

## Water Quality and Microbiological Contamination of Tabacarie Lake, Constanta City, Romania

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**Abstract.** *The work discusses the two revolutions which took place in the study of the living world, both caused by a change of vision concerning the way this world is organized. The first revolution started when scientists became aware of the fact that organisms were not isolated, but lived in communities occupying a nonliving environment. The second revolution came with the recognition of the organization of life in systems of different sizes, integrated one in another, into a hierarchy which comprises them all. The place and the role of ecology in this hierarchy are specified; a definition of ecology, consistent with the systemic approach, is proposed.*

**Keywords:** revolutions in the study of the living world, ecology as a science of the hierarchy of living systems.

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### 1. Introduction

Urban lakes play a vital role in the sustainable development of urbanized areas. Tabacarie lake is an urban lake situated at the northern limit of the Constanta city, formed by the damming of a river valley; genetically, the lake is a fluvial-maritime creek [3].

Tabacarie lake together with Siutghiol lake, form a lake complex included in Natura 2000 protected areas, as ROSPA0057 Siutghiol Lake. Relatively isolated from natural sources (ground water is insufficient to balance losses), Tabacarie lake depends upon the influx of water from Siutghiol lake. Surface water flows southward from Siutghiol lake by a small channel into Tabacarie lake and then discharges through an outlet into the Black Sea [7].