

# Turkish Journal of Zoology

Turkish Journal

of


Zoology

Comparison of Female Antennules in Some Genera of Cyclopidae (Copepoda, Cyclopoida):  
Their Significance for Phylogeny

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**Abstract:** The homology of the antennular segments of species belonging to some genera of Cyclopidae is determined by comparing the common setation patterns on female antennules. Comparison of the setation pattern has confirmed that there are always 44 setae and 3 aesthetascs on the female antennules of all the genera examined. This study shows that the strict application of homology is essential in order to resolve the phylogenetic relationships between the genera of Cyclopidae. Although both *Ectocyclops phaleratus* and *Paracyclops canadensis* have 11-segmented antennules, the analysis of segmental homologies has shown that the 11-segmented condition has occurred due to convergent evolution in these two species belonging to different genera. In addition, several segmental fusions of the female antennules have been identified as apomorphic states and can be used in phylogenetic studies.

 [Keywords](#)  
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**Key Words:** Copepoda, female antennule, homology, Cyclopidae

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Turk. J. Zool., **28**, (2004), 129-134.

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