Pinanga is a genus of 132 recognized species (Govaerts & Dransfield 2005), occurring from India through Indo-China, Malaysia and Indonesia to Papua New Guinea. There is no revision of the whole genus. The most recent taxonomic treatment of the Indo-Chinese species was that of Gagnepain and Conrard (1937), based on previous works by Beccari (1910) and Magalon (1930). Gagnepain and Conrard recognized six species from Vietnam – excluding Pinanga banaensis, which is now placed in Nenga. Of these six species, we currently recognize three (P. annamensis Magalon, P. baviensis Becc. and P. quadrijuga Gagnep.).

Recent field work in Vietnam has revealed an additional five new species of Pinanga, which are described here, bringing the total number of species for the country to eight. Herbarium acronyms follow Holmgren et al. (1990), and the acronym VNM is used for the herbarium of the Institute of Tropical Biology in Ho Chi Minh City.

**Pinanga cattienensis** Henderson, N.K. Ban & N.Q. Dung, sp. nov., a speciebus omnibus Pinangae Vietnamensibus cognitis vaginis foliorum persistentibus reclusis, inflorescentis interfoliaribus et triadibus spiraliter dispositis differt. Typus. Vietnam. Dong Nai: Cat Tien National Park, road along Dong Nai river, 11°26’N, 107°26’E, 150 m, 27 May 2007, A. Henderson, Bui Van Thanh, Vu Van Duy, Nguyen Ngoc Quynh, & Phan Van Phuc 3401 (Holotypus: HN! Isotypi: K! NY!). (Fig. 1)

Stems clustered, forming dense clumps of short stems to 0.5 m tall, sometimes to 1.5 m tall, 2 cm diam., green, covered with reddish-brown scales. Sheaths open, not forming crownshafts, 27–28 cm long, green with reddish-brown scales; ocreas present; petioles 87–116 cm long, green; rachis 90–95 cm long; pinnae 9–13 per side of the rachis, linear, contracted at the bases, middle pinna 42 cm long, 2.5–3 cm wide at the middle, apical pinna 16.5 cm long, 2–4 cm wide at the middle, lobed; veins scarcely prominent adaxially. Inflorescences interfoliar, pushing through the persistent, disintegrating, subtending leaf sheaths. In this it is similar to P. humilis, also described here. Pinanga cattienensis differs from P. humilis in its spirally (versus distichously) arranged triads, 90–95 cm long (versus 38–39 cm long) rachis and 9–13 (versus 5–7) pinnae per side of the rachis.

**Pinanga cupularis** Henderson, N.K. Ban & N.Q. Dung, sp. nov., a speciebus omnibus Pinangae Vietnamensibus petalis florum staminatorum apice pilos longos ferentibus, staminibus 4, perianthio florum pistillatorum cupulari et endospermio homogeneo differt. Typus. Vietnam. Da Nang City: Hoa Vang District, Ba Na-Nui Chua Nature Reserve, near summit, 15°59’N, 107°59’E, ca. 1100 m, 20 Apr 2007, A. Henderson, Nguyen Quoc Dung, Nguyen Canh, & Le Van Bo 3308 (Holotypus: HN! Isotypi: K! NY!). (Fig. 2)

Stems clustered, rarely solitary, to 2 m tall, 0.4–0.8 cm diam., densely covered with reddish-brown scales. Sheaths closed, forming a crownshaft, 6.5–12 cm long, densely covered with reddish-brown scales; ocreas 1.5–2 cm long; petioles 3.5–6 cm long, green with whitish scales; rachis 11.5–40 cm long; pinnae 2–4 per side of rachis, falcate, not contracted at the bases, middle pinna 10–15 cm long, 1–3 cm wide at the middle, apical pinna 4.5–5 cm long, 2–4 cm wide at the middle, lobed, rarely
blade undivided, then blade 21 cm long and 8 cm wide at the middle; veins only slightly raised adaxially. Inflorescences infrafoliar, pendulous; peduncles 0.1–0.2 cm long, 0.2 cm wide; prophylls 5–6.5 cm long; rachis absent; rachilla 1, 3–6.4 cm long, rectangular in cross-section, glabrous; triads distichously arranged; staminate flowers 11 mm long; petals 10 mm long, irregularly lobed at the apices, one petal larger than the other two, fleshy, with 2 mm long, hyaline hairs at the apices; stamens 4; pistillate flowers 2.5 mm long; calyx 2.5 mm long, cupular, not split into 3 sepals, ciliate at the apices; corolla similar to the calyx; ovary 2.5 mm long; fruiting calyx briefly and irregularly split at the apices; fruits 1.2–2 cm long, 0.2–0.4 cm diameter narrowly ellipsoid, slightly curved, color unknown; endosperm homogeneous.

Local names and uses: cay cau rung se, ca nui.

Distribution and habitat: Vietnam in Kon Tum and Thua Thien-Hue and near Da Nang City, in lowland or montane rainforest at 200–1400 m elevation.

Notes: This species was identified as Pinanga paradoxa Scheff. by both Magalon (1930) and Gagnepain and Conrad (1937), who also recorded it from Lao. It differs from that species, occurring in Thailand and West Malaysia, in its cupular (versus imbricate) pistillate perianth and narrow fruits 0.2–0.4 cm (versus 1 cm) diameter. It is an unusual species of Pinanga in its staminate petals with long hairs on the apices, 4 stamens, cupular pistillate perianth, and homogeneous endosperm. Amongst Vietnamese species it most resembles P. kontumensis. It differs from this in its pendulous (versus erect) inflorescences, and cupular (versus free and imbricate) pistillate perianth.


Pinanga declinata Henderson, N.K. Ban & N. Q. Dung, sp. nov., a P. sylvestri vaginis petiolisque luteis atque pinnis basaliter valde contractis differt. Typus. Vietnam. Lam Dong: Lac Duong District, Bi Dup-Nui Ba National Park, new road DT 723 from Da Lat to Nha Trang, 12°07’N, 108°37’E, 1670 m, 30 May 2007, A. Henderson, Bui Van Thanh, Ton Thien An, & Duong Thanh Tuyet 3411 (Holotypus: HN! Isotypi: K! NY!). (Fig. 3)

Stems clustered, to 5 m tall, 3–5.5 cm diameter, densely covered with reddish-brown scales.