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SHORT COMMUNICATION

First occurrence of the hydrozoan *Geryonia proboscidalis* (Forskål, 1775) in the northeastern Mediterranean coast of Turkey

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Abstract

Hydrozoan *Geryonia proboscidalis* (Forskål, 1775) was observed in July 2012 in Iskenderun Bay (Samandag), for the first time in the northeastern Mediterranean coast of Turkey. The presence of *G. proboscidalis* in the northeastern Mediterranean coast of Turkey may be due to transportation via ballast waters of ship or water currents.

Keywords: *Geryonia proboscidalis*, Hydrozoan, Iskenderun Bay, Turkey

Introduction

During the last two decades in the Mediterranean coast of Turkey, a large number of jellyfish and hydrozoa as indigenous and/or aliens have been reported (Kideys and Gücü 1995, Cevik *et al.* 2006, 2011; Turan *et al.* 2010, 2011; Gürlek *et al.* 2013).

The family Geryonidae is represented by single genus and one species *Geryonia proboscidalis* (Forskål, 1775) in the Mediterranean Sea. *Geryonia* (Trachymedusae) prefers warm waters, inhabiting surface zones in tropical and subtropical seas (Vanucci 1957). This species is mainly distributed in the Atlantic, Indo-Pacific, Mediterranean and South Adriatic Sea (Van Der Land *et al.* 2001; Bouillon *et al.* 2004; Zakaria 2004; Graham *et al.* 2009).

G. proboscidalis was recorded for the first time from Sigacik Bay (Mugla) in the Aegean coast of Turkey in June 2012 by Gülşahin *et al.* (2013). Moreover, this species was also reported with three individuals from Syrian Coast (Banian) on 8 January 2012 by Mamish *et al.* (2012).

The present study reports the occurrence of *G. proboscidalis* in Iskenderun Bay, the Eastern Mediterranean coast of Turkey, and discuss the possible pathways of its introduction to the Turkish Mediterranean waters.

Materials and Methods

A single specimen of *G. proboscidalis* was observed and photographed during the benthic survey in July 2012 in Iskenderun Bay (Samandag), northeastern Mediterranean coast of Turkey (36° 01′ 343" N, 35° 57′ 552" E), (Figure 1). The specimen was found on the water surface, where water depth was 3 m (Figure 2). The temperature was 28.5°C and salinity was 38‰ psu. The color of specimen captured and photographed was similar with those reported in Syria (Mamish *et al.* 2012) and Mugla (Gülşahin *et al.* 2013). The specimens were identified as *G. proboscidalis* with the diagnostic characteristics described by Bouillon *et al.* (2004).

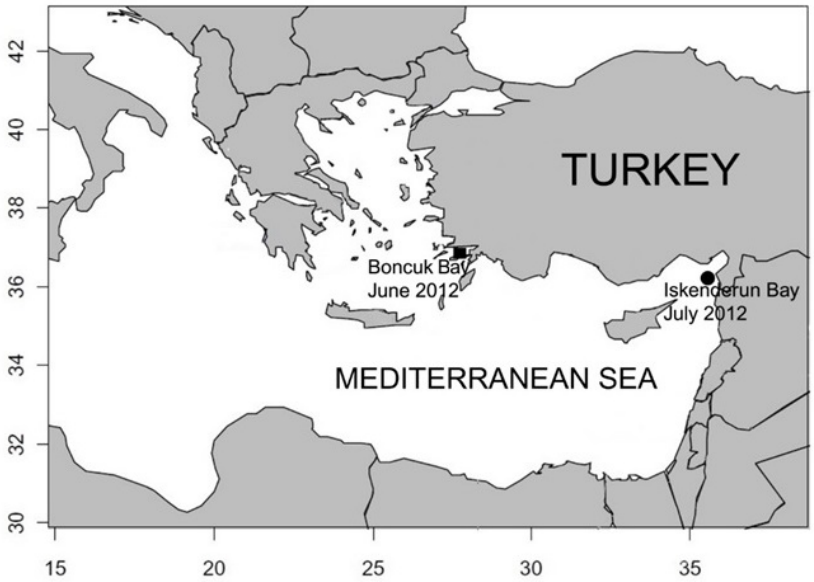

Figure 1. Map showing the records of *Geryonia proboscidalis* (Forskål, 1775) in the Mediterranean coast of Turkey: ●, new record; ▄, Gülşahin *et al.* (2013)

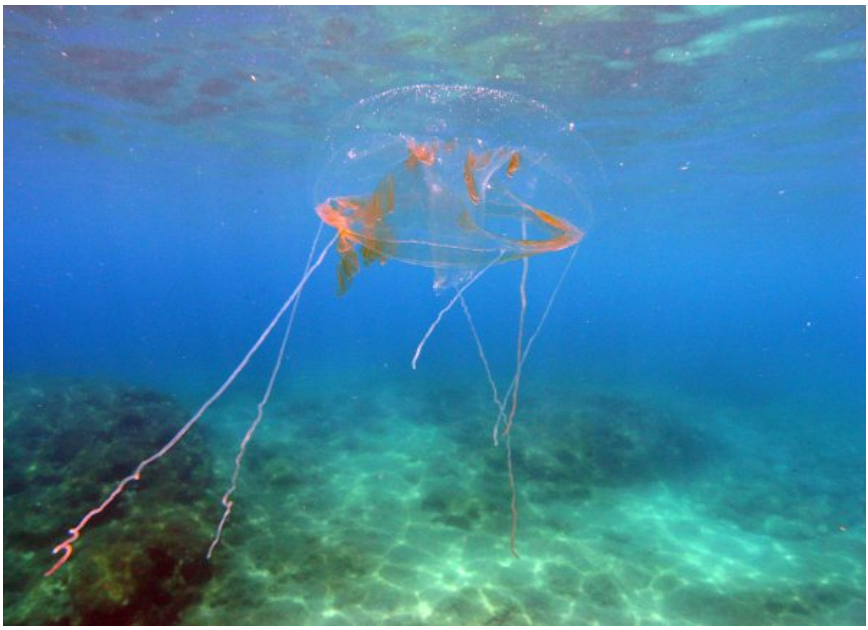

Figure 2. General view of *Geryonia proboscidalis* observed in Iskenderun Bay (Photo: Necdet Uygur)

Result and Discussion

G. proboscidalis is generally confused with *Liriope tetraphylla* (Chamisso & Eysenhardt, 1821). The distinctive characteristics of *G. proboscidalis* from *L. tetraphylla* are six lips; six radial canals and six gonads (a total of 12 tentacles, with 6 long alternating with 6 shorter ones), which is found as four lips, four radial canals and four gonads in *L. tetraphylla*. In addition, the two species differ in umbrella. Typical larger size (35-80 mm wide) for *G. proboscidalis* than that for *L. tetraphylla* (10-30 mm wide). At the same time, the genus *Geryonia* is relatively uncommon and never as abundant as its relative genus, *Liriope* (Bouillon and Boero 2000).

In recent years, new arrivals and establishment of non-indigenous jellyfish species in the Turkish Mediterranean waters are increasing (Cevik *et al.* 2006, 2011; Ozgur and Ozturk 2008), which may be attributed to the increasing global warming trend of Mediterranean waters (Bianchi 2007).

The way of introduction of this species in the Mediterranean coast of Turkey was not definite. *G. proboscidalis* may have entered the Turkish Mediterranean Sea by water currents. Aternatively, transportation of larvae in ship ballast water seems to be the most likely vector as indicated for similar-sized jellyfish, such

as *Aquera globosa* and *Aquera aquera* (Mamish *et al.* 2012; Turan *et al.* 2010; Gurlek *et al.* 2013).

Consequently, the present paper reports the first occurrence of the new hydrozoan species in the northeastern Mediterranean coast of Turkey, Iskenderun Bay. It is also the second occurrence in the Mediterranean coast of Turkey. Moreover, our monthly survey carried out in Iskenderun Bay has not indicated establishment of this species yet.

Türkiye'nin Kuzey-Doğu Akdeniz sahillerinden hydrozoa *Geryonia proboscidalis* (Forskål, 1775) 'in ilk bulunuşu

Özet

Hydrozoa *Geryonia proboscidalis* (Forskål, 1775) Temmuz 2012 tarihinde Türkiye'nin Kuzeydoğu Akdeniz sahilleri İskenderun Körfezi (Samandağ)'nden gözlemlenmiştir. Sunulan bu makale *G. proboscidalis*'in Türkiye'nin Kuzeydoğu Akdeniz sahillerinden ilk bulunuşudur. *G. proboscidalis*'in Türkiye'nin Kuzeydoğu Akdeniz sahillerinden varlığı muhtemelen gemilerin ballast suları ile veya deniz akıntıları ile taşınması sonucudur.

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