

## Taxonomic Notes on Vascular Plants in Japan and Its Adjacent Regions (I). –New Combinations and New Names of Japanese Plants–

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Eighty-one new combinations, five new names and one new form for mostly Japanese seed plants, which are needed during preparation of database of Japanese vascular plants are proposed. Some taxonomic and nomenclatural comments are made on *Geranium onoei* (Geraniaceae), *Calystegia pubescens* (Convolvulaceae), *Kalimeris yomena* (Asteraceae) and *Ixeridium dentatum* (Asteraceae).

**Key words:** Database, Japan, new combinations, new names, vascular plants.

During preparation of a database of Japanese and scientific names of indigenous, naturalized and cultivated vascular plants in Japan (BG Plants-YList: Japanese plant name index; <http://bean.bio.chiba-u.jp/bgplants/>) numerous new names and new combinations are needed for the publication. Here I propose 81 new combinations, five new names and one new form.

### Gymnospermae

#### Taxaceae

(1) ***Torreya nucifera*** Siebold & Zucc. f. ***sphaerica*** (Kimura) Yonek., stat. nov. – *T. nucifera* var. *sphaerica* Kimura in Oinuma in Jpn. J. Bot. **13**: 519, in adnot., f. 1, 2 & 7 (1949).

Nom. Jap.: Marumi-gaya.

#### Pinaceae

(2) ***Larix kaempferi*** Carrière f. ***pendula*** (Sugim.) Yonek., comb. nov. – *L. leptolepis* (Siebold & Zucc.) Gordon f. *pendula* Sugim. in J. Geobot. (Kanazawa) **6**: 27 (1957).

Nom. Jap.: Shidare-karamatsu.

(3) ***Picea alcocquiiana*** (Veitch ex Lindl.) Carrière f. ***chlorocarpa*** (Hayashi) Yonek., comb. nov. – *P. bicolor* (Maxim.) Mayr f. *chlorocarpa* Hayashi in Bull. Govt. For. Exp. Stat. (77): 25, photo 12 (1955).

Nom. Jap.: Midori-iramomi.

(4) ***Picea torano*** (Siebold ex K. Koch) Koehne f. ***rubriflora*** (Yoshio Kobay.) Yonek., comb. nov. – *P. polita* (Siebold & Zucc.) Carrière f. *rubriflora* Yoshio Kobay. in J. Jpn. Bot. **40**: 191 (1965).

Nom. Jap.: Benibana-harimomi.

### Angiospermae – Dicotyledoneae

#### Crassulaceae

(5) ***Hylotelephium verticillatum*** (L.) H. Ohba f. ***viviparum*** (N. Yonez.) Yonek., comb. nov. – *Sedum verticillatum* L. f. *viviparum* N. Yonez. in J. Phytogeogr. Taxon. **34**: 69, photos 1–2 (1986).

Nom. Jap.: Komochi-mitsuba-benkeisô.

#### Rosaceae

(6) ***Aria alnifolia*** (Siebold & Zucc.) Decne.

f. **lobulata** (Koidz.) Yonek., comb. nov. – *Micromeles alnifolia* (Siebold & Zucc.) Koehne var.  $\beta$ . *lobulata* Koidz. in J. Coll. Sci. Imp. Univ. Tokyo **34**(2): 69 (1913) – *Sorbus albifolia* (Siebold & Zucc.) K. Koch var. *lobulata* (Koidz.) Rehder in Sarg., Pl. Wilson. **2**: 275 (1915).

Nom. Jap.: Fugire-azukinashi.

(7) **Aria japonica** Decne. f. **chlorocarpa** (Rehder) Yonek., comb. nov. – *Sorbus japonica* (Decne.) Hedl. var. *chlorocarpa* Rehder in Sarg., Pl. Wilson. **2**: 276 (1915).

Nom. Jap.: Kimi-no-urajironoki.

f. **denudata** (Nakai) Yonek., comb. nov. – *Sorbus japonica* var. *denudata* Nakai in Bull. Natn. Sci. Mus. Tokyo (33): 11 (1953) – *S. japonica* f. *denudata* (Nakai) Hiyama in J. Jpn. Bot. **35**: 309 (1960).

Nom. Jap.: Komono-urajironoki.

(8) **Cerasus chichibuensis** (H. Kubota & Moriya) H. Ohba nothovar. **aizuensis** (Kawas.) Yonek., comb. nov. – *Prunus chichibuensis* H. Kubota & Moriya nothovar. *aizuensis* Kawas. in J. Phytogeogr. Taxon. **49**: 3, fig. 1 & 2 (2001).

Nom. Jap.: Aizu-shidare.

(9) **Cerasus tamaclivorum** (T. Oohara, Seriz. & Wakab.) Yonek., comb. nov. – *Prunus tama-clivorum* T. Oohara, Seriz. & Wakab. in J. Jpn. Bot. **79**: 343, figs. 1, 3 (2004).

Nom. Jap.: Hoshi-zakura.

(10) **Cerasus moniwana** (Kawas.) Yonek., comb. nov. – *Prunus moniwana* Kawas. in J. Jpn. Bot. **38**: 94, figs. 1–2 (1963).

Nom. Jap.: Moniwa-zakura.

(11) **Cerasus sargentii** (Rehder) H. Ohba var. **sargentii** f. **pendula** (Honda) Yonek., comb. nov. – *Prunus sargentii* Rehder var. *pendula* Honda in Bot. Mag. Tokyo **54**: 2 (1940) – *P. sargentii* f. *pendula* (Honda)

Okuyama in J. Jpn. Bot. **30**: 44 (1955).

*P. sargentii* f. *nagaokae* Tatew. ex Koji Ito in J. Geobot. (Kanazawa) **13**: 2 (1964), syn. nov.

(12) **Cerasus  $\times$ takinoensis** (Kawas.) Yonek., comb. nov. – *Prunus takinoensis* Kawas. in J. Jpn. Bot. **45**: 137, figs. 1–2 (1970).

Nom. Jap.: Takino-zakura.

(13) **Filipendula glaberrima** Nakai f. **alba** (Nakai) Yonek., comb. nov. – *F. multijuga* Maxim. var. *alba* Nakai in Repert. Spec. Nov. Regni Veg. **13**: 274 (1914) – *F. yezoensis* H. Hara f. *alba* (Nakai) T. Shimizu in J. Fac. Text. Sci. Tech. Shinshu Univ. no. 26, ser. A. Biol. (10): 9 (1961).

Nom. Jap.: Shirobana-ezo-no-shimo-tsukesô.

(14) **Rosa luciae** Franch. & Rochebr. ex Crép. f. **ohwii** (Oishi) Yonek., comb. nov. – *R. wichuraiana* Crép. f. *ohwii* Oishi in J. Phytogeogr. Taxon. **28**: 62 (1980).

Nom. Jap.: Togenashi-teriha-no-ibara.

f. **plena** (Honda) Yonek., comb. nov. – *R. wichuraiana* Crép. var. *plena* Honda in Bot. Mag. Tokyo **50**: 435 (1936).

Nom. Jap.: Yae-teriha-no-ibara.

(15) **Rosa multiflora** Thunb. var. **multiflora** f. **rosipetala** (Honda) Yonek., comb. nov. – *Rosa polyantha* Siebold & Zucc. f. *rosipetala* Honda in Bot. Mag. Tokyo **52**: 518 (1938).

Nom. Jap.: Usuaka-no-ibara.

(16) **Rosa onoei** Makino var. **oligantha** (Franch. & Sav.) H. Ohba f. **rosea** (Hayashi) Yonek., comb. nov. – *R. luciae* Franch. & Rochebr. ex Crép. f. *rosea* Hayashi in J. Geobot. (Kanazawa) **25**(3): 55 (1977).

Nom. Jap.: Akebono-ô-fuji-ibara.

Fabaceae (Leguminosae)

(17) **Wisteria japonica** Siebold & Zucc. f. **alborosea** (Sakata) Yonek., comb. nov. – *Millettia japonica* (Siebold & Zucc.) A. Gray f. *alborosea* Sakata in J. Jpn. Bot. **33**: 30 (1958).

Nom. Jap.: Akebono-natsu-fuji.

#### Geraniaceae

(18) New combinations and a new form of *Geranium onoei*

*Geranium reinii* and *G. onoei* both described from Japan by Franchet and Savatier (1878) have been treated as infraspecific taxa of *G. eriostemon* Fisch. ex DC. (1824) described from eastern Siberia. The latter name is, however, a later homonym of *G. eriostemon* Poir. (1811) (Yeo 1992). Accordingly, either *G. reinii* or *G. onoei* should be used for the name of the species. As Nakai (1935) synonymized *G. reinii* with *G. onoei*, the latter has priority. *Geranium japonicum* Franch. & Sav. (1878) which was misapplied to *G. krameri* Franch. & Sav. at past is also identical with *G. onoei* (Hara 1955) although *G. onoei* is not recorded in the type locality of *G. japonicum* (Hakone in Kanagawa Pref.) in current floras.

Yeo (1992) regarded continental *Geranium eriostemon* (nom. illeg.) as distinct from *G. onoei* and used the name *G. platyanthum* Duthie (1906) for the former. However, a wide range of morphological variation in North Korea (Nakai 1912, Hara 1948) makes it difficult to distinguish *G. platyanthum* from *G. onoei* at the specific level. Park and Kim (1997) included *G. onoei* in *G. eriostemon* apparently unaware of the illegitimacy of the latter. The quantity of materials seen by them seems insufficient for the inclusion. I think both can be distinguished from each other at varietal rank. *Geranium eriostemon* var. *glabrescens* Nakai ex H. Hara (1948), which is here transferred to a variety of *G. onoei*, seems to be another distinct form restricted to the high mountains of North Korea.

The commonest form of *Geranium onoei* in Japan has pale purple flowers and leaves hairy throughout. The name *G. onoei* has been applied to a form growing in alpine regions of Central Japan, with deep purple flowers and usually less hairy leaves (Nakai 1912). Nakai (1935) has previously pointed out that the type specimen of *G. onoei* represented the commonest form. I recognize the alpine form as a new form exclusively based on the difference in flower colour because leaf hairiness is variable as pointed out by Hara (1948).

**Geranium onoei** Franch. & Sav. in Enum. Pl. Jap. **2**: 303 (1878), '*Onaei*'.

var. **onoei**

Distr.: Japan (Hokkaido and Honshu).

f. **onoei**.

*G. reinii* Franch. & Sav., Enum. Pl. Jap. **2**: 304 (1878).

Nom. Jap.: Gunnai-fūro, Ibuki-gunnai-fūro.

f. **alpinum** Yonek., f. nov.

A typo floris purpureo-violaceis differt.

**Type**: JAPAN: Honshu, Nagano Pref. (Shinano), Mt. Yatsugatake (M. Okamoto s. n. (TNS exsicc. no. 1565), 23 Jul. 1957, TUS 22794 –holotype; TNS –isotype).

Misapplied names:

*G. eriostemon* var. *γ. onoei* seusu Nakai in Bot. Mag. Tokyo **26**: 255 (1912), non *G. onoei* Franch. & Sav.

*G. eriostemon* var. *reinii* f. *onoei* sensu Ohwi, Fl. Japan: 702 (1953); Kitam. & Murata, Col. III. Herb. Pl. Jap. **2**: 89 (1961); Akiyama in K. Iwats. & al., Fl. Japan **2b**: 288, in nota (2001).

Nom. Jap.: Takane-gunnai-fūro.

f. **albiflorum** (N. Yonez.) Yonek., comb. nov. – *G. eriostemon* var. *reinii* (Franch. & Sav.) Maxim. f. *albiflorum* N. Yonez. in J. Phytogeogr. Taxon. **29**: 110, photo (1981).

Nom. Jap.: Shirobana-gunnai-fūro.

f. **yezoense** (H. Hara) Yonek., comb. nov. – *G. eriostemon* Fisch. ex DC. var. *reinii* (Franch. & Sav.) Maxim. f. *yezoense*

H. Hara in J. Jpn. Bot. **22**: 166 (1948).

Nom. Jap.: Ezo-gunnai-fûro.

var. **glabrescens** (Nakai ex H. Hara) Yonek., comb. nov. – *G. eriostemon* Fisch. ex DC. var. *glabrescens* Nakai ex H. Hara in J. Jpn. Bot. **22**: 171 (1948).

Distr.: N. Korea.

#### Polygalaceae

(19) **Polygala reinii** Franch. & Sav. f. **stenophylla** Yonek., nom. nov.

Based on: *P. reinii* var. *angustifolia* T. Ito, Encycl. Jap. **2**: 612 (1909).

Synonyms:

*P. reinii* f. *angustifolia* (T. Ito) K. Iwats. & H. Ohba in K. Iwats. & al., Fl. Japan **2c**: 54, in adnot. (1999), nom. illeg.

*P. reinii* var. *angustifolia* Makino in J. Jpn. Bot. **3**: 18 (1926), non T. Ito (1909).

*P. reinii* f. *angustifolia* (Makino) Ohwi in Bull. Natn. Sci. Mus. Tokyo (33): 78 (1953), nom. illeg.

Nom. Jap.: Nagaba-kakinohagusa.

#### Rutaceae

(20) **Melicope grisea** (Planch.) T. Hartley var. **crassifolia** (Nakai) Yonek., comb. nov. – *Boninia glabra* Planch. var. *crassifolia* Nakai in Bot. Mag. Tokyo **36**: 124 (1922) – *B. grisea* Planch. var. *crassifolia* (Nakai) T. Yamaz. ex H. Ohba in K. Iwats. & al., Fl. Japan **2c**: 34 (1999).

Nom. Jap.: Atsuba-shirotsutsu.

(21) **Zanthoxylum ailanthoides** Siebold & Zucc. var. **ailanthoides** f. **espinosum** Yonek., nom. nov.

Based on.: *Fagara ailanthoides* (Siebold & Zucc.) Engl. var. *inermis* Nakai, Rep. Veg. Ooryongto: 21 (nom. nud.) & 68, in clavi (1919), cum diagn. Jap.

Synonyms:

*Z. ailanthoides* var. *inermis* (Nakai) T. B. Lee, Woody Pl. Kor.: 297 (1966), non Rehder & E. H. Wilson (1919).

*F. ailanthoides* var. *inermis* Hatus. in J.

Jpn. Bot. **12**: 876 (1936), non Nakai (1919).

*Z. ailanthoides* f. *inermis* (Hatus.) H. Ohba in K. Iwats. et al., Fl. Japan **2c**: 39 (1999), non *Z. ailanthoides* var. *inermis* Rehder & E. H. Wilson (1919), nec T. B. Lee (1966).

Nom. Jap.: Togenashi-karasu-zanshō.

#### Violaceae

(22) **Viola inconspicua** Blume subsp. **nagasakiensis** (W. Becker) J. C. Wang & T. C. Huang f. **albescens** (Taken.) Yonek., comb. nov. – *V. minor* (Makino) Makino var. *albescens* Taken. in Biol. Mag. Fukuoka **2**: 195 (1938) – *V. minor* f. *albescens* (Taken.) F. Maek. in Hara, Enum. Sperm. Jap. **3**: 209 (1954).

Nom. Jap.: Usuiro-hime-sumire.

f. **pilosa** (F. Maek.) Yonek., comb. nov. – *V. minor* (Makino) Makino f. *pilosa* F. Maek. in H. Hara, Enum. Sperm. Jap. **3**: 209 (1954).

Nom. Jap.: Ke-hime-sumire.

#### Onagraceae

(23) **Chamerion angustifolium** (L.) Holub f. **pleniflorum** (Nakai) Yonek., comb. nov. – *Epilobium angustifolium* L. var. *pleniflorum* Nakai in Bot. Mag. Tokyo **22**: 75 (1908).

Nom. Jap.: Yaezaki-yanagiran.

(24) **Epilobium amurense** Hausskn. subsp. **cephalostigma** (Hausskn.) C. J. Chen, Hoch & Raven f. **leucanthum** (Honda) Yonek., comb. nov. – *E. cephalostigma* Hausskn. f. *leucanthum* Honda in Bot. Mag. Tokyo **54**: 2 (1940).

Nom. Jap.: Shirobana-iwa-akabana.

#### Araliaceae

(25) **Oplopanax japonicus** (Nakai) Nakai var. **brevilobus** (H. Hara) Yonek., comb. nov. – *O. horridus* (Sm.) Miq. var. *brevilobus* H. Hara in J. Jpn. Bot. **30**: 70 (1955).

Nom. Jap.: Hiroha-haribuki.

(26) **Eleutherococcus spinosus** (L. f.) S.Y. Hu f. **espinosus** (H. Hara) Yonek., comb. nov. – *Acanthopanax spinosus* (L. f.) Miq. f. *espinosus* H. Hara, Enum. Sperm. Jap. **3**: 280 (1954).

*A. spinosus* var. *inermis* Makino ex F. Maek. in J. Jpn. Bot. **14**: 72 (1938), ‘*inermis*’, non f. *inermis* Matsuda (1912) – *E. spinosus* f. *inermis* (Makino ex F. Maek.) H. Ohashi in J. Jpn. Bot. **62**: 357 (1987).

Nom. Jap.: Togenashi-ukogi.

#### Apiaceae (Umbelliferae)

(27) **Cryptotaenia canadensis** DC. subsp. **japonica** (Hassk.) Hand.-Mazz. f. **atropurpurea** (Makino) Yonek., comb. nov. – *C. japonica* var. *atropurpurea* Makino in J. Jpn. Bot. **3**(2): 8 (1926) – *C. japonica* f. *atropurpurea* (Makino) Ohwi [Fl. Japan: 845 (1953), comb. nud.] ex H. Hara, Enum. Sperm. Jap. **3**: 309 (1954).

Nom. Jap.: Murasaki-mitsuba.

f. **warabiana** (Makino) Yonek., comb. nov. – *C. japonica* var. *warabiana* Makino in J. Jpn. Bot. **8**: 46 (1933) – *C. japonica* f. *warabiana* (Makino) H. Hara, Enum. Sperm. Jap. **3**: 309 (1954).

Nom. Jap.: Haniya-mitsuba.

#### Ericaceae

(28) **Elliottia paniculata** (Siebold & Zucc.) Hook. f. **albiflora** (Y. Kimura) Yonek., comb. nov. – *Tripetaleia paniculata* Siebold & Zucc. f. *albiflora* Y. Kimura in J. Jpn. Bot. **16**: 59 (1940).

Nom. Jap.: Shirobana-hotsutsuji.

(29) **Rhododendron molle** G. Don subsp. **japonicum** (A. Gray) K. Kron f. **canescens** (Sugim.) Yonek., comb. nov. – *R. japonicum* (A. Gray) Suringer f. *canescens* Sugim. in J. Geobot. (Kanazawa) **22**(4): 52 (1975).

Nom. Jap.: Birôdo-reng-tsutsuji.

f. **flavum** (Miyoshi) Yonek., comb.

nov. – *R. sinense* (Lodd.) Sweet f. *flavum* Miyoshi, Saishin Shokubutsugaku Kôgi **3**: t. 32 (1921).

Nom. Jap.: Ki-reng-tsutsuji.

f. **glaucophyllum** (Nakai) Yonek., comb. nov. – *R. japonicum* var. *glaucophyllum* Nakai, Trees & Shrubs Jap. rev. ed. **1**: 82 (1927) – *R. japonicum* f. *glaucophyllum* (Nakai) H. Hara, Enum. Sperm. Jap. **1**: 36 (1949).

Nom. Jap.: Urajiro-reng-tsutsuji.

f. **multifidum** (Nakai) Yonek., comb. nov. – *R. japonicum* f. *multifidum* Nakai, Trees & Shrubs Jap. rev. ed. **1**: 82 (1927).

Nom. Jap.: Renge-botan.

(30) **Vaccinium microcarpum** Turcz. ex Rupr. f. **kirigaminense** (Honda & Tobita) Yonek., comb. nov. – *Oxycoccus microcarpum* Turcz. ex Rupr. var. *kirigaminense* Honda & Tobita in Honda in Bot. Mag. Tokyo **54**: 223 (1940).

Nom. Jap.: Shirobana-hime-tsurukoke-momo.

(31) **Vaccinium oxycoccus** L. f. **leucanthum** (T. Shimizu) Yonek., comb. nov. – *Oxycoccus quadripetalus* Gilib. f. *leucanthus* T. Shimizu, New Alpine Fl. Jap. Col. **1**: 312 (1982).

Nom. Jap.: Shirobana-tsurukokemomo.

#### Symplocaceae

(32) **Symplocos sawafutagi** Nagam. f. **leucocarpa** (Nakai) Yonek., comb. nov. – *S. paniculata* (Thunb.) D. Don var.  $\beta$ . *leucocarpa* Nakai in Bot. Mag. Tokyo **32**: 227 (1918).

Nom. Jap.: Shiromi-no-sawafutagi.

#### Oleaceae

(33) **Fraxinus platypoda** Oliv. f. **nipponica** (Koidz.) Yonek., comb. nov. – *F. nipponica* Koidz. in Bot. Mag. Tokyo **28**: 286 (1914) – *F. sphaethiana* Lingelsh. f. *nipponica* (Koidz.) Sa. Kurata, Ill. Import.

Forest Trees Jap. **1**: 196 (1964).

Nom. Jap.: Yama-shioji.

#### Gentianaceae

(34) **Gentiana yakumontana** Masam. f. **viridis** (Sugim.) Yonek., comb. nov. – *G. zollingeri* Fawc. var. *yakumontana* (Masam.) Sugim. f. *viridis* Sugim., Keys Herb. Pl. Jap. **1**: 427 & 737 (1965).

Nom. Jap.: Midori-yakushima-koke-rindo.

(35) **Tripterospermum trinervium** (Thunb.) H. Ohashi & H. Nakai var. **trinervium** f. **albiflorum** (Honda) Yonek., comb. nov. – *T. japonicum* (Siebold & Zucc.) Maxim. f. *albiflorum* Honda in J. Jpn. Bot. **30**: 170 (1955).

Nom. Jap.: Shirobana-tsuru-rindô.

var. **trinervium** f. **leucocarpum** (Honda) Yonek., comb. nov. – *T. japonicum* f. *leucocarpum* Honda in J. Jpn. Bot. **30**: 170 (1955).

Nom. Jap.: Shiromi-no-tsuru-rindô.

var. **involutibile** (N. Yonez.) H. Ohashi & H. Nakai f. **album** (T. Shimizu) Yonek., comb. nov. – *T. japonicum* var. *involutibile* (N. Yonez.) J. Murata f. *album* T. Shimizu in J. Phytogeogr. Taxon. **46**: 115 (1998).

*T. japonicum* var. *involutibile* f. *albiflorum* T. Shimizu, Fl. Nagano Pref.: 1509 (1997), non Honda (1955).

Nom. Jap.: Shirobana-tengu-no-kozuchi.

#### Asclepiadaceae

(36) **Vincetoxicum sublanceolatum** (Miq.) Maxim. var. **kinokuniense** (T. Yamaz.) Yonek., comb. nov. – *Cynanchum sublanceolatum* (Miq.) Matsum. var. *kinokuniense* T. Yamaz. in K. Iwats. & al., Fl. Japan **3a**: 174 (1993).

Nom. Jap.: Kinokuni-kamomezuru.

#### Convolvulaceae

(37) New combinations in *Calystegia*

Fang and Brummit (1995) applied *Calystegia pubescens* Lindl. (1846) to the

plants called *C. japonica* Choisy (1854) in Japan. Hara (1957) considered *C. pubescens* as specifically different from *C. japonica* and reduced the former to a form of *C. dahurica* (Herb.) Choisy (1845). However the application of the name *C. dahurica* is uncertain (Fang and Brummit 1995). Although typical *C. pubescens* Lindl. (a cultivar 'Flore Pleno') which came from China differs from Japanese *C. japonica* in having hairier stems and truncate leaf-bases as well as the double-form flowers (Hara 1957), these seem conspecific if the entire range of variation in China is considered. Accordingly, I treat wild *C. japonica* with normal pink flowers and *C. japonica* with normal white flowers as forms of *C. pubescens*.

*Calystegia sepium* var. *japonica* f. *major* Makino (1908) is the earliest name published at forma rank applicable to typical *C. japonica*. Although Hara (1949) recognized it as a distinct form of *C. japonica*, it seems indistinguishable from the latter as leaf shape and size of this species vary continuously. The correct name of *C. japonica* becomes as follows:

**Calystegia pubescens** Lindl. f. **major** (Makino) Yonek., comb. nov. – *C. sepium* (L.) R. Br. var. *japonica* (Choisy) Makino f. *major* Makino in Bot. Mag. Tokyo **21**: 162 (1907).

Other synonyms:

*C. japonica* Choisy in Zoll., Syst. Verz. Ind. Arch. **2**: 130 & 132 (1854).

*C. sepium* var. *japonica* var. *angustifolia* Nakai in Bot. Mag. Tokyo **23**: 107 (1909).

*C. japonica* f. *vulgaris* H. Hara, Enum. Sperm. Jap. **1**: 160 (1949).

Nom. Jap.: Hirugao.

f. **albiflora** (Makino) Yonek., comb. nov. – *C. japonica* var. *albiflora* Makino in J. Jpn. Bot. **3**: 1 (1923) – *C. japonica* f. *albiflora* (Makino) H. Hara, Enum. Sperm. Jap. **1**: 160 (1949) – *C. sepium* var. *japonica* f. *albiflora* (Makino) T. Yamaz. in K. Iwats. & al., Fl.

Japan **3a**: 199 (1993).

Nom. Jap.: Shirobana-hirugao.

#### Boraginaceae

(38) **Cynoglossum furcatum** Wall. var. **villosulum** (Nakai) Riedl f. **albiflorum** (H. Hara) Yonek., comb. nov. – *C. zeylanicum* (Vahl ex Hornem.) Thunb. ex Lehm. f. *albiflorum* H. Hara, Enum. Sperm. Jap. **1**: 173 (1949).

Nom. Jap.: Shirobana-ô-rurisô.

(39) **Cynoglossum lanceolatum** Forssk. var. **formosanum** (Nakai) H. Hara f. **albiflorum** (Masam.) Yonek., comb. nov. – *C. formosanum* Nakai f. *albiflorum* Masam. in J. Soc. Trop. Agric. Taiwan **2**: 152 (1930).

Nom. Jap.: Shirobana-shima-rurisô.

(40) **Omphalodes krameri** Franch. & Sav. var. **laevisperma** (Nakai) Ohwi f. **leucantha** Yonek., nom. nov.

Based on: *O. krameri* var. *laevisperma* f. *albiflora* Satomi in J. Phytogeogr. Taxon. **31**: 30 (1983), non *O. krameri* var. *albiflora* H. Hara (1934).

Nom. Jap.: Shirobana-echigo-rurisô.

#### Lamiaceae (Labiatae)

(41) **Prunella vulgaris** L. subsp. **asiatica** (Nakai) H. Hara f. **candida** Yonek., nom. nov.

Based on: *Brunella vulgaris* L. var. *albiflora* Koidz. in Bot. Mag. Tokyo **29**: 310 (1915).

Other synonyms:

*P. vulgaris* f. *albiflora* (Koidz.) Kudô in Mem. Fac. Sci. Taihoku Imp. Univ. **2**: 308 (1929), non Nakai (1921).

*P. vulgaris* var. *elongata* Benth. f. *albiflora* Nakai in Bot. Mag. Tokyo **35**: 192 (1921), non var. *albiflora* Koidz. (1915).

Nom. Jap.: Shirobana-utsubogusa.

#### Solanaceae

(42) **Physaliastrum japonicum** (Franch. &

Sav.) Honda f. **kimurae** (Makino) Yonek., comb. nov. – *P. kimurae* Makino in J. Jpn. Bot. **3**: 37 (1926), ‘*Kimurai*’ – *P. savatieri* Makino f. *kimurae* (Makino) Ohwi, Fl. Jap.: 1026 (1953), comb. nud., ed. Engl.: 789 (1965), comb. nud.; Kitam. & Murata, Col. Ill. Herb. Pl. Jap. **1**: 156 (1957), comb. nud.

Nom. Jap.: Takao-hôzuki.

#### Scrophulariaceae

(43) **Lindernia micrantha** D. Don f. **leucantha** (Hiyama) Yonek., comb. nov. – *Vandellia angustifolia* Benth. f. *leucantha* Hiyama in J. Jpn. Bot. **32**: 57 (1957).

Nom. Jap.: Shirobana-aze-tôgarashi.

(44) **Mazus pumilus** (Burm. f.) Steenis f. **senanensis** (Asai) Yonek., comb. nov. – *Mazus japonicus* (Thunb.) Kuntze f. *senanensis* Asai in J. Jpn. Bot. **38**: 168 (1963).

Nom. Jap.: Shirobana-tokiwahaze.

(45) **Veronicastrum sibiricum** (L.) Pennell subsp. **yezoense** (H. Hara) T. Yamaz. f. **candidum** Yonek., nom. nov.

*V. sibiricum* var. *yezoense* H. Hara f. *albiflorum* Hideki Takah. in J. Phytogeogr. Taxon. **52**: 191, f. 1 (‘2004’ publ. 2005), non *V. sibiricum* var. *japonicum* f. *albiflorum* Akasawa (1955) nec Hayashi (1960) nec N. Yonez. (1984).

Nom. Jap.: Shirobana-ezo-kugaisô.

#### Acanthaceae

(46) **Peristrophe japonica** (Thunb.) Bremek. f. **leucantha** (Hiyama) Yonek., comb. nov. – *Dicliptera japonica* (Thunb.) Makino f. *albiflora* Hiyama in J. Jpn. Bot. **28**: 94 (1953).

Nom. Jap.: Shirobana-hagurosô.

#### Campanulaceae

(47) **Adenophora nikoensis** Franch. & Sav. var. **teramotoi** (Hurus. & T. Yamaz.) J. Okazaki & T. Shimizu f. **hispidula** (T.

Shimizu) Yonek., comb. et stat. nov. – *A. teramotoi* Hurus. & T. Yamaz. var. *hispidula* T. Shimizu in J. Fac. Text. Sci. Tech. Shinshu Univ. no. 36, ser. A (Biol.) (12): 66 (1963) et in Acta Phytotax. Geobot. **21**: 28 (1964).

Nom. Jap.: Ke-shiraiwa-shajin.

Asteraceae (Compositae)

(48) *Ainsliaea uniflora* Sch. Bip. f. *nivea* (M. Mizush.) Yonek., comb. nov. – *Diaspananthus uniflorus* (Sch. Bip.) Kitam. f. *niveus* M. Mizush. in J. Jpn. Bot. **30**: 95 (1955).

Nom. Jap.: Yuki-yatsude.

(49) *Aster hispidus* Thunb. var. *hispidus* f. *albidiflorus* (Akasawa) Yonek., comb. nov. – *Heteropappus hispidus* (Thunb.) Less. f. *albidiflorus* Akasawa in Bull. Kochi Women's Univ., ser. Nat. Sci. **27**: 5 (1979), as "*albidiflorus*".

Nom. Jap.: Shirobana-areno-nogiku.

(50) *Aster microcephalus* (Miq.) Franch. & Sav. var. *ovatus* (Franch. & Sav.) Soejima & Mot. Ito f. *ovatus* (Franch. & Sav.) Yonek., comb. nov. – *A. trinervius* Roxb. ex D. Don var.  $\beta$ . *ovatus* Franch. & Sav., Enum. Pl. Jap. **1**: 222 (1875), '*ovata*'.

Nom. Jap.: Nokongiku.

f. *albidus* (Kitam.) Yonek., comb. nov. – *A. ageratoides* subsp. *ovatus* (Franch. & Sav.) Kitam. f. *albidus* Kitam. in Mem. Coll. Sci. Kyoto Imp. Univ. ser. B, **13**: 352 (1937).

Nom. Jap.: Shirobana-nokongiku.

f. *humilis* (Nakai) Yonek., comb. nov. – *A. ageratoides* Turcz. var. *humilis* Nakai, Cat. Sem. Spor. Hort. Bot. Univ. Tokyo [1916: 31 (1916), nom. nud.] 1920: 39 (1920).

Nom. Jap.: Komachi-giku.

f. *vernalis* (Honda) Yonek., comb. nov. – *Aster ageratoides* Turcz. var. *vernalis* Honda in Bot. Mag. Tokyo **45**: 45 (1931).

Nom. Jap.: Haru-nokongiku.

(51) A new status for *Kalimeris yomena* subsp. *angustifolia*

Japanese plants hitherto referred to *Kalimeris incisa* DC. (*Aster incisus* Fisch.) in continental Asia are different from the mainland plants in having elongate stoloniferous rhizomes (Gu and Hoch 1997). Gu and Hoch (1997) regarded them as a distinct subspecies of *K. yomena* endemic to Japan (subsp. *angustifolia* (Nakai) H. Y. Gu) because of the existence of intermediate plants. On the other hand, *K. yomena* is believed to have originated as a hybrid between *K. indica* (*Aster indicus*) and subsp. *angustifolia* (Shimotomai and Inoue 1951). Difficulty for distinguishing the subsp. *angustifolia* from *K. yomena* has been explained as a result of back-crossing with parental species (Shindo 1966a, 1966b). When the origin of *K. yomena* is considered, it is natural to regard Gu and Hoch (1997)'s subsp. *angustifolia* as a distinct species.

As *Kalimeris* seems insufficiently distinct from *Aster* (s. str.) at generic rank (Ito et al. 1995), I make the following combination under the genus *Aster*:

*Aster robustus* (Makino) Yonek., stat. nov. – *Aster pinnatifidus* (Maxim. ex Makino) Makino f. *robustus* Makino in Bot. Mag. Tokyo **27**: 115 (1913).

Other synonyms:

*Kalimeris incisa* (Fisch.) DC. var. *robusta* (Makino) Kitag., Neo-Lineam. Fl. Mansh.: 653 (1979) et in Ohwi & Kitag., New Fl. Japan: 1460 (1983).

*K. pinnatifida* (Maxim. ex Makino) Kitam. var. *angustifolia* Nakai in Bull. Natn. Sci. Mus. Tokyo (33): 26 (1953).

*K. yomena* (Kitam.) Kitam. subsp. *angustifolia* (Nakai) H. Y. Gu in H. Y. Gu & Hoch in Ann. Missouri Bot. Gard. **84**: 799, f. 17D (1997).

Misapplied names:

*Aster incisus* auct. non Fisch.: Nakai in Bot. Mag. Tokyo **33**: 214 (1919), p. p.; H. Hara, Enum. Sperm. Jap. **2**: 131 (1952); Mot.



Ito & Soejima in K. Iwats. & al., Fl. Japan **3b**: 66 (1995).

*Kalimeris incisa* auct. non (Fisch.) DC.: Kitam. in Mem. Coll. Sci. Kyoto Imp. Univ. ser. B, **13**: 309 (1937), p. p., quoad specim. ex Jap., in Ohwi, Fl. Jap. ed. Engl.: 869 (1965) et in Satake & al., Wild Flow. Jap. Herb. Pl. **3**: 191 (1981); Ohwi, Fl. Jap.: 1151 (1953); Kitam. & Murata, Col. Ill. Herb. Pl. Jap. **1**: 85 (1957).

Nom. Jap.: Ô-yûga-giku.

(52) *Crepidiastrum denticulatum* (Houtt.) J. H. Pak & Kawano f. *pallescens* (Momiy. & Tuyama) Yonek., comb. nov. – *Paraixeris denticulata* (Houtt.) Nakai f. *pallescens* Momiy. & Tuyama in Tuyama in J. Jpn. Bot. **21**: 112 (1947).

Nom. Jap.: Usuiro-yakushisô.

(53) *Crepidiastrum* ×*surugense* (Hisauti) Yonek., comb. nov. – *Paraixeris surugensis* Hisauti in J. Jpn. Bot. **10**: 698, photo (1934).

Nom. Jap.: Yakushi-azetôna.

(54) New combinations in *Ixeridium*

I agree with Pak and Kawano (1992) on generic circumscriptions of *Ixeris* and related genera. *Ixeridium dentatum* is polymorphic in Japan and many infraspecific taxa have been recognized. Although Pak and Kawano (1992) included almost all taxa growing in lowlands in subsp. *dentatum*, I follow Yahara (1995)'s opinion who recognized two subspecies and several varieties in subsp. *dentatum* sensu Pak and Kawano (1992).

*Ixeridium dentatum* (Thunb.) Tzvelev subsp. *dentatum* f. *stoloniferum* (Kitam.) Yonek., comb. et stat. nov. – *Lactuca dentata* (Thunb.) C. B. Rob. var. *stolonifera* Kitam., Compos. Nov. Jap.: 26 (1931).

Nom. Jap.: Hai-nigana.

subsp. *nipponicum* (Nakai) J. H. Pak & Kawano var. *albiflorum* (Makino) H. Nakai & H. Ohashi, comb. nov. – *Lactuca*

*thunbergii* (A. Gray) Maxim. var. *albiflora* Makino in Bot. Mag. Tokyo **12**: 48 (1898).

f. *amplifolium* (Kitam.) H. Nakai & H. Ohashi, comb. nov. – *Ixeris dentata* var. *amplifolia* Kitam. in Bot. Mag. Tokyo **49**: 285 (1935).

Nom. Jap.: Hana-nigana, Ôbana-nigana.

f. *atropurpureum* (Nakai) H. Nakai & H. Ohashi, comb. nov. – *Ixeris dentata* var. *atropurpurea* Nakai in Bot. Mag. Tokyo **42**: 16 (1928).

Nom. Jap.: Kuro-nigana.

f. *leucanthum* (H. Hara) H. Nakai & H. Ohashi, comb. nov. – *Ixeris dentata* var. *octoradiata* Nakai f. *leucantha* H. Hara in J. Jpn. Bot. **10**: 435 (1934).

Nom. Jap.: Shirobana-nigana.

var. *nipponicum* (Nakai) H. Nakai & H. Ohashi, stat. nov. – *Ixeris nipponica* Nakai in Bot. Mag. Tokyo **34**: 154 (1920).

Nom. Jap.: Iso-nigana.

subsp. *ozense* (Sugim.) Yonek., comb. et stat. nov. – *Ixeris dentata* (Thunb.) Nakai subsp. *stolonifera* Kitam. var. *ozensis* Sugim. in J. Jpn. Bot. **32**: 64 (1957).

Nom. Jap.: Oze-nigana.

(55) *Nemosenecio nikoensis* (Miq.) B. Nord. f. *albiflorus* (Sugim.) Yonek., comb. nov. *Senecio nikoensis* Miq. f. *albiflorus* Sugim. in J. Jpn. Bot. **32**: 64 (1957).

Nom. Jap.: Shirobana-sawagiku.

(56) *Parasenecio delphiniifolius* (Siebold & Zucc.) H. Koyama var. *brevilobus* (Sugim. & Sugino) Yonek., comb. nov. – *Cacalia delphiniifolia* Siebold & Zucc. var. *breviloba* Sugim. & Sugino in J. Geobot. (Kanazawa) **26**: 81, photo (1978).

Nom. Jap.: Ogasa-momijigasa.

(57) *Saussurea kudoana* Tatew. & Kitam. var. *yuparensis* (Kitam.) Yonek., comb. nov. – *Saussurea riederi* Herder subsp. *kudoana* (Tatew. & Kitam.) Kitam. var. *yuparensis* Kitam. in Mem. Coll. Sci. Kyoto

Imp. Univ. ser. B, **13**: 173 (1937).  
Nom. Jap.: Yûbari-kita-azami.

### Monocotyledoneae

#### Liliaceae

(58) *Hosta tsushimensis* N. Fujita f. **albiflora** (S. Toyama) Yonek., comb. nov. – *H. minor* Nakai f. *albiflora* S. Toyama in J. Jpn. Bot. **36**: 141 (1961).

Nom. Jap.: Shirobana-tsushima-gibôshi (nov.), Shirobana-keirin-gibôshi (Toyama 1961).

#### Poaceae (Gramineae)

(59) *Calamagrostis brachytricha* Steud. var. **inaequata** (Hack. ex Honda) Yonek., comb. nov. – *Calamagrostis arundinacea* (L.) Roth var. *inaequata* Hack. ex Honda in Bot. Mag. Tokyo **40**: 441 (1926).

Nom. Jap.: Saishû-nogariyasu.

(60) *Elymus* × **nakashimae** (Ohwi) Yonek., comb. nov. – *Agropyron nakashimae* Ohwi in Acta Phytotax. Geobot. **11**: 257 (1942).

(61) *Ischaemum aristatum* L. var. **crassipes** (Steud.) Yonek., comb. nov. – *I. crassipes* (Steud.) Thell. in Repert. Spec. Nov. Regni Veg. **10**: 289 (1912); Nakai in Bot. Mag. Tokyo **33**: 1 (1919), cum var. *typicum* Nakai.

*I. crassipes* var. *glaucum* Honda in J. Fac. Sci. Imp. Univ. Tokyo sect. 3, Bot. **3**: 354 (1930) – *I. aristatum* var. *glaucum* (Honda) T. Koyama in J. Jpn. Bot. **37**: 239 (1962).

Nom. Jap.: Kamonohashi.

(62) *Neomolinia japonica* (Franch. & Sav.) Probat. f. **musashiensis** (Hiyama) Yonek., comb. nov. – *Diarrhena japonica* Franch. & Sav. f. *musashiensis* Hiyama in J. Jpn. Bot. **28**: 218 (1953).

Nom. Jap.: Yokoyama-tatsunohige.

(63) *Poa ochotensis* Trin. var. **subtrivialis** (Ohwi) Yonek., comb. nov. – *P.*

*sphondylodes* Trin. var. *subtrivialis* Ohwi in Acta Phytotax. Geobot. **10**: 126 (1941).

Nom. Jap.: Hiroha-ichigo-tsunagi.

(64) *Urochloa villosa* (Lam.) T.Q. Nguyen f. **glabriglumis** (Ohwi) Yonek., comb. nov. – *Brachiaria villosa* (Lam.) A. Camus var. *glabriglumis* Ohwi in Acta Phytotax. Geobot. **5**: 51 (1936) – *Brachiaria villosa* f. *glabriglumis* (Ohwi) Ohwi in Acta Phytotax. Geobot. **11**: 43 (1942).

Nom. Jap.: Rasha-kibi.

#### Cyperaceae

(65) *Scleria rugosa* R. Br. var. **onoei** (Franch. & Sav.) Yonek., comb. nov. – *S. onoei* Franch. & Sav., Enum. Pl. Jap. **2**: [122 (1877), nom. nud.] 549 (1878).

Nom. Jap.: Maneki-shinju-gaya.

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米倉浩司：日本とその周辺の植物に関する分類学的研究 (1) —日本産植物の新組合せおよび新名—

筆者は梶田 忠助教授 (千葉大学) と共同で、日本に自生、帰化している全ての維管束植物と和名のついている主要な栽培植物、有用植物について、和名と学名 (戦後の文献に現れた異名も含む) およびその出典と、日本の主要植物誌 (北村他編『原色日本植物図鑑』(1957–1979), 佐竹他編『日本の野生植物』(1982–2003), 大井・北川『新日本植物誌』(1983) および Iwatsuki & al. (eds.) 『Flora of Japan』(1993–) にそれらの学名が現れるページ、および所属する科名を対応させたデータベースを構築した (URLは本文を参照されたい)。この構築の過程で、多数の新組合せや新名が必要となり、またいくつかの植物群では学名の選択に関して筆者の基準を示す必要に迫られた。今回は、主に命名規約上の理由により必要となった種子植物の新組合せと新名のうち、近く出版される Flora

of Japan IIa で取り扱われる双子葉植物離弁花類の一部および札幌の中井秀樹博士が作成中の北海道産維管束植物目録で取り扱われる予定の新組合せを除いた 81 新組合せと 5 新名について発表する。また、(18) グンナイフウロ、(37) ヒルガオと (51) オオユウガギクについては本文にやや詳しい解説を付し、タカネグンナイフウロを新品種として記載した。また、(54) ニガナについては、中井秀樹博士の好意により、博士が上記目録のために準備していた 5 個の新組合せ (H. Nakai & H. Ohashi に帰属させられているもの) をここに発表することができた。これらの組合せの著者名は、国際植物命名規約第 46.2 条の規定により H. Nakai & H. Ohashi となり、H. Nakai & H. Ohashi ex Yonek. ではないので、引用の際は注意されたい。

(東北大学植物園)