A Remarkable New Species of *Homalomena* (Araceae: Homalomeneae) from Peninsular Malaysia

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Abstract

Homalomena pineodora Sulaiman & P.C.Boyce is described as a new species from Peninsular Malaysia. Its similarities to *H. bellula* Schott (Java), *H. elegantula* A.Hay & Herscovitch and *H. hastata* M.Hotta (both Sumatera) and an as yet undescribed *Homalomena* from North Vietnam arc discussed.

Introduction

Homalomena is a genus of more than 120 species of terrestrial or lithophytic, seldom rheophytic, clumping, rarely rhizomatous, very rarely climbing, mostly aromatic herbs distributed in the Neo- and Asian tropics. As noted by Hay & Herscovitch (2002), the genus is overwhelmingly Asian in distribution with the greatest number of species occurring in archipelagic Malesia. The taxonomy of *Homalomena* is presently in disarray, the problem compounded by the poor condition of many of the historical types and inadequate understanding of interspecific variability.

There is a tendency in herbaria to apply the names of continental Asian, Sumateran, Javan and Bornean species somewhat indiscriminately while ignoring the high levels of endemism known to exist for other terrestrial aroid genera (e.g., *Alocasia, Schismatoglottis)* in these regions. With more fieldwork it is becoming apparent that for these land masses the level of species endemism averages 80% (Boyce, unpublished data) and that species novelty for most terrestrial aroid genera is in excess of 75% (Boyce, unpublished data); there is no evidence to suggest that *Homalomena* is any different: Sarawak alone appears to have at least 80

species of *Homalomena* of which no fewer than 65 are as yet undescribed. Until such time as a full revision of *Homalomena* is attempted, there is still a need to be able to identify the more distinctive taxa. The only practical approach is to describe new taxa as they become apparent with the caveat that at a future date some of these taxa may prove to be unsustainable in light of a more comprehensive and thorough revision.

Despite Furtado's attempts to unravel *Homalomena* in Peninsular Malaysia (Furtado, 1939) and accepting the evidence that *Homalomena* is far more species-rich in archipelagic rather than in continental Asia, much remains to be done in Peninsular Malaysia before it can be said that *Homalomena* is properly understood. That much remains to be discovered was evidenced during fieldwork by the first author at Pondok Tanjung, Selama, Perak, where a collection was made that at first appeared to be a species of *Piptospatha* in that it was growing in a rheophytic habitat and carried nodding inflorescences. However, further examination revealed that the petiolar sheaths were fully adnate to the petiole (adnate basally but otherwise free and long ligulate in *Piptospatha),* the spathe showed no abscission layer between the lower part and the limb (all west Malesian *Piptospatha* shed the upper spathe at anthesis), and that the leaf tissue when crushed emitted a very strong resinous smell (tissue odourless in *Piptospatha).* Examination of fresh inflorescences revealed the pistils were each associated with a staminode confirming, together with the above listed characters, that the plant belongs to the genus *Homalomena.* It is here described.

Homalomena pineodora Sulaiman & P.C.Boyce, *sp.* ***nov.***
Ab alii *Homalomena* Malesiarum caudice repenti hypogeo pleionathico et inflorescentia cernuua differt. **Typus:** Malaysia, Perak, Pondok Tanjung, Selama, 5° 0'N; 100° 45'E, *B. Sulaiman BS 1259* (holo Universiti Sains Malaysia 10811; iso KEP, SING).

Dwarf creeping evergreen strongly aromatic (terpenoids - reminiscent of *Pinus)* when cut or crushed herb to 25 cm tall; cut surfaces producing copious watery, later sticky, aromatic sap. *Stem* rhizomatous, creeping, *c.* 8-10 mm diam., rooting along its length over the entire surface, oldest parts of stems clothed with papery to fibrous leaf base remains, roots penetrating this fibrous layer, roots also penetrating the leaf bases in the lower active portion; distal active shoot erect to semi-procumbent; active part of shoots densely clothed with spiro-distichous leaves; shoots pleionanthic. *Leaves* clustered towards shoot tips; *petiole* partially clasping the rhizome and then expanding into a persistent petiolar sheath, petiole 8.5–9 cm long, non-sheathing portion c. 2.5 mm diam., weakly D-shaped in

Figure l. Type plant of *Homalomena pineodora* Sulaiman & P.C. Boyce showing the distinctive nodding inflorescences.

cross-section and dorsally shallowly grooved, the groove extending to the insertion of the lamina; *sheath* extending to *c.* ¾ petiole length, margins hyaline, long-persistent; *lamina* leathery, elliptic to weakly oblongo-elliptic, 9–12 x 4–5 cm, base cuneate to ovate, apex acute with a prominent 3.5–4 mm long tubule, margins minutely hyaline (margins *c.* 0.5 mm wide) and tending to crispulate at the petiole insertion, abaxial surface pale green with up to 5 (mostly 3–4) weakly prominent and slightly darker primary lateral veins on each side of the mid-vein; interprimaries much less prominent and not at all darker than the abaxial lamina; adaxial lamina surface slightly lustrous dark green, primary lateral veins slightly impressed, interprimary veins hardly discernible. *Inflorescences* nodding, two together, maturing sequentially, each subtended by a two-keeled prophyll. *Peduncle c.* 5 cm long, 2.5 mm diam., weakly D-shaped in cross-section and expanding distally at the insertion of the spathe. *Spathe* unconstricted, ovate-ellipsoid, inflated and gaping at anthesis, c. 3 x 1.8 cm (rolled) (5.5 cm wide when flattened) ovato-triangular, apex acuminate; spathe exterior glossy bright green, the upper half deeper green, the lower half somewhat yellow-white, at anthesis spathe margins recurved, hyaline and slightly brownish along

the edge; spathe interior glossy greenish white. *Spadix* 20 x 8 mm, stipitate, stipe *c.* 1 mm. *Pistillate flower zone* 6 x 6 mm with a zone of very slender-stalked globose-claviform 0.1 x 0.2 mm glossy white staminodes basally. *Ovaries* compressed-globo-cylindrical, 0.2 x 0.4 mm, stigma sessile, circular and slightly umbonate, overhanging the ovary, 0.7 x 0.4 mm, ovaries pale green, stigma translucent greenish white. *Male flower* zone ovoid, 10 x 7 mm, fertile to the apex, flowers comprised of two stamens, rarely one stamen aborted, 0.4 x 0.5 mm, connective barely prominent, male flowers pale cream. *Infructescence and seeds* not observed.

Distribution: Peninsular Malaysia (NW Perak), known only from the type collection.

Habitat: Riverside, growing in clumps on an inundated site under forest canopy. Sea level.

Notes: The rhizomatous stems, pleionanthic shoots and inflorescences nodding at anthesis immediately distinguish *Homalomena pineodora* from any *Homalomena* hitherto described from Peninsular Malaysia and adjacent peninsular Thailand. Rhizomatous creeping stems are a feature of two species described from Sumatera *(H. elegantula* A.Hay & Herscovitch, *H. hastata* M.Hotta,) and one from Java *(H. bellula* Schott). Among characters that distinguish these species from *H. pineodora* are hapaxanthic shoots (all), inflorescences erect at anthesis (all), hastate leaves *(H. hastata),* apically geniculate petioles *(H. elegantula)* and smaller (1 cm long) spathes *(H. elegantula).* An as yet undescribed *Homalomena* from Ba Vi, north Vietnam, has rhizomatous creeping stems, pleionanthic shoots and nodding inflorescences but differs from *H. pineodora* by the longer petioles with the petiolar sheath *c.* 1/4 the length of the petiole, broader ovato-cordate leaf laminae, a longer, narrower spadix and a markedly different smell produced by the crushed tissue (the Ba Vi *Homalomena* has a smell resembling *Juniperus — H. pineodora* smells of *Pinus).* The odours produced by the damaged tissue of *H. elegantula, H. hastata* and *H. bellula* are not recorded.

The specific epithet is from the Latin *pinea* and *odora* meaning 'pine-scented' in allusion to the very strong smell of *Pinus* produced by cutting or crushing the plant tissue.

References

Furtado, C.X. 1939. *Araceae* Malesicae II. Notes on some Indo-Malaysian *Homalomena* species. *Gardens' Bulletin Straits Settlements.* **10**: 183–238.

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