



Amomum jackliamii, A new zingiberaceae species from western Sarawak, Borneo

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Abstract

Amomum jackliamii, a new Zingiberaceae species is described herein. The new species is close to *Amomum stenosiphon* but this species has white prickly hairs towards the leaf tip at both edges of the leaf margin at the apex, adaxially surface reddish to dark green when matured. The leaves produce lemony smell and strong smell on the root when crushed white-cream flowers, the lip has a yellow centre bordered by two red lines, about 8.5 cm long, that gradually open. With the discovery of the new species, the number of *Amomum* species in Sarawak now has increased to four species.

Keywords: Species, sarawak, borneo, zingiberaceae

Introduction

Mount Sejinjang (or the Bidayuh elders called it Dorod Sejanjang) is located just behind the well-known Mount Singai. Also connected to Mount Serapi but unfortunately just outside the Totally Protected Area—the Kubah National Park. After many years, Mount Sejinjang is still uncovered as to date there is no single record has been published from this area yet. The area vastly covered by the untouched virgin mixed dipterocarp forest, under the care of the Singai's communities, has a great potential for natural ecotourism products, and, as well as for ecological studies.

The understorey vegetation is very rich, particularly with the monocots groups, such as aroids, arrowroots, sedges, palms and gingers. Also from the group of gesneriads, begonias, Rubiaceae and Primulaceae, diverse with species and great density on the forest floor. A preliminary survey on gingers (the first author's PhD project) encountered at least 21 genera consisting of 49 species (excluding seven undetermined taxa). *Alpinia*, *Etingera*, *Zingiber* and *Globba* are the rich most genera recorded with seven, six, five and four species respectively.

The gingers are varied in its habits, with commonly are terrestrial, lithophyte, rheophyte and only few are with epiphytic habit. For instance, *Alpinia epiphytica* Meekiong, Ipor & Tawan, is the only member in the genus *Alpinia* with epiphytic habit. The ginger also diverse in habitat, thriving in shaded forest or alluvial forests, open spaced in secondary forests or along the logging roads, kerangas, riverine and quite a number of species occupied on the limestone areas and as well as adapted to extreme condition on montane forest up to 2000 m and high salinity of mangrove. Thus make the diversity of gingers in Borneo relatively high

After the revision by the de Boer *et al* (2019), the genus *Amomum* now consists of approximately 64 species of which almost half are previously grouped in the genus *Elettariopsis*. The greatest diversity of *Amomum* is now found in Northeast India and the Indo-China, with only few species extending to Sundaland. *Amomum* is a small to large-sized herbs, from a moderately number of leafy shoots

per clump. The inflorescence are creeping or ascending. Flowering heads few to many flower and usually in white color.

The identification process, information related to taxonomy and geographical distribution to confirm species status were obtained from the related literature and specimen information based on Herbarium of Forest Department Sarawak (SAR), virtual online database plantlist (<http://www.theplantlist.org>) and kew Herbarium (<http://www.kew.org/herbat>).

Key to *Amomum* species (species in Sarawak – based on field morphological characteristics)

1. Plant small, less than 45 cm tall*Amomum kerbyi*
Plant larger, more than 45 cm tall 2
2. Leaves produce lemony smell when crushed, leaf adaxial reddish to dark green, hairy along the leaf margin toward the apex*Amomum jackliamii*
Leaves produce pungent/unpleasant bug smell when crushed, leaf adaxial green or pale green, leaf margin entire 3
3. Inflorescence prostrate in the surface soil, corolla c. 3 cm long *Amomum stenosiphon*
Inflorescence from rhizome, corolla shorter, less than 3 cm *Amomum curtisii*

Materials and methods

Plant collection, documentation and specimen identification

Before the study started, written permission is required from the local community of Singai and Jagoi, Bau. The prior inform consents from local communities of both areas are required under Part V of the Sarawak Biodiversity Regulation 2016. The prior informed consent from both communities was obtained on 11 October 2020 with the reference number of UNIMAS/PHD/PIC. The permit for research was obtained on 12 October 2021 with the reference number of SBC-2021-RDP-35-JER.

The local community leaders were approached to help identify informants who are knowledgeable about