
A Mediterranean ‘VIT-Reef’ diving protocol for monitoring a Sea under siege

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Abstract

In the Mediterranean Sea, the semi-enclosed nature of the basin and the accumulation of coastal anthropogenic pressures threaten temperate reefs resilience. Together with the spread of reef ‘tropical invaders’ like *Caulerpa cylindracea*, these ongoing pressures are supporting the so-called expression *Mediterranean is a sea under siege*. Despite some effort being put towards the development of multi-integrated indicators, many gaps still remain in reefs monitoring and description of reference conditions. Providing MPA managers and citizen science NGOs with easy-to-deploy operational diving protocol is frequently advanced to fulfil these gaps. Building from this statement, the biodiversity inventory program ‘La Planète Revisitée’ lead by the French Natural History Museum has put forward a complementary approach known as rapid assessment survey (RAS) for a closed list of 70 indicative benthic species. This Visual Inventory in Limited Time-space for Mediterranean temperate Reefs (VIT-Reef) is a semi-quantitative inventory implemented by two divers, exploring 150 m² in less than 30 minutes. The development and deployment of VIT-Reef were pursued within the three largest MPAs of Corsica, supposedly representative of pristine conditions,

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between 2019 – 2021. We will present the VIT-Reef methodology, its preliminary results and further discuss its implementation at larger scale to fulfil knowledge gaps in reefs ecological state assessment and monitoring.