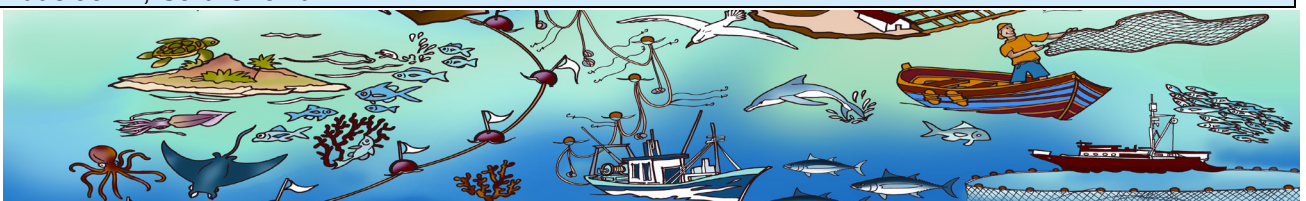
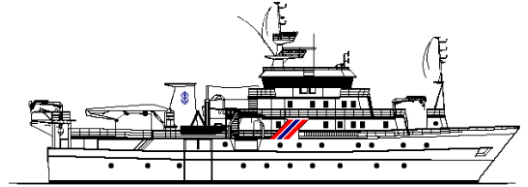


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|--|-----------------|-------------|---|--|
| Countries: Morocco, Western Sahara, Mauritania, Senegal, The Gambia, Guinea-Bissau, Guinea | | | | |
| Research vessel: R/V DR. FRIDTJOF NANSEN | | | | |
| Survey number: 2012404 | | | | |
| Number of days: 78 | | | | |
| General objectives: CCLME North West Africa Ecosystem Survey | | | | |
| | Port | Date | Coverage | Specific objectives |
| Departure | Conakry, Guinea | 5 May | Morocco, Western Sahara, Mauritania, Senegal, The Gambia, Guinea-Bissau, Guinea | <ul style="list-style-type: none"> To obtain information on demersal fish abundance and biodiversity by demersal trawling where conditions for bottom-trawling are adequate. To determine the distribution and abundance of small pelagic fish resources using acoustic methods and a systematic grid survey strategy. Additional biological sampling from trawl catches to collect data on size distribution, further biological information and genetic material from selected species To establish as far as possible the distribution, abundance and composition of other taxa at different trophic levels along the shelf (phyto- and zooplankton, egg and fish larvae, cetaceans and sea birds, and benthic biodiversity). Map the environmental conditions in the survey area (temperature, salinity, oxygen, chlorophyll, nutrients and sediments) Capacity building of CCLME trainees and young scientists. |
| Arrival | Luanda | 22 July | | |
| Cruise leader: Aristóteles Amaro (1/3-21/3), Filomena Vaz Velho (21/3- 30/3), Knut Korsbrekke (1/3-30/3) | | | | |
| Participants: | | | | |
| From Centre National de Sciences Halieutiques de Boussoura, Guinée: Raymond Koivogui, Ibrahima Djénabou Camara, Idrissa Bamy, Bangoura Soriba Facinet | | | | |
| From Centro de Investigação Pesqueira Aplicada, Guinéa Bissau: Duarte Bucal, Amadeu Mendes de Almeida | | | | |
| From Department of Fisheries Banjul, The Gambia: Ebu Mass Mbye | | | | |
| From Instituto Nacional De Desenvolvimento Das Pescas, Cape Verde: Vito Melo | | | | |
| From Instituto Español de Oceanografía, Spain: Eva García Isarch, Ana Ramos | | | | |
| From Mauritanian Institute for Oceanographic Research and Fisheries, Mauritania: Abdellahi Samba Ould Bilal, Mohamed Ben Iemlih, Jemal Ould Abed, Alioune Hamady Niang, Mamadou Dia Hamoud El Vadel | | | | |
| From National Institute of Fisheries Research, Morocco: Khalid Manchih, Said Ait Taleb, Tarik Baibai, Adil Chair, Hassan Oubamouh, Mlle Sophia Talba, Ali Srairi, Ahmed Elasri, Agouzouk Abdelaaziz, Said Charib | | | | |





NANSEN PROJECT



From Fondation internationale du Banc d'arguin : Abdoulaye Djiba

From University of Vigo, Spain: Susana Soto de Matos-Pita, Fran Ramil, Eli Muñoz

From FAO: Antonello Proto, Phil Chamberlain

From CRODT: Ibra Fall, Alassane Dieng, Fambaye Ngom Sow, Abdoulaye Sarré

From IMR, Norway: Jens Otto Krakstad, Oddgeir Berg Alvheim, Bjørn Arne Krafft, Thor Egil Johansson, Jarle Alexander Kristiansen, Ines Bernardes, Kathrine Michalsen, Magne Olsen, Espen Bagøien, Åge Høine, Diana Zaera-Pérez, Ole Sverre Fosshem, Jan Frode Wilhelmsen.

Independent consultants: Paul Robinson, Tomio Iwamoto, Koen Van Waerebeck

Summary of the results:

Environmental data

The physical environmental data that has been presented in this report will be further analyzed and compared with available historic data from the same region, and the CCLME survey performed during 20 October – 21 December 2011, to show any possible spatial, seasonal or other temporal trends. Laboratory analyses from this survey still needs to be conducted in order to present the data on nutrients and biological data on taxonomy, plankton biomass and production.

Acoustic observations

No acoustic abundance estimate was made from the survey as the coverage was considered not to give the necessary resolution to varent abundance calculations. However, average s_A values of the main pelagic species, fish size distribution and horizontal distribution maps of these species have been provided. Based on the acoustic observations it was the region between Cape Blanc to Cape Juby that had the highest density of pelagic fish, followed by the region between Cape vert to cape Blanc and between Conakry and Cape Vert. The northern regions had lowest pelagic fish density. Sardine and anchovy were the most abundant species in the region followed by the sardinella species and horse mackerel species.

Swept area survey

The total biomass estimate of commercially important demersal species was 211 000 tons, compared with 355 000 tons in 2011. However most of the decline can be attributed to the reduction of grunts in the estimates done between 2011 and 2012. All other species groups show similar levels of abundance. The region with the highest abundance of demersal species, in 2012, was the one between Cape Blanc and Cape Juby (109 000 tons). In 2011 the estimate for this region was 195 000 tons.

Seabreams was the most abundant species group with a total of 141 000 tons. This is slightly lower but similar to what was found in 2011. The distribution within the region was also similar.

Report status final References:

NORAD - FAO PROJECT: CCP/INT/003/NOR, Cruise reports "Dr. Fridtjof Nansen. Krakstad, J.-O., Michalsen, K., Høines, Å., Alvheim, O., Zaera, D., Olsen, M., Bernardes, I., Bagøien, E., Krafft, B.A., Ramos, A, García-Isarch, E., Muñoz, E., Ramil, F., & Robinson, P. **CCLME North West Africa Ecosystem Survey. Guinea-Morocco. 5 May – 22 July 2012.** Institute of Marine Research, Norway, Instituto Español de Oceanografía, Spain and University of Vigo, Spain. 2012

Constraints/Comments:

