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THE STATE OF THE ART OF THE ADRIATIC SEA FISH BIODIVERSITY

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Abstract

During the last few decades, various factors including climate change, anthropogenic activity and lessepsian migration have altered the composition of Adriatic ichthyofauna. Furthermore, extensive investigations carried out in the last decades allowed us to recognize species previously not recorded or reported in this area. These changes are reflected in the number of species quoted in the checklist of Adriatic fishes, from 407 in 1996 (sensu Jardas, 1996) to 440 in 2010 (Agnatha 1, Elasmobranchii 52, Holocephali 1 and Actinopterygii 386) (sensu Lipej and Dulčić, 2010). The present updates for the period 2010-2016, were compiled from survey of relevant scientific papers and doctoral theses. Only those species which were reported and appropriately documented in scientific literature were taken into consideration. In the period of 2010-2016, 12 new fish species have been recorded in the Adriatic Sea such as *Aulopus superciliosus*, *Oplegnathus fasciatus*, *Lobotes surinamensis*, *Siganus luridus*, *Paranthias furcifer*, *Holacanthus ciliaris*, *Elates ransonnetti*, *Enchelycore anatina*, *Caranx rhonchus*, *Lagocephalus sceleratus*, *Chrysiptera cyanea* and *Dipturus nidaroniensis*. These findings increase the number of fish species recorded in the Adriatic Sea to 452 (Elasmobranchii 53, Actinopterygii 387). Certain fish species were probably related to recent processes in the Adriatic Sea, such as bioinvasion and tropicalisation. Of the 14 Lessepsian migrants that were recorded in the Adriatic Sea, *Fistularia commersonii*, *Lagocephalus sceleratus*, *Siganus luridus* proved to be successful invaders in its southern part. Some fish species were recorded for the very first time due to new research approaches and techniques in the area (e.g. cryptobenthic fish fauna). The ichthyofauna of the Adriatic Sea is nowadays facing the structural changes (bioinvasion, meridionalisation, other events). Despite the fact that the recent changes are not so dramatic than in other areas of the Mediterranean Sea, a regular monitoring of climate change induced modifications in biodiversity have to be established.With a regular and continuous monitoring of fish fauna in the Adriatic sea, we would be able to answer on a plethora of questions related to the status of newcomers. Only in that way we are likely to get the opportunity to elucidate what impact such species may have on the environment.

Keywords: Fish, biodiversity, Adriatic Sea