

Nom. Jap. *Takane-kinreikwa.*

Hab. On rocky cliffs: Mt. Tussi (VII. 23, 1927); Ishiyama near Shiretori (VIII. 1, 1928); Mt. Shirutoru (VIII. 5, 1928).

New to the flora of Saghalien.

22. *Campanula rotundifolia* L. var. *arctica* LANGE: MIYABE ET MIYAKE, l. c. p. 293; KUDO, Rep. Veg. N. Saghal. p. 224.

Nom. Jap. *Hosoba-iwagtkyo.*

Hab. On rocky cliffs: Ishiyama near Shiretori (VIII. 1, 1928); Mt. Shirutoru (VIII. 5, 1928).

23. *Artemisia borealis* PALL.: DC. Prodr. VI. p. 98; LEDEB. Fl. Ross II. p. 567.

Nom. Jap. *Kita-yomogi.*

Hab. In gravelly places: Mt. Tussi (VII. 23, 1927).

24. *Saussurea nupuripoensis* MIYABE ET MIYAKE, l. c. p. 277.

Nom. Jap. *Nupuripo-azumi.*

Hab. In gravelly places: Mt. Tussi (VII. 23, 1927); Mt. Kashipo (VIII. 7, 1928).

25. *Crepis burejensis* FR. SCHM. l. c. p. 154; MIYABE ET MIYAKE, l. c. p. 284.

Nom. Jap. *Futamata-tanpopo, Nupuripo-giku.*

Hab. On rocky cliffs: Mt. Tussi (VII. 23, 1927); Mt. Kashipo (VIII. 7, 1928).

Botanical Institute of the Faculty of Agriculture,
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X. 15, 1928.

A Contribution to the Knowledge of the Flora of Japan.

(Continued from p. 36.)

By

Tomitarô Makino, Sc. D.

Orobanche nipponica MAKINO, nov. sp.

A parasitic herb; about 22 cm. high, glabrous. Stem erect, solitary, simple, slender, subflexuous, loosely scattered with ovato-subulate adpressed scales, fusiformly thick and more or less closely covered with deltoid-subulate scales at the base. Spike erect, about 7 cm. long; rachis slender, subflexuous, angulate, bracteate but ebracteolate; bract ovate, acuminate, ciliated, 8-15 mm. long. Flowers not numerous, sessile, sparse, rather loosely arranged, erect-patent, violet-purple, 20-22 mm. long. Calyx-segments 2, narrowly ovate, attenuated above, entire or sometimes bifid, thin, ciliated, longer than or equal to the bract in length. Corolla much exceeding the bract and calyx in

length, arcuate downwards; tube cylindrical, hardly enlarged above, thin, about 13–15 mm. long; limb gapingly 2-lipped, the upper lip erect, very shallowly bifid into 2 short broad subtruncate irregularly subcrenulated lobes; the lower lip spreading, larger than the upper, 3-parted into crenulated lobes, the midlobe longer, elliptical, the lateral lobes orbicular. Stamens included; filament filiform, glabrous. Ovary ellipsoid, glabrous, about 6 mm. long; style stout-filiform, arcuate, glabrous.

Nom. Jap. *Oka-utsubo* (T. MAKINO.).

Hab. JAPAN, on the root of *Artemisia japonica* Thunb.

Sasa kurilensis (RUPRECHT) MAKINO ET SHIBATA, var. **Uchidai** (MAKINO) MAKINO, nov. comb.

Sasa Uchidai MAKINO in Journ. Jap. Bot. V. n. 2 (1926), p. 4.

Culm attaining about 3½ m. in height and nearly 4 cm. in diameter.

Nom. Jap. *Nagaba-nemagaridake*.

Hab. CHŪGOKU (T. MAKINO! 1928.).

Sasa Tatewakiana MAKINO, nov. sp. (in herb. Jun. 1928.)

Culm 2 decim. or more in height, erect (the basal portion probably ascending), ramose above, slender, about 3 mm. in diameter, terete, fistulose, thick-walled, smooth, green; node slightly prominent, minutely dense-puberulous then often glabrate; internode white-bloomy under the node; branches one to a node, erect-patent or erect, usually clothing with old glabrous sheaths. Leaves few (or several?) and palmately arranged at the top of branchlets, shortly petiolate, broadly lanceolate, sharply acuminate at the apex, rounded or obtuse at the base, chartaceo-coriaceous, minutely spinuloso-ciliated on margins, green and glabrous above, glaucous and scantily pubescent on veins below beneath, about 12–16 cm. or more long, 3–3½ cm. or more wide; midrib pale, prominent beneath; veins about 7–9 on each side; veinlets minutely tessellate with square and transverse-rectangular areolae; petiole compressed, subcuneate, minutely puberulous below in front, about 4–8 mm. long; ligule short, truncate, coriaceous, ciliated, puberulous dorsally, 1–2½ mm. long; sheath closely encircling the branchlets, coriaceous, finely and closely striate, glabrous, not deciduous; shoulder-fimbriae? Scapes issuing from the culm or branches throughout, exceeding or lower than the top, erect, clothing with sheaths, slender, glabrous but pubescent at the top; sheaths gradually shorter below, glabrous, finely striate, with subulate microphyll. Panicle not large, short, more or less compound, rather loose; rachis and peduncles spreadingly pale-pubescent; peduncles erect-patent, 1–3-pedicellate; pedicels gracile, pubescent, about 5–25 mm. long. Spicules purpureo-iridescent, broad-linear and about 5 mm. wide, but narrowly oblong and 7–8 mm. wide when dried, 6–9-flowered; rachilla gracile, flexuous, antrorsely pale-pubescent. Flower lanceolate, shortly tapering, 6–11 mm. long. Empty-glumes usually 2, minute, broadly ovate, pubescent, the upper larger. Flowering-glume broadly ovate, acuminate, 9-nerved, puberulous towards the margins. Palea about equal or hardly longer than the flowering-glume in length, very shortly bifid at the top, hirtellous towards the apex, 2-carinate dorsally. Lodicules 3, erect, elliptical, slightly longer than the ovary. Stamens 6; filament filiform; anther linear, yellow, 5 mm. long. Ovary fusiform, glabrous; style 6 mm. long, filiform, thick at the base, divided into filiform plumose 3 branches above.

Nom. Jap. *Ezo-miyamazasa* (nov. nom.).

Hab. Prov. TESHIO in Hokkaidô: Nupuromapporo (MISAO TATEWAKI! n. 10789, Jun. 4, 1928.); Tenmaku-no-sawa (MISAO TATEWAKI! n. 10826, Jun. 6, 1928.).

var. glabrifolia MAKINO, nov. var.

Leaves quite glabrous, 5-14 cm. long, $\frac{3}{8}$ - $3\frac{1}{2}$ cm. wide in my specimens.

Nom. Jap. *Kenashi-ozomiyamazasa* (nov. nom.).

Hab. Prov. TESHIO in Hokkaidô: Nupuromapporo (MISAO TATEWAKI! n. 10798, Jan. 4, 1928.).

Sasa Uyemurana MAKINO ET UCHIDA, nov. sp.

Culm attaining about $1\frac{2}{3}$ m. in height, ramose above, puberulous. Leaves oblong-lanceolate, acuminate, obtuse or acute at the base, chartaceo-coriaceous, pubescent below beneath; petiole puberulous below in front, pubescent dorsally; sheath thinly pubescent; shoulder-fimbriae? Scapes issuing from the culm and branches, often exceeding the top in height, pubescent. Panicle not large, compound; rachis, peduncles and pedicels pubescent. Spicules about 5-9-flowered. Flowers lanceolate, acuminate, 8-12 mm. long.

Nom. Jap. *Akasawa-zasa* (nov. nom.).

Hab. Prov. RIKUCHÛ: Akasawa in Omyôjin-mura (S. UCHIDA! 1928; T. MAKINO! 1928.).

We have named this species in dedication to Prof. Dr. KATSUJI UYEMURA of the Imperial College of Agriculture and Forestry, Morioka.

Sasa Kagamiana MAKINO ET UCHIDA, nov. sp.

Culm attaining about $1\frac{1}{2}$ m. in height, laxly ramose; internodes puberulous above. Leaves lanceolato-oblong to lanceolate, acuminate, obtuse or acute at the base, chartaceo-coriaceous, glabrous, about 25 cm. long; sheaths manifestly patent-hirsute; shoulder-fimbriae radiate, spinuliform.

Nom. Jap. *Yonai-zasa* (nov. nom.).

Hab. Prov. RIKUCHÛ: Yonai-mura (S. UCHIDA! 1928; T. MAKINO! 1928.).

We have named this new species in dedication to Mr. YASUNOSUKE KAGAMI, Director of the Imperial College of Agriculture and Forestry, Morioka.

Sasa paniculata (FR. SCHMIDT) MAKINO ET SHIBATA, var. **nobilis** MAKINO ET UCHIDA, nov. var.

Leaves beautifully and stately aureo-variegated.

Nom. Jap. *Kintai-zasa* (金帯笹) (nov. nom.).

Hab. Prov. RIKUCHÛ: Akasawa in Omyôjin-mura (S. UCHIDA! 1928; T. MAKINO! 1928.).

This has doubtless the high value as a garden plant.

Sasa australis MAKINO, nov. sp.

Culm erect but ascending at the base, attaining about 2 m. in height and 9 mm. in diameter, laxly ramose, slender, terete, fistulose, thick-walled, smooth, glabrous, green; nodes prominent, densely short-puberulous; internodes attaining 20 cm. long, white-bloomy under the node; branches one to a node, erect. Leaves 4-7-palmately arranged towards the top of branchlets, shortly petiolate, broad, narrowly oblong to broadly oblong, shortly acuminate with a sharp point at the apex, rounded or rounded-obtuse but acutish in the apical ones at the base, minutely spinulose on margin and often towards the margin on the upper surface, 11-30 cm. long, $3\frac{1}{4}$ - $9\frac{1}{2}$ cm. wide, chartaceo-

coriaceous or coriaceous, glabrous on both sides, green above, glaucous beneath; midrib conspicuous, prominent beneath; veins 7-14 on each side; veinlets finely tessellate with transverse-rectangular areolae; petiole compressed, thick, subcuneate, puberulous below in front, 3-8 mm. long; ligule short, truncate, coriaceous, minutely ciliated, minutely puberulous dorsally, 1-2 mm. long; sheath closely encircling the branchlets, coriaceous, glabrous, finely and closely striate, erect-patently ciliated on both margins; shoulder-fimbriae setiform, deciduous.

Nom. Jap. *Sato-chimakizasa* (nov. nom.).

Hab. KYŪSHŪ (T. MAKINO! 1928.).

***Pleioplastus virens* MAKINO, var. *tenuifolius* MAKINO, nov. var.**

Arundinaria virens var. *tenuifolia* MAKINO, MSS.

Culm attaining nearly 2 cm. in diameter, green. Leaves narrower and longer, thin, green; sheath green.

Nom. Jap. *As-shino* (nov. nom.).

Hab. Prov. MUTSU: near Same (T. MAKINO! 1927.); Prov. RIKUCHŪ: Morioka (T. MAKINO! 1928.).

***Pleioplastus Kodzumae* MAKINO, nov. sp.**

Arundinaria Kodzumae MAKINO, MSS.

Culms attaining about 3 m. or more and 9 mm. in diameter, erect, slender, terete, fistulose, smooth, glabrous, green; nodes slightly prominent, shortly puberulous but then glabrate; internodes attaining about 32 cm. long; white-bloomy under the nodes; main-sheath coriaceous, glabrous but minutely puberulous at the very base, not deciduous; branches fasciculate. Leaves about 6-13-pinnato-palmate towards the top of branchlets, shortly petiolate, lanceolate, sharply acuminate at the apex, obtuse or rounded but acute in the apical ones at the base, minutely spinulose on margin, chartaceo-coriaceous, glabrous on both sides, or sometimes puberulous below on the upper surface, green above, light green beneath; about 10-19 cm. long, 1½-3½ cm. wide; midrib very slender, prominent beneath; veins 5-8 on each side; veinlets finely tessellate with mainly rectangular areolae; petiole compressed, broad-cuneate, puberulous in front, 3-6 mm. long; ligule very short, truncate, coriaceous, finely ciliated, puberulous dorsally, 1-2 mm. long; sheath closely encircling the branchlets, coriaceous, finely and closely striate, often purpurascenscent, glabrous, patently ciliated on margin of the one side; shoulder-fimbriae erect, filiform, pale, attaining about 7 mm. long.

Nom. Jap. *Kibō-shino* (nov. nom.).

Hab. KYŪSHŪ (T. MAKINO! 1928.).

I have named this bamboo in memory of Mr. MASAYUKI KÔDZUMA.

***Pleioplastus kiusianus* MAKINO, nov. sp.**

Arundinaria kiusiana MAKINO, MSS.

Culm erect but ascending (constantly?) at the base, attaining about 3 m. in height and 13 mm. in diameter; nodes markedly prominent, densely minute-puberulous; internodes short or long, white-bloomy under the nodes; main-sheath coriaceous, not deciduous, densely ciliated on both margins; branches fasciculate, erect-patent; microphyll narrow-subulate. Leaves shortly petiolate, narrowly lanceolate, acuminate, rounded to acute at the base,

coriaceo-chartaceous, glabrous but thinly setulose towards the midrib below on the upper surface, glabrous beneath, about 7-25 cm. long, 10-27 mm. wide; veins 6-8 on each side; veinlets finely tessellate with mainly rectangular areolae; ligule very short, truncate; sheath coriaceous, closely encircling the branchlets, ciliated on both margins; shoulder-fimbriae erect, filiform, pale.

Nom. Jap. *Fushidaka-shino* (nov. rom.).

Hab. KYŪSHŪ (T. MAKINO! 1928.).

***Pleioblastus higoensis* MAKINO, nov. sp.**

Arundinaria higoensis MAKINO, MSS.

Culm erect, slender, attaining about 4 m. in height and about 11 mm. in diameter, terete, fistulose, smooth, glabrous, green; nodes slightly prominent, pubescent with appressed hairs; internodes long, attaining about 3 decim. long, white-bloomy under the node; main-sheath coriaceous, glabrous but pubescent at the base, not deciduous; branches fasciculate, erect-patent. Leaves 3-11-pinnato-palmate towards the top of branchlets, very shortly petiolate, linear-lanceolate, sharply acuminate at the apex, obtuse or rounded but acute at the apical ones at the base, spinuloso-ciliated on margin, chartaceous, glabrous on both sides, green above, light green beneath, about 5-17 cm. long, 7-26 mm. wide; midrib very slender, prominent beneath; veins 3-7 on each side; veinlets minutely tessellate with mainly rectangular areolae; petiole compressed, cuneate, puberulous at the base in front, coriaceous, pale-greenish, 2-10 mm. long; ligule very short, truncate, minutely ciliated, coriaceous, puberulous dorsally, $\frac{3}{4}$ -1 mm. long; sheath closely encircling the branchlets, coriaceous, finely and closely striate, often purplish in the sun, patently dense-ciliated on margin of the one side, not deciduous; shoulder-fimbriae erect, filiform, pale, attaining about 8 mm. long.

Nom. Jap. *Higo-medake* (nov. nom.).

Hab. KYŪSHŪ (T. MAKINO! 1928.).

***Salvia robusta* (KOIDZ.) MAKINO, nov. comb.**

Salvia nipponica subsp. *robusta* KOIDZ. in Bot. Mag., Tokyo, XXXVII. p. 42. Flowers yellow (*f. lutea*), or yellow and purplish-maculate (*f. purpureo-maculata*), or purple (*f. purpurea*).

Nom. Jap. *Ō-akigiri*.

Hab. JAPAN, mountains.

***Salvia nipponica* MIQ. Prol. Fl. Jap. p. 39.**

Flowers yellow (*f. lutea*, the type, common), rarely purple-maculate (*f. purpureo-maculata*), sometimes purple (*f. purpurea*).

Nom. Jap. *Aki-giri*.

Hab. JAPAN.

***Castanea crenata* SIEB. ET ZUCC. var. *imperfecta* MAKINO, nov. var.**

Pericarp irregularly longitudinally splitting, exposing the seed-coat in the split.

Nom. Jap. *Haze-guri* (G. TOBA), *Hadaka-guri*.

Hab. Prov. RIKUCHŪ (GENZŌ TOBA! 1928.).

(To be continued.)