

## SIUTGHIOL LAKE – CASE STUDY ON THE IMPACT FACTOR

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**Abstract.** *Located in close proximity to the Black Sea and surrounded by towns and tourist resorts, Lake Siutghiol offers a special situation. Included in the Natura 2000 Network as a bird protection area (ROSPA0057), Lake Siutghiol is currently subject to an intense eutrophication process, currently amplified by global climate warming. In the case of Lake Siutghiol, the state of preservation is also influenced by a series of impact factors, most of which are from the category of residential development and urbanization.*

**Keywords:** Siutghiol Lake, threats, pressures

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### INTRODUCTION

Siutghiol Lake is located in the north of the city of Constanța and together with Tăbăcarie Lake forms a hydro morphological unit. Formerly a sea bay, Siutghiol Lake was formed at the end of the glacial period by the formation of a coastal belt that closed the sea bay that stretched between the area of Mamaia sat and the north of Constanta. The surface of Lake Siutghiol is 19 km<sup>2</sup>, to which is added the 9.56 km<sup>2</sup> of Tăbăcarie Lake (Breier, 1976). The surface of the reception basin of Siutghiol Lake is 71.65 km<sup>2</sup> (over 7100 hectares), extending to the north up to about 9 km and to the west up to about 2-4 km from the shore of the lake.

In the course of time, the area around Siutghiol Lake has largely changed its type of use, residential areas experiencing an explosive development after 1990 both on the coastline, in the Mamaia resort and north of it, in the Mamaia Sat area, in the north of the city Constanta as well as in the area of Palazu Mare and Ovidiu. Currently, the lake is almost completely surrounded by residential areas, only in the northern part there is still a narrow cordon covered with heavily anthropized natural vegetation. Currently, agricultural areas are located in the north, west and southwest of the lake, far from its shore. In the northern area, over a distance of 4.86 km, extends the eastern area of the Poarta Albă - Midia Năvodari Canal, separated from the lake by a land cordon whose width varies from 55 to 286 m.