

possessed pairs taken *in coitu*, I have sought some other way of differentiating this sex. Mr. Rhoads captured 13 ♂ and 26 ♀ *Hetærina* at Uruapam: all the males were referable to *H. vulnerata*, and it was therefore highly probable that some of the females belonged to the same species. A study of them gave no grounds for believing that the twenty-six were not specifically identical. Mr. Rogers sent 20 ♂ *H. cruentata* from Caché, but no ♂ *H. vulnerata*; 16 ♀ from that locality, evidently all of the same species, were therefore more likely to belong to *H. cruentata* than to *H. vulnerata*. A comparison of the Caché females of *H. cruentata* with the Uruapam females of *H. vulnerata* gives *only this* difference between the two:—

H. vulnerata, ♀. Metallic green stripe on either side of the mid-dorsal thoracic carina curving outward at its upper end to form a hook-like prolongation in front of the ante-alar sinus, the apex of the hook directed forward and filling the depression at the upper end of the humeral suture.

H. cruentata, ♀. No such hook-like prolongation, the metallic green stripe not reaching to the humeral suture. (Cf. Tab. III. figg. 18, 19.)

No other distinguishing feature was constant in the two groups of females mentioned, although all the characters named in the 'Monographie,' as well as others not considered therein, were tested for the purpose. On the basis of this single difference the females of these two species have been identified.

It may be mentioned here that the dark stripes (usually metallic green) on the sides of the thorax of *H. vulnerata* may occasionally almost (Santa Maria, ♀), or entirely (Cuernavaca, ♀), disappear.

4. *Hetærina americana*. (Tab. II. figg. 1-17.)

Agrion americana, Fabr. Ent. Syst., Suppl. p. 287 (1798)¹.

Hetærina americana, Selys, Syn. Calopt. p. 41 (1853)²; Monogr. Calopt. p. 131, t. 12. fig. 3 (apps. ♂) (1854)³; Bull. Acad. Belg. (2) xxxv. p. 480 (1873)⁴; Hagen, Proc. Bost. Soc. Nat. Hist. xviii. pp. 23, 28 (1875)⁵; Kirby, Cat. Odon. p. 106 (1890)⁶; Calvert, Proc. Calif. Acad. Sci. (3), Zool. i. p. 372 (1899)⁷; Howard, Insect Book, t. 46. figg. 9 (♂), 11 (♀) (entire insects) (1901)⁸.

Agrion basalis, Flint edit. Harris, Treat. Ins. Inj. &c. t. 1. fig. 2 (entire insect, poor) (1862)⁹.

Hetærina basalis et *H. californica*, Selys, Bull. Acad. Belg. (2) vii. pp. 441, 440 (1859)¹⁰; Hagen, Syn. Neur. N. Am. pp. 59, 60 (1861)¹¹; Kirby, Cat. Odon. p. 106 (1890)¹².

Hetærina californica, Calvert, Proc. Calif. Acad. Sci. (2) iv. p. 473 (1895)¹³.

Hetærina texana et *H. scelerata*, Walsh, Proc. Ent. Soc. Philad. ii. pp. 227, 267 (1863)¹⁴; Hagen, Proc. Bost. Soc. Nat. Hist. xviii. p. 24 (1875)¹⁵; Kirby, Cat. Odon. pp. 105, 106 (1890)¹⁶.

Hab. CANADA, Montreal (*Lyman*, *M. C. Z.*: 1 ♀); UNITED STATES, Maine to Maryland, west to Kansas (*Banks*, 1894), Arkansas (*Adams*, 1900), Colorado¹³, Montana¹³, California¹³, Tucson in Arizona (*M. C. Z.*: 1 ♂, 1 ♀), Pecos River (*M. C. Z.*: 1 ♂, 1 ♀), Round Mountain (*Schaupp*, colls. *A. N. S. and P. P. C.*: 8 ♂, 4 ♀), San Antonio [1 ♀] and Uvalde in Texas [1 ♀] (*Dr. Palmer*, *M. C. Z.*); LOWER CALIFORNIA, Comondu¹³.—MEXICO, Nuevo Laredo [1 ♀], Victoria in Tamaulipas [3 ♂], Linares in