A NEW VARIETY OF BAUHINIA INVOLUCELLATA AND ITS CHROMOSOME NUMBER

by

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The species *Bauhinia involucellata* was described by KURZ (1873) on material from Burma, Martaban. The type is shown in Fig. 1, the diagnosis is quoted below:

Frutex scandens, novellis parce puberulis; folia cordato-ovata, petiolo glabro 1½-2 poll. longo, usque ad ½-⅔ partem biloba, lobis obtusiuscule acuminatis in sinu aristatis, 3-4 poll. longa, integra, tenuiter chartacea, glabra, palmatim 9-11-nervia; flores majusculi, pallide rosie, pedicellis 2-2½ pollicaribus puberulis glabrescentibus infra apice bibracteolatis suffulti, racemum longiorem, v. breviorem laxum terminalem puberulum glabrescentem formantes; bracteæ minutæ, indistinctæ; bracteolæ sub calyce elliptico-oblongæ, obtusiusculæ, ½ poll. longæ, intus velutinæ, quasi involucrum bifoliatum formantes, calyx velutinus, tubo sulcato-tubulari, c. 3 lin. longus v. longior. Lobis in alabastro oblongo-ovato lanceolatis acuminatis ⅓ poll. longis dein liberis et reflexis; petala 1½ poll. fere longa, lamina ovato-oblonga, obtusa, unguis longitudine; ovarium lævе, stylo longiusculo sed crasso; stamina fertilia 3, legumen desideratur.

The species is also mentioned in KURZ (1877) with an English description; this is mainly a translation of the diagnosis. Later on the species has been reported from Thailand, Kanchanaburi district, and included in Florae Siamensis Enumeratio, where it is mentioned that it is frequent in the lowland deciduous dipterocarp forest in that district.

In January 1962 the author paid a visit to the limestone hills above the small settlement at Tapoh near Sai Yok in the Kanchanaburi district. Here an interesting vegetation on rough limestone rocks was discovered (See LARSEN 1962). The main dominants were *Shorea obtusa* and *Phoenix humilis* forming an open plant community. The rich grass vegetation was dominated by *Chrysopogan orientalis*, and

Heteropogen triticeus; among the other herbs the following may be mentioned as frequent: *Crotalaria neriifolia*, *Atylosia* sp. nov. (not yet published), and *Euphorbia* sp. nov. aff. *E. humifusa* (according to Dr. AIRY SHAW); several specimens of *Ochna integerrima* were also observed.

In this plant community a low erect *Bauhinia* without tendrils was observed. The plants had ripe fruits, but no flowers were present. Herbarium material was collected (LARSEN 9201) and so were seeds for the purpose of raising plants for cytological studies.

As the plants was regarded as something extraordinary the area was revisited in 1963 in the rainy season. The visit was not in vain, as the plants were found in full bloom (Fig. 2). Plenty of material was collected, also flowers in alcohol (LARSEN 10601).

An examination of the material showed that it belonged to *Bauhinia involucellata* Kz. (§ *Phanera* Lour.). As the original description is rather short, we have described the present material in detail:

Low shrub without tendrils. Both old and young shoots glabrous, brown when dry. Leaves ovate, lamina 12-15 cm. long, 10-12 cm. broad, cordate at the base, apex deeply bilobed ($\frac{1}{2}$-$\frac{2}{3}$ down), the sinus rather wide, the lobes triangular with rounded apex; texture coriaceous, glabrous on both sides. The lower surface with 9 prominent nerves and two weaker ones (the outermost). Insertion of petiole glandular. Stipules deciduous. Petiole 5-7 cm., glabrous.

Inflorescence terminal or axillary racemes 13-17 cm. long with glabrous axis. Bracts diminutive, deciduous. Pedicels 6-9 cm. with two large, sub-opposite bracteoles inserted 1 cm. below calyx tube and folded around the bud as a cover. Bracteoles lanceolate, greenish 2-2.5 cm. long, about 1 cm. broad, on both sides with short stiff white hairs. Calyx tube about 1 cm. long, faintly ribbed–nearly terete. Calyx splitting into 4 lobes, the two upper sepals jointed, with the exception of a narrow split at the apex 2-3 mm. deep. The 3 lower lobes 10 mm. long, 4 mm. broad near base, the tip boat-shaped. The petals yellowish-green, subequal with triangular to rotundate lamina

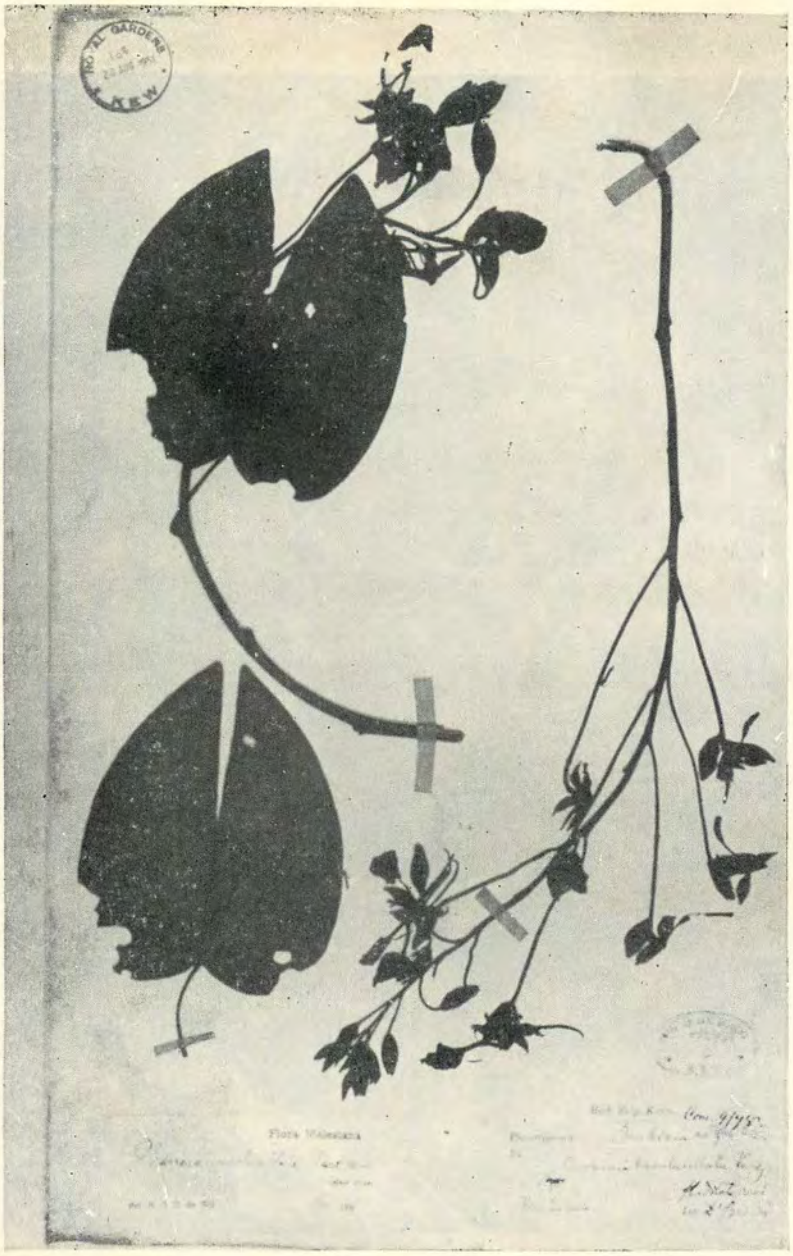

Fig. 1. *Bauhinia involucellata Kurz*, type specimen (Kew).

Fig. 2. *Bauhinia involucellata Kurz* var. jaeckelii K. Larsen in natural environment.

Fig. 3. *Bauhinia involucellata* Kurz var. *jaeckelii* K. Larsen
A. Flowering shoot; B. Flower, front view; C. Flower, side view; D. Fruit.

up to 20 mm. long with crenulate margin and with long, woolly hairs particular along the nerves and the margin. Claw red up to 15 mm. 3 green stamens, filament 3 cm. long, glabrous, tapering towards apex, anther, glabrous, 7 mm. long, 3 mm. broad. 7 staminodes red at base, green at apex with cordate anther-rudiments 3 mm. long, 2 mm. broad; the filaments 15 mm. long. Ovary glabrous 20 mm. long. Legume (No. 9201) glabrous, chestnut brown (not shining) about 12 cm. long, broadest about 3 cm. at apex, which is pointed. When opening the two halves of the legume curl, showing the redbrown inner side. Seeds about 5, 15×25 mm. (not preserved). Chromosome number $2n = 28$.

Hab.: Western Thailand, N.W. of Kanchanaburi in the Sai Yok area: limestone hill above Tapoh, LARSEN 10601, 9.7.1963 (pods described from LARSEN 9201, 8.1.1962). Fig. 3.

The present material differs on two points from the diagnosis, viz. by the fact that the plant is erect, not scandent, and the flowers green, not rose coloured. This justifies the establishment of a new variety.

Var. jaeckelii nov. var. A var. involucellata differt caule erecto non scandente, floribus viridibus non pallide roseis.

The taxon is named in honour of Mrs. Rosemarie Anna Jaeckel for her help to the expedition in 1963. Type deposited in Herb. C.

Fig. 4. Metaphase showing $2n = 28$. The scale is 10 μ

The seeds collected were sown in 1962, germinated and a few seedlings developed which unfortunately soon died. Still we succeeded in fixing good material of root tips for chromosome counting. Fixing was undertaken in Navashin Karpetchenko's fluid and staining later

according to FEULGEN. Fig. 4 shows one of several good metaphase plates in which 28 chromosomes can be distinguished. This is the commonest number found in the genus, which is still very little known from a cytological point of view. The chromosomes are rather small and subequal in length, Finally it may be added that the *Bauhinia involucellata*-group will be taken up by the author for a closer study. It is evident that this group has evolved in the Northern part of the Malay Peninsula and it seems that it has its main distribution in the North to South going limestone mountains forming the Tenasserim range which separates Burma and Thailand.

LITERATURE

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