

## SYMBIOTIC RELATIONS AND FEEDING BIOLOGY OF *SYMBION PANDORA* (CYCLIOPHORA) AND *TRITICELLA FLAVA* (BRYOZOA)

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COMMENSALISM  
EPIBIOSIS  
FILTER-FEEDING

**ABSTRACT.** – Norway lobsters (*Nephrops norvegicus*) with epizoans were held in tanks with seawater and <sup>14</sup>C-labelled microalgae (*Rhodomonas baltica*) for 24 h. The isotopic activity of two epizoans on the mouth parts of the host, the bryozoan *Triticella flava* and the cyclophoran *Symbion pandora*, were compared by liquid scintillation counting. There was no isotopic activity recovered in *Symbion pandora* but *Triticella flava* actively ingested the labelled algae and accumulated isotopic activity over time. The cyclophoran feeding activity was assessed further by direct observation of detached feeding stages in a recirculation system. Feeding stages did not respond when algae were offered, but immediately began feeding when diluted hemolymph or homogenized mussel was offered. The results explain why cyclophorans only occur on the mouthparts of the host and support the notion that cyclophorans are obligatory commensals that solely depend on the food provided by their host. Cyclophorans start feeding when the host begins to feed and high concentrations of food particles become available. It is likely that cyclophoran feeding individuals have developed sensory mechanisms to synchronize their food supply with the feeding activity of the host but the precise mechanism is still unknown. In contrast *T. flava* is a facultative commensal that can sustain on plankton independent of host feeding activities. In agreement with this *T. flava* often occurs on other parts of the host than the mouth parts.