

Scanning electron microscopic observations of the chemo- and mechanoreceptors of carp larvae



Scanning electron microscopic observation of embryos and larvae of the carp (*Cyprinus carpio*) in the course of development was undertaken to further understanding of the relationship between larval behaviour and their chemo- and mechanoreceptors. Free neuromasts and olfactory pits equipped with mechano- and sensory-cilia were found on carp embryos. During larval development, the number of neuromasts and the olfactory mechano- and sensory cilia steadily increases and they become more morphologically differentiated. The olfactory features, presented in early larval stages, indicate that although the olfactory organ at this early life history has not yet attained its final configuration, it can perceive odour stimulation. The neuromasts found on the forehead of the newly hatched larvae seem to assist in the early behavioural selection, approach and attachment to a substratum, before the stage of filling of the gas bladder. The increasing number of neuromasts during development reflects the larvae's capability of capturing food items in the absence of visual stimulation. The rapid maturation of free neuromasts, the lateral-line system and the olfactory organ, is evidence of their post-metamorphosis position in the search for, location and successful capture of food.

Auteurs du document : Samuel Appelbaum, Rüdiger Riehl

Obtenir le document : EDP Sciences

Mots clés : Carp larvae, neuromasts, olfaction, taste buds, feeding behaviour, Larves de carpe, neuromastes, olfaction, comportement alimentaire

Thème (issu du Text Mining) : FAUNE, AGRICULTURE

Date : 1997-01-15

Format : text/xml

Source : <https://doi.org/10.1051/alr:1997001>

Langue : Anglais

Télécharger les documents : <https://www.alr-journal.org/10.1051/alr:1997001/pdf>

Permalien : <https://www.documentation.eauetbiodiversite.fr/notice/scanning-electron-microscopic-observations-of-the-chemo-and-mechanoreceptors-of-carp-larvae0>

Evaluer cette notice: