



## Brittle stars (Echinodermata: Ophiuroidea) from the southern coast of Turkey (eastern Mediterranean): new records and revision of *Amphiodia obtecta* Mortensen, 1940

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### Abstract

Brittle stars were collected on the southern coast of Turkey in 2005 and 2009. The most abundant species found (up to 420 ind. m<sup>-2</sup>) was *Amphiodia obtecta*. The taxonomic status of this species was unclear and is revised here. This is the first record of the genus *Amphiodia* in the Mediterranean Sea; it probably originates from the Red Sea, since it is absent from the entire Atlantic Ocean. Among the other species found, *Ophiactis macrolepidota* (previously reported as *O. parva* in the Mediterranean) is a new record for the marine fauna of Turkey.

**Key words:** *Amphiodia microplax*, *Ophiactis macrolepidota*, *Ophiactis savignyi*, Lessepsian species, ecology, morphology

### Introduction

Since the opening of the Suez Canal in 1869, over 400 species have been reported as migrants from the Red Sea into the eastern Mediterranean (Zenetos et al. 2005, 2008), brought there either by a step by step spreading mechanism via the Suez Canal (known as Lessepsian migration) or through intentional or unintentional human mediation (e.g. with fouling communities on ship bottoms, in ballast water). In contrast, migration in the opposite direction (known as anti-Lessepsian migration) appears to be uncommon (Por 1978). Among the migrant species, three brittle stars have been reported (Por 1978) in the Mediterranean Sea: *Amphioplus laevis* (Lyman, 1874), *Ophiactis parva* Mortensen, 1926 and *Ophiactis savignyi* (Müller & Troschel, 1842). However, the last species has a circumtropical distribution and was found once, a single specimen, in the northwestern Mediterranean, at Banyuls-sur-Mer, France (Guille 1969), which has cast some doubt on its Red Sea origin. Recently, the widespread Indo-Pacific species *Ophiocoma scolopendrina* (Lamarck, 1816) was reported for the first time from the Mediterranean Sea, from Tunisia (Zaouali et al. 2007); this species most likely originated in the Red Sea.

Knowledge of the Mediterranean ophiuroid fauna is still incomplete. The most recent overview (Pérez-Ruzafa & López-Ibor 1988) excluded the Levant basin and thus all migrant species. Additions to the known fauna are occasionally discovered also in the western parts of the Mediterranean, most recently *Ophiotreta valenciennesi rufescens* Koehler, 1896 at Malta (Mifsud et al. 2009), well-known from the eastern Atlantic and most likely overlooked before. The present study reports the recent discovery of rich populations of *Amphiodia obtecta* Mortensen, 1940, previously unknown in the Mediterranean, from the southern coast of Turkey. This species was described originally from the Iranian Gulf. It has been suggested that *A. obtecta* is probably conspecific with *Amphiodia microplax* Burfield, 1924 (Cherbonnier & Guille 1978) and *Amphiodia duplicata* (Koehler, 1930). The taxonomic status of this species is revised in the present study.