

REVISIONS IN COELOGYNINAE (ORCHIDACEAE)  
1. THE GENUS BRACISEPALUM J.J.S.

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INTRODUCTION

In 1979 a combined Indonesian-Dutch expedition, sponsored by WOTRO, was held in Sulawesi, Indonesia. In addition to herbarium material, a large number of living orchids was collected. The living plants were distributed to the Kebun Raya, Bogor, the Hortus Botanicus, Leiden, and the Hortus Botanicus, G.U., Amsterdam. Among the specimens which flowered in Leiden, two different species appeared to belong to the genus *Bracisepalum*. This genus was hitherto only known from the type collection of *B. selebicum*. Additional herbarium material of this species was collected by Van Balgooy in the field.

This article is the first in a series of treatments for Flora Malesiana of genera belonging to the subtribe Coelogyninae, by the first author. The next revision will cover *Pholidota* and related genera. Mr. J. Vermeulen is responsible for the scientifically very accurate and beautiful drawings.

BRACISEPALUM

*Bracisepalum* J.J. Smith, Bot. Jahrb. 65 (1933) 464.

Epiphytes. Roots long, sometimes puberulous. *Rhizome* creeping, terete. Pseudobulbs close together, ovoid, one-foliate. Young shoots enveloped by scales which later disintegrate into loose fibres. Leaf petiolate. *Inflorescence* synanthous with the developed leaf, partly pendulous, wiry, with several to many, crowded to rather spaced, spirally arranged flowers. Rhachis zig-zag. Sterile bracts below the flowers 1-2, appressed to the rhachis, resembling the floral bracts. Floral bracts persistent. *Flowers* opening rather wide or not, delicate. *Sepals* narrow, lateral ones inserted at the base of the column and on the column foot, connate at the very base, the basal portion saccate around the sac of the lip. *Petals* more or less spatulate-rhomboid, oblique, about sickle-shaped, margin towards the top somewhat erose. Lip inserted on the tip of the column foot, more or less parallel to the column. *Hypochilium* sub-

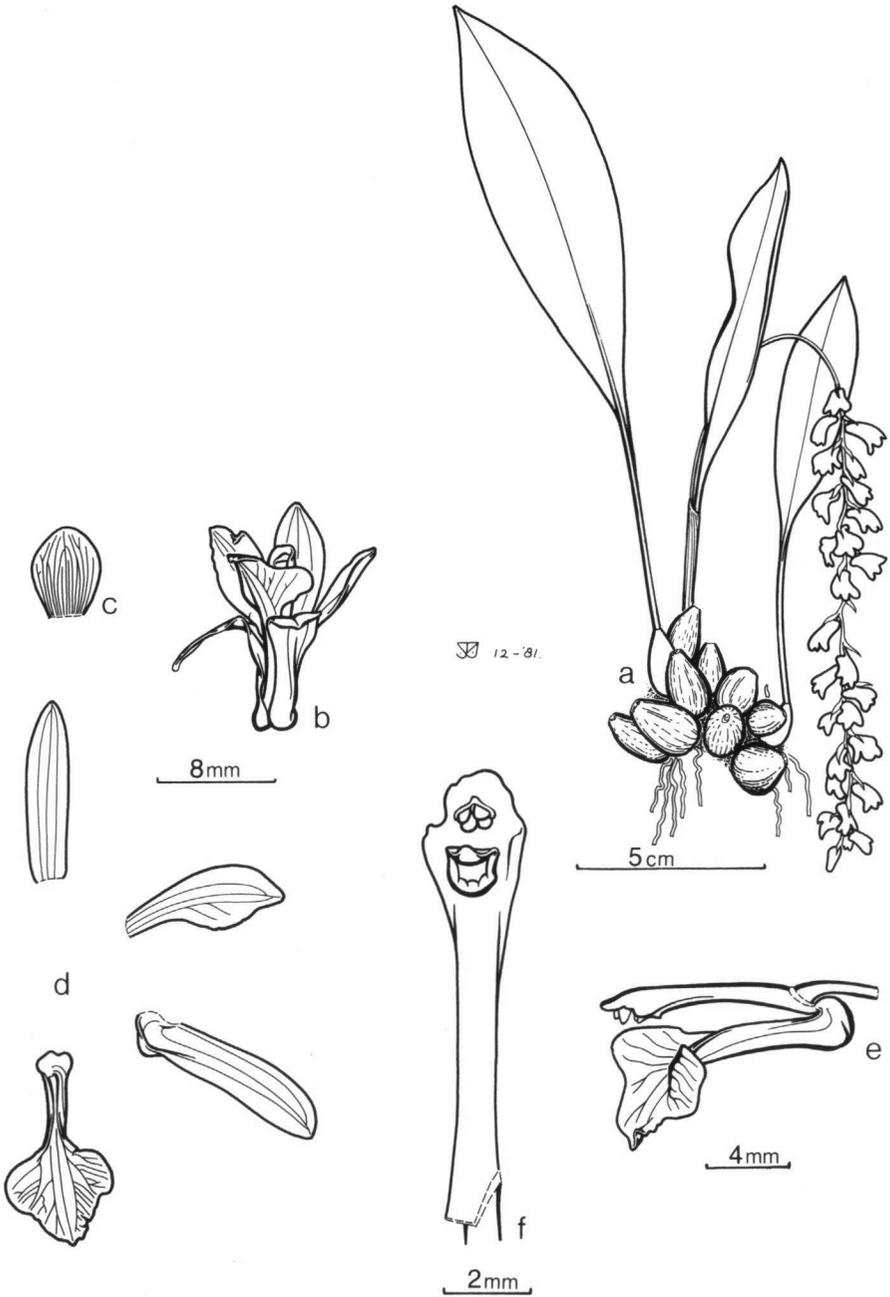


Fig. 1. *Bracisepalum selebicum*. a. Habit; b. flower; c. bract; d. flower analysis; e. column and lip; f. column.

divided into a saccate base of which the tip is two-saccate, and a tubular central part which is open on the upper side. *Epichilium* somewhat recurved to reflexed, cordate to shortly ovate with unequal sides, narrowed into the tubular part of the hypochilium, margin wavy, nerves much-branched. *Column* slender, straight, with a three-lobed apical hood and a distinct short foot. *Anther* with a short, flexible filament, inserted somewhat above the stigma, more or less cordate; pollinia 4, ovate, acuminate. *Stigma* situated between the bases of the lateral lobes of the hood, cup-shaped with projecting margins, the upper margin somewhat more pronounced into a rostellum.

**Distribution.** Endemic in Celebes, 2 species.

**Ecology.** Epiphytic on trunks and branches of trees below the canopy; altitude c. 1800–2000 m.

#### KEY TO THE SPECIES

- 1a. Rhachis (4–)10–15 times the length of a flower. Saccate base of the lip less than a third of the length of the column . . . . . 1. *B. selebicum*  
 b. Rhachis less than 2 times the length of a flower. Saccate base of the lip about half as long as the column . . . . . 2. *B. densiflorum*

#### 1. *Bracisepalum selebicum* J. J. S. – Fig. 1.

*B. selebicum* J. J. S., Bot. Jahrb. 65 (1933) 465. – Type: *Kjellberg 1498* (L).

Roots terete, sometimes more than 30 cm long, often (partly) puberulous with root hairs. *Rhizome* creeping, short, terete; the portions between the pseudobulbs to c. 5 mm long. Pseudobulbs 1.5–4 by 0.5–2 cm. Young shoot and base of the inflorescence enveloped by (3–)5 scales. Scales sessile, the lowest 3 clasping the tubular upper two, resp. 5–10, 11–20, 16–45, 30–85, and 60–140 mm long. *Petiole* semi-orbicular in section, above channelled, to 5–11 cm by 1–2 mm. Blade (obovate-)lanceolate to linear, to 11–21 by 2.2–4 cm; top acuminate; margin entire; nerves 5, the midrib below prominent. *Inflorescence* synanthous with the almost entirely developed leaf, with (8–)23–40 rather spaced, rather closed flowers. Peduncle terete, (9–)17–33 cm long, for most of its length erect, near the top abruptly curved. Sterile bract one, below the flowers. Rhachis (6–)15–23 cm long; internodes 6–8 mm long. Floral bracts obovate, (5–)6–9 by 4–5 mm; top obtuse; c. 11-nerved. *Median sepal* lanceolate, (9–)12–15 by (2.5–)3–3.8 mm, sometimes at the base with 2 more or less pronounced auricles; top acute to acuminate; 3-nerved. *Lateral sepals* somewhat tordated, but not recurved, obovate-lanceolate to about linear, (11.5–)13.5–19 by (2.2–)3–3.6 mm; top acute to acuminate; 3-nerved. *Petals* hardly recurved, more or less spatulate-rhomboid, about sickle-shaped, (8.5–)10–12 by (3.2–)4–5 mm; top acute; main nerves 3. Lip (11–)12.3–18.3 long, with 5 main nerves. *Hypochilium* consisting of a saccate base (1–)1.5–3.7 mm long, 2–3 mm wide, laterally not inflated, and a tubular part 4.5–8 mm long, 2–2.5 mm wide when

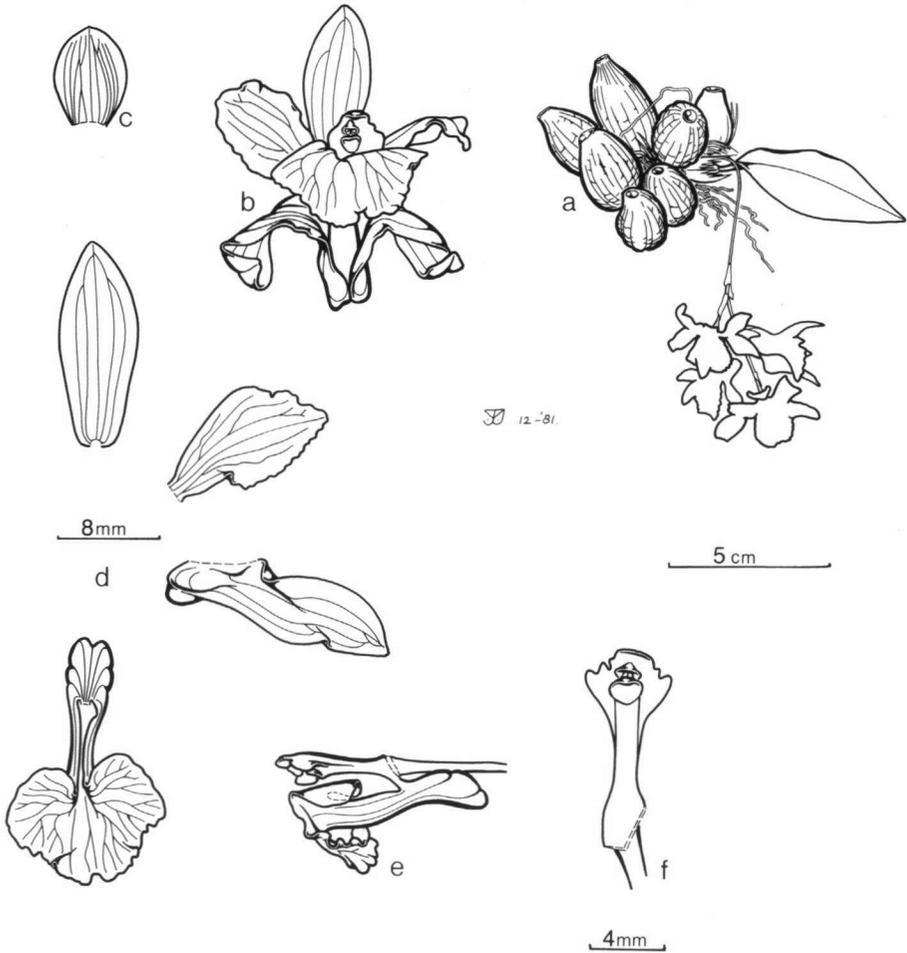


Fig. 2. *Bracisepalum densiflorum*. a. Habit; b. flower; c. bract; d. flower analysis; e. column and lip; f. column.

expanded, without teeth on the transition to the epichilium. *Epichilium* more or less shortly ovate with  $\pm$  unequal sides, narrowed into the tube, somewhat recurved and twisted, c. 5–7 by 6–8 mm; tip acute to acuminate, more or less recurved. *Column* (7.7–)10–12 mm long, including the 1–2 mm long column foot. *Hood* convex, three-lobed, c. (2.2–)3 by 3 mm, long decurrent along the column; the irregular lateral lobes apically either entire or with an irregular tooth. *Anther* on a c. 0.1 mm long filament, c. 0.7–1 by 1 mm. *Stigma* c. 1 by 1 mm. *Ovary* and pedicel c. 4–7 by 0.6 mm. Fruit not seen.

CELEBES. SW. Peninsula: Latimodjong Mts., Mt. Poka Pinjang, 2300 m, Kjellberg 1498 (L, type). – Central: Mt. Roroka Timbu, 1800–2000 m, Van Balgooy 3221 (L, also spirit material, BO, K); De Vogel cult. Hort. L. 20446 (L; spirit material only, taken from a living specimen cultivated in the Botanic Garden, Bogor).

Notes. 1. The flower colour is reddish yellow (beige), to yellow slightly tinged pink, to greenish cream with pink, with a yellow lip (sulphury yellow in the type), the column white, the anther light brown, the pollinia bright ochrish yellow.

2. J.J. Smith wrongly assumed that the inflorescence was erect; this is understandable because in the type specimen only the lowest part of the raceme with five bracts is present. As all flowers were detached, it is difficult to see that the lowest bract was sterile.

## 2. *Bracisepalum densiflorum* De Vogel, *sp. nov.* – Fig. 2.

Epiphytica, squamis basalibus innovationis 3 quarum longissima circa 3 cm longa, floribus apertis longitudine rhachis dimidio longioribus, hypochilio basi saccato columna circa dimidio longiore, epichilio in parte tubuloso hypochilii abrupte attenuato pagina superiore in fronte oris tubi ad sinistram dextramque denticulis 2 praedita. – Typus: *De Vogel cult. Hort. L. 20313* (L).

Roots terete, sometimes more than 30 cm long, with erose surface. *Rhizome* creeping, short, terete; the portions between the pseudobulbs c. 7 mm long, conical, at the base c. 2 mm diam., below the pseudobulb c. 6 mm diam. Pseudobulbs to 4 by 2.2 cm. Young shoot and base of the inflorescence enveloped by 3 scales. Scales sessile, imbricate, folded into a blunt keel, resp. 5, 10 and 30 mm long. *Petiole* semi-orbicular in section, above channelled, in the only leaf present 20 by 1.5 mm. Blade obovate-lanceolate, 6 by 2.5 cm; top acuminate, margin slightly wavy; nerves 7, the midrib below prominent. *Inflorescence* synanthous with the almost entirely developed leaf, with 8 crowded, rather open flowers. Peduncle terete, 7 cm long, the basal 2 cm erect, the apical 5 cm pendulous and at the base somewhat zig-zag. Sterile bracts two. Rhachis 3.2 cm long; internodes c. 5 mm long. Floral bracts ovate, c. 6 by 4 mm; top acute; c. 11-nerved. *Median sepal* obovate-ovate-oblong, c. 15 by 6 mm, at the base with two small auricles; top acute; 5-nerved. *Lateral sepals* recurved, oblanceolate, c. 18 by 5 mm; top acute; main nerves 4. *Petals* somewhat reflexed, more or less spatulate-rhomboid, oblique, c. 14 by 7 mm, obtuse, main nerves 3. Lip 11 mm long, main nerves 9. *Hypochilium* consisting of a saccate base c. 4.3 mm long, 3.3 mm wide, which is laterally on both sides somewhat inflated, and a tubular part c. 8 mm long, 4 mm wide when expanded, in front on the transition to the epichilium with four small, obtuse teeth. *Epichilium* cordate, abruptly narrowed into the tube, reflexed, c. 10 by 12 mm; top acuminate, reflexed. Column c. 10 mm long including the 2 mm long column foot. *Hood* convex, three-lobed, c. 3 by 5 mm, with long decurrent margins; lateral lobes apically each with 1–2 irregular teeth. *Anther* on a 0.2 mm long filament, c. 1 by 1 mm. *Stigma* c. 1 by 1.2 mm. *Ovary* and pedicel c. 8 by 0.8 mm. Fruit not seen.

CELEBES. Central: Mt. Roroka Timbu, c. 2000 m, De Vogel cult. Hort. L. 20313 (L, spirit material only, taken from a living specimen cultivated in the Botanic Garden, Leiden).

Note. The sepals and the tube of the lip are pale pink; the petals, the midlobe of the lip, and the column pale yellowish pink; the anther redbrown, and the pollinia brownish ochre.

#### ACKNOWLEDGEMENT

Dr. J.F. Veldkamp was so kind to translate the diagnosis into Latin, for which we are much obliged.