

Thyme-leaved Spurge (*Chamaesyce serpyllifolia*)

Euphorbiaceae (Spurge Family)

Status: Blue / Not Assessed

Best Survey Time: Jul to Sep

General Habitat: Foreshore

RANGE

- Found in North America from Mexico north through most of the continental United States and across the southern Canadian provinces
- Widely distributed across the southern half of British Columbia, from Vancouver Island to Revelstoke
- Ten sites reported in Thompson Okanagan Region

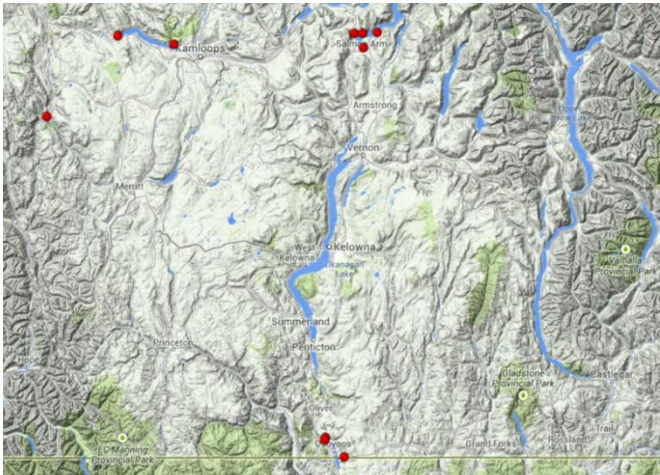


Figure 1 Thompson Okanagan Region distribution of *Chamaesyce serpyllifolia* spp. *serpyllifolia* (BC CDC 2014)

HABITAT

- Sandy or rocky lakes and river shores exposed by receding water levels in the late summer
- Known in the Thompson Okanagan Region from the Interior Douglas fir, Ponderosa Pine and Bunchgrass Zones
- Associates include common witchgrass, purslane, bushy cinquefoil, awned cyperus and various sedges



Figure 2 Open, sandy beach habitat on Osoyoos Lake, B.C.



Figure 3 Rocky lakeshore habitat in Sicamous, B.C.; habitat was dry at time of photo but submerged in the spring and early summer

LIFE HISTORY

- Annual species that grows each year from seed and flowers in the summer and early fall
- Germination and early development depend on the recession of spring high water levels, exposing the open shorelines on which the species depends
- Mature capsules are produced in the late fall and then split open to release small seeds that sink into the sand or cracks between the rocky substrate
- Does not reproduce vegetatively, so population survival depends on seeds and seed bank
- May be subject to large annual population fluctuations due to varying environmental conditions

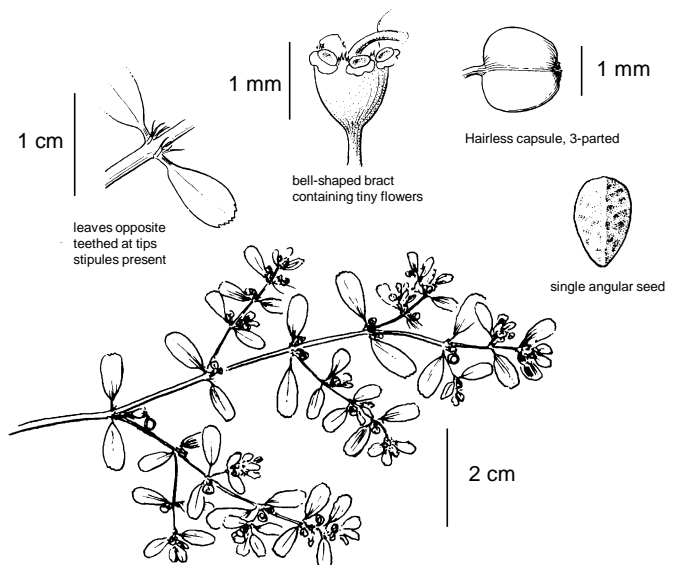


Figure 4 Illustration of *Chamaesyce serpyllifolia* spp. *serpyllifolia* by Jeanne R. Janish (Hitchcock et al. 1969)

Chamaesyce serpyllifolia spp. *serpyllifolia* (continued)

DESCRIPTION

General

- Prostrate, sprawling annual herb with stems often many-branched and up to 40 cm long
- Like most species in this family, ruptured stems and leaves produce a toxic, milky, white sap

Leaves

- Opposite and oblong to broadly egg-shaped, widest beyond the midpoint with teeth concentrated toward the tips, 0.5 to 2 cm long
- Lanceolate stipules at base of leaves

Flowers

- Axillary and terminal clusters of small, bell-shaped involucre up to 1 mm long, containing tiny male and female flowers, subtended by 4 glands and 4 or 5 whitish, petal-like appendages with scalloped edges

Fruits

- Capsules, 1.5 to 2 mm long, hairless, with three partitions
- Each partition contains a single, angular seed with a smooth, pitted or slightly wrinkled surface



Figure 5 Close-up of terminal flower clusters, showing bell-shaped scalloped appendages, mixed with maturing 3-part capsules

IDENTIFICATION TIPS

- Characterized by its prostrate growth form, all green leaves with toothed tips, and distinct flower clusters
- Looks very similar to corrugate-seeded spurge (*Chamaesyce glyptosperma*), which has seeds with a conspicuously ribbed surface, and narrower leaves with thick margins and usually no teeth
- Milk spurge (*Chamaesyce maculata*) can be distinguished by its prominently purple-marked leaves and hairy stems
- Young red goosefoot (*Chenopodium rubrum*) can look similar but does not produce milky sap and has alternate leaves that are not toothed at tip



Figure 6 Similar species include (a) *Chamaesyce glyptosperma*, which has thick-margined leaves with no teeth, and (b) *C. maculata*, which has purple marking on its leaves

GENERAL THREATS AND GUIDANCE

- **Avoid development in areas with known occurrences of *Chamaesyce serpyllifolia* spp. *serpyllifolia* through project relocation or redesign**
- Protect sensitive foreshore habitats from disturbance and development, including vegetation removal and trampling from cattle
- Follow provincial methods for when and how to conduct plant species at risk surveys
- Follow provincial policy and guidance on how to avoid, minimize, restore and offset impacts to plant species at risk and their habitats
- Report any sightings to the B.C. Conservation Data Centre (cdcddata@gov.bc.ca) and FLNR Ecosystems Section (josie.symonds@gov.bc.ca)

REFERENCES

- B.C. Conservation Data Centre. 2014. <http://a100.gov.bc.ca/pub/eswp/>
- Douglas et al. (editors). 1999. *Illustrated Flora of British Columbia*. Vol. 3. B.C. Min. Environ., Lands and Parks, and Min. For., Victoria, B.C.
- Hitchcock et al.. 1969. *Vascular Plants of the Pacific Northwest*. Univ. Washington Press, Seattle, WA
- Klinkenberg, Brian (editor). 2014 E-Flora BC <http://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Chamaesyce%20serpyllifolia>

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