

THE JUNIPERS COMMONLY INCLUDED IN JUNIPERUS CHINENSIS

P. J. van Melle

The materials enumerated here, their relationships and distributions, are treated more amply in a manuscript, "Review of Juniperus chinensis", now in the press.

The present paper is intended to satisfy the requirements of formal publication of the new species, varieties and combinations contained in it. Additional Latin diagnoses have been rendered in cases where available diagnoses seemed inadequate.

1. Juniperus chinensis L. Mant. 127 (1767), 519 (1771); non Roxb. Fl. Ind. Or. III, 840 (1832); non Miquel Fl. Jap. II, 58 (1870), tt. 126, 217 figs. 1, 2, 4 (1844); not, or only in part, of authors since about 1850.

J. flagelliformis Loud. Ency. Trees II, 1090 (1842).

J. Reevesiana Hort. ex Endl. Syn. Conif. 31 (1847) sub

J. cernua.

J. chinensis foemina Gord. Pinet. 115 (1858).

J. chinensis sylvestris Hort.

J. chinensis oblonga Hort.

- 1 (1). Juniperus chinensis f. aurea (Young, var.) stat. nov.
J. chinensis var. aurea Young ex Anon. in Gdrs. Chron. VIII, 1193 (1872).

- 1 (2). Juniperus chinensis f. WILSON'S WEEPING (Clarke, var.) stat. nov.

J. chinensis Wilson's Weeping W. B. Clarke & Co., San José, Cal., Catalog, "Garden Aristocrats" (1934).

2. Juniperus sphaerica Lindl. in Paxt. Flw. Gdn. I, 58 (1850); ex Farlat. in DC. Prodr. XVI, pt. 2, 488 (1865).

J. chinensis 2 Smithii Loud. Arbor., Frut. IV, 2505 (1838); non Hort.

J. chinensis mas Gord. Pinet. 115 (1858).

- 2a. Juniperus sphaerica var. pseudo-mas var. nov.

J. chinensis columnaris viridis, J. chinensis viridis of U. S. nurseries.

A speciei typo differt: Habitu angustiore pyramidalis vel anguste columnari; ramis perseveranter adscendentibus. Floribus obscuriore monoicis, i.e., planta

tardiore fructificante. Galbulis plerumque plusminusve bilobatis apice plusminusve applanato saepe transverse constricto. In formis borealibus habitu angusto, statu juvenili protracto.

Type: Herb. van Melle, No. 93 - cultivated.

Habitat: Out of Chekiang Province northward into Hopeh Province.

2a (1). Juniperus sphaerica var. pseudo-mas f. columnaris
(U. S. Dept. Agri.) comb. nov.

J. chinensis var. columnaris U. S. Dept. Agri., Bureau Plant Ind., Ninth Ann. List New Intro., No. 18577 (1920—21).

2b. Juniperus sphaerica var. dioica var. nov.

J. chinensis Beissn. in Nuov. Giorn. Bot. Ital. N. S. IV, 183—91, No. 10 (1897).

A speciei typo differt: Habitu anguste pyramidalis vel late pyramidalis vel late ovoidei; ramis in formis angustioribus (Sinam orientalem versus) perseveranter adscendentibus, in formis latioris (Sinam occidentalem versus) saepe ultimo patentibus vel plusminusve undulatis. Floribus dioicis. Galbulis maturis bilobatis, apice applanato transverse constricto.

Type: Arnold Arbor., Giraldis, 1897, Shensi.

Specimens. Arnold Arbor.: Purdom No. 3005, southern Shensi; Meyer No. 1712, Sianfu, Shensi.

Habitat: Out of Hopeh Province westward, along the slopes of, and to the north of, the Tsinling Range, into Shensi Province; projecting into Inner Mongolia.

2c. Juniperus sphaerica var. neaboriensis (Veitch) comb. nov.

J. neaboriensis Veitch Man. Conif. 277 (1881); non Laws. ex Gord. Pinet. 96 (1858) sub J. macrocarpa; non Fitschen Handb. Nadelh. 604 (1930) sub J. chinensis.

Habitu anguste pyramidalis; ramis adscendentibus. Foliis acicularibus remotis brevibus plerumque late patentibus. Floribus dioicis. Galbulis ut in var. dioica.

Type: U. S. Dept. Agri., Bureau Plant Indus., Meyer No. 2014, Sianfu, Shensi.

Habitat: Apparently more or less local, in southern Shensi Province.

2d. Juniperus sphaerica var. pendula (Franch.) comb. nov.

J. chinensis var. pendula Franch. in Nouv. Arch. Mus. Hist. Nat. Paris Ser. 2, VII, 101 (1884); non

Beissn.; non Gaujard ex Morel in Rev. Hortic. 349—50

(1889). Non J. sphaerica var. pendula Lav. Arbor. Se-grez. 290 (1877) - nomen.

Habitu late plusminusve laxe pyramidalis, ramis ultimo patentibus undulatisve vel pendulis, certe ad apices; rariore, ut in hortorum plantis, valde et irregulariter pendulis. Ramulis pendulis. Floribus dioicis. Galbulis regulariter obovoideis vel ovoideis. Statu juvenili non protracto.

Habitat: Type locality (David), southern Shensi. Min Shan Mountains, Lower Tebbu country.

2e. Juniperus sphaerica var. Keteleeri (Hort.) comb. nov.

J. chinensis Keteleeri Hort. gall. ex Beissn. in Mittheil. Deutsch. Den. Ges. 140 (1910).

J. sinensis var. Keteleeri Venema in Jaarb. Nederl. Den. Vereen. 108—21 (1938).

Habitu anguste pyramidalis; ramis adscendentibus. Foliis squamiformibus apice acuto. Floribus dioicis. Galbulis magnis regulariter globosis. Statu juvenili non protracto. Planta mascula in hortis ignota.

Type: N. Y. Bot. Gard., Henry No. 6576.

Type locality: Mountains of northern Hupeh Province.

3. Juniperus Sheppardii (Veitch, var.) sp. nov.

J. sphaerica glauca Fort. ex Gord. Pinet. 39 (1858).

J. sphaerica Sheppardii Veitch Man. Conif. 290 (1881).

Arbor axibus pluribus principalibus habitu juvenili regulariter, adulto plusminusve irregulariter laxe lateque pyramidalis; ramis adscendentibus, certe ad apices. Statu juvenili non protracto. Aspectu comae juvenilis ex griseo argenteo-griseo, adultae ex opace griseo glaucescenti-viridi, rariore clare viridi. In statu juvenili ramulis ultimo ad apices ramorum plusminusve congestis, in statu adulto secundum ramos confertis. Surculis adultis terminalibus nutantibus. In partibus mature adultis ramulis ultimis plerumque gracilibus filiformibus saepe longissimis. Floribus monoicis vel dioicis. Galbulorum maturorum "pedunculis" erectis patentibusve vel plusminusve arcuatis non nutantibus. Galbulis maturis plerumque regulariter obovoideis vel ovoideis rariore turbinatis, ad 10 mm. latis. Seminibus 2—6, plerumque 2—4.

Type: Herb. van Melle, No. 272 (monoecious) - cultivated.

Specimens. Arnold Arbor.: S. Chen No. 3383, No. 4169, Chekiang; Herb. Univ. Anhwei No. 2675, Fukien; Hongkg. Herb., Dunn Exped. No. 3507, Fukien; Chiao No. 14059, Chekiang. -- Bailey Hortorium: R. C. Ching No. 1601, No. 2018, Chekiang. -- U. S. Dept. Agri., Bur-

eau Plant Indus., S. P. I.: Access. No. 1583, Kiangsu; R. C. Ching No. 1601, Chekiang.

Habitat: Chekiang Province, northward into Kiangsu; southward into Fukien, Kiangsi. Anhwei.

- 3a. Juniperus Sheppardii var. torulosa (Eastw.) comb. nov.
J. chinensis var. torulosa Eastw. in Bay Cities Garden Monthly II No. 4 (1933).

J. chinensis kaizuka Hort. jap.

A speciei typo differt: Axi principali plerumque uno interdum diviso. Habitu angustiori. Statu juvenili dense conico-fastigiati aspectu griseo-viridi. Surculis adultis terminalibus non nutantibus plusminusve succulentibus. Foliis squamiformibus intense viridibus sed in formis multis pruina grisea obtectis. Floribus dioicis. Galbulis maturis forma valde variis: apice contracto vel applanato, basi decurrenti vel truncato; plerumque approximate cylindricis vel quadrangularibus interdum regulariter obovoideis; longitudine latitudinem excedentibus; plerumque violaceo-pruinosis. Seminibus magnitudine valde variis.

Specimens. Arnold Arbor.: Wilson 10, 10, '14, Mt. Yakushima; Wilson No. 8201, Senzu, Idzu Peninsula, Honshu. -- N. Y. Bot. Gard.: C. Wright, U. S. North-Pacific Exp. (1853-56), Shimoda, Idzu Peninsula; Maximowicz, Iter Sec. 1862, Yokohama - cultivated; Maximowicz, 1863, Nagasaki.

Habitat: Southern parts of Korea. Japan, islands south of Honshu; perhaps wild on Idzu Peninsula, Honshu.

- 3a (1). Juniperus Sheppardii var. torulosa f. aureo-variegata (Hort.) comb. nov.

J. chinensis aureo-variegata of some U. S. nurseries.

- 3a (2). J. Sheppardii var. torulosa f. albo-notata nom. nov.

J. chinensis albo-variegata of some, not all, U. S. nurseries; non Veitch.

- 3b. Juniperus Sheppardii var. pyramidalis (Carr.) comb. nov.

J. chinensis Sieb. & Zucc. Fl. Jap. II, tt. 126, 127 figs. 1, 2, 4 (1844), text, Miquel, 58 (1870).

J. japonica Carrière Traité Gén. Conif. 33 (1855), pro parte: "Arbrisseau dressé".

J. japonica var. pyramidalis Carr. l. c., Ed. 2, 31 (1867).

J. chinensis pyramidalis Hort. ex Beissn. Handb. Nadelh. 120 (1891).

J. excelsa stricta of U. S. and European nurseries.

Arbor plerumque axibus pluribus principalibus. A speci-

ei typo differt: Statu juvenili valde protracto saepe in senectutem retento, a adulto valde dissimili; juvenilis habitu primo dense conico-fastigiati ut in var. torulosa sed denique late columnares valde regulares, aspectu ex griseo viridi-griseo; ramulis ultimo in thyrsis densissimis erectis ad apices ramorum congestis. Habitu adulto laxo lato ultimo valde irregulari pyramidali vel diffuse arborescenti; ramis late adscendentibus, ramulis valde irregulariter dispositis; ramorum surculis terminalibus non nutantibus. Floribus dioicis. Galbulis maturis plerumque ad apicem plusminusve applanatis, regulariter vel irregulariter 2—4-lobatis, plerumque latitudine longitudinem excedentibus.

Specimens. Herb. van Melle: No. 160, 160 A, B (juvenile); No. 55 (early adolescent); No. 38 (advancedly adolescent); Nos. 88, 88 A, 162, 162 A, B, C, D, E (early adult); No. 305, 305 A (fruiting).

Habitat: Conjecturally, central and eastern Honshu, north to between 38° and 39° latitude. Probably Korea, to 39° latitude.

4. x Juniperus media (J. Sabina x sphaerica) hybr. nov.

Frutices plerumque habitu J. Sabinam similis certe in plantarum juvenis. Foliis acicularibus interdum dimorphis: his brevibus textura mollibus ut in J. Sabina, illis longioris rigidioribus ut in J. sphaerica. Floribus dioicis. "Pedunculis" galbulorum maturorum semper nutantibus. Galbulis maturis plusminusve distincte bilobatis.

4a. x Juniperus media var. arbuscula nom. nov.

J. virginiana pendulis viridis Gord. Pinet. Suppl. (1862).

J. sphaerica var. pendula Lavallée Arbor. Segrez. 290 (1877) - nomen.

J. virginiana Smithii pendula Hort. ex Beissn. Handb. Nadelh. 125 (1891).

J. chinensis Smithii Slavin in Rept. Conif. Conf. R. H. S. 103 (1932).

Frutex ramis primariis e trunco brevi adscendentibus, primo fruticem erectum habitu laxo formantibus; plerumque habitu ultimo densiori ad apices ramorum plusminusve patentibus. Statu juvenili non protracto. Plantarum juvenum foliis grate fragrantibus, squamiformibus clare viridibus textura delicatula; plantarum senescentium plusminusve opace viridibus textura duriora. Planta mascula ignota. Galbulis bilobatis ad 10 mm. latis "pedunculos" graciles cernuos terminantibus.

us. Seminibus ad 6, ad 6.5 mm. longis plusminusve tenuibus.

Type: Herb. van Melle, No. 283, cultivated in N. Y. Bot. Gard.

Habitat unknown.

- 4b. x Juniperus media var. Pfitzeriana (Beissn.) comb. nov.
J. japonica pendula Morren & A. de Vos, Index Bibliogr. in Bull. Fed. Société Hortic. Belg. 32 (1877) - nomen.
J. chinensis pendula C. de Vos Handb. Boomen, Heest. (1885); Beissn. System. Eintheil. (1887) - nomen; Gaujard ex Morel in Rev. Hortic. 349 (1889); Fitschen, Handb. Nadelh. 606 (1930); non var. pendula Franchet.
J. chinensis Pfitzeriana Beissn. in Mittheil. Deutsch. Den. Ges. 102 (1899).
 Frutex odore J. Sabinæ. Ramis primariis basi oblique divergentibus, arcuato patentibus; ramis ramulisque lateralibus ad apices arcuato-pendulis. Foliis squamiformibus ad apicem acutis, ex griseo-viridis ultimo (in senectute) opace viridibus. Galbulis maturis ad 10 mm. latis "pedunculos" graciles cernuos terminantibus. Seminibus 2—4, ad 5 mm. longis quam in J. sphaerica tenuioribus. Planta femina in hortis ignota.
 Type: U. S. Nat. Herb., No. 1245121, Ching No. 52.
 Habitat: Ho Lan Shan Mountains, Inner Mongolia.
- 4b (1). x Juniperus media var. Pfitzeriana f. aurea (Hort.) comb. nov.
J. chinensis aurea pendula Beissn. Handb. Nadelh. 120 (1891).
J. chinensis Pfitzeriana aurea D. Hill Nurs. Co., Catalog (1938).
- 4b (2). x Juniperus media var. Pfitzeriana f. compacta (Hort.) comb. nov.
J. chinensis Pfitzeriana compacta Bobbink & Atkins, Catalog (undated).
- 4b (3). x Juniperus media var. Pfitzeriana f. Armstrongii (Bailey) comb. nov.
Armstrong Spreading Juniper Armstr. Nurs., Catalog. (1932).
J. chinensis Armstrongii Bailey Hortus Suppl. (1935).
- 4b (4). x Juniperus media var. Pfitzeriana f. glauca (Hort.) comb. nov.
Silver-blue Juniperus U. S. Plant Patent No. 422 (1940).

J. chinensis Pfitzeriana glauca Hort.4c. x Juniperus media var. globosa (Hornibr.) comb. nov.J. virginialis globosa Hort. jap. - pro parte.J. chinensis nana Hort.J. japonica globosa, J. japonica nana of Boskoop distribution.J. japonica Bandai-sugi Hort. jap.J. chinensis var. globosa Hornibr. Dwarf and Slow-gr. Conif. 62 (1923).

Frutex humilis odore J. Sabinae. In plantis juvenis ramis primariis oblique divergentibus apice non pendulo. Ramulis non pendulis. Statura rare 1 m. superante; ultimo plusminusve 2.5 m. latus. Foliis squamiformibus e pallide praeclare viridibus, apicem obtuso vel acuto. Foliorum ramulorum textura delicatula. Galbulorum maturorum "pedunculis" quam in J. Sabina brevioribus. Galbulis ad 5 mm. latis, latitudine longitudinem excedentibus, forma variis: apice rotundato vel plusminusve applanato; valde irregulariter gibbosis vel obscure bilobatis; vix pruinosis. Seminibus plerumque 2-4, saepe 1, ad 2.5 mm. longis. Planta mascula ignota.

Type: Herb. van Melle, No. 260, cultivated in Arnold Arbor. as J. chinensis var. plumosa.

Habitat unknown.

4c (1). x Juniperus media var. globosa f. aureo-globosa (Rehd. var.) comb. nov.J. chinensis procumbens aurea Hort. ex Beissn. Handb. Nadelh. 120 (1891) - pro parte.J. japonica globosa aurea of Boskoop distribution.J. chinensis var. aureo-globosa Rehd. Manual (1923).J. chinensis globosa f. aurea Hornibr. Dwf. & Slow-gr. Conif. 63 (1923).J. japonica Bandai-sugi aurea Hort. jap.4d. x Juniperus media var. plumosa (Hornibr.) comb. nov.J. chinensis procumbens Endl. ex Beissn. Handb. Nadelh. 120 (1891), and of Boskoop distribution; non Endlicher.J. virginialis globosa Hort. jap. - pro parte.J. chinensis var. plumosa Hornibr., l. c. 66 (1923).J. japonica of Boskoop distribution, and of many nurseries today; non Carr.; not clearly of any author.J. chinensis L. Ching No. 53 ex E. H. Walker, Plants Coll. R. C. Ching, in Contrib. U. S. Nat. Herb.

XXVIII, pt. 4, 594 (1941); non L.

J. virginialis D. Hill Nurs. Co., Catalog (1942).

Frutex nanus odore J. Sabinae. In plantis juvenis ramis primariis oblique divergentibus non arcuatis. Ramis rigidibus; ramis ramulisque ad apices non pendulis. Statura ad 1.5 x 1.5 m. Surculis adultis terminalibus plusminusve succulentibus; ramulis lateralibus brevibus plusminusve rigidibus saepe apice plusminusve rotundato convexo. Foliis squamiformibus, apice obtusiusculo vel rotundato, saepe ad dorsum valde convexis; aspectu plerumque opace viridi. Planta femina ignota. Type: Arnold Arbor., R. C. Ching No. 53
Habitat: Ho Lan Shan Mountains, Inner Mongolia.

- 4d (1). x Juniperus media var. plumosa f. albo-variegata (Hort.) comb. nov.
J. chinensis procumbens albo-variegata Hort. ex Beissn. l. c. 121 (1891).
J. chinensis var. decumbens albo-variegata Hornibr. l. c. 66 (1923).
J. chinensis var. plumosa albo-variegata Hornibr. l. c. Ed. 2, 106 (1938).
J. japonica albo-variegata of Boskoop distribution.
- 4d (2). x Juniperus media var. plumosa f. aurata nom. nov.
J. chinensis procumbens aurea Hort. ex Beissn. l. c. 120 (1891) - pro parte.
J. japonica aurea of Boskoop distribution.
J. chinensis var. plumosa aurea Hornibr. l. c. 66 (1923).
- 4d (3). x Juniperus media var. plumosa f. aureo-variegata (Hort.) comb. nov.
J. chinensis procumbens aureo-variegata Beissn. l. c. 121 (1891).
J. chinensis var. decumbens aureo-variegata Hornibr. l. c. 66 (1923).
J. chinensis var. plumosa aureo-variegata Hornibr. l. c. Ed. 2, 105 (1938).
J. japonica aureo-variegata, J. chinensis procumbens aureo-variegata of Boskoop distribution.
- 5a. Juniperus davurica Pallas var. Parsonsii (Hornibr.) comb. nov.
J. chinensis var. japonica Lav. ex Slavin in Rept. Conif. Conf. R. H. S. 102 (1932) ?; non Lavallée; non ex Hornibr. l. c. 100 No. I (1938); non Vilmorin ex Wils. Conif. Tax. Japan 85 (1916); non Vilmorin.
J. chinensis var. Parsonsii Hornibr. l. c. 96 (1938).
J. squamata Parsonsii Bailey Hortus Sec. (1940).
J. squamata of some U. S. nurseries; non Lamb.

J. squamata prostrata of some U. S. nurseries; non Hornibr.

Frutex humilis denique cumulum depressum regulariter rotundatum formans; gratissime fragrans. Ramis primariis in plantis juvenis horizontaliter patentibus sed non ad humum adpressis nec decumbentibus. Ramis validis valde rigidibus, cortice laeve cinnamomeo lamelloso, ramulos longitudine gradatōs subbilaterale distributione emittentibus. Foliis acicularibus oppositis vel ternatis; squamiformibus glaucescenti-viridibus vel opace viridibus, apice acutiusculo vel obtuso. Ramorum surculis terminalibus plusminusve succulentibus non nutantibus nec adscendentibus. Ramulis ultimis adultis gracilibus filiformibus saepe longissimis. Floribus dioicis. Galbulorum maturorum "pedunculis" nutantibus. Galbulis maturis depresso globosis vel 3—4-gibbosis saepe approximate quadrangularibus usque ad maturitatem valde coerulei pruinosis, ad 10 mm. latis. Seminibus vulgo ad 6, ad 5 mm. longis.

Type: Herb. van Melle, No. 107, containing material from two plants - one male, one female.

Habitat: Conjecturally, central Korea; Japan.

5a (1). Juniperus davurica var. Parsonsii f. variegata (Hort.) comb. nov.

J. chinensis L. var. japonica Lav. f. alba Rehd. in Journ. Arnold Arbor. VI, 202 (1925) ?

J. chinensis var. expansa variegata Hornibr. l. c. 94 (1938).

J. squamata var. albo-variegata and var. variegata Bailey Hortus Sec. (1940), and of some U. S. nurseries.

J. squamata argenteo-variegata of some U. S. nurseries

6. Juniperus Sargentii (Henry, var.) Takeda ex Nakai Fl.

Jap. Kor. in Tokyo Bot. Mag. XLIV, 511 (1930); ex Koidzumi in Tokyo Bot. Mag. XXXIII, 204 (1919) - nomen; non Sasaki, List, Plants Formosa 53 (1926) - nomen (fide Masamune in Mem. Fac. Science & Agri, Taihoku Imper. Univer. XI, Dec. 1934, p. 131); doubtfully of many Japanese floras.

J. chinensis var. procumbens Nakai Veget. Quelpt. Isl. 13 (1914); Takeda Fl. Isl. Shikotan in Journ. Linn. Soc. XLII, 486 (1914); Miyabe & Miyake Fl. Saghalin 593 (1915); non Endl.; non Beissn.; not Sabina chinensis var. procumbens Antoine Cupress. Gatt. (1857).

J. davurica Nakai in Tokyo Bot. Mag. XXXI, 21 (1917); and of several other Japanese authors, in part; non Pallas.

Frutex humilis odore terebinthaceo, denique cumulum depressum plusminusve irregulariter rotundatum formans. Ramis primariis prostratis cortice cinnamomeo, ramulos longitudine gradatos subbilaterale distributione adscendentes vel suberectos apicibus patentibus emit-tentibus. Foliis acicularibus brevibus non rigidis; squamiformibus apice obtusiusculo vel rotundato, ex opace viridibus griseo-viridibus. Ramulis ultimis adultis vix longis vix filiformibus. Floribus dioicis. Galbulorum maturorum "pedunculis" nutantibus. Galbulis maturis forma variis, saepe approximate globosis apice plusminusve applanato, plusminusve obscure bilobatis; ante maturitatem ex viridibus griseo-viridibus, saepe ad apicem brunneo-violaceis, vix pruinosis; plerumque ad 8 mm. latis. Seminibus saepe ad 5 (in plantis tsushimensis, leg. Wilson, ad 8).

Habitat: Mainly coastal and insular, Korea, Japan, Sakhalin.

7. Juniperus procumbens Sieb. & Zucc. Fl. Jap. II, t. 127, fig. 3 (1844), text, Miquel, 59 (1870); non Sargt. in Gdn. & Forest X, 421 (1897).
J. chinensis var. procumbens Endl. Synopsis Conif. 20 (1847); non Beissn.; non Nakai Vegt. Quelpt. Isl. (1914); non Takeda Fl. Isl. Shikotan (1914); non Miyabe & Miyake Fl. Saghalin (1915); non Sabina chinensis var. procumbens Antoine Cupress. Gatt. (1857).
J. japonica Hort. ex Carr. Traité Gén. Conif. 33 (1855), in part; ex Hérinq Manuel Plantes IV, 314 (1857), in part; non Sargt. in Gdn. & Forest X, 421 (1897).
J. recurva var. squamata Masters in Bull. Herb. Boiss. VI, 274 (1898); Matsumura Index Plants Jap. 11 (1905); non Parlatore.
J. chinensis var. japonica Vilmorin Hort. Vilmor. 58 (1906); non ex Wilson, Conif., Tax. Japan 85 (1916).
 7a. Juniperus procumbens f. nana (Hornibr., var.) stat. nov.
J. japonica nana D. Hill Nursery Co., Catalogs up to 1942.
J. procumbens var. nana Grootendorst ex Hornibr. Dwarf & Slow-gr. Conif. 122 (1938).

Incompletely Known:

Juniperus chinensis var. Luptonii Hort.

Of this juniper I have seen cultivated plants up to 10 feet high, but never normally developed ones; nor have I seen fruit of it. I have not been able to i-

dentify it with herbarium material collected in the wild. I diagnose it tentatively as one of the inland, dioecious developments of J. sphaerica.

Juniperus chinensis var. arenaria Wilson ex Rehd. & Wils., Plants Coll. J. F. Rock, in Journ. Arnold Arbor. IX, 20 (1928).

From the description cited, and from specimens at the Arnold Arboretum I cannot diagnose this juniper. I see, however, no sufficient grounds for regarding it as a variety of J. chinensis or J. sphaerica or J. Sheppardii.

Juniperus chinensis var. tsukusiensis Masamune Prelim. Rept. Veget. Isl. Yakushima 39 (1929) - nomen; in Journ. Soc. Trop. Agri. (Taihoku Imper. Univ.) II, 152 (1930).

I have seen no specimens of this juniper. The description rendered by Masamune seems to me not to contain sufficient grounds for its identification as a variety of J. chinensis.

ADDITIONAL NOTES ON THE GENUS PETREA. II

Harold N. Moldenke

PETREA VOLUBILIS L.

Calderón and Standley list for this species the common names "flor de Jesús", "lengua de vaca", and "adolfiná". Conzatti and Sanchez report that in Mexico it is called "yerba del soltero". The New York World Telegram article cited in the previous installment of these notes calls the plant "petrea".

Detailed descriptions of the floral morphology are given by Junell in the reference cited in the previous installment, and other morphological notes will be found in Svensk. Bot. Tidsk. 32: 231. Macmillan describes the plant as blooming twice a year, and the calyx as bright heliotrope in color, "persisting long after the violet corollas have fallen." Popenoe describes the species as a half-climbing shrub, 15 feet tall, with blue flowers, "a rather common cultivated ornamental of the Cauca valley, Colombia," and "occasional in gardens, rare" in Florida. The Lundells describe the calyx as "bluish-purple, pale" or "bluish-lavender" and the corolla as "purplish". It has been col-



Van Melle, P. J. 1946. "The junipers commonly included in *Juniperus chinensis*." *Phytologia* 2(6), 185–195.

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