

NAAMAN DYER#, and JAMES JOY, Department of Biological Sciences, Marshall University, Huntington, WV, 25755. **Chemoreceptors and mechanoreceptors positioned in the food canal of the horse fly, *Tabanus abdominalis* (Diptera: Tabanidae).**

Putative sensory structures in the food canal, and distal vestibule region entering the canal of *Tabanus atratus*, are described. Two pairs of sensilla were observed in the walls of the vestibule; a distal pair of the basiconic type, and a pair of setiform mechanoreceptors at the base of the vestibule.

Vestibular sensilla were constant in type, number and position. Conversely, sensilla in right and left walls of the food canal varied in number from one fly specimen to another, and lacked evidence of pairing (i.e., sensilla in one wall did not necessarily have a counterpart in the other wall). Food canal sensilla were of setiform (trichite) design, with the exception of a single basiconic sensilla in each lateral wall of the food canal in every fly. When the food canal was partitioned into four equidistant regions sensilla were aggregated in the two distal-most regions, with relatively few sensilla observed in the two proximal canal regions. This aggregation was significant ($\chi^2 = 204.15$; $df = 3$; $P < 0.0001$), leading to rejection of the null hypothesis that sensilla were evenly distributed throughout the length of the food canal.

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