

***Jaffueliobryum arsenei*** (Thér.) Thér.

Status: **Endangered (EN)** B1,2cd

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Class: Bryopsida

Order: Grimmiiales

Family: Grimmiaceae

**Description and Biology:** Plants 8-10 mm tall, growing in dark green to blackish cushions. Leaves oblong-ovate, about 1.0-1.3 mm long, ending in a hyaline hair point. The species is among a unique group of mosses known to exhibit a “cryptoicous” condition where the male organs are borne on a short branch inside the group of leaves that surround the female organs. Although this condition is considered an evolutionary novelty, its biological significance has not been determined, but may be associated with the frequent production of sporophytes.

**Distribution and Habitat:** Known only from two localities in Ecuador (western coastal region of the Andean foothills).

**History and Outlook:** In 1980 and 1981 the species was collected in three sites between 22° 47'N – 102° 34'W and 22° 30' N – 102° 13'W. The northern of these populations, near the city of Zacatecas, may have suffered from human interference as a cable car facility was built in the interval. It is known from a small area ranging from central Zacatecas to northern Querétaro. The site of type locality in Jurica, Querétaro was revisited in April 2000 and the species was refound and also discovered at a new site further south in the same state. The survival of other populations cannot be ascertained at this time, but since the plants seem well adjusted to desert habitats and may have persisted under the protection of surrounding vegetation (they grow on rocks in dry, exposed situations), they may still remain in their 1980's sites.

**References:**

- Churchill, S.P. 1987. Systematics and biogeography of *Jaffueliobryum* (Grimmiaceae). Mem. New York Bot. Gard. 45: 691-708 (figure 1, 3, 6, 11, 12-15).
- Sharp, A.J., Crum, H.A. & Eckel, P.M. (eds.). 1994. The moss flora of Mexico. Mem. New York Bot. Gard. 69: 1-1113 (figure 289 a-e).
- Thériot, I. 1928. Mexican mosses collected by Brother Arsène Brouard – II. Smithsonian Misc. Coll. 81: 1-26 (figure 2).

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