EXOTIC FISHES IN THE MEDITERRANEAN – UPDATE, REAPPRAISAL AND TRENDS

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Abstract
As a quasi enclosed sea, the Mediterranean is particularly susceptible to the influence of exotic species. Since the last update of the CIESM Fish Atlas, in 2013, twenty exotic species were recorded. Many (13) of the newly reported taxa occur in the Red Sea and therefore can be considered as Lessepsian migrants.

Keywords: Alien species, Fishes, Lessepsian migrants, Eastern Mediterranean, Western Mediterranean

The phenomenon of alien species entering the Mediterranean continues without any sign of ceasing [1]. Since the last update [2], 20 new alien species have been recorded, including 13 recent Lessepsian (Red Sea origin) migrants which are: *Sardinella gibbosa* (Bleeker, 1849), *Encrasicolina gloria* Hata and Motomura, 2016, *Stolephorus indicus* (van Hasselt, 1823), *Bregmaceros nectabanus* Whitley, 1941, *Epinephelus areolatus* (Forsskåll, 1775), *Epinephelus geoffroyi* (Klunzinger, 1870), *Lutjanus fulviflamma* (Forsskål, 1775), *Plectorhinchus gaterinus* (Forsskål, 1775), *Parablennius thysanius* (Jordan and Seale, 1907), *Cryptocentrus caeruleopunctatus* (Rüppell, 1830), *Synchirops sechellensis* Regan, 1908, *Acanthurus chirurgus* (Bloch, 1787), *Zebrasoma xanthurum* (Blyth, 1852). The addition of these species brings the total number of Lessepsian fish migrants to over 100 [3].

The three other additions are recent migrants from the eastern Atlantic that have entered the Mediterranean via Gibraltar: *Taractes rubescens* (Jordan & Evermann, 1887), *Abudefduf hoefleri* Steindachner, 1881, *Zebrasoma flavescens* Bennett, (1828). Four species recently recorded in the Mediterranean are due to human intervention (e.g., aquarium or aquaculture escapees or from ballast water): *Chrysiptera cyanea* (Quoy & Gaimard, 1825), *Stegastes variabilis* (Castelnau, 1855), *Acanthurus coeruleus* Bloch and Schneider, 1801, *Balistoides conspicillium* (Bloch and Schneider, 1801). Unlike other marine taxa, fish species of alien origin in the Mediterranean rarely arrive via ballast water; if ballast water was a significant vector of alien fish, we would see in the Mediterranean many more species from non-adjacent regions.

The unprecedented influx of new fish species into the Mediterranean is clearly one of the major drivers of biodiversity change in this essential marine region.

References

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