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MUTUAL ADAPTATION OF THE SEXES IN *ARGIA MOESTA PUTRIDA*.

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On August 1st, 1912, I captured a pair of *Argia moesta putrida* at Go Home Bay, Ont., and by killing them suddenly with gasoline, prevented the separation of the abdominal appendages of the male from the parts of the female with which they were in contact. I noted carefully the relations of the structures forming the connection, but unfortunately made no drawings at the time, as the specimens remained in their natural position after drying and the connection was apparently permanent. In carrying the specimens to Toronto, however, they separated, so that I have had to rely upon my original observations and a close scrutiny of the structures concerned in my further study of the method by which coupling in this species is effected. Some difficulties as to the precise position of the inferior appendages of the male in relation to the pronotum of the female were readily solved by making plasticine models of the parts of both sexes and fitting them together.

The only published account of the process of coupling in the genus Argia is given by E. B. Williamson in an article entitled "Copulation in Odonata."* In this paper a classification of the methods of coupling in a number of zygopterous genera is given, and the following extract gives all that is known in regard to this process in the genus Argia, the observations having been made upontwo species—A. moesta putrida and A. apicalis.

> "BB. Inferior appendages forming two jaws which grasp the anterior surface of the hind lobe of the pronotum of the female, the superior appendages resting in cups formed by depressions in the mesostigmal laminæ and the rear surface of the hind lobe of the pronotum and, depending on their

*Ent. News, XIII., pp. 143-148, 1906.