

ADDITIONAL PANAMANIAN BRYOPHYTES

MARSHALL R. CROSBY¹

ABSTRACT

Twenty-seven mosses and one liverwort are reported from Panamá for the first time.

In a recent survey of the mosses recorded from Panamá, 213 species and seven varieties were listed (Crosby, 1969). Breen and Reese (1971) added 21 species, and Crosby (1971a) described *Squamidium chiriquense* from western Panamá. The 27 additional records listed herein are based mainly on collections I made in 1965 and 1969. I am grateful to various members of the staff of the Missouri Botanical Garden for taking time to collect mosses while engaged in work for the *Flora of Panama* and other projects. Specimens of all taxa listed are in MO, and duplicates of most are in DUKE.

HEPATICAЕ

Micropterygium trachyphyllum Reim. COLÓN: Santa Rita Ridge, Crosby 4444. COCLÉ: N of El Valle de Antón, base of Cerro Pilon, Crosby 4395. PANAMÁ: Cerro Campana, Crosby 4495; Cerro Jefe, Crosby 4535, Lewis & Dressler 7603. — According to Fulford (1966) the genus *Micropterygium* is not known from Central America. Fulford recognizes 18 species, many of which occur in Venezuela and Colombia. *Micropterygium trachyphyllum* is common on tree trunks in moist localities in Panamá. This species has a wide distribution, ranging from Cuba and Jamaica through the Lesser Antilles and across northern South America.²

MUSCI

- Acrocryphaea gardneri* (Mitt.) Jaeg. CHIRIQUÍ: Boquete, Cornman 3168.
Adelothecium bogotense (Hampe) Mitt. CHIRIQUÍ: N of Cerro Punta, Croat 10534D.
Aongstroemia jamaicensis C. Müll. CHIRIQUÍ: N of Cerro Punta, Croat 10453, 10462B; N of El Hato del Volcán, Croat 10663.
Calymperes lonchophyllum Schwaegr. COLÓN: Santa Rita Ridge, Crosby 4461. VERAGUAS: Mouth of Río Concepcion, Lewis et al. 2802A.
Calymperes venezuelanum (Mitt.) Reese. PANAMÁ: Cerro Jefe, Crosby 4531.
Campylopus harrisii (C. Müll.) Par. PANAMÁ: Cerro Jefe, Lewis & Dressler 7604, 7605. — Previously known from Cuba, Jamaica, and Surinam.
Daltonia longifolia Tayl. COCLÉ: N of El Valle de Antón, base of Cerro Pilon, Crosby 4392B.

¹ Cryptogamic Herbarium, Missouri Botanical Garden, 2315 Tower Grove Avenue, St. Louis, Missouri 63110.

² I thank Dr. Margaret Fulford, University of Cincinnati, for confirming my initial determinations of this species.

- Eustichia spruceana* (C. Müll.) Par. CHIRIQUÍ: S of Boquete, *Crosby* 3965.
- Heterophyllum nemorosum* (Brid.) Kindb. CHIRIQUÍ: Las Cumbres near Cerro Punta, *Croat* 13751C.
- Holomitrium arboreum* Mitt. CHIRIQUÍ: S of Cerro Horqueta Peak, N of Boquete, *Crosby* 4004. PANAMÁ: Cerro Campana, *Stimson* 5392A.
- Hypnella pilifera* (Hook. & Wils.) Jaeg. CHIRIQUÍ: Holcomb Trail, N of Boquete, *Crosby* 4068B, 4071, 4079.
- Hypnum polypterum* (Mitt.) Broth. CHIRIQUÍ: N of Cerro Punat, *Croat* 10463; Las Cumbres near Cerro Punta, *Croat* 13749B, 13751F.
- Isodrepanium lentulum* (Wils.) Britt. CHIRIQUÍ: S of Cerro Horqueta Peak, N of Boquete, *Crosby* 3994. COCLÉ: N of El Valle de Antón, base of Cerro Pílon, *Crosby* 4387, 4417. PANAMÁ: Cerro Campana, *Crosby* 4480.
- Leptodontium cirrhifolium* Mitt. CHIRIQUÍ: Boquete, *Cornman* 3079; above Cerro Punta, *D'Arcy* 5377.
- Leptodontium valerianum* Bartr. CHIRIQUÍ: S of Boquete, *Crosby* 3964.
- Leptotheca costaricensis* Card. & Thér. CHIRIQUÍ: Holcomb Trail, N of Boquete, *Crosby* 4067. — This species is also known from Colombia, Costa Rica, Jamaica, and Venezuela. See *Crosby* (1971b).
- Leskeodon longipilus* (Besch.) Bartr. PANAMÁ: Cerro Campana, *Crosby* 4498.
- Macromitrium standleyi* Bartr. CHIRIQUÍ: Holcomb Trail, N of Boquete, *Crosby* 4049. — A distinctive species with very long, undulate leaves. Previously known only from Costa Rica.
- Meteorium undulifolium* Broth. & Thér. CHIRIQUÍ: N of Cerro Punta, *Croat* 10534B; Río Chiriquí Viejo, near Nueva California, *D'Arcy* 4245B.
- Neohypnella diversifolia* (Mitt.) Welch & Crum. CHIRIQUÍ: Holcomb Trail, N of Boquete, *Crosby* 4023B, 4046A, 4052, 4063, 4074.
- Octoblepharum cocuiense* Mitt. COCLÉ: N of El Valle de Anton, base of Cerro Pílon, *Crosby* 4393. PANAMÁ: Cerro Jefe, *Crosby* 4518. — Previously known from Brazil, Colombia, Gayana, and Surinam.
- Phyllo drepanium falcifolium* (Schwaegr.) Crosby. PANAMÁ: Along road above Goofy Lake, *Crosby* 4343. — See *Crosby* (1970) for notes on this species.
- Stenodictyon sericeum* Bartr. CHIRIQUÍ: Holcomb Trail, N of Boquete, *Crosby* 4010. — Bartram (1929) based this species on a sterile collection from Costa Rica. The present collection is fertile, and the peristome confirms its placement in *Stenodictyon*. The seta, slightly roughened at the apex and smooth below, is 2–2.5 cm long, intermediate in length between that of *S. nitidum* (Mitt.) Jaeg. (5 cm), Ecuador and Panamá, and that of *S. pallidum* Crum & Steere (0.8–1.4 cm), Greater Antilles.
- Stereophyllum subobtusum* Ren. & Card. CHIRIQUÍ: S of Boquete, *Crosby* 3959B.
- Streptopogon calymperes* C. Müll. ex Geh. CHIRIQUÍ: About 4 km from Cerro Punta, *Correa* 1219.
- Tayloria moritziana* C. Müll. CHIRIQUÍ: Holcomb Trail, N of Boquete, *Crosby* 4019, 4076.
- Zygodon reinwardtii* (Hornsch.) B.S.G. CHIRIQUÍ: S of Cerro Horqueta Peak, N of Boquete, *Crosby* 3987D.

LITERATURE CITED

- BARTRAM, E. B. 1929. Additional Costa Rican mosses. Jour. Washington Acad. Sci. 19: 11-27.
- BREEN, RUTH S. & W. D. REESE. 1971. A contribution to the muscology of Panamá. Bryologist 74: 33-36.
- CROSBY, M. R. 1969 [1970]. The mosses reported from Panamá. Bryologist 72: 513-521.
- . 1970 [1971]. Some remarks on the genus *Drepanophyllum* Schwaegr. Rev. Bryol. Lichénol. 37: 345-353.
- . 1971a. A new moss from western Panamá—*Squamidium chiriquense*. Ann. Missouri Bot. Gard. 58: 89-91.
- . 1971b. Some additional records for the moss flora of Jamaica. Caribbean Jour. Sci. 11: 65-66.
- FULFORD, MARGARET H. 1966. Manual of the leafy Hepaticae of Latin America. Part II. Mem. New York Bot. Gard. 11: 173-276.