

ORCHIDEENJOURNAL

Publisher: V.D.O.F.
Vereinigung Deutscher Orchideenfreunde e.V.

Vol. 5 · 4
2017

Habenaria janellehayneiana
Holotype

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Contents:

● *Habenaria janellehayneiana*

Page 1 – 4
ISSN-Internet 2195-772X
5.12.2017

**A New *Habenaria* from northern
Thailand
(Subfamily: Orchidoideae Tribe:
Orchideae Subtribe: Orchidinae)**

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Gary YONG GEE

3

Summary: A new species of
Habenaria is described as *Habenaria*
janellehayneiana

Keywords: Northern thailand
Habenaria janellehayneiana

Published by:
VDOF e.V.
Mittelcarthausen 2
58553 Halver
Germany
email: schetorchi@online.de

Editor in chief: Roland SCHETTLER

Date of Publication:
December 5th, 2017, 22:00 Uhr CET

A New *Habenaria* from northern Thailand

(Subfamily: Orchidoideae Tribe: Orchideae Subtribe: Orchidinae)

Timothy C. CHOLTCO, Brett MOLONEY, Gary YONG GEE

Abstract

A new species, *Habenaria janellehayneiana* CHOLTCO, MOLONEY, & YONG GEE is described. It is native to Phitsanulok, northern Thailand. It is characterized by possessing stigmas that are parallel basally, with apices convergent, the tips touching, or nearly touching. A character that is absent in the remaining members of the *Habenaria* “*rhodocheila* complex”. A key is provided differentiating it from both *Habenaria erichmichelii*, and *Habenaria rhodocheila*.

Habenaria WILLD. is a large and diverse genus containing about 600 species. As presently understood the genus is native across tropical and subtropical areas of most of the world. It is found in the southern United States through to southern South America, equatorial and southern Africa, from India north to Korea and Japan, and Indonesia, and northern Australia.

Approximately a decade ago plants of a pink *Habenaria* were found in Phitsanulok Province, Thailand, often growing on moss covered rocky areas surrounding seasonally affected waterways. Subsequently these were ac-

cepted as mere pink forms of *Habenaria rhodocheila* HANCE. Large amounts of this plant were seen for sale in the Jatujak markets Bangkok Thailand in 2006–2007. These were being marketed as *H. erichmichelii* CHRISTENSON. As a result, these entered worldwide cultivation as such. (MOLONEY personal correspondence).

Over the last several years it has become apparent that *Habenaria rhodocheila* as presently circumscribed includes at least 3 additional species. The taxa presently involved in the “*rhodocheila* complex” are *Habenaria erichmichelii* CHRISTENSON, *H. rhodocheila* HANCE, *H. roebelenii* ROLFE, and *H. xanthocheila* RIDLEY. These species, previously described and accepted, have been lumped into an expanded species concept of *H. rhodocheila*. As a result, taxonomically the Phitsanulok Province *Habenaria* were considered mere *H. rhodocheila* HANCE. As an apparent result no one previously considered this distinct.

Based upon stigma morphology, spur length and attitude, spur orientation, and tuber shape; these four species represent distinct and valid species. A future article discussing these four species in detail is forthcoming. When these same characters are taken into consideration, the Phitsanulok Province *Habenaria* must be considered a distinct species. It is here that this species is described as new.

***Habenaria janellehayneiana* CHOLTCO, MOLONEY, & YONG GEE sp. nov.**

Holotype: Phitsanulok, northern Thailand, cultivated Brett MOLONEY (holotype: NSW 1000846)

This species is named after co-author Brett MOLONEY’s mother Janelle HAYNE of New South Wales, Australia.

Affinis *Habenaria rhodocheila* HANCE et *H. erichmichelii* CHRISTENSON. Labellum cum basi distincta isthmi infra basalis lobus. Isthmus

concavus, labellum sepalis petalisque perpendicularis labelli lamina. Lobi basales spathulato-dolabriliforme. Vel obovatis apice rotundatis. Lobus medius renibus. Apice re-tusis late. Calcar perpendicularis ad labello lamina. Apessus ad ovarium et rhachis. Sepala lateralia oblique patentibus, ovato-triangularibus, apice deflectus sursum. Stigma sub-sigmoideus, convergens ad apex. Initium perpendicularis ad pollinis saculus, tum deflectus sursum parallela labellum isthmo.

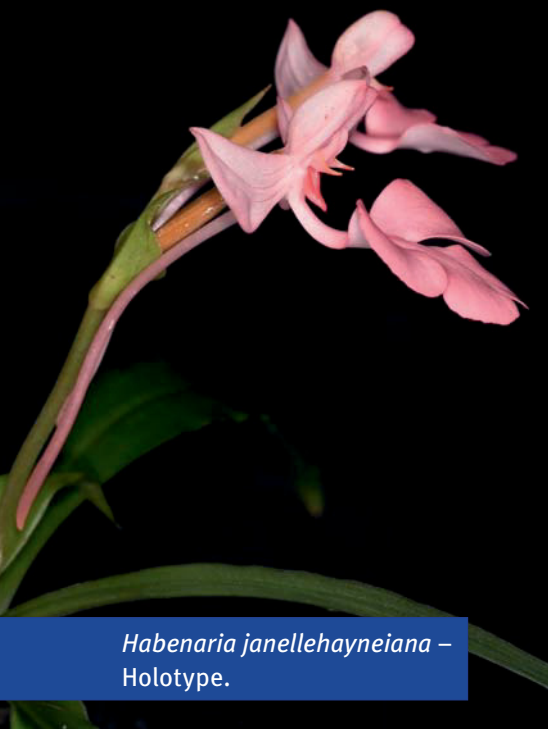
Related to *Habenaria rhodocheila* HANCE, and, *H. erichmichelii* CHRISTENSON. Labellum with a distinct isthmus at base below the basal lobes. Isthmus concave, holding the labellum blade perpendicular to the sepals and petals. Basal lobes spatulate-dolabriliform. Apex orbicular to obovate. Apical lobe kidney shaped. Apex widely notched. Spur perpendicular to the labellum blade. Appressed to the ovary and rachis. Lateral sepals spreading, ovate-triangular, with upswept apex. Stigmas sub-sigmoidal, convergent at apex. Initially perpendicular to the pollen sacks then curved upward parallel to the labellum isthmus.

Habenaria janellehayneiana – Holotype.



Habenaria janellehayneiana – Holotype.





Habenaria janellehayneiana –
Holotype.

Description:

Lithophytic deciduous plant with discoid fleshy flattened duck-foot like tuber approximately 2.5–3.5 cm in diameter. Stem upright, 1.5–2 cm long and 0.4–0.6 cm in diameter. Leaves thin, glabrous, 4–6 in a rosette, sessile, lanceolate, acute-acuminate, 7-veined, keeled, dark uniform green, sometimes the veins darker green so as to appear faintly tessellated, slightly wavy thin red margin, 8.5–12 cm long, and up to 1.2–1.5 cm broad, narrowed to 0.6 cm at the base. The uppermost and lowermost leaf shorter and bract-like, 3.5 cm long, and 0.9 cm wide.

Inflorescence upright, slender, bilaterally compressed, dark green to reddish-tinged, densely 2- to 10-flowered, 5 cm or more long and 0.2 cm wide, flowers mostly facing one side. Bracts ovate, conduplicate, acuminate, pale green, 1.5–2.5 cm long and 1 cm wide. Pedicel cylindrical, slender, triquetrous, pale orange, greenish along the edges, 2.9–3.1 cm long and 0.2 cm broad.

Flowers showy, resupinate, porrect, not scented, 2.3–2.5 cm broad and 3–3.9 cm long. The sepals and petals pale pink, and the lip deeper rose-pink with a pale pink spur. Column rostellum pale pink with darker rose-pink appendages.

Dorsal sepal deeply concave, elliptic, 3-veined, 1.0 cm long and 0.8 cm wide when spread. Petals oblong, 1 cm

long and 0.5 cm wide, adnate to dorsal sepal forming a hood. Lateral sepals obovate-triangular, 4-veined, outstretched spreading in similar plane as the dorsal sepal, 1.3 cm long and 0.8 cm wide.

Lip 3-lobed and spurred, perpendicular to the sepals and petals, concave basally, apical margins slightly undulate, 2.7–2.9 cm long and 2.1–2.5 cm broad; narrow clawed at the base, 0.9 cm long and 0.3–0.4 cm wide; side lobes oblique-perpendicular, triangular-elliptic, rounded, 1.1–1.2 cm long and 1.0–1.2 cm broad; mid lobe clawed at the base, bilobed, shallowly emarginate, 1.5 cm long and 1.4 cm wide, lobes oblong rounded, 0.9 cm long and 0.7 cm broad with 0.3 cm long and 0.4–0.5 cm broad isthmus.

Spur cylindrical, slender, 5.1–5.5 cm long and 0.1 cm in diameter, with a 0.2 cm diameter opening, connivent with the pedicellate ovary and stem. Column curved, 0.3 cm long; anther canals (pollinia sacks) arms slender, porrect, 0.4 cm long; fleshy appendages, cylindrical, deflected, incurved, and apically connivent, 0.4 cm long, or 0.1 cm in diameter. Rostellum ovate, convex, 0.6 cm long, and 0.2 cm broad.

Key:

- 1a. Stigmas parallel or convergent.
- 2.
- 2a. Stigmas parallel with tips curved under. Stigmas about $\frac{2}{3}$ length of the pollinia sack. Spur about 1.5 x length of labellum blade. Basal third of spur perpendicular to labellum blade, apical two thirds parallel

under labellum blade. Spur opening perpendicular to labellum base.

H. rhodocheila

- 2b. Stigmas parallel basally, with apices convergent, the tips touching, or nearly touching. Stigmas the same length or longer than the pollinia sacks. Spur about 2x length of labellum. Spur parallel to or appressed to the ovary and rachis.

H. janellehayneiana

- 1b. Stigmas divergent by 90 degrees. Spur about 2x length of labellum blade. Entire length of the spur perpendicular to labellum blade, and about a 45 degree angle to ovary. Spur mouth perpendicular to labellum base.

H. erichmichellii

Acknowledgements:

We would like to thank Jim COOTES of Sydney, Australia, and Guido BRAEM of Lahnuau, Germany, for their generous support and advice during writing of this paper.

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