Managing Gozo's Marine Protected Areas

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Introduction

The seventh meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) adopted a Programme of Action which aimed to establish and maintain, "comprehensive, effectively managed and ecologically representative systems of protected areas" that, collectively, will significantly reduce the rate of loss of global biodiversity.

Within the marine domain, such an objective has to be reached pretty soon – by 2012. In order to conceptualise better the feat spelt out by such an objective, the WWF (World Wildlife Fund) and TNC (The Nature Conservancy) established that by 2012, ten percent of the extent of each of the world's 232 marine ecoregions[1] had to be protected. In a recent stock-take, it was revealed that such aspirations have been reached for just eighteen percent of all marine ecoregions, whilst for half of these eco-regions, the outlook was even grimmer since less than one percent of their extent was protected.

By 2010, 5,800 MPAs had been designated globally, covering just 1.2% of the global ocean, with just 0.1% of the global ocean lying within no-take reserves. One registers the existence of 74 MPAs in sixteen different countries in Europe in 2010 covering a combined area of 1624 km^2.

Gozo is endowed with unparalleled underwater assets, mainly in the form of evocative and stunning geomorpholical landscapes, ranging from arches and boulders to caves and tunnels, and in the form of sterling water visibility. The island is peppered with superlative diving spots, but Dwejra obviously takes pride of place, attracting most of the 80,000-odd annual divers converging on Malta and ranking as one of the best dive sites in the Mediterranean where competition for such an amenity is stiff.

The calibre of Gozo's underwater assets has been partly acknowledged in the local designation of Marine Protected Areas (MPAs), with two out of the five local MPAs – Dwejra and Mġarr ix-Xini – being located within Gozo's waters. Dwejra is actually just one of two local MPAs to be endowed with a zoning plan (i.e. a scheme which defines the different uses permissible in different areas of the MPA), the other such local MPA being Rdum Majjiesa off the western coast of Malta.

The PANACEA Project

The aptly-named project, PANACEA, commenced in April 2011, funded under the Italia-Malta 2007-2013 ERDF call, with the Maltese partners on such a project being the International Ocean Institute-Malta Operational Centre (IOI-MOC) of the University of Malta and the San Lawrenz Local Council. The Sicilian partners in the project are the Province of Syracuse as Lead Partner for the project, the Province of Palermo and the Comune of Lampedusa and Linosa. The acronymn PANACEA unfurls into Italian parlance which can be translated as: 'Promotion of Marine Protected Areas through Environmental Education Centres.'

The main objective of the PANACEA project is to promote the sound scientific management of biodiversity assets within Sicilian and Maltese MPAs by drawing on codes of best practice developed within selected MPAs and through the institution of environmental educational centres. These centres can be considered as portals of edutainment, in which visitors (students, divers,

[1] An ecoregion (ecological region), sometimes called a bioregion, is an ecologically and geographically defined area that covers relatively large areas of land or water, and contains characteristic, geographically distinct assemblages of natural communities and species.

tourists, locals) are regaled with a didactic experience through a kaleidoscopic overview of the MPAs' living resources through a number of ad hoc tools, including documentaries, interactive tools, permanent exhibitions and models, ecological laboratories and 'dioramas' (i.e. grouping of figures against a painted background or an arrangement of pictures that create a 3D effect).

Of the four such centres envisaged during the course of the project implementation, one has been slated for Dwejra, more specifically for the interpretation centre on the way down to the Inland Sea. By housing the environmental education centre within the interpretation centre, the rationale behind the development of such a centre – i.e. that of supporting environmental initiatives at Dwejra – will finally be realised.

The Need for Good Management of Gozo's MPAs

The PANACEA concept is intended to address management problems of local MPAs – particularly the complete lack of promotional platforms and environmental educational spin-offs from such MPAs. Consequently, local MPAs remain obscure, not just to foreign visitors but also to local diving pundits, mainly as a result of the complete lack of facilities such as an ad hoc MPA website and MPA visitors or interpretation centre. Such facilities are the order of the day in MPAs abroad, with the Plemmirio MPA in Syracuse, just 150km to the north of Malta, being even equipped to handle physically-disabled visitors.

The 'blue hole' allows access to a stunning underwater itinerary at Dwejra, Gozo.

Incidentally, the PANACEA project also aims to develop a website tailor-made to promote the living and geomorphological assets within the Dwejra MPA, in addition to a slew of other informative material such as catalogues, leaflets and even underwater documentaries on the Dwejra and Rdum Majjiesa MPAs which will then be projected on screens within the envisaged environmental education centre at Dwejra.

In lock-step with the promotional activities, scientific ones within the Dwejra MPA are also being conducted. These include the deployment of water temperature loggers at depths ranging from 5m to 40m, retrievable every six months, and the development of a prototype 1-d ecological model for the same marine area. Such a model is expected to eventually function as a novel MPA management tool.

In parallel to the implementation of PANACEA, the Malta Environmental and Planning Authority (MEPA) is currently engaged in developing similar amenities for divers within the Rdum Majjiesa MPA, in the form of underwater trails for instance, through its participation in the MedPAN 2 project. MedPAN is an ad hoc network of the managers of MPAs.

Conclusion

The outcomes envisaged from the PANACEA project include ones whose legacy will be immediately perceived, at the end of the project's duration in 2013, such as the opening of the environmental education centre at Dwejra and

The purple seastar (*Ophidianus ophidiaster*) is just one of the many protected marine species one encounters at Dwejra.

the compilation of scientific and promotional material about the Dwejra and Rdum Majjiesa MPA. However, it is augured that the legacy of other project outcomes extend further in time, such as a greater appreciation of the conservation importance of the benthic assemblages to be encountered within our MPAs. This in turn could foster a higher degree of conscientousness in divers and eventually even the adherence to a code of responsible behaviour.

The island of Gozo should reap the dividends of the PANACEA project in that it will be endowed with the first environmental education centre latched to an MPA developed in the Maltese Islands which, due to its strategic location close to the Inland Sea, should appeal to the thousands of divers who pay the area a visit. Dwejra will also be the crucible for the testing of a novel MPA management tool – an ecological model – which should give managers some foresight in predicting changes occurring within the water column at Dwejra. Perhaps the most iconic of all Maltese MPAs – Dwejra – will feature prominently in an ad hoc website and underwater documentary which should further bolster Dwejra's emblematic standing abroad. Gozo should finally be placed on the same footing as other sterling diving destinations in close propinquity to our archipelago, such as Lampedusa, Syracuse (Sicily) and Tunisia.

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