

Marsh Helleborine *Epipactis palustris*

This orchid is one of Lincolnshire's least common plants. There are a handful of records from the 19th and 20th centuries but it seems to have become extinct in the county until its reintroduction at Rimac on the Saltfleetby-Theddlethorpe Dunes National Nature Reserve in the 1960s. That's been a success with a count of over 7500 recorded in the spring of 2012.



Photo: Velella, <http://commons.wikimedia.org/wiki/User:Velella>

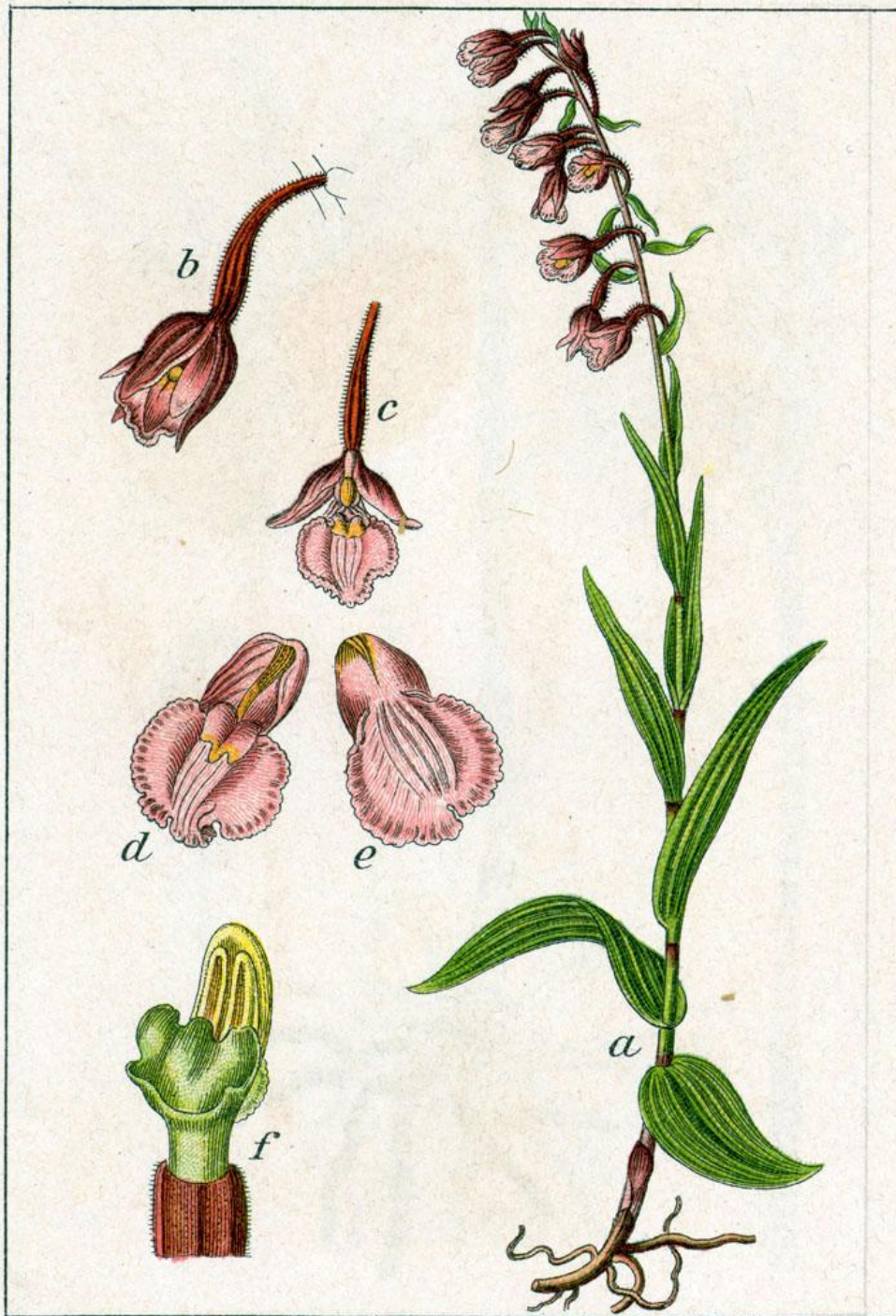
The Marsh Helleborine is found from Ireland, through Europe and Siberia. It is perennial with a shallow, creeping root system, well suited to vegetative reproduction in wet ground and maintaining a nutrient supply whilst staying above the poorly oxygenated water below. Curiously, some of the plants at Rimac have established themselves and are thriving on dry parts of the very well drained sand dunes, contrary to botanical expectations.

It is listed in CITES Appendix II, the second highest category of the Convention on International Trade in Endangered Species. This lists species not necessarily threatened with extinction but that may become so unless trade is closely controlled.

Marsh Helleborines are a valuable nectar source and are pollinated particularly by small wasps, but also by honey, solitary and bumblebees, hoverflies, beetles and ants. Like many orchids, the pollen grains group together in masses known as pollinia that are transported by pollinating insects but they are too heavy for some of the smallest flies that visit the flowers. Butterflies and long tongued bees can reach the nectar without touching the stamens so they too do not help in pollination. The most efficient pollinators are the mason bees and mason or potter wasps but over one hundred species of insects have been found to visit the Marsh Helleborine.

Orchids visited and pollinated by insects create an environment for spiders and predatory froghoppers that feed on pollinators. The Marsh Helleborine is just one part of a complex ecosystem, its loss having unknown consequences for biodiversity.

Tafel 18.



Sumpfwurz, *Epipactis palustris*.

Fig. from Deutschlands Flora in Abbildungen 1796 <http://www.biolib.de>