

Publication**Die Reaktion der Mitteldarmdrüse des Süßwasserstrandfloh*Orchestia cavimana* auf verschiedene Nahrung****JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)****ID** 3707708**Author(s)** Storch, V.; Burkhardt-Holm, Patricia**Author(s) at UniBasel** [Holm, Patricia](#) ;**Year** 1986**Title** Die Reaktion der Mitteldarmdrüse des Süßwasserstrandfloh*Orchestia cavimana* auf verschiedene Nahrung**Journal** *Carolinea***Volume** 44**Pages / Article-Number** 149-152

The Amphipod, *Orchestia cavimana*, has proliferated in central Europe. The success of its dispersion in this region is possibly a consequence of its adaptability to a wide array of nutritional conditions. Isolated specimens of this species were offered different feeds after a short starvation period, and their metabolism, as this can be reflected through ultrastructural modifications of the R-cells of the midgut glands, was studied by means of electron microscopy. Bacteria and algae feeding resulted in optimal structural integration of the cell organelles as well as a balanced proportion between the amounts of reserves and organelles. The activity of cellulase, an enzyme found in their digestive tract, was demonstrated by a massive build-up of glycogen after cellulose feeding. Glycogen was also found in the sucrose-fed specimens, while the RER and Golgi bodies were dominant features in those fed milkcurds. Butter feeding resulted in the development of lipid vacuoles.

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