



**ACCOBAMS Course for Highly Qualified
Marine Mammals Observers (MMO)
Passive Acoustic Monitoring operators (PAM)**

*Nave Blu, Acquario di Genova, Italy
18-23 November 2024*

Program

18^h November 2024

- 9.00 – 9.30 Welcome from the Organizational Committee
- 9.30 – 10.00 The MMO - PAM certificate of ACCOBAMS.
Barbara Mussi
- 10.00 – 11.00 Introduction to underwater acoustics. What is sound?
Claudio Fossati
- 11.00 – 11.30 Coffee break
- 11.30 – 13.00 Introduction to underwater acoustics. Seismic wave.
Claudio Fossati
- 13.00 – 15.00 Lunch
- 15.00 – 16.30 Introduction to existing regulations and ACCOBAMS guidelines.
Barbara Mussi
- 16.30 – 17.00 Coffee break
- 17.00 – 19.00 Introduction to marine mammals and acoustic. Cetaceans' biology and distribution in the ACCOBAMS area.
Barbara Mussi



19th November 2024

- 9.00 – 11.00 Introduction to marine mammals and acoustic. Cetacean vocalizations and hearings
Claudio Fossati
- 11.00 – 11.30 Coffee break
- 11.30 – 13.00 Introduction to human activities generating impulsive noise.
Claudio Fossati
- 13.00 – 15.00 Lunch
- 15.00 – 16.30 Introduction to the role of MMO/PAM operators. Acoustic detection and species identification.
Giovanni Caltavuturo
- 16.30 – 17.00 Coffee break
- 17.00 – 18.30 Introduction to the role of MMO/PAM operators. Pam on fixed station and seismic vessels.
Giovanni Caltavuturo

20th November 2024

- 9.00 – 11.00 Introduction to the role of MMO/PAM operators. Pre-survey phase, survey phase, Post-survey phase.
Patrick Lyne
- 11.00 – 11.30 Coffee break
- 11.30 – 13.00 Introduction to the role of MMO/PAM operators. Cetacean detection, communication with the crew, data entry.
Patrick Lyne
- 13.00 – 15.00 Lunch
- 15.00 – 16.30 Introduction to the Life style onboard.
Patrick Lyne
- 16.30 – 17.00 Coffee break
- 17.00 – 18.30 Introduction to Geographic Information System (GIS) to map the acoustic and visual sightings.
Barbara Mussi



21st November 2024

- 9.00 – 11.00 **Using Pamguard for survey.**
Patrick Lyne, Barbara Mussi
- 11.00 – 11.30 Coffee break
- 11.30 – 13.00 **Setting and configuration of Pamguard software (Navigation and Sightings).**
Patrick Lyne, Barbara Mussi
- 13.00 – 15.00 Lunch
- 15.00 – 16.30 **Setting and configuration of Pamguard software (Species Identification).**
Patrick Lyne, Barbara Mussi
- 16.30 – 17.00 Coffee break
- 17.00 – 18.30 **Hands-on training with PAMGUARD-Tips and troubleshooting.**
Patrick Lyne, Barbara Mussi

22nd November 2024

- 9.00 – 11.00 **Autonomous acoustic bottom recorders**
Michele Manghi
- 11.00 – 11.30 Coffee break
- 11.30 – 13.00 **The Intercet platform**
Guido Gnone
- 13.00 – 15.00 Lunch
- 15.00 – 18.00 **Evaluation Test**

23rd November 2024

- 9.00 – 11.00 **Practical session (hydrophones: types and use - hands on and practical tests)**
- 11.00 – 11.30 Coffee break
- 11.30 – 13.00 **Practical session (soundcards and software: specifications and coupling with sound analysis software)**
- 13.00 – 15.00 Lunch
- 15.00 – 18.00 **Practical session (how to get the best from your system)**