

# On the body architecture of the genus *Achaeta* (Enchytraeidae, Clitellata)

Ulfert Graefe

Institute for Applied Soil Biology (IFAB GmbH), Sodenkamp 62, D-22337 Hamburg  
Germany, e-mail: ifab.hamburg@t-online.de

Species of the genus *Achaeta* show a range of morphological peculiarities which have not been noted from other enchytraeids. Among these are the unpaired testis and ovary, the displacement of spermathecal openings from the lateral line to the ventral side (not in all species) and the construction of the body wall with a regular pattern of circular muscle fibres and epidermal glands in constant number for each segment. The absence of setae, on the other hand, is no exclusive character of the genus.

Originally Vejdovský (1877) established the genus with the formulation "Borsten durch grosse, in die Leibeshöhle hineinragende Zellen vertreten". Later on Vejdovský (1879) wrote that these cells represent hypodermal glands and at the same time setal follicles. The designation "setal follicles" persisted in the literature until nowadays. It can be shown, however, that these conspicuous structures are no remains of setae. The three criteria of homology, the criterion of position, the criterion of specific construction and the criterion of transitions, clearly indicate their derivation from epidermal glands. Therefore, the misleading name "setal follicles" should be rejected.

Several types of epidermal glands and their modifications in the region of the clitellum, the penial bulbs and the spermathecal openings are distinguishable and can be related to the construction of the body wall. These formations are important characters for the distinction of species.

The communicated findings are mainly based on an unpublished diploma thesis (Graefe 1973). The full text will be published in *Mitteilungen des Hamburgischen Zoologischen Museums und Instituts*.

## References

- Graefe, U., 1973: Systematische Untersuchungen an der Gattung *Achaeta* (Enchytraeidae, Oligochaeta).  
Diploma thesis, Universität Hamburg.
- Vejdovský, F. 1877: Zur Anatomie und Systematik der Enchytraeiden. Sitzb. K. Böhm. Ges. Wiss. Prag  
1877: 294-304.
- Vejdovský, F. 1879: Beiträge zur vergleichenden Morphologie der Anneliden. I. Monographie der  
Enchytraeiden, Tempsky, Prag.