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Data Article

A reconstructed database of historic bluefin tuna captures in the Gibraltar Strait and Western Mediterranean

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ABSTRACT

This data paper presents a reconstruction of a compilation of a small but consistent database of historical capture records of bluefin tuna (*Thunnus thynnus*; BFT hereafter) from the Gibraltar Strait and Western Mediterranean (Portugal, Spain and Italy). The compilation come from diverse historical and documentary sources and span the time interval from 1525 to 1936 covering a period of 412 years. There is a total of 3074 datum, which reach up to 67.83% of the total implying a 32.17% of missing data. However, we have only reconstructed the captures for the time interval 1700–1936 and we provide these reconstructions only for this time interval and for 9 out of 11 series due to the scarcity and inhomogeneity of the two oldest capture time series. This reconstructed database provides an invaluable opportunity for fisheries and marine research as well as for multidisciplinary research in climate change.

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Specifications Table

Subject area	Marine Sciences
More specific subject area	Fisheries research
Type of data	Text file, figure
How data was acquired	Statistical reconstruction of a compilation of historical BFT captures
Data format	Raw, reconstructed
Experimental factors	Not applicable
Experimental features	Statistical reconstructions by means of Data Interpolating Empirical Orthogonal Functions (DINEOF)
Data source location	The statistical reconstructions were fed by historical captures from the followings traps: Barril (Portugal): N36° 42' 00", W7° 47' 59" Medo das Casas (Portugal): N36° 53' 59", W7° 12' 00" Saline (Sardinia, Italy): N41° 00' 00", E8° 00' 00" Porto Paglia (Sardinia, Italy): N39° 45' 00", E8° 05' 59" Porto Scuso (Sardinia, Italy): N39° 19' 48", E8° 05' 59" Isola Piana (Sardinia, Italy): N38° 42' 00", E8° 24' 00" Bonagia (Sicily, Italy): N38° 30' 00", E12° 35' 59" San Giuliano (Sicily, Italy): N38° 00' 00", E12° 05' 59" Formica (Sicily, Italy): N37° 30' 00", E12° 11' 59"
Data accessibility	Data is with this article
Related research article	Ganzedo, U., Polanco-Martínez, J. M., Caballero-Alfonso, Á. M., Faria, S. H., Li, J., & Castro-Hernández, J. J. (2016). Climate effects on historic bluefin tuna captures in the Gibraltar Strait and Western Mediterranean. <i>Journal of Marine Systems</i> , 158:84–92.

Value of the Data

- The reconstructed historical capture records could be useful to analyze the long-term fluctuations of bluefin tuna from the Gibraltar Strait and Western Mediterranean.
- This database provides an invaluable opportunity for fisheries and marine research (e.g., resources management) as well as for multidisciplinary research in climate change.
- This datasets will be beneficial to understand the bluefin tuna population dynamics and their relationship with different environmental variables

1. Data

The historical BFT captures span the time interval from 1525 to 1936 covering a period of 412 years (Fig. 1). There is a total of 3074 datum, which reach up to 67.83% of the total implying a 32.17% of missing data (Fig. 2). Data were manually digitalized from diverse documentary and historical sources as well as some “recent” publications [1–9]. Moreover, the database was double-checked due to potential typographical errors by the investigators. In addition, we have compared visually and quantitatively (as much as possible) our compilations with other previous works [2,4,6–10]. After a preliminary inspection, we decided to limit our data reconstructions to the time interval from 1700 to 1936, due to the scarcity and inhomogeneity of the two oldest capture time series (Conil and Zahara; Fig. 1 in [9]). As a consequence of these drawbacks, we removed Conil and Zahara in our data reconstructions (Fig. 3).

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