

A Taxonomic Study of Malesian Hymenophyllaceae: Designation of Lectotypes for Destroyed Copeland's Types

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Abstract. For twelve Malesian Hymenophyllaceae described by Copeland whose holotypes or primary materials have been destroyed by fire, lectotypes are designated from isotypes deposited in the herbarium of University of Michigan.

Key words: Copeland, Hymenophyllaceae, Malesia.

During his stay in the Philippines, E. B. Copeland described at least ten new species of Hymenophyllaceae based on the specimens deposited in the Bureau of Science and/or Philippine National Herbarium (PNH). Since holotypes in PNH were destroyed by fire during the World War II, isotypes deposited in the herbarium of University of Michigan (MICH, former collections of Copeland's private herbarium) need to be designated as lectotypes for the Flora Malesiana publication of the family (Iwatsuki & Ebihara, in prep.).

For the following eight species, Copeland clearly stated that the original collections were deposited in PNH.

Trichomanes gracillimum Copel., Philipp. J. Sci. 51 (1933) 168, pl. 13.

Type: Ramos & Edano Bur. Sci. 33383, "type in Bureau of Science herbarium" (Holotype PNH, destroyed; Lectotype MICH, designated here; Isotypes: P, SING). Luzon, Ilocos Norte Province, Mount Palimlim, Philippines, Aug. 1918.

Trichomanes crassum Copel., Philipp. J. Sci. 51 (1933) 256, pl. 54; pl. 55, fig. 3.

Type: Lopez Bur. Sci. 40804, "Type in herb. Bur. Sci.; specimina etiam in U.S. Nat. Herb. et herb. auctoris" (Holotype PNH, destroyed; Lectotype MICH, designated here; Isotypes P, US). Leyte, Cabalian, Philippines, May. 1922.

Hymenophyllum vittatum Copel., Philipp. J. Sci. 64 (1937) 31, pl. 9, figs. 1–2.

Type: Curran For. Bur. 13099, "type in Phil. Nat. Herb." (Holotype PNH, destroyed; Lectotype MICH, designated here). Tayabas Province, San Antonio.

Hymenophyllum bicolanum Copel., Philipp. J. Sci. 64 (1937) 31, pl. 10.

Type: Edano Bur. Sci. 76555, "type in Phil. Nat. Herb." (Holotype PNH, destroyed; Lectotype MICH, designated here). Luzon, Camarines Sur Province, Mount Isarog, alt. 1200 to 1500 m.

Hymenophyllum bontocense Copel., Philipp. J. Sci. 64 (1937) 33, pl. 12.

Type: Ramos & Edano Bur. Sci. 37735, "type in Phil. Nat. Herb." (Holotype PNH, destroyed; Lectotype MICH, designated here; Isotypes: P, US). Luzon, Bontoc Subprovince, Mount Pukis; other syntypes: Ramos & Edano Bur. Sci. 37932,

“type in Phil. Nat. Herb.” (MICH, PNH). Luzon, Mount Masapilid.

Hymenophyllum ramosii Copel., Philipp. J. Sci. 64 (1937) 34, pl. 9, figs. 4–6.

Type: Ramos & Edano Bur. Sci. 38550, “type in Phil. Nat. Herb.” (Holotype PNH, destroyed; Lectotype MICH, designated here). Mindanao, Bukidnon Province, Mount Lipa, alt. 2000 m.

Hymenophyllum gorgoneum Copel., Philipp. J. Sci. 64 (1937) 60, pl. 26.

Type: Brass 3304 “type in Phil. Nat. Herb.”, (Holotype PNH, destroyed; Lectotype MICH, designated here; Isotype GH). Solomon Islands, Ysabel, Tiratoña, alt. 600 m.

Hymenophyllum nitiduloides Copel., Philipp. J. Sci. 64 (1937) 112, pl. 52.

Type: Ramos Bur. Sci. 23577, “type in Phil. Nat. Herb.” (Holotype PNH, destroyed; Lectotype MICH, designated here). Luzon, Sorsogon Province, Sept. 9, 1915.

For the following four species, Copeland did not clearly mention in the original description where the original collections he had studied

were deposited. Both Merrill’s and Clemens’s first sets of collections, now destroyed, were probably in PNH, but the type collections found in MICH were probably acquired from Copeland as duplicates.

Trichomanes christii Copel., Philipp. J. Sci., C. 1 suppl IV (1906) 251.

Type: Merrill 1819 (Lectotype MICH, designated here; Isotypes GH, P, US). Mindoro, prope fluminem Baco, Philippines.

Hymenophyllum semifissum Copel., Philipp. J. Sci., C. 10 (1915) 145.

Type: native collector Bur. Sci. 2607 (Lectotype MICH, designated here). Borneo, Mount Merinjak.

Hymenophyllum perfissum Copel., Philipp. J. Sci., C. 12 (1917) 47.

Type: Clemens 10588 (Lectotype MICH, designated here; Isotypes BM, L, US).

Hymenophyllum clemensiae Copel., Philipp. J. Sci., C. 12 (1917) 46.

Type: Clemens 10780 (Lectotype MICH, designated here; Isotypes BM, L, US).

マレシア地域産コケシノブ科の分類学的研究：失われたコーブランドの
タイプ標本に対するレクトタイプ選定

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E.B. コーブランドが記載したマレシア地域産コケシノブ植物のうち、ホロタイプが失われたと考えられる12種について、ミシガン大学 (MICH) 所蔵のアイソタイプをレクトタイプに選定した。