

The recently described Araguaian river dolphin, *Inia araguaiaensis*, is present only in the Tocantins-Araguaia River Basin in Brazil. The first vocal repertoire description of this species only analyzed sounds produced by one group of known, human-habituated individuals in the Lower Tocantins River. However, a wider survey of this species is needed to evaluate the species' repertoire. Here we report new sounds produced by Araguaian botos. We conducted boat surveys between the mouth of the Tocantins River (1°33'33.05"S 48°50'36.28"W) and the city of Marabá (5°19'35.41"S 48°50'36.28"W). We recorded 482 calls using a high frequency Sound Trap. During each encounter, we noted group size and composition, behavioural state, habitat type, presence of boats and fishing gear. To categorize signals produced by wild Araguaian botos, we extracted parameters of the fundamental frequency as well as measurements of noisiness, Wiener entropy and harmonicity using the bioacoustics software Luscinia. We used a dynamic time-warping analysis to compare sounds and subjected the resulting dissimilarity matrices to statistical analyses (NMDS and UPGMA clusters). In addition to previously described repertoire features, we identified several novel call types in our recordings. These were predominantly tonal sounds: whistles, stereotyped downsweeps, sequences of short (<100ms) tonals, and unusually high-frequency whistles with maximum frequency up to 74 kHz and harmonics up to 150 kHz. Preliminary observations suggest that these sounds are associated with large groups (8-20 individuals) engaged in social behaviour, when surface displays such as individual and synchronized leaps and exhibition of flippers and flukes are frequent. Our results show that investigating a larger set of contexts in wild river dolphins gives a more comprehensive overview of their acoustic repertoire, allowing us to passively monitor their behaviour and distribution in the future.

**Photo-identification and movements of bottlenose dolphins in the waters around Sicily (Italy).**

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The abundance estimates and movements of Mediterranean bottlenose dolphins living along the Italian coast have not yet been determined, although different photo-identification efforts have been reported. Here we present information on bottlenose dolphin photographic recaptures across six different areas along the coast of Sicily based on data collected between 1997 and 2018 by different research organizations. Specifically, we compared images for 42 dolphins identified in the Aeolian Archipelago (northern-eastern Sicily; Catalogue A), 25 dolphins identified in the Strait of Messina (eastern Sicily; Catalogue B), 103 dolphins identified along the Mazara coast (western Sicily; Catalogue C), 47 dolphins identified along the Agrigento coast (south-western Sicily; Catalogue D), 27 dolphins identified in the waters nearby Catania (eastern Sicily; Catalogue E) and 83 dolphins identified around the Island of Lampedusa (southern Sicily; Catalogue F). We found only 12 matches among catalogues, an average ( $\pm$  SD) of  $0.8 \pm 2.5$  matches for pair ranging from 2-10 matches for pair. Particularly, we found 10 matches between C and D catalogues, which are neighboring areas, suggesting that some dolphins may move across the coastline both in the western and south-western of Sicily. We also found 2 matches between the A and B catalogues, suggesting some seasonal movements, most likely for feeding purposes, from areas in the Aeolian Archipelago and those in the nearest coast of Sicily and/or the Strait of Messina. These results support previous findings showing that Mediterranean bottlenose dolphins tend to aggregate primarily with individuals coming from the same sub-area and only few animals roam widely connecting with different subgroups living in distant areas. The few matches found in this study suggest that geographically isolated bottlenose dolphins might remain within relatively small areas, where they exhibit specialized behavior and feeding habits and face a high risk of local extirpation.

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