



ICES International Symposium

“Issues Confronting the Deep Oceans:

The Economic, Scientific, and Governance Challenges and Opportunities of Working in the Deep Sea”

April 27-30, 2009

**Sociedade Amor da Pátria
HORTA, AZORES
PORTUGAL**



PROGRAMA



Com o apoio de:

Governo dos Açores

ICES - International Council for the Exploration of the Sea

IMAR – Centro do IMAR da Universidade dos Açores

DOP/Universidade dos Açores

NOAA - National Marine Fisheries Service

Census of Marine Life

Projecto CONDOR / EEA Grants

Projecto CoralFish

Câmara Municipal da Horta

OMA – Observatório do Mar dos Açores

ZON Açores

Marques e Silva Lda.

Museu da Horta

Sociedade Amor da Pátria

Turangra, Viagens e Turismo

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P R O G R A M
<http://www.turangra.com/deepocean>

ORGANIZATION COMMITTEE - CHAIRS OF THE CONFERENCE

Gui Menezes (Portugal)

Robert Brock (USA)

INSTITUIÇÕES ORGANIZADORAS

IMAR – Centro do IMAR da Universidade dos Açores

Governo dos Açores

ICES – International Council for the Exploration of the Sea

Universidade dos Açores – Departamento de oceanografia e Pescas

NOAA - National Marine Fisheries Service

INTERNATIONAL SCIENTIFIC STEERING COMMITTEE

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Malcolm Clark (New Zealand)

Ricardo S. Santos (Portugal)

David Freestone (UK)

Ana Colaço (Portugal)

Steve Scott (Canada)

Marion Gehlen (France)

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Ficha Técnica

Elaboração dos conteúdos: Gui Menezes, Vanda Carmo Criação: Barro Açores

Impressão: Nova Gráfica Nº. de Exemplos: 250

PROGRAM

Sunday - 26 April

18:30 - 20:30 Welcome reception at venue; Attendees registrations; Posters reception at venue

Monday - 27 April

8:30 - 9:00 Attendees registration (continuation)

9:00 - 10:00 Opening session : Opening ceremony with the presence of local authorities

10:20 - 10:40 Opening lecture: **Paul Tyler**
Title: A perspective on the deep-sea: from curiosity to service provider?

10:40 - 11:00 Coffee / Health break

Session A – Governance and Legal Considerations

Co-Chairs: Rebecca Lent; Ronan Long

11:00 - 11:20 KN - **David Freestone**
Title: Governance of Areas Beyond National Jurisdiction: Towards a Principled Approach

11:20 - 11:35 A1 - Authors: **Marta Chantal Ribeiro**
Title: The environmental perspective: the legal challenges of protecting deep sea ecosystems through marine protected areas

11:35 - 11:50 A2 - Authors: Lisa Speer and **Kirsty Gjerde**
Title: Governing the Deep: Options for Integrated Management

- 11:50 - 12:05** A5 - Authors: **Inês Farias**, Teresa Moura, Joana Barosa, Carlos Macedo, Mike Armstrong and Ivone Figueiredo
Title: Cooperation between the fishing sector and the scientific community – the black scabbardfish fishery in Portuguese continental slope case study
- 12:05 - 12:20** A6 - Authors: **Helena Calado**, C. P. Lopes, R.S. Santos, S.V. Santos and L. Paramio
Title: Legal Framework of the Azores Marine Park
- 12:20 - 12:40** KN - **Manuel Pinto de Abreu**
Title: Shaping the Ocean's Future: The Continental Shelf Extension Program
- 12:40 - 12:55** E5 - Authors: **Halvor Knutsen**, Per Erik Jorde, Morten Skogen and Nils C. Stenseth
Title: Large-scale population structure in roundnose grenadier

12:55 - 14:15 Lunch

Session B and D - Energy and Mineral Exploration, Climate Change and Ocean Acidification

Co-Chairs: Marion Gehlen, Steve Scott, Dorik Stow

- 14:30 - 14:50** KN - **Steve Scott**
Title: Future Mining of Seafloor Massive Sulfides
- 14:50 - 15:10** KN - Authors: **Fernando Barriga**, Jorge Relvas, António Pascoal
Title: Exploration for Massive Sulphide Deposits on the Sea Floor
- 15:10 - 15:25** B1 - Authors: **Cindy Lee Van Dover**, J. Carlsson, P.-Y. Hsing, R. Jones, A. Sobel, T. Schultz and A. Thaler
Title: Mining of Seafloor Massive Sulfides and Biodiversity: What's at Risk?

- 15:25 - 15:45 KN - **Dorrik Stow**
Title: Deep-Water Oil and Gas Exploration and
Production: Current Challenge and Environmental Issues
- 15:45 - 16:00 B5 - Authors: Harry H. Roberts and **Robert S. Carney**
Title: Fluid-Gas Expulsion, Seafloor Response
Features, and Chemosynthetic Communities:
Northern Gulf of Mexico Continental Slope
- 16:00 - 16:20 Coffee / Health break
- 16:20 - 16:35 B2 - Authors: **Lenaick Menot**, Philippe Crassous,
Joëlle Galéron and Myriam Sibuet
Title: Long term in situ experiments on the
macrobenthic response to drilling fluid contamination
and organic matter enrichment on the Angola margin
- 16:35 - 16:55 B6 - Authors: **Robert S. Carney**, Richard J. Weiland
and Craig Scherschel
Title: Industry-conducted ROV surveys of
chemosynthetic communities on two contrasting
deep-sea floors for the purpose of habitat protection
during hydrocarbon development
- 16:55 - 17:15 KN - **Marion Gehlen**
Title: Are Deep-Sea Ecosystems threatened by
Human-Induced Changes in Seawater Chemistry?
- 17:15 - 17:30 D2 - Authors: Linda Sedlacek, **David Thistle**, Kevin
R. Carman, John W. Fleeger and James P. Barry
Title: Effects of carbon dioxide on deep-sea
harpacticoids
- 17:30 - 17:45 D3 - Authors: **James P. Barry** and Eric F. Pane
Title: Amplified Ocean Acidification in the Deep-Sea
and the Threat to Deep-Sea Ecosystems

17:45 - 18:00 D5 - Authors: **Peter M. Haugan**
Title: Acidification from direct and indirect storage in the deep sea

Tuesday - 28 April

Session C and F - Deep-Sea Technology and Biotechnology Research

Co-Chairs: António Pascoal; Dana Yoerger; Roland Person; Salvatore Arico

9:00 - 9:20 KN - **Dana Yoerger**

Title: Autonomous Discovery, Mapping, and Sampling of Deep Sea Hydrothermal Vents

9:20 - 9:35 C1 - Authors: **Yoshiyuki Kaneda** and DONET group

Title: Toward to understanding mega thrust earthquakes occurrence system and Disaster mitigation around the Nankai trough Southwestern Japan-DONET

9:35 - 9:50 C2 - Authors: **Teresa Amaro**, Roberto Danovaro, Marina R. Cunha and David Billett

Title: Biodiversity and functioning of the deep sea: How do deep-sea holothurians live at 3400m in the Nazaré Canyon?

9:50 - 10:05 C3 - Authors: **Imants (Monty) G. Priede**

Title: Studies on Deep Sea Benthic Fishes using Baited Camera Landers New Insights 500-10,000m depth

10:05 - 10:20 C10 - Authors: **Alfredo Damasceno-Oliveira**, José

Gonçalves, João F. Silva, Hugo Santos and João Coimbra
Title: Laboratory pressurizing systems for the study of aquatic organisms under deep ocean conditions

10:20 - 10:40 Coffee / Health break

10:40 - 11:00 KN - **Roland Person** and ESONET partners

Title: Deep sea observatory networks: a new science

11:00 - 11:15 C6 - Authors: J. Sarrazin, J. Blandin, L. Delauney, S. Dentrecolas, J. Dupont, C. Le Gall, J. Legrand, P. Léon, J.P. Lévêque, L. Peton, P. Rodier, R. Vuillemin and **P.M. Sarradin**
Title: A glimpse into the deep, 45 days in the life of a vent mussel assemblage

11:15 - 11:30 C7 - Authors: **Erika H. Raymond**, Danelle Cline, Craig Dawe, Duane Edgington, Steve Etchemendy, Gene Massion, Brian Schlining and Edith Widder
Title: Real-time monitoring of megafauna from the Monterey Accelerated Research System

11:30 - 11:45 C8 - Authors: **Ana Colaço**, M. Cannat, J. Blandin, P.M. Sarradin and the MoMAR-D partners
Title: MoMAR-D: A technological challenge to monitor the dynamics of the Lucky Strike vent ecosystem

11:45 - 12:00 F2 - Authors: **Raul Bettencourt**, Sergio Stefanni, Mário Laranjo, Valentina Costa, Domitília Rosa, Luís Pires, Ana Colaço, Humberto Lopes and Ricardo Serrão Santos
Title: Out of the Deep-sea into a land-based aquarium environment: Investigating physiological adaptations in the hydrothermal vent mussel *Bathymodiolus azoricus*

12:00 - 12:15 C5 - Authors: **Sophie Arnaud-Haond**, Jesus M. Arrieta, Carlos M. Duarte and Elie Jarmache
Title: Bioprospecting in the High Seas: Problems and Promises

12:15 - 12:35 KN - **Salvatore Arico**
Title: Marine genetic resources: An emerging economic use of the oceans?

12:35 - 14:00 Lunch

Session E - Fisheries and Ecosystem Sustainability and Conservation

Co-Chairs: Anthony Grehan; Peter Auster; Mário Rui Pinho

14:15 - 14:35 KN - **Malcolm Clark**

Title: Mission impossible?? Balancing exploitation and conservation of Deep-sea seamount fisheries

14:35 - 14:55 KN - **Þorsteinn Sigurðsson**

Title: Conservation measures for fisheries and vulnerable habitats in the NEAFC regulatory Area

14:55 - 15:10 E26 - Authors: **Phil Large**, Hashali Hamukuaya, Titus Lilende, Kumbi Kilongo, Reidar Toresen and Ben van Zyl

Title: The south-east Atlantic recent progress in the management of deep-water fisheries and vulnerable marine ecosystems

15:10 - 15:25 E39 - Authors: **Francisco Sánchez**, A. Serrano, J.E. Cartes, I. Preciado, S. Parra, I. Frutos, F. Velasco, I. Olaso and J. C. Arronte

Title: Estimating the MPA management effects on Le Danois Bank deep-sea ecosystem (El Cachucho) using trophodynamic modelization

15:25 - 15:40 E47 - Authors: **Neil Campbell**, Francis Neat, Finlay Burns and Phil Kunzlik

Title: Utility of indicators of community composition, length structure and diversity for monitoring the deep water demersal fish assemblage to the northwest of Scotland

15:40 - 16:00 Coffee / Health break

16:00 - 16:20 KN - **Anthony Grehan**, CoralFISH Consortium

Title: Ecosystem based management of corals, fish and fisheries in the deep waters of Europe and beyond (CoralFISH)

- 16:20 - 16:35** E12 - Authors: **Kerry Howell** and J.S. Davies
Title: Progress toward the implementation of a network of marine protected areas in the NE Atlantic deep-sea: development of a biologically relevant classification system
- 16:35 - 16:50** E2 - Authors: **Graham Patchell**
Title: The Southern Indian Ocean Fishers' Association approach to achieving sustainable deepwater fisheries on the high seas, while maintaining biodiversity. A model for RFMO's.
- 16:50 - 17:05** E7 - Authors: **Pablo Durán-Muñoz**, F. J. Murillo, M. Sayago-Gil, A. Serrano, I. Otero, M. Laporta and C. Gómez
Title: Effects of bottom longline on vulnerable marine ecosystems in the high-seas, based on data from a cooperative research with the fishing industry
- 17:05 - 17:20** E34 - Authors: **J.Alan Hughes**, B.J. Bett, T. Horton, D.O.B. Jones and H. Ruhl
Title: Deep-sea research and collaborating with the offshore industry: a case study off Angola
- 17:20 - 17:35** E57 - Authors: **Dominique Gréboval**, Jean-François Pulvenis de Séligny and Blaise Kuemlangan
Title: The FAO International Guidelines for the Management of Deep-sea Fisheries in the High Seas
- 17:35 - 17:50** Authors: **Tom Blasdale**
Title: WGDEEP - assessing deep-sea fisheries in the ICES area

Wednesday - 29 April

Special Session - Linking Deep Sea Science to International Decisions: Vulnerable and Ecologically Significant Areas

Co-chairs: Jeff Ardron, Elizabeth McLanahan

9:00 Introduction

Jeff Ardron, Elizabeth McLanahan

A7 - Authors: **Jessica Sanders**, Alexis Bensch, Matthew Gianni, Dominique Gréboval, Antonia Hjort and Merete Tandstad

Title: Worldwide Review of Bottom Fisheries in the High Seas

A3 - Authors: **Matthew Gianni**

Title: Review of the implementation of the United Nations agreement to protect deep-sea ecosystems on the high seas: How well have high seas fishing nations performed?

P28 - Authors: **Thomas F. Hourigan**, Elizabeth English and Shannon Dionne

Title: Protecting Vulnerable Ecosystems in the Deep-Sea: Lessons from Habitat Conservation Efforts in the United States

D5 - Authors: **Andrew J. Davies**, John M. Guinotte and J. Murray Roberts

Title: Predicting the distribution of framework-forming cold-water corals

Coffee / Health break

E16 - Authors: **Peter J. Auster**, Alex Rogers and Kristina Gjerde

Title: A Precautionary Framework For Minimizing

Impacts From High Seas Fisheries On Vulnerable Marine Ecosystems

Panel Discussion with the room

- Quick review of CBD & FAO decisions, criteria and work to date – Jeff Ardron, Marine Conservation Biology Institute (MCBI)
- How can the criteria be (better) applied in the short term based on existing research and data? – open discussion
- What additional research will be required in the medium term to fill critical gaps? – open discussion
- Next steps – open discussion

13:00 - 14:15 Lunch

FREE AFTERNOON

Thursday - 30 April

Session E - Fisheries and Ecosystem Sustainability and Conservation

Co-Chairs: Malcolm Clark; Þorsteinn Sigurðsson

- 9:00 - 9:15 B7 - Authors: **Samantha Smith**
Title: An Environmental Impact Assessment of Seafloor Mineral Extraction
- 9:15 - 9:30 E30 - Authors: **Adolfo Gracia**, Ana R. Vázquez-Bader, Enrique Lozano-Alvarez and Patricia Briones-Fourzán
Title: A new deep-water penaeoid shrimp resource in the southern Gulf of Mexico
- 9:30 - 9:45 E11 - Authors: **Vladimir Laptikhovsky** and Alexander Arkhipkin
Title: Grenadier fishery and its management in the southwest Atlantic

- 9:45 - 10:00 E40 - Authors: **Mark A. Grace**, Brandi Noble, Walter Nelson and Alonzo Hamilton
Title: Fishery-independent bottom trawl surveys for deepwater fishes and invertebrates of the United States Gulf of Mexico
- 10:00 - 10:15 E61 - Authors: **Sergio Stefanni**, Diana Catarino and Miguel Machete
Title: Northern distribution limit of the intermediate scabbardfish *Aphanopus intermedius* (Parin, 1983) based on PCR-RFLP's screening
- 10:15 - 10:40 Coffee/Health break
- 10:40 - 10:55 E13 - Authors: **Fernando P. Carvalho** and João M. Oliveira
Title: Radionuclides in deep sea organisms from the North-East Atlantic Ocean
- 10:55 - 11:10 E21 - Authors: **Mikko Heino**, F. M. Porteiro, T. T. Sutton, T. Falkenhaus, O. R. Godø, and U. Piatkowski
Title: Catchability of pelagic trawls for sampling deep-living nekton in the mid North Atlantic
- 11:10 - 11:25 E50 - Authors: **Filipe M. Porteiro**, Ricardo S. Santos and Richard D.M. Nash
Title: North Atlantic mesopelagic biodiversity as perceived by the stomiid fish fauna
- 11:25 - 11:40 E32 - Authors: **Izaskun Preciado**, Joan Cartes, Francisco Velasco, Ignacio Olaso, Alberto Serrano, Inmaculada Frutos and Francisco Sánchez
Title: Trophic relationships in a benthic-demersal deep-sea fish assemblage: linking benthic and benthopelagic food web"

- 11:40 - 11:55 E1 - Authors: **Vladimir Laptikhovsky**
 Title: Deep- sea fishery resources and fisheries around the Falkland Islands
- 11:55 - 12:10 E45 - Authors: **Pascal Lorance**
 Title: Overexploitation of the red (=blackspot) seabream, *Pagellus bogaraveo* in the Bay of Biscay in the 1970s: dynamics and consequences
- 12:10 - 12:25 E22 - Authors: **Sheila J. J. Heymans**, Kerry Howell, Morag Ayers, John Gordon, Emma Jones and Francis Neat
 Title: Long term trends and the impact of fishing on deep sea sharks off the West Coast of Scotland
- 12:25 - 12:40 E65 - Authors: **Allen Andrews**, D. Tracey, G. Cailliet, M. Dunn, C. Brooks, J. Ashford, L. Kerr, J. Butler, C. Kastle, K. Coale, T. Brown, and P. Cowley
 Title: Lead-radium and bomb radiocarbon dating: age validation of Patagonian toothfish (*Dissostichus eleginoides*), orange roughy (*Hoplostethus atlanticus*), and cowcod (*Sebastes levis*)

13:00 - 14:15 Lunch

Session E - Fisheries and Ecosystem Sustainability and Conservation
 Co-Chairs: Malcolm Clark; Þorsteinn Sigurðsson

- 14:15 - 14:30 E36 - Authors: **Jasmin Godbold**, John Gordon, David M. Bailey, Martin A. Collins and Imants G. Priede
 Title: Changes in the Deep-Sea Demersal Fish stocks of the Porcupine Seabight (NE Atlantic)
- 14:30 - 14:45 E35 - Authors: **Lucia Bongiorno**, M. Mea, A. Pusceddu and R. Danovaro
 Title: Deep-water corals promote deep-sea beta biodiversity along continental margins

- 14:45 - 15:00 E62 - Authors: F.J. Murillo, **P. Durán Muñoz**, A. Altuna Prados and A. Serrano
Title: Distribution of deep-water corals of the Flemish Cap, Flemish Pass and the Grand Banks of Newfoundland (Northwest Atlantic Ocean): interaction with fishing activities
- 15:00 - 15:15 C4 - Authors: **Imants G.** Priede, Nicola King, Mark Inall, A. Rus Hoelzel, Andrew S. Brierley, David S.M. Billett and Peter Miller
Title: Ecosystems of the Mid-Atlantic Ridge – The ECOMAR project
- 15:15 - 15:30 E64 - Authors: **Diana Catarino**, Gui Menezes and Sergio Stefanni
Title: Deep-sea fishing surveys on eight seamounts in the North-East Atlantic
- 15:30 - 15:45 E59 - Authors: **José A. A. Perez**, Paulo R. Pezzuto, Roberto Wahrlich and Ana L. S. Soares
Title: Deepwater fisheries in Brazil: history, status and perspectives
- 15:45 - 16:00 E33 - Authors: **Ivone Figueiredo**, Teresa Moura, Pedro Bordalo-Machado, Miriam Guerra, Maria José Gaudêncio and Graça Pestana
Title: Abundance estimation and mapping of Geryonid species in South-East Atlantic - Results from a Portuguese exploratory trap survey
- 16:00 - 16:15 Coffee / Health break
- 16:15 - 16:30 E42 - Authors: **Tracey Sutton**, J.E. Hoffman, O.A. Bergstad, T. Falkenhaus, F. Porteiro, M. Heino, C.I.H. Anderson, J. Horne and A. Bucklin
Title: Trophic pathways of the mid-North Atlantic

- 16:30 - 16:45** E28 - Authors: **Julio Portela**, J.L. del Río, J. Acosta, S. Parra, J. Cristobo, M. Sacau, T. Patrocinio, R. Vilela, P. Ríos, and A. Muñoz
Title: Preliminary analysis of interactions between Vulnerable Marine Ecosystems (VMEs) and fishing activities on the High Seas (HS) of the SW Atlantic
- 16:45 - 17:00** E58 - Authors: **Jose A. A. Perez** and Eliana Alves
Title: The patterns of life in the South Atlantic mid-oceanic ridge system: state-of-the-art and the development of a South Atlantic MAR-ECO project (CoML)
- 17:00 - 17:20** Closing session: Reception of local authorities
- 17:20 - 17:40** Closing lecture: **Roberto Danovaro**
Title: Deep-sea biodiversity and ecosystem functioning: present knowledge and perspectives in a changing world
- 17:40 - 18:00** Symposium closing ceremony with the presence of local authorities
- 20:00** Symposium dinner

Posters

B3 - Authors: **Maria Baker**, Stace Beaulieu, Christopher German, Maurice Tivey and Eva Ramirez-Llodra
Title: Going for Gold

C11 - Authors: **Daphne Cuvelier**, Jozée Sarrazin, Ana Colaço, Jon Copley, Daniel Desbruyères, Adrian Glover, Paul Tyler and Ricardo Serrão Santos
Title: Community dynamics between 1994 and 2008 on an Atlantic hydrothermal edifice as revealed by high-resolution video image analysis

F1 - Authors: **Rui Pedro Vieira** and João P. Barreiros
Title: Preliminary data on the relationship between W/L and venom glandular tissue of 3 Scorpaenidae species of Azores, NE Atlantic, Portugal

D1 - Authors: **Fathi Elosta**
Title: The Simulation Geological for water Shortage from Jifarah Plain Basin Northwest of Libya

D4 - Authors: **Sandra Sequeira**, A. Mendonça, A. Martins, M. Figueiredo and G. Lopes
Title: An Oceanographic Atlas for the Azores region at AZODC (AZOres Oceanographic Data Centre)

D7 - Authors: R.S. Lampitt, K.E. Larkin, **Marion Gehlen** and the EuroSITES Consortium
Title: EuroSITES European Ocean Observatory Network: a tool to understand the global Ocean response to climate change.

E3 - Authors: David R. Bryan, Kirk Kilfoyle, R. Grant Gilmore, Jr. and **Richard E. Spieler**
Title: Role of vessel-reef habitat for fish assemblages on low relief substrate in 50 to 120 m depths

E5 - Authors: **Sarah F. Goldman** and George R. Sedberry
Title: Feeding Habits of some Demersal Fishes on the Charleston Bump Off the Southeastern United States

E6 - Authors: **Pablo Durán Muñoz**, M. Sayago-Gil, S. Parra, A. Serrano, J. Cristobo, V. Díaz del Rio, T. Patrocinio, M. Sacau, J. Murillo, D. Palomino and L. M. Fernández-Salas
Title: ECOVUL/ARPA: An interdisciplinary methodology for the identification of vulnerable marine ecosystems in the Hatton Bank high-seas fisheries (ICES VIb1 and XIIb)

E8 - Authors: **Kirsty Kemp**, Kirsty Morris and Alex Rogers
Title: Biodiversity and benthic ecology of bathyal seamounts in the Faial Channel, Azores

E9 - Authors: **Sónia Olim** and T. C. Borges
Title: Discard and By-catch composition in the crustacean trawlers in south Portugal (Algarve coast)

E10 - Authors: **Vanda Carmo**, Odd Aksel Bergstad, Tone Falkenhaus, Gui Menezes and Tracey Sutton
Title: Preliminary results on feeding ecology of Stomiiforme fishes of the northern mid-Atlantic

E14 - Authors: **Fernando P. Carvalho**, João M. Oliveira and A. Monge Soares
Title: Sediment accumulation and bioturbation rates in the deep North-East Atlantic determined by radiometric techniques

E15 - Authors: **Francis Neat**
Title: Fish assemblages, sensitive deepwater habitats and fishing activity in the Rockall Trough, NE Atlantic

E17 - Authors: **Miriam Sayago-Gil**, P. Durán-Muñoz, V. Díaz-del-Río and L. M. Fernández-Salas
Title: Geo-environmental constraints in relation to deep sea ecosystems in Hatton Bank (NE Atlantic Ocean): morphodynamic drivers

E18 - Authors: **Adriana Alves**, Graça Faria, Ana Rita Góis, Rui Reis and Sofia Vieira

Title: Reproductive biology of pink dentex, *Dentex gibbosus* (Rafinesque, 1810), from the northeast Atlantic (Madeira Archipelago) using a histology technique

E19 - Authors: **Adriana Alves** and Joana Vasconcelos

Title: Age and growth of pink dentex, *Dentex gibbosus* (Rafinesque, 1810), caught in Madeira Archipelago

E23 - Authors: **Miguel Machete**, Gui Menezes

Title: Black Scabbard Fish (*Aphanopus carbo*) fishery in the Azores: finding the unknown through observers data

E25 - Authors: **Ana Rita Vieira**, Ivone Figueiredo and Gui Menezes

Title: Knowing the Condor seamount live: best techniques to age common mora (*Mora moro*) and bulls-eye (*Epigonus telescopus*)

E27 - Authors: **Fernando Tempera**, Andreia Henriques, Filipe Porteiro, Ana Colaço and Gui Menezes

Title: Constraining the geomorphological setting of deep-sea biotopes using high resolution bathymetry at the Condor de Terra seamount

E29 - Authors: **Teresa Moura**, Leonel S. Gordo and Ivone Figueiredo

Title: Mitochondrial DNA analysis of the genetic structure of Portuguese dogfish *Centroscymnus coelolepis* and leafscale gulper shark *Centrophorus squamosus* along the NE Atlantic

E37 - Authors: **Joana Carvalho**, Hugo Diogo, João Pereira and Mário Pinho

Title: Recruitment of *Pagellus bogaraveo* of the azores (ICES XA2): habitat and pressures

E38 - Authors: **Alberto Serrano**, F. Sánchez, J.E. Cartes, S. Parra, M. Gómez-Ballesteros, I. Preciado and I. Frutos

Title: Vulnerable habitats and threatened species distribution of El Cachucho deep sea MPA

E44 - Authors: **Emma G. Jones**, Helen Dobby, Lynda Allan, Francis Neat and Finlay Burns
Title: Aspects of the biology of deepwater squalid sharks in the Rockall Trough

E48 - Authors: **Cristina Rodríguez-Cabello**, F. Sánchez, A. Serrano and A. Punzón
Title: The status of chondrichthyes species in deep waters of the Cantabrian Sea

E49 - Authors: **Íris Sampaio**, Filipe Porteiro, Andreia Braga-Henriques, Diana Catarino, Valentina Matos and Óscar Ocaña
Title: Azorean Deep-Water Corals Communities as perceived from bottom Long Line Fisheries Surveys

E51 - Authors: **Eduardo Isidro**, Mário Pinho, Octávio Melo, Ana Santos, José I. Santana, Ignácio J. Lozano and PESCPROF Consortium
Title: Estimating the biomass and fishing potential of the shrimp *Plesionika edwardsii* (Brandt, 1851) off the Azores

E53 - Authors: **Bárbara Serra-Pereira**, Teresa Moura, Leonel Serrano Gordo and Ivone Figueiredo
Title: How *Raja clavata* is genetically related to coastal and deep-water rajid species?

E55 - Authors: **Ole Thomas Albert**, Elvar Hallfredsson, Benjamin Planque, Åge Høines, Tone Vollen
Title: Deep-sea fish assemblages in the Eastern Norwegian Sea, and their vulnerability to fisheries

E56 - Authors: **Marina Carreiro-Silva**, A. Braga-Henriques, F. Porteiro, I. Sampaio, V. Matos and O. Ocaña
Title: Association between *Callogorgia verticillata* (Primnoidae, Anthozoa) and an epizoan zoanthid anemone in the Azores Region

E60 - Authors: **Andreia Braga-Henriques**, Marina Carreiro-Silva, Filipe Porteiro, Valentina Matos, Íris Sampaio, Oscar Ocaña and Sérgio Ávila

Title: The association of the gastropod *Pedicularia sicula* (Caenogastropoda: Ovulidae) with the hydrocoral *Errina dabneyi* in the Azores

E63 - Authors: **Valentina Matos**, Andreia Braga-Henriques, Marina Carreiro-Silva Filipe Porteiro, Íris Sampaio, Oscar Ocaña

Title: Description of a new species of *Leiopathes* (Antipatharia, Leiopathidae) from the NE Atlantic

E66 - Authors: **Eva Giacomello** and Gui Menezes

Title: CONDOR - Observatory for long-term study and monitoring of Azorean seamount ecosystems