

REVIEW OF F. E. WIMMER, CAMPANULACEAE-LOBELIOIDEAE SUPPLEMENTUM
ET CAMPANULACEAE-CYPHIOIDEAE. DAS PFLANZENREICH, IV. 276c (108.
HEFT), I - X, 816 - 1024; WITH DESCRIPTION OF TREMATOLOBELIA
WIMMERI DEG. & DEG., SP. NOV.

Otto & Isa Degener
Volcano, Hawaii

Shortly before his death on May 2, 1961, Dr. Franz Elfried Wimmer submitted his completed manuscript about Lobelioideae and Cyphioideae to Dr. K. H. Rechinger. The latter then sent the work to Drs. H. Stubbe and S. Danert. It was published on March 15, 1968, in East Berlin. Of the Lobelioideae there are 29 plates and 11 figures; of the Cyphioideae, 51 plates. The drawings, probably reproduced in the same size as executed by the illustrator instead of being reduced by half, are not as good as the photographs, those borrowed from the late Dr. J. F. Rock being outstanding.

As we are not familiar with the Cyphioideae, we shall not review the almost 100 pages devoted to them. In fact, we shall limit ourselves to the Lobelioideae so far as represented in the Hawaiian Islands. Dr. Wimmer lists the following genera endemic to these islands, with the number of species known up to his time, as:

<u>Brighamia</u> - - - - -	1	<u>Delissea</u> - - - - -	8
<u>Clermontia</u> - - - - -	32	<u>Rollandia</u> - - - - -	12
<u>Cyanea</u> - - - - -	74	<u>Trematolobelia</u> - - - - -	3

For the presumably cosmopolitan genus Lobelia, he lists 388 species for the world.

Being a bit less conservative perhaps than Dr. Wimmer, we prefer Lobeliaceae to Lobelioideae; and so far as the genus Lobelia is concerned, do not recognize it as native to the Hawaiian Archipelago. Instead, we prefer to place most of the taxa reposing there into three small, endemic genera.

As Hawaiian place names are confusing in their spelling and as plant labels, particularly ours, are often a bit illegible in script, we here wish to put on record some necessary orthographic changes:

Page 817, for Kanehaha read Kanahaha; for Hononau, Honaunau.
Page 818, for Anny Greenwell read Amy Greenwell.
Page 820, for McKandles read McCandless.
Page 823, for thetelephone read telephone.
Page 825, for Pololo read Pololu; for Maunakui read Mauna Hui; for Kapoho Puna read Kapoho, Puna.
Page 826, for Papaiku read Papaikou; for Kala, Kikala; for Pitso, Piko; for Jao, Iao; for Kaulalewelewe, Kaulalewelewe; for

Pololo, Pololu; for Honokanenui, Honokane Nui; for Pololo, Pololu.

Page 828, for Komakawai read Komakawai; for McCandles, McCandless.

Page 829, for Olau read Olaa; delete Kohala before Kulani; for Pololo read Pololu; for Honokanenui, Honokane Nui; for Anny Greenwell, Amy Greenwell.

Page 831, for Kawaihe read Kawaihae.

Page 887, for Honokanenui read Honokane Nui; for Kaholuamano, Kaholuamamu; for Hamakue, Hamakua.

Page 888, for Lehua makanoë read Lehuamakanoï.

Page 892, for Waiahuatua read Waiahuakua.

Page 901, for Farn read Fern.

Page 906, for Hiray read Hirai.

Page 909, for Hetheway read Hatheway.

Regarding lobelias in the Hawaiian Islands, we are convinced many new taxa still exist; but most of these probably will be exterminated before they can be collected by the botanist due to the ravages of man's bulldozing, his agricultural and timber industries, his livestock raising, his building boom with apparently a desert-like golf course next to every tourist hotel, and his introduction by accident and design of exotic plants and animals injurious to the endemic biota. One of these many taxa on the verge of extinction we here name,

TREMATOLOBELIA WIMMERI Deg. & Deg., sp. nov. Lobi calycini 7 mm. longi; capsula 15 mm. longa et 16 mm. lata.

Trematolobelia macrostachys sensu Fagerlund & Mitchell, Checklist Plants Haw. Nat. Park Kilauea - Mauna Loa Sect. 58. 1944.

Trematolobelia macrostachya (sic) sensu Fosberg; Doty & Mueller-Dombois in Haw. Bot. Sc. Paper 2: 231. 1966.

Not Trematolobelia macrostachys Zahlbr.; Rock in Coll. Haw. Publ. 2: 45. 1913.

Trematolobelia kauaiensis sensu Wimmer in Pflanzenreich IV.276c (108. Heft). 901. 1968. (As to Island of Hawaii only).

Plant with single slender erect stem 2 meters tall. Leaves oblanceolate, about 14 cm. long and 2 cm. wide, glabrous throughout, acuminate to sessile base, sharply cuspidate at apex, faintly undulate with submarginal hydathode at each indentation. Flowers about 20 per horizontal 30 cm. long branch of inflorescence, with pair of bractlets at lower third of pedicel: in bud with hypanthium 3 mm. long and 2 mm. wide; with calyx lobes 5 mm. long and almost 2 mm. wide, oblong, obtuse at apex but with faint cusp; in anthesis (flower in poor, decayed condition) with staminate column and style and stigma probably about 6 cm. long. Capsule on thickened 3 cm. long pedicel, 20 mm. wide, 13 mm. high without the persistent somewhat incurved 5 mm. long calyx lobes.

Type locality: Hawaii, Kilauea, near Fern Forest, rich moist sunny locality; only this one seen. Degener 7860, February 18, 1922. (Vienna).

The type, collected by Otto Degener in 1922, was not available for study when the writers visited the Natural History Museum, Vienna, in the summer of 1964. Even though the type specimen normally must have died after fruiting, the Degeners combed the type area in August 1968 with the hope of perhaps discovering an offspring of the 1922 plant. Though the area had escaped the usual ravages of "civilization" in the vicinity, no Trematolobelia plants were found. Three sheets (Fagerlund & Mitchell 847) in the Hawaii Volcanoes National Park herbarium, however, evidently belong to this taxon, are considered cotypes, and here have been used to augment the description. Fagerlund & Mitchell collected the young flowering material September 4, 1943, and fruiting material from the same specimen February 22, 1944. As the sheets cite the locality as being "In wet forest between Crater Rim road and Kilauea Iki," the writers visited the area in the hope of finding specimens. The search was of no avail - the area had been devastated by the 1959 Kilauea-Iki Eruption! In place of Trematolobelia, the unwelcome exotics Anemone japonica, Buddleja asiatica and Rubus penetrans were taking over the area. We fear Trematolobelia wimmeri Deg. & Deg., a species with capsules reminiscent in size to those of T. kauaiensis (Rock) Skottsb., to be on the verge of extinction if not already extinct.



Degener, Otto and Degener, Isa. 1968. "Review of F. E. Wimmer, Campanulaceae Lobelioideae supplementum et Campanulaceae-Cyphioideae. Das Pflansonreich, IV. 276c (108. Heft), I-X, 816-1024; with description of *Tematolobelia wimmeri* Deg. & Deg., sp. nov." *Phytologia* 17(5), 369–371.

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