

## Presentation of MAR-ECO Students

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**Degree:** Marine Biology

**Working title of project:** Feeding ecology and food-web relationships of midwater fishes (Sternoptychidae, Gonostomatidae, Phosichthyidae, Stomiidae and Myctophidae) of the northern mid-Atlantic

**Supervisors:** Gui Menezes (DOP, Azores), Odd Aksel Bergstad (IMR, Norway), Tracey Sutton (HBOI, USA), Tone Falkenhaus (IMR, Norway)

**Summary of Project:** Midwater fishes are key organisms in the photosynthetic food-webs of the oceans. Several of these species are vertically migrating fishes that feed on zooplankton in the epipelagic zone during the night and spend the day in the mesopelagial. As prey of piscivorous predators and food for scavengers, they constitute essential conveyors of energy and matter from the epipelagic to the animals deeper in the water column and the benthopelagic zone. Target species for this study come from characteristic families of the mid-Atlantic mesopelagic ichthyofauna, i.e. Sternoptychidae, Gonostomatidae, Phosichthyidae, Stomiidae and Myctophidae. Adopting classical morphological techniques in combination with stable isotope analyses the study will enhance the quality of trophic analyses compared with previous investigations. New insight will be gained on species-specific patterns and roles. The results will contribute significantly to conceptual models of the food-web relationships for the mid-Atlantic derived from efforts within the international MAR-ECO project.