A Contribution to the Knowledge of the Flora of Japan.
(Continued from p. 4.)

By

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Eupatorium sachalinense (Fr. Schm.) Makino in Bot. Mag., Tokyo, XXIII. (1909), p. 90, forma aureo-reticulatum Makino, nov. Leaves mosaically aureo-reticulated and green among the reticulations.

Nom. Jap. Kimon-yo'subahiyodoritana (nov.).
Hab. Prov. SHIMOTSUKE : Nikkō (T. Makino!).

Eleocharis plantaginnea (Linn.) R. Br. Prodr. (1810), p. 224. var. tuberosa (Roxb.) Makino, nov. comb.

Hab. JAPAN, cultivated.
Distrib. CHINA, wild and cultivated.


**Wahlbergella apetala** Fries, Summa Veg. Scand. p. 155.

**forma Okadai** Makino, nov.

_Silene Okadai_ Makino, ined.

Perennial, caespitose with flowering and sterile radical branches, about 12-20 cm. in height in fruit; rootstock short, thick, shortly ramose; roots loose, pale, tap-root thick. Stems about 1-3, simple, erect, strict, slender bearing a flower at each top, pubescent with recurvo-spreading short fine hairs; nodes distant. Radical leaves caespitose, accompanied by old membranaceous sheaths below, ob-long-linear, long-attenuated to the slender petiole towards the base, shortly acuminate, entire and slightly ciliated, glabrous on both surfaces, 5-10 cm. long including the petiole, 4-5 mm. broad, green; midrib slender; veins inconspicuous; cauline leaves opposite, with short sheaths, loose, linear, acuminate, largest in the lower ones, the superior ones gradually decreasing in size, the uppermost ones very small and about 4 mm. long, ciliated; upper leaves pubescent on the midrib beneath, but the lower glabrous. Flower terminal, solitary nutant. Calyx large, ovoid, rather cylindrical, finally inflated and including the petals, 5-fid, 10-costate, pubescent (denser on costas), persistent, dark-purple-coloured on costas but greenish-membranaceous between the costas; lobes depressed-deltoid, acutish, white-ciliated. Petals 5, light purple, slightly longer than the calyx, but shorter than it in fruit; lamina small; ungus linear-spathulate, very angustate below. Stamens 10, slightly shorter than petals; filament filiform; anther small, ovoid-rotund. Styles 5, erect, subulate-filiform, about 3 mm. long. Capsule large, erect, ovoid-conical, glabrous, about ½-exserted, about 17 mm. long, 10-nerved longitudinally, loosely anastomosing with delicate veinlets between veins, 5-fid with mucronate-obtuse-tipped deltoid valves at the mouth; gynophore short, thick, puberulent, 2 mm. long.


Hab. Prov. SHINANO: Mt. Shiomi (Kunimatsu Okada! July 28, 1914), Mt. Sendyō (Reizo Kono! August 1914).
This species new to the Flora of Japan. This form differs from the type by having the shorter calyx, more tapering calyx-lobes, and regularly and apparently only 10 calyx-costas.

**Woodwardia radicans** (Linn.) Smith in Act. Taur. V. p. 412, var. unigemmata Makino, nov. var.

The rachis of frond with a large scaly rooting gemma, which then form a new plant at the base of a pinna near the apex beneath.


Hab. Prov. IDZU: Fall Joren (K. Hisauchi! August 11, 1917).

This species new to the Flora of Japan.

**Osmorhiza aristata** (Thunb.) Makino et Yabe in Bot. Mag., Tokyo, XVII. (1903), p. 14, var. montana Makino, nov. var.

Smaller and more slender. Leaves triangular in outline; primary segment acuminate at the apex; second segment narrower and more deeply dissected. Fruit very thinly hirsute.

Nom. Jap. Miyama-yabuninjin (nov.).

Hab. Prov. SHIMOTSUKE: Nikkô (T. Makino!).

**Aster Savatieri** Makino in Bot. Mag., Tokyo, XII. (1898), p. 58, a. genuina Makino.

Stem simple or few-ramose above. Heads few.


Hab. Prov. SAGAMI: Hakone (T. Makino!).

β. hortorum Makino.

Usually taller; stem much ramose above. Leaves more or less narrower, with sharper serration. Heads many.


Hab. Tokyo, cultivated (T. Makino!).

γ. pygmaea Makino in Inuma, Sômoku-Dzusetsu, 3 ed. IV. (1912), 16, p. 35.

Lower, 17–34 cm. high. Stem often 1, erect, loosely ramose above or throughout, but usually simple in the depauperate one. Radical leaves long-petiolate, rotund-ovate or elliptical-ovate, rounded or obtuse at the base, coarsely few-dentate; cauline ones lanceolate, oblong-lanceolate, or linear-lanceolate, shortly or long cuneate towards the base, loosely and very coarsely dentate, acuminate with a mucronate-acute tip. Heads usually long-peduncled. Ray-flowers loose.


Hab. Prov. BITCHÜ: Sayodani (T. Makino!); Prov. ISE: Mt. Asama (Takeo Ito!).

The variety is much smaller than the type and var. β., and it is found in the middle and southern Japan.

**SEMIARUNDINARIA** Makino, nov. gen.

BAMBUS MAFF. ex parte, non Schreb.
ARUNDINARIA Makino, ex parte, non Michx.
The diagnosis will appear in the forthcoming number.

Semiarundinaria fastuosa (Mitt.) Makino, nov. comb.


Arundinaria fastuosa Makino in Bot. Mag., Tokyo, XXVI. (1912), p. 19, fig. 4.

Arundinaria Narihira Makino in Bot. Mag., Tokyo, XI. (1897), p. 159, et XIV. (1900), p. 63 (Jap.).

Hab. JAPAN, wild and planted.

var. Yashadake Makino, nov. comb.

Arundinaria Narihira forma Yashadake Makino in Bot. Mag., Tokyo, XVI. (1900), p. 63 (Jap.).


Hab. JAPAN, wild and planted.

var viridis Makino, nov. var.

Culm entirely green, like in the type in size and taller than in it; branches also entirely green.
Nom. Jap. Ao-narihira (nov.).

Hab. Prov. MUSASHI: near Hashimoto, cultivated (T. MAKINO!).

SINOBAMBUSA Makino, nov. gen.

ARUNDINARIA Makino, ex parte, non Michx.
The diagnosis will appear in the forthcoming number.

Sinobambusa Tootsk Makino, nov. comb.


Hab. JAPAN, cultivated.


Culm and leaves like in Sasa Tsubiiana Makino, but the culm often ramose above and the leaves more or less hairy beneath.

Hab. Prov. SAGAMI: Hakone (T. MAKINO!; K. HISANAGI!).
This bamboo appears to come between Sasa nipponica Makino et Shibata and S. spiculosa Makino.

Arundinaria Matsunoi Makino, nov. sp.
The descriptions will appear in the forthcoming number.
Nom. Jap. Yokohama-dake (nov.).

Hab. Prov. MUSASHI: Yokohama (T. MAKINO!).

(To be continued.)