

## Where would I find the Phantom Orchid?

The phantom orchid is at the northern limit of its range in British Columbia and its known distribution in the province is restricted to the lower Fraser Valley, southeastern Vancouver Island, and the southern Gulf Islands. Within its B.C. range, the phantom orchid generally grows in the humus layer in mature coniferous or deciduous forest stands. It is often associated with birch trees, and frequently occurs on limestone substrates (including mine tailings and shell middens). In the Fraser Valley, the orchid shows a preference for the south and west-facing edges of low mountain slopes or knolls.

The best time of year to search for phantom orchids is from May through July when the plant is flowering.

## How can I help?

Additional areas of habitat suitable for the phantom orchid exist, particularly in the Fraser Valley. If we know where these locations are we can learn more about the plant, and

factors affecting its populations in B.C. If you see the plant, *PLEASE DO NOT DISTURB IT*; but make note of the numbers of plants, general health, flowering condition, habitat and possible factors that might be influencing the population, for example proximity to well-used hiking trails, new developments, etc.

If you know of a population of phantom orchid, please contact the botanist at the B.C. Conservation Data Centre at (250) 356-0928 in Victoria, or toll-free through Enquiry B.C. Also please notify the regional office of B.C. Ministry of Water, Land and Air Protection.

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## Have You Seen the Phantom?



If you have, then the B.C. Conservation Data Centre would like to hear from you.

The phantom orchid (*Cephalanthera austini*) (A. Gray Heller) is currently provincially red-listed, which means that it is being considered for legal listing as Endangered or Threatened under the B.C. *Wildlife Act*. Federally it is listed as Threatened under the Species at Risk Act.

### Why is the Phantom Orchid Rare?

The phantom orchid always grows in association with a specific family of fungi. This fungal family is, in turn, only associated with certain tree and shrub species. As with many other orchids, the availability of pollinators may also be a limiting factor.

In B.C., the plant is at the northern limit of its range so climatic factors may pose constraints; populations are smaller than in the U.S., and the number of plants in a population that produce flowers in a given year is relatively low. Even plants that produce flowers may not necessarily set seed. The phantom orchid also seems poorly adapted to competition from other plants. Habitat loss, especially to new residential developments, and logging, which can result in soil disturbance and

removal of shade, are major threats to the species.

### How Will I Recognize the Phantom Orchid?

Unlike most plants which are green and can manufacture energy from chlorophyll, the phantom orchid is a saprophyte, relying on decaying plant and animal matter to obtain necessary nutrients. It is a totally white (turning yellowish or brownish with age) perennial that grows up to 65 cm tall. It has 2-5 bract-like leaves that are 3-6 cm long and form a sheath around the stem. The 5-20 fragrant flowers occur in a loose cluster at the top of the plant. One petal



of each flower has a sac-like lip that has a distinctive yellow gland inside. The remaining sepals and petals are alike, pointed at the tip, and are 12-20 mm long. After the plant has finished flowering, dry, erect fruiting capsules form.

Another plant that may be confused with the phantom orchid, and occurs in similar habitats, is Indian-pipe (*Monotropa uniflora*). Indian-pipe is also white, but has only 1 flower at the top of the stem which has a very different, drooping bell-like shape and 5 petals that are pouch-shaped at the base. Indian Pipe has no sac-like lip with a yellow gland and has no noticeable aroma.



Indian-pipe