

A New Species of *Habenaria* Willd. (Orchidaceae) from southern Queensland

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Abstract

Habenaria harroldii, from the Wide Bay District of southern Queensland, is described as new.

Introduction

Habenaria Willd., in Australia, consists of 11 described species (Clements 1989, Dockrill 1992) which are all distributed within the tropics. It was therefore of significance when populations of a *Habenaria* were discovered in the Wide Bay District of southern Queensland (Clarkson 1976). Investigations by the author have shown this species to be distinct and it is here described as new.

Methods

This study is based on the examination of fresh flowers, dried and spirit-preserved herbarium specimens and photographs of living flowers. All relevant types or photographs of types of Australian taxa have been examined. Herbarium collections (spirit and dried) were studied from AD, BRI, CANB, DNA, LAE, MEL and NSW. Measurements given in the description are from living plants or spirit-preserved specimens.

Taxonomy

Habenaria harroldii D.L. Jones, sp. nov. *H. xanthanthae* F. Muell. affinis, sed habitu robustiore; floribus albis; et segmentis perianthii majoribus, differt.

Typus: Queensland. Wide Bay District: Noosa, North Shore, c. 5 km N. of Tewantin, E. of Lake Cooroibah, 3 Mar. 1995, A.G. Harrold & W. Huxley (D.L. Jones 13869) (holotype CANB, isotype BRI).

Tuberous terrestrial herb growing in loose colonies. Tubers ovoid to obovoid, 1.5–2.5 cm long, 1.5–2.5 cm wide, fleshy, somewhat irregular. Leaves obliquely erect to spreading, 3–5 in a loose radical rosette, lanceolate, 3–10 cm long, 0.7–1.6 cm wide, dark green, subacute. Inflorescence 15–45 cm tall, slender, wiry, 3–25-flowered. Sterile bracts 5 or 6, narrowly ovate-lanceolate, 12–35 mm long, 3–8 mm wide, sheathing at the base, long-acuminate. Pedicels slender, 1–3 mm long,

straight or slightly curved. Ovary linear-ovoid, 12–15 mm long, c. 2.5 mm wide, narrowed and curved near the apex. Flowers 13–17 mm wide, white, fragrant, moderately crowded. Dorsal sepal erect, cucullate, broadly ovate to ovate-lanceolate, 6.5–8.5 mm long, 4.5–5 mm wide, 3-nerved, obtuse. Lateral sepals widely divergent, ovate-lanceolate, 7–9 mm long, 4–4.5 mm wide, asymmetric, 3-nerved, obtuse. Petals erect and partly embracing the dorsal sepal, ovate-lanceolate, 6–8 mm long, 3.5–4 mm wide, asymmetric, apex obtuse. Labellum curved, porrect to obliquely erect, 8–10 mm long, 4–4.5 mm wide when flattened, nearly entire to shallowly trilobate; base c. 2.5 mm long, c. 1.5 mm wide; lateral lobes reduced to shallow, broadly obtuse bumps; mid-lobe narrowly tapered throughout, c. 6 mm long, c. 3 mm wide, entire, apex obtuse. Spur terete, c. 2.5–12 mm long, c. 1.2 mm diam., straight to shallowly curved. Column porrect, c. 3.3 mm long, c. 3.2 mm wide, c. 3 mm thick; auricles linear-cylindrical c. 0.6 mm long, obtuse; stigmophores cylindrical, c. 1.7 mm long. Anther with a blunt apex, the anther sacs widely separated; anther channels linear, c. 1 mm long. Rostellum vestigial. Pollinarium of 2 pollinia, a caudicle and viscidium; pollinia oblong, c. 0.7 mm long, 0.4 mm wide, yellow, sectile; caudicle c. 0.6 mm long; viscidium c. 0.3 mm long, elliptical. Capsules erect, narrowly obovoid, 14–18 mm long, 3–4 mm wide. **Fig. 1.**

Distribution and ecology

Endemic in the Wide Bay District of south-eastern Queensland between Tewantin and Maaroom. It grows in moist to wet, grey sandy soils among grass, forbs and low shrubs in sparse woodland and wallum. Flowering period: January to March.

Recognition

This species has many similarities with *H. xanthantha* F. Muell., but the plants are more robust and with larger white flowers (rather than yellow flowers as in the type specimens of *H. xanthantha*) and much larger, widely spreading perianth segments.

Habenaria harroldii, the most southerly member of the genus in Australia, is well separated from its nearest northern relative by a geographical distance of about 450 km.

Notes

This species, which was discovered by Arthur Harrold on 20 January 1976, has proved to be elusive. Initially about 100 flowering plants were located scattered over about one hectare in the Noosa Rivers National Park. Of these about five plants had short floral spurs and the rest had long spurs (A.G. Harrold, pers. comm.). This find was noted (Clarkson 1976) with the observation that two species were present, one being *H. ferdinandi* Schltr and the other possibly undescribed. Similar variation in spur length has been noted in *H. xanthantha* (Rogers & White 1920).

Subsequent regular visits to the site by Arthur Harrold over the next 12 years failed to turn up any more flowering specimens. Then in 1986 a single plant was found by Carolyn Sandercoe in Cooloola National Park, in 1989 a poor specimen was located at the original site and in 1995 plants were found on private land not far from that site. For a detailed history of the collections of this species see Logan (1996). In 1997 the species was rediscovered in good numbers by Alan Logan on private property near Maaroom (A.E. Logan pers. comm.) and in March 1998 23 flowering plants and 5 non-flowering plants were found at this site (A.E. Logan pers. comm.).

Literature Cited

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Conservation status

Poorly known but conserved in the Noosa Rivers National Park; suggest 2kc by the criteria of Briggs & Leigh (1996).

Etymology

Named after Arthur G. Harrold who discovered this species and many other interesting plants during his botanical explorations of the Wide Bay District.

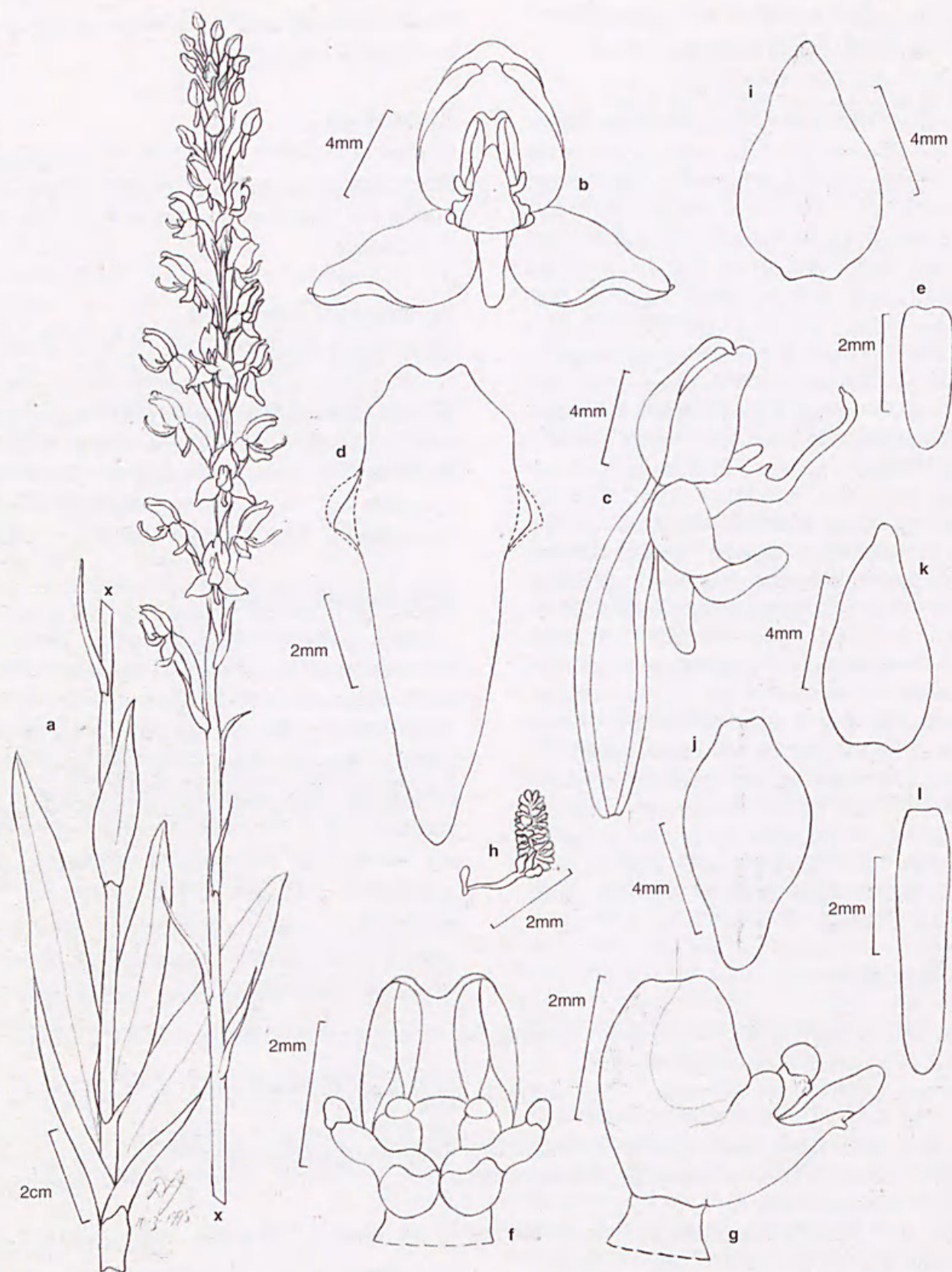
Specimens examined

Queensland: Wide Bay District: N. of Tewantin, E. of Lake Cooroibah, Jan. 1976, *Harrold* (CANB); *ibid*, 6 Feb. 1989, *Harrold* (Clements 4784) (CANB); private property, NW. of Maaroom, 9 Mar. 1997, *Logan* (ORG 622); Cooloola Natl Pk, western catchment close to Como Scarp, 22 Feb. 1986, *Sandercoe* (BRI).

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***Habenaria harroldii*, Noosa (North Shore) - Queensland.**

A. Harrold & W. Huxley (D.L. Jones 13869), 10/3/1995. Fig. 1.

a. plant; **b.** flower from front; **c.** flower from side; **d.** labellum from above, flattened out; **e.** spur; **f.** column from front; **g.** column from side; **h.** pollinarium; **i.** dorsal sepal; **j.** lateral sepal; **k.** petal; **l.** spur from another flower.

Drawing 10/3/1995 by D.L. Jones.©



M.A. Clements

Habenaria harroldii, from Noosa Heads - Queensland.



M.A. Clements

***Habenaria harroldii*, from Noosa Heads - Queensland.**



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