On the Mollusca fauna of the Black Sea near Istanbul

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Abstract. For the study of the mollusc fauna of the Black Sea at the entrance to the Bosphorus, sampling was carried out at different depths between 0.5 and 65 m at 44 stations. Altogether 43 species belonging to 36 genera were found. 15 species belong to the Gastropoda and 28 to the Bivalvia. Two species are new to Turkey, and 9 new to the Black Sea coasts of Turkey. Two species are alien species. *Rapana venosa*, one of the exotic species whose negative effect on local bivalve populations has been described, was only rarely found.

Introduction

The Black Sea is characterised by an exchange of water with the Sea of Marmara: nearly 340 x 10⁹ m³ of brackish water enters the Sea of Marmara annually from the Black Sea by a surface current through the Bosphorus, and 176 x 10⁹ m³ of subhalocline water flows back from the Sea of Marmara to the Black Sea in a bottom current (STANLEY & BLANPIED 1980, YÜCE & TÜRKER 1991). Only about 20-25% of the zoobenthos of the Mediterranean Sea is shared with the Black Sea, due to the less saline water which is unsuitable for most Atlantic and Mediterranean species, and due to the restriction of suitable habitats to the upper water layers because there are deep zones with anoxic conditions containing hydrogen sulphide (MUTLU et al. 1993). Pollution, hypereutrophication, damaged habitats, introduction of alien species and overfishing are factors that threaten the Black Sea ecosystem (ÖZTÜRK 1999).

Only relatively few studies have been carried out on the gastropods and bivalves of the Turkish Black Sea. Mollusca were included by CASPERS (1968), who studied benthic invertebrates, and PINAR (1974), who studied fouling and boring organisms. Other works on the Black Sea mollusc fauna include MUTLU & ÜNSAL (1991-1992), MUTLU et al. (1993), MUTLU (1994), UYSAL et al. (1998), and ÖZTÜRK (1999). ÖZTÜRK & ÇEVİK (2000) gave an overview of the mollusc fauna and reported a total of 14 gastropod and 36 bivalve species from the Black Sea. This study is an assessment of the Mollusca fauna of the Black Sea at the entrance to the Bosphorus.