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ORIGINAL PAPERS

# STATUS OF THE TURBOT (*Scopthalmus Maeoticus*, Pallas, 1814) AGGLOMERATIONS ALONG THE ROMANIAN BLACK SEA COAST

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**Abstract.** *The main commercially valuable species in the Black Sea is turbot (Scophthalmus maeoticus, Pallas, 1814). Thus, turbot stock assessment is vital to ensure its sustainable use, to support economic and ecological stability, to inform science-based management decisions, and to promote the conservation of marine biodiversity. To determine turbot aggregations, the BioIndex routine, developed in R language, was used to estimate different biological indicators related to this target species. In particular, the routine allows the estimation of time series of mean abundance and biomass indices, the inverse CV of abundance indices, mean individual weight and sex ratio at the GSA level. Taking into account the biomass values resulted for the study period (2019-2020) a significant increase was observed in the values from the period 2012-2018 and the maximum yield (RMM) obtained of 329,048 tons for the Romanian area of the Black Sea.*

**Keywords:** *turbot, growth parameters, assessment, biomass index*

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## INTRODUCTION

Fish stock assessment is a critical process in fisheries science and management, offering numerous benefits. The primary goal of fish stock assessment is to ensure the sustainable management of fishery resources. By evaluating the abundance and dynamics of fish populations, help set appropriate catch limits and management measures that prevent overfishing and promote long-term sustainability.

The main commercial valuable species from the Black Sea is turbot (*Scophthalmus maeoticus,* Pallas, 1814). In spring, from March to April, the sexually mature specimens leave the overwintering grounds from the deep sea and

undertake short trips to the coast, where, at a depth of 20-30 m, they lay their eggs [1].

Research surveys are organized every year since 2008 by NIMRD (National Institute for Marine Research and Development "Grigore *Antipa*") in the framework of the National Data Collection Fisheries Program. The number of hauls established for our continental shelf is minimum 40 in spring and respectively minimum 40 in autumn. The study presents the results obtained during 2019-2020 period.