

SHORT-BEAKED COMMON DOLPHINS AROUND ISCHIA, ITALY, AND KALAMOS, GREECE: RELIC POPULATION UNITS OF PRIMARY CONSERVATION IMPORTANCE IN THE MEDITERRANEAN SEA

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The decline of the Mediterranean population of short-beaked common dolphins (*Delphinus delphis*) has been the subject of controversy among scientists and indifference among managers, which has contributed to delaying research and conservation actions. Lack of population estimates and of consistent time-series data have prevented full understanding of historical and ongoing trends in most areas. However, literature, photographic documentation and osteological collections unambiguously indicate that short-beaked common dolphins were once frequent in the Mediterranean Sea. Today, the species remains relatively abundant in the Alboran Sea, while it is extremely rare or it has completely disappeared from other portions of the basin (uncertainty exists for unexplored portions of North African coasts and Aegean Sea). Areas containing critical habitat have been identified around the islands of Ischia, Italy, and Kalamos, Greece, where relic population units survive. Their fate, however, represents a source of concern. Longitudinal studies suggest that several factors may have converged to cause population decline, including: 1) a reduced availability of key prey caused by overfishing and habitat degradation, 2) habitat contamination by xenobiotic compounds that accumulate in dolphin tissues through biomagnification and cause in particular immune-suppression and reproductive failure, 3) bycatch in fishing gear, and possibly 4) disturbance by vessel traffic. The relative importance of these threats may vary among Mediterranean sub-areas. The Kalamos population unit has shown signs of dramatic decline within the past eight years, possibly due to reduced prey availability, while animals around Ischia are exposed to threats including overfishing, illegal driftnetting and heavy boat traffic. Therefore, urgent conservation and management actions should be implemented, i.e. the immediate establishment of pilot protected areas accompanied by experimental management plans that include intensive dolphin monitoring, restrictions on fishing activity and vessel traffic, education efforts directed at the local fishing communities and recreational users, and research.