



Session 02

Spatio-temporal variability in the horizontal distribution of pelagic fish eggs in West African waters

LUC BADJI^{1,2*}, MAIK TIEDEMANN², HEINO FOCK², PAPA NDIAYE¹ and DIDIER JOUFFRE^{1,3}

¹Université Cheick anta Diop (UCAD), Institut Fondamental d'Afrique Noire (IFAN), Laboratoire de Biologie et d'Ecologie des Poissons d'Afrique de l'Ouest (LABEP-AO), BP 206 Dakar, Senegal

²Thünen Institute for sea fisheries (TI), BP 22767, Hamburg, Germany

³Institut de Recherche pour le Développement (IRD), UMR Marbec BP 1386, Dakar, Senegal

*Correspondance: Tél: (+27) 725 52 64 26; Courriel: badjiluc@yahoo.fr (L. BADJI)

Reçu le 28/10/2015; publié le 15/05/2016

AWA © MS WP2_S2_44

Abstract

Early life stages of West African pelagic fish, most of which are commercially important, have not been widely studied specially in Senegalese and Mauritanian coasts. The aim of the present study, directed towards 3 species among the most abundant (*Sardina pilchardus*, *Engraulis encrasicolus*, and *Trachurus trachurus*), is to use the abundance and distribution of the pelagic eggs to obtain an estimate of the biomass of the adult spawning population. Sampling was done using CTD sampler for physical parameters collection and Gulf sampler for horizontal distribution of fish eggs. The maximum number of sardine and mackerel eggs was recorded during the winter survey with special abundance respectively on the coastal areas between Morocco and northern Mauritania and between Cap Blanc and Cape Timiris. Anchovy eggs are relatively important during the two seasons along all the sampling area. Our study showed that West African coasts are important spawning ground for many of commercial fishes. Moreover, the seasonality in the intensity of the upwelling events has an effect on the distribution of fish eggs. As a result, abiotic parameters should be considered in order to get full insights of the spawning dynamics.



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

Cap-Vert

Mauritanie

Sénégal

Gambie

Guinée Bissau

Guinée

Sierra Leone

ISBN: 978-2-9553602-0-2



Bundesministerium
für Bildung
und Forschung



Institut de recherche
pour le développement



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 DIADIHO, Didier JOUFFRE, Ibrahima DIALLO, Joern SCHMIDT, Werner EKAU, Amadou GAYE, Mahfoudhould 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

Sub Regional Fisheries Commission / Commission Sous Régionale des Pêches ©2016

Cover design: AWA (BMBF – IRD) project

Logo and flyers: Laurent CORSINI (IRD)

Translation: Amadou NDIONE (independent)

Sponsors ICAWA 2015: