

Age, growth, reproduction and diet of the Flatsnout Goby, *Neogobius platyrostris* (Pallas, 1814), on the south-eastern Black Sea Coast of Turkey

(Pisces: Gobiidae)

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Abstract. Information is given on the age structure and growth, length at first maturity, annual cycle of gonad development and diet of the Flatsnout Goby, *Neogobius platyrostris* (Pallas, 1814), in the Black Sea of Turkey. The maximum age was found to be 5 and 6 years for males and females, respectively. The von Bertalanffy growth parameters were estimated from the mean age-length data for males and females (males: $L_{\infty} = 21.7$ cm; females: $L_{\infty} = 16.3$ cm) and the growth performance indices were calculated for males $\phi' = 4.21$ and for females $\phi' = 4.03$. The estimated length at first maturity was 9.29 and 7.50 cm for males and females, respectively. The spawning season was between March and June. Total fecundity ranged from 103 to 990, with an average of 553 ± 82 ripe eggs/fish. The Flatsnout Goby feeds on a wide variety of prey items, particularly on Gammaridae, Brachyura, Pisces and Isopoda.

Key words. *Neogobius platyrostris*, age and growth, reproduction, diet, Black Sea.

Introduction

During recent years, knowledge of the gobiid fauna has improved, with the description of new species and the first records of some Mediterranean gobies in the Black Sea. Currently 35 species are known from the Black Sea basin (ENGIN et al. 2007, KOVACIC & ENGIN 2008, 2009). On the other hand, the biological and ecological properties of most gobiid fishes in the Black Sea are still unknown. PINCHUK et al. (2003) provided information on the morphology and habitat of the Flatsnout Goby *Neogobius platyrostris* (Pallas, 1814). We can provide first information on biological aspects such as age, growth, sexual maturity, reproduction and diet.

Material and methods

Two hundred forty one specimens of *N. platyrostris* were sampled from two stations in the province of Rize, south-eastern Black Sea, Turkey, between January and December 2005. All samplings were made between 1 and 10 m depth, and were made by free diving at night using spear gun and hand net. Water temperature was measured at the depth of three metres, where most of the specimens were sampled. Soon after fish were caught, they were fixed in 70% alcohol and transferred to the laboratory.