

38th International Liège Colloquium on Ocean Dynamics (8-12 May 2006)

Revisiting the role of zooplankton in pelagic ecosystems

ORAL SESSIONS (Building B7 - "Hall Petits Amphithéatres")

For oral presentations, please allow a minimum of 5 min. for questions and discussion. A PC (Mac OSX, Windows 2000 + Microsoft Powerpoint + Adobe Acrobat + CD&DVD reader + USB port), a LCD projector and a lazer pointer will be available.

Participants can also use their own portable computer.

All poster Sessions will be held in “Hall des Petits Amphithéatres”. Posters can be put on display (and removed) AT ANY TIME but authors are expected to present and discuss their poster during the sessions. Posters are formatted in Portrait and must be limited to one page, < 95 cm (width), < 130 cm (length).

Monday 8 May

09h00- Registration

09h50 J. H.-Hecq –Welcome note

10h00 *Session 1- Roles of the different zooplankton components in controlling pelagic food webs: respective roles of micro-, meso- and macro-zooplankton, gelatinous predators, and mixotrophs.*

10h00 Ramfos A., Isari S., Fragopoulou N. Exceptionally high abundance of overwintering *Calanus helgolandicus* populations in the North Aegean Sea (eastern Mediterranean)

10h25 Renz J., Hirche H.-J. *Pseudocalanus acuspes* in the Central Baltic Sea-an arctic relict species as key prey

10h50 Coffee break

11h10 Rivkin R.B., Anderson M.R., Hale M., Evans H., Li W.K.W. Ocean basin-scale patterns of microzooplankton herbivory and bacterivory

11h40 Invited Lecture : Legendre L., Rivkin R. Recent concepts in pelagic ecosystem functioning.....

12h10 Lunch break

14h00 *Session 2- Influence of long-term changes in physics and climate on the abundance and diversity of zooplankton .*

14h00 Lindeque P., Bonnet D., Yebra Mmora L. Is intra-specific genetic variation in *Calanus helgolandicus* European populations associated with latitudinal and environmental differences'

14h30 Dutz J., Neumann T. , Mohrholz V., Renz J., Alheit J. Spring recruitment of Baltic Sea zooplankton and its sensitivity to climate/physical forcing

14h55 Barz K., Hirche H.-J. Predatory impact of invertebrates in the Bornholm Basin (central Baltic Sea)

15h20 Schnack-Schiel S.B., Mizdalski E. Variation in calanoid copepod abundance and composition along a latitudinal transect in the Atlantic

15h50 Coffee break

16h10 Goffart A., Descamps E., Frangoulis C., Gobert S., Gorsky G., Lejeune P., Pelaprat C., Rousseaux C., Hecq J.-H. The long term variability of zooplankton and it's control in the Oligotrophic Bay of Calvi (Corsica, NorthWestern Mediterranean)

16h35 Fernandez de Puelles M.L. The interannual zooplankton variability in relation to water masses influence in The Balearic Sea : a case of boundary area in the Western Mediterranean

17h00 Aronés K., Ayon P., Hirche H.-J., Schwamborn R. ENSO effects and long-term trends in the zooplankton off Paita, northern Peru (1994 to 2004)

17h25 Barz K., Hirche H.-J. Predatory impact of invertebrates in the Bornholm Basin (central Baltic Sea)

17h50 Zizah S., Ettahiri O., Hasnaoui M., Machu E., Somoue L., Errhif A., Berraho A.M. Zooplankton Size Structure Shift in the Moroccan upwelling area: A retrospective analysis

18h20 Poster Session- Discussion on session 1-2

Poster	Altukhov D., Gubanova A.	<i>Oithona brevicornis</i> Giesbrecht: new copepod species in the Black Sea.
Poster	Peters J., Dutz J., Hagen W.	Impact of food quantity and quality on reproductive success of the copepod <i>Temora longicornis</i> in the North Sea - a fatty acid marker perspective.
Poster	Annabi-Trabelsi N., Daly Yahia M.N., Romdhane M.N.	On the ecological role of Copepods in the complex Tunis North Lake- Kherreddine Canal marine ecosystem
Poster	Drira Z., Belhassen M., Hamza A., Ayadi H., Bouaïn A.	Short time study of Copepods populations in Gabes gulf (Mediterranean sea)
Poster	Ettahiri O., Somoue L., Ramdani M., Berraho A. Zizah S., Machu E.	Copepod diversity and abundance along the Atlantic coast of Morocco
Poster	Lakkis S., and Zeidane R.	Biodiversity of the plankton community in the Lebanese Seawaters (Eastern Mediterranean)
Poster	Gorsky G., Ibanez F., Stemmann L., Mazzocchi M., Hecq J. H., Warembourg C., Raybaud V.	Harmonisation of long-term zooplankton time series in the Mediterranean. ZooPNEC group and MedZoo group related to the CIESM Task Force on Zooplankton Indicators
Poster	Fonda-Umani S., Kamburska L., Tamberlich F.	Seasonal and interannual dynamics of mesozooplankton biomass in the Gulf of Trieste, Northern Adriatic
Poster	Daly Yahia M.N., Daly Yahia-Kéfi O.	An overview on the distribution and diversity of mesozooplankton along the tunisian coast during the last decade.
Poster	Batistić M., Nenad Jasprica N., Caric M.	Annual variability of the gelatinous invertebrate zooplankton of the South Adriatic coast
Poster	Goffart A., Descamps E., Frangoulis C., Gobert S., Gorsky G., Lejeune P., Pelaprat C., Rousseaux C., Hecq J.-H.	The long term variability of zooplankton and its control in the Oligotrophic Bay of Calvi (Corsica, NorthWestern Mediterranean)
Poster	Rousseaux C., Descamps E., Goffart A., Hecq J.-H.	Microplankton variability in the Bay of Calvi (Corsica- France)
Poster	Mudrak S., Dobron K., Zmijewska M.I.	Diel changes of phyto- and zooplankton (Gdańsk Deep, Baltic Sea) – a simultaneous field study
Poster	Andersen, V., Picheral, M., Devey, C., Gubanova, A., Altukhov, D., Skryabin, V. & S. Tsarin.	Seasonal and vertical structure of the zooplankton community observed at mesoscale in the North-East Atlantic.

18h00 **Reception**

20h00 **Break**

Tuesday 9 May

09h00 *Session 3- Influence of small-scale physical variability on the behaviour, dynamics and spatial distribution.*

- 09h00 Uye S.-I., Kawahara M. Recent bloom of the giant jellyfish *Nemopilema nomurai* (Scyphozoa: Rhizostomeae) in East Asian waters: cause and consequence
- 09h25 Andersen V., André M., Gubanova A., Altukhov D., Khvorov S., Tsarin S., Picheral M., Mousseau L., Prieur L. Short-term changes in the zooplankton community during the summer-autumn transition in the open NW Mediterranean
- 09h50 Schulz J. Hirche H-J Vertical zonation in the Baltic Sea
- 10h15 Schwamborn R., Melo M.Jr., Cunha A.G., Neumann-Leitao S., Ekau W., Paranagua M.N. Tidal Transport of Decapoda at Catuama Inlet (Pernambuco, Brazil)

10h40 **Coffee Break**

- 11h00 Siokou-Frangou I., Zervoudaki S., Christou E.D., Zervakis V. Variability of mesozooplankton spatial distribution in the N.Aegean Sea, as influenced by the Black Sea water outflow
- 11h30 Airs R.L., Cook I., Bonnet D. Dietary acquisition of UV photoprotective compound sin marine zooplankton
- 11h55 Cornils, A, Schnack-Schiel S.B., Bäurle A., Richter C. Vertical distribution and diversity of calanoid copepods within the Spermonde Archipelago, SW Sulawesi

12h20 **Lunch break**

14h00 *Session 4 -Adaptation to specific environments (e.g. deep sea, ice).*

- 14h00 Niehoff B. , Kreibich T., Hagen W. From dormancy to activity: life cycle strategies of the Arctic copepods *Calanus glacialis* and *C. hyperboreus* during the winter-spring transition
- 14h30 Färber-Lorda J. Spatial approach to the morphological and biochemical differentiation in Antarctic Krill
- 14h55 Michels J., Dieckmann G. Schnack-Schiel S.l The role of zooplankton in cryo-pelagic coupling in the Southern Ocean
- 15h20 Pasternak A., Arashkevich E., Wassmann P., Reigstad M., Wexels Riser C. Zooplankton grazing impact in the Barents Sea: an interplay between size structure of the grazers and phytoplankton succession

15h45 **Coffe break**

- 16h05 Schultes S., Verity P., Bathmann U. Differential grazing impact of dominant copepod species in the Antarctic Polar Frontal Zone – towards a concept of the functionality of copepod populations in HNLC areas
- 16h30 Gubanova A. Distribution of *Acartia tonsa* Dana (Copepoda, Calanoida) in the European Seas
- 16h55 Swadling K.M., Macleod c.K., Foster S. Zooplankton dynamics in a southeastern Australian estuary.

17h20	C. Rousseaux, Thompson P., Descy J.P., Hecq J.-H.	A study on the effects of microzooplankton grazing on the diurnal vertical migration (DVM) of dinoflagellates in the Huon Estuary (Tasmania)
17h50	Poster Session- Discussion on session 3-4	
Poster	Holste L., Peck M.A., St John M.A.	The effects of temperature and salinity on egg production, hatching success and naupliar survival of Baltic <i>Temora longicornis</i> (Copepoda:Calanoida): A laboratory investigation
Poster	Loots C., Swadling K., Koubbi P.	Regional differences in the life cycle of an important sea-ice copepod (<i>Paralabidocera antarctica</i>) along the coast of east Antarctica.
Poster	Elloumi J., Ayadi H., Carrias J.-F., Sime Ngando T., Bouaïn A.	Composition and distribution of protozooplankton and metazooplankton in six ponds of different salinity: a seasonal succession in Sfax salt marshes (Tunisia)
Poster	Beans C., Koubbi P., Goffart G., Hecq J.H.	Microplankton summer assemblages from Terre Adélie to the Mertz Glacier (139°E - 145°E), Antarctica

Wednesday 10 May

09h00 *Session 5- Roles of zooplankton diversity and abundance on the recruitment of fish. - Influence of predators on zooplankton and pelagic systems.*

9h00	Voss R., Peck M.A., Dickmann M., Peters J., Hirche H.-J., Möllmann C., Clemmesen C., Kraus G., Baumann H., Dutz J., Hinrichsen H.-H., Temming A., Köster F.W., Alheit J.	Indications of bottom-up control of sprat recruitment in the Baltic Sea
9h30	Schmidt J.O., Hinrichsen H.H.	The impact of nauplii abundance and diversity on fish larval survival: Baltic cod as a theoretical case study
10h00	Kühn W., Peck M.A. Hochbaum U., Hinrichsen H.-H., Moll A., Dickmann M., Pohlmann T., Stegert C.	Seasonality in observed and simulated zooplankton prey fields in the German Bight (southern North Sea) and habitat suitability for clupeid fish larvae

10h30 **Coffee break**

10h50 **Brierley A.S.** **Impacts of jellyfish on pelagic fisheries**

11h20	Tamm S., Zabanski S., <u>Moll A.</u> , Alheit J.	GLOBEC Germany data base for zooplankton and fish larvae measurements: cruise data overview and sampling strategy
11h50	Sabatés A., Grau C., Emilianov M., Salat J., Zaragova N.	Climate change and ichthyoplankton distribution: the case of <i>Sardinella aurita</i> in the North-western Mediterranean

12h20 **Lunch break**

14h00	Koubbi P., Duhamel. G, Hecq J.H., Vacchi M., Catalano B., Vallet C., Beans C., Loots C.	Ichthyoplankton in the neritic and coastal zone of Antarctica and Subantarctic islands
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14h30	Beans C., Koubbi P., Valet C., Courcot L., Goffart A., Hecq J.-H.	The diet of post-larval Antarctic silverfish, <i>Pleuragramma antarcticum</i> , from Terre Adelie coastal waters.
15h00	Granata A, Zagami G., Vacchi M., Hecq J.-H., Guglielmo L.	Feeding habits of larval and juvenile <i>Pleuragramma antarcticum</i> in the Western Ross Sea (Antarctica)
15h30	Hecq JH, Loots C., Guglielmo L., Granata A., Koubbi, Vallet C., Swadling K., Goffart A.	Particularities of the zooplankton assemblages in Antarctic shelf and coastal waters. The case of the Ross Sea and Terre Adelie Area

16h00 **Coffe break**

16h20 **Poster Session- Discussion on session 5**

Poster	Karuppasamy P.K., Lalu Raj C.M., Achuthankutty	Oxygen minimum zone and assemblage of micronekton in the Andaman Sea during winter monsoon
Poster	Beans C., Koubbi P., Valet C., Courcot L., Goffart A., Hecq J.-H.	The diet of post-larval Antarctic silverfish, <i>Pleuragramma antarcticum</i> , from Terre Adelie coastal waters.
Poster	Mahjoub S., Daly Yahia- Kéfi O., Daly Yahia M.N.	Ichthyoplankton of Tunis Bay: Composition and distribution

20h00 **Reception & dinner at Château de Colonster (the "Colloquium bus" will pick up participants at their hotels and bring them back)**

23h00 **Return of the bus to the hotels**

Thursday 11 May

09h00 *Session 6- Effects of zooplankton on biogeochemical fluxes*

- 09h00 Buitenhuis E., Le Quéré C., Aumont O.,
Beaugrand G., Bunker A., Hirst A., Ikeda T., O'Brien T., Piontovski S., Straile D.,
09h30 Hernández-León S. Biogeochemical fluxes through mesozooplankton
Biogeochemical implications of top-down effects in the ocean
- 10h00 Varpe Ø., Tarling G.A., Fiksen Ø., Shreeve R.S.
10h30 Zervoudaki S., Frangoulis C., Christou E.D., Svensen C., Arashkevich E., Ratkova T., Wexels R., Pagou K., Wassmann P. State-dependent phenology and resource allocation of the Southern Ocean copepod *Calanoides acutus*
Vertical carbon flux of biogenic mater in a coastal area of the Aegean Sea. Importance of appendicularians and phytoplankton

11h00 Coffee break

- 11h20 Koski M. Development and growth of *Temora longicornis* on diatom diets
- 11h40 Graeve M., Kattner G. Carbon transfer and fatty acid biosynthesis in the Arctic herbivorous food web
- 12h10 Torgersen T. Plankton in spatially variable systems can be preadapted to environmental fluctuations and change

12h40 Lunch break

14h00 *Session 6- Effects of zooplankton on biogeochemical fluxes (2d part)*

- 14h00 Gorsky G., Lombard F. The role of appendicularians in the plankton food webs
- 14h30 Lucic D., JNjire J., Benovic A. The Role of gelatinous zooplankton in the structure of the northern adriatic planktonic ecosystem (june 1996 – july 2000)
- 15h00 Mayor D. J., Anderson T.R., Irigoien X., Pond D. Carbon limits egg production in *Calanus finmarchicus* before the spring bloom

15h30 Coffe break

- 15h50 Mousseau L., Lefevre D. Andersen V. Narcy F., Nival P. Role of the zooplankton community composition on the mineralization and the vertical flux of organic matter at a fixed station in the Ligurian Sea
- 16h20 Gentsch E., Kreibich T. Hansen B., Niehoff B. Grazing experiments and stable isotope signatures of *Temora longicornis* during a time series at Helgoland Roads, North Sea: Indication for a shift in feeding strategy
- 16h50 Wesche A., Hirche H.-J. Cannibalism in North Sea copepods
- 17h20 C. Rousseaux, Thompson P., Descy J.P., Hecq J.-H. A study on the effects of microzooplankton grazing on the diurnal vertical migration (DVM) of dinoflagellates in the Huon Estuary (Tasmania)

17h50 Poster Session- Discussion on session 6

Poster	Kreibich T., Gentsch E., Hansen B., Hagen W., Niehoff B.	Physiological adaptations of <i>Temora longicornis</i> females (Crustacea, Copepoda) to changing nutritional conditions in the North Sea
Poster	Hansen B., Gentsch E., Kreibich T., Niehoff B.	Reproduction of <i>T. longicornis</i> & <i>A. clausi</i> in relation to food quantity & quality during spring bloom 2005
Poster	Alcaraz M., Saiz E., Calbet A., Trepas I.	Zooplankton biomass, respiration and nutrient excretion in the NW Mediterranean : comparison of summer and winter conditions
Poster	Calbet A., Saiz E., Barata C.	Lethal and sublethal effects of naphtalene and 1,2-dimethylnaphtalene on the marine copepod <i>Acartia grani</i>
Poster	Saiz E., Movilla J.I., Barata C., Calbet A.	Effects of PAHs on the naupliar and copepodite stages of the marine copepod <i>Oithona davisae</i>
Poster	Färber-Lorda J., Gaudy R.	Elemental composition, biochemical composition and calorific value of Antarctic Krill

Friday 12 May

09h00 *Session 7 - Recent developments in zooplankton modelling*

09h00	Ben Ari T., Carlotti F., Poggiale J.C.	Calibration and validation of a size structured model of <i>Calanus helgolandicus</i> in European waters
09h25	Stegert C., Kreus M., Carlotti F., Moll A.	Parameterisation of a zooplankton population model for <i>Pseudocalanus elongatus</i> in the North Sea using stage durations from laboratory experiments
09h50	Moll A., Carlotti F., Kühn W., Kreus M.	Seasonal dynamics of <i>Pseudocalanus elongatus</i> in different regions of the North Sea using population modelling embedded into the ecosystem model ECOHAM3 with competing bulk zooplankton
10h20	Moll A., Pätsch J., Kühn W., Kreus M., Stegert C.	Simulation of regional differences and annual cycles of North Sea zooplankton biomass or population abundance with the three-dimensional ecosystem model ECOHAM

10h55 Coffee break

11h15	Kremp C., Neumann T., Fennel	Simulation and Measurements of Copepod Stages
11h40	Neumann T., Fennel W., Kremp C.	Simulation of Copepods in 3-dimensional Eulerian Models
12h05	Machu E., Zizah S., Somue L., Ettahiri O.	Zooplankton distribution in the central Canary Upwelling System over the last ten years: a modelling experiment confronted with observations
Poster	Devey C., Andersen V., Prieur L.	Stationary modelling approach of the pelagic ecosystems. Application to the Pomme study in the North Atlantic.

12h30 Lunch break

14h00 *Session 8 New technologies (e.g. genetics, sampling).*

14h00	Mengedoht D.M., Schulz J., Hirche H.J.	Size spectra and distribution of zooplankton in the German Bight measured by a Laser Plankton Counter (LPC)
14h30	Strickler J.R.	Planktonic Copepods and Their Food : a Lesson in Nano-Technology

15h00	Kamburska L., Stefanova K., Gubanova A., Shiganova T., Moncheva S.	Towards the Black Sea zooplankton diversity an assessment and uncertainties
15h30	Schulz J, Mengedoht D., Hirche H.J.	Imaging the small Lightframe On-sight Keyspecies Investigation (LOKI)
16h00	Nelson H., Poulton N., Sieracki C.K., Blanpain	FlowCAM Technology – Continuous imaging fluid particle analyzer for plankton research and monitoring

16h30 **Coffee break**

Poster Session- Discussion on session 7-8

16h50 **Closing note**

Poster	Antajan E., Picheral M., Gasparini S., Gorsky G.	Mesozooplankton community structure in Belgian coastal waters analysed by mean of a digital imaging system
Poster	Guermazi W., Bornaghi V., Aleandri R., Elloumi J. Ayadi H., Bouain A.	Assessment of the growth potential of the rotifer <i>Brachionus plicatilis</i> by evaluating morphometric characteristics
Poster	Rubino F., Moscatello S., Saracino O.D., Belmonte	Plankton biodiversity in the South Adriatic Sea: an integrated water/sediment approach