

10-2009

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NSUWorks Citation

Carmo, Vanda; Bergstad, Odd Aksel; Falkenhaus, Tone; Menezes, Gui; and Sutton, Tracey, "Preliminary Results on Feeding Ecology of Stomiiforme Fishes of the Northern Mid-Atlantic" (2009). *Oceanography Faculty Proceedings, Presentations, Speeches, Lectures*. Paper 251.

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Preliminary results on feeding ecology of Stomiiforme fishes of the Northern mid-Atlantic

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Few previous studies have focused specifically on the role of the mid-ocean ridges in the ecology of pelagic fishes. This study targets on a dominant nekton component of the mid-Atlantic mesopelagic ichthyofauna - the Stomiiformes - and their food resources including zooplankton and other nekton. Its main goal is to characterize the diets of several species of these midwater fish towards understanding the trophic pathways of the deep-pelagic nekton of the northern MAR. The study material was provided by the G. O. Sars 2004 Expedition under the International project MAR-ECO. On the lab fish were dissected and diet items were identified to the lowest taxonomical level possible. Preliminary results for 8 of the 12 species proposed for this study are presented. Amphipoda and Pteropoda seem to be important in *Argyropelecus aculeatus* feeding, while in *Sternoptix diaphana* diet amphipods are clearly the most common prey. Of the identifiable items in the guts of *Maurolicus mulleri* and *Vinciguerria attenuata* copepods constitute half of the occurrences but ostracods are also relevant. These four species show more planktivorous affinities when compared with the remaining species. *Cyclothone microdon* and *Sigmops bathyphilum* had the fewest identifiable items in the guts. In *C. microdon* while the stomachs were not completely empty it was very frequent to have a mass of unidentifiable jelly-like material. This may indicate that this species eats gelatinous plankton. *Stomias boa* reveals a piscivorous behaviour. *Malacosteus niger* is also a predator but occasionally eats copepods. Future work includes study of the remaining species: *Sigmops elongatum*, *Argyropelecus hemigymnus*, *Borostomias antarcticus* and *Chauliodus sloani* and more detailed analyses for all the target species, consisting on determination of prey biomass and feeding guilds, calculation of the fish daily ration and predation impact of the midwater fish assemblage on their prey in an attempt to design a food web model of the nekton community associated with the MAR.