EVENT ABSTRACT

Can a morphological structure be used as a macroscopic indicator of sexual maturity in deep-sea shrimps of the genus Plesionika?

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The present work describes a new structure present in the genus *Plesionika* that enables sexual maturity determination in females and the sex determination in mature pandalids of the genus *Plesionika* and *Heterocarpus*. Females of *P. edwardsi* presented sizes ranging between 14.10-19.05 mm CL and the spines, located between the 5th pair of pereiopods, were present until 17.45 mm CL. In this species the individuals reach the size of first maturity (SFM) at 17.65 mm CL. On the other hand, the size in *P. gigliolii* ranged between 11.21-12.13 mm CL. *P.giglioli* reached SFM at 8.23 mm CL and the spines were present until 11.41 mm CL. In the case of *P. narval* the size ranged between 12.94-19.72 mm CL and the spines were present until 14.45 mm CL, which matches with the SFM at 14.61 mm CL. Finally, size in females of *P. williamsi* ranged between 18.05-29.56 mm carapace length (CL) and spines were present until 18.34 mm CL. The SFM in this species is 18.00 mm CL. The correlation between the presence or absence of spines in females of genus *Plesionika* and the stage of development (immature or mature) of the ovaries in the histological study was validated. Observation in tanks has allowed finding that males of *P. narval* and *P. edwardsii* actively seek females and use the third pair of multi-articulate legs, in addition to grooming and to catch food, to locate spines of the thoracic region: if a male detected the spines (male-male interaction) contact was abruptly interrupted, whereas if not detected (male-female interaction) courtship began.

Keywords: Plesionika, Pandalidae, courtship behavior, sexual maturity, New structure, morphology
Conference: XIX Iberian Symposium on Marine Biology Studies, Porto, Portugal, 5 Sep - 9 Sep, 2016.
Presentation Type: Poster Presentation

Topic: 1. ECOLOGY, BIODIVERSITY AND VULNERABLE ECOSYSTEMS

Citation: Triay-Portella R, Ruiz-Díaz R, Pajuelo J, Biscoito M, Escribano A and González J (2016). Can a morphological structure be used as a macroscopic indicator of sexual maturity in deep-sea shrimps of the genus *Plesionika*?. *Front. Mar. Sci. Conference Abstract: XIX Iberian Symposium on Marine Biology Studies.* doi: 10.3389/conf.FMARS.2016.05.00145

Received: 29 Apr 2016; **Published Online:** 03 Sep 2016.
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