

## First record of *Percnon gibbesi* (H. Milne Edwards, 1853) (Crustacea: Decapoda: Percnidae) from Egyptian waters

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### Abstract

On July 2010, the invasive crab *Percnon gibbesi* was photographed and captured along the coast of Alexandria (Egypt, Eastern Mediterranean Sea). This represents the first observation of this species in Egyptian waters and the easternmost record for the southern rim of the Mediterranean.

**Key words:** *Percnon gibbesi*, Percnidae, Egypt, Mediterranean, invasive species

### Introduction

The invasive crab *Percnon gibbesi* (H. Milne Edwards, 1853) is one of the most recent and successful invaders in the Mediterranean Sea. This species was formerly included within the family Plagusidae Dana, 1851 but a recent study based on molecular and morphological analyses (Schubart and Cuesta 2010) assigned this genus to the family Percnidae Števcíć, 2005. It inhabits the infralittoral rocky shore and its native range extends over a wide latitudinal and temperature range along the eastern Pacific, from California to Chile, western Atlantic, from Florida to Brazil, and eastern Atlantic, from the Gulf of Guinea to Portugal, including Madeira, Azores, and Cape Verde Islands (Nobre 1931; Manning and Holthuis 1981; Udekem d'Acoz 1999).

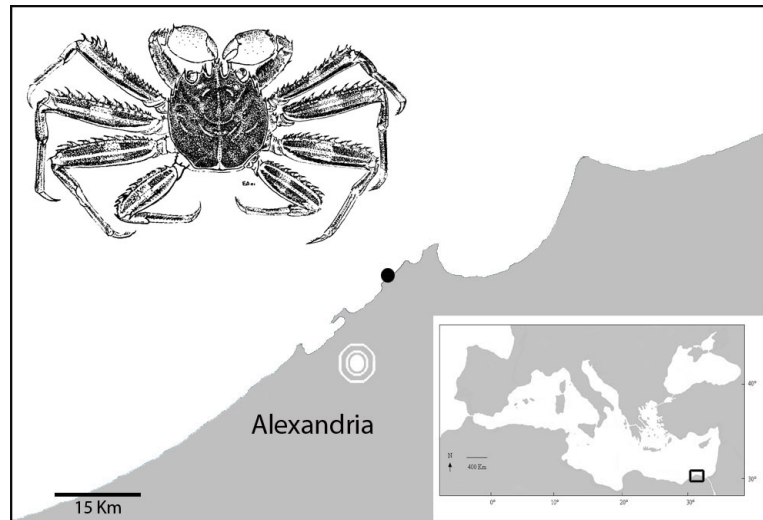
In the Mediterranean Sea, the species distribution has been recently updated by Katsanevakis et al. (2010) and by Galil et al. (2009). It was firstly recorded in 1999 at Linosa, Pelagic Islands (Relini et al. 2000) where an established population was sampled soon afterwards (Puccio et al. 2006) and at the Balearic Islands (Garcia and Reviriego 2000;

Mueller 2001). Subsequent records were from Sicilian shores (Pipitone et al. 2001; Mori and Vacchi 2002), Malta (Borg and Attard-Montalto 2002), Tyrrhenian and Ionian shores of Italy (Russo and Villani 2005; Faccia and Bianchi 2007), Catalan Sea (Abelló et al. 2003), Greece (Cannicci et al. 2006; Thessalou-Legaki et al. 2006; Katsanevakis and Tsiamis 2009; Katsanevakis et al. 2010) and Tunisia (MedMPA 2004). Recently the species was observed along the southern Turkish coast (Yokes and Galil 2006) and in Libya (Elkrwe et al. 2008).

### Results and discussion

On July 2<sup>nd</sup> 2010, several specimens of *Percnon gibbesi* were observed at Miami beach (Alexandria, Egypt: 31°16'20.81"N, 29°59'27.43"E) (Figure 1) while snorkeling. They occurred on artificial rocky boulders and natural rocky bottoms in the narrow subtidal zone between 0.5 and 2.5 m depth. The crabs were hiding under the blocks and in narrow crevices as observed in other Mediterranean regions (Pipitone et al. 2001; Russo and Villani 2005; Deudero et al. 2005).

**Figure 1.** Record location of *Percnon gibbesi* at Miami beach, Alexandria, Egypt. Crab drawing by Lucio Valdez.



**Figure 2.** *Percnon gibbesi* photographed underwater at Miami beach, Alexandria, Egypt, on July 2<sup>th</sup> 2010. Photograph by E. Azzurro.



A small male (17.5 mm carapace length and 17.0 mm carapace width) was photographed (Figure 2), captured, preserved in ethanol and deposited in the Biological Reference Collections of the Institut de Ciències del Mar - CSIC of Barcelona (accession number ICMD\_201011-01).

This record establishes the presence of *Percnon gibbesi* in Egypt and represents the easternmost record along the southern rim of the Mediterranean Sea, almost 800 km east of previous record (Haniyah, Libya - 32°50.205'N, 21°30.803'E) (Elkrwe et al. 2008). This would confirm the rapid expansion of the crab in the Mediterranean basin and its recent spread

eastwards. It is possible that this species has been present along the Egyptian coasts for some time, as the population observed seemed well established. Keeping track of alien species is often a difficult task and regular faunistic monitoring programmes are essential for information on these biodiversity changes.

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