{rokbox title=|Fondos coralígenos :: Foto: David Díaz, COB-IEO| thumb=|images/stories/ieo/imagenespublicaciones/amp_vanderperreetal_640_thumb.jpg|}images/stories/ieo/imagenespublicaciones/amp_vanderperreetal_640.jpg{/rokbox}

Frederic Vandeperre, Ruth M. Higgins, Julio Sánchez-Meca, Francesc Maynou, **Raquel Goñi**, Pablo Martín-Sosa, Angel Pérez-Ruzafa, Pedro Afonso, Iacopo Bertocci, Romain Crec'hriou, Giovanni D'Anna, Mark Dimech, Carmelo Dorta, Oscar Esparza, Jesús M. Falcón, Aitor Forcada, Ivan Guala, Laurence Le Direach, Concepción Marcos, Celia Ojeda-Martínez, Carlo Pipitone, Patrick J. Schembri, Vanessa Stelzenmüller,
Ben Stobart
, Ricardo S. Santos (2011).
Effects of no-take area size and age of marine protected areas on fisheries yields: a meta-analytical approach.
Fish and Fisheries, 12: 412–426. doi: 10.1111/j.1467-2979.2010.00401.x

Abstract: Marine protected areas (MPAs) are often promoted as tools for biodiversity conservation as well as for fisheries management. Despite increasing evidence of their usefulness, questions remain regarding the optimal design of MPAs, in particular concerning their function as fisheries management tools, for which empirical studies are still lacking. Using 28 data sets from seven MPAs in Southern Europe, we developed a meta-analytical approach to investigate the effects of protection on adjacent fisheries and asking how these effects are influenced by MPA size and age. Southern European MPAs showed clear effects on the surrounding fisheries, on the 'catch per unit effort' (CPUE) of target species, but especially on the CPUE of the marketable catch. These effects depended on the time of protection and on the size of the no-take area. CPUE of both target species and the marketable catch increased gradually by 2–4% per year over a long time period (at least 30 years). The influence of the size of the no-take area appeared to be more complex. The catch rates of the entire fishery in and around the MPA were higher when the no-take areas were smaller. Conversely, catch rates of selected fisheries that were expected to benefit most from protection increased when the no-take area was larger. Our results emphasize the importance of MPA size on its export functions and suggest that an adequate, often extended, time frame be used for the management and the evaluation of effectiveness of MPAs.

Keywords: Catch per unit effort; fishery yields; marine protected area design; marine reserve; meta-analysis; spillover