

H. clavata* F. Maekawa 1938 = *H. ‘Clavata’

Divisiones et plantae novae generis *Hostae* (2). *J. Japanese Botany*, 14, No. 1:45–49.

***H. sieboldii* var. *intermedia* (Makino) H. Hara 1984**

コギボウシ = 小擬宝珠 = Ko Gibōshi (Makino 1910)

ムサシノギボウシ = 武蔵擬宝珠 = Musashi(no) Gibōshi (Maekawa 1938)

History and Nomenclature: *Hosta clavata* is one of the species validly published by Maekawa in 1938. Its original references date back to Y. Inuma (1856, 1874), with the base reference utilized by Maekawa being T. Makino (1910). This species is difficult to differentiate from the many other local morphs based on flower morphology alone. The Japanese name used by Makino was コギボウシ (= Ko Gibōshi = 小擬宝珠 = small hosta). In 1938, Maekawa assigned a new Japanese label, namely ムサシノギボウシ (= 武蔵擬宝珠 = Musashi(no) Gibōshi = hosta from Musashi). The latter name comes from its habitat location in the former province of Musashi (Musashi-no kuni; 武蔵国). At the present time, this province encompasses Tokyo Prefecture (Tokyo-to; 東京都), most of Saitama Prefecture (Saitama-ken; 埼玉県), and part of Kanagawa Prefecture (Kanagawa-ken; 神奈川県). This species is

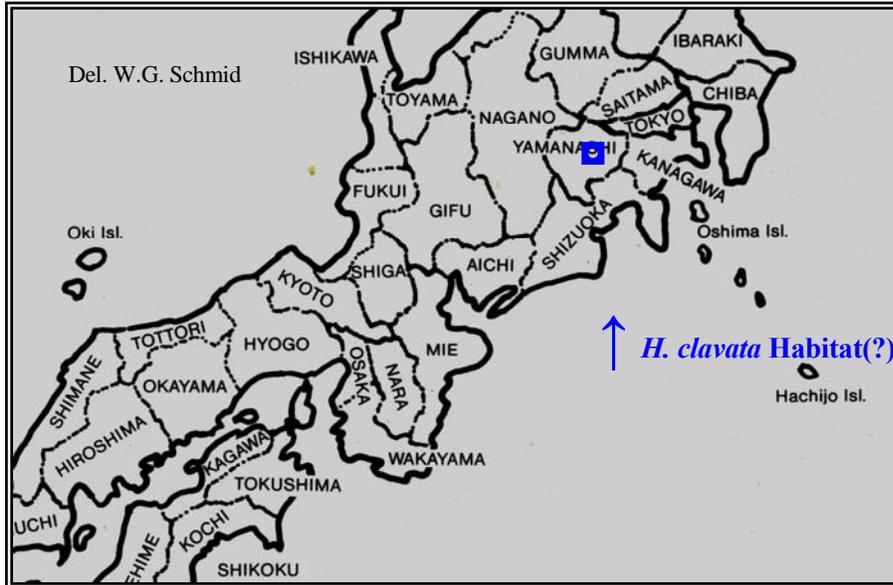


***H. ‘Clavata’* (Cultivated)
Bud Initial
Hosta Hill R.G. W.G. Schmid
Photo Late May 1990**

similar to *H. sieboldii* f. *spathulata*, the green form of *H. sieboldii*, except for larger bracts and the club-shaped (clavate) flower bud, which gave rise to the Latin species epithet *clavata*. J. Ohwi (1965) and F. Maekawa (1969) retained this taxon, Maekawa as a variant of *H. lancifolia* (formerly used as a synonym for *H. sieboldii*). It was no longer considered a species by Fujita (1976), who placed it as a synonym under *H. albomarginata* (= *H. sieboldii*). Fujita’s classification is quite inclusive and broad, but it has merit in this case, because morphological differentiation is minor. H. Hara (1984) also placed this taxon under *H. sieboldii* (which is the correct name for *H. albomarginata*), as a variety of this species, using the varietal epithet *intermedia*. The basis for this placement was the fact that it was also described under the binomial *H. intermedia* by Maekawa (1938). This placement is based on the basionym *H. japonica* var. *intermedia* coined by Makino (1910). The epithet *intermedia* as used for this taxon indicates its taxonomic position between *H. sieboldii* and *H. rectifolia*, although it is much closer morphologically to the former. In 1991, I retained the species placement on a provisional-historical basis in Schmid (1991) and also include it

in this species update. My main reason is to retain all the historical and scientific information gathered about it. This taxon has not been included in palynological, RAPD/DNA, nor genome weight analysis, so there are few data in the scientific literature as to whether this taxon should be considered a valid species.

Notwithstanding, it is here considered a cultivated morph of *H. sieboldii* as *H. sieboldii* ‘Clavata’ or, alternatively, as a cultivar/culton with the name *H.* ‘Clavata’.



(Please note: The habitat areas shown are not confirmed)

■ = Populations of *H. clavata*

Habitat Map
Reported Place of
Collection

Habitat and Biology: The taxon *H. clavata* was established (fide Makino) based on a cultivated plant, the type collected by Y. Satake in the vicinity of Urawa City (Urawa-shi; 浦和市) in western Tokyo Prefecture (Tokyo-to; 東京都). H. Hara (1984) lists a neotype (in TI) collected on Mount Tsukuba (筑波山) in Ibaraki Prefecture (Ibaraki-ken; 茨城県) by Maekawa, applicable to *H. sieboldii* var. *intermedia* (and its synonymous *H. clavata*). This taxon is a mountain-dwelling species, reportedly found in high alpine meadows with high moisture values and marshy areas at lower elevations. Although the general area of collection was known to Maekawa, he only saw the type specimens in a garden setting. It is assumed here that the habitat is similar to that of *H. sieboldii* but no exact habitat location was given in Maekawa’s very brief description. The neotype designated by H. Hara also was a cultivated specimen (collected by Maekawa on Mount Tsukuba). Thus, all of the types were cultivated specimens



H. ‘Clavata’ (Cultivated)
Hosta Hill R.G. W.G. Schmid
Photo 15 June 1990

lacking exact habitat locations so field investigations have not been able to verify the existence of natural populations. Its similarity with *H. sieboldii* variants indicates that this taxon may be a local morph in the polymorphic *H. sieboldii* complex. However, the anthers are not yellow as in *H. sieboldii* but are bi-color, yellow with purple margins. This supports interspecific hybridization between *H. sieboldii* and *H. rectifolia*. Lacking confirmation of in situ populations, this taxon can be considered a cultivated morph of *H. sieboldii* as *H. sieboldii* 'Clavata' or, alternatively, as a culton under the name *H.* 'Clavata'

Plant Morphology: Plant size 30 cm dia., 20 cm high (12 by 8 in.). Petiole 10 by 0.50 cm (4 by 0.20 in. wide), green with no purple dots at the base. Leaf 10–15 by 6.3–8.7 cm (4–6 by 2.5–3.5 in.), erect and in line with petiole, spreading, lanceolate to oblong-lanceolate, petiole transition gradual, narrowing, decurrent, acuminate tip, slightly undulate, wavy in the margin, smooth, shiny light, dull dark green above, glossy lighter green below. Venation 3–4 (5), lightly impressed above, smooth below. Scape 40–55 cm (16–22 in.), straight and erect, not bending, light green, no purple marks. Sterile bracts 2–3, green, sometimes very light to whitish green, clasping stem initially then unfolding, boat-shaped, persistent; fertile bracts short, navicular, thin, membranous, green, withering at anthesis, but not falling away. Raceme long, 10–24 flowers, spaced evenly on long raceme. Flowers in bud very clavate, blunt, 4 cm long, 3 cm broad (1.5 by 1.25 in.), white, shiny, very lightly purple suffused in the middle of the lobe, or white entirely, gradually expanding, lily-shaped, outer tepals oblong, inner tepals shorter and blunt/abruptly acute, tepal color very light purple on white, 3 distinct, darker stripes, color type B ▲ (Schmid 1991), expanding. Anthers yellow with purple margins. July. Fertile.



Karyotype-Chromosomes: Sporophytic Count = 60; 12 large, 48 small; (2n).

Pollen: Pollen type was not determined by M.G. Chung and S.B. Jones, 1989.

Genome Size: DNA content (2C) in pg (one 10^{-12} gram) not determined. (Zonneveld, B.J.M. and F. Van Iren (2001).

DNA Banding: Recent RAPD analysis did not include *Hosta clavata*. (Y. Yu, 2002; Sauve, R.J., S. Zhou, Y. Yu, and W.G. Schmid. 2005).

Taxonomic Type and Synonymy:

H. clavata Maekawa.

Botanical Magazine, Tokyo, 52:41 1938 (nom. nudum, with Japanese description); *J. Japanese Botany*, 14:45 1938; *J. of the Faculty of Science*, Imperial University Tokyo, Section 3 Botany, Vol. 5:407, 408, ic. 87 1940.

Type: In TI; coll. Y. Satake; Urawa City (Urawa-shi; 浦和市), Saitama Prefecture (Saitama-ken; 埼玉県 = old province of Musashi (Musashi-no kuni; 武蔵国). Neotype for syn. *H. japonica* var. *intermedia* Makino in TI; coll. F. Maekawa, August 1935, Mount Tsukuba (筑波山) in Ibaraki Prefecture (Ibaraki-ken; 茨城県); cult. in Tokyo. Hab. in Kanto region, central Honshu, Japan.

Botanical Synonyms:

Now considered to be synonymous with *H. sieboldii* or, alternatively as a named phenotypical variant of *H. sieboldii* as *H. sieboldii* ‘Clavata’; in horticulture as the culton/cultivar *H.* ‘Clavata’.

H. japonica var. *intermedia* Makino in Iinuma: *Somoku Dzusetsu*, 2:464, 465 1910.

H. intermedia (Makino) Maekawa (nom. nudum, with Japanese description):
Botanical Magazine, Tokyo, 52:41 ic. f. 1 1938.

H. albomarginata Fujita: *Acta Phytotaxonomica et Geobotanica*, Vol. 27, 3/4:84–85 1976 sensu lato.

H. sieboldii var. *intermedia* (Makino) H. Hara: *J. Japanese Botany*, 59, 6:180 1984.

Japanese Language Synonyms:

コギボウシ = 小葉擬宝珠 = Ko Gibōshi (fide Makino)

ムサシノギボウシ = 武蔵擬宝珠 = Musashi(no) Gibōshi (Maekawa)

Horticultural Synonyms:

H. ‘Clavata’: *H. clavata* is now considered a cultivated phenotypical variant of *H. sieboldii* under the name *H. sieboldii* ‘Clavata’.

H. clavata ‘Pauley’ (incorrect) (= *H.* ‘Kabitan’).

H. clavata ‘Simpers’ (incorrect) (= *H.* ?).

***H. clavata* (*H.* ‘Clavata’) in Cultivation:** A purported “*H. clavata*” was one of the first plants being listed in the A. Summers List (1972). It is listed as No. 49 and came under this name from G. Krossa in 1966. The same hosta is also known as *H. clavata* ‘Pauley’, *H.* ‘Clavata Pauley’, or by the incorrect name *H.* ‘Pauley Form’. G. Krossa correctly identified this hosta as not being *H.* ‘Clavata’ but *H.* ‘Kabitan’ or *H. sieboldii* ‘Kabitan’ with yellow leaf center and green margins. Olive Pauley received this in 1970 from an unknown source, but it is undoubtedly from Krossa. Another hosta is now sold as *H. clavata* ‘Simpers’ coming through Simpser-Benedict from an unknown source, this is not *H.* ‘Clavata’. In Japan a cultivated hosta is listed as *H. clavata* ‘Nagaba’ (= 狭葉武蔵擬宝珠 = Nagaba Musashi(no) Gibōshi, the “narrow leaf Musashi hosta.”) It is purportedly a narrow-leaf form of the species found in the wild it is rarely seen and here maintained as a selected cultivar/clone as *H.* ‘Nagaba Musashi’. Also from Japan is *H. clavata* ‘Urajiro’ (= 裏白武蔵擬宝珠 = Urajiro Musashi(no) Gibōshi, the “white-backed Musashi hosta.”) Purportedly, it is a rock-dwelling form of the species found in the wild, with intense, white coating on back of leaf. It may be an interspecific hybrid with *H.*



longipes, which also occurs in central Honshu. It is rarely seen and here maintained as a selected cultivar/clone as *H.* 'Urajiro Musashi'. This variation is rarely seen. It should be noted that very few authentic specimens of this taxon/culton are represented in horticulture. The originals imports were either another cultivar (*H.* 'Kabitan' as described earlier) or they could not be authenticated either as field collected vouchers with exact habitat location or as herbarium specimens with exact habitat location. The specimen used by the author was received from Japan and it conforms to all described morphometric parameters but cannot be considered a vouchered specimen, because the exact habitat location is unknown.

***H. clavata* (*H.* 'Clavata') Progeny:**
 Several variants/sports/hybrids (see above) have been found but no progeny is listed in the Hosta Registry of The American Hosta Society, Kevin P. Walek, International Registrar for the Genus *Hosta*.

◀ *H.* 'Clavata' (Cultivated) ▪ Hosta Hill
 R.G. W.G. Schmid Photo ▪ 10 June 1990

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◀ *H. 'Clavata'*
 (Cultivated in Hortus
 Maekawa, Tokyo)
 Ill. 87 from Maekawa, F.,
 1940. *J. of the Faculty of
 Science*, Sect. 3 Botany, Vol.
 5:407, 408, ic. 87

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