

THE JOURNAL OF JAPANESE BOTANY.

EDITED BY

TOMITARÔ MAKINO.

LECTURER OF BOTANY IN THE FACULTY OF SCIENCE,
IMPERIAL UNIVERSITY OF TOKYO.

Vol. IV.

January 31, 1927.

No. 1.

Published by the Tsumura Laboratory, Tokyo, Japan.

A Contribution to the Knowledge of the Flora of Japan.

(Continued from Vol. III. p. 48.)

By

Tomitarô Makino.

***Quercus takatorensis* MAKINO, nov. sp.**

A small shrub-like deciduous tree; branches terete, glabrate, dispersed with minute punctate lenticels; young one angulato-striate, densely gilvotomentose. Leaves densely sparse on branchlets, distinctly short-petiolate, cuneato-obovate, obtuse at the apex, rounded or subcordate at the base, coarsely sinuato-crenate with mucronato-obtuse-tipped broad- or depressed-ovate or deltoid-ovate teeth, coriaceo-chartaceous, green and very thinly appressed-pubescent with mainly simple and slightly substellate deciduous hairs above, subglaucous and appressedly soft-pubescent with simple and substellate persistent hairs beneath, 8-18 cm. long, 4-11½ cm. broad; midrib prominent beneath; veins pinnate and each running to each tooth, obliquely parallel, erect-patent, straight or slightly arcuate downwards, about 9-13 on each side; transverse veinlets numerous, rather close; petiole tomentoso-pubescent, stout, 5-12 mm. long. Female spike in the axil of the superior leaves, erect or erect-patent; rachis straight, stout, densely gilvo-tomentoso-pubescent, 5-18 mm. long. Female flowers globular, sessile and 1-3 towards the top of the rachis.

Nom. Jap. *Ko-gashiwa* (nov.).

Hab. Prov. SAGAMI: Mt. Takatori-yama (T. MAKINO! 1906.).

This species has an ally to *Quercus dentata* THUNB., but the branches are more slender; the leaves smaller, distinctly petiolate, and subglaucous in the under surface; hairs of the upper surface mainly simple and stellate, those of the under surfaces more simple. It is probably a hybrid between *Q. dentata* THUNB. (Jap. *Kashiwa*) and *Q. serrata* THUNB. (= *Q. glandulifera* BL. - Jap. *Konara*), which there are found at the same place.

***Sasa tanzawana* MAKINO, nov. sp.**

Culm erect or ascending, attaining about 1 m. or more in height, ramose, terete, smooth, glabrous, attaining about 5 mm. in diameter, green; internodes white-bloomy under nodes, enclosed with old sheath below; nodes prominent, glabrous; branches and branchlets erect, one to a node. Main-sheath glabrous, numerously striate, entire and not ciliated on margin; microphylls deciduous. Leaves about 3-7 and pinnato-palmately arranged towards the top of branchlets, lanceolate, gradually acuminate with a very sharp tip at the apex, rounded or obtuse but acute in the superior ones at the base, spinuloso-scabrous on margins, chartaceous, green and glabrous above, paler and softly thin-pubescent with antrorsely appressed white hairs beneath, about 8-24 cm. long, $1\frac{1}{4}$ -4 cm. broad; midrib slender, prominent beneath, pubescent, pale-greenish; veins 5-10 on each side; veinlets finely tessellate; petiole flattened, cuneate above, glabrous, 3-10 mm. long; ligule short, rotundato-truncate, minutely ciliated on margin, minutely puberulous dorsally, 1-2 mm. long; sheath closely encircling the branchlets, finely striate, glabrous, coriaceous, green or slightly purpurascens in the sun, entire and not ciliated on margin; shoulder-fimbriae setiform, deciduous.

Nom. Jap. *Tanzawa-zasa* (nov.).

Hab. Prov. SAGAMI: Mt. Hirugatake in Tanzawa (KIYOTAKA HISAUCHI! 1926.).

***Sasa pubivagina* MAKINO, nov. sp.**

Rhizome hypogaeous, creeping, terete, pale, many nodiferous, rooting at nodes. Culm erect or ascending, attaining about 1 m. or more in height, ramose above, terete, fistulose, shining, glabrous, attaining about 6 mm. in diameter; internodes usually attaining about 11 cm. long, white-bloomy under the nodes, usually encircling with old sheaths below; nodes slightly prominent; branches and branchlets erect-patent, one to a node, sheathing. Main-sheath densely pubescent with patent pale hairs (hairs at length often deciduous), ciliated on margin; microphyll small, subulate, deciduous. Leaves about 3-5 and palmately arranged towards the top of branches, oblong-lanceolate, gradually or rather abruptly acuminate with a sharp point at the apex, rounded or obtuse but usually acutish in the superior ones at the base, spinuloso-scabrous and pale-decayed in winter on margins, coriaceous-chartaceous, green and glabrous above, subglaucous and thinly pubescent beneath, 12-25 cm. long, 2½-5 cm. broad; midrib slender, prominent beneath, thin-pubescent on both sides; veins 5-11 on each side; veinlets finely tessellate; petiole short, flattened, cuneate above by the decurrence of blade, glabrous, often purpurascens, 3-10 mm. long; ligule depressed-semiorbiculate, coriaceous, minutely pubescent dorsally, minutely ciliated on margin, 1-2½ mm. long; sheath closely enclosing the branchlets, at first pubescent then hairs deciduous, coriaceous, finely striate, ciliated on margin, green or often purple in the sun; shoulder-fimbriae stiff, setiform, deciduous.

Nom. Jap. *Yama-kumazasa* (nov.).

Hab. Prov. SAGAMI: Hakone (T. MAKINO!, K. HISAUCHI!).

This species comes near to *Sasa albo-marginata* MAKINO ET SHIBATA, but the leaves are rather thinner, narrower and hairy beneath; pubescent sheaths are similar in the both species.

***Sasa tyuhgokensis* MAKINO, nov. sp.**

Culm, sheath, and leaves nearly similar to those of *Sasa albo-marginata* MAKINO ET SHIBATA, but the leaves more or less narrower and not decayed on margin in winter.

Nom. Jap. *Chûgoku-zasa* (nov.).

Hab. Prov. AKI: Near Wada in Saeki-gôri (T. MAKINO! Sept. 1911.).

***Pleioblastus Sawadai* MAKINO, nov. sp.**

Arundinaria Sawadai MAKINO, MSS.

Culm erect, attaining about 2 m. in height, ramose, often hardly flexuous, slender, terete, fistulose, smooth, glabrous, green or often more or less purpurascent, finely striate, attaining about 6 mm. across; internodes rather elongate, attaining about nearly 2 decim. long, white-bloomy under the node, closely encircling with old sheath below; node prominent, glabrous; branches 1-5-fasciculate to a node, erect-patent, slender, sheathing. Leaves 3-6 towards the top of branches, palmately arranged, lanceolate or narrowly lanceolate, acuminate with a very sharp tip at the apex, rounded to acute at the base, distinctly petiolate, chartaceo-coriaceous, green and glabrous above, paler and very slightly puberulous beneath, spinuloso-scabrous and often pale-decayed in winter on the margin, 10-21 cm. long, 10-28 mm. wide; midrib slender, pale-greenish, prominent beneath; veins 4-7 on each side; veinlets finely tessellate; petiole flattened, cuneate, entire-margined, minutely puberulous internally, glabrous externally, 3-7 mm. long, often purpurascent; ligule very short, truncato-rounded on the front margin, coriaceous, minute-puberulous dorsally, 1-1½ mm. long; sheath narrow, closely enclosing the branchlets, coriaceous, glabrous, finely striate, ciliated on margin, green, often deep-purple in the sun; shoulder-fimbriae beard-form, not stiff, pale, mainly deciduous or sub-persistent, 3-8 mm. long.

Nom. Jap. *Hakone-medake* (nov.).

Hab. Prov. SAGAMI: Hakone (K. HISAUCHI!).

I have named to this new species in memory of Mr. TAKETARÔ SAWADA, who has an interest in the Hakone plants.

***Saussurea Maximowiczii* HERD. var. *platyphylla* MAKINO, nov. var.**

Leaves not divided; radical ones broad, obovato-oblongate, attenuated below.

Nom. Jap. *Maruba-miyakoazami* (nov.).

Hab. Prov. HIDA: Near Takayama (T. MAKINO!).

The radical leaves resemble those of *Aster tataricus* L. f.

Chrysanthemum marginatum MIQ. α . **typicum** MAKINO.

Heads small, numerous and dense, all discoidal.

Nom. Jap. *Iso-giku*.

Hab. JAPAN.

 β . radiatum MAKINO, nov. var.

Heads slightly larger and fewer, with several white conspicuous ray-flowers.

Nom. Jap. *Hana-isogiku* (nov.).

Hab. Prov. SAGAMI: Hayama, wild (T. MOMIYAMA!, T. SAWADA!).

Very rare!

 γ . flavo-radiatum MAKINO, nov. var.

Heads with yellow ray-flowers.

Nom. Jap. *Sato-isogiku* (nov.).

Hab. Prov. HITACHI: Tsukuba, cultivated (K. HISAUCHI!).

Rare.

Osmunda biformis (BENTH.) MAKINO, nov. nom.

Osmunda regalis. var. *biformis* BENTH. Fl. Hongk. p. 440.

Osmunda japonica THUNB. Fl. Jap. (1784), p. 330, non HOUTUYN.

Osmunda regalis var. *japonica* MILDE, Fil. Eur. p. 179 et Monogr. Gen. Osm. p. 68.

Nom. Jap. *Zemmai*.

Hab. JAPAN, common.

var. divisa MAKINO.

Osmunda regalis var. *japonica* f. *divisa* MAKINO ET NEMOTO, Fl. Jap. (1925), p. 1566.

Leaflets cristately lobate.

Nom. Jap. *Shishi-zemmai*.

Hab. JAPAN.

Osmanthus fragrans (THUNB.) LOUR. α . **Thunbergii** MAKINO.

Olea fragrans THUNB. Fl. Jap. (1784), p. 18, tab. 2.

Leaves as those of *Osmanthus fragrans* var. *aurantiacus* MAKINO. Flowers "flavo-alba". Drupe elliptical, about 12-13 mm. across, dark-caeruleous when mature; stone elliptico-fusiform, about 1½ cm. long.

Nom. Jap. *Usugi-mokusei* (Cream-colour-flowered Osmanthus).

Hab. JAPAN, cultivated.

This tree is frequently found as female, and it sometimes comes to fruit. It apparently differs from *O. latifolius* (MAKINO) KOIDZ. (= *O. fragrans* var. *latifolius* MAKINO.), which has the pure-white flowers.

(To be continued.)

ERRATA.

Vol. III. No. 12, p. 47, line 17 from bottom, for **japoica** read **japonica**