
A New Species of *Didymoplexiella* (Orchidaceae) from China

Jin Xiaohua, Chen Singchi, and Qin Haining

Herbarium (PE), Institute of Botany of Chinese Academy of Sciences, Beijing 100093, China. xiaohuajin@mail.kib.ac.cn; hainingqin@ns.ibcas.ac.cn

Guanghua Zhu

Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166, U.S.A.
guanghua.zhu@mobot.org

Gloria Siu Laiping

Kadoorie Farm and Botanic Garden, Hong Kong. siulpcon@kfbg.org.hk

ABSTRACT. *Didymoplexiella hainanensis* X. H. Jin & S. C. Chen, a new species of Orchidaceae from Hainan, China, is described and illustrated. The new species is related to *D. ornata* (Ridley) Garay, from which it differs by the dorsal sepal briefly connate with the petals, the lateral sepals connate $\frac{1}{4}$ to $\frac{1}{3}$ at base, an articulate lip, and larger lateral lobes.

Key words: China, *Didymoplexiella*, Orchidaceae.

Didymoplexiella Garay is a leafless orchid genus of ca. seven species (Seidenfaden & Wood, 1992) mainly distributed in Indonesia, with a few species, e.g., *D. siamensis* (Rolfe ex Downie) Seidenfaden, extending to northern Thailand, China, and Japan. It is similar in habit and floral appearance to *Didymoplexis* Griffith, with which it was considered by some authors as congeneric (Holtum, 1953). Garay (1955) found enough distinction in floral column to justify a separation between them. The column of *Didymoplexiella* has a pair of long stelia on either side of its stigma and lacks a distinct column foot, while that of *Didymoplexis* lacks stelia and the column foot is distinct. The new species was collected in late March from Hainan Island and is no doubt a new member of *Didymoplexiella*. It is somewhat related to *D. ornata* (Ridley) Garay from Malaysia and Thailand, from which the new species is distinct by its almost separate dorsal sepal and petals, articulate lip, and much larger lateral lobes.

Didymoplexiella hainanensis X. H. Jin & S. C. Chen, sp. nov. TYPE: China. Hainan: Ledong, Jianfenlin Mt., 17 Mar. 2002 (fl), H. K. Kadoorie Program Team 3087 (holotype, PE; isotype [spirit], MO). Figure 1.

Habitu *Didymoplexiellae ornatae* subsimilis, sed sepalo

dorsali petalis breviter vel vix connato, sepalis lateralibus inter se tantum $\frac{1}{4}$ ad $\frac{1}{3}$ parte inferiore connatis, labello multo longiore quam columna prope medium mobili-articulato bene differt.

Mycoheterotrophic plants; tuber creeping, cylindrical, 5–6 cm long, 3–10 mm diam., wrinkled, nodal; stem erect, slender, terete, 5–15 cm long, brown, nodal, sheathing on the lower half, with internodes 2–9 mm long; sheaths 1.5–2.5 mm long. Inflorescence 7–9 mm long, compactly 2- to 4-flowered; bracts triangular-lanceolate, 1.5–2 mm long; pedicel and ovary 5–15 mm long, brown. Flowers ca. 1.5 cm across, white except the lip mid-lobe yellow, dorsal sepal elliptic, 7–10 × 13 mm, briefly or scarcely united at base with petals, 3-nerved, obtuse; petals similar to dorsal sepal, 6–7 × 10 mm, joined with dorsal sepals for $\frac{1}{4}$ to $\frac{1}{3}$ of their length; lateral sepals elliptic, 10–11 × 3.5–4 mm, 3-nerved, obtuse, connate at base to each other for $\frac{1}{4}$ to $\frac{1}{3}$ of the length; lip 11–12 mm long, consisting of an apical blade 5.5–6 mm long and a basal claw 4.5–5 mm long, with an articulate joint between them; blade tri-lobed, with a basal claw, its upper surface a U-shaped callus covered with small warts; lateral lobes sub-oblong, ca. 5 × 4 mm with a slightly undulate margin, much larger than the mid-lobe; mid-lobe fleshy, ca. 3 × 2 mm at the apex, with stelia on either side of the stigma; stelia curved downward, 2.5–3 mm long; pollinia 4, mealy. Capsule not seen.

Distribution. China, Hainan Province, Ledong County, Jianfengling Mountains, alt. 700 to 800 m, in humid evergreen forest.

Paratype. CHINA. **Hainan:** Ledong, Jianfengling Mtn., 15 Mar. 2002 (fl), Hong Kong Kadoorie Program Team 3081 (MO, [spirit] KUN).

Acknowledgments. We are indebted to the Ka-

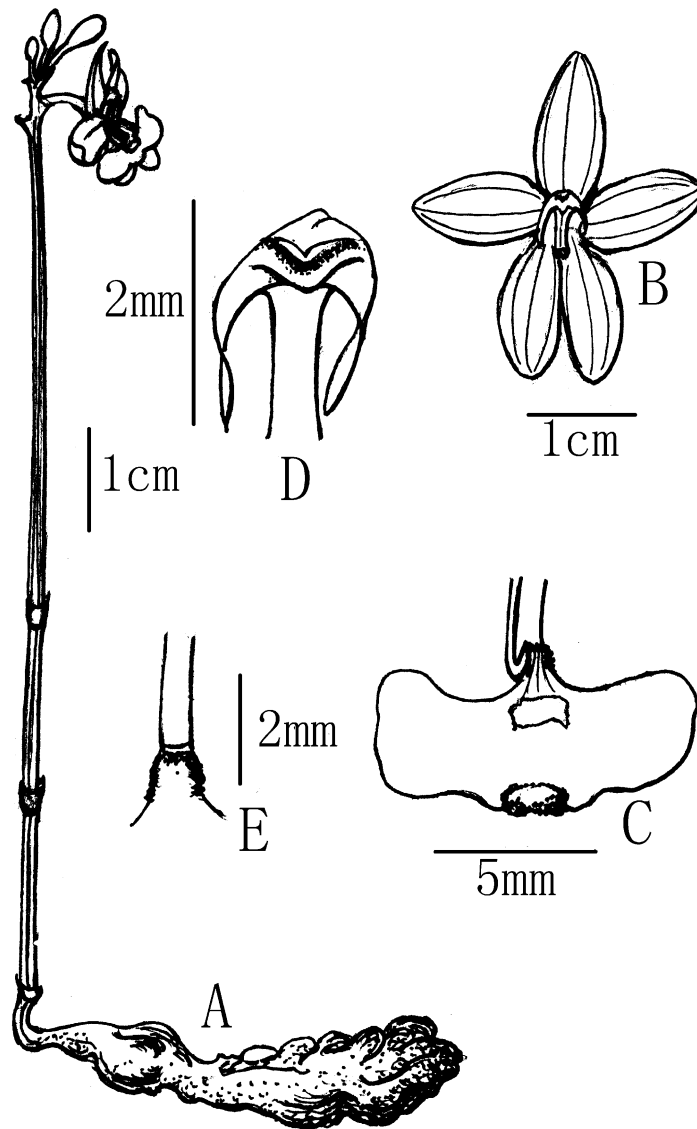


Figure 1. *Didymoplexiella hainanensis* X. H. Jin & S. C. Chen. —A. Habit and inflorescence. —B. Front view of sepals and petals. —C. Front view of lip. —D. Stelids. —E. The articulate claw. (Based on Hong Kong Kadoorie Program Team 3087, PE.)

doorie Farm and Botanic Garden, Hong Kong, for its financial support and to the CITES officials of China for their kind help. We also thank Yinbao Sun for his excellent illustration.

Literature Cited

Garay, L. A. 1955. Notatio Orchidologica 3. Arq. Jard. Got. Rio. 13: 31–54.

Holtum, R. E. 1953. *Didymoplexis*. P. 107 in R. E. Holtum (editor), Flora of Malaya, Vol. 1. Orchids of Malaya. Government Printing Office, Singapore.

Seidenfaden, G. & J. J. Wood. 1992. *Didymoplexiella*. Pp. 127–139 in G. Seidenfaden & J. J. Wood (editors), The Orchids of Peninsular Malaysia and Singapore. Olsen & Olsen, Fredensborg.