

## New or Interesting Angiosperms from Suzaki, Shimoda City, Central Japan

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**Abstract** In this paper, three new varieties, *Euonymus japonicus* Thunb. var. *litoralis* Kōta & S. Matsumoto, *Aster scaber* Thunb. var. *litoralis* Kōta, and *Zanthoxylum piperitum* (L.) var. *spinosum* Kōta, two new formas, *Rosa multiflora* var. *multiflora* f. *aglandulifera* Kōta, and *Polygala japonica* Houtt. f. *nudicaulis* Kōta, and two new hybrids, *Rhododendron kaempferi* × *R. ×pulchrum* ‘Ohmurasaki’, *Rhododendron kaempferi* × *R. ×pulchrum* ‘Akebono’ are described in addition to two new ranks, *Adenophora triphylla* (Thunb. ex Murray) A.D.C. var. *glabra* (Makino) Kōta & S. Matsumoto and *Scabiosa japonica* Miq. var. *litoralis* (Nakai) Kōta & S. Matsumoto.

**Key words:** Suzaki, vascular plants, new infraspecific taxa, new hybrids.

### Introduction

Several new and interesting taxa from a taxonomic viewpoint have been found during the course of a floristic investigation of vascular plants of Suzaki, Shimoda City, Izu Peninsula conducted by National Science Museum under the title of the Study on Environmental Changes in Sagami Sea and Adjacent Coastal Area with Serial comparison of Fauna and Flora (Kōta *et al.*, 2005a, 2005b).

In this paper, three new varieties, *Euonymus japonicus* Thunb. var. *litoralis* Kōta & S. Matsumoto, *Aster scaber* Thunb. var. *litoralis* Kōta, and *Zanthoxylum piperitum* (L.) var. *spinosum* Kōta, two new formas, *Rosa multiflora* var. *multiflora* f. *aglandulifera* Kōta, and *Polygala japonica* Houtt. f. *nudicaulis* Kōta, two new hybrids, *Rhododendron kaempferi* × *R. ×pulchrum* ‘Ohmurasaki’, *Rhododendron kaempferi* × *R. ×pulchrum* ‘Akebono’, and two new ranks of taxa, *Adenophora triphylla* (Thunb. ex Murray) A.D.C. var. *glabra* (Makino) Kōta & S. Matsumoto and *Scabiosa japonica* Miq. var. *litoralis* (Nakai) Kōta & S. Matsumoto, are described as

a continuation of previous papers (Kōta, *et al.*, 2005a, 2005b).

### Materials and Methods

Materials were collected throughout Suzaki Peninsula, Shimoda City, Shizuoka, including the Suzaki Imperial Villa, which is situated on the eastern coast of Suzaki Peninsula. Most herbarium specimens of flowering plants were collected in their blooming or fruiting seasons. These specimens are preserved in TNS (alphabetic TNSR at the front of specimen’s number shows specimens preserved in Showa Memorial Institute, National Science Museum).

### Description

#### 1. *Euonymus japonicus* Thunb. var. *litoralis* Kōta & S. Matsumoto var. nov.

Affinis *Euonymo japonico* var. *japonico*, sed lamina lato et ovali et crassa diversus.

*Habit & habitat.* Stems ascending to 1 m in height at gravelly sea shore, or almost creeping on rock at sea shore; leaves oboval to orbicular,

3.5–7.5 cm long, 2.5–6.5 cm wide, 0.45–9.75 mm thick, lustrous, deep green on the adaxial surface, margin often recurved to abaxial side; flowering June to July, flowers pale green.

*Type.* Japan. Honshu. Pref. Shizuoka: Suzaki, *F. Konta* 24423 (Holotype, TNS, Fig. 1). *Other specimens examined.* Japan. Honshu. Pref. Shizuoka: Suzaki, *F. Konta et al.* 1155, 23174, 22984, 23838; *F. Konta* 23936, 23609, 23610, 24446, 24556; *TNSR* 11697, 11698, 11774 (TNS).

*Japanese name.* Kaiganmasaki.

*Note.* This variety is a seashore type taxon of *Euonymus japonicus* Thunb., which is characterized by thick, lustrous leaves and growing at rocky seashore. This type of plants was recognized by Nakai in the Suzaki Imperial Villa, but only Japanese name was given by him. This new variety is recognized as a new infraspecific taxon under Japanese name of Kaiganmasaki after Nakai, based on our own observation in addition to check the specimens collected in the Suzaki Imperial Villa in 1972 (*TNSR* 11697, 11698, 11774). There are hand writing notes as ‘this specimen was called Kaiganmasaki by Dr. Nakai’ on labels of *TNSR* 11697, *TNSR* 11698 and this name was suggested by Mr. Kawamura on the label of *TNSR* 11774.

**2. *Aster scaber* Thunb. var. *litoralis* Konta var. nov.**

Affinis *Astero scabero* var. *scabero*, sed folio balde coriaceo diversus.

*Habit & habitat.* Stem erect 60–80 cm high, basal leaves withered at anthesis, lower cauline leaves long triangular 9–12 cm long, 5–10 cm wide, apex acute, base cordate or truncate, petioles 7–14 cm long, upper cauline leaves long triangular 6.0–8.0 cm long, 2.0–5.5 cm wide, with short petiole, all leaves coriaceous, 0.4–0.5 mm thick, lustrous, deep green on the adaxial surface, pale green on the abaxial side, scabrous on both surface with short strigose hairs, sharply serrate margin; flowers July to October; grassy roadside bank or in small valley, under common strong winds from the sea.

*Type.* Japan. Honshu. Pref. Shizuoka: Suzaki, *F. Konta* 24470 (Holotype, TNS, Fig. 2).

*Other specimens examined.* Japan. Honshu. Pref. Shizuoka: Suzaki, *F. Konta* 24518, 24519 (TNS).

*Japanese name.* Hamashirayamagiku.

**3. *Zanthoxylum piperitum* (L.) DC. var. *spinosum* Konta var. nov.**

Affinis *Zanthoxylum piperitum* var. *piperitum*, sed spina ramali valde longo et planta litoricola diversus.

*Habit & habitat.* Deciduous tree 1.5 m in height, branches with few hairs, spines on braches 13–15 mm long, 3–5 mm wide at base, in mixed thickets or evergreen forest on hill slope facing the sea and under the condition of strong winds from the sea.

*Type.* Japan. Honshu. Pref. Shizuoka: Suzaki, *F. Konta* 24583a (Holotype, TNS, Fig. 3), *F. Konta* 24583b, 24583c (Isotypes, TNS).

*Other specimens examined.* Japan. Honshu. Pref. Shizuoka: Suzaki, *F. Konta* 23066, 24518, 24519 (TNS).

*Japanese name.* Togesansho.

**4. *Rosa multiflora* Thunb. var. *multiflora* f. *aglandulifera* Konta f. nov.**

Affinis *Rosae multiflori* var. *multiflori* forma *multiflori*, sed rachide et pedicello et calyce *aglandulifera* diversus.

*Type.* Japan. Honshu. Pref. Shizuoka: Suzaki, *F. Konta* 22792 (Holotype, TNS, Fig. 4).

*Other specimens examined.* Pref. Niigata: Joetsu-shi, *S. Tsugaru* & *T. Takahashi* 6859, Pref. Ibaraki: Makabe-machi, *F. Konta* & *Y. Momose* 120, Shizuoka: Gotenba City, *A. Takahashi* & *F. Konta* 11078, Pref. Shizuoka: Numazu City, *F. Konta*, *T. Ukita*, & *K. Oguchi*, 201, Pref. Shizuoka: Fujinomiya City, *T. Sato*, 7840, Pref. Shizuoka: Fuji City, *T. Sato*, 3183, Pref. Gifu: Mt. Khga-san, Horado-mura, *H. Takahashi*, *H. Takano*, & *N. Hirano*, 8122, Pref. Kyoto: Kizuchō, *A. Murata*, *K. Shimamura*, & *M. Sato*, 2. (TNS).

*Japanese name.* Satonoibara.



Fig. 1. Holotype of *Euonymus japonicus* Thunb. var. *litoralis*.



Fig. 2. Holotype of *Aster scaber* Thunb. var. *litoralis*.



Fig. 3. Holotype of *Zanthoxylum piperitum* (L.) DC. var. *spinosum*.

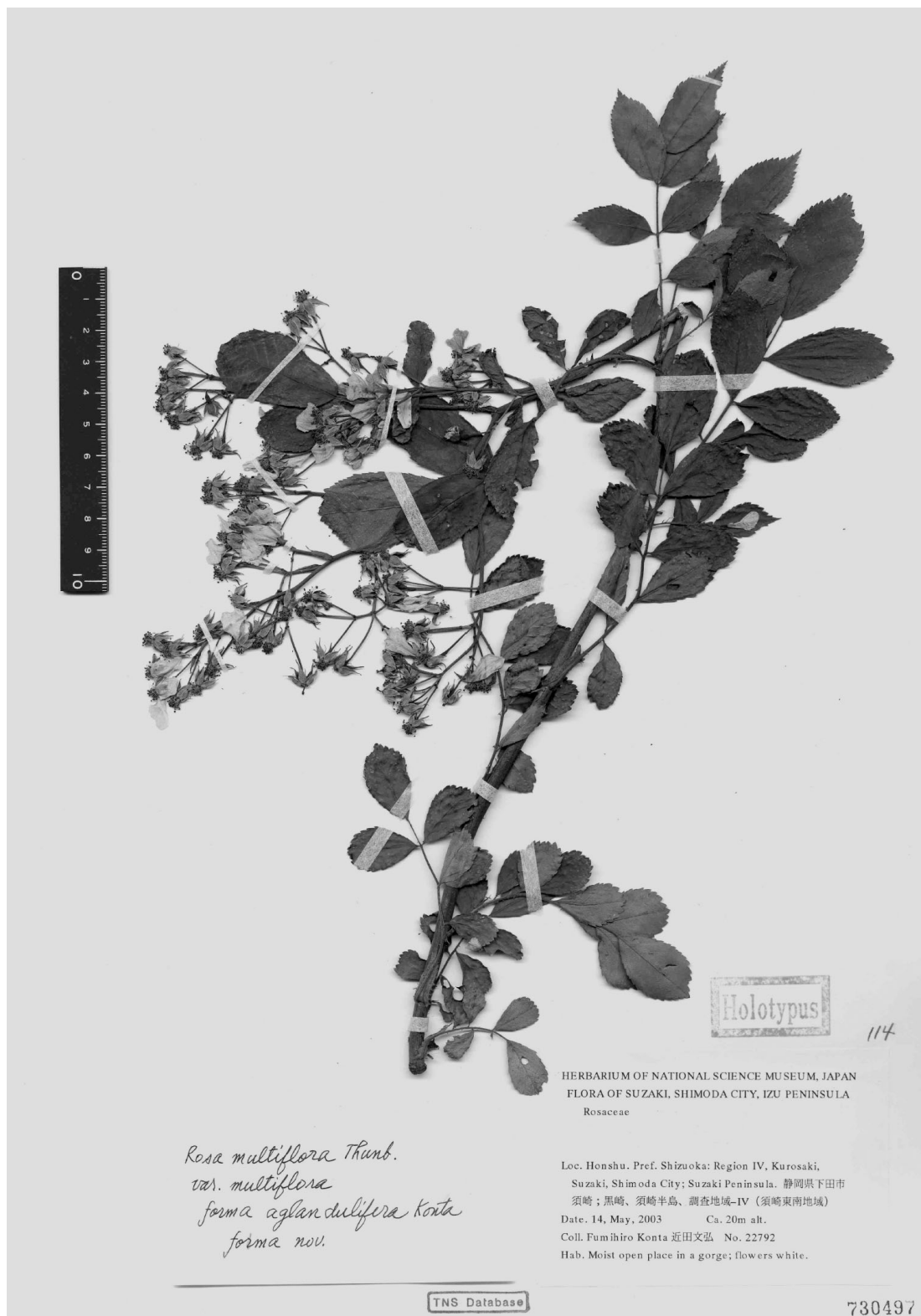
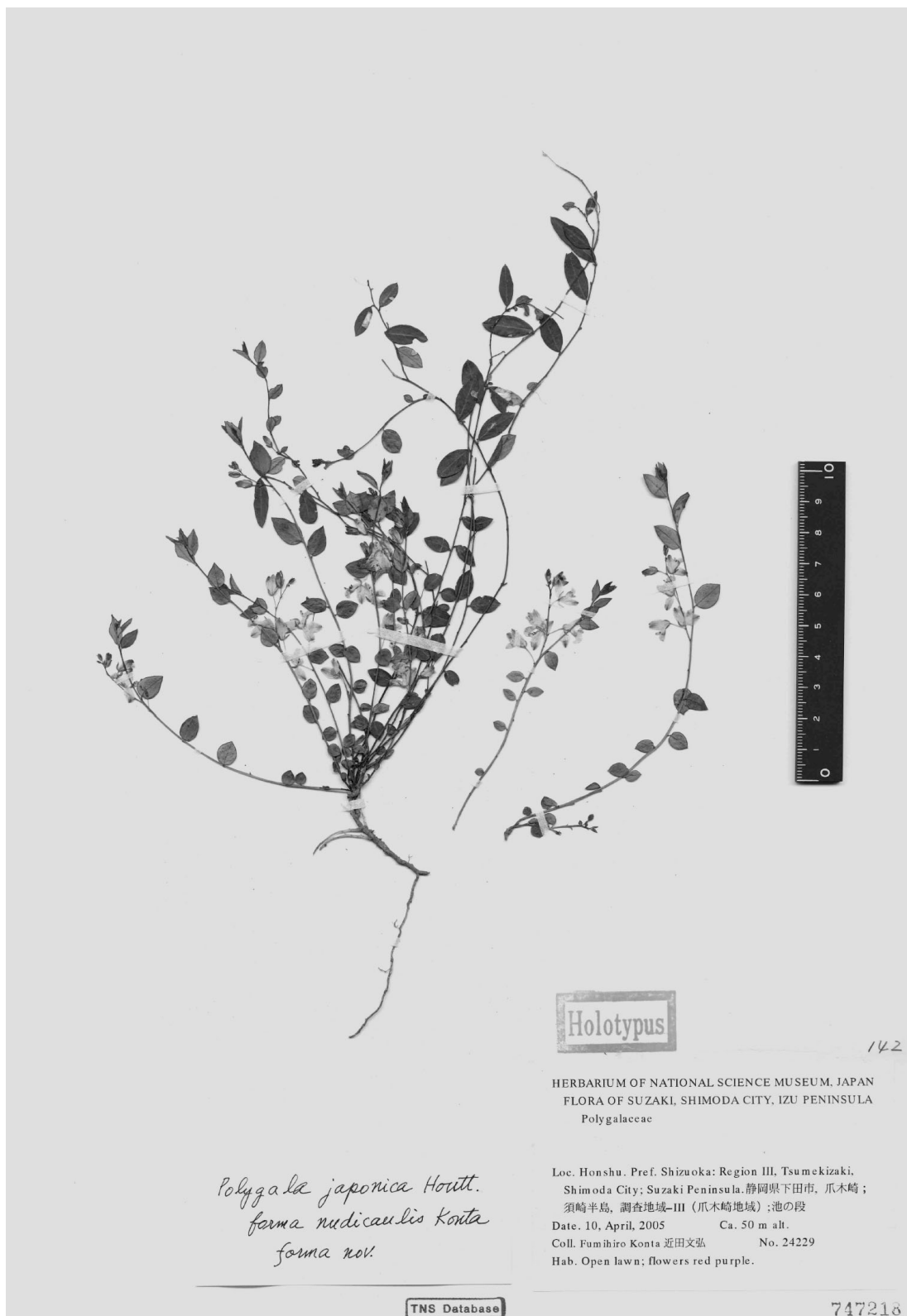


Fig. 4. Holotype of *Rosa multiflora* var. *multiflora* f. *aglandulifera*.

Fig. 5. Holotype of *Polygala japonica* Houtt. f. *nudicaulis*.

*Note.* Both soft hairs and glands are present on rachis, pedicel, and abaxial side of calyx lobe in forma *multiflora*, but only soft hairs are present on these parts in forma *aglandulifera*. It is supposed that forma *aglandulifera* is mainly distributed in the central part of Japan, based on the observation of specimens deposited in TNS.

**5. *Polygala japonica* Houtt. f. *nudicaulis* Konta, f. nov.**

Affinis *Polygalae japonicae* forma *japonicae*, sed caule et folio nudata diversus.

*Type.* Japan. Honshu. Pref. Shizuoka: Suzaki, *F. Konta* 24229 (Holotype, TNS, Fig. 5).

*Japanese name.* Kenashi-himehagi.

*Note.* Holotype is a single plant growing at open lawn near the sea shore, 50 m in altitude. Main root is 4 cm long with a few branches; stems of the last year are hairless and creeping on ground 20 cm long with oblong leaves 1.5–2.0 cm long, 0.5–0.7 cm wide, stems of this year are ascending about 10–15 cm long with ovate to oblong leaves 0.5–1.5 cm long, 0.4–0.7 cm wide, and also hairless. Leaves are hairless even in the youngest condition.

**6. *Rhododendron kaempferi* × *R. × pulchrum* ‘Ohmurasaki’ hybrid nov.**

This hybrid is characterized by deep purple-red flowers and evergreen foliage leaves. *Rhododendron kaempferi* and *R. × pulchrum* ‘Ohmurasaki’ grow together on shrubby roadside bank of Kakisaki.

*Specimen.* Japan. Honshu. Pref. Shizuoka: Suzaki, Kakisaki, *S. Matsumoto* 271 (TNS, Fig. 6-1, Fig. 7).

*Japanese name.* Yama-oomurasakitsutsuji.

**7. *Rhododendron kaempferi* × *R. × pulchrum* ‘Akebono’ hybrid. nov.**

This hybrid is characterized by flowers with paler color and larger size, ca. 7.0 cm in diameter, than those of *R. kaempferi*. Foliage leaves are evergreen. *Rhododendron kaempferi* and *R. × pulchrum* ‘Akebono’ grow together on the same place with the previous hybrid.

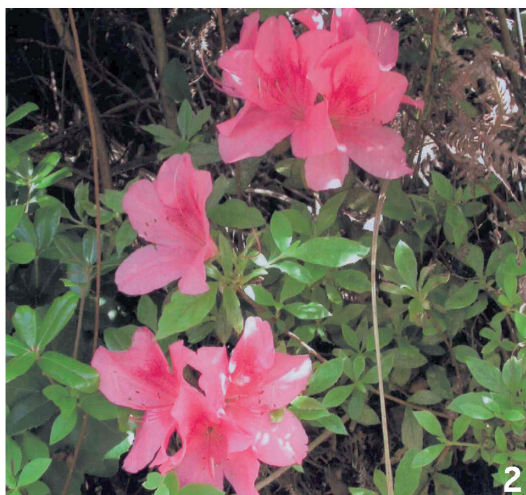


Fig. 6. 1. *Rhododendron kaempferi* × *R. × pulchrum* ‘Ohmurasaki’, 2. *Rhododendron kaempferi* × *R. × pulchrum* ‘Akebono’

*Specimens.* Japan. Honshu. Pref. Shizuoka: Suzaki, Kakisaki, *S. Matsumoto* 273, 270 (TNS, Fig. 6-2, Fig. 8).

*Japanese name.* Yama-akebonotsutsuji.

**8. *Adenophora triphylla* (Thunb. ex Murray) A. DC. var. *glabra* (Makino) Konta & S. Matsumo, stat. nov.**

*A. triphylla* (Thunb. ex Murray) A. DC. f. *glabra* (Makino) Kitamura, in Acta. Phytotax. Geobot. X, 310 (1941).

*A. verticillata* (Pall.) Fisch. forma a. *typica* Makino 3. *glabra* Makino, in Bot. Mag. Tokyo





Fig. 7. A specimen of *Rhododendron kaempferi* × *R. x pulchrum* 'Ohmurasaki' (S. Matsumoto 271).



Fig. 8. A specimen of *Rhododendron kaempferi* × *R. x pulchrum* 'Akebono'.

XXII, 168 (1908).

*A. verticillata* (Pall.) Fisch. var. *typica* forma *glabra* Makino, in Makino et Nemoto, Fl. Jap. ed. 1, 111 (1925).

*Note.* This variety has many distinct morphological characteristics, which show the seashore type infraspecific taxon of *A. triphylla*, and have been kept unchanged under cultivation in the Tsukuba Botanical Garden, National Science Museum for five years. These characteristics are as follows; more than 40 shoots grow up from root, basal part of flowering shoots are creeping on ground with dense alternate, or three to four whorled leaves, which are depressed on ground; leaves are small, oblanceolate oblong 2.5–3.0 cm long, 1.0–2.0 cm wide, thick, glabrous, lustrous on the adaxial side.

*Specimens.* Shizuoka: Suzaki, Tsumeki-zaki, *F. Konta et al.* 23363, 23231, 1145, 23383.

**9. *Scabiosa japonica* Miq. var. *littoralis* (Nakai) Konta & S. Matsumoto stat. nov.**

*S. japonica* Miq. var. *japonica* f. *littoralis* Nakai, J. Jap. Bot. XIX, 277 (1943).

*Note.* It is observed that two plants of this var. *littoralis*, which were transplanted from Suzaki to the Tsukuba Botanical Garden, National Science Museum and those being grown up from seeds collected from Suzaki have been cultivated for five years retain thick, evergreen radical leaves and smaller inflorescence than var. *japonica* growing inland area. Some var. *littoralis* plants transplanted into gravelly ground show a perennial nature different from var. *japonica* with biennial one.

*Specimens.* Shizuoka: Suzaki, Tsumeki-zaki, *F. Konta et al.* 1259, *S. Matsumoto* 2110904, 3080115.

### References

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