

# WBP Coastal Ecosystem Group 12<sup>th</sup> Meeting January 27<sup>th</sup> 2015

## Park Lodge Hotel, Aberystwyth

**Present:** Mike Howe (NRW) Joint Chair; Emmer Litt (NRW) Joint Chair ; Sean McHugh (WBP); Julie Creer (NRW); Heather Lewis (NRW); Duncan Ludlow (NRW); Angus Garbutt (Centre for Ecology and Hydrology); Chris Wynne (North Wales Wildlife Trust); Dave Lamacraft, (Plantlife/WEL); Wendy Harris (Swansea University); Alan –Kearsley Evans (National Trust); Jenni Hartley (Welsh Government); Sarah Mellor (Pembrokeshire Coast NPA)

**Apologies:** Mark Winder (Swansea CBC); Nick Edwards (NRW); Olivia Burgess (Crown Estates); John Clark (WEL/RSPB Cymru); Mike Bailey (NRW); Martin Skov (Bangor University); Rick Park (NRW); Marina Taylor (Ministry of Defence); Richard Neale (National Trust)

### 1. Minutes of last meeting

The minutes of the June 2014 meeting were accepted as a true record.

### 2. Orchid -mycorrhizal associations in south Wales dune habitats - Wendy Harris, Swansea University

Wendy gave a presentation around mycorrhizal associations in orchid populations including the endangered fen orchid (*Liparis loeselii*). The presentation focused on dune slack habitats at three sites in south Wales- Whiteford, Oxwich and Kenfig. Of these sites, Kenfig is the only site with populations of fen orchid. The study undertook analysis for the presence of mycorrhizal DNA in soil samples, physio-chemical properties of the soil, weather conditions and overall habitat. The main part of the study looked for the presence of fungal species in soil and their association with orchid species; and whether a pre-colonisation of soil mycorrhiza is necessary for orchid establishment. Mycorrhizal fungal DNA is difficult to isolate from soil samples and the study revealed these challenges. For example, the group of *Rhizoctonia mycorrhizae* commonly associated with orchids was not detected in the study though they are likely to be present. Further refinement of the DNA soil separation technique will be required to isolate this group. The Ectomycorrhizal group of fungi was detected and this group is a good indicator for the presence of round-leaved wintergreen (*Pyrola rotundifolia ssp maritima*), a rare plant favouring dune slack habitat. Overall, the study will help understand the fen orchid population dynamics at Kenfig and the conditions for possible reintroductions of fen orchid at Whiteford and Oxwich and identify appropriate management regimes. A full report is due in the spring of 2015. If you would like to know more about the project, please contact Wendy Harris ([w.e.harris@swansea.ac.uk](mailto:w.e.harris@swansea.ac.uk)).

The project was funded by the Welsh Government Ecosystem Resilience Fund.

### 3. Carmarthen Bay dunes Plantlife WREN Bid - Dave Lamacraft, Plantlife

Plantlife are putting together a WREN Bid with National Trust, MOD, National Trust and Carmarthenshire CC focused on the Carmarthen Bay dunes. The bid outlines a 248k project over 4 years at 4 sites and includes removal of sea buckthorn and conifers from dune habitats. The bid also contains provisions for hydrological and topographic surveys, flora and fauna surveys, grazing infrastructure and some sand remobilisation activity. The bid is based on the NRW WREN bid submitted in 2014. An indication of success should be known by the summer.

#### 4. Merthyr Mawr and Kenfig dunes SITA project update– Duncan Ludlow, NRW

The project is in its 3<sup>rd</sup> year. The project aims to create mobile sand conditions by cutting notches in the frontal dunes at Merthyr Mawr and Kenfig and the creation of dune slack habitats. The notches are 200-300m in length. Mobile sand dunes are extremely important for pioneer plants and invertebrates and a figure of 10% bare sand is the overall aim. At Merthyr Mawr, the project aims to restore habitats destroyed by gravel extraction in the 1960's and 1970's and around 11Ha (8%) of bare sand area have been created to date. The techniques employed follow a methodology based on the Ken Pye technical study. Dune rejuvenation work at Newborough Warren will commence in the near future based on similar principles. An internal NRW bid is in train to create additional dune slack areas at Merthyr Mawr.

Video of dune rejuvenation works at Kenfig: <https://vimeo.com/115721449>

#### 5. Project Neptune and Shifting Sands initiative- Alan –Kearsley Evans, National Trust

Richard Neale was due to give the presentation but sent his apologies due to a diary clash. Project Neptune is a National Trust project and is celebrating 50 years since its launch in 1965. Over that time, the National Trust's Neptune Coastline Campaign has helped to acquire and care for over 740 miles of coastline which are enjoyed by millions of visitors every year. To mark the 50th anniversary, there will be a series of events across Wales and the rest of the UK throughout the year to raise awareness and celebrate the coast. Further details listed on the National Trust's [website](#).

#### 6. Partner updates

John Clark (RSPB Cymru/WEL) is leaving Wales to start a new job with the Herefordshire Wildlife Trust. CEG thanks John for his work with the group and wishes him well in his future role.

Sarah Mellor has joined the Pembrokeshire Coast National Park Authority as the Park's Biodiversity Officer. Sarah will be undertaking an inventory of coastal works and has a particular interest of hard cliff habitat and the potential to 'roll back' to extend the habitat. The group thanks Jane Hodges who recently retired from PCNPA for her input to the group but who will remain active in the area and contribute to coastal habitats.

Alan gave an update on behalf of National Trust. At Cwm Ivy, the sea wall breach as part of the managed coastal realignment has established well creating 40Ha of proto saltmarsh. The group were shown a video of the realignment site and the conditions. The breached area will be separated from Llanridian Marsh by fencing to prevent grazing. A management plan and monitoring regime will be prepared for the site.

Video of sea wall breach at Cwm Ivy [https://www.youtube.com/watch?v=OFVXYnx\\_iEk](https://www.youtube.com/watch?v=OFVXYnx_iEk)

In Pembrokeshire, sea defences at Aberiddy have degraded and been removed allowing inundation as part of the managed realignment. The site has been assessed by consultants and in the work carried out in partnership with Pembrokeshire CC. On the Ll n Peninsula, scrapes for a rare mason bee (*Osmia xanthomelana*) have been created at Porth Ceiriad to replace scrapes lost in last year's storms.

Duncan Ludlow (NRW) informed the group there is 5 years remaining on the Merthyr Mawr lease and negotiations are on-going about the site's future. Dune slack creation at the site will help Petalwort which has been declining with translocation of existing populations not ruled out. Annual monitoring continues at Kenfig, Whiteford, and Merthyr Mawr. The Kenfig ownership is still under negotiation and there are interested conservation organisations involved in the discussions.

Jenni Hartley Welsh Government. Jenni is new in post in the biodiversity & Nature Conservation Branch and is looking for opportunities to assist with the ecosystem groups and to take messages back to WG e.g. issues around the Nature Fund.

Julie Creer and Heather Lewis (NRW) reported that hydrological studies are underway at Laugharne and Pendine focusing on the reestablishment of fen orchid. An internal NRW bid for development funds to put together a Life bid for sand dunes has been submitted.

Emmer Litt (NRW) updated CEG on the Wales Coastal Monitoring Centre funded by WG Flood Risk budget and currently hosted by Gwynedd CC. On on-going baseline exercise is pulling together coastal data. Call for wider remit to include ecological data and an extension of Lidar surveys which are currently restricted to north Wales.

The Resilient Coast Initiative has just commenced. This is a 4 year project funded by the WG Low Carbon Economy fund. The project is a partnership working to increase coastal resilience of saltmarsh to sea level rise on 3 welsh estuaries. One aspect of the project will consider how biodiversity affects resilience and ecosystem services.

Chris Wynne North Wales Wildlife Trust reported on repairs to the shingle ridge at Cemlyn Bay on Anglesey where the winter storms impacted on the shingle ridge. The shingle ridge protects the lagoon which hosts one of the largest nesting populations of Sandwich Terns in the UK. Wylfa 2 Nuclear Power Station is under construction and will require a new breakwater. Coastal modelling is underway and discussion with NRW are on-going as the breakwater has the potential to affect Cemlyn and the Special Protection Area designation. A Habitats Regulation Assessment will be required for the breakwater construction due to the SPA designation.

Angus Garbutt (CEH) - A biodiversity and ecosystem services study is underway to understand the role of biodiversity and the trade off with ecosystem services at saltmarsh sites in north Wales. A predictive tool will be generated in collaboration with NRW to capture parameters including wave attenuation, habitat provisioning and carbon storage. Learning and experiences from saltmarsh sites in England will also be used. CEH are also considering the setup of a saltmarsh research platform at a site in north Wales allowing Bangor University students to monitor, develop an understanding and apply learning of saltmarsh dynamics. CEH are also working with RSPB on a PhD study to assist the understanding of redshank decline on saltmarsh habitats.

7. £6m Nature Fund. An update on the Nature Fund projects with a coastal element was presented and is attached to the meeting actions. NRW are aware of the projects and are engaged as appropriate and all CEG members are encouraged to engage as they see fit. All project proposals and supporting information are available to view on the Welsh Government website link:

<http://wales.gov.uk/topics/environmentcountryside/consmanagement/natural-resources-management/nature-fund/?lang=en>

8. WBP Evidence Gaps review. Angus has agreed to lead on the evidence gaps project on behalf of CEG. Emmer, Mike, Nikki Rimmington and Ceri Seaton refined the coastal evidence gaps prior to the meeting and Heather and Wendy Harris will also input. Wendy also mentioned that Swansea University are looking for Masters and PhD students for project work and she can act as a contact point. Proposals are required in January for uptake in March.
9. Chairs Meeting. There was a request from the last Chairs meeting in November 2014 to provide evidence to identify future ecosystem management. This will be discussed at the next Chairs meeting in February.
10. CEG membership. This is still under review in terms of NRW membership and Heather and Julie will take this forward. Due to other commitments Mike Howe and Emmer Litt will stand down as joint chairs of the group. CEG thanks them for their invaluable work and effort in the group's activities. Emmer will still attend meetings. CEG is canvassing for a new chair and Heather and Julie will take this role on if there are no volunteers.
11. **AOB Dunes and Estuaries 2015, Restoration of Tidal & Estuarine Areas**– 16, 17 & 18th Sept, Bruges, Belgium. The focus is likely to be on sand dune and saltmarsh rejuvenation and recreation and involve a mixture of talks from policy, science and practise. As more information becomes available will update the group. An international congress is planned in 2015 about the management of coastal dunes and estuary areas so that everyone's experiences can be shared. The conference will attract a mix of academics and coastal practitioners. Conference web link:  
[http://www.natuurenbos.be/~media/Files/Projecten/Ztar/1376\\_infobrochure%20v08\\_EN\\_LR.pdf](http://www.natuurenbos.be/~media/Files/Projecten/Ztar/1376_infobrochure%20v08_EN_LR.pdf)  
 Society for Ecological Restoration Conference: 23-27<sup>th</sup> August, Manchester.  
 The SER conference theme is 'Towards resilient ecosystems: restoring the urban, the rural and the wild' showcasing important scientific developments, issues and solutions, and also the cultural, educational and artistic aspects of restoration ecology. Web link: <http://www.ser2015.org/>

## 12. Date of Next Meeting

The group is aiming for a June 2015 field meeting at the National Trust site of Cwm Ivy on the Gower coast.

### Actions

No.	Actions	Who	By	Comments
1	Nature Recovery Fund Projects	ALL	March 31 <sup>st</sup> 2015	CEG are requested to influence where possible coastal projects listed in the attachment and also listed on the WG website <a href="http://wales.gov.uk/topics/environmentcountryside/consmanagement/natural-resources-management/nature-fund/?lang=en">http://wales.gov.uk/topics/environmentcountryside/consmanagement/natural-resources-management/nature-fund/?lang=en</a>
2	WBP Evidence Gaps Project	ALL	June 2015	All CEG members to review the information around the coastal evidence gaps, refine and prioritise gaps and identify new gaps as appropriate. All updates to be forwarded to Angus. Details of evidence gaps and project proposals are on the WBP website. Link:

				<a href="http://biodiversitywales.org.uk/en-GB/WBP-Evidence-Gaps-Project">http://biodiversitywales.org.uk/en-GB/WBP-Evidence-Gaps-Project</a>
3	Coastal conferences	ALL		Notification below of two coastal conferences, CEG are encouraged to attend and contribute to the conference. [insert web link]
4	Dune rejuvenation project funding bids	DL	Winter 2015	Dave Lamacraft to report to CEG re: funding WREN bid outcome
<b>Previous Actions update</b>				
	Coastal vegetated shingle priority areas		On hold	Peter Rhind was working this up but was unable to complete. NRW coastal team will take this forward
	Sand dune Workshop Proceedings to be made available	MH	Ongoing	Proceedings have yet to be finalised and published.
	Priority Habitat Map Integration		On hold	NRW coastal team will take this forward
	CEG work plan  CEG Membership	All		CEG to review the Plan and discuss in 2015 summer meeting  Heather and Julie to fine tune NRW representation, LBAP and WG membership to be reviewed by Sean. Chris will canvass Wildlife Trusts to seek a deputy representative.
	Proposed sand dune movement & hydrology project at Llangennith	EL	June 2015	Emmer will investigate and update the group at the next meeting
	Sea Cliff Symposium	MH		Mike H to circulate symposium proceedings when available
	Integrated Management of Coastal Dunes conference	MH		Mike H to circulate conference proceedings when available