

A Field Guide for Interdisciplinary Fisheries Scientists

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Abstract

Fisheries are increasingly understood as socio-ecological complex adaptive systems, a perspective that tries to capture the complexity and diversity of components involved in fisheries systems. This approach requires the field of fisheries science to widen and to open up to a larger diversity of disciplines in order to address all the components of SECAS: the social dimension, the ecological dimension, the complexity, and the system dynamics. This openness calls for the participation from the social sciences and humanities, the complexity sciences and more, besides the more traditional fisheries sciences like biology and mathematics. However, including, combining, and integrating diverse scientific disciplines and approaches is not an easy endeavor, and maybe even one of the biggest challenges of addressing fisheries as SECAS. This effort requires scientists to successfully communicate, collaborate, and integrate their approaches to address a common goal. Based on experience mostly from other fields (e.g. climate, conservation, and biomedical sciences) the scientific literature has already discussed the challenges of such interdisciplinary work. In this study, we take this discussion a step further and address not only the challenges of interdisciplinary research, but also make specific suggestions on how to overcome them. Based on the literature and experience within interdisciplinarity and fisheries, we have prepared a “field guide for interdisciplinary scientists”. This step-by-step guide addresses everyday struggles in the life of interdisciplinary fisheries scientists and makes simple, and most importantly, practical suggestions on how to overcome them. We wish to share our field guide and encourage people to use it in order to contribute and foster future interdisciplinary approaches in fisheries science.

Keywords: Socio-ecological complex adaptive systems, interdisciplinary, collaboration, integration, knowledge production

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Acknowledgements: This research has been supported through SAF21 – Social Science Aspects of Fisheries for the 21st century, a project financed under the EU Horizon 2020 Marie Skłodowska-Curie MSCA-ETN programme. Grant agreement No. 642080.