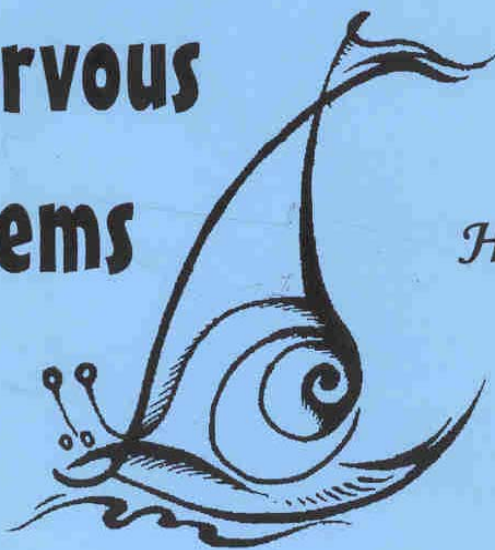


**VII EAST EUROPEAN CONFERENCE OF THE  
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NEUROBIOLOGY**



**ABSTRACTS**

**Simpler  
Nervous  
Systems**



*Простые*

*Нервные*

*Системы*

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**SENSE ORGANS OF THE ANTENNAE OF LARVAE IN  
TENEBRIONID BEETLES: *TENEBRIO MOLITOR* L. AND  
*ZOPHOBAS RUGIPES* KIRSCH (COLEOPTERA:  
TENEBRIONIDAE)**

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The distribution, external morphology and ultrastructure of various types of sensillae on the antennae of tenebrionid beetles larvae *Tenebrio molitor* (Yellow Mealworm Beetle) and *Zophobas rugipes* are described based on scanning and transmission electron microscopy. On the antennae of *T. molitor* and *Z. rugipes* are placed sensillae of 4 basic morphological types: basiconica, styloconica, trichoid and papillate sensilla.

The antennae of *T. molitor* has 12 sensillae: 5 basiconic, 2 styloconic, 1 trichoid, 2 papillate sensilla and so multiporous U-shaped plate. The transmission electron microscopy investigation has shown that sensory organs are equipped with 2-8 neurons. On the antennae of *Z. rugipes* are placed 77 sensillae: 34 basiconic, 24 placoid, 6 trichoid and 13 papillate sensilla. It was shown that sensory organs are equipped with 2-6 neurons. There are 24 placoid sensillae on the distal apex of second antennal segments and cuticule of these sensillae have many pores by diameter up to 0.2 microns. The dendrite branches of receptor cells approach to the pores, it testifies to olfactory function of placoid sensillae.

Trichoid sensillae are equipped with 4-6 receptor cells and have function of chemoreceptor and mechanoreceptor. The dendrite of mechanoreceptor cell contains a tubular body and terminates at the hair base. On the antenna of two studied species the olfactory and gustatory sensillae are detected.