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Presence of the Monoplex Parthenopeus (Salis Marschlins, 1793) in the Vicinity of Phaselis

Monoplex Parthenopeus (Salis Marschlins, 1793)'un Phaselis Çevresi'ndeki Varlığı

Mehmet GÖKOĞLU * Ferhat ÇAĞILTAY ** Alper YILDIZ ***

Abstract: A gastropod species characterised by bristles was observed at a depth of 6 m during a dive conducted in October 2022 in a rocky and gravelly area in Göynük town (coordinates 36°39'1.72' N; 30°33'35.29' E) in Phaselis territory. This gastropod, which has not been recorded in the region before, was identified as Monoplex parthenopeus (Salis Marschlins, 1793). This new species contributes to the marine biodiversity of the Gulf of Antalya.

Keywords: Phaselis Territorium, Gulf of Antalya, *Monoplex parthenopeus*, Hairy, Gastropoda

Öz: Phaselis teritoryumundaki Göynük beldesinde (koordinatlar 36°39'1.72 'N; 30°33'35.29 'E) kayalık ve çakıllı bir alanda 2022 Ekim tarihinde gerçekleştirilen dalışta, 6 m derinlikte kıllara sahip bir gastrapod türü gözlemlenmiştir. Bölgede daha önce kaydedilmemiş olan bu gastrapod Monoplex parthenopeus (Salis Marschlins, 1793) olarak tanımlanmıştır. Bu yeni tür, Antalya Körfezi'nin denizel biyoçeşitliliğine katkıda bulunmaktadır.

Anahtar Sözcükler: Phaselis Teritoryumu, Antalya Körfezi, *Monoplex Parthenopeus*, Kıllı, Triton

Introduction

Monoplex parthenopeus, commonly known as the giant triton or giant hairy triton, is a species of sea snail. It belongs to the family Cymatiidae and is a marine gastropod mollusk. This species is found in subtropical and temperate seas in both the northern and southern hemispheres. It is distributed in a wide area from the Atlantic Ocean to the Gulf of Mexico, from the Caribbean Sea to Brazil, from the Canary Islands and Angola to the Iberian Peninsula[1]. This gastropod species has also been reported to be found in the Indian Ocean and the Red Sea. *M. parthenopeus* is a species of gastropoda that inhabits rocky, gravelly, and muddy seabeds in coastal areas, ranging from the intertidal zone to a depth of 70 m. The shell is 80-190 mm long, medium-sized, fat spindle-shaped, and has long and dense hairs on the thick plate-shaped dark brown cuticle[2].

M. parthenopeus is a carnivorous snail species that feeds mainly on bivalves and echinoderms. This type of snail hunts using a powerful poison called ecotoxin. The saliva of these species contains

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1 Beechey, 2014.

2 Beu & Raine, 2009.

sulfuric acid, chelating agents, a paralyzing toxin, digestive enzymes, and mucus.

M. parthenopeus is known to cause significant damage to oyster beds, farms, and clam farms[3]. This gastropod species exhibits internal fertilization. After fertilization, the female lays eggs in a cup-shaped capsule for 4 to 6 days. The laid eggs are cared for by the female for a month until they hatch. *M. parthenopeum* veliger larvae that hatch from eggs have a remarkable feature shared by all ranellids, that they are long-lived and teleplanic. The larval cycle lasts 175 days, but the larva may delay metamorphosis. Thus, a planktonic lifespan of up to approximately 300 days has been observed in the natural environment. This type provides a wide diffusion capacity in all sea waters. Veliger larvae, carried by ocean currents, can be transported over very long distances (sometimes even exceeding 4000 km) from the site where they were spawned. Other species are now known to survive the larval stage for much longer, surpassing what was previously considered a record for larval lifespan[4].

In this research, it was aimed to identify and record the species of a gastropod whose existence has not been reported before within the Phaselis territory, situated in the Gulf of Antalya.

Material and Method

During a scuba dive in front of a hotel in the Göynük region in the Gulf of Antalya (36°39'1.72"N; 30°33'35.29"E) on October 12, 2022, in a rocky and gravelly area (Fig. 1) at a depth of 5-6 m, an unknown hairy gastropod species was seen. This gastropod species was taken and brought to the Akdeniz University Faculty of Fisheries laboratory, and the shell length and height of the gastropod were measured with a caliper. Species determination was made according to Wilson (2002), Quan Yeo (2014) and Zaminos *et al*. (2021).

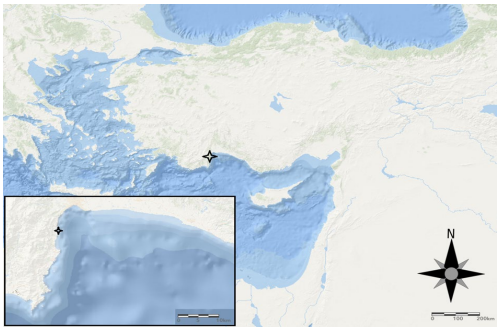

Fig. 1. Location where *Monoplex parthenopeus* was seen in the Gulf of Antalya (Turkiye)

Results and Discussion

The hairy gastropod species, which seen in the stony and gravelly bottom structure at a depth of 5-6 m in Gulf of Antalya, Göynük region, has been identified as *Monoplex parthenopeus* (Salis Marschlins, 1793). The shell length of this gastropod species, which has never been observed or reported in the Gulf of Antalya before, was measured as 83 mm, and its width was 45 mm. The thick shell of *M. parthenopeus* has strong channels detailed with spiral ribs containing axial lines and nodules.

Fig. 2. *M. parthenopeus* individual sampled during scuba diving

M. parthenopeus is a gastropod species with a widespread distribution in both the northern and southern hemispheres. They live in almost all subtropical and warm temperate seas[5]. Although it is reported to be found in both marine and brackish waters, as well as in intertidal, reef, rocky, or muddy habitats of exposed coasts and

[3] Buso *et. al.,* 2017.

[4] Couto, 1998.

[5] Beechey, 2014.

estuaries. There are no records of M. parthenopeus being present on the Mediterranean coasts of Turkey in the literature.

Nevertheless, this species was recorded for the first time on the Turkish coast in the Aegean Sea Datça-Bozburun Knidos territory region[6]. Also this gastropod species was first detected on the coast of Greece in the North Aegean Sea, specifically in Chalastra, N. Thermaikos Bay[7].

The record of M. parthenopeus from Phaselis territory, as presented in this study, constitutes the first documented record for both the Mediterranean coast of Turkey and the Gulf of Antalya. With the description of this species, the marine biodiversity of the Gulf of Antalya has been further enriched.

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6 Öztürk *et al*., 2014.

7 Zaminos *et al*., 2021.