



Orchid Specialist Group North American Region

FLAGSHIP TAXA

Epipactis gigantea Douglas ex Hooker
Stream Orchid, Chatterbox



Habitat: Wet habitats between sea level and up to 8,500 feet (2,600 meters). Moist soil along banks of streams, or in cracks in rocks of streambeds, with the water lapping against and sometimes over the roots. Large colonies, often with 1,000 or more plants, may develop in these conditions. Most streamside colonies grow where covering trees provide protection from the sun, but some, especially in the north, grow in full sun at least part of the day.

Plant: 20 to 100 cm tall with underground rhizomes having a few thick fibrous roots. Four to 18 flowers, bright rose/orange or greenish, loosely scattered on top third of plant. Flower: about 4.0 cm wide x 3 cm high.

Pollinator: Syrphid fly.

Threats: Loss of habitat due to ground water pumping lowering the water table, and foot traffic around hot springs. The loss of natural ground water sources due to human activities exacerbates natural phenomena such as the protracted drought currently impacting the western Canada and the United States.

Economic and cultural value: The stream orchid has minor economic value as a horticultural plant and is available in a limited number of nurseries.

Conservation methods in place: Some nursery-raised plants are available but no major efforts exist to create seed-grown plants for sale. Many sites are protected within state and national parks. For example large colonies exist on Arizona State Park property in Oak Creek Canyon, and several colonies are within Yosemite National Park.

Conservation measures suggested: The Stream Orchid is dependent on permanently wet areas such as seeps, springs, and streams. Measures to protect these areas within the natural range of *E. gigantea* will benefit its continued survival. Ground water pumping and stream diversion should be restricted with the aquifers supporting the orchids.

Research: Research is needed to determine if the stream orchid can recover from drought, and how long such recovery takes. A suggested project is to monitor multiple plant populations and record the number of plants and blooming plants as a function of precipitation. It is especially important to determine if supposedly extirpated colonies recover after a period of normal rainfall.

Bibliography:

- Brunton, D. F. 1986. Status of the Giant Helleborine, *Epipactis gigantea* (Orchidaceae), in Canada. *Canadian Field-Naturalist* 100 (3): 414-417.
- Coleman, R. A. 1995. *The Wild Orchids of California*. Cornell University Press, Ithaca, NY.
- Coleman, R. A. 2002. *The Wild Orchids of Arizona and New Mexico*. Cornell University Press, Ithaca, NY.
- Sivinski, R. and K. Lightfoot, eds. 1995. Inventory of the Rare and Endangered Plants of New Mexico. New Mexico Forestry and Resources Conservation Division Energy, Minerals and Natural Resources Department.

Suggested Web Links:

- Colorado State Parks: http://parks.state.co.us/cnap/Natural_Areas/NA%20pages/unawEEP.htm
- Environment Canada: http://www.speciesatrisk.gc.ca/search/speciesDetails_e.cfm?SpeciesID=216
- USDA Plants Profile: <http://plants.usda.gov/> <http://www.fs.fed.us/database/feis/plants/forb/epigig/all.html>
- Washington State Rare, Threatened and Endangered Plants Study Plan:
http://www.chelanpud.org/rr_relicense/study/plans/1194_1.pdf
<http://www.dnr.wa.gov/nhp/refdesk/fguide/htm/4epgitxt.htm>
- Wyoming Rare Plant Field Guide: <http://www.npwrc.usgs.gov/resource/distr/others/wyplant/species.htm>
- Orchid Specialist Group: <http://www.orchidconservation.org/OSG/>

Acknowledgements:

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