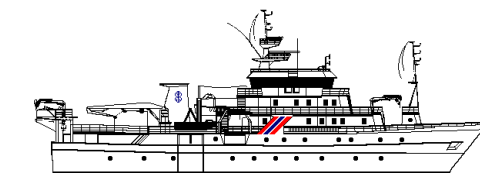


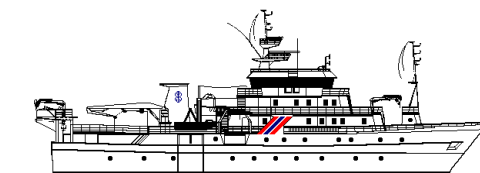
Survey No Title	Start/End dates (No of days)	Countries	Partners	Survey objectives
2009401 BCC Survey N.1 SA West	7 January – 20 February (43)	South Africa, Namibia	MCM, IMR, Bergen, Norway	<ol style="list-style-type: none"> 1. To plan and conduct a transboundary survey from Cape Agulhas to Orange River to produce distribution maps and abundance estimates of the two species of hake to be later merged with similar data from a co-occurring Namibian national demersal survey, to enable complete mapping and assessment of shared stocks, thus providing a measure of the degree of sharing of the stocks at the time of the survey. 2. To collect data on the maturity stages of the hakes to check for possible spawning activity. 3. To do an acoustic mini-survey off Hondeklip Bay to map aggregations of pelagic juvenile hake. 4. To collect other relevant data to better understand the environment impact on the distribution of hakes, and the fish community structure in the distribution areas of the hake.
2009402 BCC Survey N.2 Juvenile deep water hake	21 February – 5 March (13)	Namibia, South Africa, Orange Banks Area	MCM, NatMIRC, IMR, Bergen, Norway	<ol style="list-style-type: none"> 1. To investigate distribution and abundance of juvenile hake in the area from Hondeklip Bay to 28°S in Namibia (Orange Banks area) by sampling in a systematic grid. 2. To investigate vertical migration of juvenile hake (<10cm length) in the same area when present by acoustic methods and trawl sampling. 3. To collect biological and genetical samples of juveniles in order to later identify the species by genetics. 4. To investigate the gut content of caught juvenile hake in order to better understands their feeding ecology





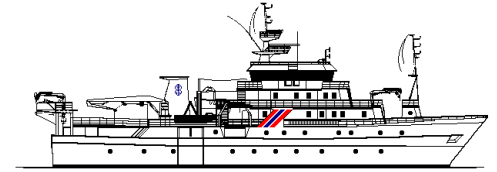
				<ol style="list-style-type: none"> 5. To collect general hydrographical information using CTD-Sonde on each biological station station and map the temperature, salinity and oxygen. 6. To map the surface environment through continuous recording of temperature, salinity and fluorescence along the cruise track.
<p>2009403</p> <p>Angola Demersal</p>	<p>11 March – 7 April (27)</p>	<p>Namibia, Angola</p>	<p>INIP, Angola, IMR, Bergen, Norway</p>	<p>The objectives of the cruise had been previously discussed and agreed upon by the responsible of the Demersal Programme of the Instituto Nacional de Investigaç�o das Pescas (INIP), of Angola, and the responsible from the Institute of Marine Research (IMR), Norway, for the Angolan Demersal Programme, and were the following:</p> <ol style="list-style-type: none"> 1. To survey, map and describe the distribution, composition and abundance of the main demersal species, with special emphasis on seabreams (Sparidae), croakers (Sciaenidae), grunts (Haemulidae), groupers (Serranidae), hakes (Merlucciidae) and shrimps (<i>Parapenaeus longirostris</i> and <i>Aristeus varidens</i>) on the Angolan shelf and slope (down to 800 m), from Cunene River (17°14'S) to Tombua* (15°40'S), and from Benguela (12°35'S) to Congo River (06°00'S) using bottom trawl and the swept-area method. 2. To collect biological data as length, weight, sex and maturity of <i>Dentex macrophthalmus</i>, <i>D. angolensis</i>, <i>Pagellus bellottii</i>, <i>Pseudolithus senegalensis</i>, <i>Umbrina canariensis</i>, <i>Merluccius polli</i>, <i>Brachydeuterus auritus</i>, <i>A. varidens</i>, <i>P. longirostris</i>, <i>Chaceon maritae</i>, <i>Panulirus regius</i> and Cephalopods. 3. To collect the stomach contents and gonads for some species such as <i>D. angolensis</i>, <i>P. bellottii</i>, <i>P. senegalensis</i>,





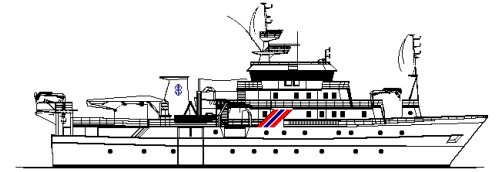
				<p><i>U. canariensis</i> and <i>B. auritus</i>, for subsequent analyses in the INIP Lab.</p> <ol style="list-style-type: none"> To monitor the general hydrographical conditions using CTD-Sonde on each trawl station and map the temperature, salinity and oxygen. To realize four monitoring lines (Namibe, Lobito, Palmerinhas and Congo River mouth) using new standard INIP hydrographical profiles for collection of temperature, salinity and oxygen, water nutrients, phytoplankton, zooplankton and sediments (Congo River only).
2009404 Angola Environment	14 April – 28 April (15)	Angola	UNIP, UNIFOB AS, IMR, Bergen, Norway	<p>The monitoring survey will hopefully enhanced the understanding of the nature and extend the knowledge of how the offshore oil activities can affect the marine ecosystem. This first survey will hopefully contribute with valuable information especially on the benthic communities and levels of contamination by hydrocarbons and heavy metals in the sediments.</p> <p>The Angolan Multisectoral Group of Experts has divided activities in two phases:</p> <ol style="list-style-type: none"> The first phase is to Elaboration the Angolan Environmental legislation for Monitoring of offshore oil activities. The Ministry of the Urbanism and Environment coordinates this activity with assistance from the Ministry of Petroleum and Ministry of the Fisheries. The second phase is the Monitoring Strategies which is coordinated by the Ministry of Fisheries (National Institute of Fisheries Research).
2009405	3 May – 16 May (6)	Ghana	IMR, Bergen, Norway,	The survey aims to contribute with essential information especially on the benthic communities and levels of contamination by





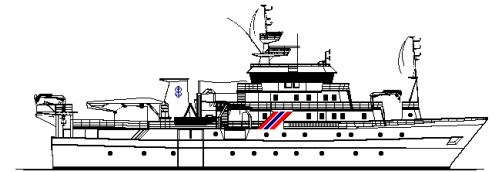
Ghana Environment			UNIFOB AS, EPA, University of Ghana, University of Cape West, Tullow Oil, Survey Department, Ghana, SAM, Norway	hydrocarbons and heavy metals in the sediments to establish a baseline. The objective is to provide relevant environmental monitoring, provide elements towards an environmental monitoring plan covering the areas of concern. This will help to understand the local and remote forcing conditions in order to apply appropriate measure to deal with an eventual oil spill.
2009406 Gabon-N Namibia Pelagic	24 May – 4 July	Gabon, Namibia		
2009407 Nothern Mozambique	6 August – 20 August (15)	Mozambique	ASCLME, SWIOFI	<ol style="list-style-type: none"> 1. To carry out a multi-disciplinary cruise that investigates the physico-chemical processes along the Mozambican Shelf. 2. To establish the distribution and composition of organisms at a number of trophic levels along the shelf. 3. To establish, as far as possible, the productivity, diversity and biomass of the pelagic ecosystem. 4. To survey for bottom suitable for demersal trawling and investigate the demersal fish biodiversity from bottom trawl samples. 5. To establish the role of the shelf region and terrestrial input in linking coastal and pelagic biomes (coupling). 6. To investigate the role of coastal currents as dispersal agents.





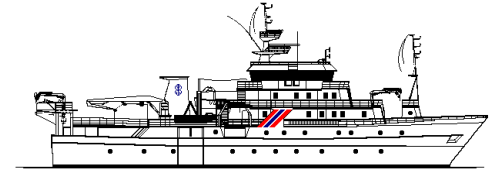
				<ul style="list-style-type: none"> 7. To investigate mesopelagic fish species diversity and abundance. 8. To link various sources of energy and nutrition to different food-web compartments. 9. Capacity building of ASCLME and SWIOFP trainees & young scientists.
<p>2009408</p> <p>Western Madagascar</p>	<p>26 August – 3 October (40)</p>	<p>West Madagascar</p>	<p>ASCLME, SWIOFI, IMR, Bergen, Norway</p>	<ul style="list-style-type: none"> 1. 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. 2. 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. 3. 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. 4. To establish the distribution, abundance and composition of organisms at a number of trophic levels along the shelf. 5. To establish, as far as possible, the productivity, biodiversity and biomass of the pelagic ecosystem. 6. To establish the role of the shelf region and terrestrial input in linking coastal and pelagic biomes (coupling). 7. To investigate the role of coastal currents as dispersal agents. 8. To investigate mesopelagic and, if trawlable conditions exist, demersal fish species diversity and abundance 9. To link various sources of energy and nutrition to different food-web compartments. 10. Capacity building of ASCLME and SWIOFP trainees and young scientists.





<p>2009409</p> <p>Comores</p>	<p>5 October – 3 November (29)</p>	<p>Comores</p>	<p>ASCLME, SWIOFI, IMR, Bergen, Norway</p>	<ol style="list-style-type: none"> 1. To carry out a multi-disciplinary cruise that investigates the physico-chemical processes and fisheries potential of small pelagic fishes in the Comoros Basin. 2. To establish the distribution, abundance and composition of organisms at a number of trophic levels in the Comoros Basin. 3. To establish, as far as possible, the productivity, diversity and biomass of the pelagic ecosystem. 4. To establish the role of the island shelf region and terrestrial input in linking coastal and pelagic biomes (coupling). 5. To investigate the role of the Comoros Gyre as a dispersal agent. 6. To investigate mesopelagic and, if trawlable conditions exist, demersal fish species diversity and abundance. 7. To determine the distribution and abundance of small pelagic fish shoals around the islands of the Union of Comoros and Mayotte using acoustics methods and a systematic grid survey strategy. 8. To use regular surface and midwater trawls on target fish aggregations for species composition, biological information and genetic material of selected small pelagic fishes for fisheries resource assessment purposes. 9. To link various sources of energy and nutrition to different food-web compartments. 10. Capacity building of ASCLME and SWIOFP trainees & young scientists.
<p>2009410</p> <p>Southern Seamounts</p>			<p>IUCN, ASCLME</p>	<p>The cruise was aimed at</p> <ul style="list-style-type: none"> • Collect physical and biological observations and samples along the South West Indian Ocean Ridge, targeting five seamounts, two of which were SIODFA voluntary benthic protected areas, the others of which had been previously





				<p>targeted by fishing.</p> <ul style="list-style-type: none"> • Analyse the physical structure and changes in phytoplankton communities • Analyse the structure of the water column • Observe the influence of tides on the water masses immediately around each seamount • Analyse the relative biomass and movements of the deep-scattering layers and fish shoals on and off seamounts • Analyse samples of chlorophyll, phytoplankton and micro- and mesozooplankton taken with phytoplankton, bongo and multineets • Establish the boundaries of the Agulhas-Somali Current Large Marine Ecosystem (ASCLME) <p>Ascertain the influence of seamounts on the pelagic ecosystem and to investigate the interaction between seamounts and the water column in terms of physical oceanography.</p>
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