



FIG. 1. Silhouettes of leaves of *Botrychium pinnatum* from Coal Bank Pass, Colorado (Montgomery & Root 86-279).

Clausen) Wagner & Lellinger. The specimens collected from San Juan County are thus the first verified record of *B. pinnatum* in Colorado. This represents a range extension to the south from the range reported by Lellinger (1985) as Alaska to the mountains of Montana, northern Nevada, and Oregon. Ranges of most moonworts are subject to revision as these small and inconspicuous plants become better understood and pteridologists become more familiar with their habitats. We observed additional potential habitats for moonworts on both Coal Bank Pass and Molas Divide. The San Juan Mountains are a geologically complex area of southwestern Colorado which is largely inaccessible and has not been thoroughly explored botanically; future examination of this area by pteridologists is certainly warranted.—PETER G. ROOT, Kathryn Kalmbach Herbarium, Denver Botanic Gardens, 909 York St., Denver, CO 80206, and JAMES D. MONTGOMERY, Ecology III, Inc., R.D. 1, Berwick, PA 18603.

New Records of Pteridophytes from the State of Chiapas, Mexico.—As a result of intensive field work for the Flora Mesoamericana Project, several species of pteridophytes must be added to those already known for the State of Chiapas. Some of them were expected (Smith, *Flora of Chiapas, part 2: Pteridophytes*,

1981; Breedlove, *Listados florísticos de México, IV, Flora de Chiapas*, 1986) because they grow at low elevations in the Eastern Highlands and in the eastern part of the Central Plateau of the state. These floristic associations are continuous with associations in the Petén region of Guatemala. Five out of ten new records are filmy ferns, which are easily overlooked because of their small size and because often they grow mixed with other species of Hymenophyllaceae.

In this paper information is given to distinguish the species from related species already reported from Chiapas. Identifications have been made or verified by Ramón Riba and Leticia Pacheco.

Actinostachys germanii Fée—Mpio. Ocosingo, Crucero Corozal on the road Palenque-Boca Lacantún, 180 m, semi-evergreen seasonal forest (periodically inundated), 6 Nov 1985, E. Martínez S. 14891, MEXU, UAMIZ. It differs from *Schizaea* by the sterile leaf which is simple and linear, similar to a small slender grass; sporangiophores are digitate. The plant is inconspicuous and is easily overlooked in the field.

Grammitis minuscula (Maxon) Copel.—Mpio. La Trinitaria, Lagos de Montebello, 1450 m, pine-oak-Liquidambar forest, 7 Aug 1984, L. Pacheco 1300, UAMIZ. It differs from the other Chiapan species of *Grammitis* by the entire elliptical leaves and round sori. The only difference between Pacheco 1300 and the original description is that the specimen is a little shorter, probably due to the degree of exposure of the plant.

Lindsaea portoricensis Desv.—Mpio. Ocosingo, 10 km S of Ejido Benemérito de las Américas, on road to Flor de Cacao, Marqués de Comillas, 120 m, semi-evergreen seasonal forest, 9 Dec 1984, E. Martínez S. 9508, MEXU, UAMIZ. This differs from the other species of *Lindsaea* in Chiapas by the brownish red, abaxially terete stipe, pinnae strongly ascendent, almost vertical and touching each other, and pinnules subrectangular, 1.5–2 times as long as wide.

Schizaea poeppigiana Sturm—Mpio. Ocosingo, Crucero Corozal on the road Palenque-Boca Lacantún, 180 m, in semi-evergreen seasonal forest (periodically inundated), 8 Jan 1986, E. Martínez S. 15618, 15673, MEXU, UAMIZ. This differs from *Schizaea elegans* by the dimorphic leaves, the fertile leaves not foliose, its fertile axis strongly recurved at maturity; sterile leaves repeatedly furcated, the divisions not or very slightly expanded and joined only at the base. The species has been reported only for the Bahamas, Greater Antilles and from Costa Rica to the Guianas and Peru.

Thelypteris falcata (Liebm.) Tryon—Mpio. Ocosingo, 2 km S of Crucero Corozal, on road Palenque-Boca Lacantún, 180 m, semi-evergreen seasonal forest (periodically inundated), 21 Sept 1984, E. Martínez S. 7675, MEXU, UAMIZ. It differs from *T. standleyi* by its sporangial stalks without hairs and secondary veins nearly straight, not arcuate or subsigmoid.

Trichomanes ekmanii W. Boer—Mpio. Pichucalco, 6 km N of Pichucalco (by air), 200 m, old secondary growth in tropical rain forest, wet creeks, 18 Feb 1985, A. Espejo 1440 & S. Hernández, UAMIZ. This differs by the small blades with a continuous submarginal false vein and without marginal hairs; cross-veins wanting; involucre immersed, without lips and not dark-edged.

Trichomanes godmanii Hooker—Mpio. Ocosingo, Crucero Corozal on road

Palenque-Boca Lacantún, 180 m, semi-evergreen seasonal forest, 23 Feb 1985, E. Martínez S. 11101, MEXU, UAMIZ. This differs from *T. ekmanii* by the abundant false veins, these parallel and perpendicular to the true veins, the venation appearing reticulate.

Trichomanes holopterum Kunze—Mpio. Ocosingo, Crucero Corozal on road Palenque-Boca Lacantún, 220 m, semi-evergreen seasonal forest (periodically inundated), 6 Nov 1985, E. Martínez S. 15009, MEXU, UAMIZ. This differs from *T. crispum* by the winged petiole, shorter blades, broadly winged rachis, and few (5–10) segments on a side. The species has been reported previously only for the Greater and Lesser Antilles.

Trichomanes membranaceum L.—Mpio. Ocosingo, 6 km NE from Pichucalco (by air), 220 m, old secondary growth in tropical rain forest, 18 Feb 1985, A. Espejo 1441 & S. Hernández, UAMIZ. The species can be easily separated from the others of subg. *Didymoglossum* by the simple or slightly lobed blade, false veins parallel to the true veins, and by the paired orbicular scales in the margin of the blade.

Trichomanes tuerckheimii Christ—Mpio. Ocosingo, Nuevo Veracruz, 33 km W of Rio Chixoy, road to Chajul, Marqués de Comillas, tropical deciduous forest, 10 Jan 1986, E. Martínez S. 15908, MEXU, UAMIZ. It is distinguished from *T. pinnatum* by the long-creeping rhizome, distant sessile leaves, false veins few, located near the margin and parallel to the true veins, and by "prehensile" trichomes on veins, midribs, and margins in the abaxial face of the blade, which cause the lamina to adhere to the surface of the host plant.—RAMÓN RIBA and LETICIA PACHECO, Depto. de Biología, C.B.S., Universidad Autónoma Metropolitana-Iztapalapa, Ap. Postal 55-535, México, D. F. 09340; and ESTEBAN MARTÍNEZ S., Depto. de Botánica, Instituto de Biología, UNAM, México, D. F. 14020.

Additions to the Fern Flora of the Bahamas.—The publication of Correll and Correll's (1982) *Flora of the Bahama Archipelago* has significantly improved our understanding of the Bahamian flora and, as is the case with any new flora, has stimulated the discovery of corrections and new taxa. As part of a study of the phytogeography of the Bahamian archipelago, I encountered several specimens that represent additions to the flora.

Hypolepis repens (L.) Presl.—This taxon represents a new genus and species for the Bahamas. It occurs on the islands of Grand Bahama (Correll & Kral 42936, FTG), New Providence (Correll & Correll 48320, FTG), North Andros (Correll & Proctor 47828, FTG), and San Salvador (Correll & Wasshausen 46861, FTG). All four collections are sterile, and this has apparently confounded identification by D. S. Correll who annotated two of the sheets as young plants of *Pteridium aquilinum* var. *caudatum*. The Grand Bahama collection consists of very young plants (less than 1.5 dm tall) and would not be placed as *H. repens* except for the presence of other more readily identifiable specimens for comparison. The occurrence of the species in the Bahamas is not especially surprising in light of its wide range in the West Indies and the Florida peninsula (cf., Proctor, *Flora of the Lesser Antilles*. Vol. 2. *Pteridophyta*, 1977). The plants occur in forested



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