

del Norte, Los Amates [2 pairs + 22 ♂, 6 ♀], Gualan [8 ♂]; HONDURAS, San Pedro Sula [one pair + 41 ♂, 9 ♀] (*Williamsons, Deam, Hine, colls. Wllmsn., O. S. U.*); NICARAGUA (*U. S. N. M.*: 1 ♀); COSTA RICA, Surubres (*Biolley, coll. Kahl*: 1 ♀), Rio Machuca (*Biolley, colls. A. N. S., Wllmsn.*), Caché as before, Juan Viñas (*Cary, U. S. N. M.*: 1 ♂); PANAMA, Colon (*Howland, coll. Needham*: 1 ♀).

Following are some observations by Mr. Williamson on this species:—"Los Amates. In rank vegetation along stream below Los Amates. Jan. 17, 1905, same situation as *Anomalagrion hastatum*." "San Pedro, Feb. 28, 1905. At mouth of gulch."

It will be observed that *frequentula* and *pulla* occur in the same localities (Teapa, Livingston, Los Amates, Gualan, San Pedro Sula, Surubres) and even on the same day (*e. g.* Feb. 28, 1905, by E. B. Williamson; Jan. 19 and 20, 1907, by L. A. Williamson; both at San Pedro Sula).

I am not able to certainly distinguish between the females of *frequentula* and *johannella*, unless the following character suffices: in the former the costal and distal sides of the pterostigma are subequal, while the latter has the costal side distinctly longer than the distal.

### *Argia ulmeca* (p. 80).

♂. The example from San Pedro Sula has the upper end of the well-developed black humeral stripe fused with that of the mid-dorsal; abdomen 31, hind wing 22.5 mm.

Those from the Pacific slope of Guatemala show some departure from the type in having: (a) the black humeral stripe reduced to a very narrow stripe or even a line, which in at least two examples is present only on the upper end of the humeral suture; (b) a black line at the upper end only of the second lateral thoracic stripe, instead of on the entire length thereof as many—but not all—of the original material possess; (c) often, but not always, no prolongation of the basal blue ring on abdominal segment 4 to form a short mid-dorsal stripe; (d) smaller size, see below. In a considerable proportion, but not in all, the upper ends of black humeral and mid-dorsal thoracic stripes are fused, in some only on one side of the thorax.

♀. The females from the same part of Guatemala also show these departures from the type, as (a) the black humeral stripe in some entirely absent, except for an inferior mesepimeral spot, but transitions to the type are afforded as by the presence of a black line on the humeral suture unconnected with the mesepimeral spot, by the presence of a black line on the upper part of the suture and a black mesepimeral line unconnected with each other, and by the existence of a narrow stripe on the whole length of the humeral suture widening below into the inferior mesepimeral black spot; (b) as in ♂; (c) in some no prolongation of the basal blue ring on 4; (d) as in ♂.

♂ ♀. Twenty males (Mazatenango 8, S. Lucia 6, Escuintla 6) and seven females cited below give the following statistics and dimensions:—Pterostigma, front wings, surmounting more than one cell (97.5 % ♂, 100 % ♀) or one cell (2.5 % ♂); of the hind wings surmounting more than one cell (100 % ♂ ♀).

Antenodal cells on the front wings 4 (87.5 % ♂, 71.5 % ♀), 5 (2.5 % ♂, 14.3 % ♀), 3+ (5 % ♂, 7 % ♀), 4+ (7 % ♀), or 3 (5 % ♂); on the hind wings 4 (72.5 % ♂, 35.7 % ♀), 3 (25 % ♂, 64.3 % ♀), or 3+ (2.5 % ♂). Abdomen, ♂ 26.5–30, ♀ 26–28.5; hind wing, ♂ 19–22, ♀ 21–23 mm.

To the localities given, add:—MEXICO, Jalapa (*Calvert, coll. P. P. C.*: 1 ♂); GUATEMALA, Mazatenango (*Maxon & Hay, U. S. N. M.*: 4 ♂, 1 ♀) [28 ♂, 2 ♀ + 1 pair], Santa Lucia [24 ♂, 1 ♀ + 1 pair], Escuintla [10 ♂, 1 ♀] (*Williamson, Hine, colls. Wllmsn., O. S. U.*); HONDURAS, San Pedro Sula (*Wllmsn., coll. ejusd.*: 1 ♂).