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The Effects of High Salinity on the Production of *Capoeta tinca* in A Naturally Contaminated River

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Abstract: The production properties of *Capoeta tinca*, the dominant fish population in a naturally contaminated stream in the Kızılırmak Basin, were studied together with the physical and chemical characteristics of the waters and evaluated in order to assess the impact of the high natural salinity on the fish population. The evaluation was based on comparisons of fish specimens caught from Acı stream, which is highly contaminated by a lithology of high salt content, and those from Terme stream, the uncontaminated freshwater branch, between May 1995 and May 1996. The salinity and electrical conductivity of Acı stream varied between 2‰ and 8.5‰, and 30225 °C and 14,273 µS25 °C respectively, while the salinity ranged from 0.5‰ to 1.5‰ and the electrical conductivity varied between 637 µS25 °C and 1570 µS25 °C in Terme stream. The results suggest that the high salinity caused a drastic reduction in the production of the fish population. The production was estimated to be 23.4 gm⁻²y⁻¹ in the freshwater Terme stream, while it was only 0.54 gm⁻²y⁻¹ in the highly saline Acı stream.

Key Words: *Capoeta tinca*, salinity, production, Turkey

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