

**PARASELLIGUEA,
A NEW GENUS OF MALESIAN POLYPODIACEAE**

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SUMMARY

The monotypic genus *Paraselliguea* is based on *Polypodium leucophorum* Baker, an aberrant Polypodiaceous fern endemic to Borneo

The history of the genus *Polypodium* since the beginning of this century (Diels, 1899) has been one of continuous reduction in size. At the moment, after the splitting off of many separate genera, it is not a shadow of its former self. In the most extreme views (Tryon & Tryon, 1982; Hennisman et al., 1992), it is confined to the temperate and Neotropical areas. There is, however, one paleotropical species which has so far escaped attention, and which is, therefore, formally still included in *Polypodium*, as *P. leucophorum* Baker. Its unusual combination of characters makes it difficult to maintain in any of the currently recognized genera. Informally, in herbarium identifications, it has been assigned to *Microsorium* and to *Crypsinus*. However, it does not fit in either of these genera. From *Microsorium* it differs in the isotoechous (Pichi Sermolli, 1972) scales, and in *Crypsinus* (now included in *Selliguea*, Hennisman et al., l.c.; Hovenkamp, in press) it would be as incongruent as it is outside it. The most distinctive characters are the long-creeping, sinuous rhizome, the scattered, squarrose, long-subulate scales, the hairy surface of the lamina, hydathodes with persistent calcareous scales, and the irregularly scattered sori. With the exception of the last character, each of these characters has a match in one or several species of *Selliguea*, but these are widely disparate species (Hovenkamp, in press) and in none of them are these characters as pronounced as in *P. leucophorum*, the exception being the persistently scaly hydathodes, which find an exact match in a few species of *Selliguea*, e.g., *S. platyphylla* (Sw.) Ching. In my opinion, these characters justify the accommodation of *P. leucophorum* in a separate genus:

PARASELLIGUEA, *gen. nov.*

Type and sole species:

***Paraselliguea leucophora* (Baker) Hovenkamp, *comb. nov.* — Fig. 1**

Polypodium leucophorum Baker, J. Linn. Soc. (Bot.) 22 (1886): 229. — Type: *Hose 129* (holo K), Matang, Sarawak.

Pleopeltis melanocaulos Alderw. Bull. Jard. Bot. Buitenzorg II, 11 (1913) 19. — Type: *Amdjah 266* (holo BO; iso L), Labang, Borneo.

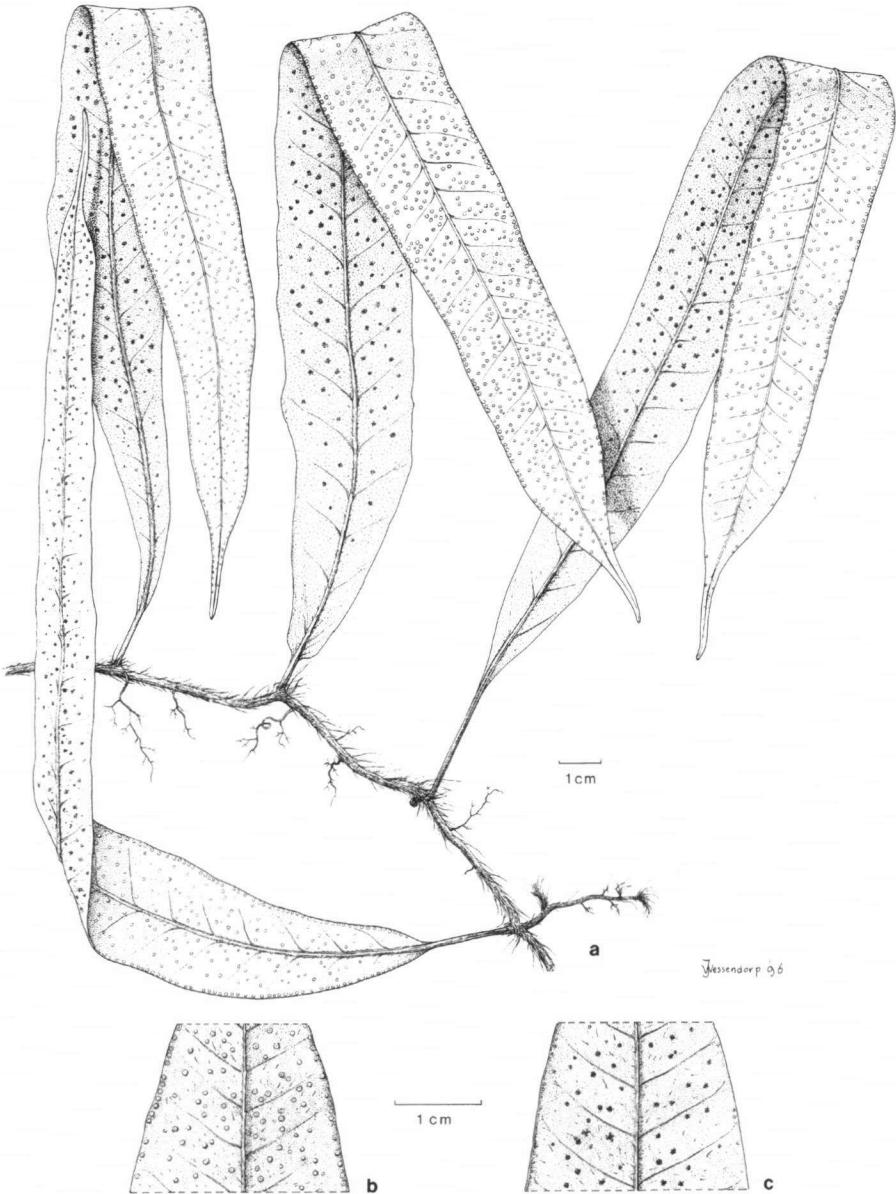


Fig. 1. *Paraselliguea leucophora* (Baker) Hovenkamp. a. Habit; b. upper surface of lamina, showing hydathodes with persistent calcareous scales; c. lower surface of lamina (*Hallier 3341*).

Rhizome 2–3 mm thick, slightly glaucous, sinuous, long-creeping, internodes 4–5 cm long, branches arising near and opposite to the fronds. Anatomy: vascular strands 7–12, without sclerified bundle sheaths, sclerenchyma strands 20–many, scattered, ground tissue not sclerified. Rhizome scales sparsely set, not covering the rhizome, peltate, spreading to squarrose-recurved, 10–12 mm long, reddish brown, base short-dentate, acumen entire, completely consisting of a thick midrib, apex filiform. Fronds monomorphic, simple, to 44 × 4.8 cm, widest near or above the middle, base usually slightly unequally cuneate, margin entire, thin and translucent, apex acuminate to caudate, both sides with scattered, 1–2 mm long, 5–8-celled acicular hairs, sometimes with a denser cover of much shorter 2-celled hairs as well. Main veins not raised on upper surface, connecting veins forming 6 or 7 rows of more or less rectangular areoles, veinlets branching and anastomosing, free veinlets excurrent and recurrent, forming a distinct marginal row of excurrent veins. Hydathodes distinct, with persistent calcareous scales. Lamina thin, brittle when dry, anatomy: lower and upper epidermis with thickened outer cell walls; mesophyll very weakly differentiated, without distinct palisade parenchyma, margin without collenchymatous cells, the hydathodes surrounded by epidermal papilla; stomata superficial, polycytic, occasionally anomocytic. Sori to 1 mm across, scattered, c. 4 in each areole. Sporangia short-stalked, capsules c. 0.3 mm high, with 10–13 indurated annulus cells. Spores brown, c. 54 × 30–40 µm, shallowly colliculate, medium densely set with short spines.

Distribution — Borneo.

Habitat — Epiphytic, forest. Scattered, but apparently not rare in its stations. Altitude 200–450 m.

Specimens seen: *Amdjah* 266, Labang (L¹); *Endert* 2901, Long Temelen (L, BO); *Endert* 2959, Long Liah Leng (BO); *Hallier* 3341, Amai Ambit (L, BO); *Parris* 6892, G. Mulu (L).

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