



Calf-Snatching among Cetaceans: Interspecific Associations of Adult Bottlenose Dolphins with Common and Striped Dolphin Calves in Southern Portugal



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Introduction

Interspecific interactions are common across a wide range of cetacean species and encompass behaviors that range from agonistic to affiliative^(1,2). However, interspecific alloparental care, in which an adult exhibits nurturant behavior towards a non-descendant young of a different species⁽³⁾, is rarely documented. **Here, we describe multiple calf-directed interspecific associations by adult common bottlenose dolphins (*Tursiops truncatus*) along the southern coast of Portugal.**

Methodology

Sightings were documented during dedicated and opportunistic boat-based surveys between 2016 and 2024. The nature of each observation was recorded, including indicators of affiliative or agonistic behaviors. Photographs were taken to identify the individuals involved in the interspecific interactions.



Fig. 1 – Interspecific associations between adult bottlenose dolphins and heterospecific calves, with calves observed in echelon position. (a) Association with a common dolphin neonate in 2020. (b) Association with a striped dolphin calf in 2024. Photos © AIMM

Discussion and Conclusion

The heterospecific associations observed in our study bring a unique insight into the social dynamics between different cetacean species. The seemingly care-giving and agonistic behaviors are elements seen in cross-genus adoptions and interspecific calf-directed aggression elsewhere^(1,4). While we cannot confirm an adoption, we report a special case of prolonged interspecific alloparental care in the south of Portugal. Further research is needed to better understand the behavioral complexity of these interspecific interactions in cetaceans.

References

- (1) Ramos, E. A., Galves, J., Searle, L., Walker, Z., Walker, P., Castelblanco-Martínez, N., ... & Kiszka, J. J. (2024). Agonistic interactions initiated by adult bottlenose dolphins on Antillean manatee calves in the Caribbean Sea. *Plos one*, 19(1), e0295739.
- (2) Frantzis, A., & Herzing, D. L. (2002). Mixed-species associations of striped dolphins (*Stenella coeruleoalba*), short-beaked common dolphins (*Delphinus delphis*), and Risso's dolphins (*Grampus griseus*) in the Gulf of Corinth (Greece, Mediterranean Sea). *Aquatic Mammals*, 28(2), 188-197.
- (3) Woodroffe, R., & Vincent, A. (1994). Mother's little helpers: Patterns of male care in mammals. *Trends in Ecology & Evolution*, 9(8), 294-297.
- (4) Carzon, P., Delfour, F., Dudzinski, K., Oremus, M., & Clua, É. (2019). Cross-genus adoptions in delphinids: One example with taxonomic discussion. *Ethology*, 125(9), 669-676.



Fig. 2 – Agonistic behavior between an adult bottlenose dolphin and a common dolphin neonate during an interspecific sighting in 2023, including calf tossing and ramming. Photos © AIMM.

Results

- **11 interspecific associations:** 4 different **common dolphin (*Delphinus delphis*)** calves & 1 **striped dolphin (*Stenella coeruleoalba*)** calf (**Fig. 1**)
- 9 sightings: heterospecific calf in **echelon position** alongside an adult bottlenose dolphin
- 3 sightings: **agonistic behavior** by adult bottlenose dolphins towards the calves (**Fig. 2**)
- 66 adult bottlenose dolphins involved in total, with **26 recurring**
- 1 out of 66 adults accompanied the same calf multiple times → 3 sightings: **consistent heterospecific pair throughout 28 days (Fig. 3)**



Fig. 3 – First and last sighting of the consistent heterospecific pair observed on 18 July 2024 and 15 August 2024, respectively. Photos © AIMM.

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