Food and feeding habits of Omobranchus sp. (Blenniidae: Omobranchini) larvae in the seagrass-mangrove ecosystem of Johor Strait, Malaysia

ABSTRACT

The stomach contents of Omobranchus sp. (family Blenniidae) larvae were investigated in a seagrass-mangrove based ecosystem in Johor Strait, Malaysia from October 2007 to September 2008. Specimens of larval fish were collected through subsurface towing of a Bongo net from five different stations. The stomach sacs of 267 Omobranchus sp. larvae were separated and observed, which comprised of 24 significant food stuffs belonging to 6 main groups viz. phytoplankton (62.45%), zooplankton (18.24%), algae (5.56%), plant-like particles (5.75%), debris (4.22%) and unidentified particles (2.03%). In situ water parameters were also measured throughout the sampling cruises. There was a strong and significant positive correlation between stomach phytoplankton and salinity (r = 0.658, p < 0.05).? Canonical correlation analysis indicated a weak relationship (29.8%) between stomach contents and physico-chemical parameters. Only salinity appeared to be the controlling factor for the stomach contents of Omobranchus sp. larvae in the investigated area. Based on the stomach content analysis, it could be concluded that Omobranchus sp. were mainly herbivorous during the larval stages.

Keyword: Larvae; Mangrove-seagrass ecosystem; Omobranchus sp.; Stomach contents