

Small-flowered Lipocarpha (*Lipocarpha micrantha*)

Cyperaceae (Sedge Family)

Status: Red / Endangered ■
 Best Survey Time: Aug to Oct ■
 General Habitat: Foreshore ■

RANGE

- Disjunct North American distribution, with main distribution east of Ontario and Texas (USA)
- In British Columbia, known from three sites in the Okanagan Valley, two at Osoyoos Lake and one on Okanagan Lake at Sun-Oka Provincial Park

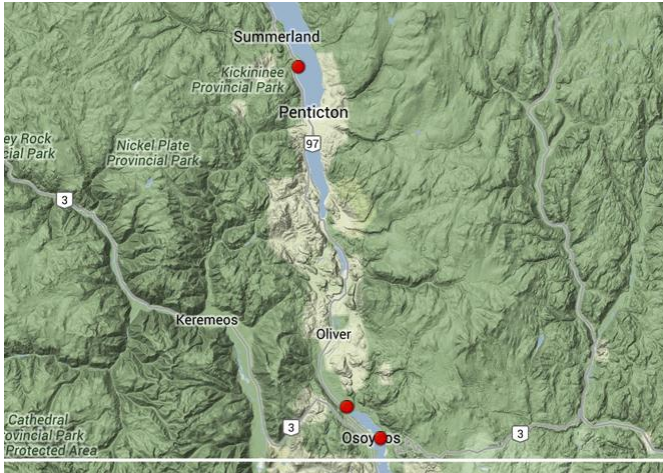


Figure 1 B.C. distribution of *Lipocarpha micrantha* (BC CDC 2013)

HABITAT

- Occurs along sandy lakeshores that are moderately wave-washed as well as shallow interdunal swales that often have seasonal flooding but that are protected from high waves and strong currents in the Bunchgrass Biogeoclimatic Zone
- Associates include scouring-rush (*Equisetum hyemale*), short-rayed aster (*Symphyotrichum frondosum*), spike-rushes (*Eleocharis* spp.) and sedges (*Carex* spp.)

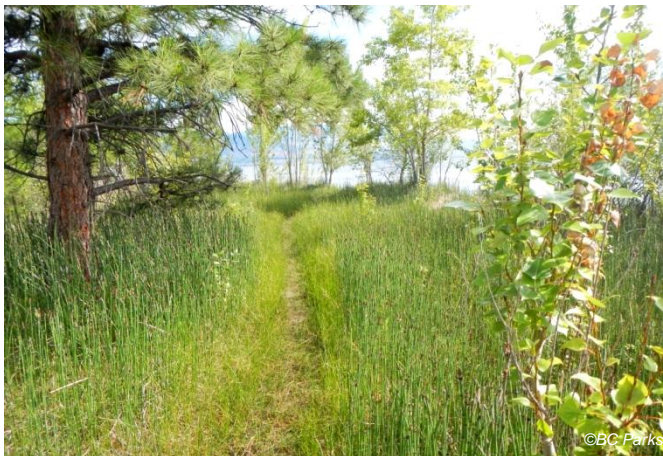


Figure 2 Interdunal swale habitat at Okanagan Lake, B.C.



Figure 3 Sandy lakeshore habitat at Osoyoos Lake, B.C.

LIFE HISTORY

- Annual species that grows each year from seed, germinating in late May or June following water drawdown and flowering into late summer
- Fruiting occurs throughout the summer into September, and seeds are released when the plants die in late summer or fall
- Does not reproduce vegetatively, so population survival depends on seeds and seed bank
- Seed dispersal by water, waterfowl or small mammals
- May be subject to annual population fluctuations due to varying environmental conditions

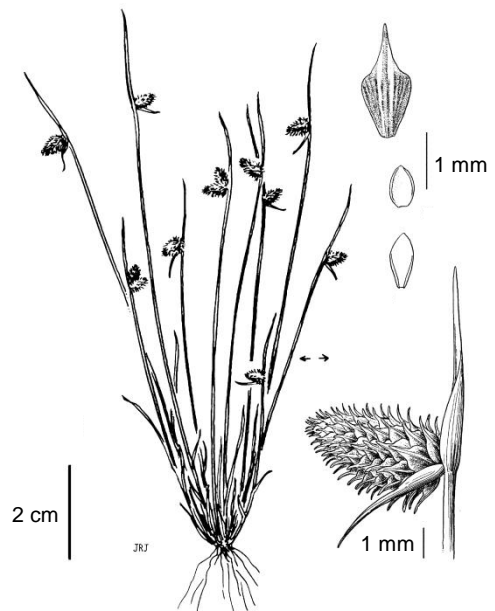


Figure 4 Illustration of *Lipocarpha micrantha* by Jeanne R. Janish (Hitchcock et al. 1969)

Lipocarpa micrantha (continued)

DESCRIPTION

General

- Inconspicuous, annual sedge, 2 to 20 cm tall
- Leaves and flowering stems clustered in small tufts growing from a mat of fibrous roots

Leaves

- Leaves narrow, about 0.5 mm wide, and up to 10 cm long but often much shorter

Flowers

- Numerous green flowers arranged in 1 to 3 unstalked, egg or cone-shaped spikes at stem tops
- Spikes from 2 to 6 mm long and 1.5 to 2.5 mm wide
- Two narrow bracts present at base of spikes: (i) longer, outer erect bract appears as a continuation of the stem, (ii) inner bract shorter than the spikes, usually bent downwards from the base of the inflorescence

Fruits

- Fruits are narrow achenes (fruit with thin walls surrounding an individual seed), finely pitted, 0.5-0.7 mm long, light brown, and convex on one side
- Achenes surrounded by firm, 1 to 2 mm long, egg-shaped scales, usually abruptly contracted into stiff, short awns that usually bend outwards



Figure 5 Typical tufted plant with egg-shaped spikes

IDENTIFICATION TIPS

- Characterized by tufted growth habit, small size, egg-shaped sessile spikes and specialized habitat
- May be confused with awned cyperus (*Cyperus squarrosus*), which is differentiated by flowers on flat, two-sided spikes, and flower scales that are bent backwards (squarrose)
- Also resembles small, tufted spike-rushes (*Eleocharis* spp.), which have rounded spikes but lack long floral bracts



Figure 6 Close up of spike showing bracts and awns

GENERAL THREATS AND GUIDANCE

- **Avoid development in areas with known occurrences of *Lipocarpa micrantha* through project relocation or redesign**
- Protect sandy lakeshore and swale 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
- 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. 2013. <http://a100.gov.bc.ca/pub/eswp/>
- Douglas et al. (editors). 2001. *Illustrated Flora of British Columbia*. Vol. 6. 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, W.A.
- Klinkenberg, Brian (editor). 2013. E-Flora BC. <http://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Lipocarpa%20micrantha>
- NatureServe. 2012. <http://www.NatureServe.org/explorer>

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