

***Lobaria clemensiae* Vain. (Lobariaceae, Lichenes)
on Halmaheira Island, Indonesia**

WILLIAM SM. GRUEZO

*Museum of Natural History and Department of Life Sciences,
College of Arts and Sciences, University of the Philippines
at Los Baños, College, Laguna, Philippines.*

Abstract

Lobaria clemensiae Vain., a lichen species, originally described from the Philippines, is reported from the Halmahera Island, Indonesia.

During my work on the Philippine material of the genus *Lobaria* (Schreb.) Hoffm., it has become necessary to study *Lobaria* specimens from the neighbouring countries particularly those collected from within the natural phytogeographical unit known as Malesia. And, from the abundant specimens obtained on loan from the Herbarium Bogoriense (BO), Indonesia, one collection represents an interesting phytogeographical record for *Lobaria clemensiae* Vain.

***Lobaria clemensiae* Vain.**

Lobaria clemensiae Vain., Philipp. J. Sci. 8C: 136. 1913, "*clemensae*"; Yoshimura, J. Hattori Bot. Lab. No. 34: 262. 1971, fig. 15q-w, pl. 7a-e. *Lectotype* (designated by Yoshimura, 1971): Philippines, Mindanao, Lake Lanao, Camp Keithley, June 1907, *Mary Strong Clemens 1313* [TUR-V 10688, part of the lectotype in hb. Gruezo 00-7 ex TUR-V; US (not seen, *fide* Yoshimura 1971)].

Thallus adpressed, small to medium-sized, 2–4 (–10) cm wide, strongly lacinulate; lobes 2–10 mm broad, their margin crenulate, often distinctly fringed with small simple or forked lobules; dorsal surface of thallus smooth, partly canaliculate, yellowish grass-green to yellowish brown, without soredia or isidia, instead with lobules formed from cracked cortex; ventral surface of thallus pale to yellowish brown, thickly tomentose and sparsely rhizinate at midportion of lobes; tomentum dark chocolate brown to nearly black, crowded on older lobes, pale brown, scattered near apex or margins; rhizines simple, pale brown, 2 mm long. Apothecia absent. Pycnidia not seen. Plate 1, A & B; Fig. 2.

Dorsal cortex paraplectenchymatous, c.30 μ thick; medulla 170–220 μ thick, medullary hyphae 3 μ wide; ventral cortex paraplectenchymatous, pale brown, 15 μ thick, composed of 2–3 cell-layers; tomentum elongate, branched, loosely interwoven, 5–7 μ wide, up to 300 μ long. Inner cephalodia often present.

Chemical reactions: thallus K-, C-, KC-; medulla K-, C-, KC+ rose-red.

Chemical substance: gyrophoric acid.

Specimen examined: HALMAHERA ISLAND. Mt Sembilan (Siu), Bivak Ake

Biaur, alt. c.550 m, on tree, 10 October 1951, *P. Groenhart* 8336 (BO 7307).

Habitat: *L. clemensiae* is usually found tightly adnate on bark of trees from 200–1300 m altitude in lowland to midmontane virgin or mixed dipterocarp forests, and up to the mossy forest zone.

Distribution range: In the Philippines, *L. clemensiae* has been collected from: 1, Tandul Mati, Naujan, Mindoro Oriental Province; 2, Sitio Manlangco, Sibulan, Negros Oriental Province; 3, Mt Kampalili, Davao Province; 4, Tungao and Florida, Butuan City, Agusan Province; and 5, Camp Keithley, Lake Lanao, Lanao Province, the type locality (Gruezo, 1979). (Fig. 1).

Outside of the Philippines, *L. clemensiae* is known only from the following collecting stations: 1, near Mt Silam and Kundasan, Sabah (Borneo) and 2, Mt Gede, Tjibodas and Mt Tantjar, all in Java (Yoshimura, 1971). Its discovery in the Halmaheira Island (Mt Sembilan) extends the distribution range further southeast (Fig. 1). Very likely, this species is expected to be found in New Guinea and its near-by islands.

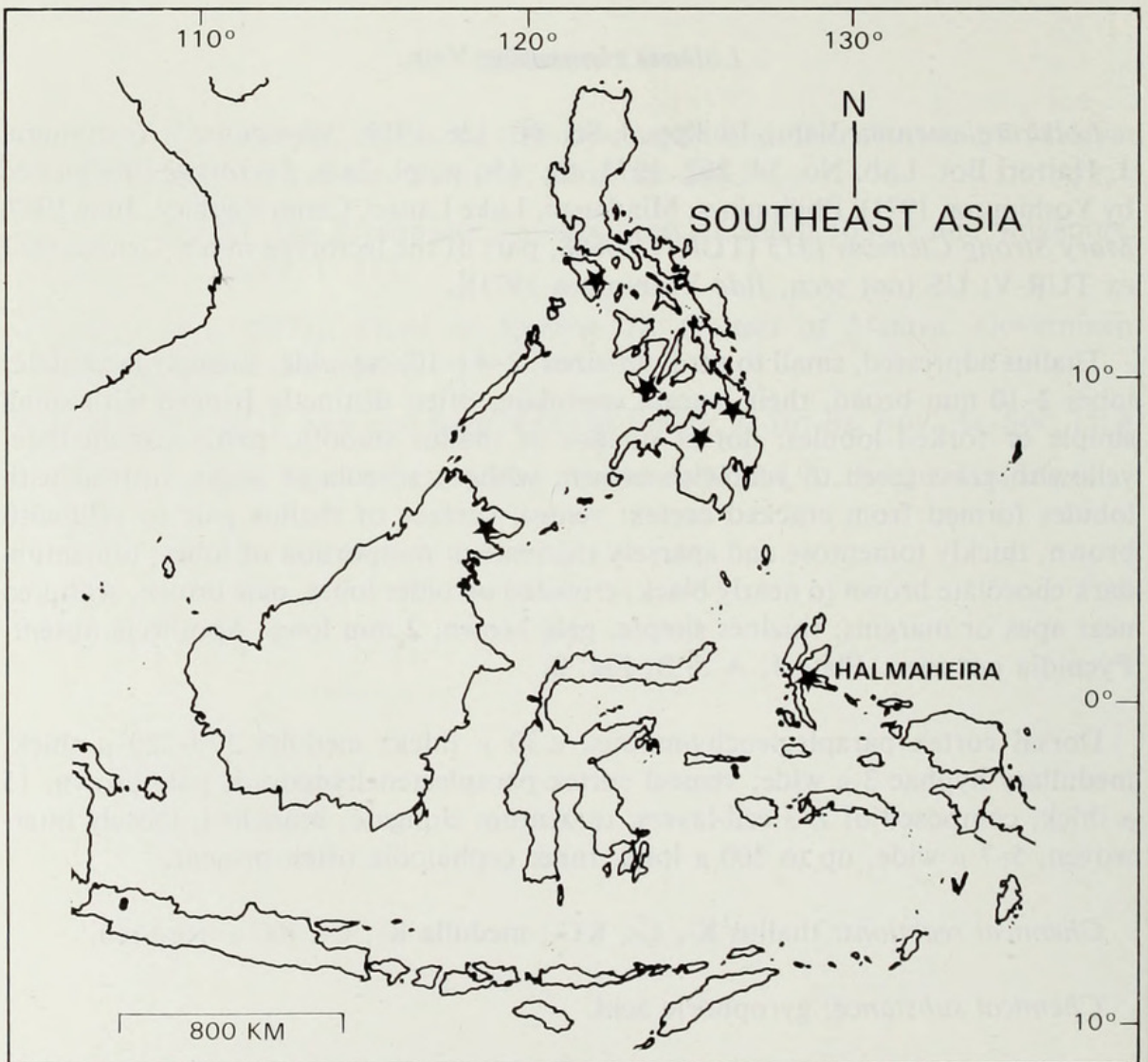


Fig. 1. Geographical range of *Lobaria clemensiae* Vain.

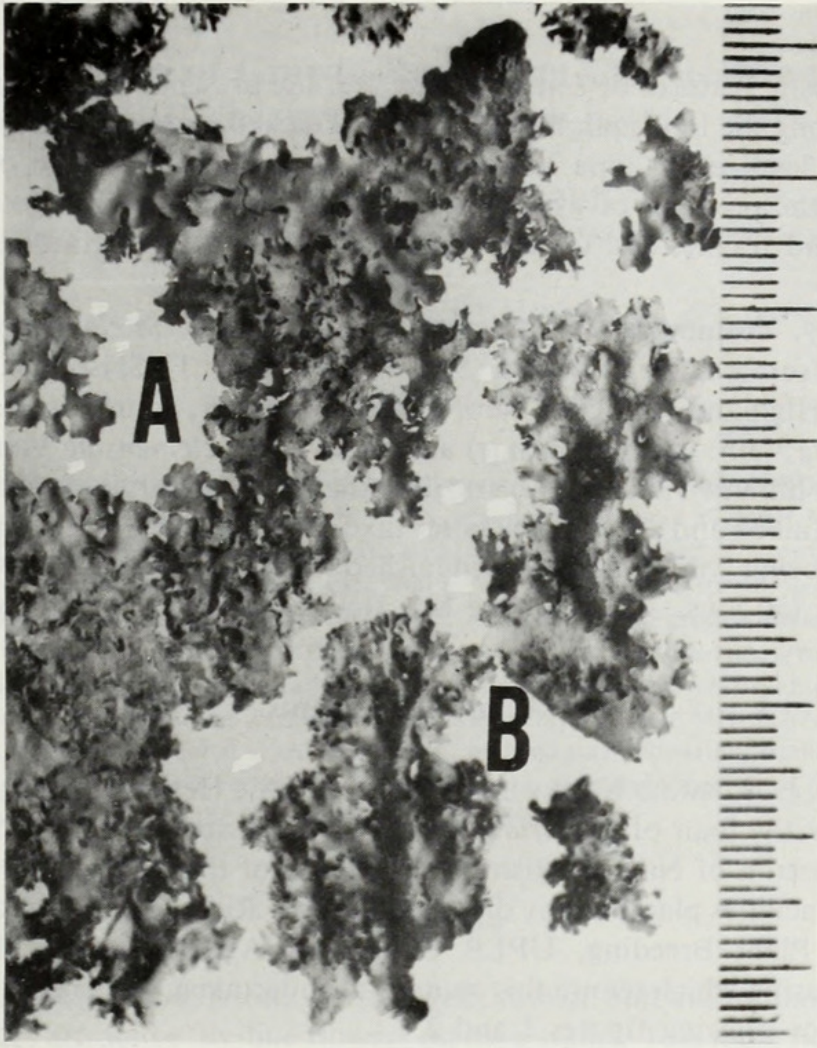


Plate 1. *Lobaria clemensiae* Vain. A. Dorsal surface of thallus. B. Ventral surface of thallus. (scale: small divisions in mm). (Groenhart 8336).

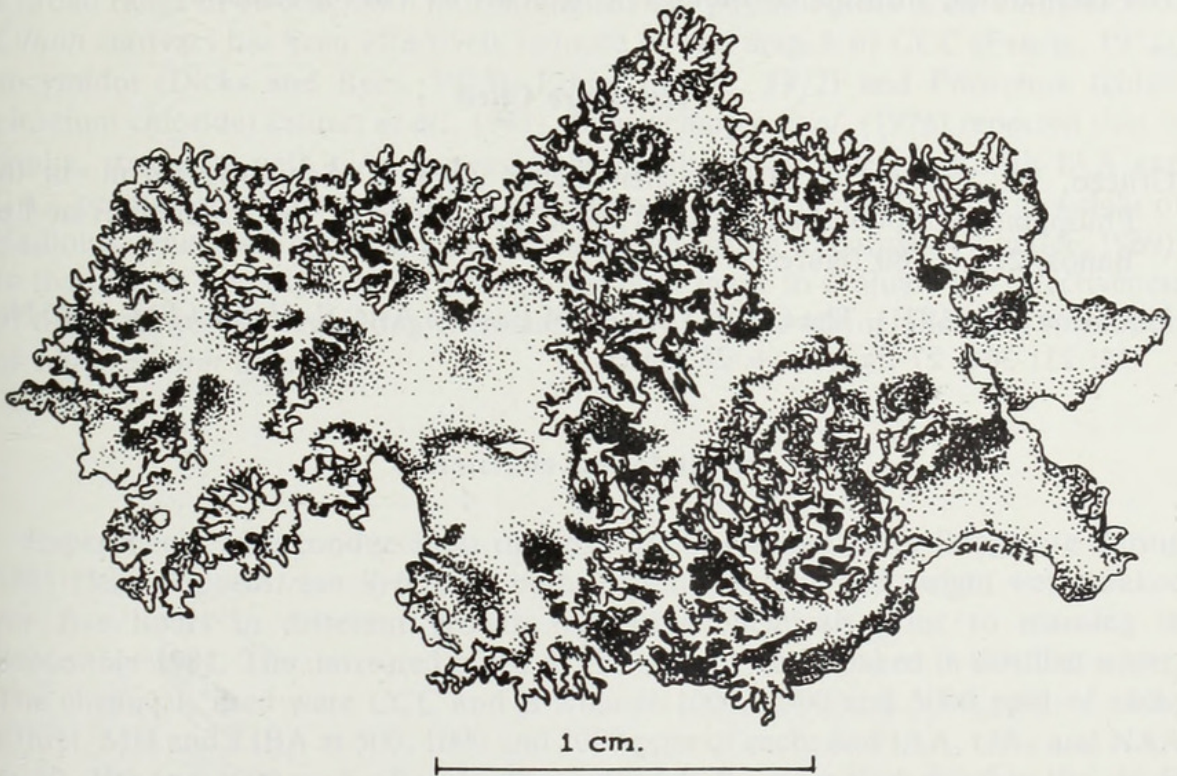


Fig. 2. *Lobaria clemensiae* Vain. Thallus showing position of lobules. (Groenhart 8336).

The diagnostic features of *L. clemensiae* are: the presence of very fragile lobules (phylidia) along the lobe margins and rims of cracked cortex of the thallus (fig. 2); the more or less veined type of tomentum on the lower surface of the thallus (plate 1, B); the presence of gyrophoric acid; and the thallus being comparatively small, thin and fragile, and usually tightly adnate to the substratum.

Incidentally, Yoshimura (1971) described as new *Lobaria clemensiae* Vain. var. *crassa* based from a single collection (S. Kurokawa 6280, TNS; isotype, NICH) from the Western Highland district of New Guinea. However, comparison of plate 7 a-e (*L. clemensiae* Vain. var. *clemensiae*) and plate 7f (*L. clemensiae* Vain. var. *crassa* Yoshim.) (Yoshimura 1971, p.343) suggests that when additional materials of var. *crassa* are obtained and studied, the latter taxon might prove to be a distinct species. For the time being, var. *crassa* is distinguished from the typical variety by its thicker dorsal cortex (50 μ vs. 30 μ) and the K+ thalline reaction (Yoshimura 1971).

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