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Does upwelling intensity influence feeding habits and trophic position of planktivorous fish?

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Abstract

Food web configuration is shaped by many factors, including primary production patterns and oceanographic features, such as upwelling events. In this study, we investigate variability in the trophic position, food web interlinks and energy pathways of four planktivorous demersal fish in the Southern Bay of Biscay- NE Atlantic. The study area is exposed to upwelling events of varying intensity and shows a significant spatial gradient along the coast. The two sampling years were characterized by markedly different conditions, with weak summer upwelling in 2012 and an intense upwelling season in 2013. We used a complementary approach based on stomach content analysis (SCA) and stable isotope analysis (SIA) to test the effects of upwelling intensity and persistence on the food-web. In particular we investigated whether different intensities shift the main flow of energy between the pelagic and benthic

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