

False Pimpernel (*Lindernia dubia* var. *anagallidea*)

Linderniaceae (False Pimpernel Family)

Status: Blue / Not Assessed

Best Survey Time: Jun to Oct

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., known from one location in the Okanagan at Osoyoos Lake; also known from Lower Mainland

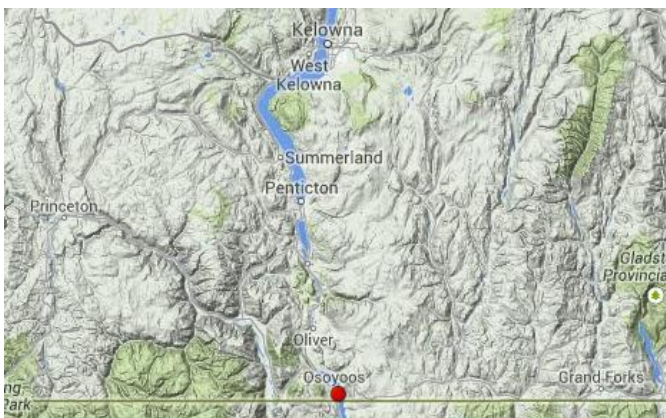


Figure 1 Thompson Okanagan Region distribution of *Lindernia dubia* var. *anagallidea* (BC CDC 2013)

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 Lakeshore mudflat habitat at Osoyoos Lake, B.C.



Figure 2 Example of open, muddy *Lindernia dubia* foreshore habitat

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

Lindernia dubia var. *anagallidea* (continued)

DESCRIPTION

General

- Low-growing, rather delicate annual, 2 to 20 cm tall
- Multi-branched, smooth stems growing from a fine network of fibrous roots

Leaves

- Leaves paired, elliptic or ovate with entire or slightly toothed margins, clasping stems at their base
- Leaves usually 15 to 35 mm long

Flowers

- Flowers found on thin pedicels (stalks), 3 to 28 mm long, that grow out from leaf bases and are usually much longer than their subtending leaves
- Petals 6 to 10 mm long, ranging from white to blue to lavender but generally light-coloured
- 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, clearly shorter than the capsules

Fruits

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



Figure 5 Plant showing paired elliptic leaves and long pedicels
http://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+0806+1134

IDENTIFICATION TIPS

- Characterized by its delicate stature and flowers that are somewhat showy, irregularly lobed, light-coloured, and held away from stem on thin stalks
- Yellowseed false-pimpernel (*L. dubia* var. *dubia*) is a closely related species of similar habitats that is generally larger (up to 38 cm tall) with lance-shaped or ovate often slightly toothed leaves that taper to stems near the plant's base, shorter flower stalks that are about as long as subtending leaves, larger and darker-coloured flowers, sepals as long as or longer than capsules, and pale yellow seeds



Figure 6 Close-up of plant with light-coloured flowers
http://calphotos.berkeley.edu/cgi/img_query?enlarge=0000+0000+0108+1167

GENERAL THREATS AND GUIDANCE

- **Avoid development in areas with known occurrences of *Lindernia dubia* var. *anagallidea* 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
- 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) and FLNR Ecosystems Section (josie.symonds@gov.bc.ca)

REFERENCES

- B.C. Conservation Data Centre. 2013.
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