

The Araceae of Malesia III: *Bakoa* P.C.Boyce & S.Y.Wong

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A review of the genus *Bakoa* P.C.Boyce & S.Y.Wong is presented. Three species are recognized, of which one (*B. nakamotoi* S.Y.Wong) is described as new to science. A key to species is provided and all species are illustrated.

Keywords. Araceae, Hestia, *Bakoa*, Schismatoglottideae, Malesia, Borneo

INTRODUCTION

Bakoa is a Bornean endemic genus of three species of obligate rheophytes of lowland perhumid tropical broadleaf forest, either occurring on bare rock along forest streams and waterfalls, or deeply rooted into river sandbanks

Two species of *Bakoa* [*B. lucens* (Bogner) P.C.Boyce & S.Y.Wong and *B. brevipedunculata* (H. Okada & Y. Mori) S.Y.Wong,] have a chequered taxonomic and

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nomenclatural history. Both were first published in *Hottarum* (Bogner, 1983; Okada & Mori, 2000), and next moved to *Piptospatha* (Bogner & Hay, 2000), before a combination of molecular and morphological analyses revealed that together they fell outside either genus and must be accommodated in a new genus (Boyce & Wong, 2008; Wong, 2009; Wong et al., 2010).

Bakoa is defined by the combination of ligular petiolar sheathes, the spadix partially (pistillate zone only) to almost entirely dorsally adnate to the spathe limb, staminate flowers mostly sterile with only a narrow zone of fertile flowers exposed by the spathe opening, thecae lacking a horn- or needle-like structure, basal placentation, and seeds with a blunt micropyle.

BAKOA

Bakoa P.C.Boyce & S.Y.Wong, Bot. Stud. (Taipei) 49(4): 398 (2008); Wong, Acta Phytotax. Geobot. 61 (3): 127–129 (2011).

Type: *Bakoa lucens* (Bogner) P.C. Boyce & S. Y. Wong

Small rheophytic herbs. Stem condensed. Leaves several to many together; petiole sheathing only at the extreme base, thence extended into a very narrowly triangular soon-marcescent ligular portion; blade very narrowly elongate-elliptic, rather coriaceous, shiny deep green, arching (*B. lucens* & *B. nakamotoi*) or stiffly erect (*B. brevipedunculata*), with a conspicuous terminal tubule; midrib abaxially prominent with 4–6 very fine but generally well-differentiated (darker than surrounding tissue) primary lateral veins on each side, these hardly differentiated in thickness from the secondary venation and diverging at ca. 30°; secondary veins adaxially usually more or less obscure, running to a somewhat thicker marginal vein, abaxially fine and very faint; tertiary venation forming an inconspicuous tessellate reticulum. Inflorescence solitary to three or occasionally more together on a single shoot; peduncle short and erect or elongated and arching at anthesis, subtended by one or more dark brown cataphylls, spathe slightly down-turned and the spathe opening ventral, where known declinate post anthesis and during fruiting. Spathe weakly nodding or erect; more or less oblanceolate, hardly constricted, with a long apiculate tip. Spadix adnate to the spathe in the lower 1/2–4/5 or more; pistillate zone completely adnate to the spathe on the dorsal side; ovary depressed globose and weakly angular, placentation basal, ovules orthotropous, long-beaked; stigma sessile, narrower than, or overtopping the ovary, button-like, papillate; interpistillar staminodes absent from the pistillate zone; sterile interstice somewhat thicker than the female zone, dorsally adnate to the spathe, composed of large truncate mostly irregularly polygonal staminodes; staminate zone subcylindric-ellipsoid, apically narrowly acute and sometimes sterile, basally free or adnate to the spathe on the dorsal side; stamens crowded, truncate, dumb-bell-shaped to irregularly rectangular from above, often with the connective irregularly broadened on one side; thecae each opening through a conspicuous, broad-rimmed pore. Fruiting spathe either with the upper 1/3 shedding post anthesis or fully persistent, and then at fruit maturity very swiftly drying and thence by reflexing of the spadix the spathe recurving and opening basally and also tearing at the peduncle insertion to expose the fruits, at the same time spathe limb remaining distally convolute and still clasping the spadix appendix remains; fruiting peduncle initially declinate, later twisting through 180° and becoming arching-erect; berry depressed-globular; seed ellipsoid, micropyle blunt, testa slightly ribbed.