

## **Cambrian chaetognaths recognized in Burgess Shale fossils**

Hubert Szaniawski Acta Palaeontologica Polonica 50 (1), 2005: 1-8

*Oesia disjuncta*, one of the species of the soft-bodied fauna collected and described by Walcott (1911) from the Middle Cambrian Phyllopod Bed (Burgess Shale, British Columbia, Canada) is recognized as a chaetognath. For anatomical comparisons many specimens of Recent chaetognaths were specially compressed and dried to obtain forms similar to the fossils preserved in shales. The most characteristic features shared by the fossil and Recent specimens include: strongly elongated, transversely striated and very flexible body, large size, and characteristically diversified shape of head, pronounced intestine and horizontally oriented caudal fin. Possible traces of other chaetognath structures - grasping apparatus, lateral fins, seminal vesicles, ventral ganglion, ovaries and anus - are also present but preserved in one specimen only. Among extant genera, those showing the closest similarity to *Oesia* Walcott, 1911 are the hyperbenthic *Archeterokrohnia* Casanova, 19861, and *Heterokrohnia* Ritter-Záhony, 1911, which are considered by some authors as evolutionarily most primitive.

**Key words:** Chaetognatha, Oesia, soft–bodied fossils, protoconodonts, Cambrian, Burgess Shale, Canada.

Hubert Szaniawski [<u>szaniaw@twarda.pan.pl</u>], Instytut Paleobiologii, Polska Akademia Nauk, ul. Twarda 51/55, PL-00-818 Warszawa, Poland.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see <u>creativecommons.org</u>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

