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First comparison of organochlorine levels in stranded striped dolphin (*Stenella coeruleolaba*) of the Mediterranean Sea and of the Atlantic Ocean.

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The striped dolphin (*Stenella coeruleoalba*) is one of the most studied cetaceans in the field of environmental contamination, especially in the Mediterranean Sea. In spite of this, data on the ecotoxicological status of striped dolphins inhabiting the waters of the Canary Archipelago (Atlantic Ocean) are lacking. This study, for the first time, assesses the organochlorine levels in 20 specimens of striped dolphins stranded during the period 2005-2016 along the coasts of Canary Islands. These data have been compared with the results obtained from the analysis of 86 striped dolphins stranded along the Italian coasts (Mediterranean Sea) during the same temporal period. The levels of 30 polychlorinated biphenyls congeners (PCBs), the dichlorodiphenyltrichloroethane (DDT) and its metabolites and hexachlorobenzene (HCB) have been evaluated in the blubber of each specimen by gas chromatography analytic technique. The average abundance pattern of target contaminants was PCBs>DDTs>HCB for both areas. Median values of HCB, PCBs and DDTs are 500 ng/g lipid weight (l.w.), 86410 ng/g l.w. and 54664 ng/g l.w. respectively in the Atlantic Ocean, and 432 ng/g lipid weight (l.w.), 162148 ng/g l.w. and 111779 ng/g l.w in the Mediterranean Sea. In both areas, among PCBs, the highly chlorinated IUPAC number 180, 153 and 138 were the predominant congeners and among DDTs, the most present was pp'DDE, suggesting a not recent contamination by DDTs. Statistically significant differences (Kolmogorov-Smirnov test – $p<0.05$) have been found between Atlantic males and females for most of the compounds analysed. Although, the differences between the contamination pattern of Atlantic and Mediterranean area were not high as expected. Interestingly, the highest levels of total OCs of striped dolphins stranded along the Canary Islands coasts were comparable to those measured in stranded striped dolphins from the Mediterranean Sea.