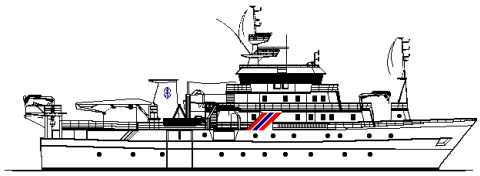
NANSEN PROJECT



Country: Madagascar				
Research vessel: R/V DR. FRIDTJOF NANSEN				
Survey number: 2009408				
Number of days: 40				
General objectives: West Madagascar: Pelagic Ecosystem Survey				
	Port	**Date**	**Coverage**	**Specific objectives**
Departure	Tuléar, Madagascar	26 August 2009	West Madagascar	• To carry out a multi-disciplinary cruise that investigates the physico-chemical processes and fisheries potential of small pelagic fishes along the southern and west Madagascar Shelf. • To determine the distribution and abundance of small pelagic fish shoals along the southern and West Madagascar shelf using acoustics methods and a systematic grid survey strategy. • To use regular midwater trawls on target fish aggregations for species composition, biological information and genetic material of selected small pelagic fishes for fisheries resource assessment purposes. • To establish the distribution, abundance and composition of organisms at a number of trophic levels along the shelf. • To establish, as far as possible, the productivity, biodiversity and biomass of the pelagic ecosystem. • To establish the role of the shelf region and terrestrial input in linking coastal and pelagic biomes (coupling). • To investigate the role of coastal currents as dispersal agents. • To investigate mesopelagic and, if trawlable conditions exist, demersal fish species diversity and abundance • To link various sources of energy and nutrition to different food-web compartments. • Capacity building of ASCLME and SWIOFP trainees and young scientists.
Arrival	Antsiranana (Diego Súarez), Madagascar	3 October 2009		
Cruise leader: Oddgeir Alvheim (Cruise Leader 1st leg), Else Torstensen (Cruise Leader 2nd leg), Johan Groeneveld (Local Cruise Leader), Sean Fennessy (Local Cruise Leader)				

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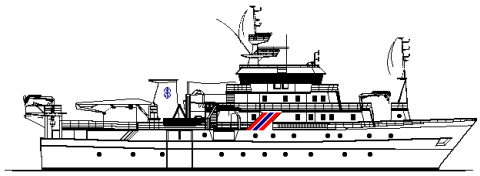

Participants:

ASCLME; Agulas and Somali Current Large Marine Ecosystems Project, Dany Ramantosa, Felicite Ahitantsoa, Bebe Raharinosy, Alan Foulis, John Bemiasa, Jean Charles Lope, Gildas Todinanahary, Luy George Razanamalala
IMR; Institute of Marine Research, Norway, Oddgeir Alvheim (Cruise Leader 1st leg), Else Torstensen (Cruise Leader 2nd leg), Diana Zaera, Tore Mørk, Martin Dahl, Ole Sverre Fossheim, Terje Hovland
SWIOFP; South West Indian Ocean Fisheries Project, Hermann Benivary, Roberto Komeno, Faustinato Behivoke, Thomas Razafimanambina, Eugene Ranaivoson, Emmanual Kakunde Mbaru,), Morgane Perri, Fiona MacKay, Thomas Mkare Salama, Anasvaler Mbelomanana, Soambola Amelie Landy, Rabary Andriantsilvao

Summary of the results:

Previously, two surveys have been conducted off the South and East coast of Madagascar in June 1983 (Sætre *et al.* 1983) and in August-October 2008 (Krakstad et al. 2008). The area covered during these two surveys were the same. The western coast of Madagascar was explored for the first time during the present survey. In general low acoustic densities were observed consisting mainly of plankton and mesopelagic fish. In all three surveys, the catch rates have been low. No commercial quantities of small pelagic fish were recorded. North of Nosy Be it seemed that the distribution of pelagic fish in general was more inshore than what could be covered by the vessel. Most of the shelf was inaccessible due to a reeflike ridge and the maps were not precise enough for the vessel to go into shallower areas.
The results from the previous surveys indicated pelagic stocks of approximately 85 000 tons which was the same as estimated last year (92 000 tons). Carangids were the most common pelagic fish groups in all three surveys.

Report: status: final References:

O. Alvheim, E. Torstensen, S. Fennessy, F. MacKay, D. Zaera, J. Bemiasa. (2009). CRUISE REPORTS "DR. FRIDTJOF NANSEN", **West Madagascar: Pelagic Ecosystem Survey**,
SWIOFP/ASCLME / FAO 2009 Cruise 2, 25 August– 03 October 2009, Preliminary report
Institute of Marine Research, Bergen, Norway, Oceanographic Research Institute, South Africa, Institut Halieutique et des Sciences Marines, Madagascar. Bergen, 2009.

Constraints/Comments: