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# *PENNELLA FILOSA* (L., 1758) (COPEPODA: PENNELLIDAE) ON GREATER AMBERJACK *SERIOLA DUMERILI* (RISSO, 1810) FROM TURKEY

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**Abstract:** A parasitic copepod, *Pennella filosa* (L., 1758) (Copepoda: Pennellidae) was reported on base of fins and body surface, operculum of the wild Greater Amberjack *Seriola dumerili* (Risso, 1810) from the Kepez coastline (Çanakkale Strait, Turkey) in 30 January, 2010. This is first record of *Pennella filosa* in the Turkish Seas.
**Key words**: Turkey, new locality, North Aegean Sea, *Pennella*, *Seriola*

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## Introduction

Copepods of the genus *Pennella* are common parasites of large pelagic fishes. Their life cycle includes a series of free-swimming planktonic larval phases. Females are parasitic after metamorphosis and they attach to and enter the body surface of the host, while males are free swimming (Hogans et al. 1985).

Their large size and mesoparasitic life have led to a number of studies of the Pennellidae. The most recent account and discussion of their effects on the fish has been published by Kabata (1984). The genus *Pennella* is amongst the largest of the parasitic Copepoda, and except for a single species infecting the blubber and musculature of cetaceans, is found as adults embedded in the flesh of marine teleosts (Benz and Hogans 1979).

Little is distinguished concerning copepods of Turkish Seas (Öktener and Trilles 2004; Çiçek et al. 2007; Öktener et al. 2007; Öktener 2008; 2009). In this research, *Pennella filosa* (Linnaeus, 1758) is the first report from Turkish Seas.

## Materials and Methods

A wild heavily infected greater amberjack *Seriola dumerili* (Risso, 1810) was caught as semi unconscious with fishing gaff by fisherman on Kepez coastlines at depth 10-15 meters. Species identification follow FAO (Froese and Pauly 2010). Parasites were taken out from the muscle of the host and were preserved in 70 % etanol. The photos of the *Seriola dumerili* and its parasite were taken in the sampling site. Specimen were dissected and cleared in lactic acid. The identifications and morphometric characteristics for specimen follow Hogans (1986; 1987), Yamaguti (1963) and Williams and Bunkley-Williams (1996).

## Results and Discussion

*Pennella filosa* was collected from the body surface (8 individuals), base of operculum (2 individuals), base of dorsal (11 individuals), pelvic (6 individuals) and pectoral (2 individuals) fins, lateral (1 individual) on one *Seriola dumerili* ( total length = 142 cm, total weight= 23 kg), captured by fishing gaff along the Kepez coastline, (40° 09' N, 26° 24' E) (Figure 1, 2 and 3).

Figure 1. *Pennella filosa* (arrows) in the tissue of *Seriola dumerili*

Figure 2. *Pennella filosa* at the base of dorsal fin of *Seriola dumerili.*

Figure 3. Holes (arrows) of parasites in the skin of *Seriola dumerili*.

*Seriola dumerili* is a ephibenthic and pelagic species. It generally lives in depth of 20-70 m, but it can be sometimes caught from 360 m. depths. Although this species can be found on the Mediterranean and Aegean Sea coasts, it hasn't been recorded

from Marmara Sea and Black Sea until now (Froese and Pauly 2010).

Two species of Pennella, *P. filosa* and *P. instructa* have been recorded from the Mediterranean. *Pennella filosa* is a cosmopolitan species. The hosts of this copepod comprise especially the large scombrids of the genus *Thunnus* (*T. thynnus*, *T. alalunga*) as well as *Xiphias gladius* and *Mola mola* (Kabata 1979; Mattiucci 2005).

Previously, four species of Pennellidae have been recorded in Turkey, representing three genera: *Lernaeolophus sultanus* was found in the mouth of *Diplodus vulgaris* from the Mediterranean Sea **(**Öktener and Trilles 2004); *Pennella instructa* was found on the base of the anal, pectoral fins and in the muscle tissue of the abdomen of *Xiphias gladius* from the Aegean Sea (Öktener et al. 2007); *Pennella balaenopterae* was recorded from the skin of *Balaenoptera physalus* from the Mediterranean Sea (Çicek et al. 2007); *Peniculus fistula* was found on the ventral fin of *Coryphaena hippurus* from the Aegean Sea (Öktener 2008). Öktener (2009) also reported *Pennella instructa* from *Seriola dumerili* under aquaculture conditions in the Mediterranean Coasts of Turkey.

This study represent the first record *P. filosa* was the for the Turkish Coasts while *P. instructa* was already reported from *Seriola dumerili* by Öktener (2009).

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