A Contribution to the Knowledge of the Flora of Japan.
(Continued from p. 24.)
By
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Sasa pubiculmis Makino, nov. sp.
An evergreen medium-sized Sasa, culm slender, erect but ascending at the base, more or less flexuous, attaining about 1 m. in height and about 4 mm. in diameter, simple or loosely ramose with erect-patent slender branches, which are often again ramulose and one to a node, green or purple, terete, fistulose, finely striate and subdensely puberulous with white patuloso-retrorse minute hairs (which are often then deciduous in old culms), thick-walled; node slightly prominent, pubescent or puberulous; internode slender, white-bloomy above, enclosed excepting the superior portion with a main sheath; main sheath coriaceous or coriaceo-chartaceous, finely striate, thinly puberulous, bearing a small subulate tapering deciduous microphyll at the apex, patently ciliated on one margin. Leaves palmately arranged towards the top of the main culm and branches, 3-4 in number, shortly petioled, angustately lanceolated, attenuately acuminate with a very sharp point at the apex, rounded or obtuse but acute in the apical ones at the base, spinuloso-ciliated on margins, chartaceous, coriaceo-chartaceous or chartaceo-membranaceous, green and glabrous above, subglaucescent and thinly pubescent with white hairs beneath, 10-28 cm. long, 22-43 mm. wide; midrib prominent and pubescent beneath, pale; veins 5-9 on each side; veinlets finely tesselate with square areolae mixed with rectangular and transverse-rectangular ones; petiole thick, compressed, subcuneate, puberulous at the base inside, glabrous and subcarinate outside, 2-13 mm. long; ligule very short, coriaceous, truncate or rounded-truncate and minutely ciliated on margin, pubescent below dorsally, 1-2 mm. long; sheaths closely encircled, coriaceous, finely striate, pubescent with white spreading hairs, patently...
ciliated on one margin; shoulder-fimbriate radiate, spinuliform, minutely puberulous, deciduous.

Nom. Jap. Omoe-zasa (nov. nom.).

Hab. Prov. RIKUCHU: Omoe in the Miyako Peninsula (T. MAKINO! Sept. 10-11, 1929.).

Sasa asagishiana MAKINO ET UCHIDA, nov. sp.

A sempervirent medium-sized Sasa, attaining about 1½ m. in height and 7 mm. in diameter; culm erect but ascending at the base, simple or loosely ramosse with erect-patent long branches, which are one to a node, terete, fistulose, thick-walled, thinly pubescent with extrorse pale hairs (which are often deciduous); node somewhat prominent, minutely puberulous often then glabrate; internode white-bloomy under the node, enclosed with a main sheath exposing the superior portion, green or purple; main sheath coriaceous, finely striate, thinly pubescent with antorsely appressed pale hairs (which are usually deciduous), spreadingly ciliated on margin, with a linear-subulate acuminate deciduous microphyll at the apex. Leaves palmately arranged toward the top of the culm and branches, 3-6 in number, shortly petiolate, lanceolate or oblong-lanceolate, sharply acuminate at the apex, obtuse or sometimes rounded but acute in the apical ones at the base, about 15-30 cm. long, 3½-6½ cm. broad, chartaceous-coriaceous, green and glabrous above, subglaucescent and thinly pubescent with antorsely erect-patent pale hairs, spinuloso-ciliated on margins; midrib yellowish-pale when dried, prominent beneath; veins 7-12 on each side; veinlets finely tesselate with square and transverse-rectangular areolae; petiole thick, compressed, subcuneate, puberulent at the base inside, glabrous or very thinly pubescent and subcarinate in back, often purple, 5-12 mm. long; ligule short, coriaceous, truncate or rounded-truncate and minutely ciliated on margin, puberulous externally, 1½-5 mm. long; sheaths closely encircled, coriaceous, finely striate, ciliated on both margins or sometimes ciliated on one margin, often purple, thinly pubescent (hairs deciduous); shoulder-fimbriate radiate, spinuliform, puberulent, deciduous.

Nom. Jap. Asagishi-zasa. (nov. nom.).

Hab. Prov. RIKUCHU: Asagishi (SHIGETARO UCHIDA! Oct. 1929.).

Castanea crenata Siebr. ET Zucc. sakyacephala MAKINO, nov. var.

Castanea sakyacephala MAKINO, MSS.

Branchlets badious, glabrous, punctate with minute pale lenticels; bud thinly puberulous. Leaves deciduous, alternate, petiolate, narrowly oblong, acuminate at the apex, rounded and unequal at the base, depressed-crenate and with a minute subulate point, which is the extremity of veins at the upper end of each tooth, green and glabrous above, hoary with appressed tomentose hairs mixed with very minute rubiginous granular glands, about 20-25 cm. long, 4½-6 cm. broad; midrib prominent beneath; veins patent reaching to the margins, about 25-28. on each side, nearly straight or somewhat arcuate
upwards or inwards, mainly simple and sometimes 2-furcate; veinlets finely reticulato-anastomosing; petiole nearly glabrous, subcanaliculated in front, enlarged at the base, 15-22 mm. long. Burr (involucre) globose, about 4-5 cm. across, very prickly with numerous and dense bunches of shortened stiff spines outside, dehiscent into 4-valves exposing the inner nuts; valves thick, hard when dry, densely covered with appressed velutinous hairs inside. Nuts 3 in each burr, the form, size and colour as in the type of C. crenata Sieb. et Zucc.


Hab. Prov. RIKUCHÜ: Hikobe, cultivated (Genzō Toba! 1929.).

**Ophioglossum littorale** Makino, nov. sp.

Perennial, attaining about 25 cm. in height. Rhizome short or very so, about 15 mm. long in the longest one, erect, sometimes ascending, thick but not tuberous, yellow, with the few to subnumerous fibrous roots, which are stout-filiform often long and yellow in colour; stolons few, emitting from the rhizome, hypogeous and running horizontally with a new stock in a distance from the main stock, stout-filiform, yellow, root-like. Fronds few to several, caespitose, erect, long-stiped; blade broadly lanceolate, lanceolate or linear-lanceolate, shortly acuminate or acute with an acute or obtuse tip at the apex, acutely or cuneato-acutely attenuated down to the stipe, entire, thick in texture, glabrous, smooth, green or yellowish green, subcartinicate dorsally, concave and boat-shaped internally, about 2-6 cm. long, 5-14 mm. wide; venations sunk; midrib weak, flexuous; veins loosely reticulated with the mostly vertical narrow-oblong areoles, which are including the loose delicate connected or free few veinlets; petiole elongate, pale below and greenish above, glabrous, gradually more or less enlarged above, about 3-14 cm. long; that of the barren frond shallowly canaliculated in front above, that of the fertile frond nearly terete, longer than that of the barren frond. Spike solitary, erect, long-stiped, linear, tapering at the apex, obtuse at the base, about 2-7 cm. long, 3-5 mm. broad, thick, compressed, greenish, glabrous; capsules numerous, closely arranged in 2 rows, transversely bursting; stipe arising from the base of blade, erect, more or less compressed, much exceeding the blade in height, green.

Nom. Jap. Hama-hanayasuri (nov. nom.).


**Aeginetia Sekimotoana** Makino, nov. sp.

A parasitic annual leafless herb, erect, 5-20 cm. high, 1-3-caespitose; roots fibrous, filiform, sub-fine, pale-yellowish, with loose short branch-roots; rhizome short, thick, yellow; bracts squamiform, thick, glabrous, subulate, acute at the apex, appressed, yellowish-purple. Stem strict, slender, terete, gradually enlarged above, smooth, glabrous, yellow, purple-striped (stripes denser towards the base), the lower portion 1-2 mm. across but 1½-3½ mm. across at the portion of about 1 cm. under the flowers. Flower solitary, terminal, obliquely turned
laterally; alabastrus tapering at the apex. Calyx uniphyllous, erect-patent, 17-33 mm. long, 6-12 mm. wide, more or less compressed laterally, about \( \frac{3}{2} \)-split in front from which the corolla is protruded, deeply blueish-purple above, but pale-yellowish purpurascence and longitudinally irregularly many purple-striped below, the edge of orifice entire. Corolla tubular, lying across, opening obliquely towards the under direction, about 15-28 cm. long, purple alike but thinner towards the base and sub-urceolate-purple towards the apex of the corolla-lobes, more or less compressed laterally; tube arcuate, more or less contracted below the median part, sub-urceolate-campanulate above, ovately girt the ovary within below, flaccid, hardly thickish but membranaceous towards the base, glabrous; lobes 5, short, imbricated, slightly spreading above, hardly 2-lipped, obscurely irregularly crenulated on margin; the upper lip 2-lobed, lobes depressedly rounded, the lower lip slightly longer than the upper, 3-lobed, lobes depressed-rounded, the mid-lobe somewhat larger. Stamens didynamous, included, inserted below the middle on the corolla, the upper 2 hardly shorter; filament short, filiform, glabrous, white but purpurascence below, about 3 mm. long in the upper 2 and about \( \frac{3}{2} \) mm. long in the lower 2; anther 1-celled; connective thick, transverse, abortive and calcareous at the inner end, white, 3 mm. long in those of the upper stamens, but smaller and \( \frac{2}{3} \) mm. in those of the lower; anther-cell sub-lunate, pale-drab, about 2\( \frac{1}{2} \) mm. long; pollen white. Pistil included, glabrous; ovary ovoid, acutely attenuated into the thick style above, rounded and sessile at the base, smooth, with 2 obscure furrows on both sides, purplish-yellow, 1-celled with 4 folded placentas, which are attached to the their surfaces with minute numerous ovules, about 7-9 mm. long, about 5-6 mm. across; carpels thin; style arcuate downwards, white but often thinly shaded with purple below, about as long as the ovary; stigma fungiform, thick, sub-orbicular, about 4-5 mm. across, shortly 2-lobed, yellow, the upper lobe depressed-ovate, the lower lobe slightly larger and emarginate at the base. Fruit (immatured) ovoid, about 10 mm. across, smooth, with the style above, yellow, provided with 2 shallow vertical furrows on both sides, thin-carpeled, 1-celled; placentas 4, closely folded, with very numerous minute seeds on its surfaces.

**Nom. Jap.** *Hime-nambangiseru* (nov. nom.).

**Hab.** Prov. SHIMOTSUKE: Shiroyama-mura at the foot of Mt. Kogashi (HÉNACHI SEKIMOTO ! Sept. 30, 1928, Oct. 1, 1929.).

This rare species is parasitic on the roots of *Carex gifuensis* Franch. (*Kurohinasege*). I have named this new species in honour of the collector, who kindly sent me its dry and fresh specimens.

**Hosiea japonica** (MAKINO) MAKINO, nov. comb.


**Nom. Jap.** *Kurotaki-kadzura*.

**Hab.** JAPAN.  
*(To be continued.)*