

John Dransfield (pers. comm.) believes that in Borneo, there may be other swamp-dwelling, stoloniferous taxa which relate with *P. riparia*, and might even be conspecific; indeed, collections of *P. patula* var. *borneensis*, and other specimens from Kalimantan, Brunei and Sarawak have to be reexamined (also in relation to the puzzling *P. furfuracea*) - an interesting prospect for further research in that domain.

P. riparia is easily identifiable after acquaintance in the field; in its natural habitat, it is practically rheophytic. The shiny leaves vary not only in size, but also in number of pinnae, and the petiole and rachis are sometimes glaucous. The stolons arise often at a distance from the main plant, and the nodal sections of the stems are green, light or darker, and "unwoody", often to 4 m in height. The deflexed inflorescence has usually two rachillae distinctively purple (coral red initially), with elliptical light green drupes (Plate 10), turning red to black. Specimens in herbaria have sometimes been mislabelled as *P. singaporensis* Ridley (with which *P. riparia* is often sympatric in Johor), and which in turn has often been misidentified as *P. pectinata*.

Distribution: Thailand: Narathiwat (viz. Phengklai & Niyomdham, 1991); Peninsular Malaysia: Terengganu (Saw Leng Guan pers. comm.), Pahang, Selangor, Negri Sembilan, Johor; Indonesia: S. Sumatra, Banka.

Habitat: peat swamps, river banks; not rare, but endangered by habitat destruction.

Specimens examined: Thailand: Narathiwat, 1974, *Larsen 33092* (K); Peninsular Malaysia: Selangor, Tanjong Karang, 1937, *Nur 34126* (SING); Johor: Sg. Tebrau, 1903, *Ridley 11518* (Type, K, SING), 1906, *Ridley 13235* (K, SING), Kukub, 1909, *Ridley 14170* (Type of *P. patula* var. *riparia* Becc. in Martelli, FI, SING), Sg. Sedili, 1935, *Corner 29239* (K).

2. *Pinanga auriculata* Becc. var. *merguensis* (Becc. in Martelli) C.K. Lim comb. nov.

Synon.: *P. patula* Blume var *merguensis* Becc. in Martelli. *Atti. Soc. Toscana Scienze Naturali Res. Pisa Memorie* 44 (1934): 125,126; ("merguensis": *Nuov. Giorn. Bot. Ital. NS* 42 (1935):71).

Type: Myanmar: Mergui, Tarapon, 1911, *Meebold 14380* (two sheets), (WSRL).

Notes: From wider field observations and collections, this taxon is confirmed as widespread from Mergui and along the west coast of Peninsular Thailand – where indeed it had been collected by Kerr, Whitmore and others – and within Perlis, where it was collected in 1995 by L.G. Saw and C.K. Lim (H1837, H1840 KEP), and noted as a new record for Peninsular Malaysia (Lim, *Principes* 42: 115). It is a solitary species clearly unrelated to the Sumatran taxon, *P. patula* Blume, as discussed earlier. Observing the striking similarity in habit and habitat of *P. auriculata* Becc. (1886), which Beccari collected at Kuching (holotype PB589, FI), I propose to transfer var. *merguensis* to varietal status under it.

Although I had felt an earlier hesitance and reluctance to “cross the Sunda shelf” to relate Peninsular Malaysian and Bornean *Pinanga* species, recent field trips to Sarawak have provided new perceptions. Furthermore, the two taxa display many features in common, and it would seem that *Pinanga* taxa with affinities to *P. auriculata* may be quite widespread in the western Malesian region. The bifid eophyll and juvenile leaves (Plate 6) are quite indistinguishable within the group (and similar also with *P. limosa* Ridley); the prophylls are also similar, and dry into papery tatters. Ligules or auricles subtending from the leafsheath, where the petiole splits away, are often variable even in *P. auriculata* var. *auriculata*, and may not always be prominent.

The leaflets of var. *merguensis* (and of another new variety to be described below) differ from those of *P. auriculata* var. *auriculata*, which are more numerous and longer; in the variety, these are more sigmoidal (Plates 7), with pinnae that may be closely or more distantly spaced. They both have inflorescences usually with four to six rachillae; in var. *merguensis* the infructescence, often profuse and abundant, has drupes which are distinctively shiny and almost translucent, wine-red, (Plate 11) before ripening black. Meebold’s fine specimens (Plate 5) has been well curated at Wroclaw (earlier known as Braslav). Beccari, who designated the type in 1913, originally annotated it as “*P. patula* Bl. forma *merguensis* Becc.”.

Distribution: Myanmar: Mergui; Thailand: Ranong, Trang, Surat Thani, Phuket, Satun; Peninsular Malaysia: Perlis.

Habitat: hill forests or lowland, riverine; not rare.

Specimens examined: Thailand: Ranong, 1918, *Kerr* 16386 (K), 1927, *Kerr* 11763 (K), Trang, Khao Chong Nat. Park, 1979, *Dransfield* JD 5451 (K). Peninsular Malaysia: Perlis, Mata Ayer F.R., 1995, *C.K. Lim* H1837, H1840 (KEP), 1996, *C.K. Lim* H1942*

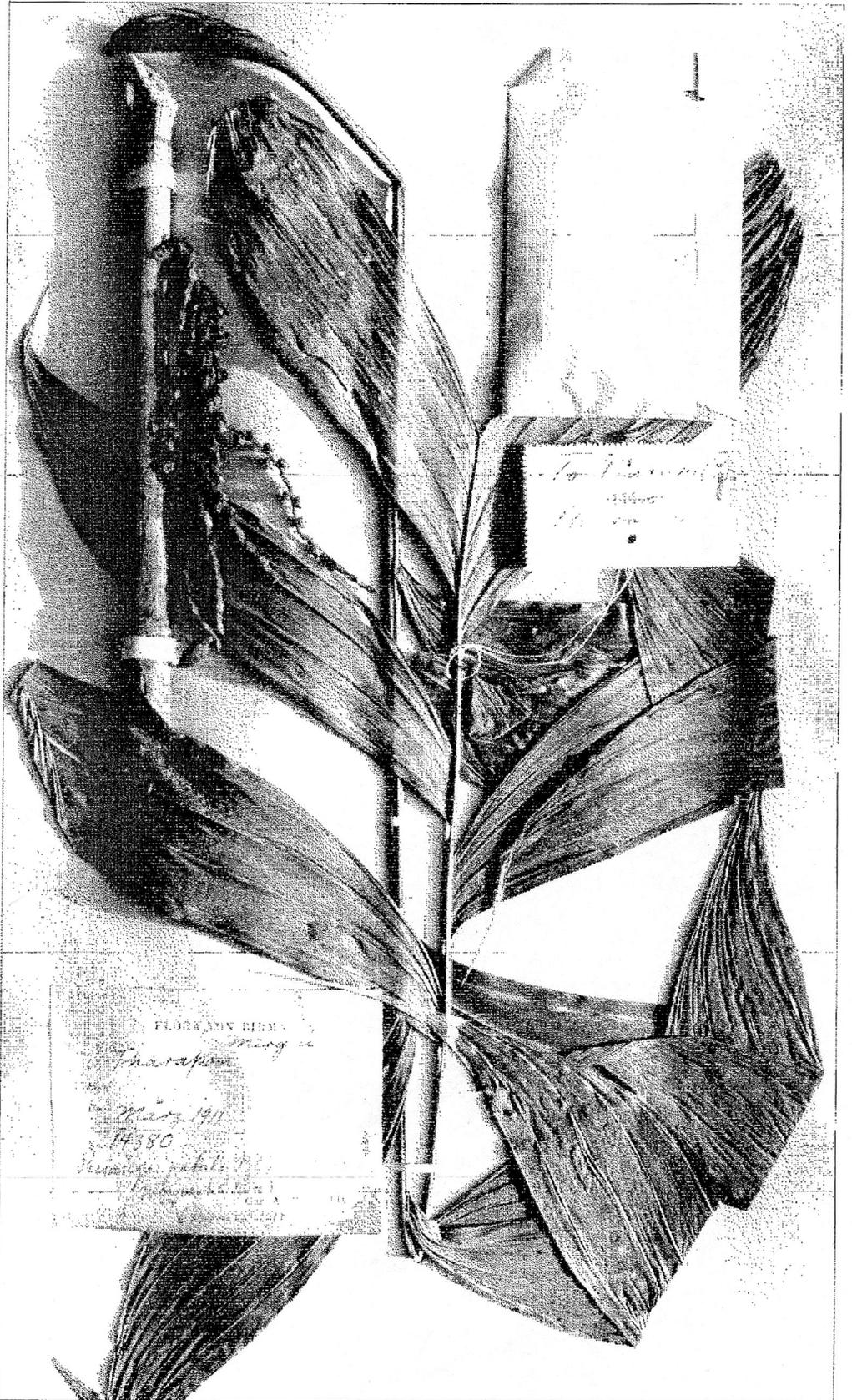


Plate 5. *Pinanga auriculata* Becc. var. *merguensis* (Becc. in Martelli) C.K. Lim (holotype: 1911, Meebold 14380, WSRL). By courtesy of WSRL.

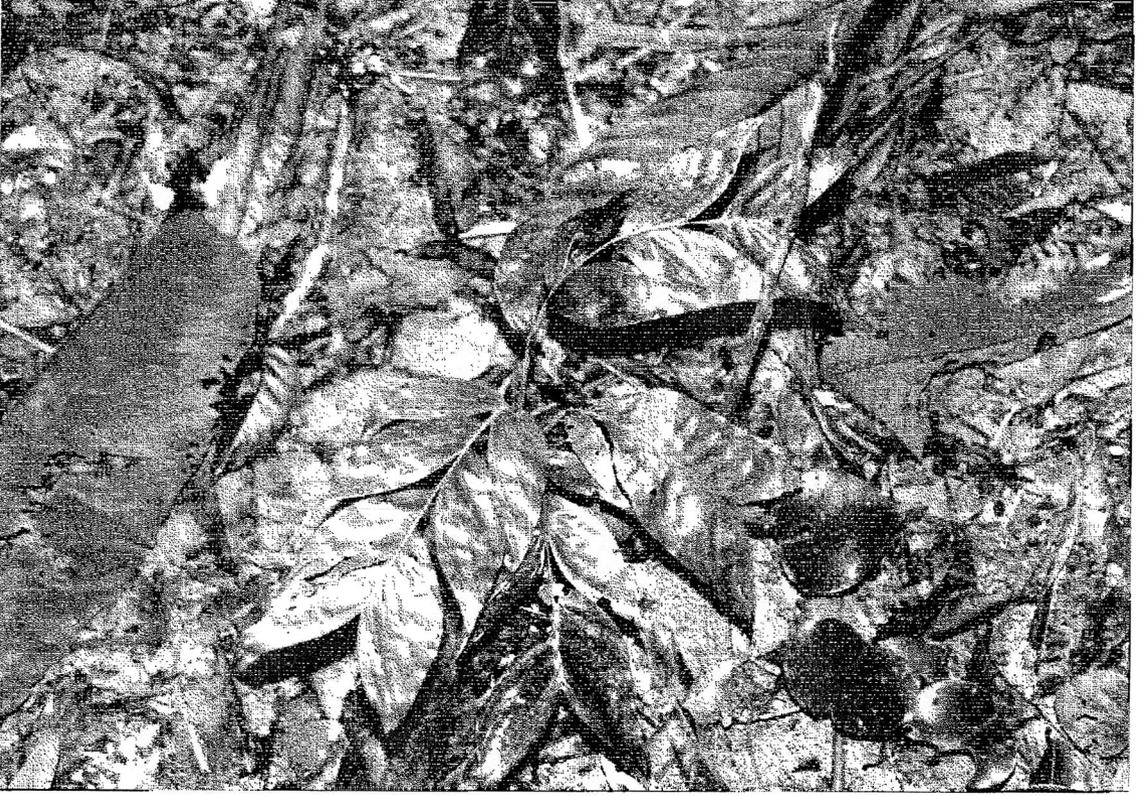


Plate 6. *Pinanga auriculata* var. *merguensis*, juvenile leaves.

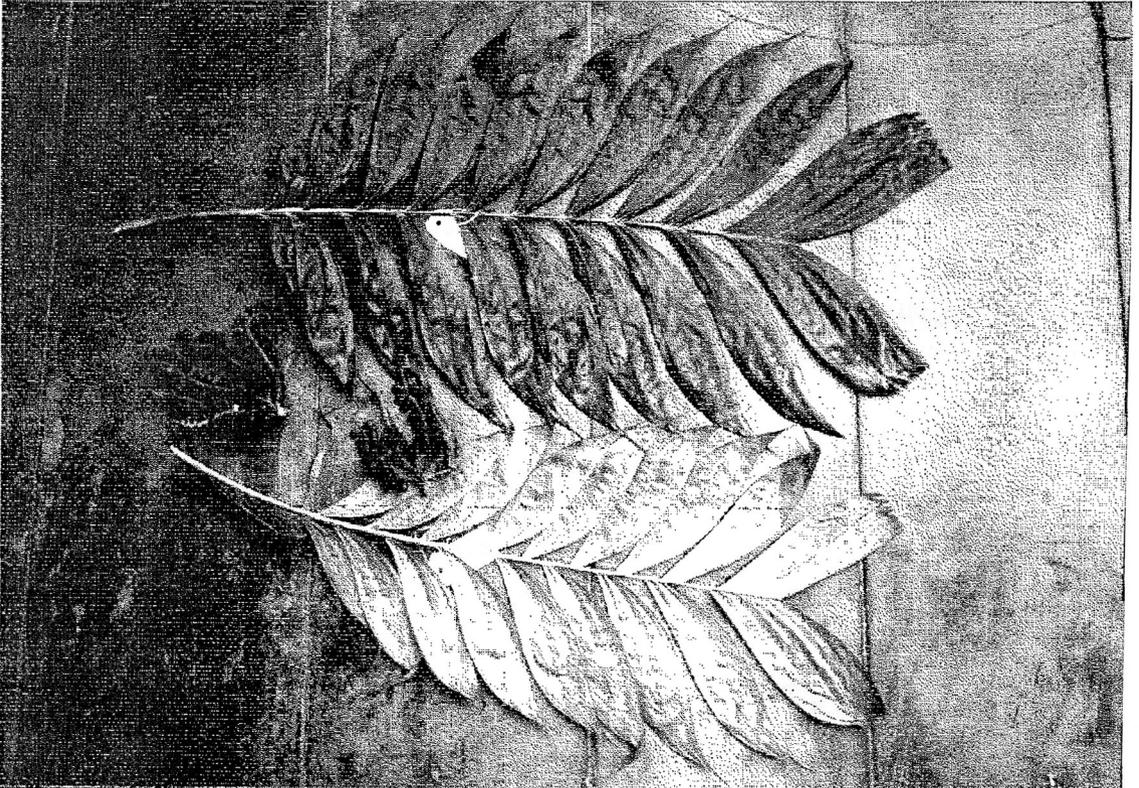


Plate 7. *Pinanga auriculata* var. *merguensis*, leaves and fruit (*H1837).

**Note: Within this account, as in my other taxonomic papers, certain specimens (prefix: H) currently kept in the Palm Search Malaysia collection are cited to supplement herbarium collections examined. Although it is intended eventually to deposit more specimens in the major reference herbaria, many items represent field records of the in situ conservation status, which the PSM project is in the process of monitoring.*

3. *Pinanga auriculata* Becc. var *leucocarpa* C.K. Lim var. nov.

A varietate typica fructibus albidis in statu immaturo distinguibilis.

Typus: Pahang, Kuala Tenok, 1891, Ridley 3158 (holotypus, SING; isotypus, FI, K)

Synon nov.: *P. patula* sensu Ridley non Blume, Ridley. *Materials for a Flora of the Malay Peninsula*. 2 (1907) 143; *P. bowiana* Hodel. *The Palm Journal* 134 (1997) 35. (Type: Thailand: Narathiwat, 1997, Hodel & Vatcharakorn 1608, BK)

Stem, size and habit similar to *P. auriculata* var. *merguensis*; similarly, leaves divided with six to eleven pairs of leaflets, sigmoidal, with four nerves, sometimes bullate, glabrous, light or dark green, lighter on underside; prophyll drying papery; inflorescence infrafoliar, pendent, with two to six rachillae, usually light green; floral pits distichously arranged, flowers not examined; drupes globose, 6 x 8 mm, distinctively creamy white with green tips when immature, ripening red to black.

Geographical range: only along east coast of peninsular Thailand and Peninsular Malaysia, and Singapore.

Notes: As discussed in the Introduction, the specimen from Pahang collected by Ridley was incorrectly determined by Beccari, who may not have known that the Malayan taxon was distinctively solitary. Ridley had later described it as “tufted” or with “several” stems, and also confused it with *P. pectinata*. Whitmore (1973: 92) was obviously aware that Ridley’s descriptions of *P. patula* were faulty, and from his field observations pointed out that it was a solitary species (Plate 8). In habit and leaf form, which are pronouncedly sigmoidal (Plate 9), it could sometimes be confused with *P. auriculata* var. *merguensis*, which it closely resembles, but can be distinguished by the fruit, which are more globose and creamy white (with green tips) when immature, or nearly mature (Plate 12) – hence the varietal epithet. The fruit is also reminiscent of those of *P. limosa*, which is a diminutive species