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Conservation of Cetacean Specimens: A Tool to Monitor the Health of the Mediterranean Sea

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Established in 2002, the *Mediterranean marine mammal tissue bank* is currently located in the Department of Experimental Veterinary Science of the University of Padova (Italy). The Bank collects tissue samples from marine mammals stranded along the Italian coastline. The Bank is supported by the Italian Ministry for the Environment, and also receives tissue samples from other Mediterranean riparian countries under the auspices of ACCOBAMS, an agreement that links several Mediterranean nations for the protection of cetaceans. The tissues are stored frozen or preserved in chemicals; a list is reported *on-line* at http://www.mammiferimarini.sperivet.unipd.it/eng/index.htm. Samples are distributed for free to requesting scientists. The foundation of the Bank was prompted by the idea of a permanent archive of the marine biodiversity in a specific area. Changing environmental conditions in the coastal areas and the high seas of the semi-closed Mediterranean basin influence the life of marine inhabitants at various levels. Temperature variations, pollution, human activities promote or curtail proliferation of selected life forms. Cetaceans, at the top of the food chain, may well represent a precious sentinel of the health of the seas. The study of biological and medical parameters of cetaceans is limited by the number of available specimens, mostly stranded individuals. So in the instance of a viral outbreak (i.e. morbillivirus) or algal bloom, diagnostic possibilities are reduced and a clear picture of the responsible agents and chain of events is difficult to achieve. A tissue Bank will support the needs of thorough investigation and provide insight into population structuring in the region. A centralized storing and distribution facility such as the Bank will facilitate the study of possible relapses of former viral agents, the diffusion of pathogens or an increased accumulation of contaminants, by comparing samples derived from animals stranded in separate geographical locations or across extended periods of time.