Appl. Ent. & Phytopath.
Vol. 57. Nos : 1 & 2, Feb. 1990

Summary

STRUCTURE OF THE SCENT GLAND SYSTEM OF THE SUNN PEST *Eurygaster integriceps* Put

H. DAROOGHEH

Plant Pests & Diseases Research Institute

The occurrence, in *Eurygaster integriceps* of a monomorphism in the divided dorsal abdominal scent gland dg_1 is reported.

Counts made of ducted secretory units indicate that male and female dg_{11} and dg_{111} regress at the end of larval development unlike adult dg_1 which undergoes no regression . Fig. 1 depicts the metathoracic scent apparatus from a mature female adult of *E. integriceps*

The metathoracic scent gland system of *E. integriceps* is made of a single gland, a median reservoir and a single pair of secretory tubules .

The tubules are unpigmented, unlike the epithelium of median reservoir tissue which is pigmented an orange color. In addition to the usual secretory tubules and median scent reservoir, there is a markedly linear form accessory gland in the wall of the median reservoir. A biosynthetic role for secretion from the accessory gland in the formation of scent gland aldehydes in the metathoracic scent gland has been indicated (Gilby and Waterhouse, 1967; Games and Staddon, 1973; Aldrichet. *al.*, 1978). The metathoracic scent gland is sexually monomorphis and there is no lateral reservoir.

References

ALDRICH, J.R., BLUM, M. S., LIOYD, H. A. and FALES, H. M., 1978a Pentatomid natural products : chemistry and morphology of the III - IV dorsal abdominal glands of adult. J. Chem. Ecol., 4 : 161 - 172 .

CALAM, D. H. and SCOTT, G. C., 1969 : The scent glandcomplex of the adult cotton stainer bug. *Dysdercus intermedius*, J. Insec. physiol. 15 : 1695 - 1702.

CARAYON, J , 1962. Observations sur 1, appareil odorifique des Hétérop téres, particulierement celui des Tingidae, Vianaididas et piesmatidae, Cah. Nat. 18 : 1 - 16 .

DAROOGHEH, H and STADDON, W. B., 1981 - Allometry of C6 and C8 alk - 2 enals and alka - 2, 4 - dienals in the metathoracic scent gland of *O. fasciatus* Com - Biochm - physiol , 68B : 593 - 598

DAROOGHEH, H , 1987 - The scent glands of Heterotera. Journal of Entom - ological Society of Iran. Vol. 9, (1 &2).

GAMES, D.E. and STADDON, B. W., 1973a - Chemical expression of a sexual dimorphism in the tubular scent glands of the milkweed bug *O. fasciatus* (Dallas), Experientia, 29 : 532 - 533.

GILBY, A. R. and WATERHOUSE, D. F., 1967 - Secretion from the lateral scent glands of the green vegetable bug, *Nezara viridula* , Nature 216 : 90 - 91 .

PARSONS, M. C., 1969 - Skeletomusculature of the pterethorax and first abdominal segment in micropterous *Aphelocheirus aestivalis* F.(Heteroptera-Naucoridae), Transactions of the Royal Ent. Soc. of London, Vol. 121, p. 1 - 39 .

ROMOLD, H., 1962 - Uber die biologische Bedeutung der Duftdrüsen bei den Landwanzen (Geocoriseae). Z. Verg. Physiol. 45 : 636 - 94 .

STADDON, W. B. and DAROOGHEH, H., 1982-Allometry of scent oil accumulation in Heteroptera - Com. Biochem. Physiol., 71B : 149 - 154.

VRKOC, J., UBIK, K., ZDAREK, J. and KONTEV, C., 1977 - Ethyl -acrylate

and vanillin as components of the male sex pheromone complex in *E. integriceps* (Heteroptera, Scutelleridae). Acta Ent. Bohemoslov., 74 : 205 - 206 .

Address of the author: Dr H. DAROOGHEH. Research Department for Harmful Insects & Animals to Plants. Plant Pests & Diseases Research Institute, P. O. Box : 1454, Tehran - 19395, Iran .