

<p>Institution: Liverpool Hope University</p>
<p>Unit of Assessment: Geography, Environmental Studies and Archaeology (17)</p>
<p>Title of case study: Sand Dune and Shingle Network: linking science and management</p>
<p>1. Summary of the impact (indicative maximum 100 words) Coastal dunes are one of the most threatened habitats in Europe, and are in need of urgent conservation. North West Europe is one of the most important areas for vegetated shingle worldwide, and the UK is especially important. The Sand Dune and Shingle Network has helped to change the understanding, policies and practices relating to these habitats in the UK, and in Europe through the creation of knowledge exchange opportunities in a diverse stakeholder environment, by working with and for NGOs. This allows statutory conservation agencies to deliver research, consultancy and policy guidance.</p>
<p>2. Underpinning research (indicative maximum 500 words) This case study presents the outcomes and impacts of an initiative which began in Liverpool Hope University in 2006 using the Higher Education Innovation Fund (HEIF). The establishment of a 'Dune Network' was first proposed at the European Dune Symposium in Leiden in 1987, the proceedings of which were published as van der Meulen, F., Jugerius P.D. and Visser, J.H. (1989) <i>Perspectives in Coastal Dune Management</i>, SPB Academic Publishing. This led to the launch of a European Union initiative for Dune Conservation and Coastal Management (EUDC). The EUDC was supported by a newsletter 'Eurodunes' which was published until the early 1990s by the University of Oldenburg. This initial meeting in Leiden was followed by dune conferences in Seville, Spain in 1989 and Galway, Ireland in 1991. These three events developed an informal and loose network of practitioners and academics, and the proceedings of the conferences contained contributions from members of the current Sand Dune and Shingle Network and contained many valuable reports. These are still relevant today for the study of aspects of dune ecology, geomorphology and management. In 1993 the interests of the EUDC were broadened to consider a wider agenda based on Integrated Coastal Zone Management (ICZM), and this was eventually transformed into what is now the NGO known as the Coastal and Marine Union (EUCC) and based in The Netherlands. This meant that there was no longer a dedicated European or UK national resource for sand dunes, and the capabilities of this informal and loose network was not utilised. Established in 2006, the Sand Dune and Shingle Network sets out to help raise awareness of the threats to coastal dunes and shingle and to encourage networking, exchanges of experience and cooperation within and between various sectors. Its primary geographical focus is the United Kingdom, but it is also active across Europe through an emerging European Dune Network (EDN). It has global reach. In 2008 the Network organised an international conference entitled, 'Changing perspectives in coastal dune management', the proceedings of which were published in 2010 as a special edition of the <i>Journal of Coastal Conservation; Planning and Management</i> – Volume 14, Issue 2. As the overarching purpose of the Network is to link science and management, its activities are action-orientated and, as such, its outputs and outcomes are reflected in this approach. Amongst its productions, the Sand Dune and Shingle Network has published dune management models for the European Commission, and, in order to help bridge the gap between science and management, it established an accessible 'Occasional Paper' series that reviews the latest scientific research in a newsletter published three times per year. All are available to download free of charge at the Network's web site http://coast.hope.ac.uk/index.php?option=com_content&view=article&id=38&Itemid=26</p>
<p>3. References to the research (indicative maximum of six references) Houston J.(2008) <i>Management of Natura 2000 habitats. 2130 *Fixed coastal dunes with herbaceous vegetation ('grey dunes')</i>. European Commission ISBN 978-92-79-08319-8</p>

Impact case study (REF3b)

Available at

http://ec.europa.eu/environment/nature/natura2000/management/habitats/pdf/2130_Fixed_coastal_dunes.pdf

Houston J. A. (2008) *Management of Natura 2000 habitats. 2190 Humid dune slacks*. European Commission

ISBN 978-92-79-08319-8

Available at

http://ec.europa.eu/environment/nature/natura2000/management/habitats/pdf/2190_Humid_dune_slacks.pdf

Houston J., Rooney P. and Doody P. (2009) *The conservation and management of coastal vegetated shingle in England: report of the meeting at Salthouse, North Norfolk 18th September 2008*. Sand Dune and Shingle Network ; Occasional Paper No. 1. Liverpool Hope University Press. ISBN 978-1-8987-749-03-5 Available at <http://coast.hope.ac.uk/images/Shingle%20Report.pdf>

Rooney P., Houston J. and Weaver G. (2009) *The conservation and management of Sea Buckthorn (Hippophaë rhamnoides) in the UK*. Sand Dune and Shingle Network ; Occasional Paper No. 3. Liverpool Hope University Press.

ISBN: 978-1-898749-10-3 Available at

<http://coast.hope.ac.uk/images/The%20Conservation%20and%20management%20of%20Sea.pdf>

Rooney P. (2010) Changing perspectives in coastal dune management. *Journal of Coastal Conservation; planning and management*. **14** 71-73

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4. Details of the impact (indicative maximum 750 words)

The Sand Dune and Shingle Network is based within the Geography Department

The aim is to conserve sand dunes and shingle as dynamic landscapes. The network seeks to achieve this by:-

- Encouraging people to value and understand the habitats.
- Championing the habitats.
- Facilitating an exchange of knowledge and support actions that are beneficial
- Making the Network an active community of participants, and a recognised source of expertise and authority at the global level.

The initiative builds on the results of networking, highlights projects and publications, and develops opportunities for conferences, study tours and workshops. The Network also took the lead in developing, and operates as part of, a European Dune Network and works closely with the Coastal and Marine Union (EUCC), the largest European coastal NGO.

Formal support for the establishment of the European Dune Network was given by the EUCC Council at its meeting in April 2010. Agreed aims are to:-

- Promote the sustainable use and management of coastal dunes.
- Support policies and actions that conserve the intrinsic natural values of coastal dunes.
- Develop a vibrant European network of communities concerned with coastal dune use and management.
- Support the advancement of knowledge and understanding of coastal dunes.
- Provide an international platform dedicated to coastal dunes

These aims reflect concerns that coastal dunes remain threatened habitats across Europe.

The Network currently includes, many of the following groups: site managers; national policy makers; students and researchers; biodiversity officers; ecologists; geomorphologists and hydrologists. It is currently expanding the membership to include coastal engineers, golf course managers, tourism interests, forestry interests, military sites and landscape historians. The Network operates by sharing information across different sectors/disciplines and links science and

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management. The common interest is the natural resources of coastal dunes and shingle, and a desire to find sustainable solutions to conservation issues. The Network encourages members to be active and to participate in discussions and field meetings.

By September 2013 the Network had over 270 full members, and distributes a newsletter published three times each year to about 500 contacts worldwide. It has established an 'Occasional Paper' series through which network events are recorded and disseminated. Copies of these publications and newsletters are free to download from the Network web site at <http://coast.hope.ac.uk/>

The Network team, principally Paul Rooney as the Director and John Houston as the Project Officer, has co-ordinated and delivered a number of outputs leading to improved understanding and/or management of coastal habitats. Examples include:-

- Paul Rooney was commissioned to present ecological evidence for the statutory agency - Scottish Natural Heritage - at the Public Local Inquiry held between June and July 2008, which was relating to Donald Trump's development of a golf course on Menie Links, Aberdeenshire. The Report to the Scottish Ministers by the Directorate for Planning and Environmental Appeals is available at <http://www.scotland.gov.uk/Resource/Doc/212607/0067709.pdf> (see also Stewart Angus section 5). This decision is seen a watershed for the future of coastal dune management, has wide implications for environmental planning and decision-making.
- As the Network Project Officer based at Liverpool Hope, John Houston was commissioned by the European Community to produce dune management models for fixed grey dunes and dune slacks in 2008. These management models impact upon dune policy and practice across Europe and are available to download at http://ec.europa.eu/environment/nature/natura2000/management/habitats/pdf/2130_Fixed_coastal_dunes.pdf and http://ec.europa.eu/environment/nature/natura2000/management/habitats/pdf/2190_Humid_dune_slacks.pdf
- Network staff are invited members of the England Coastal Biodiversity Integration Group, chaired by Natural England and attended by a range of statutory bodies, research agencies and NGOs. The Network is identified as the 'Dune and Shingle Champion' in this group.
- During 2009, the Network team at Hope were commissioned by the statutory agency 'Countryside Council for Wales' (CCW) through contract number 053 TSG 08 for a project 'A study to assess stakeholder support for implementing a programme of dune re-mobilization on selected dune systems in Wales'. The results of this study led to a countrywide programme of dune re-mobilization, and have assisted CCW (now natural Resources Wales) to re-position itself with regards to its approach to dune management.
- In March 2012 a Memorandum of Agreement was signed between Natural England (statutory agency) and the Sand Dune and Shingle Network at Liverpool Hope to provide a 'Sustainable Dune Management' on-line internal publication. This provides a suite of tools for use by Natural England Advisers to enable more effective responses to casework on sand dune SSSIs, and to improve the quality and effectiveness of their advice on strategies and schemes for coastal management.

5. Sources to corroborate the impact (indicative maximum of 10 references)

- Senior Environmental Specialist: Coasts - Natural England
- Principal Specialist: Coasts and Water – Natural England
- Policy and Advice Manager (coastal ecology) – Scottish Natural Heritage (<http://www.scotland.gov.uk/Resource/Doc/212607/0067709.pdf>)
- Coast and Marine Advisor – The National Trust