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Molecular barcoding applied to the Mediterranean turtles biological matrices

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Chelonia mydas together with *Caretta caretta* is the most representative species of the Cheloniidae in the Mediterranean basin. Currently at the National Reference Centre in the 'Istituto Zooprofilattico' of Sicily, damaged subjects are rehabilitated before they are released. Clinical, physiological and molecular parameters were collected from each subject. In total, 46 turtles were analysed. Species-specific Cytochrome oxidase I sequences for the specific identification of marine turtles were obtained.

Barcoding allows the characterisation of tiny samples from living species and the differentiation of morphologically similar specimens. It is a practical tool that can be used in cases of damaged samples and it is also useful for taxonomical characterisation of specimens at immature developmental stages.

Situated in the centre of Mediterranean area, we represent a reference centre for injured marine animals (both stranded on the beach and/or accidentally captured offshore). Turtles caught in fishing lines generally retain the fishing hooks in their throat or oesophagus, as visible by X-ray investigations. After rehabilitation these animals are released again into the sea. The polymorphisms observed in turtles could be related to different geographical pathways taken by these animals during their life.

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