A New Species of Leptophyes from Mexico
(Ephemeroptera: Tricorythidae)

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An undescribed species of Leptophyes Eaton, 1882, was recently found in a collection of mayfly nymphs from Mexico. I take pleasure in naming this species in honor of Richard K. Allen, in recognition of his contributions to the knowledge of this genus. I thank Jerry Battagliotti for preparing the illustrations.

Leptophyes alleni Brusca, new species

Nymph.—Length: body 4.0-5.0 mm; caudal filaments 4.5-5.5 mm. General color tan to reddish-brown with gray to black markings. Head tan with scattered black markings and numerous pale spots (Fig. 1); maxillary palpi 3-segmented; labrum pale with black lateral margins and marginal setae; labrum deeply emarginate; lateral ocelli moderate in size, median ocellus small. Thoracic nota brown with variable gray markings and numerous pale spots; legs reddish-brown with numerous pale spots on femora (Fig. 3a, b); femora with large, diffuse, black maculae; tibiae reddish-brown with faint black streak along ventral margin; tarsi pale, without markings; femora with short spines (Fig. 3c); fore femoral band of spines (Fig. 3d); hind femora with marginal spines in raised sockets; hind femora without spines on anterior surface; hind femora produced apically, and 50 per cent longer than fore femora (Fig. 3b); tibiae with large marginal spines; tarsal claws with 3-4 marginal denticles (Fig. 3d); tarsal claws red apically. Abdominal terga reddish-brown with numerous pale spots and diffuse, black, transverse band; terga 1-9 with long posterolateral spines; sterna reddish-brown with diffuse black markings; operculate gills pale at apex and along margin, dark at base; operculate gill with short lateral spine near base (Fig. 2). Caudal filaments brown with pale annulations.

Holotype mature nymph, stream 10 miles north Huajuapan de León, Oaxaca, Mexico, 7 September 1968. R. K. Allen, in collection California Academy of Sciences, San Francisco. Paratypes: 3 mature nymphs, same data as holotype, in collection California State College at Los Angeles.

Remarks.—Mature nymphs were collected in a small stream (elevation 3,400 ft.) with a temperature of 70° F. Leptophyes alleni and Leptophyes murdocki Allen are the only described species of Leptophyes in which the head, body, and femora are covered with small, white spots. The femoral spines of both species are short and broad.
and the number of denticles on the tarsal claws is identical. *Leptothyphes alleni* appears to be geographically and seasonally isolated from *L. mardockii* as the former has been collected in November from southern Mexico, and the latter in May from Panama. *Leptothyphes alleni*
is distinguished from all described *Leptohyphes*, by the following combination of characters: (1) the maxillary palpi are 3-segmented; (2) the femora are reddish-brown with black maculae; (3) the hind femora are expanded, with an apical projection; (4) the ratio of length of fore femora to hind femora is 50 per cent; (5) the middle and hind tibiae have long spines on the dorsal and ventral margins; and (6) the hind femora are without spines on the anterior surface. *Leptohyphes alleni* is the first species of the genus to be described from southern Mexico.