

## First record of *Phyllorhiza punctata* von Lendenfeld, 1884 (Scyphozoa: Rhizostomeae: Mastigiidae) from Turkey

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### Abstract

The Australian spotted jellyfish *Phyllorhiza punctata* has been reported from several locations in the Mediterranean, but the present report is the first record from Turkish waters. Juveniles of the Erythrean alien shrimp scud, *Alepes djedaba*, were observed nestling among its tentacles. Possible vectors are mentioned.

**Key words:** *Phyllorhiza punctata*, *Alepes djedaba*, Turkey, non-indigenous species

### Introduction

*Phyllorhiza punctata* von Lendenfeld, 1884 (Scyphozoa: Rhizostomeae: Mastigiidae) originates in the tropical western Pacific (Graham et al. 2003). The species has been widely introduced in the Atlantic (Mienzan and Cornelius 1999; Cutress 1973; Silveira and Cornelius 2000; Graham et al. 2003; Ocaña-Luna et al. 2010), and Pacific (Larson and Arneson 1990), coasts of the Americas (Silveira and Cornelius 2000). Although this species was first observed in the Mediterranean Sea in 1965, it was reported 25 years later (Galil et al. 1990). In 2005-2006, specimens were collected off Lefkada Island-Greece (Abed-Navendi and Kikinger 2007) and off the northern Israeli coast (Galil et al. 2009). In 2009 it was sighted off Sardinia, Italy (Boero et al. 2009). In present paper we report first record of *P. punctata* from coastal waters of Turkey.

### Methods

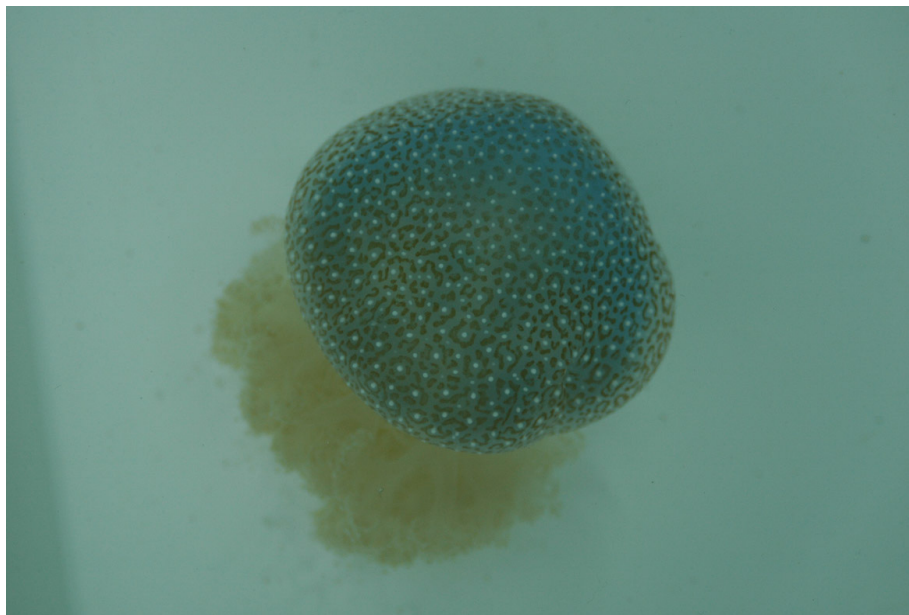
A single specimen of *Phyllorhiza punctata* (umbrella diameter 61mm) (Figure 1) was collected on October 24, 2010, in the course of surveying the alien invasive macrophyte *Caulerpa taxifolia* (M. Vahl) C. Agardh in the

bay of İskenderun (36°44.550N, 36°10.716E, salinity 38.6 PSU, sea water temperature 25.7°C). The specimen was kept for 24 hours in a seawater aquarium and then preserved and deposited in the museum of Faculty of Fisheries at Çukurova University in Adana (CSFM-CNI/2010-01).

### Results and discussion

The Juveniles of the Erythrean alien shrimp scud, *Alepes djedaba* (Forsskål, 1775), were observed nestling among tentacles of recorded specimen of *Phyllorhiza punctata*. Juvenile *A. djedaba* were observed sheltering in the Erythrean invasive alien scyphozoan *Rhopilema nomadica* Galil, 1990 (Galil et al. 1990). *Phyllorhiza punctata* is known to harbour endosymbiotic zooxanthellae throughout its native range and in certain introduced localities, giving the bell a brownish tint (Garcia and Durbin 1993; Galil et al. 2009). As can be seen from Figure 1, the photo was taken after one day of its capture date; therefore, the dark blue colour in the bell might indicate coloration following the escape of zooxanthellae from the specimen. Moreover, this colour change within one day of capture can be explained due to the sensitivity of *P. punctata* to environmental stress.

**Figure 1.** The Australian spotted jelly fish, *Phyllorhiza punctata*, caught off İskenderun bay, observed at the sea water surface, 24 October 2010. Photo by C. Cevik.



Since the species has lately been commonly found off the Israeli coast (Galil et al. 2009), its presence in İskenderun may be due to adults or ephyrae drifting with the counter clockwise Levantine current. But since there are several ports along the Gulf of İskenderun, shipping may have served as a vector.

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