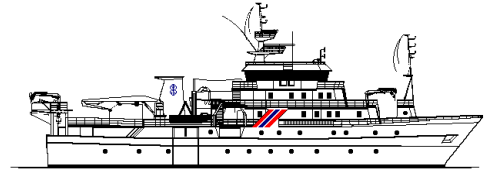


Country: Côte d'Ivoire, Ghana, Benin, Togo, Cameroon, São Tomé and Príncipe, Gabon and Congo.				
Research vessel: R/V DR. FRIDTJOF NANSEN				
Survey number: 2009405 GOG-E				
Number of days: 33				
General objectives: Survey of the pelagic and demersal resources of the Eastern Gulf of Guinea				
	Port	Date	Coverage	Specific objectives
Departure	Tema, Ghana	3 June 2007	Côte d'Ivoire, Ghana, Benin, Togo, Cameroon, São Tomé & Príncipe, Gabon and Congo	<ul style="list-style-type: none"> to map the distribution and estimate the acoustic abundance of the main pelagic fish species / groups in the region to describe the distribution, composition and estimate the abundance of the main demersal fish species on the shelf by a swept-area trawl programme to collect stomach samples of commercial important fish species to increase knowledge on food and feeding habits to collect bottom sediment samples to map the benthic biodiversity in the region. to collect phytoplankton and zooplankton samples for distribution and species identification to map the general hydrographic regime by using a CTD to monitor the temperature, salinity and oxygen at bottom trawl stations and on hydrographical transects on-the-job training of local participants covering main survey routines
Arrival	Pointe Noir, Congo	6 July 2007		
Cruise leader: Jean Gabriel Goussilou (local cruise leader GCLME) : Oddgeir Alvheim (3 – 23 June, cruise leader from Tema to Port Gentil), Jens-Otto Krakstad (24 June – 6 July, cruise leader from Port Gentil to Pointe Noir).				
Participants:				
From The University of Ghana, Department of Oceanography and Fisheries, Legon, Ghana: Emmanuel Lamptey, Emmanuel Dovlo				
From Centre de Recherches Océanologiques, Abidjan, Côte d'Ivoire: Joanny TAPE and Souliatou Aladji ASSI				
From Ministry of Fisheries, Marine Fisheries Research Division, Tema, Ghana: Theophilus TEYE ADDI and Godfred ASEIDU AMEYAW				
From Division des Pêches et de l'Aquaculture, Lomé: Kenbenzikato A. B. and BATALI Tagba				
From Centre de Recherches Halieutiques et Oceanologiques du Bénin (Centre Béninois de la Recherche Scientifique et Technique) CRHOB/CBRST, Cotonou: Amélie GBAGUIDI and Sebastian AHOUANDJOGBE				
From Nigerian Institute for Oceanography and Marine Research, Nigeria: Michael Olaniyi Oyebanji, Akanbi Bamikole Williams				





NANSEN PROJECT



From Ministry of Livestock, Fisheries and Animal industry, Service Provincial des Pêches du Littoral Douala, SPPLD, Cameroon: Pierre Nolasque Meke Soung

From Station des Recherches Halieutique et Oceanographique, Limbe, SRHOL, Cameroon: Chiambeng George Yongbi

From Ministerio de Pesca y Medio Ambiente, dirección General de Recursos Pesqueros Equatorial Guinea: Paulino Esono Mesia and Jesus Metuy Nchana

From Direccào das Pescas, São Tomé and Príncipe: André Barros Bandeira

From Direction Générale de la Pêche et de l'Aquaculture, Gabon: Jean Gabriel Goussilou (local cruise leader GCLME) and Micheline Schummer Gnandji

From Direction Générale de la Pêche et de l'Aquaculture, Congo: Jean Samba and Romuald Tite Akenze

From Democratic Republic of Congo (Student) Mathieu Mongolu

From Angola (Student): Filomena Cornelio

From Institute of Marine Research, Norway: Oddgeir Alvheim (3 – 23 June, cruise leader from Tema to Port Gentil), Jens-Otto Krakstad (24 June – 6 July, cruise leader from Port Gentil to Pointe Noir), Diana Zaera, Tore Mørk and Jan Frode Wilhelmsen

From University of Bergen, Norway: Frank Spetland

Summary of the results:

Results from the acoustic survey: The survey in 2007 forms part of a time series started in 2004. This was the fourth survey covering the region. However Cameroon was only partly surveyed due to time constraints, and the acoustic estimate is not directly comparable to previous estimates. However, results indicate similar density levels as previous years. Also due to time constraints, The survey of Congo and Gabon had to be terminated at the border between the two countries. However, it was agreed with the FAO and INIP in Angola that the pelagic coverage of Congo could take place as part of the following survey, the survey of the pelagic resources in Angola. The abundance of pelagic fish on the shelf of Gabon and Congo, and particularly the sardinellas, was high both during the survey in 2004, 2005 and 2006: However, the estimate has had a declining trend since 2005. The total biomass of sardinella recorded in this area in 2007 was 159 000 tons, the lowest recorded in this latest time series of surveys. The same trend is apparent for horse mackerel but to a much larger degree. The P2 species on the other hand has increased in abundance. It may be that warmer water masses the last two years are part of the reason for this pattern. The distribution of pelagic fish extends inshore of the survey area in the whole survey region and the survey does not cover the region inside 20 m depth. Oil exploration areas, particularly outside Olinde in Gabon could not be covered by the survey and some pelagic fish may have been missed in these areas.

Results from the swept area trawl survey: The composition of the fish fauna on the continental shelf and slope of the Gulf of Guinea changes with depth (Williams 1968, Dr. Fridtjof Nansen, Cruise reports 2004, 2005, 2006). The catch-distribution analyses were therefore performed for three depth strata on the shelf, 0-50 m (inner shelf) and 51-100 m (outer shelf) and 101-250 m depth (slope). In the swept-area biomass estimates, only the shelf area down to depths of 200 m was included. The surveyed area was divided into four strata between 0-30 m, 31-50 m, 51-100 m and 101-200 m respectively. During this year's survey data was collected for swept area abundance estimates from Côte d'Ivoire, Ghana, Togo, Benin, São Tomé and Príncipe, Gabon and Congo. No Swept area estimates were attempted in Cameroon and Nigeria.

Report: status: final References:

J.O. Krakstad, O. Alvheim and D. Zaera (2008) ,CRUISE REPORTS "DR. FRIDTJOF NANSEN", **SURVEYS OF THE FISH RESOURCES OF THE GULF OF GUINEA, Côte d'Ivoire, Ghana, Benin, Togo, Cameroon, São Tomé and Príncipe, Gabon and Congo, Survey of the pelagic and demersal resources**, 3 June - 6 July 2007. Institute of Marine Research, Bergen, August 2008

Constraints/Comments:

