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**First record of *Dyspanopeus sayi* (Smith, 1869)
in the Mediterranean Sea
(Crustacea: Decapoda: Xanthidae)**

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FIRST RECORD OF *DYSPANOPEUS SAYI* (SMITH, 1869) IN THE MEDITERRANEAN SEA (CRUSTACEA: DECAPODA: XANTHIDAE)

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ABSTRACT

The xanthid crab *Dyspanopeus sayi*, common on oyster beds of the North-American Atlantic coast, is reported for the first time in the Mediterranean Sea on the basis of two adult males collected in the Venice lagoon in 1992.

KEY WORDS: *Dyspanopeus sayi*, zoogeography, Adriatic Sea, Mediterranean Sea.

As a result of human activities (shipping, trades, aquaculture etc.), in the last century many species of decapod crustaceans have been accidentally introduced in the Mediterranean Sea. Several have been able to settle with a breeding population and now support local fisheries.

The most outstanding examples can be found among the lessepsian immigrants, with several Penaeid shrimps now object of commercial fishery in the Levant basin (Por, 1978).

A commented list of alien species introduced in the Mediterranean basin was recently published by Zibrowius (1991).

We now add to this list the xanthid crab *Dyspanopeus sayi* (Smith, 1869) on the basis of two adult males collected in the summer 1992 during a research programme aimed to study the natural and farmed beds of commercial bivalves in the Venice lagoon (Northern Adriatic).

During this investigation 114 stations were sampled in July 1992 by scuba divers scrapping a surface of 30x40 cm. The scrapped material was frozen and subsequently sorted in the laboratory. Two males of *D. sayi* were found in one of these samples. The sampling technique used, primarily aimed to estimate the biomass of sessile bivalves, is not appropriate to collect vagile species like crabs. In fact very few samples yielded some specimen of *Pilumnus hirtellus* and *Carcinus aestuarii*, both very common in the Venetian lagoon (Giordani Soika, 1948).

Therefore, at the moment, we cannot infer on the actual spread and abundance of the species in the lagoon.

Material examined: 2 ♂, carapace length 20.5 - 21.0 mm, Venice lagoon: Canale Melison, nearby Malamocco, [Lat. 45° 21.7' N, Long. 12° 17.5' E], depth 3 m, scrapping a

D. sayi is an euriectic species indigenous to American Atlantic coasts.

It is widespread from the Baie des Chaleurs (Canada) to the Florida Keys (USA), abundant on oyster beds and estuarine muddy bottoms (Williams, 1984).

In Europe the species was first reported by Naylor (1960) who found it into a Swansea warm water dock. Most probably it was introduced by shipping: as larvae in water ballast or, more unlikely, as adults among organisms fouling a ship hull (Naylor, 1960; Carlton, 1985), and it is still present in the Bristol Channel (Ingle, 1980; Clark, 1986) but has not expanded outside. The number of species, alien to the Mediterranean fauna, reported for the Venice lagoon has considerably increased in recent years (Cesari and Pelizzato, 1985; Sacchi *et al.*, 1988; Occhipinti Ambrogi, 1991) and the majority originates from the Indo-Pacific area.

The decapod fauna of the Venice lagoon has been extensively studied in the past century (see: Nardo, 1869) and more recently by Giordani Soika (1948), therefore it is most likely that *D. sayi* has been only recently introduced into Venice lagoon by shipping, but remains unknown if the specimens originate from the American population or from the small population established on the South-West English coast.

Since the species is known to predate on bivalves, it could be worthy to monitor its possible spread in the mussel-parks of the area .

RIASSUNTO

Prima segnalazione di *Dyspanopeus sayi* (Smith, 1869) in Mediterraneo (Crustacea: Decapoda: Xanthidae).

Il granchio xantide *Dyspanopeus sayi* (Smith, 1869), originario delle coste atlantiche del Nord America, è presente anche sulla costa sud-occidentale della Gran Bretagna (Swansea) ove venne segnalato per la prima volta nel 1960.

La sua presenza in Mediterraneo viene ora segnalata per la prima volta sulla base di due maschi adulti raccolti nel luglio 1992 nella Laguna di Venezia.

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