



## ***Hyobanche thinophila* (Orobanchaceae), a new species from the Western Cape of South Africa**

ANDREA D. WOLFE

Department of Evolution, Ecology, and Organismal Biology, The Ohio State University, 318 W. 12th Avenue, Columbus, Ohio 43210.  
E-mail: wolfe.205@osu.edu

### **Abstract**

The new species *Hyobanche thinophila* is described and illustrated. It is distinguished from *H. sanguinea* by the absence of glandular hairs on the interior surface of the corolla, and differences in the shape and color of the corolla and inflorescence. The interior surface of the *H. thinophila* corolla is glabrous except for a zone of long multicellular hairs at the level of stamen insertion. *Hyobanche sanguinea* lacks this character. The new species occurs in dune areas along the coast of Western Cape, South Africa.

**Key words:** Cape Floristic Province, holoparasite, parasitic plant, sand dune endemic

### **Introduction**

*Hyobanche* L. (Orobanchaceae) is a small holoparasitic genus endemic to southern Africa (Welman 1993, Wolfe & Randle 2001). The described species are primarily found in South Africa, with some species also recorded from Lesotho, Namibia, and Swaziland (Welman 1993, Goldblatt & Manning 2000). *Hyobanche sanguinea* L. has the largest distribution (Lesotho; South Africa: Eastern Cape, Northern Cape, Orange Free State, Western Cape; Swaziland), followed by *H. rubra* N.E. Brown (Lesotho; South Africa: Eastern Cape, Northern Cape, Western Cape) and *H. glabrata* Hiern (South Africa: Northern Cape, Western Cape); the rest of the species are restricted to narrow geographic ranges (*H. atropurpurea* Bolus—South Africa: southwest mountains of Western Cape; *H. barklyi* N.E. Brown—southwest Namibia, South Africa: northwest Northern Cape; *H. fulleri* Phillips—South Africa: coast of KwaZulu-Natal from Durban to Port Shepstone; *H. robusta* Schönland—South Africa: southeast coast between Knysna and East London).

Most of the species were described in the early 1900s with little taxonomic information available for the genus aside from their protologues (Wolfe & Randle 2001). The broad description of the genus provided in *Flora Capensis* (Hiern 1904) lacked pertinent details and had inconsistent descriptions for each of five species included in the treatment (*H. atropurpurea*, *H. barklyi*, *H. glabrata*, *H. rubra*, and *H. sanguinea*). For example, the description of the inflorescence for *H. glabrata* included this information: "...spike terminal, rather flat on top, about the size of an infant's fist, 2–4 in. long, involucrate at the base with fleshy purple, ovate or ovate-oblong obtuse ciliate scale." The description of the inflorescence of *H. rubra* stated only "...flowers very densely corymbose-spicate." Hiern's 1904 treatment stated the key differences between *H. atropurpurea* and the other four species were flower color and the apex of the bracteoles (dusky-purple and acuminate for *H. atropurpurea*, red and obtuse for the others, respectively). The key characters used to distinguish *H. sanguinea* from *H. barklyi*, *H. glabrata*, and *H. rubra* were whether the flowers were sessile or shortly pedicellate, and the inflorescence shape (sessile and spike oblong or pyramidal for *H. sanguinea*, shortly pedicellate and subcorymbose for the others, respectively). It is very difficult to determine whether flowers are sessile or shortly pedicellate in these species because pedicellate flowers appear only in very