AN UNEXPECTED FIND OF THE WESTERN ATLANTIC SHRIMP,
FARFANTEPENAEUS AZTECUS (IVES, 1891) (DECAPODA, PENAEIDAE) IN
ANTALYA BAY, EASTERN MEDITERRANEAN SEA

BY

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ABSTRACT

Twelve specimens of the western Atlantic shrimp, Farfantepenaeus aztecus (Ives, 1891), were
captured between December 2009 and June 2010 by bottom trawl off Serik in Antalya Bay, Turkey. The
descent has probably been introduced in the eastern Mediterranean with ballast water. This is
the first record of F. aztecus, and the second of a western Atlantic shrimp in the Mediterranean Sea.

INTRODUCTION

The number of non-indigenous species (NIS) recorded in the Mediterranean
Sea is continuously increasing (Galil, 2009), and several species have become
a matter of concern due to their manifest invasiveness (DAISIE, 2009). The
Suez Canal, the maritime traffic, and mariculture are the main vectors of NIS
into the Mediterranean. Also, global warming may favour the expansion of
populations of thermophilic East-Atlantic species and their spreading in the
southern Mediterranean by the Atlantic superficial current flowing in through

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the Strait of Gibraltar. Forty-seven Indo-Pacific decapod crustaceans (Lessepsian immigrants) have been recorded in the eastern Mediterranean since the opening of Suez Canal in 1869. Thus, we get used to new records of Lessepsian immigrants and to their spreading in the Aegean Sea or the central Mediterranean, whereas the finding of western Atlantic species is a more unexpected event. Herein we report the capture in Antalya Bay (Turkey, eastern Mediterranean) of 12 specimens of the western Atlantic penaeid shrimp *Farfantepenaeus aztecus* (Ives, 1891), a species never before recorded in the Mediterranean Sea.

**MATERIAL AND METHODS**

The shrimp were collected off Serik (36°49.3’N 30°57.4’E to 36°47.7’N 31°08.9’E) in depths of 30-35 m within the framework of a monthly sampling program of the trawling grounds of Antalya Bay. Trawling was carried out at nighttime (between 02:00 and 06:00 h) in stable weather and sea conditions, by the R/V “Akdeniz Su” at an average speed of 2.6 nautical miles/h [approx. 4.7 Km/h] with a conventional bottom trawl (1100 meshes at mouth opening; codend in polyethylene, mesh opening 44 mm, equipped with a polyamide cover, mesh opening 24 mm).

Some obviously different specimens were noted among the others shrimps caught, and these were preserved for later identification in the laboratory. These specimens, that were not alike to any of the penaeids reported from the Mediterranean Sea until now, were later identified as *Farfantepenaeus aztecus* (Ives, 1891) based on the monograph of, and keys in, Perez Farfante (1969, 1988) and Tavares (2002). The specimens, preserved in 80% ethanol, are deposited in the Ichthyological Collection of the Fisheries Faculty, Akdeniz University, in Antalya (Turkey) and in the Museo Civico di Storia Naturale, Verona (Italy).

**RESULTS AND DISCUSSION**

The shrimp catch was composed on average of the autochthonous species *Melicertus kerathurus* (Forskål, 1775) and *Parapenaeus longirostris* (Lucas, 1846) (7%) and several Lessepsian immigrants: *Penaeus semisulcatus* (De Haan, 1844), *Marsupenaeus japonicus* (Bate, 1888), *Metapenaeus monoceros* (Fabricius, 1798), and *Metapenaeopsis aegyptia* (Galil & Golani, 1990) (93%).

Data on the twelve specimens of *Farfantepenaeus aztecus* caught between 24.xii.2009 and at 27.vi.2010, on a sandy-mud bottom, in Antalya Bay are shown in table I. This is the first record of the species in the Mediterranean Sea.