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Studies on Homalomeneae (Araceae) of Sumatera I: *Homalomena hypsiantha*, a distinctive new species of the Chamaecladon Supergroup*

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Studi sulle Homalemeneae (Araceae) di Sumatra I: Homalomena hypsiantha, nuova specie del Supergruppo Chamaecladon — Viene descritta una rimarchevole e ben distinta nuova specie appartenente al genere *Homalomena* per Sumatra: **Homalomena hypsiantha** P.C. Boyce & S.Y. Wong, **sp. nov.** *La morfologia dell'infiorescenza attribuisce questa nuova specie al Supergruppo Chamaecladon*, tra le cui altre specie descritte la presente si distingue per la sua evidente peduncolata infiorescenza, e per la spata fortemente espansa all'antesi. Viene fornita una breve revisione dello stato tassonomico delle specie di Alderwerelt per Sumatra appartenenti al Supergruppo Chamaecladon. *Homalomena hypsiantha* e' illustrata is illustrated da esemplari vivi.

Key words: Araceae, Chamaecladon Supergroup, *Homalomena hypsiantha*, Indonesia, Sumatera.

Introduction

As stated in previous papers (e.g., Kurniawan et al., 2011; Wong & Boyce, 2011) considerable taxonomic and nomenclatural problems beset Chamaecladon *Homalomena*. Nonetheless, there remains a pressing need to establish a framework of taxa for which no taxonomic doubt exists. It seems certain that Alderwerelt felt much the same way when faced with considerable living collections for which there were no obviously assignable names. To this end the publication of formal names for taxa that are without question distinct from all others is a vital step. The species described here is one such.

Recognition of *Homalomena hypsiantha* takes the number of *Homalomena* described for Sumatera to 27; all are endemic. Twenty-one belong to the Chamaecladon Supergroup (*sensu* Boyce & Wong, 2008), with 11 of these described by Alderwerelt (1922). As previously noted (Boyce et al., 2009: 8–9) there is a tendency to dismiss Alderwerelt's aroid work. It must be admitted that a significant problem with interpretation of Alderwerelt's aroid taxa is that much of the preserved material is depauperate. It seems highly probable that he (rightly, in our opinion) regarded the cultivated living plants as the vital data resource and presumably was unwilling to sacrifice much of this material when preparing herbarium vouchers. Alderwerelts's species' descrip-

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tions, and the accompanying floral diagnoses, reveal his sound understanding of the species he proposed. Re-examination of the Type and other specimens (mainly BO and BOKR) in conjunction with careful reading of the descriptions convinces us that the majority of Alderwerelts novel species withstand close taxonomic scrutiny. In conclusion, the later synonymizations of many of Alderwerelt's taxon names (notably Frodin & Goevarts, 2003) are in the main far too hasty.

Homalomena hypsiantha P.C. Boyce & S.Y. Wong, **sp. nov.**

DIAGNOSIS: *Homalomena hypsiantha* is immediately distinguishable from all other *Homalomena* species in Sumatera (indeed anywhere in Indomalaya), by the remarkably long peduncles. The spathe shape is also unmatched. Another notable although not unique morphology is the comparatively very large pore by which the thecae open. Similarly large pores exist only in (otherwise very different) *H. monandra* M. Hotta (Hotta 1993).

TYPUS: Indonesia, Sumatera, Aceh Selatan, Kota Subulussalam, road to Tapak Tuan about 20 km north of Shah Alam, "Objek Wistata Alam Indah Sp. Batu Nafal Lae Pendulangan", 17 June 2011 *K. Nakamoto AR-3598* (holo ANDA; iso BO, BOKR, SAR [all spirit]). Fig. 1.

DESCRIPTION: Small evergreen mesophytic rosette-forming herbs to ca 7 cm tall and 14 cm diam., with very slightly aromatic (terpenoids) vegetative tissues. **Stem** pleionanthic, erect ca 10 mm thick, deep red, internodes to ca 2 mm long, but obscured by clasping leaf bases. **Leaves** 5-10 together; petiole weakly D-shaped, with distal portion shallowly sulcate, ca 3 cm long, sub-microscopically puberulent and with very slight longitudinal ridges, basal 1 cm (including the sheathing base) scarlet, remainder shading to orangish green and then green; non-clasping part of petiolar sheath up to 5 mm long, scarlet, wings closed, unequal, the wider overlapping the narrower, wing margins hyaline, crispulate; blade elliptic, 3.5-5.5 cm long × 2.5-3.5 cm wide, softly leathery, semiglossy medium to dark green adaxially, paler green and minutely punctate abaxially, margins smooth, base cuneate, occasionally plants with all blade bases strongly oblique, the shorter side cuneate, the longer cordulate, tip acute, apiculate for 0.5 mm; midrib very slightly rounded-raised abaxially, adaxially very slightly impressed, ca 0.5 mm wide, with ca 4 primary lateral veins on each side, these diverging at 30°-40° from the midrib, abaxially flush to slightly raised, adaxially flush or very slightly impressed; interprimary veins scattered and appearing as disjointed darker streaks and resembling pellucid vein-like glands; all other venation invisible, all veins running into a very weakly defined and slightly thickened intermarginal vein. **Inflorescences** up to 7 together in a synflorescence, opening sequentially, peduncle erect at anthesis, later declinate; peduncle to ca 8 cm long × ca 1 mm diam., inserted obliquely (to the ventral side) on the spathe; pale green, the basal-most part occasionally flushed pale red. **Spathe** ca 1.5 cm long, ca 5 mm wide across the truncate-gibbous base, the limb sloping dorsally towards the tip, ventrally straight (spathe thus forming a scalene triangle in lateral view), not constricted, exterior with several longitudinal rounded costae, ventrally semiglossy yellowish green, dorsally medium green, interior shiny pale green, apex with a terminal short brown mucro to 1.5 mm long, spathe inflating at anthesis and opening by a broad slit, later closing and enclosing the spadix. **Spadix** up to 1 cm long × 2.5 mm diam., fertile to the tip , stipitate, stipe ca 1 mm but expanding into the smooth, umbonate spathe/peduncle junction, very pale green; **pistillate flower zone** ca 1.5 mm long; pistils few, somewhat scattered, especially the lower ones and usually only in 2-3 spirals, globose-lageniform, ca 1 mm tall × 0.7-0.8 mm diam. greenish white, stigma sessile,, 0.2-0.3 mm diam., producing a large droplet at anthesis; pistillate flowers each associated with one staminode, this almost spherical with a very slender stipe, ca 0.3 mm diam., very pale yellow; suprapistillar interstice absent; **staminate flower zone** ca 8.5 mm long, apex acute; **staminate flowers** somewhat densely arranged, each consisting of two stamens, thecae globose, ca 0.3 mm long × ca 0.4 mm wide, white to very pale green, anther thecae opening by a broad terminal pore; pollen powdery. **Fruiting spathe** declinate by flexing of the basal portion of the peduncle, pale yellow-green. **Fruits** and **seeds** not observed.

ETYMOLOGY: From *hypsi* (Greek - on high), and *anthos* (Greek - a flower), in allusion to the uniquely long peduncle.

DISTRIBUTION: Known only from the type locality.

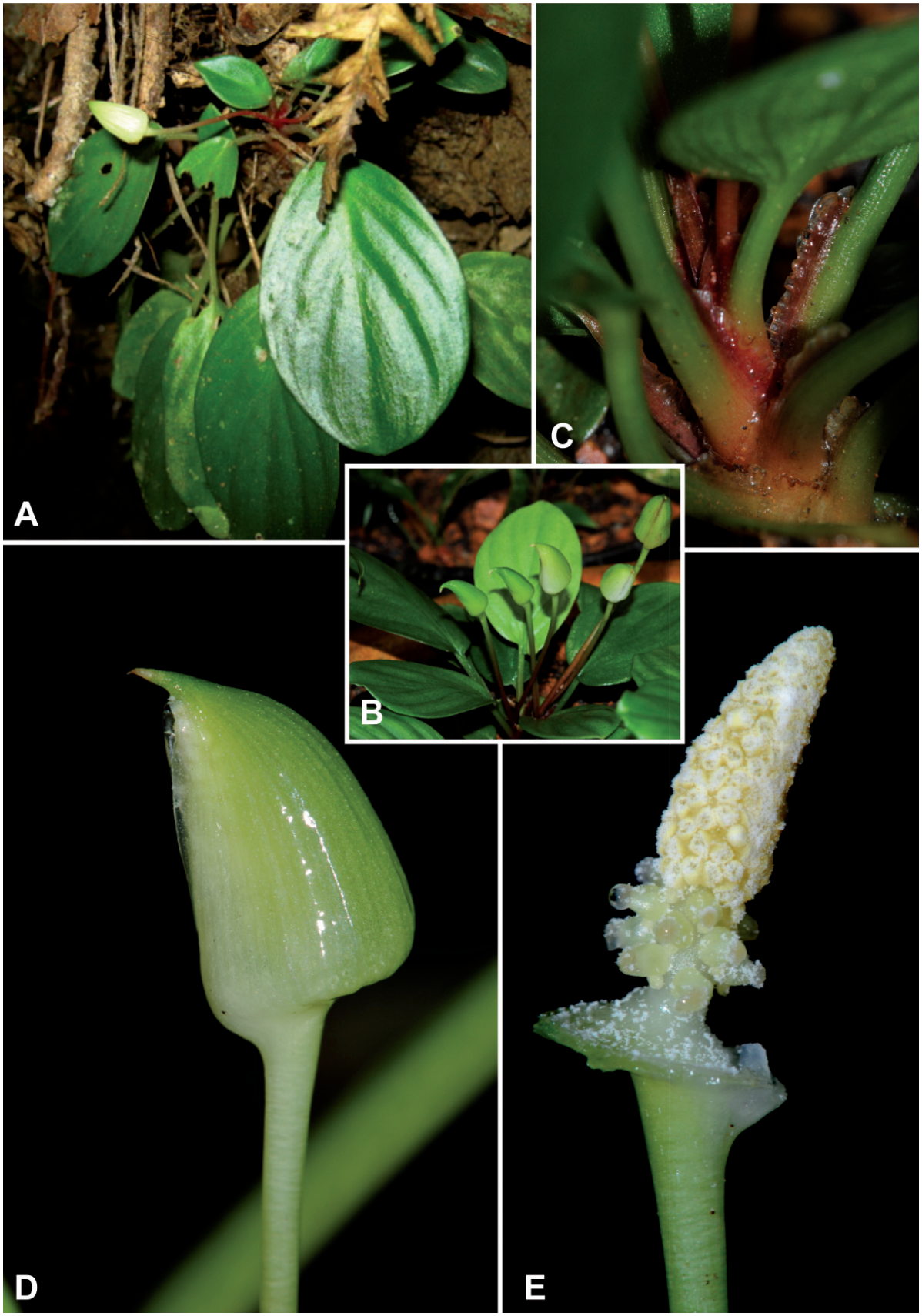

Fig. 1 – *Homalomena hypsiantha* P.C. Boyce & S.Y.Wong. **A.** Flowering plant in habitat on a vertical earth bank. **B.** Flowering plant in cultivation. The synflorescence sequence (oldest to newest is l-r). **C.** Details of the petiolar sheath. Note the hyaline, crispulate margins and very slight longitudinal ridges of the petiole. **D.** Inflorescence at staminate anthesis. The scalene shape of the spathe and strongly oblique peduncle insertion is plainly visible. **E.** Spadix (spathe artificially removed). Note the umbonate junction of the stipe to the lower spathe and the large pores by which the pollen is shed. Note, too, the powdery pollen. All from *K. Nakamoto AR-3598*. Photo credits: Peter C. Boyce.

ECOLOGY: On shaded earth banks close to but above the flood zone of rivers in lowland humid gallery forest on dense metamorphic sandstone; ca 75 m asl.

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Summary: A highly distinctive *Homalomena* new to science, **Homalomena hypsiantha** P.C.Boyce & S.Y.Wong **sp. nov.**, is described from Sumatera. Inflorescence morphology assigns it to the Chamaecladon Supergroup of *Homalomena*, from all other described species of which is it distinguished by an exceptionally long-pedunculate inflorescence and a spathe inflating strongly at anthesis. A brief review of the status of Alderwerelt's species of Sumateran Chamaecladon Supergroup is offered. *Homalomena hypsiantha* is illustrated from living plants.