

Scarlet Ammannia

Ammannia robusta

Lythraceae (Loosestrife Family)

■ Status: Red / Endangered

■ Best Survey Time: August to September

■ General Habitat: Foreshore

RANGE

- Found in North America from south-central British Columbia south to Mexico and east to Ohio (USA) and southwestern Ontario
- In B.C., known from four locations in the south Okanagan Valley near Osoyoos, two of which are extirpated

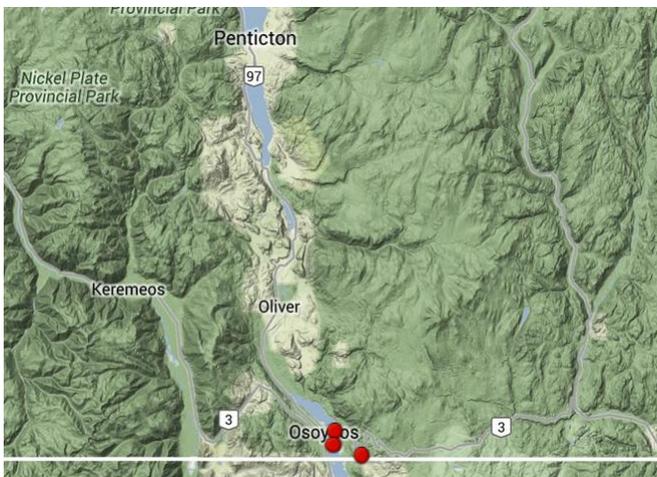


Figure 1 B.C. distribution of *Ammannia robusta* (BC CDC 2013)

HABITAT

- Open, muddy soils along lakeshores affected by seasonally fluctuating water levels with high mineral nutrient richness and warm water temperature in the Bunchgrass Biogeoclimatic Zone
- Also found along rivers and marshes in the USA
- Associates include toothcup meadow-foam (*Rotala ramosior*), short-rayed aster (*Symphotrichum frondosum*) and spike-rushes (*Eleocharis* spp.)



Figure 2 Marshy, muddy lagoon habitat near Osoyoos Lake, B.C.



Figure 3 Close up of *Ammannia robusta* population, Osoyoos, B.C.

LIFE HISTORY

- Annual species that grows each year from seed, germinating following water drawdown in late June or July, and flowering into early autumn
- Fruiting occurs from August into October, and seeds are released when the capsules dry and split open
- Does not reproduce vegetatively, so population survival depends on seeds and seed bank
- Requires open soil in order to germinate and grow
- Seed dispersal by water, waterfowl or small mammals
- May be subject to annual population fluctuations due to varying environmental conditions

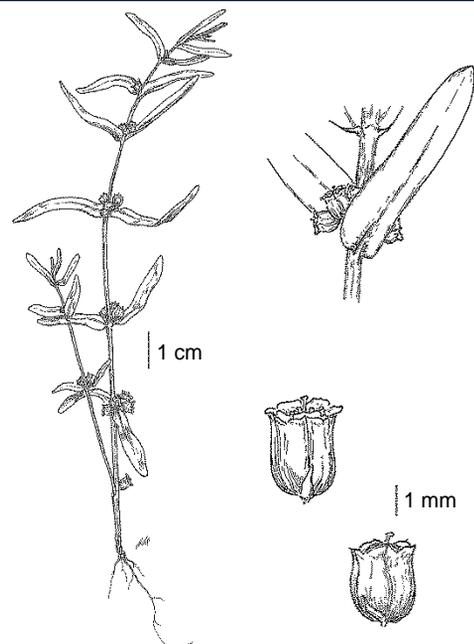


Figure 4 Illustration of *Ammannia robusta* (Douglas et al. 1999)

Ammannia robusta (continued)

DESCRIPTION

General

- Small, hairless annual herb
- Stems usually erect and often branched near bases
- From 10 to 30 cm, with small fibrous root

Leaves

- Leaves arranged in opposite pairs along stems
- Leaves smooth edged and linear-lanceolate, from 2 to 4 cm long and clasping stem
- Basal leaves absent at maturity

Flowers

- From 1 to, occasionally, 5 flowers tightly arranged in leaf axils
- Flowers 2 to 4 mm long, bell or urn-shaped, and often 4-ribbed
- Petals 3 to 4 mm long, fuchsia or purplish in colour

Fruits

- Capsules larger than the flowers and almost round at maturity, containing numerous small seeds



Figure 5 Flowering plants showing erect stems and opposite leaves

IDENTIFICATION TIPS

- Characterized by its small stature, opposite clasping leaves that are rounded at base, and numerous flowers tightly arranged in leaf axils
- May be confused with toothcup meadow-foam (*Rotala ramosior*), a related but generally smaller plant of similar habitats with non-clasping leaves that narrow towards base often forming short petioles, and generally fewer flowers in the leaf axils



Figure 6 Close up showing maturing capsules in leaf axils

GENERAL THREATS AND GUIDANCE

- **Avoid development in areas with known occurrences of *Ammannia robusta* through project relocation or redesign**
- Protect open, muddy lakeshore habitats from disturbance and development, including exclusion of livestock and ATVs through fencing and/or signage, and consider restoration including invasive plant removal following professional advice
- Provincial methods for when and how to conduct rare plant surveys, as well as guidance on mitigation measures for this species can be found in *Guidance for Plant Species at Risk in the Okanagan: Foreshore, Riparian & Wetland Developments*
- Report any sightings to the BC Conservation Data Centre (cdccdata@gov.bc.ca) and MFLNRO Ecosystems Section (josie.symonds@gov.bc.ca)

REFERENCES

- BC Conservation Data Centre. 2013.
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