

BOTANY.—*A new Anemia from Mexico.*¹ WILLIAM R. MAXON,
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The following new species is one of a number of interesting ferns in a collection received by the U. S. National Museum from Prof. C. Conzatti, of Oaxaca, Mexico, in 1917. At the suggestion of Professor Conzatti it is named as below in honor of his friend and fellow-collector, Dr. Emilio Makrinius.

***Anemia makrinii* Maxon, sp. nov.**

Plants about 50 cm. high; rhizome short-creeping, densely clothed with turgid acicular septate dark brown hairs; fronds several, close, distichous, long-stipitate, the sterile and fertile ones nearly alike in size and proportion. Fertile fronds erect, 45–50 cm. long; stipe 25 cm. long, slender, dull stramineous from a dark base, narrowly sulcate laterally and ventrally in the upper part, deciduously blackish-fibrillose; sterile lamina deltoid, 18–25 cm. long, 12–16 cm. broad, acuminate, once pinnate, the rachis stramineous, deeply sulcate ventrally and laterally, glabrate; sterile pinnae 7 or 8 pairs, distant, oblique, straight or mostly falcate, the lowermost the largest, petiolate (4–10 mm.), 6–11 cm. long, 1.4–2 cm. broad, narrowly lance-oblong and long-acuminate or tapering gradually from near the base to a long-attenuate apex, the base subequilateral and broadly cuneate; succeeding pinnae gradually shorter and more oblique, the upper ones free or subsessile, much smaller than the conform or basally lobed terminal segment; costa medial, percurrent, prominent beneath, stramineous, sparsely fibrillose; veins free, very oblique, repeatedly dichotomous, close, prominulous (especially beneath), glabrous; margins faintly cartilaginous, serrate or in the outer part deeply biserrate, the teeth very oblique, nearly straight, flat, acutish; leaf tissue thin-herbaceous, dark green and somewhat iridescent above, paler beneath, glabrous; fertile pinnae ascending, 10–16 cm. long, about half the length of the sterile lamina, the panicle as long as the slender stalk or longer, flat-tish, 8–15 mm. broad, the lower and middle segments remote, petiolate; spores closely and rather sharply cristate-striate. Sterile fronds similar, but the stipe relatively shorter and the blade more narrowly triangular.

Type in the U. S. National Herbarium, no. 867444, collected at the Cafetal Nueva Esperanza, District of Pochutla, Oaxaca, Mexico, at an altitude of 800 meters, April 9, 1917, by Prof. C. Conzatti, Dr. B. P. Reko, and Dr. Emilio Makrinius (no. 3087). A second collection, received more recently from Dr. Reko, is from the Cafetal Calvario, Oaxaca, altitude 700 meters, September 30, 1917, *Reko* 3365.

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Anemia makrinii belongs to the small group of species with distichous simply pinnate fronds with the basal pinnae fertile, of which *A. speciosa* Presl and *A. mexicana* Klotzsch are the only North American representatives. It resembles *A. speciosa* somewhat in its short fertile pinnae, but differs widely in its more numerous and narrower sterile pinnae, its thin-herbaceous (not rigidly coriaceous) leaf tissue, and in its prominulous veins, the veins of *A. speciosa* being distinctly impressed upon the upper surface. In the character of its leaf tissue it is near *A. mexicana*, but that species is characterized by having the pinnae subcordate-truncate at the base, or exciso-cuneate below, the veins fibrillose-hirtous beneath, and the fertile pinnae erect and invariably surpassing the sterile lamina of the fertile frond. *Anemia makrinii* differs noticeably from both in the flat, nearly straight teeth and only faintly cartilaginous margins of the sterile pinnae, the margins in the two related species being strongly cartilaginous and the teeth stoutish, very rigid, often concave, and curved or, in *A. speciosa*, commonly hamate.

The somewhat iridescent appearance of the upper surface of some of the sterile blades is an interesting character but one probably not of specific importance, as it is variable and tends to disappear. When present it gives the frond a singularly attractive aspect.