

# LOCAL AND TRADITIONAL ECOLOGICAL KNOWLEDGE AS POWERFUL HINT TO UNDERSTAND AND MANAGE MARINE BIODIVERSITY AND FISHERIES

Fabio Fiorentino <sup>1\*</sup> and Sergio Vitale <sup>1</sup>  
<sup>1</sup> CNR - IAMC - fabio.fiorentino@iamc.cnr.it

## Abstract

Over the past twenty years, increasing attention has been paid to the potential and real benefits of using local and traditional ecological knowledge (LEK and TEK) in marine science and management. Information collected by people frequenting the sea (fishers and citizens) represent a powerful source of information to be integrated to data collected by scientists in order to achieve a more accurate knowledge of status and dynamics of marine communities and environment. In our contribution we present and discuss examples of LEK and TEK from Sicily, concerning contribution of both fishers and citizens to understand spatial ecology of main commercial species in areas regulated by the Local Fishery Management Plans and occurrence of fish species in the Marine Protected Areas. </div>

Keywords: Biodiversity, Fishes, Fisheries, Sicily Channel, Tyrrhenian Sea

Over the past twenty years, increasing attention has been paid to the potential and real benefits of using local and traditional ecological knowledge (LEK and TEK) in marine science and management [1,2]. LEK and TEK have been considered a relevant hints for understanding and managing marine biodiversity in sustainable way, including artisanal fisheries. Information collected by people frequenting the sea (fishers and citizens) represent a powerful source of information to be integrated to data collected by scientists in order to achieve a more accurate knowledge of status and dynamics of marine communities and environment. In our contribution we present briefly examples of LEK and TEK experienced in Sicily, concerning contribution of both fishers and citizens to understand spatial ecology of main commercial species in areas regulated by the Local Fishery Management Plans and occurrence of fish species in the Marine Protected Areas. Some ideas on how to integrate TEK and LEK with information routinely collected by scientists in order to improve understanding of biodiversity and fishery dynamics in coastal areas are presented.

## References

- 1 - Azzurro E., Moschella P., Maynou F., 2011. Tracking signals of change in Mediterranean fish diversity based on local ecological knowledge. *PLoS One*, 6(9), e24885.
- 2 - Drew J. A., 2005. Use of traditional ecological knowledge in marine conservation. *Conservation biology*, 19(4): 1286-1293.