

UK Sand Dune and Shingle Network

Welcome to the first newsletter of the UK sand dune and shingle network.

We intend to circulate news twice a year in April/May and October/November.

This will be in addition to information added to the website www.hope.ac.uk/coast.

Progress with the network

We have funding for the next 18 months through the Higher Education Innovation Fund (HEIF 3) and a grant from Natural England. This will allow us to develop the network and run a number of events. It is our intention that the network will continue for years to come provided that we can offer you, the members, relevant and useful information.

We will try to provide information on forthcoming events, publications and news from the agencies. But perhaps the real value of the network is opportunity to contact one another on specific issues, to share management experience and to encourage the wider study and appreciation of sand dunes and shingle.

This personal element of the network will underpin our first workshop in mid-Wales in May 2007.

We are very pleased to have linked up with the VINE network www.vineproject.org.uk to help tease out our individual feelings about dunes.

We hope that the dune and shingle network can fill a niche by working closely with the larger umbrella initiatives of the UK Biodiversity Action Plan, the Forum for the Application of Conservation Techniques and the Grazing Animals Project.

At this stage we don't quite know what you want from a newsletter. Short paragraphs with links to websites or something more like the Grazing Animals Project (GAP – see <http://www.grazinganimalsproject.org.uk/>) newsletter with articles and photograph. Please let us know.

We have about 80 people on the network at present and hope to end up with about 150. From the registration forms submitted we can target specific interests. Later, we may ask your permission to set up a members' on-line database; but for now we can use the database to help with networking.



North Walney, Cumbria, May 1991

Network activity

The network was launched at the LBAP conference in Liverpool in December 2006 (see Biodiversity News 37, January 2007).

A report of the event was also written up in a special edition of the IEEM newsletter 'In Practice', and proceedings of the event are in production.

Workshop held by the project as part of this launch event confirmed the potential value of the network to the deliver of Local Biodiversity Action Plans. Our initial assessment is that there are a large number of actions proposed for sand dune and shingle habitats, and their associated priority species, but little sharing of information between LBAPs. We have been given permission to access the BARS database so that we can make a fuller assessment of the level of project activity.

Events

Network events are announced on the website www.hope.ac.uk/coast

Our planned 'golf and environment' event had to be postponed and will be re-scheduled later in the year.

The post workshop activities for 'Working Towards Changing Perspectives in Coastal Dune Management' are now underway. Four groups are working to develop review and discussion papers on climate change and coastal dynamics, trends in plant communities, people and dunes and approaches to dune management. The groups shared ideas before the workshop, developing a draft review and are aiming to finalise reports by early 2008. Network members will be able to see and comment on the drafts.

The workshop is one element of our preparations for the international dune conference to be held in Liverpool from 31 March -3 April 2008. See website for more details. The event will be held at the Marriot Hotel in the heart of Liverpool, European Capital of Culture 2008.



Field excursions and regional workshops



Ponies grazing at Newborough Warren NNR

On 16 March 2007 Wil Sandison of CCW hosted a visit by a group from Liverpool Hope University and the Sefton Coast Partnership to Newborough Warren.

What was most striking was the different approach adopted by CCW for condition monitoring compared to that by Natural England. In Wales it is the EU habitats which are monitored by preference, rather than the SSSI features as in England-yet both systems appear to follow the JNCC Common Standards Monitoring approach.

Newborough is evaluated on the condition of four features: fixed dunes, dry slacks (with *Salix repens*), humid slacks and mobile dunes. The programme of extensive grazing by Welsh Mountain Ponies (reported in Conservation Land Management 3(3) 2005) has returned fixed dunes and dry slacks to favourable condition. However, the mosaic of humid slacks has been impacted by the drawdown of the watertable from the adjacent Newborough Forest and the foredune / mobile dune zone is affected by erosion back into the forest leaving only parts in natural state.

The issues concerning the impact of the forest are being discussed by the Newborough Liaison Partnership convened by the Forestry Commission.

A recent review of hydrology at Newborough can be found at;

<http://www.forestry.gov.uk/pdf/NewboroughReviewFinalReport.pdf>



Overview of the open dunes at Newborough Warren NNR

Regional Event at Lossie Forest, Moray, Scotland

Friday 7 September 2007

Coastal forestry and restoration of dune habitats

A one day field event and discussion, initiated by the Network, hosted by Forestry Commission for Scotland, and supported by Scottish Natural Heritage, at Lossie Forest and Culbin Forest.

A significant area of the total UK dune and vegetated shingle resource has been planted with conifers, the earliest experiments dating back to the late 18th Century. The best known sites include the Culbin sands, Newborough Warren, Tentsmuir and Ainsdale. In recent years there have been several initiatives to restructure and set back coastal plantations in many European countries.

LIFE projects and other similar initiatives have encouraged a dialogue between forestry interests and nature conservation interests. It is time to review this experience, to see how conservation priorities have been accommodated in forestry practice, to assess the success of dune and shingle restoration projects and to see how we can reach an acceptable balance between different land uses.

The meeting will bring together forestry and conservation practitioners, with interests in both the conservation of European Habitats and in meeting UK Habitat Action Plan. An output of the meeting will be a review of the current issues for forestry on dune and shingle habitats and recommendations for achieving the BAP targets across the UK.

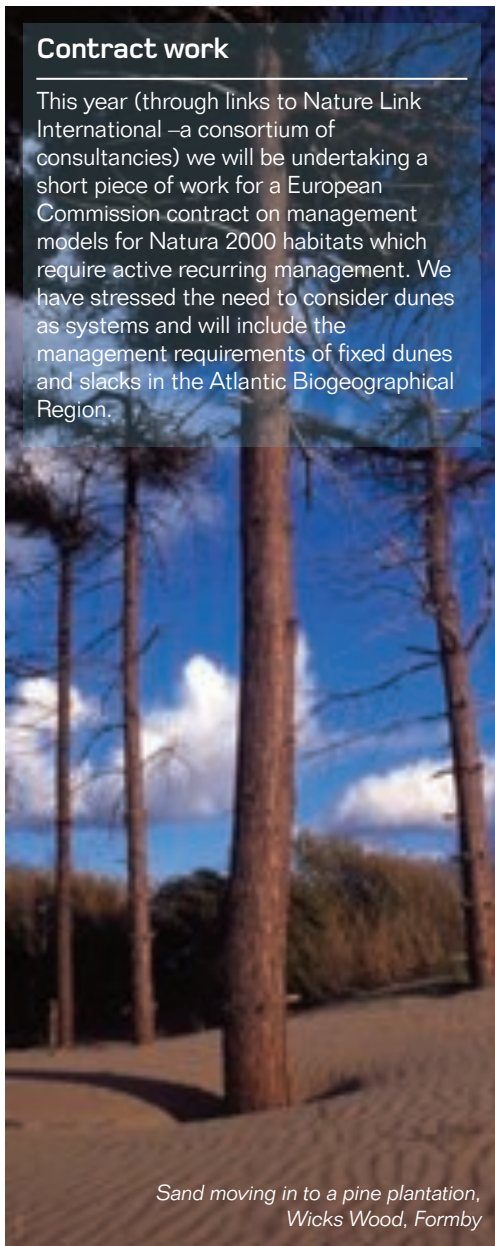
Please let us know if you are interested in this meeting. The aim will be to start in Elgin on Friday 7 September (good rail links to Inverness and Aberdeen) with a visit to Lossie Forest, then moving on to Culbin Forest for lunch and discussions /presentations and spending the afternoon at Culbin with a finish and drop off in Inverness.

We are considering travel arrangements. There are good rail links, especially along the east coast and we may be able to get 7 people together to share a lift from Liverpool on Thursday 6th September.

With thanks to District Forester Jim Lauder for offering to host the event.

Contract work

This year (through links to Nature Link International –a consortium of consultancies) we will be undertaking a short piece of work for a European Commission contract on management models for Natura 2000 habitats which require active recurring management. We have stressed the need to consider dunes as systems and will include the management requirements of fixed dunes and slacks in the Atlantic Biogeographical Region.



*Sand moving in to a pine plantation,
Wicks Wood, Formby*

1. Removal of Sea Buckthorn at Spike Island, East Lothian, Scotland

Article based on a report submitted to the John Muir Country Park Advisory Group in March 2007 by Duncan Priddle, East Lothian Council.



Following agreement with the Advisory Group, East Lothian Council commissioned a contractor to remove Sea Buckthorn from Spike Island. The work was completed between 23/01/07– 25/01/07. A 15- tonne tracked forestry mulcher (RD 350) was used for the work. Over 2 ½ days the mulcher cleared a stand of mature and self-seeded Sea Buckthorn covering (maximum) 230 x 125m. The method involved the shredding of all material via a series of tungsten –tipped teeth, situated on a drum at the front of the vehicle. The material was both shredded up as it stood and ripped up from the ground (to a few cms below the surface level) with the chippings expelled from the back of the mulcher.

Once completed, the condition of the ground surface reflected the density of the old Sea Buckthorn stand.

In places of densest growth, chippings left were up to 30cms in depth, whereas at more peripheral areas the depth of chippings was much less. On 28/02/07 a site meeting was held with Stewart Angus, SNH's coastal specialist. He suggested that priority should be given to restoring the area to marram grassland. To achieve this, a range of monitoring and management options are to be piloted taking into consideration ;

- the resources available,
- the degree of woody material that has now entered the soil profile,
- regeneration of sea buckthorn,
- the likely colonisation of the habitat by ruderal vegetation.

It is proposed to divide the area into trial plots, and that different techniques are employed within each, to assess the most effective restoration. Management techniques will include;

- leaving one area unmanaged as a control plot
- clearance of the cut debris from one / more plots
- clearance of cut debris and subsequent transplanting of marram grass from the adjacent dune grasslands to one plot
- the spraying / digging out of regenerating sea buckthorn stems from all plots
- the strimming of all ruderal vegetation from all / some plots

A suitable number of quadrats (c.12) will be identified across the site and changes on the ground will be recorded by fixed-point photographs.

The removal of Scots Pine seedlings outwith the pilot area, but within Spike Island, will continue. Consideration will also be given to resource requirements to remove other woody regeneration, such as Elder, Sycamore and Hawthorn, as has been proposed by officers from SNH.

Contact: Duncan Priddle, Countryside Assistant, Landscape and Countryside, East Lothian Council dpriddle@eastlothian.gov.uk



2. Tentsmuir National Nature Reserve, Scotland

Thanks to Tom Cunningham for submitting the annual report for Tentsmuir National Nature Reserve (2005–2006).

Of particular interest to the dune network are;

- The scale of the dynamics of the site- one of the most rapid areas of accretion on the east coast but in places over 200m lost in 20 years.
- A nine-year scrub and coarse weed control programme which included felling 95% of tree cover, the cutting of younger trees and scrub and herbicide spraying of target species.
- The restoration of open dunes following clear-felling by Forest Enterprise in 1997 (11ha).
- An increasing Red Squirrel population in the forest area. Grey Squirrel culling initiated.
- The high quality education programme and education pack

3. Kenfig National Nature Reserve, Wales

Thanks to David Carrington for submitting the wildlife report (2005) for the reserve to the Network. Of particular interest in this report are;

- Mowing and sheep grazing of slacks important for populations of Fen Orchid
- Fen Orchids are good numbers in mown slacks but not in the un-mown areas.
- Rabbit numbers increasing, assisted by manual creation of holes.
- There is a gradual stabilisation of dunes due to a lack of traditional grazing (cattle, sheep and rabbits).

Please contact David if you would like more information on these topics.

International News

We have continued to develop links with our Dutch counterpart at the University of Amsterdam.

Through these links we should be able to establish more regular contact between managers and researchers in the UK, Netherlands and Belgium. It is in this 'triangle' that we share very similar problems and have developed similar management techniques.

Cultural-historic Sand-Dyke Landscapes in Europe

We have had an exchange of information with Hans Klepper from the Netherlands on this project. It is commissioned by the EUCC (and promoted in the EUCC newsletter). The project description is given below.

In some places along the Western European coast there are some typical cultural-historic landscapes, which are characterized by (former) agricultural plots of land, surrounded by sand-dykes of some metres high. These locations came into being in the 1st half of the previous century and are situated in areas where there are older more eroded dunes lying more inland, behind the younger dunes directly along the sandy coasts of Europe.

Areas of this type are now known to exist in Northern Germany (Wiesmoor), The Netherlands (Goeree), France (Lessay/Normandy) and at two places in Portugal (North and South of Oporto). It's not unlikely that there are more sand-dyke landscapes in European coastal areas like those just mentioned. By means of this project, we would like to add our knowledge to that of others, in order to map out these areas, to compare them and to develop a policy as to conservation, durable management and perhaps new ways of development.

We invite you to contact us if you happen to know (more) of these sand-dyke landscapes, or if you would like to join our project. For more information contact Hans Klepper at: KM.A@filternet.nl.



The project aims to map the existing sand-dyke landscapes in Western-Europe, describe their origins and compare their characteristics. Further plans should be developed, which could become the basis for a policy on the conservation of this cultural heritage.

On the Sefton Coast, north west England, there are examples of low turf walls, locally known as 'cops, and Colin McLeod in his study of Barry Buddon (see below) mentions the construction of 'feal dykes' constructed of turf, and sometimes topped with gorse.

Hans Klepper has given us some further information and clarification of his project. The type of landscape we are describing on the Sefton coast and at Barry Buddon seem to be much older.

Hans writes, *"If I read your mails correctly, I get the impression that the dune fields of Sefton Coast differ from the sand dike area of my project. It appears that you are talking about low sand dikes enclosing dune fields. In Holland, we know these areas as well along the North Sea coast. From North to South: Texel, Katwijk, Monster, Voorne, Goeree and Schouwen. In Holland these are dune fields*

which were made in the late Middle Ages by erecting dikes made from sand and turf of about 1 metre high on the division line between properties, meant to keep the cattle in and to stop erosion by wind. These dikes are called "schurvelingen" in Goeree and the area is called "schurvelingengebied". Lowering of the surface didn't take place then. This is different to the later development in approximately the same area (in the first half of the 20th Century), the so-called sand dike area, when lowering of the field surface was the main target. The dug sand was deposited in the form of dikes. The lowering of the surface brought the crops closer to the water-table. To get rid of this superfluous sand, more dikes than already existed had to be thrown up and fields of a much smaller acreage than the medieval ones were the result."

Although Han's work does not involve the medieval "schurvelingengebied" this exchange does help to confirm that we have here in the UK examples of European cultural landscapes. Perhaps through the network we can exchange more information this. Does anyone know of a similar practice in the UK to lower dune fields?

Rosa rugosa

Is *Rosa rugosa* a problem species that we should be paying more attention to?

In Germany and the Baltic countries it is regarded as a species to be eliminated if at all possible. By contrast in Denmark it is so ubiquitous that no-one seems to mention it –it has gone beyond any possible control.

What are our experiences in the UK and Ireland? The initial reaction seems to be to welcome a colourful alien which appears to sit well with foredune vegetation. After all this is its natural habitat in Japan. But then one starts to realise that it can be found throughout the dune system in ever expanding patches, sometimes forming a dense scrub thicket about 1m tall.

Has anyone tried to eradicate the plant – with success?



Publications

Barry Buddon:

A major Scottish sand dune system

Colin R McLeod

The Scottish Naturalist,

Volume 117, pages 5-127. 2005

The peninsula of Barry Buddon on the east coast of Scotland, is one of the largest and most important sand dune systems surviving in a near natural condition in the UK. It lies on the north shore of the Tay estuary opposite the Tentsmuir Point dune system. The detailed study of the landform, history and use of the area and information on the wildlife and conservation issues make this a significant contribution to our knowledge of UK dune sites.

Recommendations resulting from the workshop discussions at 'Dunes and Estuaries 2005', VLIZ Special Publication 38, 2007, edited by J-L Herrier et al. ISSN 1377-0950

The publication is a record of the main recommendations and conclusions of the workshops held as part of the 'Dunes and estuaries 2005' conference in Koksijde, Belgium. The publication is a record of the introductions to workshop questions such as 'is remobilisation of dunes a useful and sustainable option?' The conference proceedings have already been published as VLIZ special publication 19 (for more information go to www.vliz.be).

Research topics

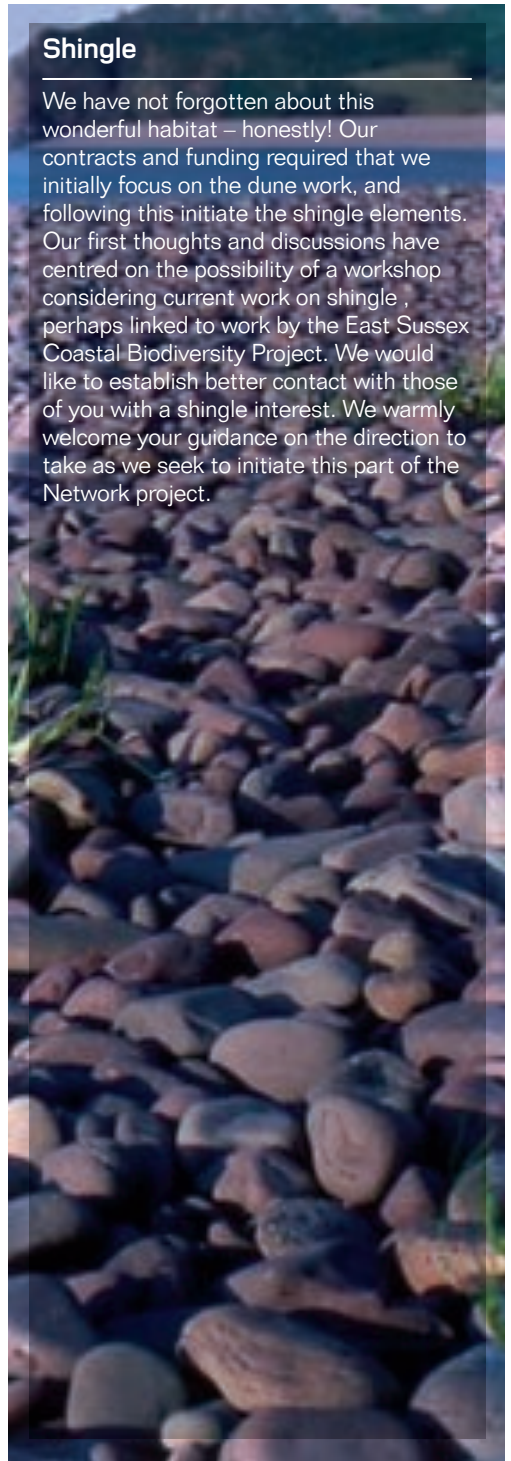
The network hopes to be able to assist in developing and promoting the research priorities for dune and shingle habitats. The dune workshop in Wales, for example, has brought together a wide range of dune specialists from several disciplines and we would expect a number of research ideas to come from this meeting.

We welcome updates on current research projects and calls for collaboration. Please contact the Network office on dunes@hope.ac.uk

In the next edition of the newsletter we hope to provide a summary of some of the key research projects in progress. Please send us the details.

Shingle

We have not forgotten about this wonderful habitat – honestly! Our contracts and funding required that we initially focus on the dune work, and following this initiate the shingle elements. Our first thoughts and discussions have centred on the possibility of a workshop considering current work on shingle, perhaps linked to work by the East Sussex Coastal Biodiversity Project. We would like to establish better contact with those of you with a shingle interest. We warmly welcome your guidance on the direction to take as we seek to initiate this part of the Network project.





Contact the Network

The project staff are Paul Rooney (Project Director, Senior Lecturer) and John Houston (Project Officer, part-time).

Our contact details are –

UK Sand Dune and Shingle Project
Liverpool Hope University
Hope Park
Liverpool L16 9JD

Tel: 0151 291 3933

e-mail: dunes@hope.ac.uk

web site: www.hope.ac.uk/coast