

HYPOX 1st ANNUAL MEETING

Istanbul Technical University, Turkey



Sunday, 21.03.2010

18:00 Opening of welcome desk at ITU Taşkışla Campus

19:00 Icebreaker at ITU Taşkışla Campus

Monday, 22.03.2010

Monday morning session on WP7 activities

9:00 Welcoming note

Prof. Muhammed Sahin, Rector of Istanbul Technical University

9:10 Opening of the meeting

Antje Boetius, MPI

9:15 to 13:00

**WP7: Oxygen depletion in land-locked water bodies
observatory and field work status and plans
(chaired by Henrik Stahl, SAMS)**

Reports from each HYPOX site:

Description of the observatory & status of monitoring efforts; Scientific motivation & gaps in knowledge, results obtained, existing and new data & their transfer to archive / data portal, links to modeling, dissemination efforts)

9:15 “The Koljoe Fjord observatory - Initiated and planned activities”, *Per Hall, UGOT*

10:00 ”The Loch Etive cabled observatory – Progress and preliminary results from the first year” *Henrik Stahl, SAMS*

10:45 Coffee break

11:15 Swiss lakes

“What have we done during the last year?” *Carsten Schubert, EAWAG*

“Use of biomarkers to reconstruct past environmental conditions – oxygen in Lake Rotsee, Switzerland“, *Sebastian Naeher, EAWAG*

“Hypoxia in Swiss Lakes: analyzing long-term lake oxygen records for climate influences”, *Ryan North, EAWAG*

“An approach to modeling hypolimnetic oxygen concentrations and hypolimnetic anoxia in Swiss lakes”, *David Livingstone, EAWAG*

12:15 “Ionian Sea embayment's and lagoons: Findings and perspectives" *George Papatheodorou, UPAT*

13:00 Lunch break at the meeting venue

Monday afternoon session on WP6 activities & discussion on observatory status

13:45 to 18:00

**WP6: Oxygen depletion in open and coastal seas
observatory and field work status and plans**

(organization by Gilles Lericolais, IFREMER., chaired by Thomas Soltwedel, AWI)

Description of the observatory & status of monitoring efforts; Scientific motivation & gaps in knowledge, results obtained, existing and new data & their transfer to archive / data portal, links to modeling, dissemination efforts

13:45 Hausgarten

“Variations in dissolved oxygen at an open ocean site: HAUSGARTEN as a case study”, *Thomas Soltwedel, AWI*

14:15 Gotland basin

“IFM-GEOMAR activities and results from recent Gotland Basin expedition (Alkor 346, 2009)”, *Olaf Pfannkuche, My Mattsdotter & Stefan Sommer, IFM-GEOMAR*

“IFM-GEOMAR additional station deployed in Eckerförde Bay”, *Olaf Pfannkuche, My Mattsdotter & Stefan Sommer, IFM-GEOMAR*

“Status and planning of the Gotland Deep profiling station”, *Ralf Prien & Gregor Rehder, IOW*

“Influence of oxygen and bottom type on benthic recycling of O₂, C, N, P and Si in the eastern Gotland Basin”, *Per Hall, UGOT*

15:45 Coffee break

16:15 Black Sea: North-western Shelf

“North-western Black Sea observatory; plans and problems”, *Jana Friedrich, AWI; Marian-Trajan Gomoiu, GeoEcoMar*

16:30 Black Sea: Crimean Shelf

“Hypoxia and its oceanographic regimes in the region of Crimea (Black Sea)”, *Nelli Sergeeva, IBSS*

17:00 Black Sea: Bosphorus / Istanbul Strait area

“Preliminary results of the HYPOX cruise in the Istanbul Strait outlet area”, *Namik Çagatay, ITU-EMCOL*

“Preliminary results on the water column of the Hypox cruise at the Istanbul Strait outlet area”, *Moritz Holtappels, MPI*

17:30 Discussion on WP6 (chaired by *Gilles Lericolais, IFREMER*)

18:00 to 19:00

Open implementation committee meeting on status and plans of observatories installation and field work in WP 6 & 7

Discussion on the scientific and technological appropriateness of partners activities concerning observatory installation and dedicated field campaigns. Are the activities suited to achieve HYPOX' scientific goals? Are there modifications needed? Are there delays to be overcome?

The chairs of the implementation committee and WP1 leader give some opening comments on the status of the past and planned observatory activities at the HYPOX sites that is followed by an open discussion.

(chaired by implementation committee leaders: Gilles Lericolais, IFREMER, Henrik Stahl, SAMS & WP1 leader, Giuditta Marinaro, INGV)

Tuesday, 23.03.2010

Tuesday morning session on data archiving, sharing, standardization and modeling

9:00 to 11:00

WP5: introduction to the HYPOX data portal and status & plans of data archiving and standardization

(Christoph Waldmann, Robert Huber, Uni-HB.)

9:00 Data portal/technology

(Robert Huber, Uni-HB)

Data portal content: HYPOX legacy data, HYPOX observatory and field campaign data, data from other data bases (e.g., Pangaia, Medatlas, Coriolis), Data portal status and plans: functionality & appearance

9:15 Data rescue/legacy data

(Robert Huber, Uni-HB)

Archiving of legacy data from WP3, WP4, WP6, WP7: achievements in the first year and additional needs

9:30 Data delivery/how to

(Robert Huber, Uni-HB)

*Archiving of data from HYPOX field campaigns and observatories: examples of successful data archiving on different scales: from simple mailing of field campaign data in excel sheets to established archiving procedures
Status, plans and requirements of data generation and archiving at the different HYPOX sites (with input from the observatory leaders)*

10:00 GCI work and data sharing in the framework of GEO

(Florence Beroud, European Commission)

10:15 GEOSS issues

(Christoph Waldmann, Uni-HB)

intergration in GEOSS web portal, contributions to GEO sessions, publications, and projects

11:00 Coffee break

11:30 to 13:00

WP2: oxygen depletion modeling - modeling status and plans for HYPOX modeling “hotspots”

(chaired by Emil Stanev, GKSS & Jack Middelburg, NIOO-KNAW)

“Black Sea biogeochemistry: model response to decadal atmospheric variability during 1958-2002”, Yunchang He, Emil Stanev, GKSS, & Evgeny Yakushev, NIVA

Baltic Sea, Andy Dale, IFM-GEOMAR

Loch Etive, Dmitry Aleynik, SAMS

Koljoe Fjord, Anders Stigebrandt, UGOT

12:50 Discussion and Integration *(Jack Middelburg, NIOO-KNAW)*

13:00 Lunch break at the meeting venue

Tuesday afternoon session on modeling and ecosystem responses (with coffee break)

13:45 to 14:15

WP2 oxygen depletion modeling (*continued*)

“Turbulent diffusivities in the benthic boundary layer”, *Moritz Holtappels, MPI*

“Oxygen dynamics at three different timescales”, *Tom Cox, NIOO-KNAW*

14:15 to 18:00

WP3: impacts of hypoxia on ecosystems

(*chaired by Jana Friedrich, AWI*)

14:15 Compilation of the present view on hypoxia effects on ecosystems at HYPOX target sites (as covered by report D3.3), *Felix Janssen, MPI*

14:45 Introductory talk: “Towards a conceptual understanding of hypoxia effects on ecosystems”, *Jana Friedrich, AWI*

15:15 *Coffee break*

15:45 Discussion on ‘Drivers of hypoxia & ecosystem responses’ in 2 parallel split groups

Group 1 : Open and coastal seas

- identifying & understanding of drivers of oxygen deficiency at the target sites
- ecosystem responses to oxygen depletion (pathways and steps of ecosystem decline,
- ecosystem recovery after hypoxia, potential hysteresis,
- gaps in knowledge

Group 2: Land-locked water bodies

- identifying & understanding of drivers of oxygen deficiency at the target sites
- ecosystem responses to oxygen depletion (pathways and steps of ecosystem decline,
- ecosystem recovery after hypoxia, potential hysteresis,
- gaps in knowledge

all groups should include modelers from WP2 (e.g., NIOO-KNAW, GKSS, IFM-GEOMAR, UGOT, SAMS) and Biologists (e.g., IBSS, GeoEcoMar)

16:45 Plenary: reports from the split groups and discussion

Group reports with focus on: (I) existing knowledge and main open questions, (II) approaches to get to a conceptual understanding of hypoxia effects on ecosystems, and (III) links to numerical modeling in WP2.

(20 min per group)

Concluding discussion with links to the WP3 workshop on Thursday *(30 min)*

19:30 *Meeting dinner*

Wednesday, 24.03.2010

Wednesday morning session on methods and indicators of past hypoxia and on project coordination, dissemination and outreach

9:00 to 10:45

Cruise and field campaign meetings

the two meetings will run in parallel, partners that are not involved are welcome to join the meeting at the coffee break

Black Sea

R/V Maria S. Merian April 2010 (PI Antje Boetius, MPI)

Baltic Sea cruises

R/V Alkor, Eastern Gotland Basin, June 2010 (PI: Olaf Pfannkuche, IFM-GEOMAR)

R/V Skagerak, Eastern Gotland Basin, August / September 2010 (PI: Per Hall, UGOT)

10:45 coffee break

11:15 to 13:00

WP4: methods and indicators of past and present anoxia

(chairs: Namik Cagatay, ITU-EMCOL, Nelli Sergeeva, IBSS)

11:15 introductory talk on WP 4 activities in the first year of HYPOX and plans for the second year (*Namik Cagatay, ITU-EMCOL*)

11:45 topical talks on methods and indicators that are available to understand past and present hypoxia

“Effect of hypoxia on benthic ecosystems: a proposal for visual documentation”, *Antje Boetius, MPI*

“Meiobenthos of the target sites of the Crimea: species as indicators of present anoxia”, *Nelli Sergeeva, IBSS*

“Benthic species as hypoxia indicators in the Romanian shelf of the Black Sea”, *Marian-Trajan Gomoiu, GeoEcoMar*

“Inorganic geochemical proxies for paleo-oxygen conditions”, *Namik Cagatay, ITU-EMCOL*

“Use of atmospheric noble gases to reconstruct past oxygen conditions and methane ebullition in lake sediments”, *Sebastian Naehrer, EAWAG*

13:00 Lunch break at the meeting venue

13:45 to 17:00

WP8: coordination, dissemination and outreach

(Antje Boetius, Felix Janssen, MPI)

- 13:45 Status of deliverables and project activities and plans based on the first interim report. Overview of past and upcoming field campaigns and cruises.
Overview of upcoming deliverables
(Felix Janssen, MPI)
- 14:30 Report on dissemination and outreach activities by the coordination team and project partners in the first year of HYPOX (web site, brochure, project networking, conference participation etc.).
Outlook on WP8 activities required by partners for the second year. Discussion on planned outreach activities and the improvement of the visibility of HYPOX (e.g., planned conference participations, sessions EGU, AGU...)
(Felix Janssen, MPI)
- 15:15 *Coffee break*
- 15:45 Project networking: overview on HYPOX-related projects and ongoing and planned collaborations *(Felix Janssen, MPI, with input from all participants)*
- 16:15 Discussion on content and structure of the next annual meeting, Planning of HYPOX related session at EGU or other conferences
(chaired by Antje Boetius, MPI with input from all participants)

End of the plenary part of the meeting

17:00 to 19:00

Steering committee meeting

(all WP leaders)

Thursday, 25.03.2010

Entire day of workshops and topical meetings in parallel. Coffee will be available at the meeting venue, lunch has to be organized individually.

9.00 to 17.00

Modeling workshop

(Andy Dale, IFM-GEOMAR et al.)

For the schedule of the modeling workshop, please see extra pdf.

9:00 Announcement of other topical meetings and workshops and the schedule for the day *(Felix Janssen, MPI)*

The detailed scheduling of the sessions will be arranged during the meeting to make sure that people can attend the sessions that are most important to them.

9:15 to 17:00

Additional topical meetings (each not longer than half the day)

WP3: next steps towards a conceptual understanding of hypoxia effects on ecosystems:

Following the line of deliverables that are due in the next year of HYPOX (D3.1: *Report on drivers/mechanisms of hypoxia and their spatial & temporal occurrence*, D3.4: *Report on ecosystem function decline due to hypoxia*) *(chaired by Jana Friedrich, AWI)*

WP 6 & 7: Site comparison meeting:

benthic fauna assemblages under the influence of hypoxia at the different project sites: Open discussion on knowledge and gaps in knowledge.

Site selection will depend on the expertise of the people attending (e.g., Black Sea sites [Crimea, Romanian Shelf, Bosporus / Istanbul Strait area], Gotland Basin, Fjord systems; chaired by Marian-Trajan Gomoiu, GeoEcoMar)

Oxygen sensing in HYPOX: short presentations and open discussion

(chaired by Moritz Holtappels, MPI)

Optode calibration: Report from the optode calibration workshop at the MPI and further plans *(Mikhail Kononets, UGOT & Moritz Holtappels, MPI)*

Additional contributions by *Giuditta Marinaro, Nadia Lo Bue, and Giuseppe Etiope, INGV*