



Introduction to the VALMER Project and North Devon Case Study overview

I. VALMER

Ecosystem service assessment and valuation has the potential to contribute to improved marine management – but we are still not sure how. Testing methods is crucial to move the science and management forward for practical application. VALMER's main aim is therefore to *'evaluate how effective marine ecosystem service valuation can contribute to better marine planning and management in the Western Channel.'* It is part-funded by the INTERREG IV A 'Channel' Programme project, and runs for two years, seven months from September 2012 to March 2015.

Central to the VALMER project are its six case studies, they are where the project will demonstrate how an Ecosystem Services Assessment (ESA) has the potential to improve marine management and planning in theory and, crucially, how such an improvement can be achieved in the context of real, site specific, marine management issues.

The VALMER North Devon Stakeholder Group

The Group has been convened by Steve Guilbert (Devon Maritime Forum/Devon County Council) who coordinates research at the case study site.

It comprises a group of stakeholders who are interested in the management and governance and/or have considerable knowledge and understanding of the marine and coastal environment within the North Devon Biosphere Reserve Marine Area. In particular it is a group with an interest in/knowledge of the sub-tidal sedimentary habitats and the important ecosystem services they support, with a particular focus on fisheries production from food webs and nursery habitat processes.

Stakeholders when brought together can give advice on, and help deliver, certain key elements of VALMER's research for this case study.

It is envisaged that participating in the Group will enable members to learn more about marine ecosystem services assessment and valuation and its practical application in management situations. We anticipate that results from this research will feed into many aspects of members' own work, and contribute to the long term management of the site.

The knowledge and experience gained at the North Devon site through undertaking the ecosystem service approach will be shared with others involved in marine and coastal management in the UK, Europe and internationally.

Role of the VALMER North Devon Stakeholder Group

Participation will be made on a voluntary approach and members will aim to:

- Attend a maximum of four workshops between December 2013 and July 2014, to be located within the North Devon area, for example at Bideford or Barnstaple.
- Participate in scenario development to explore how marine ecosystem services valuations can inform marine and coastal management and planning decisions and;
- Where appropriate, members will disseminate information and results from the VALMER project to colleagues, and where necessary obtain colleagues' input into the process.

The Group will be chaired by Steve Guilbert (Devon Maritime Forum/Devon County Council)

- Formal minutes and/or workshop outputs will be produced by the case study coordinator who will also act as the main contact for the group.

Secretary and Contact

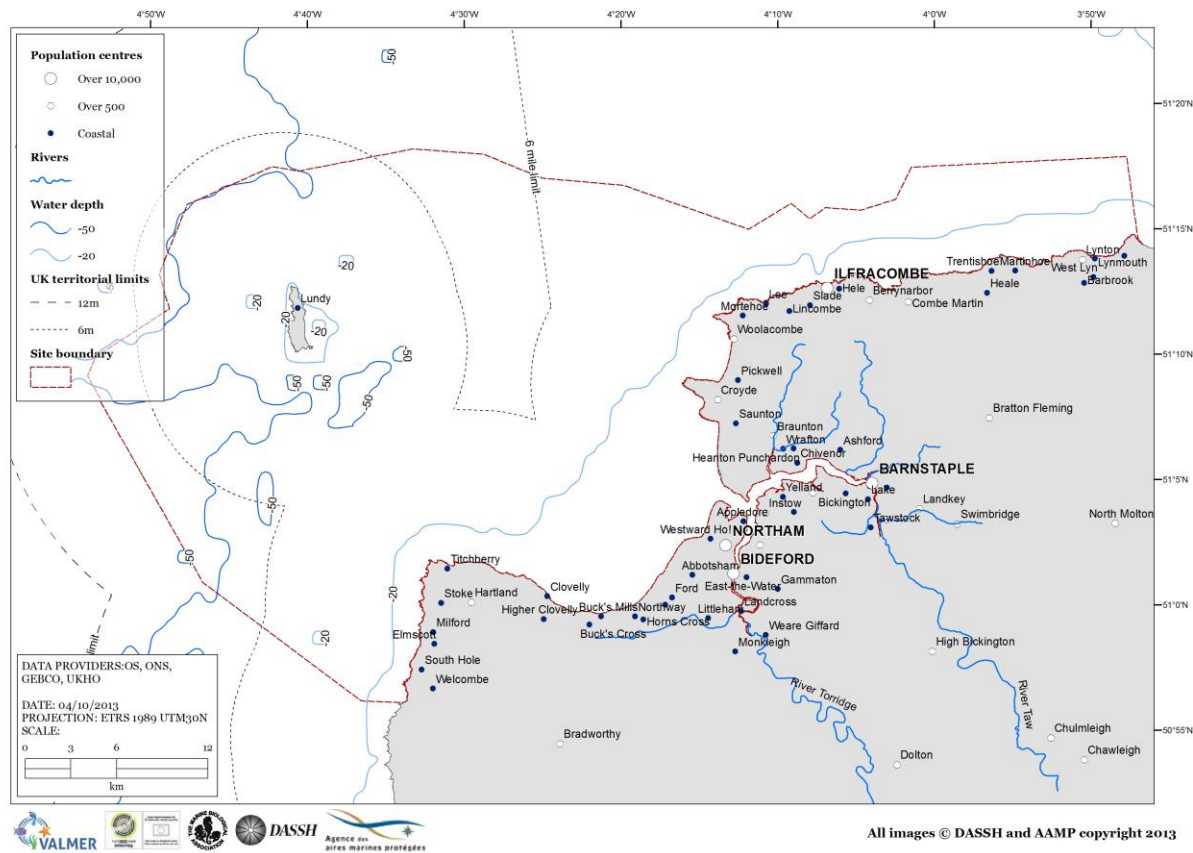
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II. North Devon Case Study Overview



Case Study Area

The case study area comprises the marine and coastal parts of the UNESCO designated North Devon Biosphere Reserve. This area of over 1000 km² incorporates the internationally important Braunton Borrows sand dune system SAC, the North Devon Coasts Areas AONB, and Lundy MCZ. Important marine and coastal habitats include a rocky foreshore, inter-tidal mud and sand flats, sub-tidal mud and sand flats, sand dunes and various types of saltmarsh. In terms of human geography the coast remains relatively undeveloped and is typified by small towns and villages with economies reliant to a significant extent on tourism and leisure, commercial fishing and agriculture.

Focus of the study

The North Devon case study site comprises a range of different marine and coastal habitats and ecosystems providing different benefits which contribute in various ways to local economies and more broadly to human well-being. The choice of which habitat and associated ecosystem services to assess in North Devon was **stakeholder driven** and was based on a number of criteria including the

practicality, originality, and policy relevance of any potential valuation. **Sub-tidal sedimentary habitats** and their role in supporting commercial fish species emerged as the preferred option for valuation and assessment.

Sub-tidal sedimentary habitats (seabed muds, sands, and gravels) cover over 79% of the case study area, but are often overlooked and underappreciated. In North Devon, they incorporate a range of habitats that are home to a rich variety of flora and fauna and play a key role in supporting commercial fisheries production through providing food for fish, and suitable nursery and spawning grounds.



Data collection and sub-tidal sedimentary habitat valuation

VALMER project's specialists in marine data and mapping (Marine Biological Association) have extensively trawled existing datasets to identify, quantify and map the sub-tidal sedimentary habitats and their associated ecosystems in the case study area.

Specifically data has been collected on:

- Human activities and uses that affect the seabed – their distribution and intensity in the NDBR marine area
- Ecology – seabed species and habitats, nursery and spawning areas for commercially important fish species and reported catch
- Management – existing measures including MPAs, fisheries restrictions

To ensure these data are as accurate and up-to-date as possible, the VALMER North Devon **stakeholder group will be invited to comment on the data: verify, identify gaps and suggest additional sources.** Using these data, a team of environmental economists from the Plymouth Marine Laboratory will then assess and ascribe value, both in monetary and in non-monetary terms to the seabed, as a habitat to support commercially targeted fish.

Exploring scenarios

While this ecosystem mapping and valuation data represents a valuable resource in itself, it will also be used as the basis from which to build and trial a number of plausible scenarios. Scenarios will be developed that represent plausible management options. These may include possible future developments such as renewables installations, Marine Conservation Zones or other changes in use or management. The scenarios will be elaborated into changes in human activities and management restrictions in the case study area and **the stakeholder group is critical to the success of this process** in terms of both horizon-scanning for possible future change and elaborating this into maps of activities. These will be used as input into a network model and the model will compute changes in the seabed ecology as result of the changes in activities and management of the site.

Outputs and implications for governance

Underpinned by the findings of these scenarios and in further collaboration with local stakeholders VALMER will also work towards the production of a 'marine vision' for the North Devon case study area. It is intended that this vision will represent the aspirations of local stakeholders and citizens for the long-term availability and management of sub-tidal sedimentary ecosystem services in the area.

For further information on the VALMER project and the other case study sites please visit:

www.valmer.eu