

# Novitates Gabonenses 42.

## The genus *Jasminum* (Oleaceae) in Gabon: identification key and description of a new species

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### KEY WORDS

*Jasminum*,  
Oleaceae,  
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### ABSTRACT

*Jasminum nardydorum* from Gabon is described and illustrated. A key to the Gabonese species of *Jasminum* is provided, and their distributions are mapped. The most common species, *J. kwangense*, is also illustrated.

### RÉSUMÉ

*Novitates Gabonenses 42. Le genre Jasminum (Oleaceae) au Gabon : clé d'identification et description d'une nouvelle espèce.*

### MOTS CLÉS

*Jasminum*,  
Oleaceae,  
Gabon.

*Jasminum nardydorum* du Gabon est décrit et illustré. Une clé pour les espèces gabonaises de *Jasminum* est donnée et leurs distributions sont cartographiées. L'espèce la plus commune, *J. kwangense*, est aussi illustrée.

*Jasminum* is an Old World genus of 150 or more species of which 25-30 species are represented in Africa (KUPICHA 1983). For West Africa 7 species are listed (GREEN 1963) and 10 for the Flore d'Afrique Centrale (LIBEN 1973). TURRILL (1952) accepted 20 species in his treatment for the Flora of Tropical East Africa, many of which are reduced to synonymy in KUPICHA'S (1983) treatment for the Flora Zambesiaca, recognizing 12-13 species. The Oleaceae have not been treated for the floras of Cameroun and Gabon. In the tropical rain forest of Gabon the material of *Jasminum* has not often been collected. The number of forest species seems to be smaller than for savannah-

woodland and, moreover, species that occur in forests are apparently not frequently encountered. The total number of collections from Gabon present in the herbaria of Paris (P) and Wageningen (WAG) is only 20, of which 2 are of introduced species. *Jasminum kwangense* Liben is apparently the most common species, represented by nine collections. *Jasminum preussii* Engl. & Knobl. is represented by three collections, *J. dichotomum* Vahl has been collected twice on some inselbergs near the border with Equatorial Guinea, and *J. pauciflorum* Benth. has been recorded once near Libreville. The remaining three specimens belong to a new species which is described below.

**Jasminum nardydorum** Breteler, **sp. nov.**

*Jasminum bakeri* Scott-Elliot *affinis foliis trifoliolatis, sed differt inflorescentia brevipedunculata plus minusve glabra, calyce plus minusve integro et lobis corollae sex longioribus angustioribusque.*

TYPUS. — *Breteler, Issembé, Sosef & Wilks 15643*, Gabon, Estuaire, Mts. de Cristal, Assok Rd., 0°51'N, 10°18'E, 8 Oct. 2000, fl. b. (holo-, WAG; iso-, LBV, P).

Thin, winding liana; main stem up to c. 1 cm thick, glabrous in all its vegetative parts except for the pilose acarodomatia of the leaves. Leaves opposite, trifoliolate; petiole often geniculate, subterete, canaliculate to grooved above, 2-4(-5) cm long; petiolules grooved above, those of central leaflets 1-3 cm long, those of the lateral ones (1-)2-3(-5) mm long; lamina soft-leathery, smooth and glossy when fresh, elliptic, 2-2.5(-3) times as long as wide, the central leaflet 9-16 × 3-8 cm, the lateral ones (4-)5-14 × (1-)2-6 cm, rounded to shortly cuneate (unequal-sided or not) at base, acuminate with an acute to mucronate apex, the acumen, up to 1.5 cm long; midrib and the (3-)4-5(-6) pairs of main lateral nerves impressed above, prominent beneath, margin slightly revolute; pilose acarodomatia present, more numerous on the central than the lateral leaflets. Inflorescence a cauliflorous or axillary few to many-flowered cyme, sparsely

puberulous; peduncle 2-6 mm long; bracts narrowly triangular, 1-3 mm long. Pedicel 1-2 mm long. Calyx shortly tubular, 1.5-3 mm long, ± 2 mm in diam., glabrous to sparsely puberulous, margin undulate to minutely 5-6-lobed, sparsely puberulous. Corolla white, ± 30 mm long, glabrous; tube 15-17 mm long; lobes 6, oblong-lanceolate, 12-13 × 3-4 mm, with rounded to acutish apex. Stamens glabrous, inserted at the upper part of the corolla tube; filaments very short, < 1 mm long; anthers 3.5-5 mm long, apiculate, partly reaching beyond mouth of corolla tube. Pistil 7-9 mm long, glabrous; ovary 1.5-2 mm long, obtuse at apex; style 2.5-3 mm long; stigma ± 4 mm long, shortly bilobed apically. Fruits unknown. — Figs. 1, 3.

HABITAT AND DISTRIBUTION. — Rain forest of Gabon, alt. up to c. 500 m.

PARATYPES. — GABON: *F.J. Breteler & B.J.M. Breteler 15542*, Mts. de Cristal, Assok Rd., 0°51'N, 10°18'E, 1 Aug. 2000, ster. (G, LBV, MO, P, WAG) (This specimen has been collected from the same individual as the type); *Le Testu 9183*, Oyem, 17 June 1933, fl. (BR, P).

This species is named after Nardy BRETELER, wife of the author, who discovered this species in the Mts. de Cristal. The epithet “nardydorum” means “given by Nardy”.

### The Gabonese species of *Jasminum* may be distinguished as follows

- |  |                       |
|--|-----------------------|
| 1. Leaves trifoliolate .....   | 2                     |
| 1'. Leaves simple (unifoliolate) .....   | 3                     |
| 2. Inflorescence long-peduncled, pubescent; calyx distinctly lobed, corolla 5-lobed .....  | <b>J. bakeri</b>      |
| 2'. Inflorescence shortly peduncled, sparsely puberulous; calyx margin undulate to minutely lobed; corolla 6-lobed .....   | <b>J. nardydorum</b>  |
| 3. Plant glabrous; at least some leaves ternate; petiole 10-20 mm long; acarodomatia absent; inflorescence, more or less densely corymbose many-flowered; pedicel 1-3 mm long .....  | <b>J. dichotomum</b>  |
| 3'. Plant variously hairy; leaves opposite; petiole up to 10 mm long; domatia present or not; inflorescence loose up to 7-flowered; pedicel at least 10 mm long .....  | 4                     |
| 4. Leaves with a strong basal pair of ascending lateral nerves, usually reaching beyond the middle of the leaf blade; calyx lobes 5 .....  | <b>J. pauciflorum</b> |
| 4'. Leaves without a strong basal pair of ascending lateral nerves; calyx lobes (5-)6-9 .....  | 5                     |
| 5. Stem and especially the calyx and pedicel with long spreading hairs, densely so or not; both sides of leaf surface with scattered long spreading hairs especially so on the nerves, more densely so beneath; pilose acarodomatia usually absent .....                       | <b>J. preussi</b>     |
| 5'. Stem and petioles puberulous-tomentellous, densely so or not, also on both leaf surfaces, more densely so beneath; pilose acarodomatia present, sometimes small and not very apparent; pedicel glabrous to sparsely puberulous; calyx puberulous usually sparsely so ..... | <b>J. kwangense</b>   |

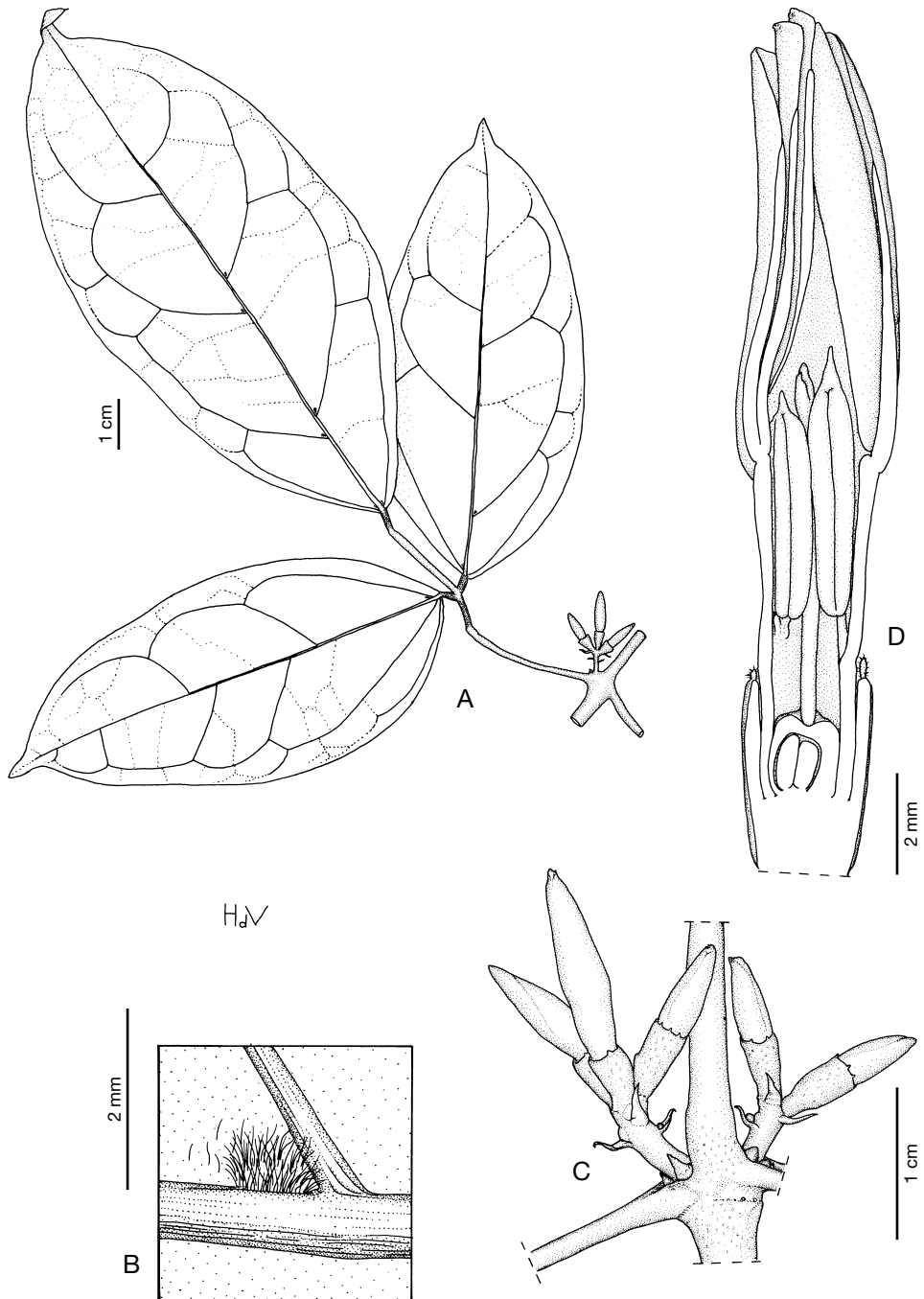


Fig. 1. — *Jasminum nardydorum* Breteler: **A**, part of flowering branch; **B**, acarodomatium; **C**, inflorescences; **D**, flower bud, longitudinal section. (Breteler et al. 15643). Drawing by H. DE VRIES.

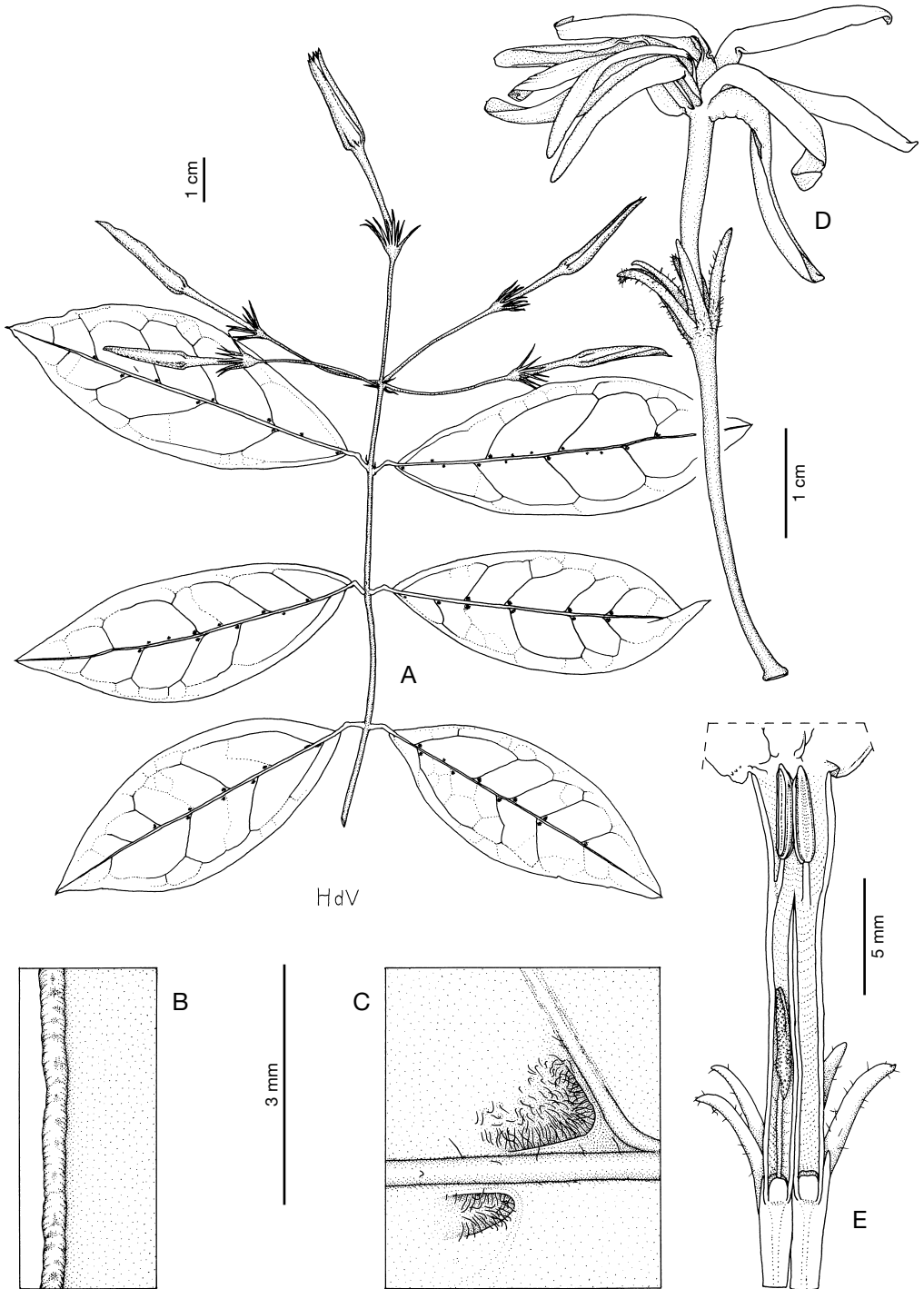


Fig. 2. — *Jasminum kwangense* Liben: **A**, flowering branchlet; **B**, revolute leaf margin (lower surface); **C**, acarodomatia; **D**, flower; **E**, flower in longitudinal section, both halves shown. (Breteler et al. 14605). Drawing by H. DE VRIES.

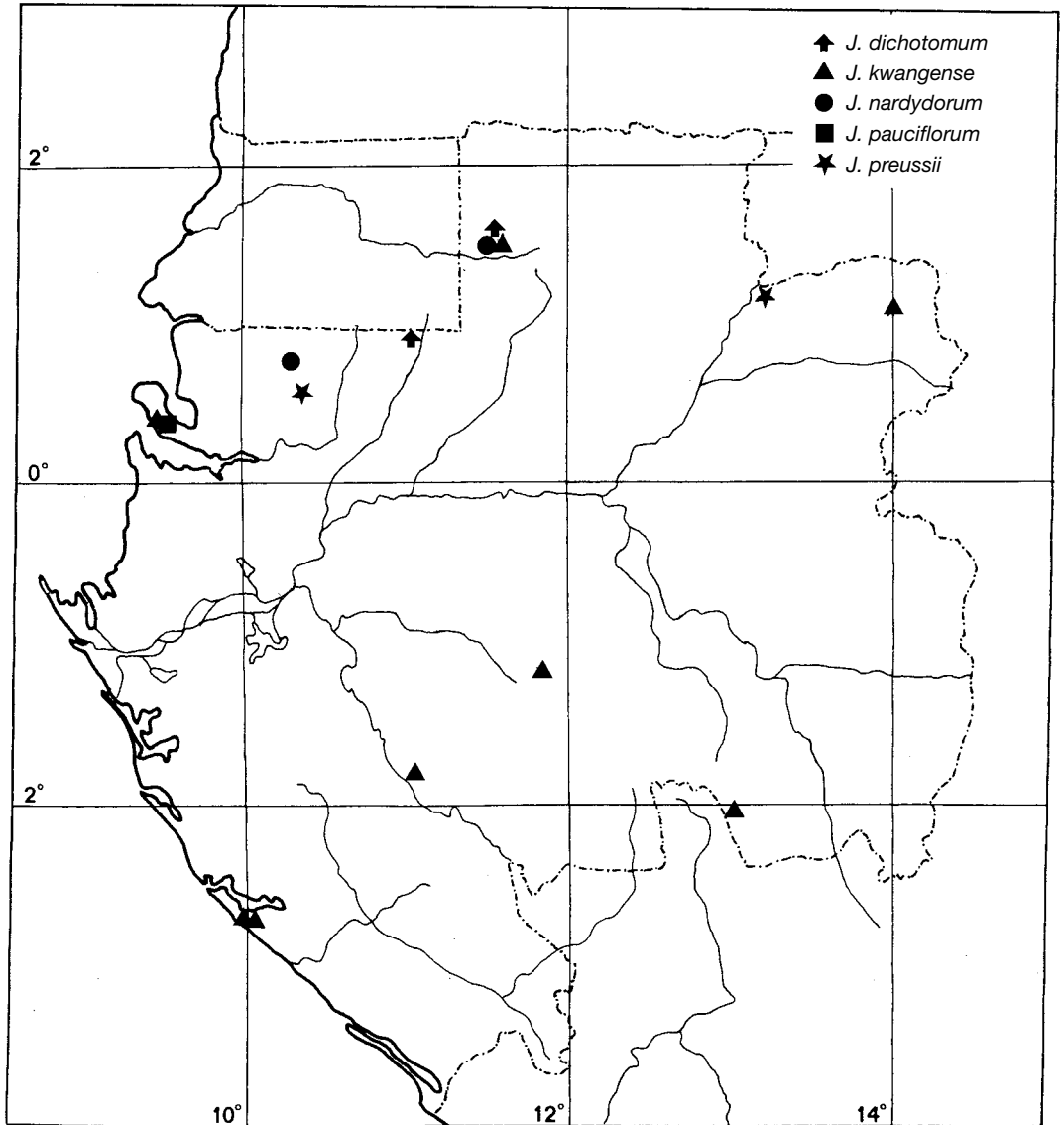


Fig. 3. — Distribution of *Jasminum* species in Gabon.

***Jasminum bakeri* Scott-Elliot**

J. Linn. Soc. Bot. 30: 86 (1894). — Type: *Scott-Elliot 5409*, Sierra Leone, Berria (holo-, K n.v.).

NOTE. — This species has not yet been collected in Gabon. It occurs in SE Cameroun and it is rather well spread in Congo (Kinshasa). Its

presence in the eastern part of the country is therefore not unlikely.

***Jasminum dichotomum* Vahl**

Enum. Pl. 1: 26 (1804). — Type: *Thonning s.n.*, Guinea (=Ghana), (holo-, C n.v.). — Fig. 3.

SPECIMENS EXAMINED. — GABON : *Le Testu 9203*, rocher Acé Bengom, fl. b. July-Sep. (P); *J.M. Reitsma, B. Reitsma & A.M. Louis 1829*, inselberg c. 28 km ESE of Médouneu, fr. Feb. (WAG).

### ***Jasminum kwangense* Liben**

Bull. Jard. Bot. Belg. 42: 373 (1972). — Type: *Vanderyst 16756*, Congo (Kinshasa), Kasai, Panzi-Gingundji (holo-, BR). — Figs. 2, 3.

SPECIMENS EXAMINED. — GABON: *Breteler 6969*, 60 km SSW of Moanda, fl. b. Oct. (BR, WAG; the duplicates at C, K, LBV, MO, P, and SRGH not seen); *Breteler 14605*, Gamba, fl. Nov. (B, BR, E, FI, G, K, LBV, LISC, MA, MO, NY, P, PRE, S, WAG); *J.J. de Wilde & R.W. de Wilde 11129*, Gamba, fl. Nov. (BR, G, K, LBV, MA, MO, P, PRE, WAG); *N. Hallé 2582*, Mékambo, fl. b. Oct. (P); *Klaine 361*, s.loc., fl. (P); *Klaine 1190*, near Libreville, fl. (P); *Le Testu 5196*, Mouila, fl. Feb.-Mar. (P); *Le Testu 8644*, Boucimbi, fl. Nov.-Jan. (P); *Le Testu 9407*, Oyem, fl. Nov. (BR, P).

### ***Jasminum nardydorum* Breteler**

See above. — Figs. 1, 3.

### ***Jasminum pauciflorum* Benth.**

Fl. Nigril.: 443 (1849). — Type: *Vogel 10*, Ghana, Cape Coast (holo-, K n.v.). — Fig. 3.

SPECIMEN EXAMINED. — GABON: *Klaine 2685*, near Libreville, fr. (P).

### ***Jasminum preussii* Engl. & Knobl.**

In Engl., Bot. Jahrb. Syst. 37: 536 (1893). — Type: *Preuss 122*, Cameroun, Barombi-Station (iso-, K n.v.). — Fig. 3.

SPECIMENS EXAMINED. — GABON: *J.J. de Wilde et al. 10220*, 12 km Tchimbélé- Kinguélé Rd., fr. Jan. (WAG); *N. Hallé 3255*, Bélinga, fl. Nov. (P); *N. Hallé 3450*, fl. Dec. (P).

Besides the above indigenous species *Jasminum floribundum* Fresen, a native of Ethiopia, Kenya, Rwanda, Somalia, and Uganda is cultivated in Gabon (coll. *N. Hallé 4408*, Kinguélé, 14 Jan. 1968 (P). Another *Jasminum* collection from P (*N. Hallé 801*, “dans une haie à Libreville”) may represent an Asiatic species.

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