

**HABITAT.** Growing as a rheophyte on the banks of fast-flowing rivers and streams in areas of ultrabasic rock, in the lowlands and up to about 400 m above sea level.

**BORNEO. SABAH.** Telupid, bank of Sg. Mailo, *Dransfield et al.* JD 5780 (holotype K; isotypes L, SAN); Labuk/Sugut, valley of Sg. Tungud, *Dransfield et al.* JD 5751 (BO, K, KEP, L, SAN, SAR); Beluran, Middle Labuk, Sg. Palui, *Meijer* SAN 25410 (K, SAN).

The relationships of the rheophytic *Areca* of Sabah are clearly with hexandrous species of *Arecella* (in Furtado's sense); it seems closest to *A. hutchinsoniana* and *A. vidaliana* of the Philippines. *A. hutchinsoniana* does not have rheomorphic unicostate leaflets and so is easily distinguished. *A. vidaliana* on the other hand is much more difficult to separate, and I had originally thought the Sabah taxon was conspecific with it. Beccari (1907) described two closely related species from Palawan—*A. vidaliana* with broad leaflets, and *A. mammillata* with unicostate leaflets. Later (1919) he sank the latter into the former, having noted how variable is the leaf dissection in *Areca*. Merrill (1922) for no apparent reason cited *A. vidaliana* as a synonym of *A. mammillata* rather than vice versa. In 1979 I had the opportunity to see *A. vidaliana* in the field in Palawan. Near Puerto Princesa it grows in small crown forest rich in bamboo (*Schizostachyum* sp.) developed on serpentine rock, and occurs in a variety of forms ranging from unicostate to broad-costate. In habitat and aspect it is very different from the Sabah rheophyte. It is worth stressing that there was no rheophytic *Areca* sp. in the area I visited, though the habitat was abundant. Although I have found difficulty in separating what are geographically and ecologically distinct taxa, I still believe the Sabah taxon is sufficiently distinct to be accorded specific status. At present, true *A. vidaliana* is known from Malaysian territory only from P. Balembangan between the coast of Sabah and Palawan (see below).

*A. rheophytica* is a most elegant species. Professor van Steenis wrote to me in relation to the preparation of his book on rheophytes (van Steenis 1981) concerning this taxon. At the time I had not seen it in the field, and as I assumed it to be non-rheophytic *A. vidaliana* the taxon was not included by Professor van Steenis.

**15. *Areca subacaulis* (Becc.) J. Dransf., comb. nov.**

*Gigliolia subacaulis* Becc. in *Malesia* 1: 174 (1877). Type: Borneo, Sarawak, G.

Matang near Kuching, *Beccari* P.B. 3647 (holotype FI; isotype K).

*Pichisermollia subacaulis* (Becc.) H. Monteiro-Neto in *Rodriguésia* 41: 198 (1976) and 54: 9 (1980).

See commentary on p. 1. This species is still known only from the area of the Matang hills and Sempadi Forest Reserve in the 1st Division, Sarawak.

**16. *Areca triandra* Roxb. var. *bancana* Scheff. in *Natuurk. Tijdschr. Ned. Ind.* 32: 165 (1873). Type: Bangka, Jibus, *Teijsmann* s.n. (holotype BO).**

*Ptychosperma polystachya* Miq., *Prodromus Fl. Sun.* 590 (1861). Type: as for *A. triandra* var. *bancana*.

*Areca polystachya* (Miq.) W. A. Wendl. in *Kerchove, Les Palmiers* 232 (1878).

*Areca borneensis* Becc. in *Malesia* 1: 22 (1877). Type: Borneo, Sarawak, on the banks of the Rejang, *Beccari* P.B. 3923 (holotype FI; isotype K); **synon.**

**nov.**