JOURNAL

OF THE

ARNOLD ARBORETUM

VOL. XX

OCTOBER, 1939

NUMBER 4

FURTHER NOTES ON JASMINUM

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IN THIS PAPER are presented several new combinations and a new variety in the section *ALTERNIFOLIA* of the genus *Jasminum*. These combinations are all within the two species, *J. humile* L. and the erstwhile *J. heterophyllum* Roxburgh. In the case of the former it is merely a subdivision of a broad specific concept while the changes in the latter are the result of nomenclatural rules.

In a former paper on Chinese jasmines* I interpreted *J. humile* in a rather broad sense and like many other authors, included within the species *J. revolutum* Sims and *J. Wallichianum* Lindley which, at least in horticultural literature, are generally considered distinct species and are grown quite extensively under these names. For this reason, even though there is overlapping among the three species and although in some instances it is difficult to classify a specimen positively, I feel that the best solution is to classify the two species *J. revolutum* Sims and *J. Wallichianum* Lindley with *J. humile* L., but separate them as varieties rather than merge them in a single unit.

My attention has been drawn to the fact that there exists for the species *J. heterophyllum* Roxburgh, an earlier homonym *J. heterophyllum* Moench which is a synonym of *J. fruticans* L. This necessitates the finding of a new name. As no valid synonym exists, it seems best to use the Latin equivalent "*diversifolium*" as the specific epithet for this *Jasminum*.

*Kobuski in Jour. Arnold Arb. 13: 145-179. 1932.

Jasminum diversifolium, nom. nov.

Jasminum heterophyllum Roxburgh, Hort. Beng. 3. 1814, nomen; Fl. Ind. ed. Carey et Wall. 1: 99, 164. 1820; Fl. Ind. ed. Carey, 1: 100. 1832.—Schultes, Mant. 92. 1822.—D. Don, Prodr. Fl. Nepal. 106. 1825.—DeCandolle, Prodr. 8: 312. 1844.—Loudon, Arb. Frut. Brit. ed. 2, 2: 1249. 1854.—C. B. Clarke in Hooker f., Fl. Brit. Ind. 3: 601. 1882.—Non Moench, 1794.

Jasminum arboreum Hamilton ex D. Don, Prodr. Fl. Nepal. 106. 1825, in syn.—DeCandolle, Prodr. 8: 312. 1844, in syn.—Loudon, Arb. Frut. Brit. ed. 2, 2: 1249. 1854, in syn.—Non Schultes, 1822.

Jasminum macrophyllum Hort. ex DeCandolle, Prodr. 8: 312. 1844, in syn.

The name *J. heterophyllum* Roxburgh (1814, 1820) cannot be retained as valid because of an earlier homonym, *J. heterophyllum* Moench (1794), which in turn is a synonym of *J. fruticans* L.

Although two names have been listed in literature as synonyms of *J. heterophyllum* Roxb. neither can be accepted as valid. The first of these two names, *J. arboreum* Hamilton mss., was listed by D. Don (Prodr. Fl. Nepal. 106. 1825). There is an earlier *J. arboreum* Schultes (Mant. 1: 90. 1822).

The other name, *J. macrophyllum* Hort., listed as a synonym by DeCandolle, represent merely a horticultural name, not validly published, and probably without a type specimen.

Therefore a new name "diversifolium" is proposed above, being a Latin equivalent of its earliest and best fitting name.

The varietal changes are listed below:

Jasminum diversifolium Kobuski var. **glabricorymbosum** (W. W. Smith), comb. nov.

Jasminum heterophyllum Roxburgh var. *glabricorymbosum* W. W. Smith in Notes Roy. Bot. Gard. Edinburgh, 12: 209. 1920.—Kobuski in Jour. Arnold Arb. 13: 149. 1932.

Jasminum diversifolium Kobuski var. **subhumile** (W. W. Smith), comb. nov.

Jasminum subhumile W. W. Smith in Notes Roy. Bot. Gard. Edinburgh, 8: 127. 1913.

Jasminum heterophyllum Roxburgh var. *subhumile* (W. W. Smith) Kobuski in Jour. Arnold Arb. 13: 149. 1932.

Jasminum humile Linnaeus, Spec. Pl. 1: 7. 1753.—Ker in Bot. Reg. 5: t. 350. 1819.—DeCandolle, Prodr. 8: 313. 1844.—Boissier, Fl. Or. 4: 42. 1875.—Nicholson, Illustr. Dict. Gard. 2: 207. 1887.—Schneider, Ill. Handb. Laubholz. 2: 840. 1911.

Jasminum inodorum Jacquemont apud Decaisne in Jacquemont, Voy. 4: 137, t. 143. 1843.— DeCandolle, Prodr. 8: 312. 1844.

CHINA. Szechuan: *Harry Smith* 2463; *E. H. Wilson* 2809, (Veitch Exped.) 4077, 4078. Yunnan: *Simeon Ten* 375, 515.

PERSIA: Teheran, on road to Doshan-tepe, ex *Herb. Bornmüller*.

This was known to Linnaeus and his predecessors only as a cultivated plant. Its habitat has generally been given as southeastern Europe and Persia, but its spontaneous occurrence there has been doubted (see Boissier, l. c.). It is highly probable that *Jasminum humile* is a native of western China and was introduced, as were *Syringa persica* L., *Prunus Persica* (L.) Batsch and *P. Armeniaca* L. (cf. Laufer, Sino-iranica, 359 ff.; also Rehder in Jour. Arnold Arb. 5: 214. 1924) over the ancient trade route from China to Persia where these plants are found now as escapes from cultivation.

This species, as accepted by some authors in the broad sense, includes the very closely related species *J. revolutum* and *J. Wallichianum* and makes a very variable unit. On the other hand, when this combined unit is separated into three individual species, as it is generally in horticultural literature, the worker is confronted with considerable overlapping among species. Careful study of the literature shows, as far as I know, no separation by varieties as I am making in this paper. Formerly, because of the overlapping of species, I included all three in one species.

The typical form of the species is characterized by 3–5, rarely 7, leaflets which are ovate to elliptic to oblong and usually 2 cm. or less in length. The terminal leaflet is usually obtuse at the apex. The inflorescence is composed of few flowers (2–6) as contrasted with the many-flowered inflorescences of var. *revolutum*.

***Jasminum humile* L. var. *kansuense*, var. nov.**

A typo differt foliis late ovalibus vel ellipticis vel obovatis; calycis lobis subulato-setaceis 1–2 mm. longis, tubo subaequalibus; floribus non visis.

CHINA: Southwestern Kansu, Lower Tebbu country, dry arid slopes with oaks in Nyibaku, alt. 6800 ft., *J. F. Rock* 14797, TYPE, September 9, 1926 (shrub 4–5 ft. with rich green leaves and yellow flowers).— Also, same general locality, *J. F. Rock* 14653, 15035.

This variety resembles the type of the species more closely than any of the other varieties in all respects save the calyx-lobes. While they are hardly more than mere triangular projections in the species, in var. *kansuense* they are subulate-setaceous, 1–2 mm. long, equalling and in some instances exceeding the calyx-tube in length. The leaves are

usually 3-foliolate, occasionally 5-foliolate and sometimes, near the base of the branchlets, unifoliolate.

Closely related is *J. fruticans* L. which can be separated from var. *kansuense* by its much longer calyx-lobes that have a slight tendency to be foliaceous and by its spatulate leaves which are always 3-foliolate or occasionally uni-foliolate, never 5-foliolate. Also, its range does not extend into China.

***Jasminum humile* L. var. *siderophyllum* (Léveillé), comb. nov.**

Jasminum Mairei Léveillé in Fedde, Rep. Spec. Nov. 13: 337. 1914.

Jasminum Mairei Léveillé var. *siderophyllum* Léveillé, Cat. Pl. Yunnan, 179. 1916.

YUNNAN: haut plateau de Tai hai, alt. 3200 m., *E. E. Maire s.n.* (MEROTYPE of *J. Mairei* var. *siderophyllum*), Juillet [1911–1913], (arbuste buissonnant, haut 0.60 m.; fl. roses); pâturages des montagnes à Pé-ling-tsin; alt. 3200 m., *E. E. Maire s.n.* (MEROTYPE of *J. Mairei*), (Jasm. buissonnant, haut 0.60 m.; fl. jaunes inodores). Other Yunnan collections, *E. E. Maire* 245; *H. T. Tsai* 53684, 57305, 57352, 57578, 57735; *J. F. Rock* 3293, 24705; *G. Forrest* 4659; *O. Schoch* 36; *C. Schneider* 3222, 3264. SZECHUAN: *Harry Smith* 1890; *J. F. Rock* 24144, 24564; *T. T. Yü* 1049; *H. Handel-Mazzetti* 2223, 2498; *C. Schneider* 1302; 4091.

This variety is characterized by leaves with 3–5 leaflets (usually 5) which resemble var. *glabra* in the ovate-lanceolate shape. The terminal leaflet is subcaudate. A sparse appressed setose pubescence is found on the upper surface of the leaflets and especially on the revolute margin where in some instances it appears spinulose. In specimens which are nearly glabrous, this spinulose character of the margin can still be found.

The calyx-lobes are short, usually somewhat triangular, much shorter in length than the calyx-tube and somewhat ciliate. Like the species and all the other varieties, the stems are angled.

In all specimens with flowers, except for the type, the color is recorded as yellow. In the type specimen it is recorded as “roses.” I feel quite certain that this is an error, because it appears, in the dried state, no different from all the other specimens.

Léveillé gave the name *siderophyllum* to his variety because the leaves were ferrugineous on the lower surface. Although it is true for the type, this character hardly holds for the whole variety. Many specimens are ferrugineous on the lower surface, yet on the other hand, others may be a pale green.

This variety has been cultivated in the United States for about thirty years.

Jasminum humile L. var. **revolutum** (Sims), comb. nov.

Jasminum revolutum Sims in Bot. Mag. 42: t. 1731. 1815.—Ker in Bot. Reg. 3: t. 178. 1817; 6: Notes 2. 1820.—Loddiges, Bot. Cab. 10: t. 966. 1824.—DeCandolle, Prodr. 8: 313. 1844.—Wight, Icon. Pl. Ind. Orient. 4: 14, t. 1258. 1850.—Boissier, Fl. Or. 4: 42. 1875.—Schneider, Ill. Handb. Laubholz. 2: 839, figs. 527 m-n, 528 g-i. 1911.
Jasminum chrysanthemum Roxburgh, Cat. Hort. Beng. 3. 1814, nomen; Fl. Ind. 1: 98. 1820.

INDIA. West Nepal: *Bis Ram* 147, 360, 462. Punjab: *W. Koelz* 214, 1889; *R. R. Stewart* 2467; *R. N. Parker s.n.*; *C. S. Rowat* 77. Kashmir: *E. H. Wilson s.n.*

This variety is characterized by a many-flowered inflorescence with corolla-limb 2–2.5 cm. across and by leaflets 5–7 in number, ovate, acuminate 2–6 mm. long.

Among the specimens cited above, a few, namely *Koelz* 214, *Rowat* 79, *Stewart* 2467 and *Ram* 360 showed a marked similarity to the type of the species making it difficult to decide definitely in which category to place them. Both *Koelz* 214 and *Ram* 360 have leaflets somewhat obtuse, occasionally to seven or nine, a number which is unusually high for the species.

This variety, it appears from the material at hand, is more successfully or preferably cultivated than the species itself, or any of its other varieties. In the herbarium of the Arnold Arboretum are excellent specimens from England, Germany, Austria, France, United States and Argentina.

Jasminum humile L. var. **glabrum** (DC.), comb. nov.

Jasminum Wallichianum Lindley in Bot. Reg. 17: t. 1409. 1831.—Bean, Trees Shrubs Hardy Brit. Isl. 1: 662. 1914.

Jasminum pubigerum D. Don β *glabrum* DC. Prodr. 8: 312. 1844.

Jasminum pubigerum sensu Loudon, Arb. Frut. Brit. ed. 2, 2: 1250, fig. 1077. 1854. Non D. Don.

Distribution: Nepal.

No spontaneous representatives of this variety have been seen by the author. Authentic cultivated specimens from Germany, France, England and United States have been studied.

The pinnate leaves of this variety have 7–13 leaflets which are ovate to lanceolate, 2–5 cm. long. The terminal leaflet is usually quite caudate. The inflorescence is few-flowered (three are the maximum in specimens studied). These characters mentioned easily separate it from var. *revolutum*.

The name var. *glabrum*, although necessary, is an unfortunate name because both the species and var. *revolutum* are usually strictly glabrous. It would be better to use Lindley's specific epithet for the name of the

variety, but according to the rules of nomenclature, the oldest varietal epithet must be used which is DeCandolle's *J. pubigerum* var. *glabrum*.

Jasminum pubigerum D. Don is separated only by its pubescence. One wonders how pubescent the actual type may be! DeCandolle evidently did not see the type of *J. pubigerum* when he incorporated the species in his Prodrômus; the only material he saw was glabrous and from that he named his variety. His description of *J. pubigerum* is drawn up from D. Don's description and with the exception of transposed phrases is identical.

G. Don (Gen. Syst. Gard. Bot. 4: 64. 1837) and Loudon (Arb. Frut. Brit. ed. 2, 2: 1250, fig. 1077. 1854) consider *J. Wallichianum* synonymous with *J. pubigerum*.

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Kobuski, Clarence E. 1939. "Further Notes on Jasminum." *Journal of the Arnold Arboretum* 20(4), 403–408. <https://doi.org/10.5962/p.185417>.

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