Theme Session G
Sediment–Biota Interactions and Mapping Marine Habitats (G)

Co-Conveners: Stephen Smith (Canada), Heye Rumohr (Germany), and Thomas Noji (USA)

There is an increasing number of international policies and objectives highlighting the importance of marine benthic habitat distribution in support of efficient marine spatial planning. Session G focused on methodologies, sediment-biota interactions as well as the importance of mapping of marine habitats as they support management decisions related to multiple uses of the seabed (e.g. aggregate extraction, dredging, fisheries, wind turbine facilities).

A wide array of sampling techniques and mapping approaches was presented. Recent developments in acoustic technologies with a combination of ground-truth techniques were shown to offer valuable opportunities to explore and map the seafloor at high-resolution levels. However it is clear that aerial and sediment sampling techniques will always have an important place in habitat characterization and mapping.

Several talks focused on the systematic role of sediments and other environmental factors as regulators of the benthic communities.

Some of the highlights from the session included:

- marine benthic habitat mapping in support of the ecosystem approach (G:12 Cogan; G:23 Wouter *et al*. poster) and in relation to sensitive species (G:15 Noji) such as corals (G:01 Munoz);
- integration of data from diverse sampling technologies and sources with a focus on biodiversity (G:19 Pitcher; G:09 Buhl-Mortensen);
- ecosystem processes and sediment-biota interactions as regulators of community structure and biodiversity (G:02 Degraer; G:17 Mueller-Karulis; G:26 Vitaliano *et al.* poster);
- coupled sediment–biota models and their application for management and research (G:20 Kloser) including studies on lobster (G:06 Allan; G:04 Tremblay);
- impacts of fisheries on habitats in relation to scallops (G:08 Smith) and clams (G:07 Thorarinsdottir);
- prediction of fish distributions in relation to habitat using modeling techniques (G:10 Moore);
- new or less commonly used mapping techniques to map marshlands ecosystems by aerial surveys (G:14 Barrell) and visual sediment profiling to describe the sediment geochemistry (G:03 Teal).

Four presentations (G:11, G:05, G:22, and G:21) were withdrawn on short notice. The resultant extra time was used to discuss publication matters with Andy Payne who offered to consider a suite of papers from the session in the ICES Journal Mar. Science. This offer was accepted and a suite of between 6 and 11 papers from this session is planned for publication. The co-conveners will coordinate the revision and delivery of the final drafts to a point of contact, whose name will be communicated to the co-conveners.