

Muscis Hawaiiensis Mantissae II. *Neckeropsis obtusata* (Mont.)
Fleisch. restored to the flora of the archipelago

Storrs L. Olson

217 N. Jackson Street, Arlington, Virginia 22201, U.S.A.

Abstract: Reported once and then deleted as a misidentification, *Neckeropsis obtusata* is confirmed as a component of the Hawaiian flora based on newly collected material. The species is still known only from a very limited area of the westernmost main island of Kauai and may represent an adventive introduction.

The known distribution of *Neckeropsis obtusata* is mainly along the rim of the western Pacific from Vietnam (*locus typicus* Tourane = Da Nang), Taiwan, and the Ryukyus, to Japan. Bartram (1933:179) considered it „a fine addition“ to the flora of the Hawaiian Islands when he identified a collection from Waimea Canyon, Kauai, as this species. In his revision of *Neckeropsis*, Touw (1962) did not include the Hawaiian Islands in the range of *N. obtusata*. In subsequent correspondence with William J. Hoe, Touw stated that Bartram’s record had been based on misidentified material of *N. lepineana* (Mont.) Fleisch., the only other species of the genus known in the archipelago. Consequently, *N. obtusata* was among the taxa that Hoe (1974) rejected from the Hawaiian flora.

I collected a *Neckeropsis* in mesic forest at middle elevation on Kauai that, by the consistent presence of single, well-developed costa, seemingly had to be something other than

N. lepineana. Though abundant at this site—an extensive mat of these plants covered much of a large volcanic boulder—the material was entirely without sporophytes. A duplicate (deposited at L) was sent to Touw for identification, who informed me (in litt. 10 March 1994, 10 April 1994) that he now considered this specimen, the one initially identified by Bartram, and three additional collections made in Waimea Canyon in 1977 by Hoe, to be correctly referred to *N. obtusata*, at least as far as can be asserted in the absence of sporophytes with any of the material.

***Neckeropsis obtusata* (Mont.) Fleisch.:**
HAWAIIAN ISLANDS: Kauai, Makaweli District, on large boulder in mesic forest on W bank of Mahaikona Stream, between the intersection of Olokele Ditch (350m) and the falls at about 600 m, 12 February 1993. (Olson 470, L).

Mahaikona Stream drains into Waipio Valley, the next drainage to reach the sea east of the Waimea/Makaweli valley system in which previous collections of this moss were made. Both areas have experienced considerable horticultural development and transplantings of flowering plants, so that the occurrence of *N. obtusata* on Kauai can perhaps be attributed entirely to human intervention. On the other hand, Kauai is the nearest main Hawaiian Island to the potential source area for natural colonization by asexual anemochores of this species. Nevertheless, the apparent restriction of the species to a small area of a single island suggests that its occurrence in the archipelago may not be natural.

Acknowledgments

I am grateful to Keith Robinson for access to the Mahaikona Stream site and for guiding and assisting me, along with R. P. Gaige II. I thank A. Touw for identifications and information and W. Buck and W. Hoe for comments on the manuscript.

References

- Bartram, E. B. 1933.** Manual of Hawaiian mosses. *Bernice P. Bishop Museum Bulletin* 101: 1-275.
- Hoe, W. J. 1974.** Annotated checklist of Hawaiian mosses. *Lyonia* 1: 1-45.
- Touw, A. 1962.** Revision of the moss-genus *Neckeropsis* (Neckeraceae) I. Asiatic and Pacific species. *Blumea* 11:373-425.