

Fairy slipper *Calypso bulbosa* var. *occidentalis*.

Calypso bulbosa, commonly called Fairy Slipper, has a circumboreal distribution; in North America, it is found across Canada from Alaska to Newfoundland and in the northeastern and western United States.



The genus *Calypso* takes its name from the Greek signifying concealment, as they tend to favor sheltered areas on conifer forest floors. The specific epithet, *bulbosa*, refers to the bulb-like corms. It produces a solitary basal leaf in the autumn which senesces (to grow old, to wither) soon after flowering. A solitary flower is produced in the late spring, usually pink, magenta, or white, with a pouch-like labellum (a modified

petal of an orchid, also called a lip) that can be spotted with contrasting colors such as yellow. Its lateral petals and sepals spread distinctively outwards.

There are two varieties of this orchid in North America: *Calypso bulbosa* var. *americana*, which is widely distributed across Canada and the United States and has a white or pinkish labellum; and *Calypso bulbosa* var. *occidentalis*, which is found only in the northwestern regions of Canada and the United States, and has white and reddish markings on the labellum.

Although the calypso orchid's distribution is wide, it is very susceptible to disturbance, and is therefore classified as threatened or endangered. It does not transplant well owing to its mycorrhizal dependence on specific soil fungi. Most fairy slippers require one of a number of different mycorrhizal fungi in the protocorm (1st stage of seed germination) tissue for germination to take place.

Fairy slipper is highly susceptible to even slight disturbances in its environment. Trampling and picking are the primary reasons for its rapid decline in some locations. Picking the flower inevitably kills the plant, because the delicate roots break at even the lightest pull on the stem.

The calypso orchid is pollinated by bumble bees (*Bombus (Pyrobombus)* and *B. Psithyrus*). It relies on "pollination by deception", as it attracts insects to anther-like yellow hairs at the entrance to the pouch and forked nectary-like structures at the end of the pouch but produces no nectar that would nourish them. Insects quickly learn not to revisit it. Avoiding such recognition may account for some of the small variation in the flower's appearance.

Fairy slipper reproduces by seed and vegetative means. Fairy slipper is monoecious (having both the male and female reproductive organs in the same individual; hermaphrodite) and cannot self-pollinate.

The corms have been used as a food source by North American native peoples. The Nlaka'pamux of British Columbia used it as a treatment for mild epilepsy.