



The adoption of Tremiti Island MPA into the AMAre PLUS Geoportal

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The importance of spatial scale to ecologists and conservation scientists cannot be understated, especially so, in the context of Marine Protected Areas (MPA). How do species distributions change in space? What is the extent and severity of human pressures? To answer these questions and others, data has to be spatially explicit or georeferenced. Research activities generate substantial volumes of data, often georeferenced, but, while accessible in most cases, such data is rarely systematically organized or standardized to ensure effective integration, interoperability and reuse. This work focused especially on the Tremiti islands MPA, aiming to gather, standardize and make more accessible all relevant data in the scope of FAIR principles. Data sources consist of white literature (i.e. peer reviewed articles) and gray literature such as scientific reports, theses, proceedings papers etc. These documents are primarily retrieved through structured searches conducted via bibliographic databases (Web of Science, Scopus and Google Scholar) and are then supplemented based on expert recommendations, literature found in list of references etc. The resulting literature is then filtered with exclusionary criteria: data will be extracted only from studies focusing on the marine environment, explicitly including the Tremiti Archipelago in the area of study and only when spatial information is provided (vector/raster data, explicit geographic coordinates or maps). In addition, further spatial datasets were incorporated from monitoring activities carried out on behalf of the MPA management body. Following data harmonization and the development of standardized metadata, validated datasets were ingested into a centralized spatial database and made accessible through the AMAre PLUS Geoportal. The Geoportal constitutes an intuitive and user-friendly platform that integrates a set of functionalities including data visualization, database interrogation and simple analysis. This framework will ensure data discoverability, accessibility and long-term interoperability, thus supporting future research and evidence-based decision making for MPAs management authorities and stakeholders