable conditions.

HABITAT FEATURES (BIOPHYSICAL ATTRIBUTES)

Great Basin Spadefoots require habitat with the following biophysical attributes:

- Waterbody (ponds, small pools, or shallow areas of lakes) whether permanent, ephemeral, or intermittent, with submergent and emergent vegetation to support foraging and provide a moist microenvironment;
- Grassland and open woodland habitats within 500 m of a shallow waterbody; and
- Terrestrial habitat with loose soils that allow for burrowing and provide refuges (e.g. surface cover objects such as flat rocks and coarse woody debris).

CRITICAL HABITAT RANGE

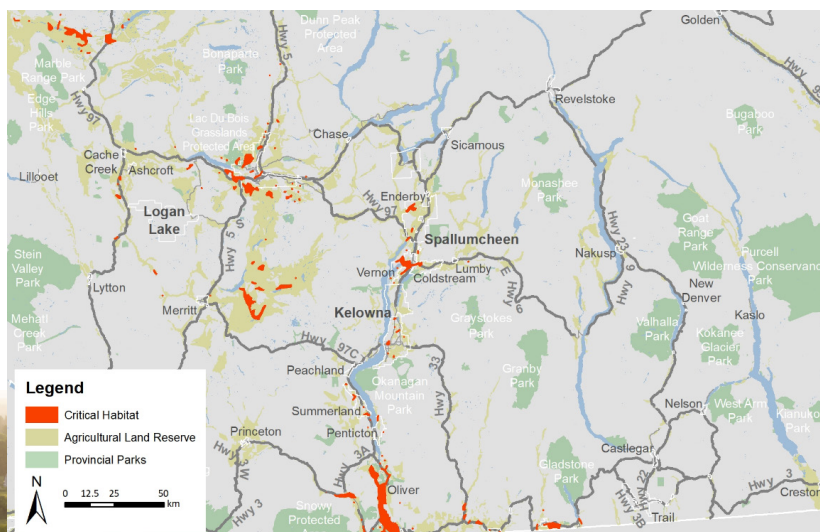


Figure 1: Great Basin Spadefoots are found in grassland and open woodland habitats in south-central areas where the climates are arid or semi-arid.

CRITICAL HABITAT FEATURE LINK TO BC AGRICULTURAL BMPs

This table identifies which Environmental Farm Plan (EFP) Beneficial Management Practices (BMPs) may be applicable; other stewardship actions may also be possible.

Habitat biophysical attributes	Activity that would destroy critical habitat	Agricultural BMP for protection or enhancement of habitat
<ul style="list-style-type: none"> Shallow waterbody Grassland and open woodland within 500 m of a shallow waterbody 	<p>Land conversion for human development (e.g. housing and urban areas, logging, agriculture) in core or connectivity critical habitat.</p> <p><i>How activity would destroy critical habitat:</i></p> <ul style="list-style-type: none"> Results in direct loss or degradation of habitat (e.g. soil compaction, alteration of moisture regimes) or causes fragmentation, preventing dispersal <p>Filling in wetlands; diversion of water; operation of water control devices or irrigation practices that result in rapid water level change.</p> <p><i>How activity would destroy critical habitat:</i></p> <ul style="list-style-type: none"> Alteration of hydrological patterns can cause premature drying of waterbody during breeding period, destroying breeding sites <p>Development and/or maintenance or modification of transportation and service corridor infrastructure (e.g. road building, expansion, upgrading or installation of impassable barriers).</p> <p><i>How activity would destroy critical habitat:</i></p> <ul style="list-style-type: none"> Results in direct loss of habitat or causes fragmentation, preventing dispersal <p>Inappropriate level and concentration of livestock use.</p> <p><i>How activity would destroy critical habitat:</i></p> <ul style="list-style-type: none"> Overgrazing and trampling can lead to loss of emergent vegetation and soil compaction, reducing capacity for foraging and burrowing May result in altered hydrology and increase influx of pollutants and/or sedimentation which degrade habitat <p>Introduction of predatory fish and/or American Bullfrogs into waterbodies.</p> <p><i>How activity would destroy critical habitat:</i></p> <ul style="list-style-type: none"> Predatory influence of introduced species can render waterbodies unsuitable as breeding habitat 	<ul style="list-style-type: none"> Protect and enhance waterbodies and riparian areas; avoid any alteration that will affect water quantity, create an impassable barrier or alter the emergent vegetation Protect and enhance grassland and open woodland adjacent to riparian areas Locate new roads and infrastructure outside of critical habitat areas Avoid intentional introductions of American Bullfrogs (<i>Lithobates catesbeianus</i>) or other non-native species <p>BMPs 2006-1005 2006-1006 2006-1101 2006-1802 2006-2103 2006-2105 2006-2107 2006-2202 2018/2019-3001 2018/2019-1003 2018/2019-1006 2018/2019-1101 2018/2019-0601 2018/2019-0704 2018/2019-2201 2018/2019-2202 2018/2019-2203</p>
<ul style="list-style-type: none"> No alterations of water chemistry (e.g. by herbicide/pesticide application, road or agricultural run-off) 	<p>Release of pollutants (e.g. atrazine, endosulfan, chlorpyrifos and diazinon based pesticides) into waterbodies or adjacent terrestrial habitat.</p> <p><i>How activity would destroy critical habitat:</i></p> <ul style="list-style-type: none"> Release of pollutants can result in loss of water quality required for survival, growth and successful reproduction 	<ul style="list-style-type: none"> Ensure agricultural activities do not lead to leaching or runoff of chemicals, contaminants or sediment into waterbodies Apply pesticides according to provincial best management practices <p>BMPs 2006-0501 2006-1301 2006-1802 2006-2102 2006-2201 2018/2019-0501 2018/2019-0704 2018/2019-1101 2018/2019-1601</p>
<ul style="list-style-type: none"> Loose soils that allow for burrowing within 500 m of shallow waterbodies 	<p>Repeatedly driving or walking over areas in core critical habitat can lead to soil compaction.</p> <p><i>How activity would destroy critical habitat:</i></p> <ul style="list-style-type: none"> Loose soils are required for burrowing year-round 	<ul style="list-style-type: none"> Ensure there are loose non-compacted soils where farm vehicles do not go near critical habitat areas; when unavoidable, concentrate vehicle movement to designated routes to minimize generalized compaction. <p>BMPs 2006-0601 2006-0602 2006-2107 2006-2204 2018/2019-0601 2018/2019-0704</p>
<ul style="list-style-type: none"> Surface cover objects in terrestrial habitat 	<p>Removal of flat rocks or coarse woody debris in riparian or adjacent grassland/woodland understorey.</p> <p><i>How activity would destroy critical habitat:</i></p> <ul style="list-style-type: none"> Removal of flat rocks and woody debris leads to loss of refuge structures 	<ul style="list-style-type: none"> Protect or install flat rocks and woody debris adjacent shallow waterbodies <p>BMPs 2006-2107 2018/2019-1002 2018/2019-1101</p>



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