DECAPOD CRUSTACEANS OF THE COAST ALONG THE HISTORICAL NATIONAL PARK OF THE GALLIPOLI PENINSULA, TURKEY

BY
A. SUAT ATEŞ, ŞÜKRAN CİRİK, E. ŞANVER ÇELİK, MEHMET AKBULUT and HERDEM ASLAN

Department of Marine Biology, Fisheries Faculty, Çanakkale Onsekiz Mart University, TR-17100 Çanakkale, Turkey

ABSTRACT

During recent faunistic samplings, a total of 57 species of decapod crustaceans was collected in the coastal waters of the Historical National Park located on the Gallipoli Peninsula (including the northeastern Aegean Sea and Dardanelles). The samples were taken at depths ranging between 10 and 28 m at 10 different stations chosen along the coasts of the peninsula in July, 2005. A total of 1425 individuals belonging to 57 species was identified. The dominance of the species varies in each ecological zone; the caridean, Philocheras trispinosus (Hailstone, 1835) was commonest, with a dominance value of 13.79%.

RÉSUMÉ

Au cours d’échantillonnages faunistiques récents, des crustacés décapodes ont été récoltés dans les eaux côtières du Parc National Historique sur la péninsule de Gallipoli (incluant la mer Égée nord-orientale et les Dardanelles). Les échantillons ont été prélevés à des profondeurs allant de 10 à 28 m, à 10 stations différentes choisies le long des côtes de la péninsule en juillet 2005. Un total de 1425 individus appartenant à 57 espèces a été identifié. L’espèce dominante diffère suivant la zone écologique. La crevette Caridé, Philocheras trispinosus (Hailstone, 1835) était l’espèce la plus commune au total, avec une valeur de dominance de 13.79%.

INTRODUCTION

Faunistic studies regarding Turkish Seas were begun by Forbes (1844) in the Aegean Sea. They concentrated on the Sea of Marmara and Bosporus during the 1950s, and were then extended to the Aegean Sea and Izmir Bay after 1965. According to the existing literature, studies on the littoral decapod fauna of the
Historical National Park on the Gallipoli Peninsula are scarce, and no specific and detailed papers on decapods exist.

The major references to this fauna consist of two general reviews only, i.e., on the decapods of the Turkish Straits system including the Dardanelles (Müller, 1986; Kocataş & Katağan, 2003), and both of these are checklists. Müller (1986) mentioned 33 decapods from the Dardanelles, while Kocataş & Katağan (2003) published a checklist of the decapods of the Turkish seas that included 220 species, among which 108 species from the Turkish Straits system. Ateş et al. (2005) reported 40 species of decapod crustaceans found at the coasts of Saros Bay, northeastern Aegean Sea (excluding, however, the coasts of the Historical National Park located on the Gallipoli Peninsula). Erkan Yurdabak (2004) recorded a total of 9 decapod species from the upper-infralittoral depths (0-5 m) of the Gallipoli Peninsula. In recent times, Ateş et al. (2005) reported the anomuran, Munida rugosa (J. C. Fabricius, 1775) from Saros Bay as a new record for the Aegean Sea coasts of Turkey. Yet, all studies cited were generally focused primarily on the Dardanelles and Saros Bay. The objective of the present study is to give a first characterization of the fauna of decapod Crustacea occurring in the coastal waters of the Gallipoli Historical National Park.

MATERIAL AND METHODS

The area studied is located on the Gallipoli Peninsula (fig. 1). In order to investigate the decapod crustacean fauna, samples were taken at 10 different stations (1, Akbaş Inlet; 2, Kilya Inlet; 3, Çamburnu; 4, Kumburnu; 5, Soğandere; 6, Morto Inlet; 7, Alçıtepe; 8, Kabatepe; 9, Anzak Inlet; 10, Küçük Kemikli cape) in July, 2005. The characteristics of the stations (depth, type of substrate, collection date, GPS coordinates, and type of sampling gear) are shown in table I. Surveys were carried out with the R/V “Bilim I” of Çanakkale Onsekiz Mart University. A total of 10 experimental dredge hauls was taken at depths ranging between 10 and 28 m, and all samples were taken during daytime hours. Hauls lasted 5 minutes.

The material collected was preserved in 4% formaldehyde for analysis in the laboratory. Samples were separated and washed using a three sieve column (smallest mesh 0.5 mm). All decapods in the samples were counted and identified to species level, whenever possible, according to the works of Zariquiey Alvarez (1968), Ingle (1993), d’Udekem d’Acoz (1996), and Falciai & Minervini (1996). The higher classification follows Martin & Davis (2001). Soyer’s (1970) frequency index (f%) was used to determine the abundance of species at the stations, and in the various biotopes. Bellan-Santini’s (1969) quantitative dominance index (Di%)