



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

Sala Nautilus, Acquario di Genova, Italy

16-21 October 2023

Program

16^h October 2023

- 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



17th October 2023

- 09.00 – 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

18th October 2023

- 09.00 – 11.30** Introduction to the role of MMO/PAM operators. Pre-survey phase, survey phase, Post-survey phase.
Patrick Lyne
- 11.30 – 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



19th October 2023

- 09.00 – 11.30 Using Pamguard for survey.
Patrick Lyne, Barbara Mussi
- 11.30 – 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

20th October 2023

- 10.00 – 11.30 Autonomous acoustic bottom recorders
Michele Manghi
- 11.30 – 11.30 Coffee break
- 11.30 – 13.00 The Intercet platform
Guido Gnone
- 13.00 – 15.00 Lunch
- 15.00 – 17.30 Evaluation Test

21st October 2023

- 09.00 – 18.00 Practice at sea (Instruments, handling, set-up, HW and SW, data logging)