### **Accepted Manuscript**

Humpback whale in the bay of Algeciras and a mini-review of this species in the Mediterranean

R. Espada, L. Olaya-Ponzone, J.C. García-Gómez

PII: S2352-4855(18)30192-0

DOI: https://doi.org/10.1016/j.rsma.2018.08.010

Reference: RSMA 414

To appear in: Regional Studies in Marine Science

Received date: 8 January 2018 Revised date: 13 August 2018 Accepted date: 23 August 2018



Please cite this article as: Espada R., Olaya-Ponzone L., García-Gómez J.C., Humpback whale in the bay of Algeciras and a mini-review of this species in the Mediterranean. *Regional Studies in Marine Science* (2018), https://doi.org/10.1016/j.rsma.2018.08.010

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

#### **ACCEPTED MANUSCRIPT**

# Humpback whale in the bay of Algeciras and a minireview of this species in the Mediterranean

1

2

31

3	R. Espada <sup>1,2</sup> , L. Olaya-Ponzone <sup>1</sup> and J.C. García-Gómez <sup>1</sup>
4 5	<sup>1</sup> Laboratory of Marine Biology, Dept. of Zoology, Faculty of Biology, University of Seville, Spain.
6	<sup>2</sup> Dolphin Adventure, Gibraltar, U.K.
7	*Correspondence: Jcgarcia@us.es
8	Abstract
	Histrace
9	
10	The presence of humpback whales (MN) (Megaptera novaeangliae) in the Mediterranean Sea has increased for
11	the last 150 years. The reasons why they enter this sea are still unknown and therefore, a review adding new
12	records of the species in the Mediterranean Sea has been considered. Repeated sightings of a young individual
13	have been detected in the bay of Algeciras (Strait of Gibraltar) such that coincided, with stranding events of
14	vast amount of northern krill (Meganyctiphanes norvegica) and species of lantern fish (Myctophum
15	punctatum). Furthermore, data of stranded animals were also added.
16	For all these reasons, the historical presence of this species in the Mediterranean - bypassing its Atlantic
17	migratory routes –, and the theory of why the species occasionally visits this sea has been argued in this paper.
18	Mediterranean sightings map for the species have been developed and overlapped with primary production
19	areas and chlorophyll concentrations in the same sea, finding coincidences between areas of high concentration
20	of productivity and presence of humpback whales. All the individuals detected in the Mediterranean Sea were
21	juveniles or sub-adults (never mother-calf pair), supporting that humpback whales enter these waters for
22	feeding reasons. These solitaire animals may come from their trophic migrations movements rather than the
23	return migration from breeding areas belonging to the North Atlantic populations. Given the increasingly
24	frequent occurrence of these species in the Mediterranean waters, environmental monitoring and conservation
25	programs for humpback whales should be developed.
26	
27	Keywords: Mediterranean, humpback, whale, conservation, migration, management, review
28	*(MN) humpback whales
29	
30	

### Download English Version:

## https://daneshyari.com/en/article/10115900

Download Persian Version:

https://daneshyari.com/article/10115900

<u>Daneshyari.com</u>