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Abundance of striped dolphins in the Pelagos Sanctuary: insights through line transect surveys

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To assess cetacean densities in the Pelagos Sanctuary area and generate baseline data to provide insight on possible trends, a survey was carried out in the western Ligurian and Corsican Seas in August 2008, thus supporting cetacean conservation and management activities in the Sanctuary. An area of 58,000 km² was surveyed in eight days with equally spaced zigzag transects, covering 1,255 km in favorable conditions. Tracklines were designed using *Distance 5.0* to allow for homogeneous coverage probability over the selected area. Fifty three sightings of four cetacean species were made: striped dolphins (n=37), fin whales (12), sperm whales (3) and Cuvier's beaked whales (1). The best model and detection function, selected with the lowest Akaike's Information Criteria (AIC) values, had a half normal function with cosine adjustments. Unlike in previous surveys, due to the small number of sightings the only cetaceans for which an absolute abundance estimate was possible were striped dolphins; the dearth of fin whale sightings made analyses impossible for this species. Striped dolphin populations size resulted to be 13,232 (%CV=35.55; 95% C.I.=6,640.0-26,368), with a density of 0.23 individuals km⁻¹ (%CV=35.55; 95% C.I.=0.11-0.45). The central value of the 2008 estimate was almost half of that of a survey conducted in 1992 in the same area with comparable effort and platform (N=25,614; %CV=25.3; 95% C.I.=15,377-42,658). These results raise the concern that cetacean abundance in the Sanctuary - a Specially Protected Areas of Mediterranean Importance (SPAMI) specifically designated to protect cetaceans - over the past 16 years may be declining and urge for further systematic monitoring. Considering that recent Red List assessments for Mediterranean striped dolphins and fin whales are *Vulnerable* and *Data Deficient*, respectively, we stress the need for urgent conservation measures in the high seas throughout the Basin.