

SOME ADAPTATIONS FOR RESPIRATION IN AQUATIC HEMIPTERA

ABSTRACT

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In *Benacus griseus*, the "giant water bug," or the "electric light bug," there is a pair of "strap-like appendages" projecting from under the wings, at the posterior end of the abdomen, in both male and female. Their morphology and function have not been exactly stated.

On soaking specimens in caustic potash, these appendages are found to be projections from and parts of the tergites of the 8th segment. Similar organs are present in *Belostoma fluminea* say (*Zaitha*), and very short ones in *Notonecta*. Both are the same, morphologically, as the ones in *Benacus*.

There is a large spiracle at the base not only of each projection, but also of a groove extending from the spiracle to the tip of the "strap-like" portion of the tergite. This groove is edged on both sides with a row of long, closely-set setae. Records of observations* as to methods of breathing in *Zaitha*

*Bueno, J. R. de la Torre: Life Histories of North American Water Bugs.

I. Life History of *Belostoma fluminea* Say. Can. Ent. 1906; v. 37, 1906, pp. 189-197

II. Life History of *Ranatra quadridentata* Stal. Can. Ent. v. 38, 1906, pp. 242-252.

and other aquatic hemiptera by Mr. J. R. de la Torre Bueno, lead one to feel confident that the organs described above, in *Benacus*, and *Notonecta*, as well, are respiratory in function.

(Paper illustrated by lantern slide, showing structures mentioned.)
