

## ***Boschniakia hookeri*** Walpers

small groundcone, Vancouver groundcone  
Orobanchaceae (Broomrape Family)

**Status:** State Review Group 1

**Rank:** G5S3?

**General Description:** Adapted from Hitchcock et al. (1955): Plants are yellow to dark red or purple root parasites, 3 to 5 in. (8 to 12 cm) tall, 1 in. (3 cm) or less thick in the inflorescence, and often thicker at a cormlike base. The stems are solitary or clustered, copiously scaly-bracteate, with the bracts, especially those of the inflorescence, conspicuous, broad, and mostly blunt. The flowers are either with or without a pair of basal bractlets in addition to the subtending bract. The calyx commonly has 2 to 3 short lobes. The corolla is  $\frac{1}{2}$  to  $\frac{2}{3}$  in. (1 to 1½ cm) long, firm, constricted near or below the middle, and the lower lip is shorter than the upper. The filaments have a dense tuft of hairs at the base. The stigma is obscurely to evidently 2 to 3 lobed and there are 2 to 4 placentae. The capsule is  $\frac{1}{2}$  to  $\frac{2}{3}$  in. (1 to 1½ cm) long.

**Identification Tips:** *Boschniakia* and *Orobanche* are the two genera in the broomrape family that are present in the Pacific Northwest. Since *B. hookeri* is the only species of *Boschniakia* in Washington, the primary identification challenge is distinguishing the two genera. In *Boschniakia* (including *B. hookeri*) the pollen sacs are blunt and barely or not at all terminating in an abrupt point. The bracts of the densely spicate inflorescence are very broad, blunt, and conspicuous. The lower lip is shorter than the upper. Our species has a tuft of long hair at the base of each filament. It is found both in coastal and sub-coastal areas. In *Orobanche* the pollen sacs are pointed and abruptly terminate at a short, sharp point. The bracts are narrower, less conspicuous, and mostly more pointed. The inflorescence is variously shaped. The lower lip of the corolla, at least in our species, is well developed and not markedly shorter than the upper. The filaments are hairless or hairy in part, but not with a tuft of long hair at the base. Species of the *Orobanche* genus can be found throughout our range.

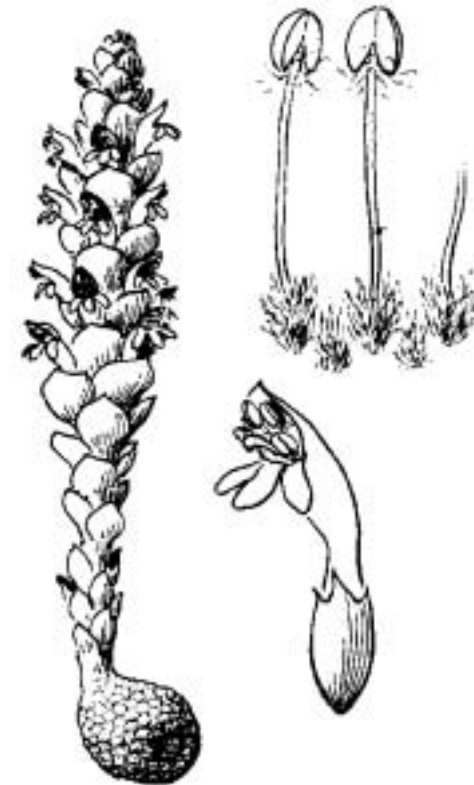
**Phenology:** Flowers from June to July.

**Range:** Occurs from northern British Columbia to northern California. In Washington this species is found in Clallam, Kitsap, and Mason counties.

**Habitat:** *Boschniakia hookeri* grows in dense stands of salal (*Gaulth*

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### Known distribution of *Boschniakia hookeri* in Washington



- Current (1980+)
- Historic (older than 1980)

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Photo by Clay Antieau

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*eria shallon*) and young forest stands, near salt water from 120 to 500 ft (37 to 152 m). Associated species include western hemlock (*Tsuga menziesii*), western red cedar (*Thuja plicata*), Sitka spruce (*Picea sitchensis*), and Douglas fir (*Pseudotsuga menziesii*).

**Ecology:** These plants are root parasites and do not produce chlorophyll (Joel, 1994). This taxon has been known to parasitize the roots of salal (*Gaultheria shallon*), kinnikinnick (*Arctostaphylos uva-ursi*), and evergreen huckleberry (*Vaccinium ovatum*).

**State Status Comments:** The range in Washington is very limited, and there are very few recently observed occurrences.

**Inventory Needs:** Additional inventory and information on the distribution of *B. hookeri* is needed. Appropriate habitats in Clallam, Kitsap, and Mason counties should be systematically surveyed for additional populations and the documented occurrences should be re-visited.

**Threats and Management Concerns:** Specific threats have not been identified for this species. However, any disturbance to the immediate habitat, such as timber harvest, development, and recreational activities, may be harmful.

**References:**

- Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1955. *Vascular Plants of the Pacific Northwest Part 5: Compositae*. University of Washington Press, Seattle, WA. 343 pp.
- Fitz, H. 1979. Plant Family Profiles. The *Orobanchaceae*-Broomrape family. Unpublished. 68-69 p.
- Joel, D. M., Losner-Goshen, D. 1994. The attachment organ of the parasitic angiosperms *Orobanche cumana* and *O. aegyptiaca* and its development. *Can. J. Bot.* 72: 564-574.

University of Washington class lecture notes. July 17, 2003. <http://courses.washington.edu/~bot113/wk7w02.pdf>.