A Contribution to the Knowledge of the Flora of Japan.
(Continued from p. 16.)

By

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var. pinnata Makino, nov. var.
Leaves pinnate but dentate or pinnatifid in poor ones; lateral segments elliptical oblong or lanceolate, obtuse or acutish at the apex, obscurely few-dentate or few-lobato-dentate.
Hab. JAPAN (T. Makino!).

var. auriculata Makino, nov. var.
Leaves pinnate; lateral segments mostly linear, auriculate at the upper base.
Hab. JAPAN (T. Makino!).
**Chrysanthemum Konoanum Makino, nov. sp.** (=? Ch. japonicum Makino × Ch. Pallasianum var. japonicum (Franch. et Sav.)).

Perennial, about 27cm. high. Stem erect, terete and somewhat striate but angulate above, purple, thinly depressedly white-lanate, erect-patently ramosse above. Leaves sparse, petiolate, erect-patent or spreading, orbiculato-ovate in outline, broadly cuneate at the base, attaining about 5 cm. long, 2½ cm. broad, subtabellately tri- or sub-5-fid, green and nearly glabrous above, depressed densely white lanate beneath; lobes oblong, mucronately acutish or obtuse at the apex, often deeply few-dentate with ovate or narrowly ovate or oblong mucronato-acumis-tipped teeth, nearly triplinerved; veins inconspicuous; petiole long, alate and angustato-cuneate by the decurrence from the blade, shorter than the blade. Heads many, cymosely disposed and flat at the top, pedicellate, about 12 mm. in diameter, white; pedicles erect-patent, with a few entire to trifid small leaves. Involucre semispherical, rounded at the base, about 8 mm. across; scales imbricated, rounded at the apex, 1-nerved; outer ones shorter and smaller, linear or broadly linear, viridescent and depressedly white-lanate dorsally; middle ones longer and broader than the outer, oblong, narrowly viridescent and thinly lanate dorsally, scarious on both sides of the midrib; inner ones largest, broadly oblong or obvato-oblong, very narrowly viridescent and slightly lanate in centre dorsally, broadly scarious on both sides. Ligulate flowers one-serial, spreading, subnumerous, female; ligule 2-labiate; lower lip larger and broad, 3-3½ mm. long, elliptical, 3-4-dentate or 3-4-fid at the apex; upper lip 1-2, linear, nearly equal to the lower lip; tube shorter than the lip, about ¾ mm. across. Disk-flowers numerous, 3-3½ mm. long excepting the ovary, hermaphrodite, yellow; limb campanulate, 5-fid; tube stout, equal or slightly shorter than the limb. Anthers slightly exerted. Style not exserted; arms divergent, ¾ mm. long, rectangular, truncate. Ovary obovate, glabrous, 1-1½ mm. long.

Nom. Jap. Togakushi-giku (nov.).

Hab. Prov. SHINANO: Mt. Togakushi (Reizo Kôno! September 1916).

This species is possibly a hybrid between *Chrysanthemum japonicum Makino* (Ryûnô-giku) and *Ch. Pallasianum Komar. var. japonicum* (Franch. et Sav.) (Iwa-inchin), which are found growing in the same place with my species. I have named this rare species in honour of Mr. Reizo Kôno, who collected it at first.

**Elatostemma laetevirens Makino, sp. nov.**


Descriptions will appear in the next number of this Journal.

Nom. Jap. Yama-tokihokori (nov.).

Hab. JAPAN, mountains (T. Makino!).
Elatostemma nipponica Makino, nov. sp.
Descriptions will appear in the next number of this Journal.
Hab. JAPAN, plain (T. Makino!).

Vallisneria denseserrulata Makino, nov. comb.
Vallisneria spiralis var. denseserrulata Makino in Bot. Mag., Tokyo, XXVIII. (1914), p. 27.
Hab. JAPAN, lakes (T. Makino!).

Lychnis gracillima (Roebb.) Makino, nov. comb.
Hab. JAPAN, mountains.

Duchesnea major Makino, nov. comb.
Duchesnea indica var. major Makino in Bot. Mag., Tokyo, XXVIII. (1914), p. 184.
Fruiting receptacle bright scarlet. Achene smooth.
Hab. JAPAN, not uncommon.
This differs from D. indica Focke, which has the smaller pale-rose receptacle and smaller tuberculato-muricate achenes.

Acanthopanax nipponicum Makino, nov. sp.
Dioecious shrub, attaining about 3 m. in height; branches slender terete, glabrous, rarely scabro-hispidulous, cinerous or brownish-cinereous, dispersed with rounded and slightly elevated lenticels (those of the young branch oval to oblong), often flexuous; pith white and large; spines patent or more or less reflexed, gilvous or brownish-gilvous, purplish when young, narrowly conical, more or less depressed laterally, hardly curved backwards, sharp, smooth, about 5-8 mm. long, the base much incrassate with an obovate boundary. Leaves deciduous, alternate, but 2-5-fasciculate on an obscure or short short-shoot in the old leaf-axil of the old branches, long-petiolate, digitate, orbiculate in outline, about 4-8 cm. in each way, membranaceous or thickish-membranaceous, deep-green, but
light green half above on the upper surface, light green beneath, glabrous on both surfaces, but usually very scantily hispidulous above and sometimes thinly hispidulo-pubescent beneath; leaflets sessile, or shortly petiolulate (forma petiolulata m.), radiate, broadly ovate or subrhombic-ovate, spinuloso-obtuse or acute at apex, cuneate towards the base, shallowly irregularly several-inciso-lobate or sub-3-inciso-lobate above with ovate, few-mucronato-serrate and spinuloso-obtuse or acute lobes, depressedly spinuloso-serrate below but entire in the basal portion; middle one largest, about 3-5½ cm. long, 1½-2½ cm. wide; lower ones smallest, about 1¾-3½ cm. long, ¾-2 cm. wide; midrib slightly prominent and depressed in back beneath, slenderly elevated above; veins loose, erect-patent, often ciliato-pale-membranaceous in the axil of the largest veins; petiole slender, terete, canaliculate in front, rounded in back, green, glabrous, smooth, rarely thinly pubescent, loosely armed with few patent small spines, gilvous-pubescent and with one small deciduous patent spine (at the very base of the middle leaflet) dorsally at the top, very shortly embraced at the base, about 3-11 cm. long. Peduncle solitary, raised from the centre of leaf-tuft, shorter than the leaves, slender, terete, glabrous, green, ¾-5½ cm. long, often pubescent at the top; involucral scales several, minute, subulate, deciduous, green. Male umbel 1-2 cm. across; pedicels 2-5 mm. long, shortly incrassated at the base. Flowers about 3-16 in number, 4½ mm. across, white. Calyx cup-shaped, lined with a thick nectar inside, 5-lobed, 2 mm. across, 10-nerved; lobes dentiform, deltoid, acute, 1-nerved. Petals 5, valvate in bud which is globose, patent then reflexed, elliptico-ovate, acutish and thick at apex, entire, 1-nerved with few-veins. Stamens 5, much exserted, about 4 mm. long; filament subulato-filiform; anther elliptical. Rudimental style short, erect, connate towards the base, longer than the calyx; branches curved inwards. Rudimentary inferior ovary turbinate, compressed, glabrous, smooth, longer than the calyx. Female umbel about 12 mm. across, densely many-flowered; pedicels 2-3 mm. long. Flowers greenish, about 3½ mm. across. Calyx shallowly cup-shaped, lined with a thick nectar internally, 5-lobed; lobes dentiform, deltoid, acute, 1-nerved. Petals spreading, ovate, acute and thick at apex, entire, valvate in bud which is semiglobose, thickish, 1½ mm. long. Rudimentary stamens 5; filament obscure; anther small, caducous. Style exserted, 2 mm. long, 2-forked, connate towards the base, stout; branches erect-patent, slightly curved outwards. Ovary inferior, ovate-turbinate, compressed, glabrous, smooth, green, 1½ mm. long, 2-celled; ovule 1 to each cell, pendulous, oblong. Berry black when mature. Flowers in June. 

Nom. Jap. Oka-ukogi (nov.).
Hab. JAPAN (T. MAKINO!).

(To be continued.)