The faunistic composition of Mediterranean marine ecosystems is still far from being well known, despite the intensive effort to increase our knowledge on biodiversity all over the planet. Many marine ecosystems are as yet poorly understood, including even many sublittoral and shallow water areas. Decapod crustaceans constitute a relatively well studied faunistic group within the Mediterranean Sea (Zariquiey-Álvarez, 1968; d’Udekem d’Acoz, 1999). However, the Mediterranean is not a stable environment and it is a region with a strong faunistic influence both from the Atlantic Ocean in the west, through the Strait of Gibraltar, and also from the Indian Ocean and Red Sea in the east, since the opening of the Suez Canal in 1869.

Within the framework of a research project aiming to evaluate the effects of the colonization of the rhizomes of the seagrass, Posidonia oceanica (L.) Delile by the macroalga Caulerpa, specimens of decapod crustaceans were collected. Individuals were sampled from the sediment among the rhizomes of P. oceanica during 2003-2005 in Mallorca (fig. 1).

Infraunal communities were sampled with a square of 20 × 20 cm and a height of 5 cm, thus sampling a total volume of 2000 cm³, and sorted with 500 μm mesh. Four specimens of an alpheid shrimp, attributed to Automate branchialis Holthuis & Gottlieb, 1958 (Caridea, Alpheidae), were found at the rhizomes of Posidonia oceanica beds at Cala d’Or (Mallorca, Balearic Islands, western Mediterranean) (table I; fig. 1). No Automate branchialis were collected in the leaves stratum that was sampled with a hand-net of 20 × 40 cm along straight transects of 20 meters.

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Three of the specimens found have been deposited in the Biological Collections of Reference of the Institut de Ciències del Mar (CSIC) under access codes ICMD 61-63/2006. Figs. 2 and 3 show the relevant morphological details of the specimens that have allowed to identify them as *Automate branchialis*. Most morphological characters are in agreement with the original description of the species. However, Holthuis & Gottlieb (1958) stated that the outer margin of the scaphocerite ends in a distinct tooth, which is somewhat overreached by the lamella, as is clearly figured in their original description. This character was considered thus a valuable character to differentiate the species from some other species of the genus. However, in the individuals examined, the lamella does not overreach the spine (fig. 2D, E).

*Automate branchialis* is a rare alpheid shrimp, described and initially recorded only from the eastern Mediterranean Sea. The present finding constitutes the second report of the species in the western Mediterranean, since Katağan & Kocataş (2001) made reference to an unpublished report by P. Noël where that author reports this species from Port-Cros, Marseille. All other records are restricted to the eastern Mediterranean Sea. The four individuals of *A. branchialis* found in our study constitute the westernmost record of the species, and considerably expand its known distribution range. Despite its description from the Mediterranean Sea, Holthuis & Gottlieb (1958) considered the possibility of the species being a Lessepsian colonizer (see also Galil, 1992), but it is currently considered a species native to the Mediterranean basin (Froglia, 1975; Koukouras et al., 1992; Katağan & Kocataş, 2001; Galil et al., 2002). Its occurrence in the western Mediterranean provides further support to consider it an endemic Mediterranean species, especially given the fact that no Lessepsian species has yet been recorded in the western basin of the Mediterranean.