Session ICAWA-4

Contribution of mathematical modeling to the ecosystem approach to fisheries management and the marine environment (EAMME): the AWA experience

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Abstract

Since the onset of AWA, a number of studies have focused on the management and ecology in West Africa. Here we provide a short insight of the main highlights on a selection of contrasted modelling case studies. Understanding the functioning of the ecosystem is essential to promote ecosystem approach to fisheries management and the marine environment (EAMME) and path providing advices to decision makers and managers. In the EAMME, the civil society addressed various questions to AWA on which specific models have been developed to provide at least first insight to the answers, e.g., on the effect of artificial reef implementation in marine protected area; the possible equilibriums between national fisheries sharing a same trans-boundary fish stock; the feedback between local exploitation, fish market and fisheries mobility, the responses of a fishery to economic, biologic and management parameters, the spatial variability of primary productivity as well oceanographic circulation at regional level or the fish egg advection over the continental shelf. More complex modelling exercise have also been conducted taking advantage of previous research led on sardinella aurita. In this way a coupled model taking into account environmental variability, fish growth and spatial behaviour was developed. We present as example new hypothesis on adult mediated connectivity between EEZ, inter-annual variability

and interest to work on climate change with such model. We propose a prospective of what further research could be conducted to continue to bring up relevant information for a sub-regional EAMME in North West Africa fostering exchanges between modellers and marine scientists and all stakeholders.

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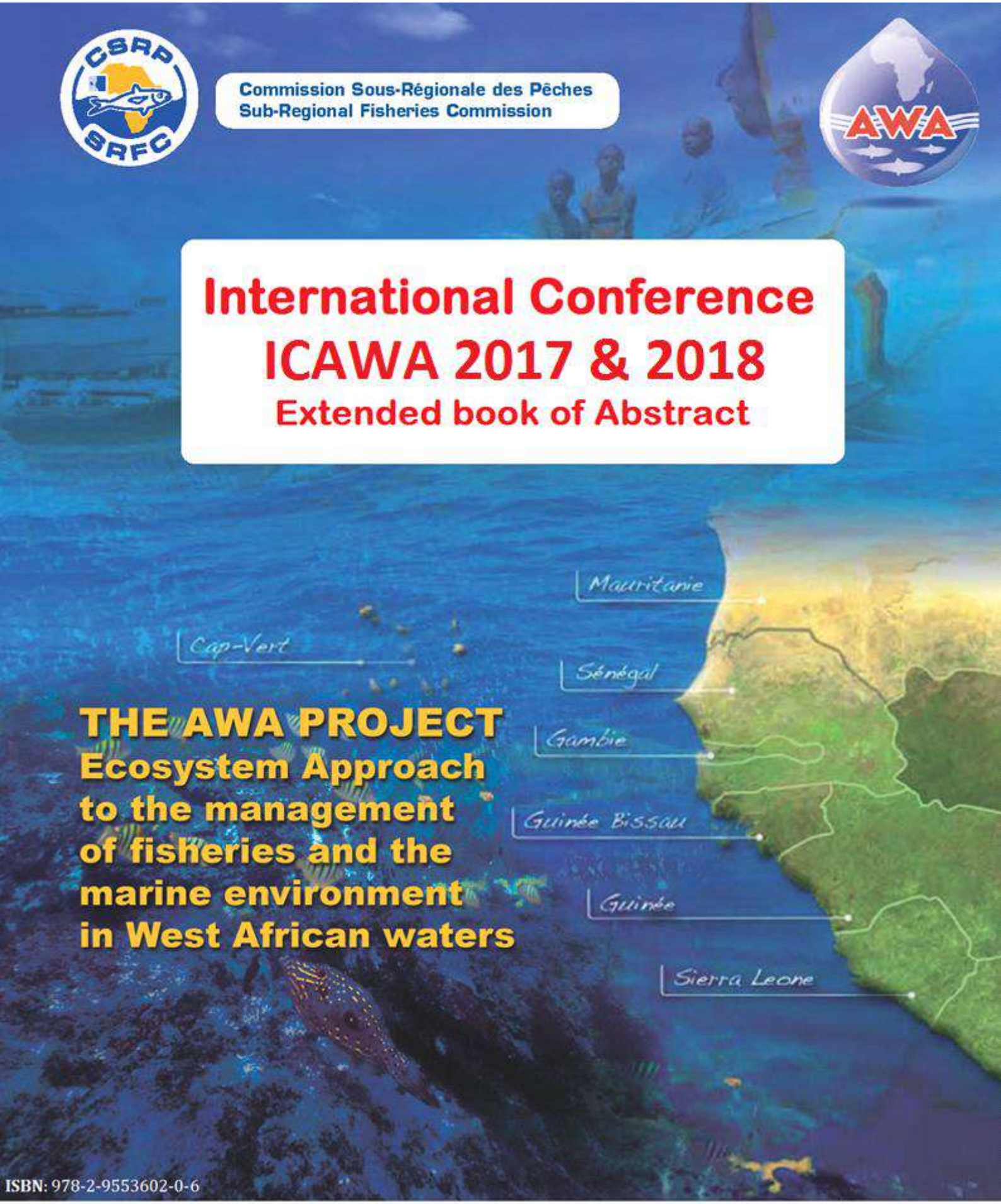
Extended book of Abstract



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The both last ICAWA edition, 2017 and 2018, was done as a joint event with other closely related meeting. In 2017 with the inauguration of the OSCM in Cabo Verde underlining AWA cooperation with INDP and UNICV as well as Geomar and collaborators. In 2018 ICAWA was join to Preface final meeting following the memorandum of understanding signed a couples of years before between the two consortium and which have led at the end to a common policy session followed by the redaction of a policy brief taking advantage of the results of the both projects. Some abstract aside ICAWA joint session are missing see the orgniser to get more information.

Sponsors ICAWA 2017 and IACAWA 2018

These two edition of ICAWA were joint with OSCM inauguration and the final meeting of the European preface project, respectively in 2017 and 2018.

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Book of abstract