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## ACCEPTED MANUSCRIPT

# Late Quaternary to Recent diversity of fish otoliths from the Red Sea, central Mediterranean, and NE Atlantic sea bottoms \*

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#### Abstract

Despite extensive studies on the taxonomy of fossil otoliths, the diversity of late Quaternary to Recent sea bottom otolith assemblages remains largely unexplored. Otolith assemblages from bottom sediments of the North-eastern Atlantic (NE Atlantic), central Mediterranean, and Red Sea were described based on a dataset of 9,696 identifiable otoliths. Diversity estimators were computed and taxonomic compositions were compared against geographical site and depth gradient. Several species from the Red Sea show previously unnoticed range extensions or ancient occurrences, suggesting that the otolith assemblage requires further exploration in this region. The diversity is high in the NE Atlantic and central Mediterranean, whereas Red Sea assemblages are dominated by few taxa. We find that, departing from Modern fish communities, the Download English Version:

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