

Endangered beach-dependent plants at Osoyoos Lake



Outline

- Endangered Plants at Osoyoos Lake
- Habitat Requirements
- Main Threats
- Research Required
- Summary

Endangered Plants at Osoyoos Lake

Species	COSEWIC and SARA listing
Scarlet Ammannia	Endangered
Toothcup	Endangered
Small-flowered Lipocarpha	Endangered
Short-rayed Aster	Endangered
In addition, 14 provincially Red or Blue listed plants occur here	

Scarlet Ammannia



- **Canadian locations:**
- 5 sites in Ontario
- 2 sites in BC
- 1 site extirpated (Osoyoos Lake)

photo by USDA, NRCS, 1995

Toothcup



Larry Allain photo, USDA, NRCS, 1995

- **Canadian locations:**
- 4 sites in Ontario
- 3 sites in BC
- 2 sites extirpated (one of these is Osoyoos Lake)

Small-flowered Lipocarpha



- **Canadian locations:**
- 12 sites in Ontario
- 2 sites in BC
- 2 sites extirpated (one of these is Osoyoos Lake)

Short-rayed Aster



- **Canadian locations:**
- 4 sites in BC

Habitat Requirements

- Moist, sandy or muddy beach, or shallow depressions near shorelines.
- Fluctuating water levels are required for seed germination:
 - must be inundated with water over winter
 - then water levels must lower in spring and summer to allow plants to grow and flower
- Narrow ecological niche likely allows them to out compete many other native plants that can't survive under those conditions.

Main Threats

- Shoreline developments (most beach on large lakes has already been lost or drastically altered)
- Fluctuating water levels (if too much fluctuation at the wrong time)
- Invasive plant species (weeds)
- Off-road vehicles (mud-bogging, beach driving)

Research Needs

- Clarification of impacts related to:
 - water level changes (height and frequency)
 - timing of water level changes (seasonal)
 - seed bank viability over time

Summary

- 4 plants, listed as Endangered in Canada, occur on Osoyoos Lake shorelines
- In addition to these federally listed plants, 14 provincially Red or Blue listed plants occur here
- Current water level regulation has allowed the plants to persist but we do not know optimal water level requirements
- Research is required; research assistance is appreciated

- Please consider stewardship of these plants during water level discussions and help to maintain these Endangered species in Canada.

