

# COLD-WATER CORALS IN AQUARIA

## MAINTENANCE AND EXPERIMENTATION



**SATURDAY & SUNDAY, JUNE 3-4**

John McIntyre Conference Centre – Pollock  
Halls Estate Edinburgh, United Kingdom

HYBRID FORMAT

9:00-9:10

**WELCOME NOTE***Marina Carreiro Silva*

9:10-11:00

**AQUARIA SET-UP CONDITIONS FOR EXPERIMENTATION***Marina Carreiro-Silva. Cold-water corals in aquaria*  
Existing facilities worldwide · General overview*António Godinho*

Transferring corals from the field to the lab · Maintenance of different coral taxa · Fragmentation and preparation of nubbins

*Alfredo Veiga. Best practices on basic system requirements for maintaining CWCs*

Open/closed water systems · Refrigeration · Water renewal · Artificial seawater · Seawater filtration · Aquaria materials and sizes

*Bruce Shillito. Pressurized aquaria for experimentation with CWCs*

11:00-11:15



Coffee break

11:15-12:45

**EXPERIMENTS UNDER CHANGING OCEAN CONDITIONS***Sebastian Hennige, Kristina Beck*

Setting up experimental conditions for multiple stressor experiments with cold-water corals

## EXPERIMENTS UNDER CHANGING OCEAN CONDITIONS

*Sam Dupont*

Multiple stressor experiments · local variability · how to resolve potential interactions experimentally (lab and field) to allow proper modelling

12:45–13:15



Lunch break

13:15–14:45

## MEASURING GROWTH AND METABOLIC RESPONSES

*Andrea Gori, Meri Bilan*

Measuring growth for octocorals, scleractinian and black corals: standard and emerging techniques · Measuring respiration and excretion: from minimal requirements to high tech

14:45–15:00



Coffee break

15:00–16:30

## REPRODUCTION AND EARLY LIFE STAGES

*Ann Larsson, Rhian Waller*

Sex determination · Coral maintenance and collecting spawned gametes · Fertilisation experiments · Larval rearing · Colouring larvae for experiments · Embryo and larvae experiments · Histological studies pre and post · TEM/SEM applications

DAY 2

*Sunday, June 4*

9:00–10:30

## FEEDING AND METABOLISM

*Covadonga Orejas, Maria Rakka. Feeding experiments with cold-water corals: Antarctic, Mediterranean and Atlantic experiences*

Experiments with natural food, sounds good, where are the problems? Different chamber types · Experiments with gorgonians and black corals · Experiments with scleractinians

## FEEDING AND METABOLISM

*Sandra Maier. The fate of food: Using stable isotope tracers to track resource flows in corals and coral ecosystems*

Tracing the food, what are stable isotope (SI) tracers? · What are SI tracers used for, where can food be traced? · How can they be applied in feeding experiments and in situ · How do we prepare food substrates enriched in  $^{13}\text{C}$  and/or  $^{15}\text{N}$  · How much food do we need to detect the tracer in an organism: Back-of-the envelope calculations · Practical considerations before, during, and after experiment · Critical assessment of methodology

10:30-10:45



Coffee break

10:45-11:45

## IN SITU APPROACHES TO STUDY CORAL ECOPHYSIOLOGY

*Nadine Le Bris. Insights to the temporal dynamics of scleractinian assemblages and potential climatic drivers of changes*

Species distribution and habitat heterogeneity over depth horizons. 3D structure and functional trait estimation · In situ experimental approaches of growth and behavioural monitoring

12:00-17:00

## VISIT TO SAINT ABBS MARINE STATION

*Practical examples on manipulation of carbonate chemistry, temperature and oxygen*

Saint Abbs Marine station is located at Saint Abbs, 1h drive from the workshop location. Bus is provided by the organization. Packed lunch will be provided before departure



8<sup>th</sup> International Symposium

**Deep-Sea Corals**

29 May - 2 June Edinburgh, Scotland