

Studies on Homalomeneae (Araceae) of Sumatera V – *Homalomena squamis-draconis*, a new species for the Chamaecladon Clade

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ABSTRACT

Homalomena squamis-draconis, a highly ornamental new dwarf species of Chamaecladon clade, is described and illustrated from Sumatera.

KEY WORDS

Indonesia, granite,

INTRODUCTION

Species of *Homalomena* Chamaecladon Clade (Wong & al. 2013) are particularly diverse on Sumatera where, furthermore,

there occur several species made highly ornamental by virtue of elaborately embellished leaf blades and petioles (Boyce & Wong 2016). In recent years a significant increase in interest in ornamental Asian aroids has resulted in many species being collected and brought into cultivation. Given the richness of the aroid flora of Asia it is unsurprising that a significant percentage of the plants being introduced has turned out to be taxonomically novel. One such species, traded commercially under the name ‘Dragon Scales’ is here described as new to science.

Dimensions in the descriptions are derived from fertile (i.e., mature) plants. Seedlings have overall smaller measurements.

Homalomena squamis-draconis S. Y. Wong & P. C. Boyce, **sp. nov.**

Holotype: Indonesia, Sumatera, locality withheld for conservation purposes, *Keisuke Hase AR-5343* (holotype ANDA!; isotype SAR – alcohol!). **Figure 1.**

Diagnosis

Homalomena squamis-draconis is most similar to *H. mobula* differing by the smaller (6–10 × 2.5–5 cm vs ca 20 cm × 7 cm), tessellate-veined (vs rugose) leaf blades, crispulate-crested petioles and primary veins (vs petioles and major veins rugose), the shorter (1.5 cm vs 2 cm long) spathe with bright green (vs reddish brown) exterior and shiny bright green (vs shiny deep red

interior, by the shorter (1 cm vs 2 cm), stipitate (vs sessile) spadix, pale green (vs greenish with very dense reddish speckling) ovaries, and stoutly-conic blunt (vs slender tapering-conic, pointed) staminate flower zone.

Description

Lithophytic rosette-forming herb to ca 7 cm tall and 15 cm across. **Stem** highly condensed, in older plants epigeal and creeping to ca 3 cm, ca 1 cm diam., modules pleionanthic; internodes obscured by overlapping leaf bases, not conspicuous. **Leaves** several together (up to ca 9 per stem); **petiole** stoutly sub-terete, dorsally narrowly canaliculate, 1.5–3 cm long, ca 4 mm diam., ca 1/4 length of blade, sheathing in lower 1/3, coarsely glandular-asperous in sinuous crests, pale green; **petiolar sheath** adnate to petiole, 1–1.5 cm long, wings triangular spread wide, reflexing in older petioles, with margins somewhat undulate-hyaline, greenish white; **blade** elliptic-lanceolate to oblong elliptic, stiffly leathery, 6–10 cm long x 2.5–5 cm wide, bright medium to deep green adaxially, somewhat crystalline pale green abaxially, base rounded, truncate to broadly cuneate, tip acute and apiculate for ca 1 mm, margins with a ca 1 mm wide crispulate-undulate hyaline margin; **midrib** slightly impressed adaxially, prominently raised abaxially and there ornamented with slightly sinuous crystalline-textured longitudinal crispulate crests; **primary lateral** veins ca 5 on each side diverging at ca 45° from midrib, impressed adaxially, raised and glandular-

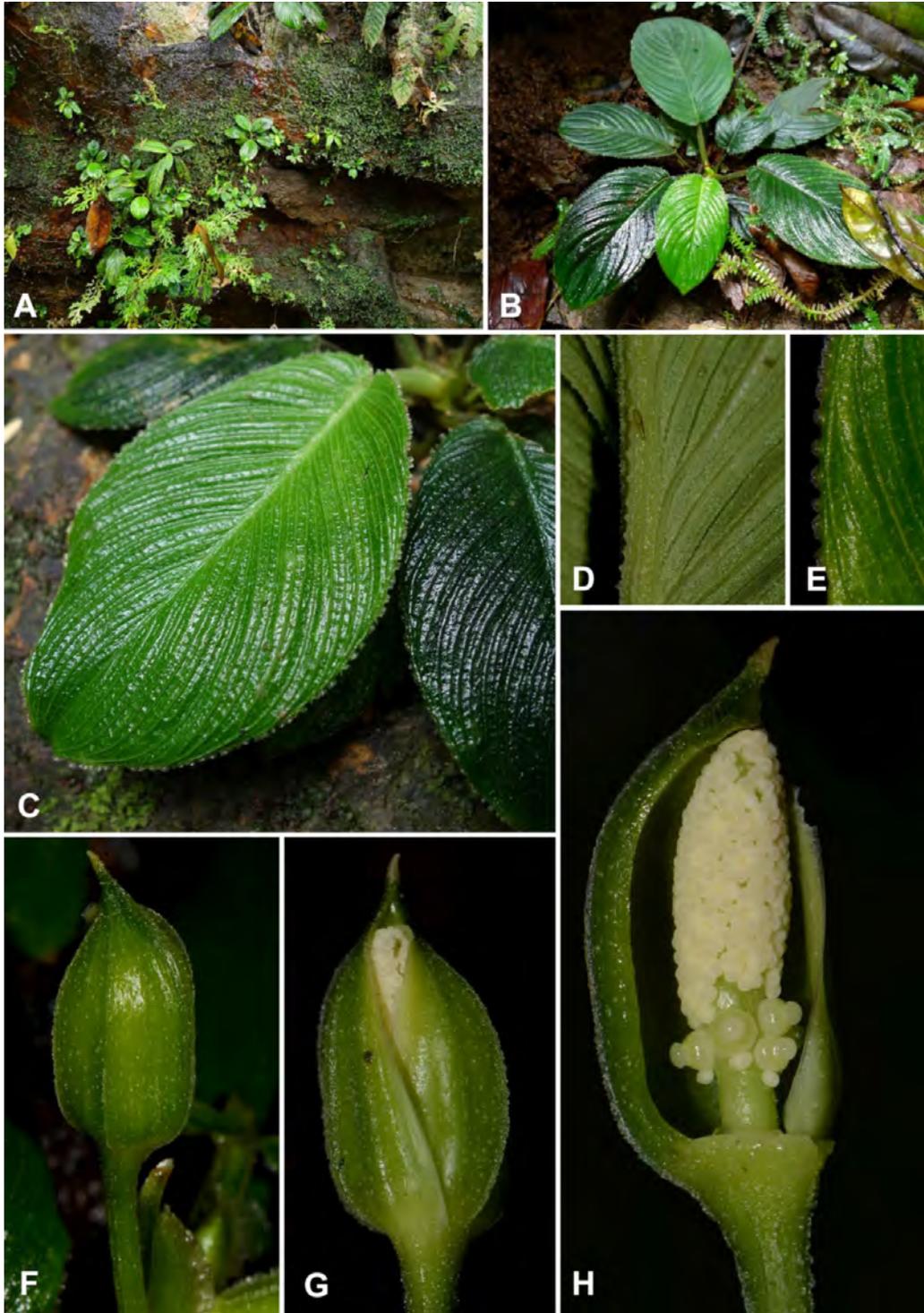


Figure 1. *Homalomena squamis-draconis* P. C. Boyce & S. Y. Wong

A. & B. Plants in habitat on moss-covered granite boulders. **C.** Detail of emerging leaf blade. **D.** Mid-rib, abaxial leaf blade. **E.** Detail of hyaline margin leaf blade. **F. & G.** Inflorescence at pistillate anthesis. **H.** Spadix at pistillate anthesis, nearside portion of spathe artificially removed. **A–H** from AR-5243. Images A – C © Hase Keisuke, used with permission; images D – H © P.C. Boyce.

asperous abaxially; **interprimaries** finer and more or less regularly alternating with primaries; **secondary veins** arising from mid-rib and from primaries, dark-pellucid (especially visible on abaxial surface); **tertiary veins** a raised tessellate reticulum, conspicuously raised adaxially. **Inflorescence** up to 3 together in a synflorescence, without detectable odour, opening sequentially, peduncle semi-erect at anthesis, later declinate; **peduncle** slender, ca 2 cm long, 1 mm diam., inserted basally on spathe, glandular-asperous, medium green. **Spathe** ca 1.5 cm long, ca 5 mm wide across base, not constricted, externally longitudinally sharply ribbed, glandular-asperous, bright green, interior shiny bright green, apex blunt with a terminal mucro to 1 mm long, spathe inflating at anthesis and opening by a very narrow distal slit, later closing and enclosing spadix. **Spadix** up to 1 cm long \times 3 mm diam., fertile to tip, stipitate; **stipe** cylindrical, base slightly flaring, ca 2 mm long, 1 mm in diam., pale green; **pistillate flower zone** ca 1 mm long; **pistils** few, in one or two incomplete whorls, depressed-globose, ca 1 mm tall \times 0.7–0.8 mm diam., greenish white, stylar region slightly tinged yellowish; **stigma** sessile, 0.2–0.3 mm diam., producing a large droplet at anthesis; **pistillate flowers** mostly each associated with one staminode, this almost spherical sessile, ca 0.3 mm diam., waxy white; **suprapistillar interstice** absent, although naked spadix axis visible between pistillate flowers and start of staminate flowers; **staminate flower zone** ca 7 mm long, stout-conic, apex blunt; **staminate flowers** densely arranged, each

consisting of 2 – 3 stamens, thecae ellipsoid, ca 0.3 mm long \times ca 0.4 mm wide, cream, terminal part somewhat translucent, thecae opening by a wide terminal pore; pollen powdery. **Fruiting spathe** declinate by flexing of basal portion of peduncle, dark green. **Fruits** and **seeds** not observed.

Ecology — *Homalomena squamis-draconis* occurs lithophytically on vertical muddy, moss-covered granite river banks under humid hill forest.

Distribution — Sumatera. Owing to the considerable decorative qualities displayed by *H. squamis-draconis* the precise location is withheld to prevent commercial collection.

Etymology — The trivial epithet is devised from a Latinized form of the commercial name ‘Dragon’s Scales’, combining *draco*, a dragon (genitive singular, *draconis*), and scales – *squamata*, treated as a noun in apposition, hence *squamis-draconis* – “with scales of a dragon”.

Notes — *Homalomena squamis-draconis* is an extraordinary species, perhaps surpassed only by *Homalomena mobula* P.C. Boyce & S.Y. Wong as one of the most distinctive and ornamentally striking *Homalomena* species yet described. The texture of the upper surface of the leaf blade is remarkable owing to the combination of raised tessellate secondary venation and impressed primary lateral veins, embellished by the undulate-crispulate hyaline margin to the blade, and abaxially the rugose-alate mid-rib.

There is in cultivation a further rosette dwarf *Homalomena* commercially offered as 'Dolphin Skin' with a crispulate-undulate hyaline border to the leaf blade, but with quite different blade colour and texture, and a much longer peduncle. To date we have not had the opportunity to examine living plants.

References

- Alderwerelt van Rosenburgh C. R. W. K. van. 1922. New or noteworthy Malayan Araceae II. *Bull. Jard. Bot. Buitenzorg III* 4: 163–229.
- Boyce P. C. & S. Y. Wong. 2016. Studies on Homalomeneae (Araceae) of Sumatera IV: Three new ornamental *Homalomena* [Chamaecladon clade] species. *Willdenowia* 46(2) 253–260
- Wong S. Y., P. J. Tan, K. K. Ng, S. O. Ahmad, H. B. Lee, B. A. Fasihuddin & P. C. Boyce. 2013. Phylogeny of Asian *Homalomena* (Araceae) based on the ITS region combined with morphological and chemical data. *Syst. Bot.* 38: 589–599.

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