

**MICROSORUM AURANTIACUM,
A NEW SPECIES OF MICROSOROID FERNS**

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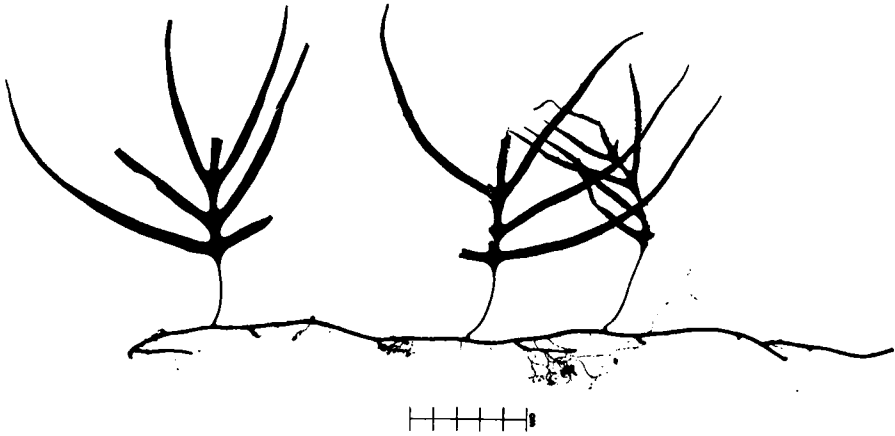
INTRODUCTION

The genus *Microsorium*, of which a revision will be published in the near future, consists of 50 species, including the here described *M. aurantiacum*. In *Microsorium* several groups may be distinguished, all linked by one to several intermediate species. *Microsorium aurantiacum* finds its nearest allies in the group of species that formerly were distinguished as the genus *Phymatosorus*. Although the type, which is also the only collection as yet, was collected already in 1909, reportedly with many duplicates, it remained unnamed, sitting in the herbarium of Berlin. It is easily distinguished from its allies in the nearly circular leaves with very narrow lobes.

Microsorium aurantiacum* Nooteboom, *spec. nov.

Rhizoma 1–1.5 mm lata, ceracea, textura vaginis circumvascularibus filisque sclerenchymatibus induta squamis peltatis. Lamina pinnatifida circularis 7–12 cm longa 8–20 cm lata secus rhachim 0.3–0.5 cm lata stipite 3–8 cm longo utroque latere lobis 2–4, 4–13 cm longis 0.3–0.5 cm latis nervatura areolis soris depressis separatisque unoseriatim ad costam parallelibus. — Typus: *Schlechter 17532* (B), Kaiser Wilhelmsland, 22-V-1909, “auf Bäumen in den Wäldern des Maboro.”

Rhizome 1–1.5 mm wide, rounded, (flaky) white waxy under the scales, with circumvascular sheaths and scattered strands of sclerenchyma, vascular bundles 10–15, sclerenchyma strands 5–15, roots sparsely set. *Scales* peltate, sparsely set, appressed, narrowly ovate, triangular, circular, or elliptic, often with eroded margins, 0.2–0.5 mm long, 0.2–0.3 mm broad, clathrate or subclathrate, cells longitudinally rectangular, the central region glabrous. *Phyllopodia* more or less distinct, 50–120 mm apart. Leaf not or slightly dimorphous, herbaceous. *Lamina* pinnatifid, base cuneate or cuneate-angustate, margin entire or undulate, undersurface without acicular hairs. Lamina of dissected leaf about circular, 7–12 cm long, 8–20 cm broad, 0.3–0.5 cm wide between the lobes at place of longest lobes; stipe present, 3–8 cm long, 0.8–1 mm diam.; lobes 2–4 at each side, longest lobes widest at base, at position 1 from base, 4–13 cm long, 0.3–0.5 cm broad, index 10–20, apex acute. Venation type 5: connecting veins forming one row of large areoles parallel to the costa, bordered by the first connecting vein between each pair of veins and bordered by several smaller areoles; included venation variously anastomosing; costal areole, if present, formed by smaller veins. Veins and smaller veins more or less immersed and vague. *Sori* separate, one sorus just outside each primary costal areole, close to the margin,



Microsorium aurantiacum Nootboom (Schlechter 17532, B).

round, deeply sunken, visible as protrusions on the upper surface, solitary on a connective vein or on the crossing of a vein and a connective vein, or just outside a connective vein, 1.5 mm diam.; paraphyses simple uniseriate hairs with glandular top-cells.

Etymology — Named to commemorate the opening of the Van Steenis Building by Her Majesty Queen Beatrix on June 11, 1996, and to honour the Royal House of Orange.

Distribution — Papua New Guinea, Morobe Province. Only one collection.

Note — The new species is closest related to *M. papuanum* (Baker) Parris, from which it can be distinguished by the following characters:

- Sori separate, one sorus just outside each primary costal areole, close to the margin, scales 0.2–0.3 mm broad, cells longitudinally rectangular, lamina of dissected leaf herbaceous, 0.3–0.5 cm wide between the lobes at place of longest lobes, longest lobes widest at base, venation type 5: connecting veins forming one row of large areoles parallel to the costa, bordered by the first connecting vein between each pair of veins and bordered by several smaller areoles; sori 1.5 mm diam. *Microsorium aurantiacum*
- Sori separate, one sorus in, or just outside each primary costal areole, generally close to the costa, at most halfway to the margin, scales 0.5 mm broad, cells small, more or less isodiametric, lamina of dissected leaf thin-herbaceous or membranaceous, 1.2–2.2 cm wide between the lobes at place of longest lobes, longest lobes widest about the middle, connecting veins forming one row of small (inconspicuous) primary costal areoles parallel to the costa, bordered by one row of conspicuous large areoles; in fertile monomorphic leaves the first connecting vein often forming, or contributing to, a distinct soral vein, sori 3.5–5.0 mm diam. *Microsorium papuanum*