Short Communication

**Serranus cabrilla** (Linnaeus, 1758) (Perciformes, Serranidae)

a new host record for **Nerocila orbignyi** (Guérin-Mèneville, 1832) (Isopoda, Cymothoidae)

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Cymothoids are among the largest parasites of fishes in the world. These isopods associate with many commercially important fish species and attach themselves to the body or fins of the fishes (Brusca, 1981). The isopods cause significant economic losses to fisheries by killing, stunting, or damaging these fishes (Ravichandran et al., 2009).

Cymothoidae is an ectoparasitic family of Isopoda. Cymothoid isopods are ectoparasites of marine, brackish and freshwater teleost fishes (Trilles, 1994; Ferri et al., 2008; Kerkim et al., 2009). The genus Nerocila is one of the nine genera of the family Cymothoidae distributed in the Mediterranean (Trilles, 1968, 1986). To date, three species (N. bivittata, N. maculata, N. orbignyi) belonging to the genus Nerocila have been reported in Turkish coasts. Nerocila orbignyi occurs both in coastal and pelagic waters, as well as in the bottom zone, infesting fishes from the families Pleuronectidae and Soleidae (Rokicki, 1985) and (Mugilidae) as well (Trilles, 1975a, 1975b, 1994; Bruce, 1987; Öktener and Trilles, 2004). However, this species has been reported from several fish species (Trilles, 1975a, 1975b, 1994; Bruce, 1987; Charfi-Cheikhrouha et al., 2000; Öktener and Trilles, 2004; Ramdane et al., 2007; Kayış and Ceylan, 2011).
The serranid fish, *Serranus cabrilla* (Linnaeus, 1758) (the comber) is a commercial species and has a wide distribution (north Atlantic Sea, North Sea and Mediterranean Sea) (Politou et al., 2004). The comber is a demersal species found on rocks, and on sandy and muddy bottoms at depths of 1-500 (Jardas, 1996). This is the main species captured by trawlers fishing in the Aegean Sea of the Turkish coast (Torcu-Koc et al., 2004). *N. orbignyi* has been determined for the first time on *S. cabrilla* from the Turkish coasts within the frame of the present study.

*S. cabrilla* (Perciformes, Serranidae), was captured by commercial trawl from the Samandağı (between 36°30′50″ N 35°59′60″ E and 36°35′23″ N 36°59′57″ E) coast of Turkey on 28 March 2011 (Fig. 1). The sample obtained from a sandy-silt bottom at a depth of between 20 and 25 m. The parasitic isopod was collected from the fish and immediately preserved in 70% alcohol. Data on collecting period, sampling area, name, and the size of the host were recorded, and the parasite's locations on the captured fish were noted. Identification and morphometric characteristics of the isopod follows Trilles et al. (1989). The specimens, including the photographed ones, were preserved in 4% formalin and deposited in the Museum of the Faculty of Fisheries, Mustafa Kemal University, Iskenderun-Hatay (MSM) (Collection No: MSM-MAL/2011-03).

The salinity values ranged from 37.9 ‰ to 39.1 ‰, and the maximum temperature value recorded was 18.7 °C. *Nerocila orbignyi* (Guérin-Méneville, 1832) (Fig. 2). Material examined: one ♂, (total length: 2.2 cm) MSM-MAL/2011-03; trawl, 20-25 m, sandy-silt bottom, on caudal fin of the serranid, *S. cabrilla* (total length: 12.4 cm) from the Samandağı coasts.

**Distribution and ecology**

It is widely distributed in the Mediterranean Sea, tropical and southern Atlantic, South Africa, Australia, New Zealand, Red Sea, North Pacific, East Pacific, western North Atlantic and in the Black Sea coast of Turkey (Bruce, 1987; Trilles, 1994; Öktener and Trilles, 2004). It can penetrate into fresh waters (Brusca, 1981), at depths ranging from the shore to 500 m (Jardas, 1996).

Host data: *N. orbignyi* generally infects Mugilidae species heavily (Trilles, 1994). The species has been previously reported from several fish species and families such as; *Scorpaena*
porcus (Ferri et al., 2008); Mugil cephalus, Crenilabrus pavo, Trigla lyra (Ramdane et al., 2007); L. saliens, L. aurata, Chelon labrosus, Dicentrarchus labrax, Solea solea, Serranus scriba, Diplodus annularis (Charfi-Cheikhrouha et al., 2000); D. labrax (Bragoni et al., 1983, 1984; Horton and Okumura, 2001); S. solea (Kayiş and Ceylan, 2011); L. aurata (Merella and Grippa, 2001; Öktener and Trilles, 2004); Pleuronectidae and Soleidae (Rokicki, 1985); Platichthys flesus (Cavaleiro and Santos, 2009); Chelidonichthye kumu, Chrysophrys auratus, Acanthopagrus butcheri, Sillago bassensis, Pomatomus saltatrix, Mola mola, Girella tricuspidata, Dactylopena orientalis, Pseudocaranx dentex, Callorhinchus mili (Bruce, 1987); Mugil cephalus, M. auratus, M. capito and M. labrosus, Alosa fallax nilotica, D. labrax (Trilles and Raibaut, 1973); Batrachus didactylus and Solea senegalensis (Dollfus and Trilles, 1976). According to Moreira and Sadowsky (1978) this species was reported on Callorhinchus mili and Chimaera sp. as well by Hale (1926, 1940).


In Turkey, it has been reported from the operculum and pectoral fin of the sole (S. Solea) in the Black Sea (Kayiş and Ceylan, 2011), on the operculum of L. aurata (Öktener and Trilles, 2004) in the Black Sea, and in D. labrax of the Aegean Sea (Horton and Okumura, 2001).
The parasite cymothoid isopod, *N. orbignyi* has been found on the caudal fin of *S. cabrilla* (Perciformes, Serranidae). Only one serranid fish species (*Serranus scriba*) belonging to the genus *Serranus* is known to be infested by *N. orbignyi* up to date. *S. cabrilla* have not been reported to be infested by *N. orbignyi* so far. *S. cabrilla*, the serranid fish species is a new host recorded for this parasite. It is clear that the serranid fish species are accidental or an occasional potential host for *N. orbignyi*.

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