



Cross-sightings between the Azorean and Iberian killer whale (*Orcinus orca*) populations.

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(1) Proyecto O.R.CA. Cádiz, (2) Whale Watch Azores, (3) Futurismo

Results

Introduction

Killer whales are known to inhabit the Macaronesian archipelagoes, as well as the Iberian Peninsula (Hammond and Lockyer 1988).

There are presumably ~35 killer whales belonging to the Iberian population, whose range covers the entire Atlantic coast of the Iberian Peninsula (Esteban et al. 2013).

On the other hand, 58 killer whales have been catalogued in the Azores.

The Azores archipelago is 850 miles from the Iberian peninsula.

This makes it easier for the two populations to have an encounter, as this species is known to travel as far as 7000 miles.

Methods

The results shown were obtained after an analysis of a total of 226 pictures, (collected from whale-watching boats based in the Azores archipelago, the south of Portugal and Tarifa, as well as from tuna-fishing boats from the Strait Of Gibraltar), supported by the **Iberian Orca Catalogue**, (Moreno-Godoy and Marín, 2022) and the **Azorean Orca Catalogue**, provided by **Futurismo Whale Watch**.

The matches were possible by photo-identification thanks to good quality photography relying mainly on eye-patch comparisons (Visser and Mäkeläinen, 2006), which are a good reference point for ID in this species, since it stays consistent in the shape, unlike dorsal fins, which do change in shape, especially in young individuals.

-An individual known in the Iberian Orca Catalogue as “**IB45-Magic**”, was first sighted in **Azorean waters on 6th of March 2016, by Whale Watch Azores**.

The juvenile (Date of birth estimated in 2016) was then re-sighted on several occasions in the south of Portugal;

12th of March 2019 by Marilimitado.

9th, 15th, 19th, 21st and 22nd of May 2019 by Cape Cruiser Sagres and Marilimitado.

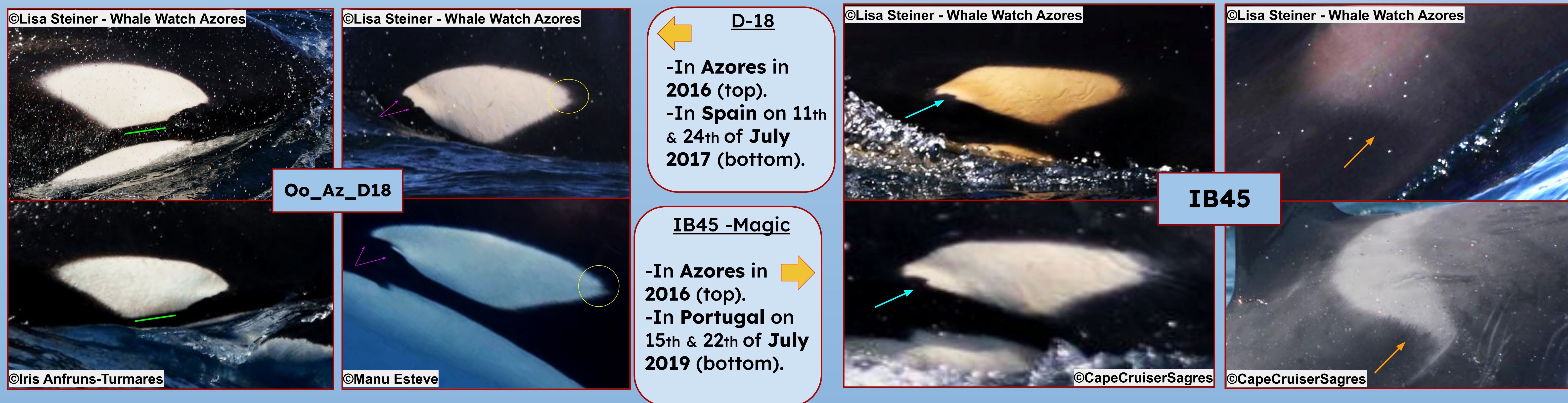
2nd of June 2019 by Cape Cruiser Sagres.

9th of June 2022 by Ocean Vibes Algarve.

-A second individual known in the Futurismo’s Orca Catalogue as “**Oo_Az_D18**” has been sporadically seen **in the Eastern group of the Azores by Futurismo since 2013 and in the central group of the Azores by Whale Watch Azores in 2016**.

The juvenile was then sighted on a total of 5 occasions in the **Strait of Gibraltar**.

11th, 22nd and 24th of July, and 8th and 30th of August, in 2017 by Turmares Tarifa and Manu Esteve.



Discussion:

Further research is needed in order to reveal a possible traveling route for each population and its purpose (feeding, breeding...etc).

There is also a possibility of cultural transmission between the populations, such as the new disruptive behaviour of interacting with vessels, adopted by Iberian killer whales, which have been seen in company of these 2 matched individuals. This could mean a potential risk of extension of this undesired behaviour to the Azores archipelago.



Left to right, **D18** with **IB29***

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Left to right, **IB25***, **IB45** and **IB28***

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*Killer Whales that are confirmed interacting individuals

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