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By

T. Makino.

Iris sibirica Linn. Cod. n. 329. a. typica Maxim. in Mél. Biol. X. p. 709.

forma albiflora Makino.

Flower white, smaller than those of β. orientalis (Thunb.) Maxim.; pedicel slender, longer than spathe. Petals spathulato-obovate, gradually attenuated and cuneate towards the base.

Cultivated.

Centella asiatica (Linn.) Urb. var. cristata Makino.

Hydrocotyle asiatica var. cristata Makino in Bot. Mag., Tokyo, VI. (1892) p. 51.

Leaves thick, semiobliquato-flabellate, cristato-dentate with deltoid teeth, truncato-cuneate below, 10–20 mm. long, 13–30 mm. wide; petiole longer than blade, 1½–6 cm. long.


Peucedanum Porphyroscias (Miq.) Makino.


Hab. Japan, common.
Var. albiflorum (Maxim.) is merely a form with white flowers, and there is the intermediate form between this and the typical form. The latter bears atro-purpureous flowers.

Rhododendron rhombicum Miq. var. albiflorum Makino var. nov.

Flower white.
Very rare.

Rhododendron Tschonoskii Maxim. a. typicum Makino.

a. pentamerum Makino.

Corolla-lobes 5. Stamens 5.
Hab. Japan.

b. tetramerum Makino.
Hab. Japan.

In those two forms, the corolla-tube may be either longer or shorter than lobes, and the flower is also variable in size. The flower with the long-corolla-tube very closely resembles that of Tsusiophyllum Tanakae Maxim.

β. trinerve (Franch) Makino.

a. pentamerum Makino.

Corolla-lobes 5.
Hab. Japan.

b. tetramerum Makino.
Hab. Japan.

*Melia Azedarach* var. *subtripinnata* Miq. l. c.; Franch. et Sav. l. c.

var. *semperflorens* Makino var. nov.

Shrubby; trunk slender, erect, reaching to a height of about 2 m. or more, shortly branched above. Leaves bipinnate, but in flowering branchlets often simply pinnate and smaller or sometimes only ternate; leaflet ovate, irregularly coarsely serrato-dentate. Panicles 3–10 cm. long including the peduncle, sparse on new branches of this year, axillary, several-many-flowered. Flower about 17 mm. across, lilac. Stamens deep purple.


**Gentiana Kawakamii** Makino.


Corolla-lobes often very minutely denticulate; plaits inclined inwards and closing the throat, somewhat contorted.

**Viscum album** Linn. Codex n. 7402.

a. *typicum*.

Berry yellowish-white.

*Hab.* Japan, common, on *Celtis sinensis* or sometimes *Castanea sativa* var. *japonica*.

β. *rubro-aurantiacum* Makino var. nov.

Berry reddish-aurantiacous, ovoid-globose, about 9 mm. across. Others as in the type.

*Hab.* Prov. Musashi: Tokyo, on *Celtis sinensis* (*H. Takeda* and *T. Makino*! May 8, 1904).

This variety is rare in Tokyo; it is also found in northern China.

**Elaeocarpus ellipticus** (Thunb.) Makino, non Sm.

Cerasus elliptica Loisel.; Seringe in DC. Prodr. II. p. 540.


Hab. Japan, in places near sea in middle and southern parts.


Scaevola velutina Presl; DC. Prodr. VII. p. 506.
Scaevola Leschenaultiana DC. l. c. p. 506.


var. Taccada (Gaertn.) Makino.


Scevola Lobelia Buch.-Ham. in Trans. Linn. Soc. XVII. (1835) p. 250, non Linn.

Lobelia Plumieri Burm. Fl. Ind. p. 186, non Linn.
Scevola montana Labill.; DC. l. c. p. 506.
Scevola macrocalyx De Vriese; Walp. Ann. II. p. 1056.
Scevola chlorantha De Vriese; Walp. l. c. p. 1056.
Scevola Lambertiana De Vriese; Walp. l. c. p. 1056.
Scevola lativaga Hance in Walp. l. c. p. 1054, ex parte.


Anemone (Pulsatilla) hirsutissima (Pursh) Makino.
var. Taraoi Makino.
Anemone patens var. hirsutissima subvar. Taraoi Makino in Bot. Mag., Tokyo, XVII. (1903) p. 39.

Hab. Prov. Chishima (Kurile Islands); Brat Chirpoef Isl. (C. Tarao! June 18, 1892).

Scutellaria transitria Makino sp. nov.

Scutellaria nipponica Makino in Bot. Mag., Tokyo, VI. (1892) p. 54, non Franch. et Sav.

Perennial, 10–35 cm. high, stoloniferous; stolons hypogeous, slender, rooting. Stems erect, slender, simple or with a few branches above, tetragonal, thinly pubescent or nearly glabrous, with remote nodes, leafy throughout. Leaves opposite, petiolate, subdeltoid-oval or oval-ovate, obtuse, truncate or subcordate at the base, dentate with deltoid or deltoid-ovate acutish or obtuse teeth, membranaceous, very thinly dispersed with pilose hairs on both surfaces or nearly glabrous, 1–5 cm. long, 1–3½ cm. wide, the superior ones passing the bracts; petiole thinly pilose, ¾–4 cm. long, shorter or sometimes longer than the blade. Raceme terminal, 1–14 cm. long, secondly flowered; rachis thinly pubescent; bracts ovato-lanceolate or narrowly ovate, the lower ones often similar to leaves in size and form, the superior ones gradually diminished in size and the uppermost one about 2–3 mm. in length. Flowers erect, loose, pedicellate, opposite ascending-erect, 17–22 mm. long, caeruleo-violaceous above; pedicel very short, 1½–3 mm. long, thinly pubescent. Calyx campanulate, shallowly 2–labiate with entire equal lips, thinly pubescent with glandular patent hairs externally, green, 2½–3 mm. long, but 3½ mm. in length and compressed and close in fruit, appendage erect, lato-semiorbicular, thinly glandulos-pubescent and ciliated, slightly concavo-convex, 3½–4 mm. broad in fruit. Corolla thinly pubescent with patent glandular hairs, white but caeruleous above; tube long, slightly arcuate, enlarged above, somewhat geniculate and sub-gibbose at the base; limb much shorter than the tube, the upper lip shorter and much smaller, 2-lobed into oval-ovate obtuse lobules, the lower lip ample, the lateral lobes obtuse deltoid-oval and shorter than the upper lip, the midlobe much broad, patent, semiorbicular, 8–9½ mm. broad, obscurely trilobule, the midlobe broader than the lateral lobules and subtruncate or sub-emarginate. Stamens didynamous, inserted above the middle of the corolla-tube, the anterior ones equal to the upper lip of corolla in height; filament pubescent below; anther ciliated on the margin of anther-cells, divergent, one of cells in those of the anterior stamens minute and
imperfect. Style about equal to stamens in height, filiform, glabrous, curved forwards under the stigma; stigma bifid, the upper lobe minute and much shorter; ovary short-stipitate, disk large. Nutlet 1½ mm. across, fulvous, muricate all over. Flowers in June-July.


This comes near to *Scutellaria indica* Linn. and var. *japonica* (Morr. et Decne.) Franch. et Sav., differing from these by the above mentioned habits.


form *parvifolia* Makino.

Dwarf, cespitose, many-stemmy, thinly pubescent to tomentose-pubescent. Leaves small, 5–15 mm. long, 4–14 mm. broad, petiolate, ovate-ovate, obtuse, truncate or truncato-subcordate at the base, crenate; petiole shorter than the blade, 2–9 mm. long. Flower as in those of var. *japonica* Morr. et Decne. (sp.), but sometimes smaller. Nutlet minute, muricate all over, black. Flowers in May.


*Stephanotis japonica* Makino in Bot. Mag., Tokyo, VI. (1892) p. 53.
A tall vigorous voluble shrub; stem and main branches glabrate, browish-grey; branches and branchlets slender, terete, patent-retorsely pubescent but tomentose in youngest ones, nodes mostly remote; lenticels dispersed, small, rounded to elliptical. Leaves opposite, petiolate, elliptico-oblong, ovato-elliptical, oblong-ovate, or ovate, abruptly and shortly acuminate with an obtuse or acutish tip, rounded to cordate at the base, entire and minutely ciliolate, membranaceous or chartaceous-membranaceous, deep-green above, slightly paler beneath, 4½-17 cm. long, 3-11 cm. wide, midrib and veins pubescent and the hairs denser beneath, young leaves dispersed with minute pubescent hairs; veins erect-patent, connected before reaching the margin; about 6-8 on each side; petiole much shorter than the blade, 9-22 mm. long, erect-patent or spreading or reflexed, pubescent. Cyme on branchlets of this year, axillary, umbellate, shorter than leaves, peduncled, 2-5-flowered; peduncle straight, short, solitary, erect-patent, or patent, rarely one-branched, thinly pubescent as is the pedicel, 3-14 mm. long, pedicels straight, narrowly terete, thicker under the flower, viridescent, erect or erect-patent, much longer than the peduncle, 15-28 mm. long; bracts small, scaly, about 3-5, placed at the base of pedicels, unequal in size, lato-subulate, lato-ovate, ovato-oblong, oblong, lato-linear, linear, or sometimes spathulato-linear, usually obtuse, about 1-4 mm. long, pubescent towards the margin and ciliolate. Flower large, white, fragrant, 3½-6 cm. across, often with black juice filling the corolla-tube. Calyx 5-sepaled, rounded-obtuse at base, 6-13 mm. long, glabrous but minutely ciliolate, green; sepals imbricated, somewhat unequal, erect, narrowly ovate, ovato-lanceolate, or narrowly oblong, obtuse or acutish, entire, thickish below, midrib more or less prominent dorsally, veinlets irregularly anastomosing, with free extreme venules. Corolla hypocrateriform, subcarneous; tube exserted, cylindrical, slightly swollen at the base, 11-13 mm. long, 6-7 mm. across, glabrous and longitudinally 5-sulcate below externally, marked with longitudinally pilose lines 5 above and 10 below internally; lobes 5, arcuate-patent, longer than the tube, angustato-lanceolate to ovato-lanceolate, slightly falcate, obtuse or acutish, entire and laxly ciliolate, minutely auriculate on one side at the base, sinistrorsely convolute in prefloration, 17-30 mm. long, 6-9 mm. wide, subminerved below, midrib slender, veinlets delicate and irregularly anastomosing. Genitals included, glabrous, about 7-8 mm. long. Staminial corona 5, narrowly deltoid, erect, flattened and longitudinally subangulate in centre above dorsally, almost entirely adnate to the column (connate filaments) and shorter than it and the obtuse tips slightly free, black when dry. Column thick, 5-gonous; anthers terminal, free, membranes sur-
rounding the stigma, oblong-elliptical or narrowly oblong, obtuse, concave, about 3–4 mm. long, slightly exceeding the stigma; pollinia small, about \( \frac{3}{4} \) mm. long, obovato-oblong, rounded at the top, erect, very shortly pedicellate; corpuscle shorter than pollinia, ovato-deltoid, acute. Style crowned on the ovaries, short, thick, close to the column; stigma thicker than the style, clavato-ovate, semispherical one-half above, shortly bilobed at the top. Ovaries 2, collectively ovato-oval or conico-oval and obtuse, glabrous, small, about 2 mm. long, many-ovuled, each slightly compressed dorsally (semiobicular in cross section); ovules minute, several-seriate, pendulous, obovato-elliptical or elliptical, with a short funicle; placenta thickish. Follicles 2, strongly divaricate, often with persistent calyx, elongatedly horn-shaped, gradually attenuated above, straight, glabrous, viridescent, about 10–16 cm. long, 1\( \frac{3}{4} \)–2 cm. across, many-seeded, with coriaceous carpel; pedicel 2–4 cm. long. Seeds pendulous, numerous, imbricated, compressed, ovate, narrowly winged on margin, umber, comose with many and long sericeous hairs, glabrous, 12–14 mm. long; albumen ovate; embryo straight, cotyledons flat, elliptical, rounded at the apex and base, veined, caulicle much shorter than the cotyledon. Flowers in May-June.


**Distr.** Hongkong, Kwantung.

I could not obtain the typical specimen itself from Chine, so the Japanese plant was identified according to its description. In Japan, this species is found in the southern part and warmer districts of the middle part. My thanks are due to Mr. Torama Yoshinaga, who kindly sent me the fruit and its figure.

**Styrax Shiraiiana** Makino in Bot. Mag., Tokyo, XII. (1898) p. 50.

A deciduous small tree; branches terete, flexuous, glabrous, but tomentose with fasciated hairs (which are often caducous) in the shoot of this year, provided with erect-patent branchlets, drab-castaneous, fulvo-castaneous, or castaneous, the outer bark thin and often peeling off. Leaves alternate, petiolate, mostly 3 or 4 on branchlets (often more on the terminal branchlets), the terminal one largest, rhombeo-orbicular, but elliptical or...
oval-elliptical and approximately placed in the inferior ones, on the front
margin unequally and coarsely sinuato-dentate with mucronate deltoid sharp
teeth and open deltoid sinuses, but entire on the lower margin, shortly
projected into a narrowly deltoid mucronate acute or obtuse tooth at the
apex, cuneate or cuneato-obtuse or sometimes rounded at the base, 3–12 cm.
long, 2–11½ cm. broad, sparingly dispersed with stellate hairs on both sur-
faces, densely pilose with whitish fasciculate hairs at the axil of the midrib
and veins beneath, green and concolorous, chartaceous, penninerved, the
midrib and veins elevated and often covered with fulvous fasciculate hairs
beneath; veins 4–7 on each side, erect-patent; main veinlets transverse
between veins; petiole tomentose with fasciculate hairs (which are often
caducous), enlarged and entirely inclosed the bud at the base, 3–18 mm.
long. Raceme cernuous, simple, terminating the lateral short branchlets,
or rarely axillary in the upper portion of branches, secundly 3–13–flowered,
about 4–6 cm. long, foliaceous below (the uppermost leaf often reduced
in size, acuminate, cuneate-ovate); rachis hirsute-tomentose with stellato-
fasciculate drab-fulvous hairs as is the pedicel; bracts filiform-linear,
tomentoso-pubescent with stellato-fasciculate hairs, 1–3 to each flower,
about equal to or slightly shorter than the calyx, attached to the
apical portion of the pedicel or sometimes to the lower portion of the
calyx, persistent. Flowers nutant, very shortly pedicellate, about 2½–
2³⁄₂ cm. long, 12 mm. across, white, the lower few flowers axillary; pedicel
1½–3 mm. long. Calyx campanulate, incano-tomentose with stellato-fascicu-
late hairs, ferrugineo-fulvous below, unequally usually 5–6–fid, 7–10 mm.
long; lobes more or less recurved, deltoid or narrowly deltoid, acute, some
of them unequally 2 or sometimes 3–fid. Corolla much exserted, infun-
dibuliform, deeply 5–7–fid, valvato-imbricate in restivation, subtomentose
with short stellate hairs externally; lobes oblong, deltoid-oblong, or ovato-
elliptical, acute. Stamens included, 11–12, monadelphous into a short
tube below, 1–seriate, erect, inserted to the corolla-tube, about 11–12 mm.
long, thinly pubescent, white, the free portion linear-filiform; anther
erect, lato-linear, muticous, introrse, adnate to the connective, with
parallel cells, 3–3½ mm. long, yellow. Style erect, subulato-filiform, straight,
equal to stamens in height, pubescent below, about 16–19 mm. long;
stigma 3-lobed; ovary subglobose, at the base adnate to the base of the
calyx-tube, tomentoso-pubescent above, thick-walled, 3-locular, about 2½ mm.
across; ovules about 12 in each loculament. Fruit ovoid-globose, about
9–11 mm. across, accompanied by the 2–3–ripped persistent calyx below,
covered with closely pressed pale tomentose hairs, beaked with the basal
remainder of the style, depressed-rounded at the top, dehiscent from the base, 1—sometimes 2-seeded; carpel coriaceous, thickish. Seed ellipsoid-globose (in the solitary state), rounded and with a subcuspidato-acute point at the top, marked with longitudinally 3—angulate lines and 3—subsulcate lines, glabrous, castaneous, albuminous, about 8 mm. long; hilum oblique, broad; testa crustaceous; embryo erect, slightly shorter than albumen, cotyledons ovate or oval-ovate, flat, caulicle nearly as long as the cotyledon. Flowers in June.

Hab. Prov. Shimotsuke: Nikkō (T. Makino! June 1901, flower, Sept. 1901, fruit), Mt. Koshin (T. Makino! Sept. 11—12, 1901); Prov. Shinano: Kiso (Suekichi Gōto!). This species is allied to Styrax Obassia Sieb. et Zucc., having a very different appearance.

Draba (Leucodraba) shiromana Makino in herb. Aug. 1903.

About 4—9 cm. high (attaining about 18 cm. high in cultivation) in fruit. Perennial, densely cæspitose; caudex many-branched, branches erect or ascending, foliiferous at the top. Rosulate leaves spreading or erect-patent, spathulato-linear, gradually narrowed into a petiole below, acute, entire or pauci-serrate, glabrous on both surfaces, but ciliated on margin with spreading or erect-patent pilose hairs, thickish, green, concolorous, 6—13 mm. long, 1 ½—2 mm. broad (longer and broader under cultivation), nerves inconspicuous; cauline leaves usually 1—3 or sometimes 4, remotely alternate, erect-patent, sessile, semiamplexicaul, oblong-linear or subulato-linear, acute or subobtuse, entire or pauci-serrate, laxly ciliated on margin, 5—12 mm. long, 1 ½—2 mm. broad (often longer and broader under cultivation). Stems subnumerous, erect, gracile, glabrous, usually simple, rarely pauci-ramose. Raceme erect, 2 to several—(often numerous under cultivation) flowered; rachis gracile, glabrous; pedicels erect-patent, glabrous, gracile, shorter than the flower. Flower small, 3—3½ mm. in diameter, white. Sepals erect-patent, elliptical, obtuse, concave, glabrous, delicately sub-trinerved, light green, 2—2 ½ mm. long. Petals half-patent, longer than sepals, cuneato-ovate, emarginate, shortly uginulate, 3 ½ mm. long.STEMENS AS LONG AS SEPALs; FILAMENT FILIFORM, GLABROUS; ANther MINUTE, Ovato-elliptical. Ovary oblong, viridescens, glabrous; style very short, with a truncato-subcapitate stigma. Silicle erect-patent, lato-linear to oblong-linear, attenuated towards both ends, straight or subsulcate, often slightly
twisted, with a very short and minute style which not bifid at the stigma, uneven on surface, 4-10 mm. long, 1\(\frac{1}{2}\)-2\(\frac{1}{2}\) mm. broad; carpel membranaceous, loosely and delicately reticulato-veined on each side of the delicate midrib; pedicel shorter than the silicle, erect-patent, 1\(\frac{2}{3}\)-4\(\frac{1}{2}\) mm. long. Seeds several to many, oblong-ellipsoid, compressed, rounded-obtuse at the apical end, acute or obtuse at base, with a minute and short funicle, 1-1\(\frac{1}{2}\) mm. long.


*(To be continued.)*