Caryota sympetala

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1. A valley in the Annamite Mountains, with rich primary tropical rain forest.

Caryota sympetala **is a poorly known species. The authors have recently found it in the Annamite Mountains on the border between Laos and Vietnam and describe the differences between it and *C. mitis*.**

Identifying different species of *Caryota*, especially those in cultivation, often presents problems; this is because our understanding of the limits of the different species remains incomplete. These often huge palms with their complex bipinnate leaves effectively defeat the herbarium method of pressing and drying bits of leaves, flowers and fruits and attaching the bits to a sheet of paper. Differences that may be easily appreciated in the field or in a garden are almost impossible to represent in the fragments of a herbarium specimen. Nevertheless, nomenclatural practice demands that the name of a plant should be validated by a unique herbarium specimen, the type. In the case of *Caryota*, the interpretation of the often old and fragmentary type specimens is particularly difficult and this means that there may be real problems in working out how the many published names should be applied to living plants. It is, thus, always a matter for celebration when a previously rather obscure name can be applied with some confidence to a distinctive living plant.

During our recent fieldwork for rattans in the Annamite chain of mountains in the Lao People's Democratic Republic we came across a very distinctive *Caryota* that we illustrate here. It turns out to be *Caryota sympetala* Gagnep., first described from Vietnam in 1937; we have confirmed this by comparison with the type in Paris herbarium and with more recently collected material from Vietnam in Kew herbarium. This species may be well known to Vietnamese botanists, but as far as we are aware it remains a poorly known species elsewhere and is probably not in cultivation.

Young plants without inflorescences would almost certainly be passed over as juveniles of *Caryota mitis* Lour. When we first saw it as we travelled by longboat up a branch of the Nam Theun River, we did, indeed, consider that it was *C. mitis*. Occurring abundantly along the riverbank, the plants formed clumps of typical doubly pinnate fishtail leaves; we saw no inflorescences. Eventually we were to see it close to, as we walked up a small stream into the mountains. It was then that we realized that we were not dealing with *C. mitis* but with a different species altogether – when fertile there is no mistaking the two. The plant forms clumps of several shoots without visible aerial stems. At flowering stage, the slender stem elongates and eventually reaches 1–2 m tall, but scarcely exceeding 10 cm in diameter. It thus looks rather different from *C. mitis* that can produce a trunk to at least 5 m tall, often much more, and with a diameter of at least 15 cm. In *C. sympetala*, up to four or five inflorescences are produced on each stem and like most members of the genus, they are branched to one order only and contain both male and female flowers. In comparison with *C. mitis* the overall shape of the inflorescence is shorter and wider and the rachillae are certainly significantly shorter and fatter. The male flowers are larger and wider than in *C. mitis* and have dark purplish petals 18 × 8 mm and about 2.5 mm thick, with over 90 stamens (109 in one count) with anthers measuring 9–12 × 1–1.2 mm. This compares with *C. mitis*, where the male flowers have greenish petals up to 12×4 mm and approximately 0.7 mm thick, and have 11–20 stamens with anthers about 7.5 × 0.5 mm.

Hahn and Sytsma (1999) discussed the possible role of hybridization in the origin of some taxa in *Caryota*. They mentioned that *C. sympetala* is in several ways intermediate between *C. monostachya* and *C. mitis* that are said to be sympatric in Vietnam, citing the small clustering stems, semi-erect inflorescence with flowers and fruit of intermediate size, and implying that *C. sympetala* may be of hybrid origin. For the record, we saw no individuals of either *C. monostachya* or *C. mitis* along the Nam Theun River, and *C. sympetala* itself seemed to present a rather uniform appearance throughout the area of Laos that we visited.

As to whether this species has horticultural merit, it has to be said that it appears perhaps even more scruffy than does *C. mitis*, and while avid collectors will want to obtain plants to add to their lists of *Caryota* species, it is unlikely that this species will have any ornamental merit that is not already displayed by *C. mitis*.

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LITERATURE CITED

HAHN, W.J. AND K.J. SYTSMA. 1999. Molecular systematics and biogeography of the Southeast Asian genus *Caryota* (Palmae). Systematic Botany 24: 558–580.

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2 (top). The Annamite Mountains that form the boundary between Vietnam and Central Lao PDR. 3 (bottom, left). *Caryota sympetala*, showing few dead inflorescences borne on a short and slender stem. 4 (bottom, right). *Caryota sympetala*: detail of infructescence.