

# Ovate Spike-rush (*Eleocharis ovata*)

## Cyperaceae (Sedge Family)

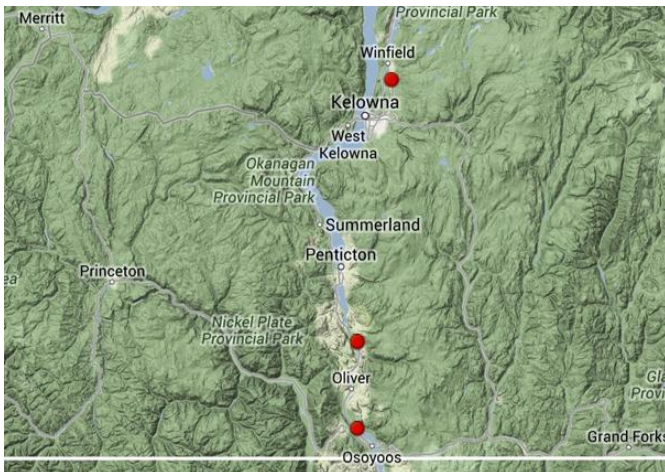
 Status: Red / Not Assessed ■

 Best Survey Time: Jul to Sep ■

 General Habitat: Wetland ■

### RANGE

- Found along the west coast of North America from British Columbia south to Arizona; also in Ontario, Quebec and the Maritimes south to West Virginia
- In B.C., known from three locations in the Okanagan Valley and two sites in the Lower Mainland



**Figure 1** Thompson Okanagan Region distribution of *Eleocharis ovata* (BC CDC 2014)

### HABITAT

- In B.C., found along exposed mudflats of receded lakeshores, wet meadows and river margins in the Ponderosa Pine Biogeoclimatic Zone
- Associates include lowland cudweed (*Gnaphalium palustre*), blunt-leaved yellow cress (*Rorippa curvipes*), nodding beggarticks (*Bidens cernua*), other species of spike-rushes (*Eleocharis* spp.), nut-sedges (*Cyperus* spp.) and sedges (*Carex* spp.)



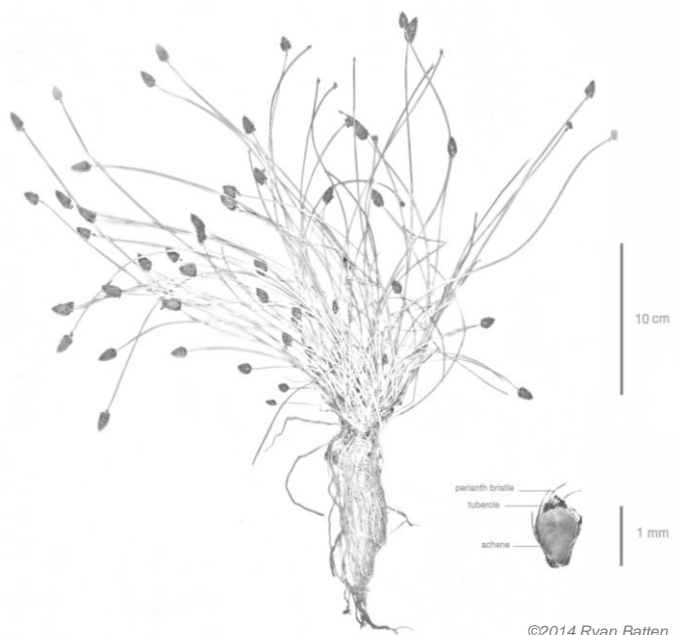
**Figure 2** Mudflat with common associates at Ellison Lake, B.C.



**Figure 3** Close up of flowering spikelets

### LIFE HISTORY

- Annual, wind-pollinated species that grows each year from seed, flowering in the summer
- Germination and development seem to depend on the recession of spring high water levels, exposing the mudflats on which the species depends
- Mature achenes are produced in the late summer and fall, then float to new sites during the winter inundation period or are distributed by waterfowl
- May not appear in some years due to persistent high water levels



**Figure 4** *Eleocharis ovata* herbarium specimen photos converted to line drawing

# *Eleocharis ovata* (continued)

## DESCRIPTION

### General

- Tufted annual with fibrous roots, producing decumbent (rarely erect) stems 10 to 30 (40) cm tall

### Leaves

- Leaves usually shorter than to slightly exceeding stems, with a small tooth 0.2 mm long at top of sheath (basal part of leaf that surrounds stem)

### Flowers

- Spikelets ±oval-shaped, 2 to 8 mm long
- 25 to 100+ scales (which cover achene and stamens), usually orange-brown to purplish with a green central mid-vein and transparent margin, covering 2 (rarely 3) stamens with brown anthers
- Perianth bristles brownish, surpassing the tubercle (hat-like portion at top of achene)

### Fruits

- Mature achenes golden-brown, 0.75 to 1 mm long by 0.6 to 0.85 mm wide
- Tubercles triangular, 0.3 to 0.5 mm high by 0.3 to 0.5 mm wide, usually narrower than the top of achene



**Figure 5** Comparison of mature *Eleocharis* achenes showing perianth bristles (arrow)

## IDENTIFICATION TIPS

- May often occur with other *Eleocharis* species: when population numbers permit, collections with mature achenes are required to make reliable identification
- Most often confused with obtuse spike-rush (*E. obtusa*) and red-listed Engelmann's spike-rush (*E. engelmannii*); can be distinguished from these species by its narrower tubercles (less than  $\frac{2}{3}$  the width of the achene; see Figure 5) and less strictly erect, usually arching stems



**Figure 6** Oval spikelets showing mature achenes

## GENERAL THREATS AND GUIDANCE

- **Avoid development in areas with known occurrences of *Eleocharis ovata* through project relocation or redesign**
- Protect marshes and wet meadows near ponds/lakes from disturbance and development, including exclusion of livestock and ATVs through fencing, and consider restoration including invasive plant removal following professional advice
- Ensure roadside maintenance activities do not disturb this species and its habitat
- 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 ([cdccdata@gov.bc.ca](mailto:cdccdata@gov.bc.ca)) and FLNR Ecosystems Section ([josie.symonds@gov.bc.ca](mailto:josie.symonds@gov.bc.ca))

## REFERENCES

- B.C. Conservation Data Centre. 2014. <http://a100.gov.bc.ca/pub/eswp/>
- Smith, G. E. et. al. 1997. *Eleocharis*. In: Flora of North America Editorial Committee, eds. 1993+. Flora of North America North of Mexico. 16+ vols. New York and Oxford. Vol. 23, 103 pp
- Larson, B.M. and P.M. Catling. 1996. The separation of *Eleocharis obtusa* and *Eleocharis ovata* (Cyperaceae) in Eastern Canada. Can. J. Bot. 74: 238-242

## ACKNOWLEDGEMENTS

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