Summary of BEQUALM

The Marine Institute, Galway, Ireland, has conducted a Phytoplankton Enumeration and Identification ring trial, under the auspices of BEQUALM annually since 2005. The purpose of this exercise is to compare the performance of laboratories engaged in national official/non-official phytoplankton monitoring programmes and other labs working in the area of phytoplankton in the European North Atlantic area (see bequalm website). Most of the labs taking part in this scheme at present come from the UK and Ireland. This year for the first time a national monitoring programme in Spain, Galician region has taken part. The Marine Institute is accredited to ISO 17025 for Toxic Marine phytoplankton identification and enumeration since 2004, and recognises that regular Quality Control assessments are crucial to ensure a high quality output of Phytoplankton data.

In January 2008 an invitation to register for the phytoplankton assemblage component of the community analysis Bequalm scheme was issued to laboratories involved in phytoplankton analysis via the BEQUALM website (www.bequalm.org). This included a timetable showing the dates samples would be sent to analysts and expected result dates.

At the beginning of Feb 2008, samples, Taxonomic quiz, instructions and results sheets were sent to all analysts who had registered through the website.

Analysts were given until the end of February 08 to return enumeration and identification results to the Marine Institute (MI) Phytoplankton laboratory. This year 29 analysts in 13 labs across Ireland, Uk and Spain has taken part in this exercise.

Introduction

Biological effects measurements are increasingly being incorporated into national and international environmental monitoring programmes to supplement chemical measurements. The Biological Effects Quality Assurance in Monitoring Programmes (BEQUALM) project, funded by the European Union through the Standards, Measurements and Testing programme of the European Commission, was initiated in 1998. This was in direct response to the requirements of OSPAR to establish a European infrastructure for biological effects QA/QC, in order that laboratories contributing to national and international marine monitoring programmes can attain defined quality standards.

Participants

In total, twenty nine analysts from thirteen laboratories participated in the exercise PHY-ICN-08-MI1. This code is in accordance to defined protocols in the Marine Institute for the purposes of Quality traceability and auditing. The laboratories taking part were located in Ireland, Northern Ireland, Scotland, England, the Isle of Man and Spain. A complete list of the participating laboratories is given in Appendix I.

Appendix I: Participating laboratories

Table showing participating laboratories in the proficiency test PHY-ICN-08 MI1.

Laboratory	Country	No. Of Participants
Marine Institute, Bantry	Ireland	1
Marine Institute, Galway	Ireland	3
Environmental Protection Agency, Dublin	Ireland	2
Environment & Heritage Service, Lisburn	N. Ireland	1
AFBI, Belfast	N. Ireland	4
FRS Marine Laboratory, Aberdeen	Scotland	5
SEPA, Riccarton	Scotland	3
SAMS, Oban	Scotland	2
CEFAS Laboratory, Lowestoft	England	4
CEFAS Laboratory, Weymouth	England	1
Department of Local Government and the Environment (DLGE)	Isle of Man	1
Intecmar	Spain	1
Jacobs Aquatic	England	1
	TOTAL	29

List of workshop Attendees

1. Asha Jones	Jacobs, Southhampton, England
2. Daniel O'Neill	E.H.S. Lisburn, Nothern Ireland
3. Karen Anderson	Jacobs Southhampton, England
4. Mark Hurt	SAMS, OBAN
5. Sascha Kloepper	SEPA, Edinburgh
6. Ken Kennington	SEPA, Edinburgh
7. Theresa Shammon	Isle of Man Government Lab
8. Joe Skeats	E.H.S, Lisburn, Nothern Ireland
9. April McKinney	AFBI, Belfast
10. Wendy Higman	CEFAS, Weymouth
11. Elisa Capuzzo	AFBI/Napier University, Edinburgh
12. Cheryl Crisp	CEFAS Lowestoff
13. Steven Milligan	CEFAS, Lowestoff
14. Caroline Cusack	Marine Institute
15. Rafael Salas	Marine Institute
16. Dave Clarke	Marine Institute
17. Leon Devilly	Marine Institute
18. Josie Lyons	Marine Institute
19. Paula Hynes	Marine Institute
20. Joe Silke	Marine Institute

AGENDA

BEQUALM / National Marine Biological Analytical Quality Control Scheme
Phytoplankton ring test PHY-ICN-08-MI1 2008

Workshop

Thursday, 17th April 2008,
Marine Institute Rockall Meeting Room

Agenda

09:45 **Introductions / Welcome**

10:00 **Intercomparison exercise PHY-ICN-08-MI1**

Materials and Methodology

A: Enumeration exercise
B: Identification exercise
Questions and answers session

11:30 Coffee Break

12:00 **Statistical analysis of ICN exercise: results of enumeration and identification exercise**
John Newell NUIG Mathematics department

13:00 Lunch in Marine Institute Restaurant

14:00 **'Living dinoflagellates: from theca to cyst' Part 1**
Professor Jane Lewis,
Dean, School of Biosciences
School of Biosciences
University of Westminster

14:45 **Diatoms: Pseudonitzschia spp. The Basics**
Dr. Caroline Cusack
Research scientist
Climate Change Phytoplankton Team

15:30 Coffee Break

16:00 **'Living dinoflagellates: from Cyst to theca ' Part 2**
Professor Jane Lewis,
Dean, School of Biosciences
School of Biosciences
University of Westminster

16:30 **Results Discussion: Future developments of ICN 2009**