

New Species of *Craibiodendron*.

BY

W. W. SMITH.

With Plates CVIII.-CX.

SINCE the publication of the ericaceous genus *Craibiodendron* in the *Records of the Botanical Survey of India*, vol. iv. p. 276, I have had the opportunity of examining additional Indo-Chinese material, chiefly in the Herbaria of Kew and Edinburgh. I found that Mr. S. T. Dunn, dealing with Chinese material in the Kew Herbarium collected by Dr. A. Henry, had marked certain sheets as representing a new genus of *Ericaceae*, an interesting confirmation of the view taken by Mr. Craib and myself in our examination of the Burmese and Siamese specimens.

A survey of this new material and comparison with a wider range of related genera than was before possible have led me to consider the new genus as more closely related to *Leucothoe* than to *Pieris* or *Lyonia*. This is supported by the somewhat imbricate, almost free sepals, the muticous anthers and the winged seeds. I find the character of the large, unilaterally winged seeds to hold good in the three species of which fruits are available.

Craibiodendron shanicum extends into Yunnan, W. China. In this province are two other closely allied species, *C. Henryi* and *C. yunnanense*; a fourth species, the imperfectly known *C. Forrestii*, was obtained by Forrest in the upper Salwin valley. What is probably a fifth species is found in Assam, *C. Mannii*, also incompletely known.

C. Henryi in its typical state is distinct enough from *C. shanicum*; in Burma, the latter, recorded from several localities, shows little variation, but in Yunnan there are forms (*vid.* Henry 9505B, in Herb. Kew et Herb. Edin.) which suggest a transition. The Khasian species and the shrub collected by Forrest in the Salwin valley are very inadequately represented, but a short description has been given here for the sake of completeness.

[Notes from R.B.G., Edin., No. XXIV., January 1912.]

To the diagnoses of new species is prefixed a note of the extended distribution of *C. shanicum*.

Craibiodendron shanicum, W. W. Smith in Rec. Bot. Surv. Ind. vol. iv, p. 277. Plate cviii.

Distribution—China :—

Yunnan, grassy mountains, north of Mengtze. Shrub, 4-5 ft. high; flowers white; alt. 5000 ft.; Henry 9505, in Herb. Kew. and Herb. Edin. (Henry 9505B, Szemao forests, 5-6000 ft.; tree, 20 ft.; white flowers. Very near the type, but the leaves sometimes acute. In Herb. Kew. and Herb. Edin.)

Burma :—Near Loimwe, Southern Shan States, MacGregor 726; at Taunggyi, Southern Shan States, Watson 234; *ibidem*, Abdul Khalil; Maymyo, Upper Burma, 3500 ft., Lace 3128, 4160; *ibidem*, Badal Khan 117; Kalay Hills, Prazer 100; Tanglabon Hills, Prazer 123; "height of tree is 20 ft.; colour of the flower white. These trees are also seen on the Lummoo Hills after leaving Mori Thannah, and on the old Shetong Road." All in Herb. Calc.; Badal Khan 117; Lace 3128, 4160; also in Herb. Kew.

Siam :—At Doi Sootep, 2300-2800 ft.; small tree about 20 ft.; A. F. G. Kerr 1282, 1282A, 1369, in Herb. Kew.

Craibiodendron Henryi, W. W. Smith. Sp. nov.

Species *Craibiodendro shanico*, W. W. Smith affinis; foliis lanceolatis acuminatis, corolla minore glabra patentiore, fere ad imum fissa differt.

Arbor circ. 8-10 m. alta ramulis robustis glabris. Folia alterna, ad 15 cm. longa, 2.5-3.5 cm. lata, petiolata, lanceolata, acuminata, extrema apice subobtusata, basi cuneata, integra, subundulata, coriacea, glabra, supra nitentia, infra pallidiora glandulis minutis nigrescentibus sparse instructa; petiolus circ. 1.5 cm. longus rugosulus glaber; nervi utrinque 15-20 fere horizontales, supra impressi, infra prominuli, intra marginem anastomosantes, utrinque distincte reticulati. Inflorescentiae plures in apice ramorum racemoso-paniculatae, 15-25 cm. longae, multiflorae, glabrescentes. Flores albi parvi; bractea bracteolaeque deciduae, in siccitate plerumque desunt. Calyx ei *C. shanici* persimilis, 1-2 mm. longus, puberulus, post anthesin vix mutatus, 5-partitus; sepala fere libera, perlate ovata, subapiculata, rugosula. Corolla 2-3 mm. longa, breviter campanulata, in lobos triangulari-ovatos, subobtusos patentes fere ad imum fissa, coriacea, glabra. Stamina 10, inclusa, dimidium corollae acquantia, libera, filamentis glabris medio

incurvis et basi complanatis; antherae basi subsaccatae, dorso muticae in tubulos duos rimis anticis brevibus dehiscentes productae. Ovarium circ. 1 mm. longum superius, 5-loculare, stylo 1 mm. longo subglabro. Fructus ei *C. shanici* similis sed minor, 8 mm. longus, 10 mm. latus, profunde 5-angulatus, seminibus alatis circ. 4 mm. longis, 2 mm. latis.

China:—

Yunnan, 6000 ft.; Henry 13,260, in Herb. Kew. and Herb. Edin.; Henry 10,459, in Herb. Kew.

Henry 13,137, "Szemao forests, 6000 ft.; tree, 30 ft.; white flowers;" in Herb. Kew., and Herb. Calc., and Herb. Edin.

Craibiodendron yunnanense, W. W. Smith. Sp. nov. Plate cix.

Species valde affinis *C. Henryi* sed foliis minoribus, corolla majore vix ad decimam partem fissa, fructu minore ovoideo vix depresso-globoso recedit.

Frutex ramulis gracilioribus glabris. Folia alterna 4-5 cm. longa, 1.5-1.8 cm. lata, petiolata, lanceolata breviter acuminata, extrema apice subobtusata, basi cuneata, integra, paululum undulata, coriacea, glabra, supra nitentia, infra pallidiora, glandulis minutis nigris sparse instructa; petiolus 2-3 mm. longus rugosulus, glaber; nervi utrinque 12-15 fere horizontales, utrinque distincte reticulati, intra marginem anastomosantes. Inflorescentiae plures terminales racemoso-paniculatae, 8-12 cm. longae, multiflorae, glabrescentes. Flores (albidi?); bractea bracteolaeque deciduae, in siccitate plerumque desunt. Calyx ei *C. Henryi* persimilis, 1-2 mm. longus, glabrescens, post anthesin immutatus, 5-partitus; sepala fere libera, paululum imbricata, late ovata, subapiculata. Corolla 4.5 mm. longa, 2.5 mm. lata, campanulata, ore contracta, in dentes triangulares erectos vix ad decimam partem fissa, glabra. Stamina et ovarium eis *C. Henryi* similia. Fructus ovoideus nec depresso-globosus, 8-9 cm. longus, 6 mm. latus, profunde 5-angulatus, seminibus unilateraliter alatis, 5-6 mm. longis, 2-3 mm. latis.

China:—

In the vicinity of Yun-nan-sen, Yunnan. Maire 1790, 2463, in Herb. Edin.

Imperfectly known species.

Craibiodendron Mannii, W. W. Smith. Sp. nov.

Species non satis nota sed *C. Henryi* valde affinis. Foliis minoribus, venis supra prominulis nec impressis, inflorescentia contractiore, sepalis patentioribus differt.

Assam :—

Near Jowai, Jaintea Hills, collected by G. Mann. *Leucothoë Mannii* King et Prain MSS., in Herb. Kew. and Herb. Calc. This plant is undoubtedly congeneric with *C. shanicum* and *C. Henryi*, but the sheets show buds and leaves only. The species may prove to be identical with *C. Henryi*, but considering its geographical position, that is unlikely.

Craibiodendron Forrestii, W. W. Smith. Sp. nov. Plate cx.

Species *C. shanico* affinis sed foliis subtus fulvo-tomentellis, nec glabris, facile distinguenda.

Frutex circ. 2-4 m. alta ramulis robustis rufo-tomentellis. Folia alterna 4-7 cm. longa, 2.5-4 cm. lata, petiolata, oblonga, apice rotundata, saepe apiculata, basi rotundata vel cordatula, integra, margine undulata, paululum revoluta, valde coriacea, supra glabra venis furfuraceo-glandulosis exceptis, pulchre et distincte reticulata, infra dense fulvo-tomentella, glandulis minutis nigris raris instructa; petiolus 3-5 mm. longus fulvo-tomentellus; nervi utrinque 6-7 fere horizontales, distincti, supra impressi, infra prominuli, intra marginem anastomosantes. Inflorescentia deest.

China :—

"Amongst scrub in open situations in the Salwin valley; Lat. 26° 12' N. Alt. 3-3500 ft. November 1905." G. Forrest 1143, in Herb. Edin.

LIST OF PLATES.

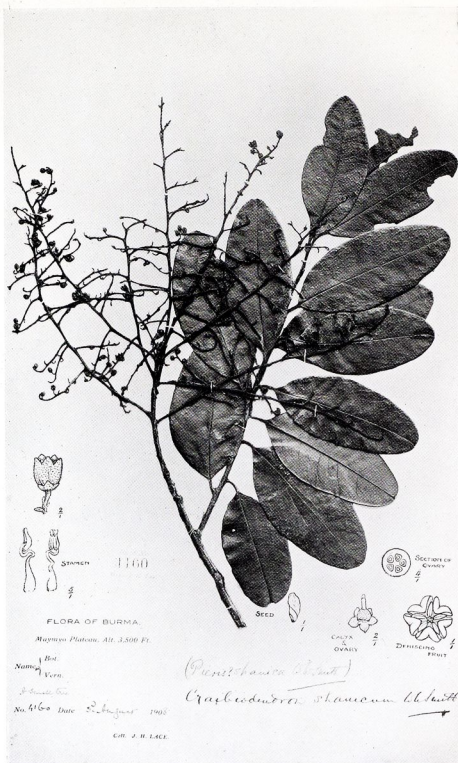
Illustrating W. W. Smith's Paper on Craibiodendron.

Two plates are taken from photographs by Mr. R. Adam of dried specimens in the Herbarium of the Royal Botanic Garden, Edinburgh, and one from a specimen kindly lent by the Superintendent of the Royal Botanic Garden, Sibpur, Calcutta.

PLATE CVIII. *Craibiodendron shanicum*, W. W. Smith.

CIX. *Craibiodendron yunnanense*, W. W. Smith. Sp. nov.

CX. *Craibiodendron Forrestii*, W. W. Smith. Sp. nov.



Craibiodendron shanicum, W. W. Smith.



Craibiodendron yunnanense, W. W. Smith.



7
1903. PLANTS OF E. TIBET AND S.W. CHINA.
COLLECTED BY GEORGE FORREST.
COLLECTOR FOR S. & S. BOLLER OF MISS. NEWTON, CASHMIRE.

Craibiodendron Forrestii W. W. Smith

Shrub of 6-12 ft.
Anomalous, much open
7. Situated at the Salween
valley, lat. 25° 12' N.
alt. 5-5000 ft. Nov. 1900.

Craibiodendron Forrestii, W. W. Smith.

1875

2000