

Yellowseed False Pimpernel
Lindernia dubia* var. *dubia
Linderniaceae (False Pimpernel Family)

- Status: Red / Not Assessed
- Best Survey Time: June to October
- General Habitat: Foreshore

RANGE

- Widespread across North America from British Columbia south to California and Florida (USA) and north to Quebec and Ontario; absent from central prairie regions
- In B.C., only known from one location at Ellison Lake north of Kelowna in central Okanagan Valley

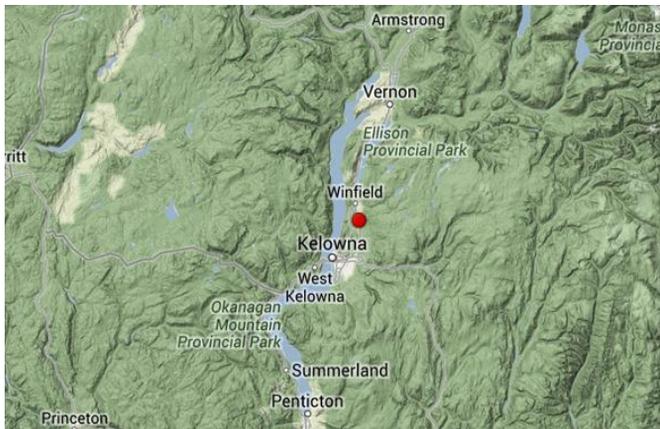


Figure 1 B.C. distribution of *L. dubia* var. *dubia* (BC CDC 2013)

HABITAT

- Open muddy or sandy soil along receding river, lake or pond shorelines, apparently requiring warm water temperature and high mineral nutrient richness in the Ponderosa Pine Biogeoclimatic Zone
- Associates include hard-stemmed bulrush (*Schoenoplectus acutus*), red-rooted cyperus (*Cyperus erythrorhizos*), three-flowered waterwort (*Elatine rubella*), western yellow cress (*Rorippa curvisiliqua*), water smartweed (*Persicaria amphibia*), spikerushes (*Eleocharis* spp.), willows (*Salix* spp.) and common cattail (*Typha latifolia*)



Figure 2 Open fine-textured substrate at Ellison Lake, B.C.



Figure 3 Flooded lakeshore habitat at Ellison Lake, B.C.

LIFE HISTORY

- Annual species that grows each year from seed, germinating following water drawdown, and blooming from June into October
- Mature capsules produced from July into October; as the capsules dry, they split open and release seeds
- Does not reproduce vegetatively so population survival depends on seeds and seed bank
- Seed dispersal is by water, waterfowl or small mammals
- May be subject to annual population fluctuations due to varying environmental conditions



Figure 4 Illustration of *Lindernia dubia* (Douglas et al. 1999)

Lindernia dubia var. *dubia* (continued)

DESCRIPTION

General

- Low-growing, rather delicate annual
- Multi-branched, smooth stems growing from a fine network of fibrous roots

Leaves

- Leaves paired, lance-shaped or ovate, often slightly toothed and tapered to stems near base of plant
- Leaves usually 15 to 35 mm long

Flowers

- Flowers found on thin, 3 to 28 mm long pedicels (stalks) that grow out from leaf bases and are about as long as their subtending leaves
- Petals from 6 to 10 mm long, and range from white to bluish to lavender
- Petals fused below, forming a floral tube, and lobed above into two lips (lower 3-lobed lip longer than upper 2-lobed lip), lower throat of floral tube with two hairy yellow ridges
- Sepals linear and pointed, from 4 to 6 mm long, as long or sometimes longer than the capsules

Fruits

- Elliptical capsules, 4 to 6 mm long, each containing numerous tiny, pale yellow, finely net-veined seeds



Figure 5 Plant showing fibrous roots and paired ovate leaves

IDENTIFICATION TIPS

- Characterized by its delicate stature and somewhat showy, irregularly-lobed, white to bluish to lavender flowers held away from the stem on thin stalks
- False-pimpernel (*L. dubia* var. *anagallidea*) is a closely related species of similar habitats that is generally smaller (from 5 to 20 cm tall) with elliptic or ovate leaves that clasp the stems at their base, longer flower stalks that are usually much longer than their subtending leaves, smaller lighter-coloured flowers, sepals that are clearly shorter than capsules, and brownish yellow seeds



Figure 6 Close up of plant showing leaves and calyx

GENERAL THREATS AND GUIDANCE

- **Avoid development in areas with known occurrences of *Lindernia dubia* var. *dubia* through project relocation or redesign**
- Protect fine textured and sandy soil along receding river, lake and pond shorelines from disturbance and development and consider restoration including invasive plant removal following professional advice
- Maintain natural water level fluctuations with spring inundation and summer drawdown
- 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.
<http://a100.gov.bc.ca/pub/eswp/>
- Douglas et al. (editors). 1999. *Illustrated Flora of British Columbia*. Vol. 4. BC Min. Environ., Lands and Parks, and Min. For., Victoria, B.C.
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