

A NEW SPECIES OF *MICROSORUM* (POLYPODIACEAE) FROM THAILAND

THAWEESAKDI BOONKERD¹ & HANS P. NOOTEBOOM²

SUMMARY

Microsorium thailandicum, a new species of *Microsorium*, is described and illustrated.

Key words: *Microsorium*, Polypodiaceae.

Microsorium thailandicum T. Boonkerd & Noot., *spec. nov.* — Fig. 1

Rhizoma 4–5 mm diametro filis sclerenchymatis 40–240 dispersis squamis peltatis ovatis vel triangularibus 2.5–4.5 mm longis, 0.6–1.44 mm latis. Frondes subcoreaceae in statu vivo caeruleae iridescentes, in statu sicco brunneae. Lamina simplex 15–35 cm longa, 1.2–2.1 cm lata, indice 7–12, apice longe acuminato, base attenuata, soris separatis irregulariter dispersis super venis singularibus vel connectivis in parte apicali laminae. — Typus: *T. Boonkerd 1442* (holo L; iso BCU), Thailand, Chumphon.

Rhizome 4–5 mm diam., not white waxy, approximately cylindrical with scattered strands of sclerenchyma, vascular bundles in cylinder 8–12, the sclerenchyma strands 40–240, roots densely set. Scales densely set, slightly spreading, widest near the base, ovate or triangular, 2.5–4.5 by 0.6–1.4 mm, pseudopeltate but the lobes often connivent or some scales peltate, the margin denticulate, apex acuminate to slightly caudate, clathrate throughout, dark black on central region. *Phyllopodia* more or less distinct, 1.6–3.6 mm apart. Fronds monomorphic (well proportioned to the rhizome diameter), subcoriaceous, iridescent blue in colour when living, linoleum brown in dry specimens. Lamina simple, narrowly elliptic, 15–35 cm long, 1.2–2.1 cm broad, index 7–12, apex long acuminate, base attenuate, the stipe more or less winged, margin entire, costa raised on lower surface, grooved on upper surface. *Venation*: the first connecting vein forming one row of relatively small, primary costal areoles parallel to the costa, other, larger, areoles in a row between two veins; the venation is hidden in living specimen, free veinlets simple or once or twice forked. *Sori* separate, mostly irregularly scattered on simple free or on 2 or 3 connective veins, usually occupying the apical half of the lamina, more or less round, slightly immersed, 4–20 per cm², 0.6–2 mm diam.; paraphyses absent; sporangium hyaline when young, turning black when mature, sporangium annulus 26–31-celled, indurated cells 14–21; the spores concavo-convex, yellowish hyaline, 61–76 by 44–59 µm.

1) Department of Botany, Faculty of Science, Chulalongkorn University, Bangkok 10330, Thailand.

2) Nationaal Herbarium Nederland, Universiteit Leiden branch, P.O. Box 9541, 2300 RA Leiden, The Netherlands.

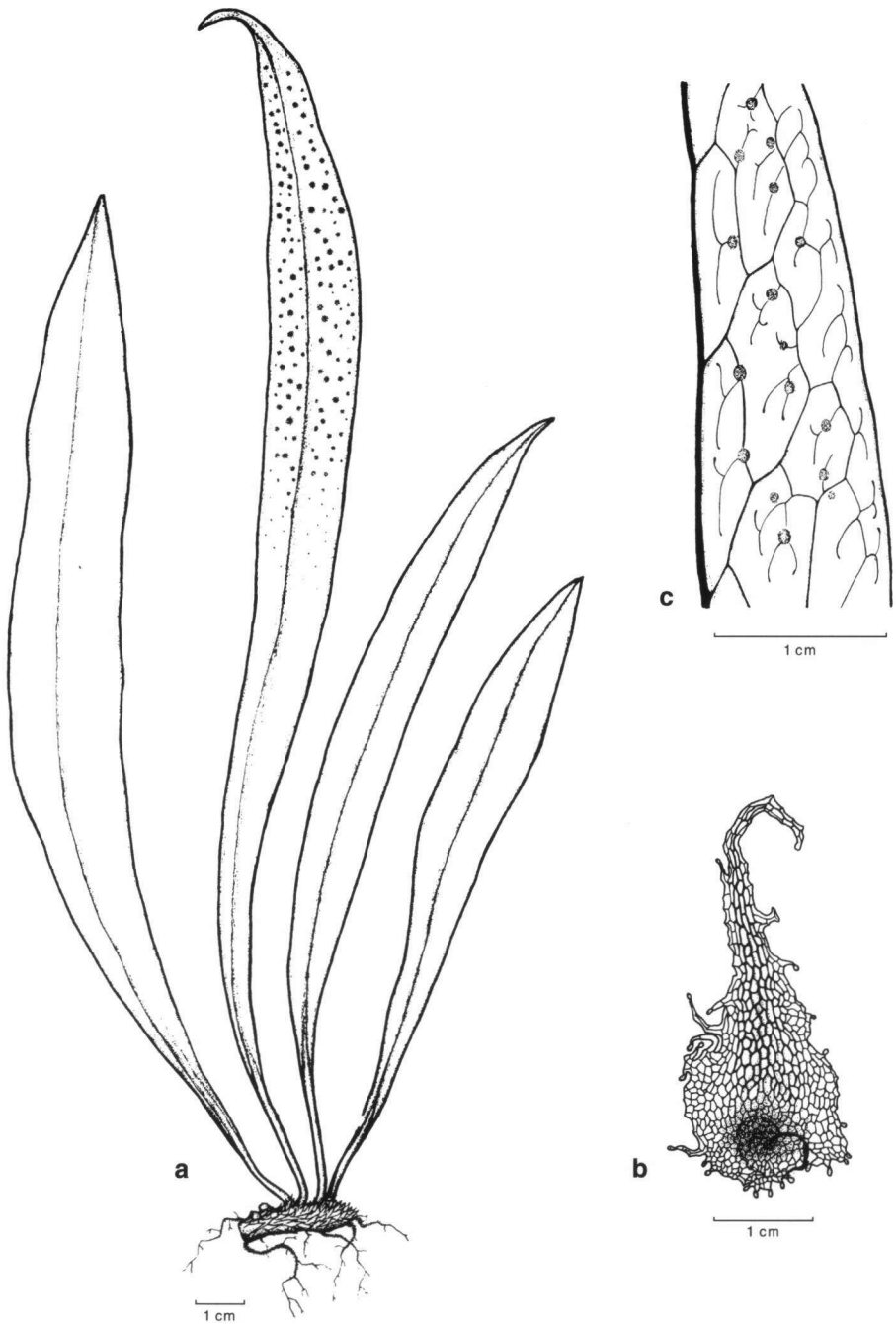


Fig. 1. *Microsorium thailandicum* T. Boonkerd & Noot. a. Habit; b. rhizome scale; c. detail of venation. — Drawn by Sahut Chantanaorrapint and Manit Kidyue from T. Boonkerd 1442.

Distribution — Thailand (Chumphon).

Habitat & Ecology — In rock crevices on rather dry rock-ceiling of limestone hill in semi-shade, 250–300 m altitude.

Notes — An iridescent blue *Microsorium* species was introduced to the Sunday market in Bangkok, since early 1994. By that time the first author and his colleagues had visited a limestone hill, its natural habitat in Chumphon Province, peninsular Thailand, where the species grows. This species is a lithophyte, grows in rock crevices, in semi-shade. It was expected to see this species in rather deep shady areas, because of its blue leaf iridescence as was pointed out by some workers on fern species. This remarkable colour is still retained when a living plant was introduced to a home garden, usually in hanging baskets where it is not really in deep shade. In 1994, some living plants were sent to Kew Gardens, Smithsonian Institute and probably to some countries in Europe. It is still growing at Kew Gardens. Peter Edwards of Kew said that it should be *Microsorium steerii* (Harr.) Ching (pers. comm.) and many people knew it as this species since then. Due to it being well-adapted in cultivation this species is distributed and becomes popular among fern-collectors both in the USA and Europe. Therefore, many people want to know the right identity of this species.

It resembles *M. punctatum* (L.) Copel. and *M. steerii*, but differs from both in the iridescent blueish leaves and in the sporangium annulus having more cells.

ACKNOWLEDGEMENTS

The first author would like to express his gratitude to Dr. Obchant Thaithong for her kindly drawing attention to this fern species. Sincere thanks also to Dr. Chumpol Khunwasi, Ms. Rossarin Pollawatn, Ms. Parinyanoot Darumas, Mr. Chanin Thorat, and Mr. Piyakaset Suksathan for accompanying TB to the natural site of this species.