

WORKPLAN

Activity	September				October				November			
1	General introduction	x										
2	Introduction to HAB species, LM of cultures and preserved material	x	x			x	x	x	x			
3	Isolation and maintenance of cultures					x						
4	Introduction to molecular analyses			x	x					x	x	
5	Participation in the IOC HAB course											x

Notes to the work plan:

Activity 2, the training will be carried out based on examination of cultures and preserved samples kept at the IOC Science and Communication Centre on Harmful Algae as well as samples from the home country of the trainee if available. In case, the trainee brings a good variety of diverse samples, it is considered to produce an id-guide to be used in HAB monitoring in the home country of the trainee.

Activity 4, the training will include extraction of DNA from cultures, which could include cultures from the home country of the trainee, PCR-analyses and how to improve and optimise PCR-methods, submission for sequencing, alignment of DNA sequences and phylogenetic analyses, in order to identify cultures based on molecular methods.

Activity 5, the ‘IOC Training Course and Identification Qualification in Harmful Marine Microalgae’ takes place 18-29 November 2025. It is planned that the trainee participates in this course; the course includes 100 hours of teaching divided into two parts. 1) an internet teaching programme on the Ocean Teacher platform giving general introductions to the various groups of harmful algae, estimated work load is 40 hours of reading; 2) practical species identification including 60 hours of teaching. The course will to some extent overlap with activity 2; however, the course finishes with a 3-exam which qualifies for the ‘IOC Certificate of Proficiency in Identification of Harmful Algae’ issued to participants who pass the exam.

OUTCOMES

- 1) The trainee will be able to identify common as well as more rare and difficult HAB species by light microscopy
- 2) The trainee will be able to isolate cells for culturing, to prepare culture media, and to maintain cultures
- 3) The trainee may become co-author of id material for monitoring of HAB species aimed at the home country, depending on the availability of suitable material
- 4) The trainee will be able to identify cultures of microalgae to species level based on molecular methods, and be able to combine and analyse the results of the molecular and the morphological identifications.