**Hosta clausa var. ensata** (F. Maekawa) W.G. Schmid 1991

东北玉簪 = dong bei yu zan (Chinese) = Northeast Hosta

이삭비비추 = I-sak-bi-bi-chu (Korean)

ツルギギボウシ = Tsurugi Gibōshi (Maekawa 1937) = sword-shaped hosta

**H. ensata F. Maekawa 1937**

**Habitat and Nomenclature:** In 1937, F. Maekawa noticed and differentiated a morph of the *H. clausa* group. The variant was characterized by upright, “sword-shaped,” narrower leaves, shorter scapes and smaller habit. He gave this taxon the Japanese name ツルギギボウシ = Tsurugi Gibōshi, which means “sword-shaped hosta.” Maekawa wrote his determinavit on herbarium specimens at TI, calling this *H. clausa* morph *H. clausa* var. *ensata*. Maekawa (1940) elected to give this taxon specific rank and gave a full diagnosis under the name *H. ensata*. It should be pointed out that these taxonomic decisions were made on the basis of herbarium specimens. C.H. and C.Y. Chung (1982) followed this placement. In 1985, 1987 and 1988, M.G. Chung undertook several field studies of Korean taxa, including the morph *H. clausa* var. *ensata*. He found that this variant occurs among natural, allopatric populations on the Korean Peninsula. (M.G. Chung, 1989; personal communication). This establishes that it not only occurs in northeast China in Liaoning (辽 or 遼寧) and Jilin (吉林) Provinces along the Yalu River,

**Habitat of H. clausa T. Nakai**

The border of Korea and China is indicated with ●—●—●—●. The full circles shown north of this line are in Liaoning and Jilin provinces, China, and are considered *H. ensata* by Chinese taxonomists.
Maekawa (1940) validly published this taxon as a species, on his own herbarium sheets (in TI) he considered it a variety of H. clausa, i.e., his 1937 determinavit was H. clausa var. ensata. Based on M.G. Chung (1990), the latter placement better reflects the distribution observed by M.G. Chung, and for this reason W.G. Schmid (1991) reduced this taxon to varietal rank (stat. nov.) An examination of herbarium specimens from Korean and Japanese academic sources reveals that some of the exsiccate are in fact H. clausa var. ensata. M. Chung (1990, 1994) also postulated that H. clausa occupies habitat along streams only. He found several morphs endemic within the same population in Korea. The morph identified as H. clausa var. ensata with narrow, lanceolate leaves grows only in higher elevations on rock outcrops away from the streamside habitat of the other forms of H. clausa. This sword-leaved variant migrated from the riverbanks to rock outcrops away from the river beds and in time was modified by different growing conditions. The modifications imparted by a new environment resulted in smaller size, a rhizome, which is not as wideranging as H. clausa. Also, narrow, sword-shaped leaves (ensata = sword-like) on shorter, purple-dotted petioles. Due to its similarity to small forms of the all-green H. sieboldii other authors have misidentified it (Komarov, 1901; Mori, 1922).
Nomenclaturally, this taxon is called 东北玉簪 = dong bei yu zan in China, which stands for “northeast hosta,” being endemic in the northeastern provinces of China (辽宁 or 遼寧 and 吉林). Chinese botanists have examined the populations in China along the Yalu River in Liaoning (辽宁 or 遼寧) and Jilin (吉林) Provinces and assigned the synonymous scientific names *H. ensata* var. *foliata* P. Y. Fu & Q. S. Sun (1995) and *H. ensata* var. *normalis* (F. Maekawa) Q. S. Sun. (1992). In Korea it is called 이삭비비추 = I-sak-bi-bi-chu. As mentioned earlier, Maeakwa assigned the Japanese name ツルギキボウシ = Tsurugi Koboishi = sword-shaped hosta.

**H. clausa in Cultivation:** This variant of *H. clausa* is rarely seen in cultivation. Although a good horticultural subject, it remains a plant for collectors. Quite frequently, plants cultivated under this name in the United States with yellow anthers are not this species but belong to *H. sieboldii*. In Korea and China it is better known and used in gardens in much the same way as *H. 'Lancifolia' is in Europe and North America. The leaves are rather plain, very similar to *H. 'Lancifolia', but it is a smaller, slower growing plant with more substance.

**Plant Morphology:**
Plant size 25–30 cm dia., 25 cm high (10–12 by 10 in.). Rootstock stoloniferous, wide-ranging. Petiole 2.5–5 by 0.4 cm (1–2 by 0.20 in. wide), at leaf broadly winged, purple-spotted on back, green. Leaf 7.5–12.5 by 2.5–4 cm (3–5 by 1–1.5 in.), erect and in line with petiole, oblong-lanceolate, petiole transition very gradual, non-angular, acuminate tip, generally “flat” surface, no waves in margin, erect, rigid, leathery, shiny dark green above, glossy lighter green below. Venation 4–5, sunken above, very projected, smooth, below. Scape 30–55 cm (12–22 in.), straight and erect, +/- perpendicular, green, slightly purplish red tinted at the base. Fertile bracts short, navicular, grooved, green or whitish green, imbricated, not persistent at anthesis. Raceme long, 25 cm (10 in.) 15–25 flowers. Flowers purple, held erect in horizontal position on strong pedicels, 5 by 2 cm (2 by 1 in.) broad, funnel-shaped, rapidly expanding, at tips @+ perpendicular to axis of perianth; stamens even with lobes. Anthers purple. August/September. Fertile.
Karyotype-Chromosomes:
Sporophytic Count = 60; 12 large, 48 small.

Pollen: (Pollen shape after Erdtman, 1966): *H. clausa* has unique rugulate-baculate pollen grains (Subtype RB). This taxon is the only one in the genus with this type of pollen grain and this supports placement in the separate section Stoloniferae (Maekawa 1940). Pollen shape is SO (sub-oblate-spheroidal); size in the range of P 78.9 ± 2.0 × E 68.2 ± 4.0 (Sizes given in µm polar axis (P) × equatorial axis (E)).

Taxonomic Type and Synonymy:
*H. clausa* var. *ensata* (F. Maekawa) W. G. Schmid 1991
Type: In TI, No. 366; coll. V. Kamarov, Yalu River, Manchuria. Hab. in provinces Liaoning and Jilin in northeastern China (Yalu Basin); and far eastern USSR. Part of allopatric populations in Korea.

Botanical Synonyms:
*H. ensata* Maekawa: *J. Japanese Botany*, 13:900 1938 (basionym); and *J. of the Faculty of Science, Imperial University of Tokyo, Section 3 Botany*, Vol. 5:393, 394 ic. 70 1940.
*H. lancifolia* Engler in Nakai: *J. of the Faculty of Science,*, 31:250 1911.

Chinese Language Synonyms:
*H. ensata* = 东北玉簪 = dong bei yu zan = Northeast hosta

Korean Language Synonyms:
*H. clausa* var. *ensata* = 이삭비비추 = I-sak-bi-chu = Spike hosta

Japanese Language Synonyms:
*H. clausa* var. *ensata* = ツルギギボウシ = Tsurugi Giboshi

Horticultural Names:
Sword-leaved Plantain Lily Maekawa 1969.

Horticultural Progeny:
*Hosta clausa* in all of its forms was rarely used to produce hybrids and no direct sports have been reported:
References:
Léveillé, A. A. H., 1911. Funkia subcordata var. taquetii; in Fedde: Repertorium specierum novarum regni vegetabilis, Beih., 9:322.
Maekawa, F. 1940. The genus Hosta. J. of the Faculty of Science, Imperial University Tokyo, Section 3 Botany, Vol. 5:317–425.
Sun, Q.S. Hosta ensata var. normalis (F. Maek.), Flora Liaoningica 2: 682.1992

Herbarium specimen with H. clausa var. ensata morphology

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