

ECSA 54 Workshop - Sesimbra, 14 May

ECSA ⁽¹⁾, MASTS ⁽²⁾ & IECS ⁽³⁾ joint Workshop *Marine Biodiversity, Function, Services and Management*

Synopsis:

The importance of marine biodiversity is widely recognised for the intrinsic value of habitats and species but also for its functioning which produces ecosystem services from which we obtain societal benefits. In this workshop we will provide a brief introduction to these topics and will illustrate the subject with two short stimulus presentations which will provide examples of biodiversity in coastal wetlands and the wider sea, the users and the pressures on those areas, the key stakeholders and the different management approaches considered to balance any conflicts and ensure sustainability. The aim is for a discussion which will be of interest to those familiar and those less-familiar with the topics: paradigms of the structure and functioning of marine environments, vulnerable habitats and species, the socio-ecological system, the users, uses of the system, and management approaches.

Facilitators: Professors Mike Elliott and Victor de Jonge

Stimulus talks by Stewart Angus (SNH, UK) and Lauren McWhinnie (HWU, UK)

Outline Programme:

18:30 – Introduction and Aims of the Workshop (VdJ)

18:35 – Marine Biodiversity, Function, Services: what are they and why are they important? (ME)

18:45 – Historic water management and habitat connectivity: how an understanding of the past can inform modern biodiversity management (SA)

19:00 – Approaches to marine environmental management: balancing diversity with stakeholder demands (LM)

19:15 – Discussion (led by VdJ and ME)

20:00 – Conclusion (VdJ)

Indicative reading:

de Jonge VN & Diana Giebels, (submitted). Handling the 'environmental knowledge paradox' in estuarine and coastal policy making. *Ocean Coast Manag* submitted.

de Jonge, VN, Rute Pinto, R. Kerry Turner, 2012. Integrating ecological, economic and social aspects to generate useful management information under the EU Directives' 'Ecosystem Approach'. *Ocean Coast Manag* 68: 169-188 doi:10.1016/j.ocecoaman.2012.05.017

Elliott, M (2013). The *10-tenets* for integrated, successful and sustainable marine management. *Marine Pollution Bulletin* 74(1): 1-5.

Elliott, M. (2011). Marine science and management means tackling exogenic unmanaged pressures and endogenic managed pressures – a numbered guide. *Marine Pollution Bulletin*, 62: 651-655.

Gormley, K.S.G., McWhinnie, L.H., Porter, J.S., Hull, A.D., Fernandes, T.F., Sanderson, W.G. (2014) Can management effort be predicted for marine protected areas? New considerations for network design. *Marine Policy*, 47: 138-146.

Pascual, M., Borja, A., Franco, J., Burdon, D., Atkins, J.P. & Elliott, M. (2012). What are the costs and benefits of biodiversity recovery in a highly polluted estuary? *Water Research*, 46: 205-217.

Pinto, R, V.N. de Jonge, J.M. Neto, T. Domingos, J.C. Marques, J. Patrício, 2013. Towards a DPSIR driven integration of ecological value, water uses and ecosystem services for estuarine systems. *Ocean Coast Manag* 72: 64-79 doi:10.1016/j.ocecoaman.2011.06.016.

Pinto, R., de Jonge, V.N., Marques, J.C., Chainho, P., Medeiros, J.P., Patrício, J., 2013. Temporal stability in estuarine systems: implications for ecosystem services provision. *Ecological Indicators* 24 p 246-253.

Tett, P., Valcic, B., Potts, T., Whyte, C., Culhane, F., Fernandes, T.F. (2102). Mussels and Yachts in Loch Fyne, Scotland: a Case Study of the Science-Policy Interface. *Ecology and Society*, 17(3), 16.

(1) Estuarine and Coastal Sciences Association (ECSA) is an international organisation dedicated to the promotion and advancement of multidisciplinary research into all aspects of estuaries and coasts, and the application of science and technology for their sustainable environmental management. (http://www2.hull.ac.uk/administration/ecsa_home.aspx)

(2) The Marine Alliance for Science and Technology for Scotland (MASTS) is a consortium of organisations engaged in marine science and represents the majority of Scotland's marine research capacity. (<http://www.masts.ac.uk/>)

(3) The Institute of Estuarine & Coastal Studies (IECS) is a multi-disciplinary pure and applied research and consultancy organisation with over 30 years experience in the marine, coastal and estuarine environment. (<http://www.hull.ac.uk/iecs>)