



MAR-ECO
Zooplankton
studies



Z1: Distribution, abundances and species composition of zooplankton in cross-frontal and cross-ridge transects of the Mid-Atlantic Ridge.

(PI: Tone Falkenhaug)

Z2: The ecological role of gelatinous zooplankton predators. Vertical distribution, feeding and trophic interactions *(PI: Marsh Youngbluth)*

Z4: Trophic interactions of copepods, euphausiids, chaetognaths and fish across the Mid-Atlantic Ridge. *(PI: Astthor Gislason)*



Mesozooplankton

GO Sars 2004

- Major groups of crustaceans: *completed*
Gaard et al, Deep Sea Research II,
Falkenhaus et al in prep
- Cnidarians: *completed*
Hosia et al, Deep Sea Research II
- Chaetognaths *in progress*
Pierrot-Bults, Deep Sea Research II
- Ostracods *completed* Martin Angel



Arni Fridriksson 2003

Multinet samples will be analyzed October 2007:

Alexandra Stupnikova, (P.P. Shirshov, Institute of Oceanology, Moscow).

Guest scientist, IMR, Arendal, Norway,
Funded by Norwegian Foreign Office.

Macrozooplankton (micronekton)

- Lophogastrids completed, MS thesis (Pål Øyvind Aas)
- Euphausiids completed, BSci thesis (Tom Letessier) needs revision
- Cnidarians completed: Workshop, Bergen, november 2006 (Fransesc Pages, Aino Hosia, Tone Falkenhaus)
- Decapods completed (including demersal trawl)



a) MARBEF Taxonomy Clearing System. Workshop on Sergestiids and Penaidea, IMR, Arendal, September 2006

b) Norwegian Foreign Office: September 2007

Guest scientist: Alexander Vereshchaka,
(P.P. Shirshov Institute of Oceanology, Moscow)

New species!
Crosnier & Vereshchaka
subm.



Students

Master thesis completed

Hildur Petursdottir: Marine Research Institute and University of Iceland

Trophic structure of the pelagic ecosystem over the Reykjanes Ridge (offshore waters off South-West Iceland) based on measurements of lipids (fatty acid analysis) and stable isotopes ($d^{13}C$ and $d^{15}N$).

PhD thesis completed

Aino Hosia: University of Bergen (UIB) , Norway



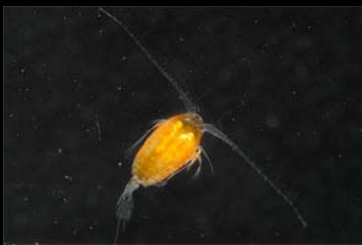
Gelatinous zooplankton along the northern Mid-Atlantic Ridge.

Possible new MS student theses

Taxonomic studies/molecular work on pelagic crustaceans
Bergen Museum/University of Bergen



Publications



Deep Sea Research II:

Hosia, Aino¹, Youngbluth, Marsh² and Stemmann, Lars³: Distribution of net-collected planktonic cnidarians at the northern Mid-Atlantic Ridge

Stemmann, L.¹, Picheral, M.¹, Gorsky, G.¹, Youngbluth, M.J.², Sørnes, T.³ and Hosia, A.³, Søliland H.⁴: Vertical distribution (0-1000 m) of zooplankton in different water masses along the Mid-Atlantic Ridge in the North Atlantic.

Youngbluth, Marsh¹, Sørnes, Tom² and Hosia, Aino², Stemmann, L. Vertical distribution and relative abundance of gelatinous zooplankton, *in situ* observations near the Mid-Atlantic Ridge.

Gaard E., Gislason A., Falkenhaug T., Vinogradov G., Vereshchaka A., and Musaeva, E: *Horizontal and vertical distribution of mesozooplankton composition and abundance on the Mid-Atlantic Ridge in June 2004*

Astthor Gislason¹, Eilif Gaard², Högni Debes², Tone Falkenhaug. Abundance, feeding and reproduction of *Calanus finmarchicus* in the Irminger Sea and on the northern mid Atlantic Ridge in June.

Pétursdóttir, Hildur¹, Gíslason, Ástþór¹, Falk-Petersen, Stig² and Svavarsson, Jörundur³. Trophic structure of the pelagic ecosystem over the Reykjanes Ridge based on measurements of lipids and stable isotopes.

Submitted:

Lars Stemmann^{a,b*}, Kevin Robert^a, Hosia^d, Marc Picheral^b, Harriet Paterson^c, A., Youngbluth^e, Frederic Ibanez^{a,b}, Lionel Guidi^a and Gabriel Gorsky^b
Global biogeography of fragile macrozooplankton in the upper 100-1000 m depth inferred from the Underwater Video Profiler. Submitted to ICES Journal of Marine Science

In prep:

Falkenhaug, T., Gislason, A., Gaard, E. (2007). Vertical distribution and population structure of copepods along the northern Mid-Atlantic Ridge. ICES ASC Helsinki 17-21 September 2007. ICES CM 2007/F:07.



Future tasks

- Amphipods in pelagic trawls (G. Vinogradov)
- Mesozooplankton from Arni Fridriksson 2003 (Stupnikova, October 2007)
- Compile and publish plankton data from *Arni Fridriksson 2003*: Cross-Ridge section of nutrients, phytoplankton, mesozooplankton, macrozooplankton
- Publications: pelagic decapods, euphausiids, cnidarians.
- Enter data in database

MAR-ECO Students

Bachelor Students

May-Siri Stene and Margrete Emblemsvåg,	Aalesund University College, Norway.	Completed June 2007.
Kaia Damsgård Andersen and Ingrid Stadsnes	Aalesund University College, Norway	Completed June 2007.
Susana de Villegas Quevedo,	Aalesund University College, Norway	Completed June 2007.
Tom Letessier,	University of Aberdeen, UK	Completed January 2006

Master Students

Megan Geidner, Harbor Branch Oceanographic Institution, USA		
Inger Marie Tyssebotn University of Bergen and the National Institute of Nutrition and Seafood Research (NIFES), Norway		
Fred Marius Svendsen, University of Bergen (UIB), Bergen Museum, Norway		
Markus Busch, Heinrich-Heine Universität Düsseldorf, Germany		
Esra Kahn, Heinrich-Heine Universität Düsseldorf, Germany		
Jan Yde Poulsen, Zoological Museum University of Copenhagen (ZMUC), Denmark		
Hanne Sannæs, University of Oslo, Institute of Marine Research		Completed September 2007
Lise Doksæter University of Bergen (UIB) and Institute of Marine Research (IMR), Norway		Completed
Helene Axelsen, University of Bergen (UIB), Institute of Marine Research (IMR), Norway		Completed November 2006
Hildur Petursdottir Marine Research Institute ,Iceland and University of Iceland).		Completed October 2006
Øyvind Karlbom University of Bergen (UIB), Institute of Marine Research (IMR), Norway		Completed October 2006
Anders Frugård Opdal, , Institute of Marine Research (IMR) Norway		Completed May 2006
Guro Gjelsvik, University of Bergen (UIB), Institute of Marine Research (IMR), Norway		Completed March 2006
Pål Øyvind Aas University of Bergen (UIB), Institute of Marine Research (IMR), Norway		Completed February 2006
Kristina Arianson , Norwegian University of Science and Technology (NTNU) and IMR, Norway		Completed

PhD Students

Kyle Bartow, Harbor Branch Oceanographic Institution, USA		
Christopher Sweetman, Harbor Branch Oceanographic Institution, USA		
Jessica Craig, Oceanlab, University of Aberdeen UK		
Tom Letessier, University of St Andrews, UK		
Vanda Carmo, Department of Oceanography and Fisheries, University of the Azores (DOP), Portugal.		
Amy Heger, OceanLab, University of Aberdeen, UK		
Birkir Bardarson, Marine Research Institute , Iceland,		
Nina Svane Mikkelsen, Dept. of information science and media studies, University of Bergen (UIB) Norway		
Inge Fossen, University of Bergen (UIB) and University College in Aalesund, Norway.		Completed June 2007
Aino Hosia University of Bergen (UIB) , Norway		Completed May 2007.
Nicola King, OceanLab, University of Aberdeen, UK		Completed November 2006
Tom Sørnes, University of Bergen (UIB) Norway		Completed November 2005

Publications

