

**STEREOSANDRA BLUME AND YOANIA MAXIM.  
(ORCHIDACEAE JUSS.) - TWO ADDITIONS  
TO THE ORCHID FLORA OF VIETNAM**

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*Stereosandra* Blume is a monotypic genus of ORCHIDACEAE belonging to the tribe *Epipogieae* Parl., subfam. *Epidendroideae* Lindl. It is closely related to the widespread paleotropical, saprophyte orchid *Epipogium roseum* (D. Don) Lindl. A variable species of the genus, *Stereosandra javanica*, occurs widely in eastern Asia, Malaysia and adjacent pacific islands, spreading from its distribution in Thailand, Japan and Taiwan to New Guinea and the Solomon Islands. The discovery of this taxon in Vietnam was not too surprising considering its wide SE. Asia-Malesian geographical range. It is notable however that *S. javanica* is a very rare plant everywhere across its distribution and disappears rapidly with degradation of primary broad-leaved evergreen lowland forests. This small, leafless, ephemeroïd, chlorophyllless, saprophyte has usually very limited and sporadic occurrence and is easily overlooked by in-experienced collectors. Below are the taxonomic references for this taxon first reported here for the flora of Vietnam:

***Stereosandra* Blume, 1856, Mus. Bot. Lugd. Bat. 2: 176. Type: *S. javanica* Blume Monotypic genus.**

***Stereosandra javanica* Blume, 1856, Mus. Bot. Lugd. Bat. 2: 176; Garay et al., 1967, Orch. South. Ryukyu Isl.: 57; Seidenf., 1978, Dansk Bot. Ark. 32, 2: 173, fig. 07; Comber, 1990, Orch. Java: 87; Wood et Cribb, 1994, Orch. Borneo: 80; Seidenf. et Wood, 1992, Orch. Penins. Mal. Sing.: 143, Fig. 60. - *S. pendula* Kraenzl., 1901, Bot. Tidsskr. 24: 11. - *S. koidzumiana* Ohwi, 1937, J. Japan. Bot. 13: 44. - *S. liukuensis* Yamamoto, 1938, in Nakai, Icon. Pl. Asiae Orient. 2: 182, tab. 68, Fig. 1.**

Type: West Java, Bantam Province. *Blume s.n.* (holo-, BO).

Distribution: Japan (Ryukyu Islands), China (Taiwan), Vietnam, Thailand, Peninsular Malaysia, Singapore, Java, Sumatra, Borneo, Philippines, New Guinea, Solomon Islands.

This rare plant was found in a region of Vietnam visited during field work of a collaborative Vietnamese-American expedition in Ha Tinh Prov. A single herbarium specimen of this species is labelled: "N. Vietnam, Ha Tinh Prov., Huong Son District, Rao An-gam Thép village. Along stream, eastern slope. 18<sup>o</sup>21'53" N 105<sup>o</sup>13'12" E, c. 500 m. Herb. 20-30 cm tall, corolla white. 19 April 1998, N.T. Hiep, N.K. Dao & T.P. Anh VA Vietnam-American Series) 201" and housed in the herbarium of the Institute of Ecology and Biological Resources of the National Center for Natural Science and Technology of Vietnam (HN). The plant was found in primary, lowland, wet, broad-leaved evergreen,

closed forest on steep stream slopes on soils rich in humus on granitic rocks. It is obviously very rare in the studied area.

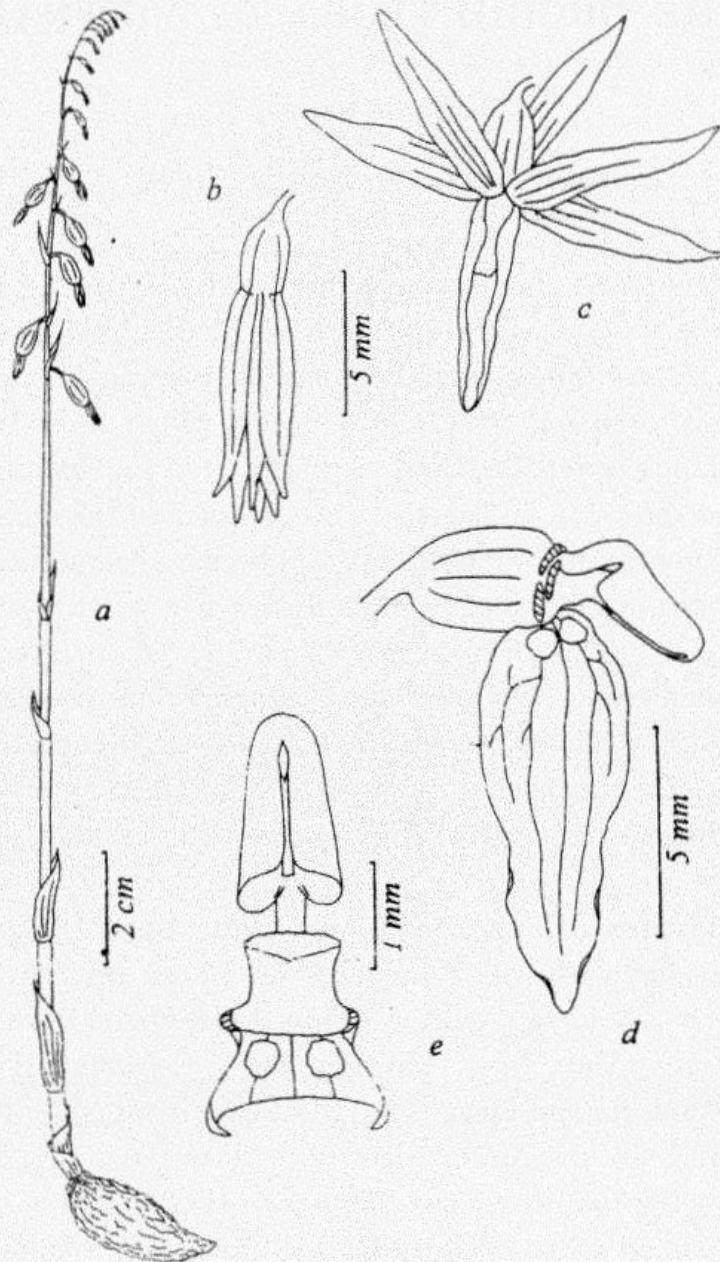


Fig. 1. *Sterosandra javanica* Blume

a. Flowering and fruiting plant; b. Flower; c. Flower with flattened sepals, petals and lip  
d. Column and flattened lip; e. Column and base of lip

(Drawn by A. A. Averyanova from N. T. Hiep, N. K. Dao & T. P. Anh VA-201)

*Yoania* Maxim. is a genus with two species. Both taxa are small, leafless, white, yellowish or pinkish saprophytic, ephemeroïd herbs with large fleshy rhizome, erect stems and terminal inflorescences bearing 1-3(4) relatively large flowers. These plants are closely allied to species of the large widespread genus *Gastrodia* R.Br. differing from them in having completely divided tepals. Both genera belong to subtribe *Gastrodiinae* Lindl. of tribe *Gastrodieae* Lindl. of subfam. *Epidendroideae* Lindl. and represent an advanced saprophytic evolutionary branch of the orchid family.

While the type species of *Yoania* - *Y. japonica Maxim.* has a wide distribution ranging from the subtropical Himalayas to Japan, the second species of the genus- *Y. prainii* King et Pantl. was only known from two collections originated from NE. Indi (Sikkim and Naga Hills). The recent discovery in Vietnam of the latter taxon first reported here is particularly surprising and exciting. The new finding of *Y. prainii* represents an important addition to the orchid flora of Vietnam. Following are the taxonomic references for this taxon:

*Yoania Maxim.*, 1872, Bull. Acad. Imp. Sci. S.-Petersb. 18: 68.

Type: *it Y. japonica Maxim.*

Genus includes 2 species distributed in subtropical Himalayas, Japan and Vietnam. One species is found in the flora of Vietnam.

*Yoania prainii* King et Pantl., 1898, Ann. Roy. Bot. Gard. Calcutta, 8: 175, Pl. 247. Bose et Bhattacharjee, 1980, Orch. Ind.: 523. Fig. 2.

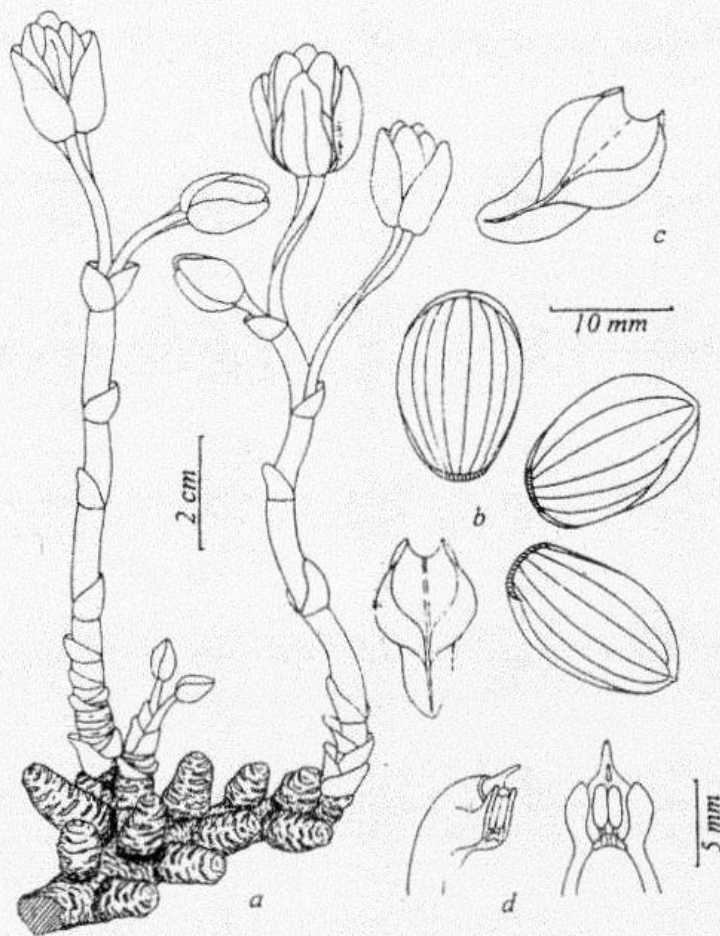


Fig. 2. *Yoania prainii* King et Pantl

- a. Flowering plant; b. Flattened sepals, petal and lip;
- c. Lip, side view; d. Column, side and front view

(Drawn by A. Averyanova from P.K. Loc, P.H. Hoang, L. Averyanov CBL-2091)

Paratypes: "Sikkim-Himalaya, at Choongthang, elevation 6,000 feet, *Pantling*, No. 69; Naga Hills, elevations about 7,000 feet, *Prain*, No. 15" are kept probably in Herbaria of Royal Botanic Gardens, Kew (K), Calcutta Royal Botanic Gardens, KEW. Lectotype not yet selected. Distribution: NE. India, N. Vietnam (Ha Giang).

*Yoania prainii* King et Pantl. was discovered during a reconnaissance expedition on the flora and vegetation of the second highest mountain system of Ha Giang province Pu Tha Ca range (2,275 m a.s.l.). This rare species was found on steep shady slopes on soil very rich in humus developed on shale, granite and quartzite rocks in primary, closed, evergreen, broad-leaved, wet, mountain forest. Numerous flowering samples of *Y. prainii* in this area were observed in May 1999 on north and east faced slopes at elevations 1,300-1,600 m a.s.l. Collected herbarium samples are labeled: "N. Vietnam, Ha Giang Prov., Yen Linh Distr., Du Gia Municipality, E slopes of Phu Tha Ca mountain system at 1,300-1,500 m elev. ( $23^{\circ}56'N105^{\circ}13'E$ ). Primary, evergreen, broad-leaved, very wet mountain forest on very steep shale slopes. Chlorophyllless saprophyte with erect white stems up to 20 m high in steep shady shale-quartzite rocky slopes. Flowers odorless: sepals white, with violet tint; petals white; lip with deep-purple marks inside along median part, side lobes white, with numerous deep-purple spots, lip outside-white; column white; anther light yellowish; ovary white with violet tint. Not rare. International Botanical Expedition of the U.S.A. National Geographic Society (grant No 6300-98). 03 May 1999, P.K. Loc, P.H. Loang, L. Averyanov CBL-2091". Duplicates are deposited at the Institute of Ecology and Biological Resources of the National Center of the Natural Sciences and Technology of Vietnam (HN), Komarov Botanical Institute, Russia (LE), Missouri Botanical Garden, U.S.A. (MO) and Institute of Botany of Aarhus University, Denmark (AAU).

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TẠP CHÍ KHOA HỌC ĐHQGHN, KHTN, t.XVI, n<sup>o</sup>2 - 2000

## STEREOSANDRA BLUME VÀ YOANIA MAXIM HAI CHI BỔ SUNG QUAN TRỌNG CHO HỆ LAN (ORCHIDACEAE JUSS.) CỦA VIỆT NAM

L.V. Averyanov

*Viện thực vật học Cómaróp, Liên bang Nga*

*Stereosandra* Blume là chi chỉ có một loài, *S. javanica* Blume, phân bố rộng ở châu Á, từ Nhật Bản, Đài Loan, qua Thái Lan đến tận Niu Ghinê và các đảo Xalômôn nhưng chưa từng được biết đến ở Việt Nam. Loài vốn có số lượng cá thể ít, lại đang bị suy giảm nghiêm trọng do nạn phá rừng nguyên sinh. Đây là loài Lan hoại sinh không có lá, chỉ cao khoảng 20-30 cm, nên dễ bị các nhà thực vật học bỏ qua khi thu mẫu. Lần đầu tiên ở Việt Nam đã thu được mẫu của loài này ở khu rừng Rào Ẩn thuộc huyện Hương Sơn, tỉnh Hà Tĩnh (N.T. Hiệp, N.K. Dao & T.P. Anh VA-201, HN) mọc rất rải rác ở độ cao khoảng 500 m, dưới tán rừng rậm nguyên sinh thường xanh ở đai đất thấp phát triển trên đất giàu mùn là sản phẩm phong hoá của đá granít.

*Yoania* Maxim. là chi gồm 2 loài, trong đó loài *Y. japonica* Maxim. phân bố rộng hơn, từ cận nhiệt đới Himalaya đến Nhật Bản, nhưng chưa gặp ở Việt Nam, còn loài thứ hai *Y. prainii* King et Pantl. cho đến nay chỉ mới gặp ở điểm thu mẫu chuẩn tại đông bắc Ấn Độ. Đây là điểm thứ hai trên thế giới thu được mẫu của *Y. prainii* King et Pantl. ở cực bắc Việt Nam, tỉnh Hà Giang, trên sườn núi Pu Tha Ca, ở độ cao 1.300-1.500 m mọc rải rác thành khóm nhỏ dưới tán rừng rậm mây mù trên sườn núi ở đai núi trung bình, đất có tầng dày rất giàu mùn, trên sản phẩm phong hoá của đá granít (P.K. Lạc P.H. Hoàng, L. Averyanov CBL-2091, HN, LE, MO, AAU). Cây hoại sinh không có lá cao khoảng 20 cm, có thân màu trắng nên dễ nhận biết trong thiên nhiên để thu mẫu.