

## The Type Specimen of Kurokami-ran (*Ponerorchis graminifolia* var. *kurokamiana*) Found<sup>©</sup>

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**The type specimen of *Ponerorchis graminifolia* var. *kurokamiana* (Basionym: *Orchis kurokamiana*) was found in the herbarium of the Department of Botany, National Science Museum, Tokyo. This will become very useful data when orchid breeders wish to investigate *Ponerorchis* hybrids.**

### INTRODUCTION

Currently many plant propagators are registering new hybrids for commercial purpose. When someone wishes to register a new cultivar, he/she must describe the correct Latin (scientific) names of its parents and describe the point of the difference between parents and the new plant. That procedure is very similar to the process used to describe a new species (botanically). In both cases, the right botanical classification for those plants is required. Type-data (original publication of a plant) is important not only for a botanical meaning but also when someone wants to compare interspecific hybrids and register them. Therefore, a type specimen is very important material for both botanical and horticultural research.

### BACKGROUND

Ucho-ran (*Ponerorchis graminifolia* Rchb. f.) (Fig. 1) is one of the most attractive native orchids found in Japan. *Ponerorchis* was proposed by Reichenbach in 1852 when he described *P. graminifolia* from Japan (Reichenbach, 1852). Now three species [*P. graminifolia*, *P. chidori* (Makino) Ohwi, and *P. joo-iokiana* (Makino) Soo], and several infraspecific taxa of *Ponerorchis* are recognized botanically in Japan. Among those species, *P. graminifolia* has the most horticultural value, and it is a very popular pot plant in Japan.

Ucho-ran has several varieties, including kurokami-ran [*P. graminifolia* Rchb. f. var. *kurokamiana* (Hatusima & Ohwi) Hashimoto] (Hashimoto, 1987) (Fig. 2) and awa-chidori (*P. graminifolia* Rchb. f. var. *suzukiana* (Ohwi) Soo) (Soo, 1974) (Fig. 3). Also we can find satsuma-chidori (*P. graminifolia* var. *micropunctata* F. Maekawa hort.?) (Fig. 4) in the market, which is an endemic variety of *P. graminifolia* in Koshiki Island, Kagoshima prefecture, Kyushu. However, the name *P. graminifolia* var. *micropunctata* is invalid because this variety name has not formally been described yet.

It is well known that the artificial propagation (asymbiotic germination) of *Ponerorchis* species and breeding of interspecific hybrid of them is very easy. Every year many *Ponerorchis* propagators produce new hybrids, and they are named and introduced freely. In Japan, we know this occurs because many *Ponerorchis* hybrids with various names are sold in the market. Unfortunately, most propagators have little interest (or intention) in classification and identification of their own plants. Most beautiful and attractive hybrids are not registered, and according to the rules of RHS orchid registration, most of those *Ponerorchis* hybrid names are "invalid".



**Figure 1.** *Ponerorchis graminifolia*. This is 'Gankoran' type found in Chiba prefecture. *Pnr. graminifolia* is widely distributed in Japan (Honshu, Shikoku, and Kyushu Area).



**Figure 2.** *Ponerorchis graminifolia* var. *kurokamiana*. The type of this species was found at Mt. Kurokami, Saga prefecture, Kyshu.



**Figure 3.** *Ponerorchis graminifolia* var. *suzukiana*. The type of this species was found at Chiba prefecture, Honshu



**Figure 4.** *Ponerorchis graminifolia* var. *micropunctata* hort. This is endemic plant distributed in Koshiki Island, Kagoshima prefecture, Kyushu.



**Figure 5.** The Department of Botany, The National Science Museum (NSM). Tsukuba, Ibaraki Prefecture Japan



**Figure 6.** The herbarium (room of vascular plants) of The National Science Museum. Over 820,000 vascular plants are stored.



Figure 7. Type specimen of *Orchis Kurokamiana* (= *Ponerorchis graminifolia* var. *kurokamiana*).

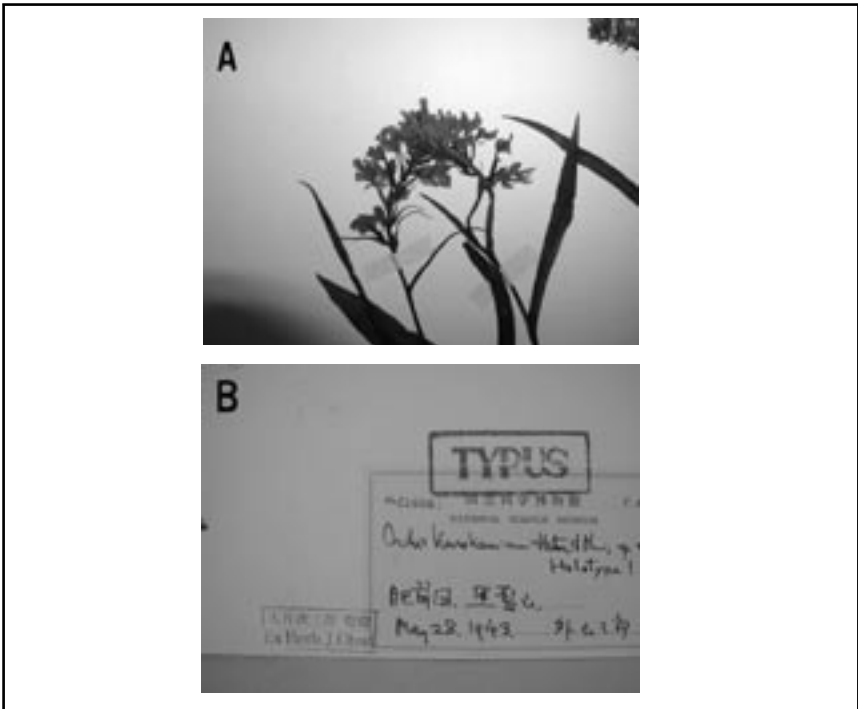


Figure 8. Partial enlargement of the type specimen. (A) Inflorescence, (B) Record of the type. 'Orchis Kurokamiana Hatusima et Ohwi; sp nov. Holotype! Prov. Hizen Mt. Kurokami (written in Japanese) 28 May 1943. Saburo Toyama (written in Japanese). Left print of a seal: Donated by Jisaburo Ohwi, (written in Japanese).

Therefore, the propagators are missing the plant breeder right protection of their new plants! The exact knowledge about registration needs to be advertised because of rights protection of propagators.

Dr. Hatushima and Dr. Ohwi described kurokami-ran (*Orchis kurokamiana* Hatushima et Ohwi) in 1943 (Hatushima and Ohwi, 1943). However, the type specimen of this orchid had been missing for a long time. Kurokami-ran is one of the important breeding plants of *Ponerorchis* species. Now very many kurokami-ran-type hybrids have come to market and kurokami-ran and those hybrids are sold together. Since kurokami-ran is an endangered plant, it faces extinction in its native habitat, it is difficult to look for "pure" kurokami-ran among many plants in the market. For establishment of efficient breeding program of *Ponerorchis* species in the future, it is desirable to check the type specimen of this orchid and to find more "appropriate" kurokami-ran among plants in the orchid market.

## REDISCOVER

The Department of Botany, The National Science Museum (NSM), Tokyo (Fig. 5), maintains high quality collections which provide a physical basis for scientific research, and an intellectual resource for the scrutiny of future generations. The collections are thus an invaluable national asset, not only for the scientific community, but for every group in society. Collections in the department include ca 820,000 vascular plants, 120,000 lichens, 120,000 mosses, 76,000 fungi, 3,900 small algae, 46,000 marine algae, and 21,000 slime molds. Specimens are stored in the herbarium according to a standardized system of classification so as to facilitate taxonomic research (Fig. 6).

In August 2003, the author found the missing type specimen of kurokami-ran at the herbarium of NSM (Fig. 7). Dr. Jisaburo Ohwi, one of the great Japanese botanists who named kurokami-ran, appears to have donated this specimen to the museum (Fig. 8). This will become very useful data when orchid breeders wish to investigate *Ponerorchis* hybrids.

**Notes.** If you wish to visit The National Science Museum, Tokyo, plan your visit by visiting <<http://www.kahaku.go.jp/english/index.html>>.

You can download the profile and the pamphlets of the National Science Museum as PDF files. <[http://www.kahaku.go.jp/english/download/f\\_index.html](http://www.kahaku.go.jp/english/download/f_index.html)>.

Note: General public presentation of the herbarium has not been carried out.

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