

THE EVOLUTION OF REPRODUCTIVE STRATEGIES IN INVERTEBRATES – VIVIPARITY AND EGG RETENTION

Summary

Viviparity and short retention of developing eggs in uterus or other specialised brood chambers are widespread in invertebrate taxa and evolved many times independently. Strategy of brood protection involves different mechanisms of providing nourishment for developing embryos (lecithotrophy, matrotrophy or adelphophagy), as well as the array of anatomical and morphological adjustment. Brood protection increases offspring survival, but may reduce maternal fecundity. Evolutionary trade-off between fecundity of viviparous and egg retaining

animals and the parental investment per offspring depends on the limited space of incubatory structures. Ecological correlates of parental care in invertebrates are still under debate but brood protecting species are more common in polar seas (Echinodermata, Bivalvia) and freshwater habitats (Gastropoda, Bivalvia). Among insects viviparity is frequently associated with coprophagy, parasitism or malacophagy of larvae and hematophagy or myrmekophily of imagines.