

***Acacia tonkinensis* I.C. Nielsen (Leguminosae–Mimosoideae),
a new record for Thailand**

PRACHAYA SRISANGA* & SAWITREE SASIRAT*

ABSTRACT. *Acacia tonkinensis*, previously known only from the northern part of Vietnam, is reported from north-eastern Thailand. The Flora of Thailand key to *Acacia* is emended. A description and illustration of the species are provided.

Acacia Mill. subgen. *Aculeiferum* Vassal consists of ca. 27 species (Nielsen 1980). The distribution of this subgenus is in tropical Asia ranging from India and Sri Lanka to New Guinea. In the account of Leguminosae–Mimosoideae for the Flora of Thailand (Nielsen 1985), 12 species are described in subgen. *Aculeiferum*, a group that is widely distributed throughout Thailand. During an expedition along the Hueng river in Nahaew district, Loei in 1995, specimens belonging to this subgenus were collected. They were later identified as *A. tonkinensis* I.C. Nielsen, a new record for Thailand.

The following emendment is made to the Flora of Thailand *Acacia* key:

- 19. Base of leaflets fully truncate, lower surface densely puberulous, velutinous or strigose beneath
 - 19a. Bracts not projecting beyond the flowers in bud, calyx lobes united high up **8. *A. torta***
 - 19a. Bracts projecting beyond the flowers in bud, calyx lobes only adnate at the base **18. *A. tonkinensis***
- 19. Base of leaflets rounded-cuneate in front, truncate behind; lower surface glabrous to faintly adpressedly puberulous **9. *A. caesia* var. *subnuda***

18. *Acacia tonkinensis* I.C. Nielsen, *Adansonia*, ser. 2, 19: 358. 1980; in *Fl. C.L.V.* 19: 54. Pl. 8, 1–9. 1981. Type: Vietnam, Hoang Lien Son, Lao Kay, *Wilson* 2715 (holotype K). Figs. 1–3.

Woody climber armed with scattered, recurved thorns on the internodes; branchlets hirsute, with light glands. *Stipules* 4–6 by 1 mm, filiform, hirsute, early caducous; leaves evenly scattered along the stem. *Leaves*: rachis 11–20(–25) cm; petiole (3.2–)4.5–5.5 cm; glands (1–)2, minute, proximal gland (0.5–)1 cm above the base in the lower half of the petiole, elliptic, crater-shaped, (flat-) raised, sessile, distal gland 2.5–3.5 cm above the base, at or above the middle of the petiole; pinnae 7–11(–13) pairs, 4.2–9 cm long; rachis-glands below the junctions of the 1–3 distal pairs, minute, circular, raised, sessile; leaflets in (11–)17–33 pairs per pinna, opposite, sessile, (4–)5–9.5 by (1.1–)2–2.5(–3) mm, oblong to subfalcate; base symmetrically truncate; apex asymmetrically rounded-truncate, apiculate, bent forwards; upper surface and margin

*Herbarium, Queen Sirikit Botanic Garden, P.O. Box 7, Mae Rim, Chiang Mai 50180, Thailand.

strigose, lower surface densely strigose; main vein starting centrally at the base, running excentrally towards the apex, not parallel to the upper margin, 1(–2) prominent accessory veins ascending from the base; lateral veins inconspicuous. *Inflorescence* comprising large, pedunculate, mostly terminal or 1–2 axillary panicles, hirsute. *Flowers* in heads, sessile; floral bracts ca. 2 mm long, filiform, geniculate, hairy, projecting beyond the flowers in bud. *Calyx* greenish-yellow with dark red tip, ca. 2 mm long, oblong, acute, with few scattered hairs; lobes 5, adnate at base. *Corolla* greenish-yellow with dark red tip, 2.5(–3) mm long, with few scattered hairs; lobes 5, finely, triangular-ovate. *Stamens* numerous. *Ovary* ca. 1 mm long, puberulous, stipitate; stipe 1 mm long; style 3 mm long. *Pod* red-brown, oblong, 12.5 by 1.3–2.4 cm, margins slightly sinuate, chartaceous, flat, with dark glandular hairs and inconspicuous veins, dehiscent. *Seeds* irregularly elliptic, 8–12 by 5–7 mm, pleurogram ca. 4–7 by 2 mm, oblong.

T h a i l a n d.— NORTH-EASTERN: Loei [Nahaew, Hueng river, 1995, *Nanakorn et al.* 3852 & 9306 (QBG); Nahaew, Hueng river, 1995, *Srisanga* 989 (QBG)]; SOUTH-WESTERN: Kanchanaburi [*Maxwell* 93-1225 (CMU)].

D i s t r i b u t i o n.— Northern Vietnam.

E c o l o g y.— By open roadsides along the margin of dry and hill evergreen forests, 200–900 m. Flowering: June–October.

N o t e.— Pod characters are taken from Nielsen (1980). *Acacia tonkinensis* is related to *A. caesia* (L.) Willd. var. *subnuda* (Craib) I.C. Nielsen and *A. torta* Craib. The main character differences are shown in Table 1.

Table 1. Characters separating *A. caesia* var. *subnuda*, *A. torta* and *A. tonkinensis*.

Character	<i>A. caesia</i> var. <i>subnuda</i>	<i>A. torta</i>	<i>A. tonkinensis</i>
Petiole gland	1	1 (–2)	(1–)2
Base of leaflets	rounded-cuneate in front, truncate behind	fully truncate	fully truncate
Lower surface	glabrous to faintly adpressed puberulous	densely puberulous to velutinous	densely strigose
Floral bracts	not projecting beyond the flowers in bud	not projecting beyond the flowers in bud	projecting beyond the flowers in bud
Calyx lobes	united for much of their length	united for much of their length	adnate at the base only

ACKNOWLEDGEMENTS

Much appreciation is due to Queen Sirikit Botanic Garden (QBG) and the staff of the herbarium for providing facilities and the support throughout the work, Dr Weerachai Nanakorn for reading and correcting on the manuscript and Mr J.F. Maxwell (CMU) for the loan of specimens. This work was supported by TRF/BIOTEC special program for Biodiversity Research and Training grant BRT No. 140014.

REFERENCES

- Nielsen, I.C. 1980. Notes on Indo-Chinese Mimosaceae. *Adansonia* ser. 2, 19(3): 339–363.
- Nielsen, I.C. 1985. Leguminosae-Mimosoideae. In: Smitinand, T. and Larsen, K. (eds), *Flora of Thailand* 4(2): 156–181.

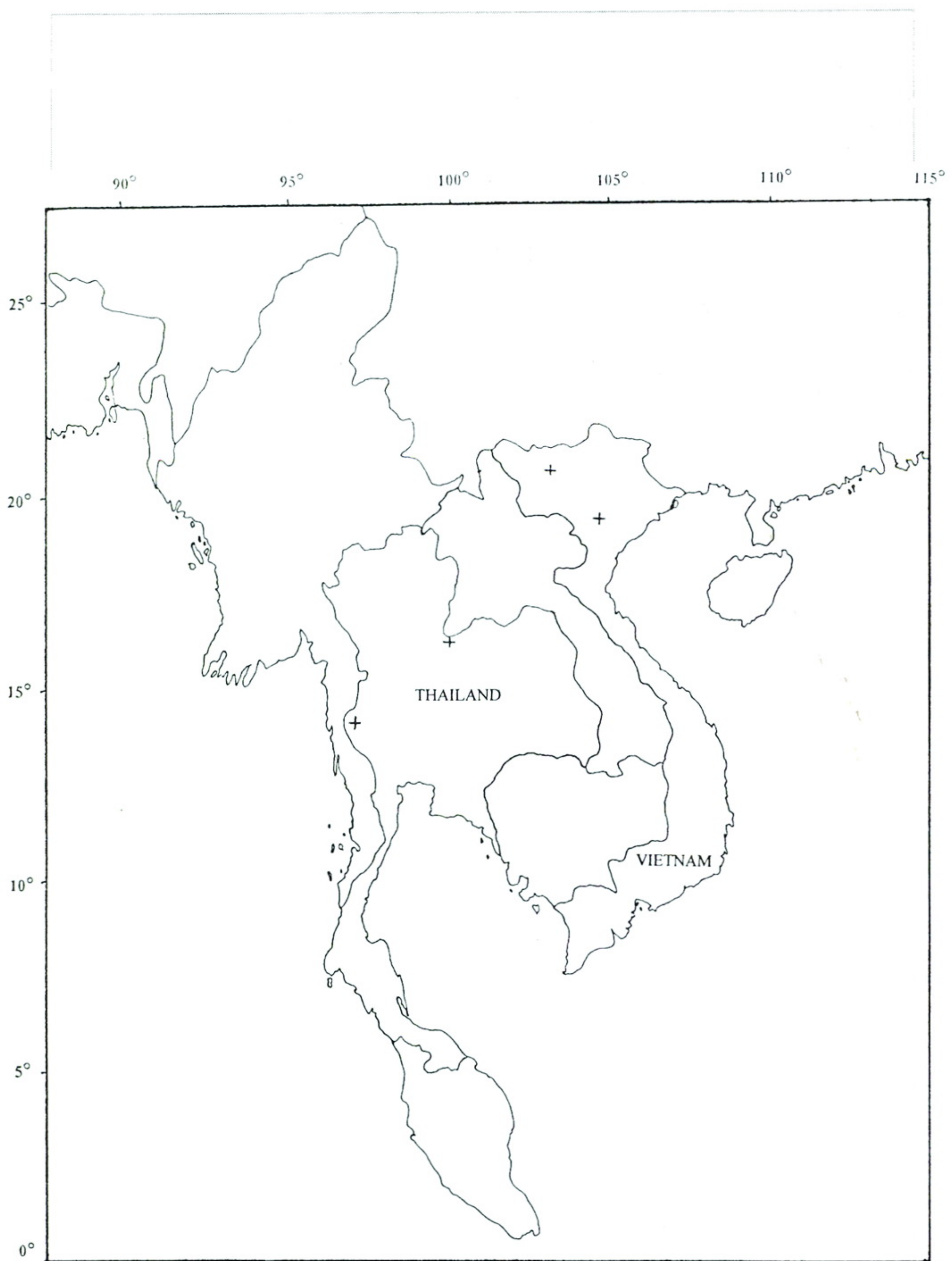


Fig. 1. Distribution of *Acacia tonkinensis* I.C. Nielsen from known localities.

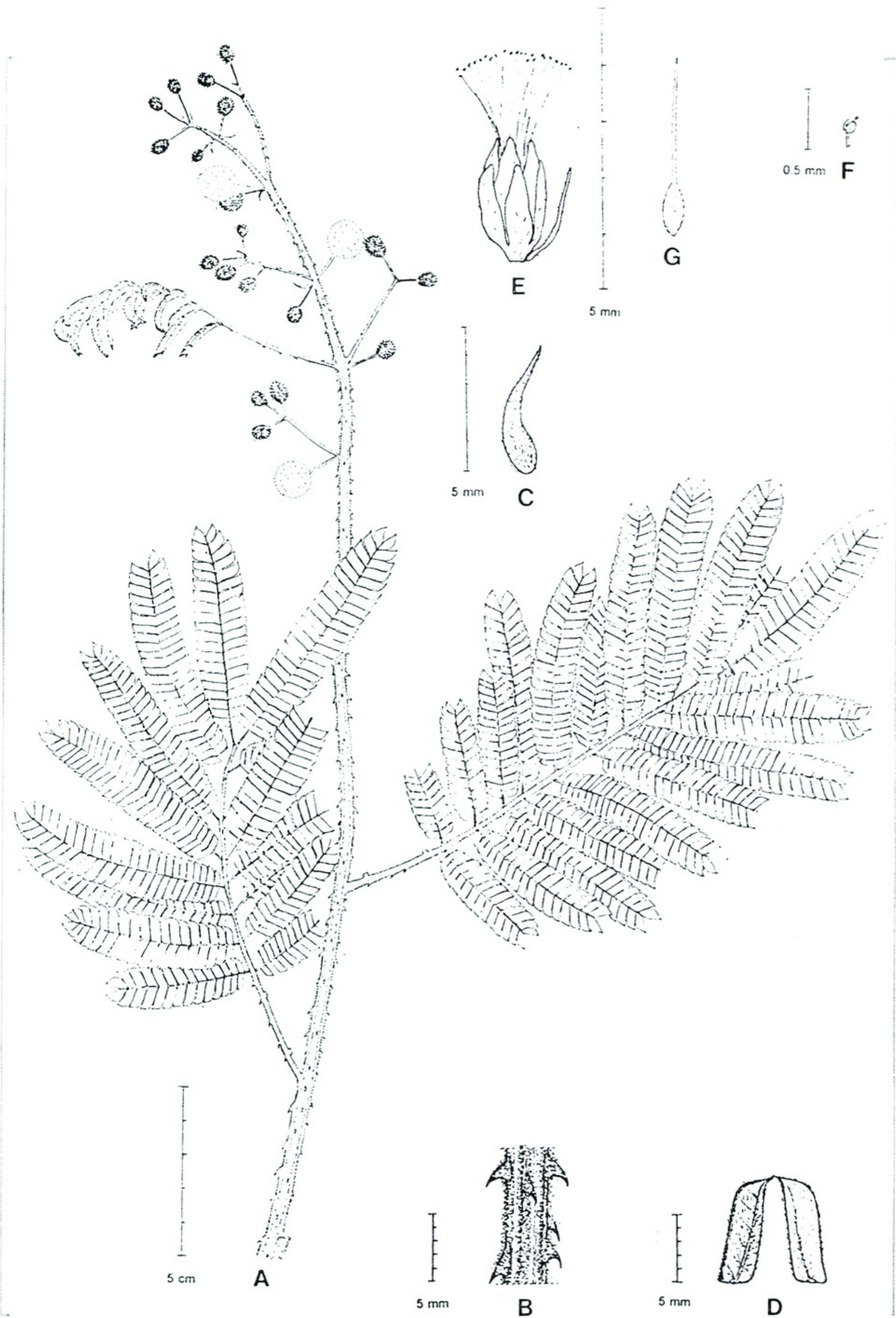


Fig. 2. *Acacia tonkinensis* I.C. Nielsen: A. Habit; B. Branchlet; C. Stipule; D. Leaflet, upper surface (right), lower surface (left); E. Flower with bract; F. Anther; G. Ovary. All from *Srisanga* 989 (QBG). Drawn by Sawitree Sasirat.



A



B



C



D

Fig. 3. *Acacia tonkinensis* I.C. Nielsen: A. Habit; B, C. Flowering branch; D. Flowering bud.
Photo: S. Sukaim, Nahaeo, Loei.