

First record of *Aiptasia mutabilis* (Cnidaria: Anthozoa) from Turkish seas

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Abstract: The biodiversity of the Specially Protected Marine Area at Foca (Turkish Aegean Sea) was studied by scuba diving during October 2008. In the framework of this study the actinarian *Aiptasia mutabilis* (Gravenhorst, 1831) was found for the first time in Turkish waters. This new record extends the known geographical distribution of the species.

Key words: *Aiptasia mutabilis*, Aegean Sea, Foca Specially Protected Marine Area, new record

Türk Denizlerinden *Aiptasia mutabilis* (Cnidaria: Anthozoa)'in ilk kaydı

Özet: Türkiye'nin batısında yer alan Foça Özel Deniz Koruma Alanı'nın tür çeşitliliği Ekim 2008'de aletli dalış ile araştırılmıştır. Bu çalışma kapsamında bir actinarian türü olan *Aiptasia mutabilis* (Gravenhorst, 1831) ilk kez Türk deniz sularında bulunmuştur. Böylece türün bilinen dağılım alanı genişlemiştir.

Anahtar sözcükler: *Aiptasia mutabilis*, Ege Denizi, Foça Özel Çevre Koruma Alanı, yeni kayıt

During October 2008 an underwater visual census was carried out at Foca, one of the 14 Specially Protected Marine Areas of Turkey, in order to investigate marine macrobenthic communities. On 22 October, one specimen of *Aiptasia mutabilis* was observed at a depth of 8 m in Çanak Bay (Figure 1) under rocks covered by *Cladocora caespitosa* in a *Posidonia oceanica* meadow.

Aiptasia mutabilis is a tall trumpet-shaped anemone, up to 12 cm high, with a slender column not divided into regions and flaring outwards to the broad oral disc. The column diameter is about 3 cm at its base and 6 cm near the mouth. The tentacles, up to about 100 and not readily retracted, are steeply graduated in size, the inner being longer than the outer ones, stout at the base and tapering to fine

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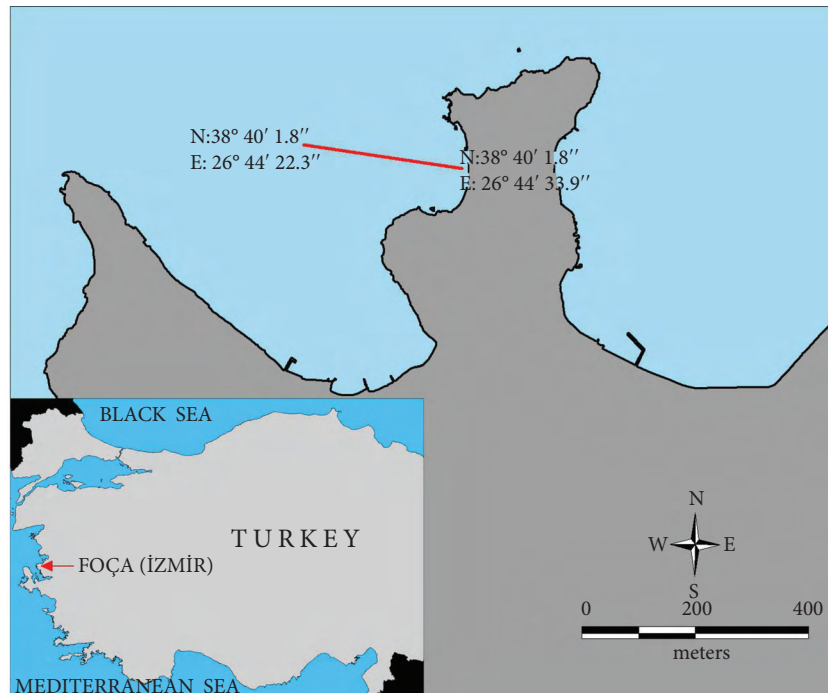


Figure 1. Çanak Bay in the Foca Specially Protected Marine Area.

points. Tiny perforations, cinclides, can be observed when the column is well extended. On the lower half of the column numerous adhesive spots (or verrucae) are present, by which this anemone may be fixed to the substrate. The column is brown often with irregular streaks of opaque white and the tentacles are brown becoming paler and whitish toward their tips. Its marble pattern distinguishes it from the very similar species *A. diaphana*. The overall brownish coloration may have a blue tint (Schmidt, 1972; Manuel, 1988; Kružić, 2007).

It is a gonochoristic species (Chia, 1976), with mature eggs between August and October, but asexual reproduction by basal disc division is frequent (Anderson, 2000). *Aiptasia mutabilis* hosts symbiotic algae rich in brown fucoxanthin, contributing to its colour, which becomes transparent white in the dark due to the loss of algae. Under cultivation conditions, this symbiosis may be regenerated by adding different species of Chlorophyceae and Chrysophyceae. Other symbiotic organisms are the shrimp *Periclimenes amethysteus* (Gothel, 1992), the amphipod *Caprella acanthifera*, living among its tentacles, and the crabs

Pilumnus spinifer and *Eriphia verrucosa*, having their nest near the anemone (Chintiroglou, 1987).

This anemone is commonly found from the supralittoral to depths of 50 m, mainly on hard shady substrates, vertical walls, under stones, or beneath overhangs, where it may occur in considerable numbers. It can also be found among calcareous seaweeds and in *Posidonia oceanica* meadows (Manuel, 1988; Kružić, 2007). The observed specimen's length was approximately 5 cm, with about 60 long and stout tentacles, transparent brown with white streaks. In Figure 2 we can observe its expanded tentacles. The marginal tentacles were longer than the central ones and all tentacles were tapered and not retracted. Thread-like acontia are visible by transparency through the translucent tentacles wall (Figure 2). Small specimens in shallow exposed sites are darker, compact and living in numerous (probably clonated) populations; deeper specimens are larger, more isolated, density of symbiotic algae is not so intense and a marble pattern is frequent (López-González, communication), as can be observed in Figure 2. A single small specimen was observed, which was



Figure 2. *Aiptasia mutabilis* from Foca Specially Protected Marine Area. Photograph: Emre Okan.

located in shallow and dark water, under rocks in a *Posidonia oceanica* meadow covered by epiphyta. Additionally, the rocks were covered with *Cladocora caespitosa* and various porifera species.

According to Vafidis et al. (1997), 35 Actiniaria species are known from the Mediterranean Sea, 2 of them belonging to the genus *Aiptasia*. The first one, *Aiptasia diaphana*, has been reported in large pools and on vertical walls (2-3 m, Ocaña and den Hartog, 2002) and under stones (2-15 m, Kružić, 2007) from the American coasts, Eastern Atlantic Ocean, Mediterranean Sea (Ocaña and den Hartog, 2002), Adriatic Sea (Kružić, 2007), and Red Sea (Vafidis et

al., 1997), as well as from the Turkish coasts (Okus et al., 2004). *Aiptasia mutabilis* is known from the eastern Atlantic Ocean, from Ireland to the Canary Islands (Ocaña and den Hartog, 2002) and from the Azores (Wirtz et al., 2003). In addition, this species has been reported from the Western Mediterranean (Andres, 1884), Adriatic (Carus, 1885) and Greek Aegean Sea, where it was firstly recorded in the 1980s (Chintiroglou, 1987). The Actiniaria from the Turkish coasts are poorly known, as no particular investigation has been performed and information can be gained only from a few general zoobenthic studies (Demir, 1952; Kocataş, 1978; Okuş et al., 2004, Çınar et al., 2006). To date, the present constitutes a unique record of *Aiptasia mutabilis* from Turkish coasts.

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First record of *Aiptasia mutabilis* (Cnidaria: Anthozoa) from Turkish seas

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