

Theme Session H
Harmful algal blooms in aquaculture and fisheries ecosystems:
prediction and societal effects

Conveners: Beatriz Reguera (Spain), Juan Blanco (Spain), and Bengt Karlson (Sweden)

Agenda and Orders of the Day for:

Thursday 18 September 2014, 15:00–19:00 – Modular Room 1

Friday 19 September 2014, 09:00–17:00 – Modular Room 1

- 1) Opening and introduction
- 2) Appointment of rapporteur
- 3) Presentation of papers

CM Code	Time
THURSDAY 18 SEPTEMBER 2014, 15:00–19:00 – Modular Room 1	
H: 01	15:00
Oral	
Title: Distribution and impacts of harmful algal blooms in the ICES area	
Authors: B. Reguera, E. Bresnan, J. Martin, P. Tester, and B. Karlson	
Keywords: harmful algal blooms, HAB distribution, socio-economic impacts	
H: 02	15:15
Oral	
Title: Harmful Algal Blooms and their impacts on bivalve molluscs	
Authors: H. Hegaret, C. Fabioux, C. Lambert, H. Haberkorn, M. Lassudrie, A. Lelong, and P. Soudant	
Keywords: HABs, bivalve, fisheries, aquaculture	
H: 03	15:30
Oral	
Title: Assessing the behavioral toxicity of a globally expanding harmful dinoflagellate, <i>Cochlodinium polykrikoides</i> , to estuarine forage fish	
Authors: Konstantine J. Rountos, Ellen K. Pikitch, and Christopher J. Gobler	
Keywords: Harmful algal blooms, forage species, toxicity	
H: 04	15:45
Oral	
Title: Diarrhetic Shellfish Toxins in blue mussels (<i>Mytilus edulis</i>) in Sweden: Experiences from monitoring of the toxins and <i>Dinophysis</i> spp., the causative organisms	
Authors: B. Karlson, M. Johansen, and M. Persson	
Keywords: Aquaculture, Mussel farming, Blue mussels, <i>Mytilus edulis</i> , Phytoplankton, Harmful Algal Blooms, Dinoflagellates, Dinophysis	
H: 05	16:00
Oral	
Title: Effect of industrial process for canning on okadaic acid toxins detection/quantification by different techniques	
Authors: Angeles Moroño, Fabiola Arévalo, J. Correa, M. Corina Porro, Ana G Cabado, Juan M. Vieites, and Juan Blanco	
Keywords: okadaic acid, dinophysistoxin 2, LC-MS/MS, Mouse Bioassay, phosphatase inhibition, industrial steaming, canning, DSP toxicity	

H: 06 Poster	Title: Potentially toxic cyanobacteria in winter plankton of the Curonian Lagoon, Baltic Sea	16:15
	Author: Eugeniia Lange	
	Keywords: Curonian Lagoon, winter phytoplankton, toxic cyanobacteria	
H: 07 Poster	Title: Toxicity of coastal water in the Curonian Lagoon, Baltic Sea during autumn HAB, 2013	16:20
	Authors: Elena Ezhova, Natalia Molchanova, and Julia Polununa	
	Keywords: Curonian Lagoon, <i>Daphnia magna</i> , microcystins, neurotoxins, paralysis	
H: 08 Poster	Title: Bioaccessibility and changes on cylindrospermopsin concentration in edible mussels over storage and processing time	16:25
	Authors: Marisa Freitas, Joana Azevedo, Vera Mendes, Bruno Manadas, Alexandre Campos, António Paulo Carvalho, and Vitor Vasconcelos	
	Keywords: Bioaccessibility, cylindrospermopsin, food storage, food processing, <i>in vitro</i> human digestion	
BREAK		
H: 09 Oral	Title: Azaspiracids and their producing organisms	17:00
	Authors: Bernd Krock and Urban Tillmann	
	Keywords: Azaspiracid shellfish poisoning (AZP), Azadinium, Amphidoma	
H: 10 Oral	Title: Current knowledge and perspectives of study on benthic toxic dinoflagellates of the genus <i>Gambierdiscus</i> in the Canary Islands	17:15
	Authors: F. Rodríguez, S. Fraga, P. Riobó, and JM. Franco	
	Keywords: <i>Gambierdiscus</i> , benthic dinoflagellates, ciguatera, Canary Islands	
H: 11 Oral	Title: Occurrence of harmful phytoplankton species in Moroccan Atlantic Shellfish areas during 2003–2013	17:30
	Authors: A. Bennouna, J. EL Attar, R. Abouabdelah, MT. Moita, A. Penna., BP. Oliveira, and S. Palma	
	Keywords: Phytoplankton, <i>Ostreopsis</i> , <i>karenia</i> , <i>Dinophysis</i> , <i>Alexandrium</i> , <i>Pseudo-nitzschia</i> , upwelling, Atlantic Moroccan coasts	
H: 12 Oral	Title: Emergent marine toxins in the temperate north Atlantic coast	17:45
	Authors: M. Baptista, M. Silva, B. Sabour, M. Hassouani, A. Barreiro, P. Otero, J. Azevedo, A. Alfonso, LM. Botana, and V. Vasconcelos	
	Keywords: BMAA, new vectors, north Atlantic, SPX, TTX	
H: 13 Oral	Title: Structural diversity of ovatoxins in <i>Ostreopsis</i> cf. <i>ovata</i> – AZ strain and their impact on monitoring	18:00
	Authors: R. Rossi, A. Zingone, V. Soprano, and T. Yasumoto	
	Keywords: <i>Ostreopsis</i> cf. <i>ovata</i> , ovatoxins, ESI-LC-TOF	
H: 14 Oral	Title: Overview of activities of the ICES-IOC Working Group on Harmful Algal Bloom Dynamics	18:15
	Author: B. Karlson	
	Keywords: Phytoplankton, Harmful Algal Blooms, HAEDAT Harmful Algae Event Database, aquaculture	

H: 15 Poster	Title: A preliminary study of lipophilic toxins in Galician sediments Authors: E. Martín-Morales, C. Mariño, H. Martín, and J. Blanco Keywords: lipophilic toxins, okadaic acid, 13 desmethyl SPX C, PTX-2, sediments, persistence, Galician coast	18:30
H: 16 Poster	Title: Variability of toxin profile and content of <i>Ostreopsis</i> cf. <i>ovata</i> from the Mediterranean Sea Authors: L. Tartaglione, C. Dell'Aversano, E. Dello Iacovo, P. Ciminiello, S. Casabianca, and A. Penna Keywords: <i>Ostreopsis</i> , ovatoxins, palytoxin, LC-HRMS	18:35
H: 17 Poster	Title: AQUA-USERS: AQUAculture USER driven operational Remote Sensing information services Authors: Marnix Laanen, Steef Peters, Kathrin Poser, Nils de Reus ¹ , Semhar Ghebrehiwot, Annelies Hommersom, Marieke Eleveld, Peter Miller, Andrey Kurekin, Steve Groom, Olly Clements, Vanda Brotas, Ana Amorim, Ana Brito, Carolina Sá, Åse Åtland, Trine Dale, Kai Sørensen, Anna Birgitta Ledang, Mark Powell, Lars Boye Hansen, Silvia Huber, Lotte Nyborg, Hanne Kaas, Henrik Andersson, John Icely, and Bruno Fragoso Keywords: Aquaculture, water quality, Earth observation, in-situ data, user-driven	18:40
H: 18 Poster	Title: Improving the knowledge of sub-surface temperature, salinity and fluorescence variability patterns on the Southern Coast of Galicia Authors: E. Tel, JM. Cabanas, G. Gonzalez-Nuevo, and A. Cabrero Keywords: thermosalinometer, variability, inlets, interpolating	18:45
H: 19 Poster	Title: Real Time Monitoring and Alert System to forecast Harmful Algal Blooms (HAB) based on Cyberinfrastructure Technologies Authors: Agustín Monteoliva, Alberto Criado, Lucía López, Analía López, Jesús Torres, Margarita Fernández, and Carles Guallar Keywords: Cyberinfrastructure, real time monitoring, early warning, HAB forecast	18:50

FRIDAY 19 SEPTEMBER 2014, 09:00–17:00 – Modular Room 1

H: 20 Oral	Title: Seeding of <i>Gymnodinium catenatum</i> blooms on the Iberian shelf Authors: Ana Amorim, Rita Nolasco, Paulo B.Oliveira, Teresa Silva, Alexandra Silva, Bernardo Domingues, Vanda Brotas, Jesus Dubert, and M. Teresa Moita Keywords: <i>Gymnodinium catenatum</i> , seed population, Lagrangian model, Regional Ocean Modelling System, Iberia	09:00
H: 21 Oral	Title: Environmental drivers and bloom characteristics of <i>Alexandrium minutum</i> along the French coasts Authors: C. Guallar, T. Hernández-Fariñas, C. Bacher, and A. Chapelle Keywords: <i>Alexandrium minutum</i> , phenology, niche, environmental drivers, multivariate analysis	09:15

H: 22 Oral	Title: Towards forecasting <i>Dinophysis</i> blooms off NW Iberia: a decade of events	09:30
	Authors: M. Teresa Moita, Y. Pazos, C. Rocha, A. Rocha, and P.B. Oliveira	
	Keywords: HABs, alongshore transport, upwelling, DSP	
H: 23 Oral	Title: Trends on <i>Dinophysis acuminata</i> and <i>D. acuta</i> populations in the Galician Rias based on twenty years of weekly monitoring of oceanography and phytoplankton	09:45
	Authors: Y. Pazos, A. Moroño, S. Calvo, and B. Reguera	
	Keywords: <i>Dinophysis acuminata</i> , <i>Dinophysis acuta</i> , time series, downwelling, monitoring, Galician Rias	
H: 24 Oral	Title: Harmful algal blooms in the Curonian Lagoon of the Baltic Sea and environmental effects	10:00
	Author: S. Aleksandrov	
	Keywords: algal blooms, eutrophication, Curonian Lagoon	
H: 25 Poster	Title: Conditions associated with unusual summer blooms of <i>Dinophysis acuta</i> in an upwelling area	10:15
	Authors: P. Diaz, B. Reguera, I. Bravo, M. Ruiz-Villarreal, and S. Fraga	
	Keywords: <i>Dinophysis acuta</i> , physical-biological interactions, upwelling, diarrhoetic shellfish poisoning (DSP)	
H: 26 Poster	Title: Dynamics of toxic HABs in the Curonian Lagoon, Baltic Sea during 2010-2013	10:20
	Authors: E. Ezhova, E. Lange, Y. Russkikh, E. Chernova, and Z. Zhekovskaya	
	Keywords: Curonian Lagoon, toxic HAB, cyanotoxins, <i>Microcystis viridis</i> , <i>Aphanisomemon flos-aqua</i>	
H: 27 Poster	Title: Effect of natural and anthropogenic factors on eutrophication and de-eutrophication and algal blooms in the estuaries of different types (by the example of Curonian and Vistula Lagoons and the Volga Delta)	10:25
	Authors: Julia Gorbunova and Sergey Aleksandrov	
	Keywords: eutrophication, algal blooms, estuary, Volga delta, Curonian, Vistula Lagoons	
BREAK		
H: 28 Oral	Title: ASIMUTH, an operational HAB Forecasting System in Ireland	11:00
	Authors: J. Silke, C. Cusack, G. Nolan, K. Lyons, and T. Dabrowski	
	Keywords: Shellfish, Harmful Algal Blooms, toxins, aquaculture, forecasting	
H: 29 Oral	Title: Numerical simulations with the ASIMUTH forecast system for understanding and forecasting HAB events in Galicia (NW Spain)	11:15
	Authors: M. Ruiz Villarreal, L. García, M. Cobas, B. Reguera, and P. Díaz	
	Keywords: HAB Forecast system, along-shore and across-shore transport, <i>Dinophysis acuminata</i> and <i>acuta</i>	
H: 30 Oral	Title: Forecasting Harmful Algal Blooms in a coastal embayment using Artificial Neural Networks	11:30
	Authors: Margarita Fernández-Tejedor, Carles Guallar, Maximino Delgado, and Jorge Diogène	
	Keywords: HAB forecast, Karlodinium, <i>Pseudo-nitzschia</i> , environmental factors, Artificial Neural Networks	

H: 31 Oral	Title: <i>Alexandrium fundyense</i> - <i>Amoebophrya</i> spp. dynamics in a semi enclosed embayment: Implications of sexual reproduction and excystment/encystment strategies on host-parasite coexistence	11:45
	Authors: L. Velo-Suárez, M. Arancio, DJ. McGillicuddy Jr., and M. Sourisseau	
	Keywords: <i>Alexandrium fundyense</i> , <i>Amoebophrya</i> spp., host-parasite interactions, harmful algae blooms, models, refuge strategies.	
H: 32 Oral	Title: Accumulation, biotransformation, ways of excretion and depuration kinetics of DSP toxins in bivalves	12:00
	Author: Juan Blanco	
	Keywords: Diarrhetic shellfish toxins, accumulation, depuration, feces, 7-o-acyl derivatives, biotransformation, excretion way	
H: 33	Withdrawn	
H: 34 Oral	Title: Searching multi-annual and seasonal trends of bivalve toxicity by PSTs in estuarine and littoral areas: the case study of Portugal	12:15
	Authors: Maria João Botelho, Carlos Vale, and João Gomes Ferreira	
	Keywords: Paralytic shellfish toxins, <i>Gymnodinium catenatum</i> , <i>Mytilus</i> spp., <i>Cerastoderme edule</i> , <i>Donax trunculus</i> , <i>Spisula solida</i>	
H: 35 Oral	Title: Estability of okadaic acid, 13-desmethyl SPX and Gymnodimine in Galician coast waters	12:30
	Authors: E. Martín-Morales, C. Mariño, H. Martín, and J. Blanco	
	Keywords: Okadaic acid, 13 desmethyl SPX C, gymnodimine, seawater, sediments, Galician coast, degradation, persistence, cysts	
	Discussion	12:45
LUNCH		
H: 36 Oral	Title: Innovative technologies applied to monitoring of benthic HAB <i>Ostreopsis</i> : an overview of molecular and analytical tool development for <i>in situ</i> characterization of harmful benthic blooms	15:00
	Authors: A. Penna, S. Casabianca, F. Perini, A. Casabianca, C. Dell'Aversano, P. Ciminiello, E. Dello Iacovo, L. Tartaglione, M. Vila, P. Riobò, JM. Franco, and C. Chiantore	
	Keywords: benthic HAB, monitoring, <i>Ostreopsis</i> , palytoxins, qPCR	
H: 37 Oral	Title: Real Time PCR methodologies as a routine monitoring tool for the detection of <i>Pseudo-nitzschia</i> and <i>Azadinium</i> species in Irish waters	15:15
	Authors: Dave Clarke, Rafael Gallardo Salas, and Joe Silke	
	Keywords: Amnesic Shellfish Poisoning, Azaspiracid Shellfish Poisoning, <i>Azadinium</i> , <i>Pseudo-ntizschia</i> , molecular, real time PCR	
H: 38 Oral	Title: Occurrence of lipophilic shellfish toxins (LST) in Scottish lochs: Detection using Solid Phase Adsorption Toxin Tracking (SPATT)	15:30
	Authors: Guillaume Hermann, Krystle Boss, and Jean-Pierre Lacaze	
	Keywords: SPATT, passive sampler, biotoxin, LC-MS	

H: 39 Poster	Title: Phenotypic and genetic correlations for several potentially interacting traits related to DSP toxin accumulation in the Mediterranean mussel (<i>Mytilus galloprovincialis</i>)	15:45
	Authors: A. Pino-Querido, J. Alvarez-Castro, M. Vera, B. G. Pardo, M.A. Toro, J. Regueiro, J. Fuentes, J. Blanco, and P. Martinez	
	Keywords: Diarrhetic shellfish poisoning toxins, okadaic acid, accumulation, depuration, heritability, growth, colour	
H: 40 Poster	Title: The role of <i>Ruditapes philippinarum</i> glutathione transferases in the metabolism of microcystin-LR	15:50
	Authors: Mariana Carneiro, Bruno Reis, Joana Azevedo, Vítor Vasconcelos, and José Carlos Martins	
	Keywords: Microcystins, Glutathione transferases, detoxification, metabolism, <i>R. philippinarum</i>	
H: 41 Poster	Title: Assessment of okadaic acid genotoxicity on cells of the mussel <i>Mytilus galloprovincialis</i>	15:55
	Authors: MV. Prego-Faraldo, V. Valdíglesias, C. Hidalgo, B. Laffon, JM. Eirín-López, and J. Mendez	
	Keywords: okadaic acid, comet assay, genetic integrity, bivalve molluscs, mussels	
H: 42 Poster	Title: Preliminary findings on gene expression study of STXa1 in <i>Alexandrium minutum</i>	16:00
	Authors: F. Perini, L. Galluzzi, C. Dell'Aversano, E. Dello Iacovo, L. Tartaglione, P. Ciminiello, and A. Penna	
	Keywords: HAB, monitoring, <i>Alexandrium</i> , saxitoxin, sxtA, PSP, gene expression	
H: 43 Poster	Title: Glutathione transferases proteomic responses in <i>Mytilus galloprovincialis</i> following exposure to toxic <i>Microcystis aeruginosa</i> cells, extracts and pure toxins	16:05
	Authors: Catarina Caetano, Mariana Carneiro, Joana Azevedo, Alexandre Campos, Vítor Vasconcelos, and José Carlos Martins	
	Keywords: Microcystins, Glutathione Transferases, Proteomics, <i>M. galloprovincialis</i>	
H: 44 Poster	Title: Transcriptional responses of glutathione transferase genes in <i>Ruditapes philippinarum</i> and <i>Mytilus galloprovincialis</i> exposed to microcystin-LR	16:10
	Authors: Bruno Reis, Mariana Carneiro, Joana Azevedo, Vítor Vasconcelos, and José Carlos Martins	
	Keywords: Microcystins, Glutathione Transferases, Gene expression, <i>R. philippinarum</i> , <i>M. galloprovincialis</i>	
H: 45 Oral	Title: Key point of Galicia LBM monitoring program: efficient information dissemination to end users	16:15
	Author: C. Salgado	
	Keywords: LBM, monitoring program, information dissemination, end users	
H: 46 Oral	Title: Baltic Algae Watch System: twelve years of service	16:30
	Authors: J. Öberg and B. Karlson	
	Keywords: Phytoplankton, Harmful Algal Blooms, satellite remote sensing, cyanobacteria	

H: 47 Oral	Title: "PHYCOTOX", from microalgae to the risks for human and ecosystem: a French working network on Harmful Algal Blooms	16:45
	Authors: H. Hégaret, P. Hess, Z. Amzil, R. Araoz, V. Fessard, L. Guillou, E. Michel-Guillou, J. Molgó, and M. Nicolas	
	Keywords: French working network, toxins, ecosystem, socio-economic impacts	
	End of session	17:00
