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Ainhoa Bernal, M. Pilar Olivar, **M. Luz Fernández de Puelles**, (2012). [Feeding patterns of *Lampanyctus pusillus* \(Pisces: Myctophidae\) throughout its ontogenetic development](#)
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Abstract: The trophic ecology of the lanternfish *Lampanyctus pusillus* was investigated using individuals captured off the Balearic Islands (39°N, 2°E) (western Mediterranean) in December 2009. Based on gut content analyses, the trophic niche breadth, diet composition and selectivity were determined for the entire life cycle of

L. pusillus

. The larval stages fed actively near the surface during the day, with a feeding incidence (FI) of approximately 71 %. In contrast, the adults fed at night, both in near-surface depths and in the 400 m deep scattering layer, with a higher FI (83 %). Diet analysis revealed a shift in the prey choice throughout ontogenetic development, from preflexion individuals, which selected nauplii and small oncaeids, to postflexion larvae, which consumed a variety of calanoids, mainly

Clausocalanus spp

., to the adults, which preyed on large organisms, exhibiting positive selectivity for

Pleuromamma spp

. and euphausiids. These results show that the vertical distribution of larvae and adults is partly conditioned by their respective feeding habits, with larvae feeding on small zooplankton in the upper layer and adults preferring to consume larger taxa that perform nycthemeral migrations.

Keywords: *Lampanyctus pusillus*, myctophidae, trophic ecology, wester Mediterranean