

latis 1/2 mm. crassis. Folia carnosae laevissima glabra stellatim fasciculata, lineari-setacea vel spathulato-linearia, acuta vel obtusa, 3-7 mm. longa, 1/3 mm. lata; sed foliis ramorum fertilium multo brevioribus verticillatim et stellatim rosulatis. Inflorescentia ad apices rosularum foliorum terminalis, in juvenute spathella oblongo-ellipsoidea saepe rubicunda toto inclusa; pedunculis terminalibus 2-3 mm. longis glabris in apice generaliter biforis sed saepius cum floribus abortivis pluribus, pedicellis nullis. Flores 1, 5 mm. longi, gynophoro fere 1/2 mm. longo, tepalis minimis 1 vel 2 saepe deficientibus, ovario 1 mm. longo ellipsoideo leviter bivalvi saepe rubicundo biloculare, ovulis numerosis; stylis 2, stigma raro emarginata; stamen unicum saepius deficiente, rarissime filamentum basi cum illo staminodii connivente. Capsula fere 1, 5 mm. longa globoso-ellipsoidea unilocularis, seminibus numerosis.

Nom. Jap. Chi [Tsu] kushi-podostemon (nov. nom.).

Hab. Japonia, Kiusiu: Prov. Satsuma, in fossis saxosis fluvii Mannosegawa (leg. Yoshio Doi! Sept. 1927.).

It is very remarkable that the distribution of Podostemonaceae has been extend to the far east.

A Contribution to the Knowledge of the Flora of Japan.

(Continued from Vol. IV. p. 12.)

By

Tomitarô Makino, Sc. D.

Semiarundinaria Kagamiana MAKINO, nov. sp.

A middle-sized bamboo, attaining about 4 m. or more in height, evergreen. Rhizome hypogaeous, long-repent, rooting at the nodes, terete, very thickly walled, pale-yellowish, monopodial; internodes about 6-7 cm. long, 10-13 mm. across; roots stout-fibrous, strong, hard, with short rootlets; sprout lateral. Culm erect, attaining about 27 mm. or more in diameter, often more or less flexuous, terete but semi-terete above, fistulose, smooth, glabrous, green or often purpurascens; nodes more or less prominent; internodes attaining about 42 cm. in length, white-bloomy under the nodes; branches short, fasciculate with a main one and accessory ones on its one side or sometimes both sides, erect-patent, green or purpurascens, densely with branchlets in age. Culm-sheath elliptical-ovate, about 16-19 cm. long, 6-7½ cm. wide, narrower and smaller in the superior ones, coriaceous, closely many-nerved, glabrous, shining internary, lastly become dried and flatly expanded finally fallen off. Leaves about 2-7 and palmately arranged towards the top of branchlets, shortly petiolate, linear-oblong, angustato-lanceolate or linear-lanceolate, shortly acuminate with a very sharp point at the apex, obtuse or rounded-obtuse but acute in the apical ones at the base, minutely spinulose on margins, 5-27 cm. long including the petiole,

6-30 mm. wide, green and glabrous above, glabrous but puberulous towards the midrib below beneath, membranaceous or thinly chartaceous; midrib slender, prominent beneath, light green; veins 3-8 on each side; veinlets very finely tessellate with the rectangular areolae; petiole $1\frac{1}{2}$ -6 mm. long, subcuneiform, compressed, thick, light green or often purpurascens, minutely dense-puberulous towards the base in front, glabrous and subcarinate dorsally; ligule short, truncate or rounded-truncate, coriaceous, minutely ciliated on margin, densely minute-puberulous dorsally, 1-2 mm. long; sheath closely encircled, coriaceous, subcarinate dorsally above, numerous striate, glabrous or thinly minute-puberulous, densely ciliated on margin; shoulder-fimbriae capillaceo-filiform, erect or erect-palmate, purpurascens or drab.

Nom. Jap. *Rikuchû-dake* (nov. nom.).

Hab. RIKUCHÛ: Yonai, planted (T. MAKINO! Nov. 1927.), Morioka, planted (T. MAKINO! Nov. 1927.).

A species closely allied to *S. fastuosa* MAKINO. This is not found wild, but it is cultivated here and there as an useful bamboo in the province of Rikuchû, northern Japan. I have named this species in dedication to Mr. YASUNOSUKE KAGAMI, Director of the Imperial College of Agriculture and Forestry, Morioka.

***Semiarundinaria viridis* (MAKINO) MAKINO, nov. comb.**

Semiarundinaria fastuosa var. *viridis* MAKINO in Journ. Jap. Bot. II, 2, p. 8 (1918).

Nom. Jap. *Ao-narihira*, *Aihara-dake*.

Hab. JAPAN, central, cultivated,

***Semiarundinaria Yashadake* (MAKINO) MAKINO, nov. comb.**

Arundinaria Narihira f. *Yashadake* MAKINO.

Semiarundinaria fastuosa var. *Yashadake* MAKINO in Bot. Mag., Tokyo, XXVI. (1912). p. 19, fig. 5, et p. 26.

Nom. Jap. *Yasha-dake*.

Hab. JAPAN.

***Sasa kurilensis* (RUPR.) MAKINO ET SHIBATA** in Bot. Mag., Tokyo, XV. (1901), p. 27.

Nom. Jap. *Nemagari-dake*, *Dzi-dake*, *Dzin-dake*, *Chishima-zasa*.

Hab. JAPAN, mountains, widely distributed.

Very variable in size of the culms and leaves; the larger culm attaining about $2\frac{1}{2}$ cm. in diameter and 3 m. in length; larger leaves attaining about 8 cm. in width, but the smallest one about 18 mm. long, 5 mm. wide. Peduncles usually numerous on the culm, short or rather so, about 5-33 cm. long, sheathing. Inflorescence about 2-8 cm. long; rachis and pedicels pubescent. Spikelets few to many, usually dense, lanceolate or sometimes linear, $1\frac{1}{2}$ - $4\frac{1}{2}$ cm. long. Flowers approximate, 7-10 mm. long, often purple or purplish. Flowering-glume tapering.

var. nebulosa (MAKINO) MAKINO, nov. comb.

Bambusa palmata f. *nebulosa* MAKINO in Bot. Mag., Tokyo, XIV. (1900), p. 61.

Arundinaria paniculata f. *nebulosa* MAKINO l. c. XIV. (1900), p. 52.

Sasa paniculata f. *nebulosa* MAKINO ET SHIBATA l. c. XV. (1901), p. 25.

Nom. Jap. *Shakotan-chiku*, *Shakohan-chiku*.

Hab. JAPAN.

Sasa paniculata (F. SCHMIDT) MAKINO ET SHIBATA in Bot. Mag., Tokyo, XV. (1901), p. 25.

Arundinaria kurilensis var. *paniculata* F. SCHMIDT Reis. in Amur. u. a. der Ins. Sachal. 7 sér. v. 12, n. 2, (1868), p. 198.

Bambusa senanensis FRANCH. ET SAV. Enum. Pl. Jap. II. (1879), pp. 182, 606.

Sasa senanensis REHDER in Journ. Arnold Arb. I. p. 58 (1919), et Man. Cult. Trees a. Shrubs (1927), p. 70.

Bambusa senanensis β . *ontakensis* FRANCH. ET SAV. l. c. p. 606.

Arundinaria paniculata var. *stenantha* MAKINO in Bot. Mag., Tokyo, XIV. (1900), p. 52.

Sasa paniculata var. *stenantha* MAKINO ET SHIBATA l. c. XV. (1901), p. 25.

Nom. Jap. *Kumai-zasa*.

Hab. JAPAN.

This grows at the foot and lower portions of mountains, and in the northern Japan often at fields. Leaves are glabrous or hairy beneath.

Sasa elegans MAKINO ; MAKINO ET NEMOTO Fl. Jap. (1925), p. 1495.

An evergreen small bamboo, attaining about 8 decim. high, tufted. Culm erect, ramose, about 2-4 mm. across, terete, fistulose, smooth, green or purplish; nodes prominent; internodes attaining about $9\frac{1}{2}$ cm. long; branches slender, erect-patent, one to a node, ramulose in age. Leaves about 3-7 towards the top of branchlets, palmately arranged, lanceolate, sharply acuminate at the apex, rounded or obtuse at the base, ciliato-spinulose on margins, green and glabrous above, subglaucous and thinly pubescent beneath, more or less pale-decayed on margins in winter, about 4-14 cm. long, 10-30 mm. wide; midrib slender, prominent beneath; veins 3-8 on each side; veinlets finely tessellate with square, rectangular and transverse-rectangular areolae; petiole $1\frac{1}{2}$ -5 mm. long, compressed, glabrous but minute-puberulous at the base in front, light green or purplish; ligule very short, rounded-truncate, minute-puberulous dorsally, $\frac{1}{2}$ -1 mm. long; sheath closely encircled, coriaceous, glabrous, light green or purplish; shoulder-fimbriae spinuliform, deciduous.

Nom. Jap. *Takakuma-chiku*.

Hab. JAPAN.

Sasa Uchidai MAKINO, nov. sp.

An evergreen bamboo, attaining about $1\frac{1}{2}$ m. in height, forming loose thickets. Rhizome sympodial, hypogaeous, repent, with strong roots; internode terete, 15-25 mm. long, about 5 mm. across. Culm erect or ascending, attaining 11 mm. in diameter, ramose in age, terete, fistulose, glabrous, smooth, shining,

thick-walled, green; node prominent or slightly so, minutely puberulous (hairs deciduous) then glabrate; internode attaining 16½ cm. long, white-bloomy under the nodes; branches one to a node, erect-patent, with dead old sheaths for years. Leaves palmato-pinnately arranged towards the top of branches, 4-9 in number, shortly petiolate, oblong-lanceolate or lanceolate, attenuatedly acuminate with a very sharp tip at the apex, obtuse but acute in the superior ones at the base, ciliato-spinulose on margin, chartaceo-coriaceous, green and glabrous above, glaucous and glabrous beneath, 10½-33 cm. long including the petiole, 22-60 mm. broad; midrib slender, prominent beneath, pale-viridescent; veins 7-11 on each side; veinlets finely tessellate with square and transverse-rectangular areolae; petiole subcuneate, compressed, thick, glabrous but densely puberulous towards the base in front, glabrous and carinate dorsally, 4-13 mm. long; ligule short, rounded or rounded-truncate, coriaceous, puberulous dorsally, ciliated on margin, 1½-3½ mm. long; sheath closely encircled, coriaceous, glabrous, numerously striate, not ciliated on margins, viridescent or purpurascens; shoulder-fimbriate?

Nom. Jap. *Nagaba-nemagaridake* (nov. nom.).

Hab. Prov. RIKUCHŪ: Takizawa, hill (S. UCHIDA! Oct. 1926, Jun. 6 and Nov. 1927; T. MAKINO! Nov. 1927.).

A beautiful bamboo. This comes near to *Sasa kurilensis* MAKINO ET SHIBATA, but the leaves are much narrower, and the culms more slender. I have named this new bamboo in honour of Mr. SHIGETARŌ UCHIDA, Professor of the Imperial College of Agriculture and Forestry, Morioka, who first found and collected it.

Sasa Togashiana MAKINO, nov. sp.

Pseudosasa Togashiana MAKINO, MSS.

An evergreen bamboo, attaining about 2 m. in height. Rhizome hypogaeous, long-repent, loosely ramose, terete, pale-yellowish, smooth, hard, thick-walled, about 5-6 mm. across; nodes many, rooting; internode about 2-4½ cm. long. Culm erect or ascending, ramose above in age, terete, fistulose, smooth, glabrous, light green but purple in the sun, 4-8 mm. in diameter, with dead old sheaths for years; node not or hardly prominent, densely pubescent below; internode attaining about 19 cm. long, white-bloomy under the nodes; branches one to a node, erect-patent, often retrorsely appressed pubescent above, encircled with old sheaths for years. Leaves 2-7 towards the top of branchlets, palmately or pinnato-palmately arranged, oblong or lanceolato-oblong, acuminate with a sharp point at the apex, rounded or obtuse but acutish or acute in the apical one at the base, ciliato-spinulose on margins, chartaceo-coriaceous, green and glabrous above, subglaucous and thinly adpressedly or erectpatently pubescent beneath, about 14½-36½ cm. long including the petiole, 24-70 mm. wide; midrib slender, pale-greenish, prominent beneath, thin-pubescent on both sides; veins finely slender, 6-12 on each side; veinlets finely tessellate with square and transverse-rectangular areolae; petiole subcuneiform, compressed, thick, coriaceous, often purple, glabrous but minutely puberulous at the base

in front, glabrous and subcarinate dorsally, 3-17 mm. long; ligule short, truncate or truncato-rounded and ciliated on margin, densely minute-puberulous dorsally, $1\frac{1}{2}$ -2 mm. long; sheath coriaceous, closely encircled, numerous striate, glabrous or patently or erectpatently ciliated on margins, often purple; shoulder-fimbriae spinuliform, soon deciduous. Culm-sheath coriaceous, at first hirsute then hairs deciduous; microphyll subulate or linear-subulate.

Nom. Jap. *Nambu-suzu* (nov. nom.).

Hab. RIKUCHŪ: Yonai, hills, widely covered forming dense thickets (T. MAKINO! Nov. 1927.).

I have named this new species in memory of Mr. Kōgo TOGASHI, Professor of the Imperial College of Agriculture and Forestry, Morioka.

***Sasa septentrionalis* MAKINO, nov. sp.**

An evergreen bamboo, attaining about 1m. in height. Culm erect or ascending, slender, terete, fistulose, smooth, glabrous, green or purplish, laxly ramose in age, 3-5 mm. in diameter; node prominent; internode attaining about 20 cm. long, white-bloomy under the nodes; culm-sheath piloso-pubescent with spreading or erect-patent hairs, or sometimes shortly pubescent, or sometimes glabrous; branches one to a node, erect-patent, often flexuous, with dead old sheaths for years. Leaves 6-7 towards the top of branches, pinnato-palmately or palmately arranged, shortly petiolate, oblong, abruptly acuminate with an attenuatedly very sharp point at the apex, obtuse or rounded-obtuse or rounded but acute in the apical 1 or 2 at the base, finely ciliato-spinulose on margins, chartaceo-coriaceous, green and glabrous above, subglaucous and thinly pubescent with white hairs, $12\frac{1}{2}$ -36 cm. long including the petiole, 33-82 mm. wide; midrib slender, prominent beneath, pale-greenish, thinly pubescent on both sides; veins 8-12 on each side, thinly pubescent; veinlets finely tessellate with transverse-rectangular and square areolae; petiole subcuneiform, thick, compressed, glabrous but puberulous at the base in front, glabrous dorsally, greenish or purpurascens, 3-10 mm. long; ligule short, coriaceous, truncate or truncato-rounded and minutely ciliated on margins, densely puberulous dorsally, about $1\frac{1}{2}$ -4 cm. long; sheath closely encircled, coriaceous, pilose or sometimes glabrous, numerous striate, greenish or purple, not ciliated or sometimes ciliated on margin; shoulder-fimbriae spinuliform, deciduous.

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

Hab. RIKUCHŪ: Takizawa, hills (T. MAKINO! Nov. 1927.).

This species is nearly allied to *Sasa nipponica* MAKINO ET SHIBATA, but more vigorous and more ramose.

***Sasa Okadana* MAKINO, nov. sp.**

A semi-evergreen bamboo, attaining about $8\frac{1}{2}$ decim. in height. Culm erect, attaining about 6 mm. in diameter, slender, ramose in age, terete, fistulose, glabrous, usually purple, finely striate when dried, attaining 6 mm. in diameter; node prominent, glabrous or very slightly dense-puberulous; internode attaining about 20 cm. long, white-bloomy under the node; branches lax, erect-patent, slender, sometimes flexuous, usually one but sometimes

fascicled with 1-2 accessory ones to a node. Leaves about 2-7 and flabellately or palmately arranged towards the top of branchlets, shortly petiolate, oblong-lanceolate, but narrowly lanceolate in the apical one, abruptly acuminate with a very sharp point at the apex, rounded but acute in the superior ones at the base, chartaceous, green and slightly pilose on the upper surface, subglaucous and thinly pubescent beneath, pale-decayed at the marginal portions in winter, ciliato-spinulose on margins, $7\frac{1}{2}$ -29 cm. long including the petiole, 13-48 mm. broad; midrib slender, prominent beneath, light green, thinly pubescent with patent or erect-patent (sometimes only erect-patent above) pale hairs; veins 5-9 on each side, very slender, thinly pubescent; veinlets very finely tessellate with square, rectangular and transverse-rectangular areolae; petiole 2-8 mm. long, subcuneiform, compressed, thick, thinly puberulous in front, glabrous and subcarinate in back, purple (colour extends to the base of blades); ligule very short, truncate or truncato-rounded, coriaceous, puberulous dorsally, $\frac{1}{2}$ -2 $\frac{1}{2}$ mm. long; sheath closely encircled, coriaceous, ciliated on margin, finely striate, purple, more or less carinate dorsally above, glabrous or pubescent; shoulder-fimbriae palmately arranged, stiff, spinuliform, deciduous.

Nom. Jap. *Hiroha-adzumazasa* (nov. nom.).

Hab. Prov. RIKUCHŪ: Takizawa, hill (T. MAKINO! Nov. 1927.); Prov. RIKUZEN: Sendai, hills (T. MAKINO! Nov. 1927.).

I have named it in memory of Mr. YŌNOSUKE OKADA, Assistant Professor of Botany in the Tōhoku Imperial University, Sendai.

Sasa Suwekoana MAKINO, nov. sp.

An evergreen small bamboo, attaining about 1 $\frac{1}{2}$ cm. or a little more in height. Rhizome hypogaeous, repent, rooting at the nodes. Culm erect, ramose in age, slender, terete, fistulose, smooth, thickly walled, usually purple or purplish-green, 2 $\frac{1}{2}$ -7 mm. across; node prominent, glabrous; internode attaining about 18 cm. long, white-bloomy under the nodes; branches and branchlets one to a node, but rarely with an accessory branchlet at the base of branch. Leaves palmately or pinnato-palmately arranged towards the top of branchlets, 3-10 or sometimes more in number, usually approximate, shortly petiolate, short, oblong or narrowly oblong, but sometimes lanceolate in the lower ones, abruptly short-acuminate with a sharp point at the apex, subcordato-rounded or rounded but acute in the apical one at the base, minutely short-spinulose on margins, coriaceous-chartaceous or coriaceous, especially usually sub-revolute on one side in some blades, deep-green and thinly pilose with white hairs on the upper surface, subglaucous and thinly pubescent on the under surface, 6-23 cm. long including the petiole, 10-51 mm. broad; midrib slender, prominent beneath, pale-viridescent, shining; veins 6-9 on each side; veinlets finely tessellate with transverse-rectangular and square areolae mixed with rectangular ones; petiole short, 2-8 mm. long, subcuneate, compressed, thick, glabrous but densely puberulous at the base in front, glabrous dorsally, pale-greenish, purplish or purple; ligule very short, $\frac{1}{2}$ -1 mm. long, coriaceous, truncate and ciliated on margin, densely puberulous dorsally; sheath closely encircled,

glabrous, usually purple, numerous striate, more or less subcarinate dorsally above, patently ciliated on margin; shoulder-fimbriae palmately divided, spinuliform, deciduous.

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

Hab. RIKUZEN; Sendai, hills (T. MAKINO! Nov. 1927.).

This is undoubtedly a peculiar and good species with the short and deep-green leaves, which are more or less pilose even on the upper surface. I have named this new bamboo in dedication to the late my wife SUWE-KO MAKINO (died at the Hospital of the Imperial University of Tôkyô, February 23, 1928.), who let me always allow to the study of Plants by her private aid.

***Sasa sendaica* MAKINO, nov. sp.**

A semi-evergreen bamboo, attaining about 8 decim. high. Rhizome hypogaeous, repent, slender, with many nodes; node rooting; internode terete, thick-walled, 1½-3 cm. long, about 4 mm. across. Culm erect, slender, flexuous, loosely ramose in age, terete, fistulose, smooth, glabrous, closely and finely longitudinally lined, green or often purpurascens, 2½-4 mm. across; node prominent, glabrous; internode attaining about 21 cm. long, white-bloomy under the nodes; branches one to a node, erect or erect-ascending. Leaves palmately arranged at the top of branchlets, about 3-5 in number, shortly petiolate, broadly oblong or ovato-oblong, rather abruptly acuminate with a sharp point at the apex, broadly rounded or obtuse but acute in the apical one at the base, about 12-25 cm. long including the petiole, 3½-7 cm. wide, finely spinulose on margins, green and glabrous above, subglaucous and pubescent with antrorse white soft hairs on the veinlets, veins and midrib beneath, chartaceous, more or less pale-decayed on margins in winter; midrib slender, prominent beneath, pale-greenish; veins 7-12 on each side; veinlets finely tessellate with inconspicuous and transverse-rectangular areolae; petiole 5-12 mm. long, subcuneiform, compressed, thick, puberulous below in front, glabrous and subcarinate dorsally, usually purple or purplish; ligule short, coriaceous, truncato-rounded and minutely ciliated on margin, densely puberulous dorsally, 1½-2 mm. long; sheath closely encircled, numerous striate, puberulous with retrorse white fine hairs then glabrate, light green but usually purple or purplish above, glabrous or sometimes ciliated on margin; shoulder-fimbriae?

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

Hab. RIKUZEN; Sendai, hill (AKIRA HASHIMOTO! Oct. 1927; T. MAKINO! Nov. 1927.).

***Sasa ramosa* MAKINO ET SHIBATA in Bot. Mag., Tokyo, XV. (1901). p. 25.**

Add. Descr. Leaves narrowly lanceolate to oblong-lanceolate, chartaceous or chartaceo-coriaceous, attaining about 29 cm. long including the short petiole, 4½ cm. wide, rather abruptly acuminate at the apex at the base, rounded or subcordatorounded but acute in the apical one, glabrous but rarely scarcely pilose or slightly pubescent on the upper surface in those growing in shady places,

thinly or scarcely pubescent beneath.

Nom. Jap. *Adzuma-zasa*.

Hab. JAPAN, widely distributed.

***Sasa spiculosa* MAKINO forma *angustior* MAKINO, nov. f.**

Pseudosasa spiculosa forma angustior MAKINO, MSS.

Leaves narrower, about 16-35 cm. long, 20-38 mm. wide. Otherwise as in the type.

Nom. Jap. *Hosoba-suzudake* (nov. nom.).

Hab. RIKUZEN: Near Sendai, wild.

A mere form only bearing the narrower leaves.

***Pleioblastus virens* MAKINO, nov. sp.**

Arundinaria virens MAKINO, MSS.

A semi-evergreen bamboo, attaining about 3 m. or more in height. Culm erect, attaining about 17 mm. in diameter, green or yellowish-green, terete, fistulose, smooth, glabrous; branches fasciculate or densely so in age, erect-patent, with short branchlets in age, with dead old sheaths which are remained for years, green or yellowish-green; node more or less prominent, glabrous; internode attaining about 22 cm. long. Culm-sheath narrowly ovate, coriaceous, glabrous, pale-ochraceous when naturally dried, remaining for years. Leaves pinnately or pinnato-palmately arranged towards the top of branchlets, angustato-lanceolate, gradually attenuated-acuminate with a very sharp point at the apex, rounded or subcordato-rounded but acute in the apical ones at the base, shortly petioled, 6-24 cm. long, 5-25 mm. wide, chartaceous or coriaceo-chartaceous, fresh-green, glabrous above, paler and glabrous but usually slightly pubescent towards the midrib, below beneath, mostly decayed in winter; midrib slender, prominent beneath, pale-greenish; veins fine, 3-6 on each side; veinlets finely tessellate with rectangular areolae; petiole $1\frac{1}{2}$ -5 mm. long, subcuneiform, compressed, thick, densely puberulous below in front, glabrous dorsally, pale-green; ligule very short, coriaceous, truncate or rounded-truncate and minutely ciliated on margin, densely puberulous dorsally; sheath closely encircled, coriaceous, greenish, thinly adpressed pubescent with white and deciduous hairs, then glabrate, numerous striate, subcarinate dorsally above, ciliated on margins; shoulder-fimbriae erect or subpalmato-erect, filiform, pale, persistent or deciduous.

Nom. Jap. *Ao-nezasa* (nov. nom.), *Ao-yabushino* (nov. nom.).

Hab. JAPAN, northern, wild or planted (T. MAKINO! 1927.).

This species comes near to *Pleioblastus Chino* MAKINO, from which it differs by the colour of culms, branches and leaves, and also the form of leaves.

***Pleioblastus nebulosa* MAKINO, nov. sp.**

Arundinaria nebulosa MAKINO, MSS.

An evergreen bamboo, attaining about 2 m. or more high. Culm erect, attaining about 8 mm. in diameter, terete, fistulose, smooth, glabrous, green

and mottled with umber or brown nebulae; node prominent, glabrous; internode attaining 22 cm. long, white-bloomy under nodes; branches slender, ramulose in age; culm-sheath rather thin, subcoriaceous, glabrous, pale when naturally dried, remaining for years. Leaves about 3-4 towards the top of branchlets, palmately arranged, linear-lanceolate, gradually attenuated-acuminate with a very sharp tip at the apex, obtuse or acute at the base, shortly petioled, minutely ciliato-spinulose on margins, chartaceous, green and scantily pilose above, paler and thinly pubescent towards the midrib, 8-16 cm. long, 7-11 mm. broad; midrib very slender, prominent beneath, greenish; veins 3-4 on each side; veinlets finely tessellate with rectangular areolae; petiole narrowly subcuneate, 1½-5 mm. long, pale, compressed, pubescent with pale hairs in front, glabrous dorsally; ligule very short, truncate, coriaceous, densely puberulous dorsally, ⅔-1 mm. long; sheath closely encircled, finely striate, glabrous, ciliated on margins, greenish; shoulder-fimbriae filiform, pale, erect or suberect, persistent.

Nom. Jap. *Shôhôji-dake* (nov. nom.).

Hab. Prov. RIKUCHÛ: Kuroishi-mura in Esashi-gun, planted in the yard of Shôhôji, a temple (SHIGETARÔ UCHIDA!).

A very rare bamboo; it is cultivated as an ornament on account of the marmorate culms.

***Pleioblastus kongosanensis* MAKINO, nov. sp.**

Arundinaria kongosanensis MAKINO, MSS.

An evergreen bamboo, attaining 2 m. or more high. Culm erect, attaining 8 mm. across, terete, fistulose, green but yellowish in age, often more or less purpurascens in the sun, densely pubescent with short retrorse white hairs or glabrate; node prominent, piloso-pubescent but hairs deciduous; internode attaining 40 cm. long, white-bloomy under the node; culm-sheath coriaceous, many-nerved, thinly pubescent with white deciduous hairs, ciliated with white patent hairs on margin, soon dried and staying in years encircling the culm; microphyll linear-subulate. Branches 3-5-fasciculate; branchlets many in age. Leaves usually several towards the top of branchlets, distichous, pinnato-palmately arranged, shortly petiolate, lanceolate, acuminate with a sharp tip at the apex, rounded or obtuse but acute in the apical ones at the base, minutely spinulose on margin, fresh-green and puberulous above, paler (very slightly glaucous in the outer half) and pubescent beneath, about 8-20 cm. long, 15-25 mm. wide; petiole compressed, thick, subcuneate, puberulous on both surfaces, 1-4 mm. long; ligule very short, about 1 mm. long, truncate, densely puberulous dorsally; sheath closely encircled, coriaceous, pubescent with deciduous hairs, many-striate, ciliated with white hairs on margin; shoulder-fimbriae setaceo-filiform, pale, deciduous, attaining 7 mm. long.

Nom. Jap. *Kongô-dake* (nov. nom.).

Hab. Prov. KAWACHI: Kongô-san (T. MAKINO! July 27, 1927.).

(To be continued.)