Seagrasses and sea level rise: current knowledge, gaps and new methodologies

1st-3rd of April 2014, Edinburgh Napier University

Organisers: Prof. Mark Huxham, Dr Karen Diele, Maria Potouroglou (ENU)

Participants: Prof Hilary Kennedy (Bangor University), Dr Ken Krauss (U.S. Geological Survey), Dr James Bull (Swansea University)

Over the past few years we have identified a major gap in knowledge on sediment movement, surface elevation change and the role of seagrass in modifying these processes. Sediment dynamics for seagrass meadows have been overlooked and poorly studied worldwide. In April 2014, we held an inaugural workshop at Edinburgh Napier University and agreed that there was scope for an exciting and collaborative project aimed at developing our understanding of this area. We were very grateful for MASTS funding that was used to attract experts who would share knowledge in order to establish an international network. Travel costs were paid for our key speaker, Dr Ken Krauss (USGS), an expert who developed a global standard for monitoring coastal wetland vulnerability. The other participants were also reimbursed for their travel costs.

The objectives of the workshop were:

- **i)** Introduce prospective collaborators and their expertise;
- **ii)** Share information, experience and knowledge;
- **iii)** Identify prospective field sites and determine approaches, methods, challenges and expectations.

Outputs

The workshop lead directly to a new global initiative on seagrasses and sediment dynamics called SeagrasSeDy. A new methodology was developed during the workshop which is based on Surface Elevation Tables (SETs) that have been widely employed in other coastal ecosystems around the world -mangroves and salt marshes- to study patterns of sediment elevation/accretion. Several sites around the world were identified as potential field sites, including Scotland, Kenya, Tanzania, Brazil, Saudi Arabia and Australia.

Moving on from the workshop, most of the sites have been now set up following a common design, including the one in the Firth of Forth, Scotland. We aim at compiling initial monitoring results from all the sites and work collectively on co-authored research articles with any data generated shared freely between all members.

Costs

	Travel costs		
Participant	**Flight**	**Train**	
Kenneth Krauss	793.34		
Hilary Kennedy		83	
James Bull	99.57		
Total	892.91	83	**£ 975.91**