Food and Feeding Habits of Grey Mullets (Pisces: Mugilidae) in Two Estuaries in Ghana

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Abstract

Food and feeding habits of grey mullets (Mugilidae) in the River Volta and River Pra estuaries in Ghana were studied between February 1997 and July 1998 as part of efforts to encourage their culture. Stomach contents of fish samples, obtained with a cast net and a drag net, were analysed using the 'points' and frequency of occurrence method. Diatoms, detrital material and sand particles were the major items in the stomachs of all the species from the two estuaries. Their diet did not show any substantial seasonality, neither did it change with size. The various species ingested sand particles of selected range with *Liza dumerilii* ingesting the widest range in both estuaries, 41.2-1195.8 μm in the Volta estuary, and 33.0-1649.0 μm in the Pra estuary. Species that ingested the same modal size of sand particles showed preferences for different food items. The shortest mean relative gut length (gut length to body length ratio) of 1.82 and 1.72 were calculated for *L. dumerilii* in the Volta and Pra estuaries, respectively, while the longest mean relative gut length of 4.56 was calculated for *Mugil cephalus* in the Volta estuary and 4.33 for *Liza grandisquamis* in the Pra estuary. All the species showed a diurnal feeding habit, with the main feeding period occurring between 08.00 and 12.00 h. The peak feeding time, however, differed among the species.