

## The State of the Art of the Adriatic Sea Ichthyofauna

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**Aim of the study:** The aim of this study is to present actually state of Adriatic ichthyofauna. In this paper we would also like to present the factors, which are to our opinion the main reasons for the changes in Adriatic ichthyofauna. One of the objectives is also to present a new checklist of the Adriatic fishes and to briefly discuss doubtful records.

**Material and Methods:** The present checklist of the Adriatic fish fauna is compiled from: (i) previous faunistic surveys, (ii) survey of the main scientific journals dealing with the Adriatic geographic area (iii) new records and evidence of fish species by checking the recent ichthyological scientific literature. Only those species which were documented in scientific literature were taken into consideration.

**Results:** During the last few decades, various factors including climate change, anthropogenic activity and lessepsian migration have altered composition of Adriatic ichthyofauna. Furthermore, extensive investigations carried out in the Adriatic Sea in the last few decades allowed us to recognize species previously unknown from this area. These changes are reflected in the number of species quoted in the checklist of Adriatic fishes, from 407 in 1996 to 440 in 2010. In the period of 2010-2014, twelve new fish species have been recorded in the Adriatic Sea. Consistent with these findings number of recorded fish species in the Adriatic Sea arise to 457. Of 14 Lessepsian migrants that were recorded in the Adriatic, it seems that *Fistularia commersonii*, *Lagocephalus sceleratus* and *Siganus luridus* are successful invaders for its southern part. Some neglected fish species were recorded for the very first time by performing new approaches and techniques in the area. Other fish species were related to certain processes in the Adriatic Sea, such as bioinvasion and meridionalisation. The majority of the fish species introduced by humans (by the mariculture, shipping activities, aquarium releases, etc.) are represented by single findings, and for many of them there is no evidence of established populations.

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**Keywords:** biodiversity, non-indigenous fish species, invasion, Lessepsian migrants, ichthyofauna, Adriatic Sea.