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Araceae of Mulu National Park II: A new karst-obligated *Homalomena* [Chamaecladon clade]

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ABSTRACT: *Homalomena hottae* is described and illustrated as a new species of microscopically scintillating-velutinous leaved aroid from the Karst limestone of Mulu National Park, to where it is locally restricted. *Homalomena hottae* is compared with the two currently described Bornean species with similarly scintillating foliage. Notes on the pollination biology of *Homalomena hottae* are given, and the three described Bornean species of scintillating Chamaecladon clade species are compared in a key.

KEY WORDS: Aroids, Borneo, *Chamaecladon*, *Colocasiomyia*, Drosophilidae, *Homalomena*, Malaysia, pollination biology.

INTRODUCTION

The *Homalomena* Chamaecladon clade (Wong *et al.*, 2013) is perhaps the least well studied of the four clades comprising the most speciose genus of aroids in SE Asia (Boyce and Croat, 2011). Species are mostly diminutive plants, often lithophytic, with small to tiny blooms opening fleetingly before the spathe recloses and persists until fruiting. Post-anthesis the blooms resemble buds except the spent florets and staminodes have deliquesced, in the process eliminating critical characteristics required to facilitate recognition.

All Chamaecladon clade species have pistillate florets wherein the associated staminode is at most half as tall as the pistil. The majority of species have a more or less parallel-sided narrowly oblong spathe not exceeding two centimetres long, occasionally only half this, and staminate florets comprised of two stamens. Plants are glabrous, or some or all of the plant, including the spathe exterior, may be scintillating-velutinous, i.e., with the leaf blade epidermis microscopically papillate and refracting light, or ornamented with minutely scabrid to asperous or with a strigose indumentum, or with extraordinary dense scale-like or soft shaggy trichomes. To date by far the most extreme ornamentation is known from Sumatera (Boyce and Wong, 2016).

The scintillating-velutinous species of the Chamaecladon clade in particular have been ill-served taxonomically. Largely for the reasons noted above most of the available herbarium material, including most of the historical Types, is inadequate, and as result so, too, are most of the protologues. Additionally, the distinctive epidermis texture, which is well-preserved in

herbarium specimens, has encouraged uncritical determining of almost all material as *H. humilis* (Jack) Hook.f., a species seemingly endemic to Pulau Pinang. The problem in Peninsula Malaysia is further exacerbated by Furtado's attempts to "clarify" the taxonomy (Furtado, 1939) wherein a plethora of subordinate taxa, to the level of subvariety and form, were proposed while leaving many taxonomic issues unanswered or partially solved. For the past 15 years the authors have been making progress with the larger growing *Homalomena* species on Borneo, but aside from describing two very clearly new species of scintillating-velutinous Chamaecladon species (Kartini *et al.*, 2019; Wong and Boyce, 2011), we have largely shied away from working on the group in Borneo since the bulk of the historical names have been described from Peninsular Malaysia and Jawa (Java). Recently however, as we have been forced to revisit the taxonomic status of one species occurring at Mulu (which we have hitherto referred to as *H. humilis* sens. lat.) owing to a pollination biology project carried out by one of the first author's graduate students (Chai, 2020; Chai and Wong, 2019).

Geological occurrences in this paper are corroborated using Tate (2001).

TAXONOMIC TREATMENT

Homalomena hottae S.Y. Wong, S.K. Chai & P.C. Boyce, *sp. nov.* **Figs. 1 & 2**

Type: MALAYSIAN BORNEO. Sarawak, Miri Division, Marudi, Long Lama, Mulu National Park, trail to Deer Cave, 4°02'23.8"N; 114°48'54.6"E, 60 m asl. 10 Dec. 2011, *Tung Lay Soon et al. AR-3716* (holotype SAR!; isotype TAI!).