Session 03

Multifrequency acoustics measurements during the PIRATA FR25 cruise in the Eastern Tropical Atlantic Ocean

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Reçu le 05/11/2015; publié le 15/05/2016

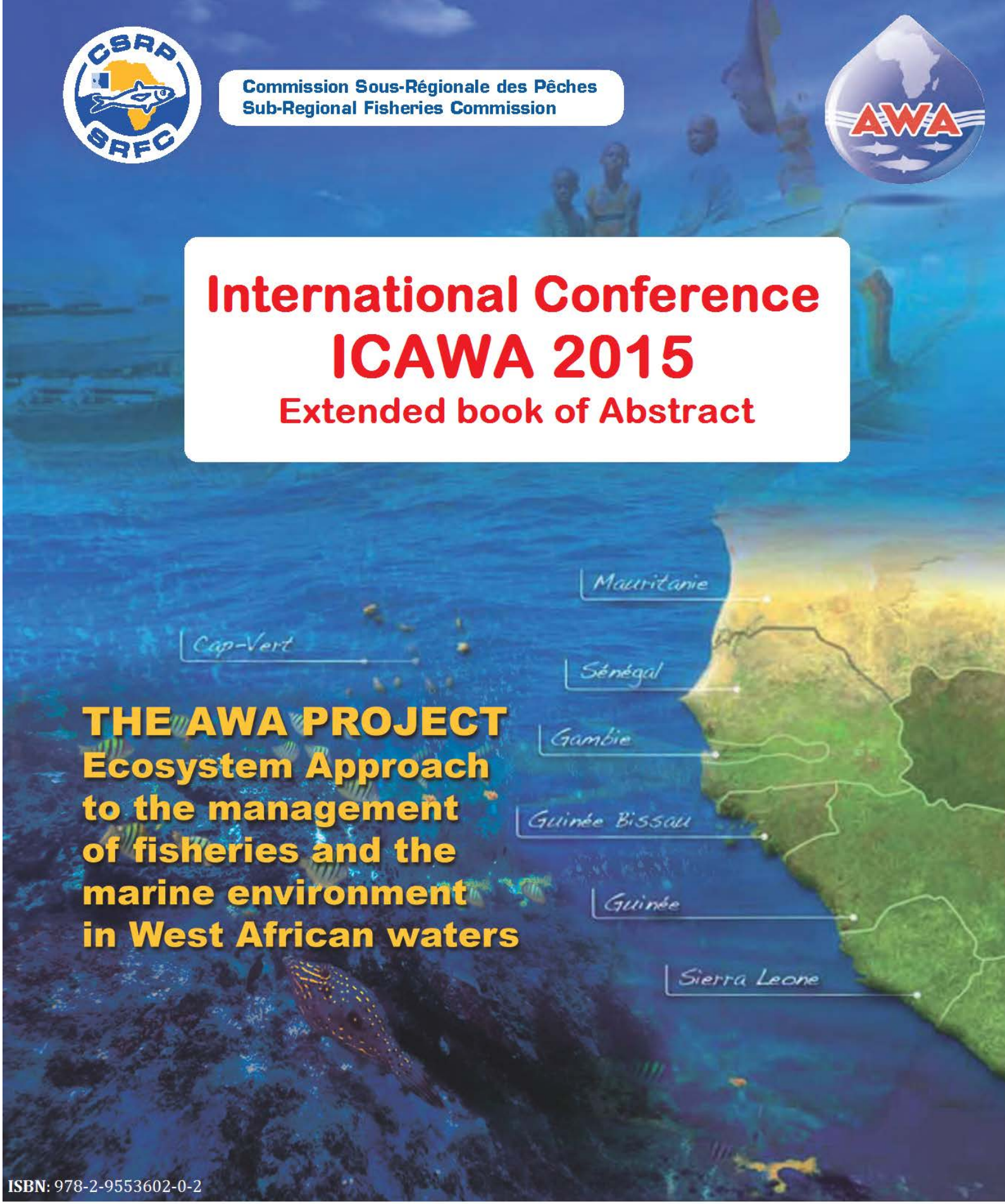
Abstract

Acoustic tools allow a simultaneous acquisition of quantitative and qualitative data at different spatio-temporal scales, providing information about biotic and abiotic ecosystem components. For the first time in 18 years history, a PIRATA cruise allowed to get such measurements in the Eastern tropical Atlantic, from Cabo-Verde islands to the equator and in the Gulf of Guinea. We present here first data sets acquired during the Pirata-FR25 cruise and some preliminary results. Several potential scientific analyses could be carried out using such data in the general framework of PREFACE, AWA & PIRATA programs. Such data will allow calibrating and validating ecosystem model developed in the Gulf of Guinea, taking into account the mesopelagic compartment. The organization of the micronekton layers could be described including diel vertical migration taking into account hydrological parameters and currents vertical distributions. Lastly, such data will allow characterizing the micronekton layers according to equatorial zonal currents system as well as inside the Guinea Dome. Along the survey path several other oceanographic structures were susceptible to trigger an effect on micronektonic layers as the contrasted salinity (32 to 36 ‰) within the Gulf of Guinea, oceanic fronts and Tropical instability waves.

Keywords: mesopelagic, micronekton layer, diel vertical migration, zonal current, oceanic fronts, GCLME.

Commission Sous-Régionale des Pêches
Sub-Regional Fisheries Commission

International Conference
ICAWA 2015
Extended book of Abstract



THE AWA PROJECT
Ecosystem Approach to the management of fisheries and the marine environment in West African waters

ISBN: 978-2-9553602-0-2

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Trilateral German-French-African research initiative

Edited by:
Patrice BREHMER (IRD, France; Dakar), Babacar BA (CSRP, Sub-Region; Banjul) & Gerd KRAUS (TI, Germany; Hamburg).

Technical support: Marie Madeleine GOMEZ (CSRP), Ndague DIOGOUL (IRD).

With the collaboration of:
Peter BRANDT, Bamol Ali SOW, Alban LAZAR, Xavier CAPET, Heino FOCK, Eric MACHU, Hamet Diaw DIADIHOU, Didier JOUFFRE, Ibrahima DIALLO, Joern SCHMIDT, Werner EKAU, Amadou GAYE, Mahfoudh ould TALEB SIDI, Modou THIAW, Cl Abdoulaye DIOP, Adama MBAYE, Dienaba Beye TRAORE, Moussa SALL, Mariline DIARA, Assane FALL, Ibrahima LY, Ivanice MONTEIRO, Vamara KONE, Aboubacar TOGUYENI, Marie BONNIN, Abdelmalek FARAJ.

ISBN: 978-2-9553602-0-2

Cover design: AWA (BMBF – IRD) project

Logo and flyers: Laurent CORSINI (IRD)

Translation: Amadou NDIONE (independent)

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