Biodiversity Journal, 2016, 7 (1): 33-38

First record of a Humpback Whale Megaptera novaeangliae (Borowski, 1781) in the Tyrrhenian Sea (Cetacea Balaenopteridae)

Nicola Maio^{1*}, Vincenzo Maione² & Riccardo Sgammato²

¹Dipartimento di Biologia, Complesso Universitario di Monte Sant'Angelo, Università degli Studi di Napoli Federico II, Edificio 7, via Cinthia 26, 80126 Napoli, Italy.

²Centro Sub Campi Flegrei, Via Miliscola 165, 80078, Pozzuoli, Frazione Lucrino, Napoli, Italy.

*Corresponding author: e-mail: nicomaio@unina.it

ABSTRACTIt is reported the sighting of a Humpback Whale Megaptera novaeangliae (Borowski, 1781)
(Cetacea Balaenopteridae) in the Gulf of Pozzuoli, near the coast of Baia (Bacoli, Napoli,
Campania, Southern Italy). This record represents the first in the Tyrrenian Sea, the eighth in
the Italian Seas and the twenty-fourth in the Mediterranean Sea.

KEY WORDS *Megaptera novaeangliae*; Humpback Whale; sighting; Tyrrhenian Sea.

Received 19.02.2016; accepted 07.03.2016; printed 30.03.2016

INTRODUCTION

The Humpback Whale, Megaptera novaeangliae (Borowski, 1781) (Order Cetacea, Suborder Mysticeti, Family Balaenopteridae) is a cosmopolitan species widely distributed and far-ranging migrant, found in both hemispheres and in all the major ocean basins. During the winter, at the period of mating and calving grounds, all the populations migrate to tropical waters, usually near continental coastlines or island groups; during spring, summer and autumn they move to productive colder waters in temperate and high latitudes, where most of the feeding takes place. In the North Atlantic, during the summer the Humpback Whale ranges from the Gulf of Maine in the West and Ireland in the East, and in the North but not into the pack ice; the northern extent of the Humpback's range includes the Barents Sea, Greenland Sea and Davis Strait (but not the Canadian Arctic), where they occur

mainly in specific feeding areas. During the winter, the majority of whales migrate to wintering grounds in the West Indies, and an apparently small number use breeding areas around the Cape Verde Islands.

In the Mediterranean Sea, the Humpback Whale is not regularly present; in fact it is considered as an irregular or occasional "visitor species", according to the Reports of Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS), entering the region from the Strait of Gibraltar (Reeves & Notarbartolo di Sciara, 2006; Notarbartolo di Sciara & Birkun, 2010; Cagnolaro et al., 2015). Since 1990 the number of observations has increased and the range of sighting locations has expanded so as to include both basins of the Mediterranean Sea (Frantzis et al., 2004).

Humpback Whale, *Megaptera novaeangliae*, is well known for his long pectoral fins, which can be up to 4.6 meters in length. The dorsal fin is

variable in size and shape, from small triangular knob to larger sickle-shaped, placed nearly twothirds along back. Head and body are black or grey, white on throat and belly. The adult can measure up to 17 m.

MATERIAL AND METHODS

We take into consideration the sighting of one individual photographed in the Bay of Pozzuoli; the

sighting occurred from the Aragonese Castle of Baia (District of Bacoli Municipality, Province of Naples) at about 70 m of height. The camera equipment consisted of a Digital single-lens reflex camera Canon EOS 650D with 75-300mmEF-S lens mounted.

RESULTS AND DISCUSSION

Here we report the sighting of a Humpback



Figure 1. The locations of sightings of Humpback Whales, Megaptera novaeangliae, in the Italian Seas.



Figures 2–4. Humpback Whale, *Megaptera novaeangliae*, recorded near Baia, in the Bay of Pozzuoli, apparently in good conditions (Photos by R. Sgammato).

DATE	LOCATION	EVENT	ANIMALS, SIZE	SOURCE AND NOTES
1998, 24 January	Gulf of Oristano (Sardinia) Sardinian Sea	Sighting	1 (7-9 m)	(Frantzis et al., 2004)
2002, 4 August	Senigallia (Province of Ancona, Marche) Adriatic Sea	Sighting	1	(Affronte et al., 2003)
2004, 2 April	Syracuse (Sicily) Ionian Sea	Accidentally by-caught and released	1 (about 10 m)	Centro Studi Cetacei, 2006
2010, 26-28 August	Eastern Ligurian Sea: Versilia (Prov. of Lucca, Tuscany) Sestri Levante (Prov. of Genoa, Liguria)	Repeated sightings of one individual	1 (about 10-13m)	(Cagnolaro et al., 2015)
2011, 24 March	Near Savona (Liguria) Ligurian Sea	Sighting		(Cagnolaro et al., 2015)
2013, 12 March	Lampedusa Island (Sicily) Sicily Channel	Sighting of one indivi- dual already observed in French Ligurian Sea	1 (8–9 m)	(Panigada et al., 2014)
2013, August	Ligurian Sea	Sighting of the same individual of Lampedusa	1 (8–9 m)	(Panigada et al., 2014)
2015, 10 December	Baia, Bay of Pozzuoli (Province of Naples, Campania) Tyrrenian Sea	Sighting	1	Present work

Table 1. Reports concerning specimens of Humpback Whale, Megaptera novaeangliae, recorded in the Italian seas.

Whale, *Megaptera novaeangliae*, in the Bay of Pozzuoli near Baia, a District of Bacoli Municipality (Province of Naples, Campania Region) occurred on 10 December 2015. The animal has been observed near the coast at a depth of about six meters, it was approximately 8–9 meters long (probably a juvenile) and with the uppersides of both pectoral fins of white color, apparently in good conditions (Figs. 2–4). This is the first documented record of a Humpback Whale in the Tyrrenian Sea, and the first sighting for Campania Region (Maio & Quercia, 2006; Maio et al., 2012). Our finding suggests that the Tyrrenian waters offer suitable habitats also for this species.

Since 1885, 24 records (16 sightings of which four with two individuals, three strandings and 5 by-caught individuals) have been reported from different locations across the Mediterranean basin. All individuals, ranging between 7 and 12 meters, were estimated to be 2–3 years old juveniles (Panigada et al., 2014).

The first occurrence in the Mediterranean Sea was a juvenile caught in 1885 off 15 km West of Toulon (France) (Pouchet, 1885; Beauregard, 1885; Van Beneden, 1889; Aguilar, 1989). Occurrences of Humpback Whales, *Megaptera novaeangliae*, are extremely rare in the Italian Seas being known only six sightings and one captures of single specimens. Date, location and size are given in Table 1. The first occurrence was of a 7–9 m long individual reported in the Gulf of Oristano (Sardinia), in January 1998 (Frantzis et al., 2004).

The last sighting was an individual approximately 8–9 meters long, observed in three different locations: the first time it was observed in the French Liguria Sea, NW Mediterranean, in June 2012; then, the same animal was re-sighted off Lampedusa Island, Sicily Channel, in March 2013 over 1,000 km away in a straight line from the previous location and again in August 2013, in the "Italian" Ligurian Sea (Panigada et al., 2014). No specimens from Mediterranean Sea are preserved in Italian museums (Cagnolaro et al., 2014).

The Humpback Whale, Megaptera novaeangliae, is a species listed in the Appendix I of CITES, and it is considered an "Endangered or threatened species" in the Annex II of the Barcelona Convention for Protection against Pollution in the Mediterranean Sea. It is also included in the Appendix II of the Bern Convention on the Conservation of European Wildlife and Natural Habitats, considered as "Strictly protected fauna species", and is a "species in need of strict protection" in European Union by the Annex IV of the Council Directive 92/43/EEC of May 21th1992 on the conservation of natural habitats and of wild fauna and flora, known as "Habitats Directive". Furthermore the species is classified as "Least Concern" on the IUCN Red List of Threatned Species (vers. 2015.4) (Reilly et al., 2008).

AKNOWLEDGEMENT

We wish to thank Gennaro Bianco (University of Naples "Parthenope", Italy), Lucia Borrelli, Elena Confalone and Roberta De Stasio (University of Naples Federico II, Italy), Gianfranco Pollaro (Centro Studi Ecosistemi Mediterranei, Pollica, Salerno, Italy).

REFERENCES

- Affronte M., Stanzani L.A. & Stanzani G., 2003. First record of the humpback whale, *Megaptera novaeangliae* (Borowski, 1781), from the Adriatic Sea. Annales, Series Historia Naturalis, 13: 51–54.
- Aguilar A., 1989. A record of two Humpback Whales, *Megaptera novaeangliae*, in the Western Mediterranean Sea. Marine Mammal Science, 5: 306–309. doi: 10.1111/j.1748-7692.1989. tb00344.x
- Beauregard H., 1885. Note sur une Mégaptère échouée au Brusc près Toulon. Séances du 19 Décembre 1885. Comptes Rendus Hebdomadaires des Séances et

Mémoires de la Société de Biologie, Paris [Compt. Rend. Mem. Soc. Biol. Paris], 37 (tome 2, sèrie 8): 753.

- Cagnolaro L., Cozzi B., Notarbartolo di Sciara G. & Podestà M. (Eds.), 2015. Fauna d'Italia Vol. XLIX. Mammalia IV. Cetacea. Calderini, Bologna, 390 pp.
- Cagnolaro L., Maio N. & Vomero V. (Eds.), 2014. The Cetacean collections of italian museums. First part (living Cetaceans). Museologia Scientifica. Memorie, 12: 1–420.
- Centro Studi Cetacei Onlus & Museo Civico di Storia Naturale di Milano, 2006. Cetacei spiaggiati lungo le coste italiane. XIX. Rendiconto 2004. Atti della Socieà italiana di Scienze naturali Museo civico di Storia naturale di Milano, 147: 147–157.
- Frantzis A., Nikolaou O., Bompar J.-M. & Cammedda A., 2004. Humpback whale (*Megaptera novaeangliae*) occurrence in the Mediterranean Sea. The Journal of Cetacean Research Management, 6: 25–28.
- Maio N., Pollaro F., Di Nocera F., De Carlo E. & Galiero G., 2012. Cetacei spiaggiati lungo le coste della Campania dal 2006 al 2011 (Mammalia: Cetacea). Atti della Socieà italiana di Scienze naturali Museo civico di Storia naturale di Milano, 153: 241–255.
- Maio N. & Quercia F., 2006. Cetacei spiaggiati lungo il litorale campano: ricerca e conservazione. In: Gugliemi R. & Nappi A. (Eds.). Atti Convegno: "La Natura in Campania: aspetti biotici e abiotici". Napoli, 18 novembre 2004, 158–164.
- Notarbartolo di Sciara G. & Birkun A. Jr., 2010. Conserving whales, dolphins and porpoises in the Mediterranean and Black Seas: an ACCOBAMS status report, 2010. ACCOBAMS, Monaco.
- Panigada S., Frey S., Pierantonio N., Garziglia P. & Giardina F., 2014. Are humpback whales electing the Mediterranean Sea as new residence? 28th Conference of the European Cetacean Society. Liège, Belgium 5th-9th April 2014. Conference Paper: 203.
- Pouchet G., 1885. Sur l'échouages d'une Mégaptère près de la Syene. Séances du lundi 7 Décembre 1885. Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences, Paris, 101: 1172.
- Reeves R. & Notarbartolo di Sciara G. (compilers and editors), 2006. The status and distribution of Cetaceans in the Black Sea and Mediterranean Sea. Workshop Report - Monaco 5–7 March 2006. The World Conservation Union (IUCN) Centre for Mediterranean Cooperation, Malaga, Spain.
- Reilly S.B., Bannister J.L., Best P.B., Brown M., Brownell Jr. R.L., Butterworth D.S., Clapham P.J., Cooke J., Donovan G.P., Urbán J. & Zerbini A.N., 2008. *Megaptera novaeangliae*. The IUCN Red List of Threatened Species 2008: e.T13006A3405371. http://dx.doi.org/10.2305/IUCN.UK.2008.RLTS.T13 006A3405371.en. [last visit date: 18.02.2016].

Van Beneden P.J., 1889. Histoire naturelle des Cetaces des mers d'Europe. Imprimeur de Academie Royale

des Sciences, des Lettre set des Beaux-Arts de Belgique, Bruxelles, 1-6.