

Bottlenose dolphin ecotypes of the western South Atlantic: the puzzle of habitats, coloration patterns and dorsal fin shapes

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Supplement 1. Rostrum size preliminary analysis

We used a simple index that measures the relative size of the rostrum (Figure S2), which was the distance (in pixels) between the tip of the rostrum to the demarcation between the melon (OC) and rostrum divided by the distance (in pixels) between the tip of the rostrum to the center of the eye (OR). The measure OR was taken as shown in the figure: first drawing a line passing through the center of the eye and the tip of the rostrum and then projecting perpendicularly the point of demarcation between the melon and rostrum.

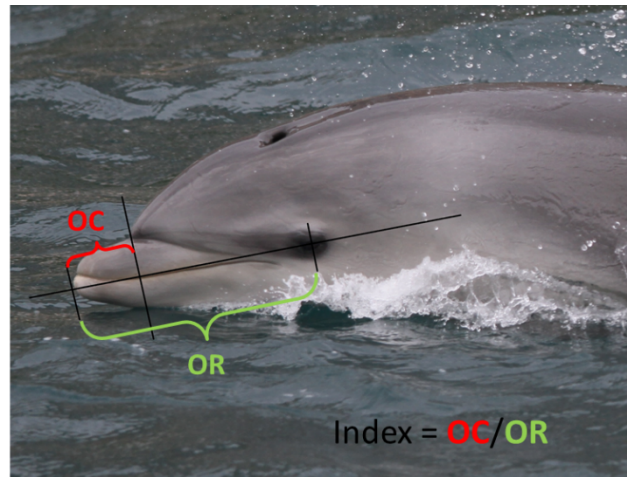


Fig. S1. Scheme showing how the index of relative rostrum size was taken for the common bottlenose dolphins in southern and southeastern Brazil.

A total sample of 20 photographs of the head of different individuals (offshore = 10 and coastal = 10) were chosen for analysis. All photos had a clear view of the head and the dolphins were perpendicular to the photographer.

Although there was some variability of the index and some overlap between ecotypes (Figure S3), the difference between them was statistically significant (ANOVA, $F = 13.2$, $DF = 18$, $p < 0.01$). The coastal dolphins had longer beaks than the offshore ecotype.

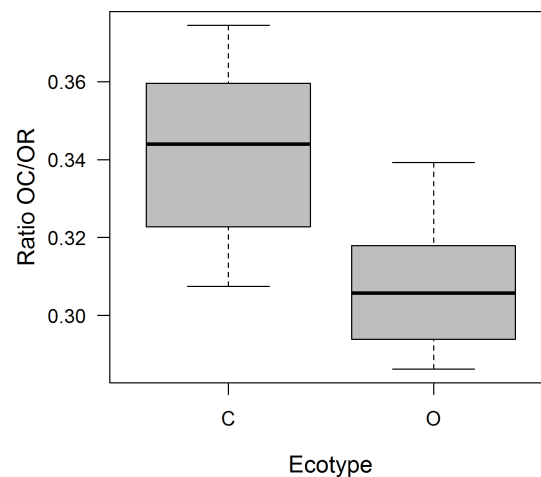


Fig. S2. Relative size of the rostrum between coastal (C) and offshore (O) common bottlenose dolphin ecotypes from Southeast and Southeastern Brazil.

Supplement 2. Linear discriminant function plot

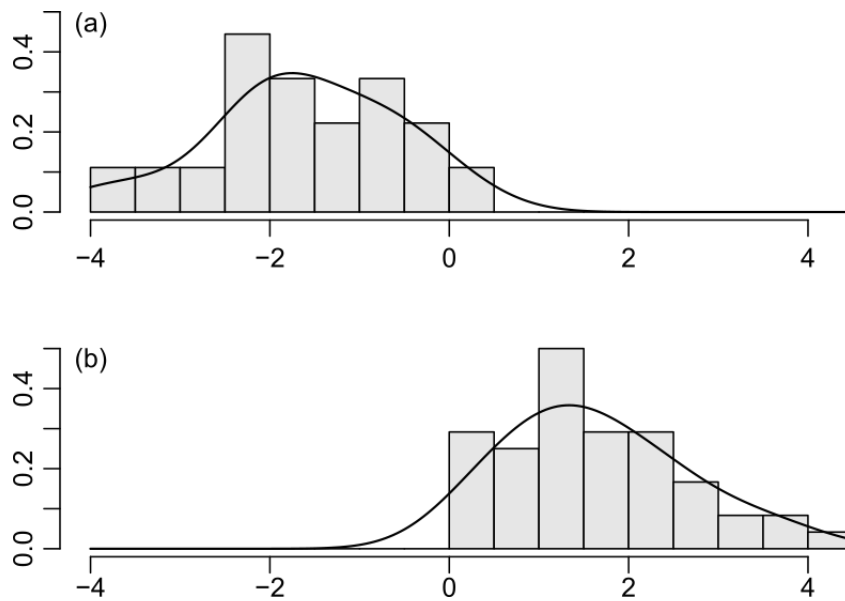


Fig. S3. Dorsal fin index distribution along the linear discriminant function axes of the discriminant function analysis applied on samples of unknown origin for the common bottlenose dolphin ecotypes of the southeastern and southern Brazil. (a) distribution for samples classified as coastal; (b) distribution for samples classified as offshore.

Supplement 3. Selected photographs of specimens



Fig. S4. The two narrow stripes from throat to the axillary region in bottlenose dolphins around the Galapagos Islands. Photo by Cibeles Sanches.



Fig. S5. Example of offshore common bottlenose dolphin with teeth scarification that apparently evolved to a deeper white lesion compromising the dermis and epidermis of the anterior edge of the dorsal fin and caudal peduncle. Photo by Renan Paitach.



Fig. S6. Offshore common bottlenose dolphins from the Trindade Island, off Brazil. Photo by Leonardo Wedekin.