

FBA Annual Scientific Meeting 2009

This year's ASM was held at Bangor University, at the Environment Centre Wales, and we thank our hosts for contributing to a very successful two-day event. Also thanks to the Countryside Council for Wales, particularly for their organisation of a series of very successful field excursions for delegates. We were also honoured to have, as keynote speaker, Jane Davidson, Minister for Environment, Sustainability and Housing in the Welsh Assembly Government. Below is an edited version of her speech under the title 'How freshwater science should guide and influence policy?'; followed by a brief impression of the meeting from one of the student delegates.

Michael Dobson

Important points from the speech included the following:-

- A need to strengthen the evidence base in Wales and ensure our evidence is credible, reliable, and objective;
- The importance of advisory processes to enable decision makers to access high quality and wide ranging evidence;
- Using scientific expertise to meet current environmental challenges, especially climate change;
- Importance of freshwater conservation resources in Wales;
- Principle of sustainable development;
- Need to develop appropriate management and conservation measures;
- Importance of long term datasets and use of models;
- Critical role of Water Framework Directive for assessing, monitoring and improvement of water bodies in Wales;
- Partnership working to deliver research needs and exchange of required information;
- Promotion of the development of green buildings.

After a warm welcome to Wales in both English and Welsh, the minister gave a comprehensive and lively speech, positive and encouraging to us scientists more



The Minister is welcomed to the meeting by Sir Martin Holdgate, President of the FBA (Louise Miles, FBA).

used to political platitudes. We all felt that the Minister had a great grasp of her brief and knew what she was talking about. The speech contained the following quotes and is necessarily heavily edited here, but we hope retaining its vision and its enthusiasm.

Extracts from Minister Jane Davidson:

'As an Association able to provide independent scientific views, I very warmly welcome societies such as yourselves because we believe very strongly in the Welsh Assembly Government in strengthening our evidence base, in using science expertise to help us meet the current environmental challenges in the context of sustainable development. And it is also very important to us to look at ways in which we can effectively disseminate information. So I am delighted in this portfolio to vastly increase my personal knowledge by attending the occasional scientific meeting, training events and reading publications which were developed by your Association and others. I know that over 75 per cent of our Welsh designated conservation sites contain freshwater-dependent features. There are specific designated interests on eight major river systems and over 140 lakes in Wales. Three

hundred and twenty of our wetland SSSIs depend on ground waters. Thirty five sites depend on critical water level management and between 50 and 75% of the land area of Wales is within the catchments of these rivers, lakes and wetlands. So clearly we have a huge relationship in Wales in the context of issues around the quality of our water.

Our water resource is not only important as a habitat but it is also very important to us in terms of our natural heritage and tourism. As well as supplying water to people in Wales we supply a substantial number of people in England. A little earlier this year, I launched our Government's strategic policy statement on water, setting out our priorities, our challenges and opportunities in the context of water in Wales. The statement focuses on achieving access to good quality and affordable water for all, whilst achieving well managed water resources and services that are valued. But we are very keen in Wales as well to make sure that the policies that we develop are within our wider legal context of sustainable development.

In Wales.....our Environment Strategy which was published back in 2006, as a 20 year strategy, set up the Assembly Government's commitment to maintain and enhance the quality of our groundwater,

rivers, lakes and coastal waters. And we have three year action plans that take that agenda forward. I'm a great believer as a politician that you have to demonstrate that you are not just producing words, but you are producing actions as well.

The conservation of the biodiversity of Welsh freshwater ecosystems is also a very high priority. The Wales Biodiversity Partnership has recently established a Wetland and Freshwater Ecosystem Group. And maintaining the quality of that 75% of Welsh designated conservation sites containing freshwater-dependent features, will obviously involve addressing issues related to diffuse pollution, to drainage, to invasive species, and a whole set of other threats. So careful management of our freshwater resources is required to achieve these goals. We need to develop appropriate management and conservation measures. We need to have those informed by a sound evidence base which allows the extent and significance of environmental pressures to be determined. And the complex interaction between water bodies and the surrounding environment raises particular challenges to the development of a definitive answer for a specific environmental issue.

We know that the quality and quantity of our water resources are also changing due to a range of environmental pressures and given the potential impacts of human activity, it is important that we can identify how our water bodies are being affected and whether conditions worsen or improve with time and management activities.

Within the EU parameters, the Water Framework Directive will provide the framework for assessing, monitoring and improvement of water bodies in Wales and we work very closely with the Environment Agency, the competent authority in delivering the Directive, and a wide range of others, to build on the use of science that is already being used to underpin the classification of the water bodies and the development of measures that will be agreed as part of the River Basin Management plans to maintain and improve water quality across Wales.

The collection of long term data sets is a particularly important part of the provision of credible and objective evidence to support the development of management options and that data informs our assessment of trends in water bodies and provides useful information regarding the key indicators for the various environmental pressures. But those data are also very important in terms of validating predictive models to help in the formation of scenarios and to support important policy decisions. And a good example of such a data set is that provided by the Environmental Change Network

which includes a number of freshwater sites. And importantly for us here in Wales, the Countryside Council and ourselves have just developed a site in Snowdonia which looks to indicate, physical, chemical and biological variables. And another such example is the Acid Waters Monitoring Network where there is a partnership arrangement between the Welsh Assembly Government, the Countryside Council, the Environment Agency, and the Forestry Commission in looking at the ongoing maintenance of the Welsh sites in that network.

Now an example of where we've seen that kind of integrated approach, a really interesting example, is at a place called Pontbren in mid Wales, where research is being undertaken to increase our understanding of the impact of agricultural management on water quality and the capacity of land to absorb rain water which could lead to the potential use of land for flood alleviation. Now preliminary results on nutrient flows and the relationships with specific land management practices will provide us with information to develop catchment based initiatives for various environmental benefits, including water quality. It is a fantastic initiative, so there is a problem for us as politicians in a sense, that a lot of these types of initiatives are very, very long term before they can demonstrate the outcomes that we need, but in the context of....., harnessing our resource in Climate Change agenda, it is going to be particularly important that we start a number more of those sorts of initiatives now.

We get our science advice from the Tyndall Centre, from the UK Climate Impacts Programme and the Welsh academic network. And I am very supportive of our proposed Climate Change Consortium across universities in Wales, which we hope will come into fruition very soon. And that advice is key because it helps us to draw out the main messages from a range of research studies and point us in the direction of practical policies. We have also got a Climate Change Commission in Wales, which is all sector and all parties, so that we get advice from our statutory advisors, such as the Countryside Council, but also from academics, and in fact it is an academic from this university who chairs the Land Use and Agriculture group.

We have established the Environmental Research Hub, which is based here in Bangor, to help to foster collaboration and information exchange in Wales. And the Hub has recently organised a range of workshops to link science and policy, one of which focused on environmental monitoring in Wales. And organisations such as the Countryside Council and the Environment

Agency utilised the Hub as a portal to publish their lists of freshwater research needs. The Centre for Catchment and Coastal Research, that is developed by Bangor and Aberystwyth University, is also an excellent example of collaborative working which is particularly important to developing freshwater research in Wales. And as partnerships of this nature are developed together with a creation of stronger links to other scientific communities then a more informed and reliable policy base can be provided.

Thank you for the opportunity to talk to you this morning about issues which I hope that are important to you, all the information.....about acidification came from the Countryside Council, but the policy agenda that we take forward in Wales is very much one about the way in which we can harness our natural resources effectively, so that we can look after them, so that we can take that ecosystem services approach and that we see the links between our economy, our social justice agenda, and our environmental agenda as being absolutely intrinsic under that banner of sustainability.' Thank you very much. Diolch yn fawr fawn.

Speech transcript produced by the Countryside Council for Wales and very heavily edited by Terry Langford. Anyone who wishes to see the full text, please contact the Editors of FBA News. We hope this has represented some of the relevant views of the Minister. Any misrepresentation is accidental and is the fault of the text editor.

Alice Ramsay, PhD student at Bangor University, Wales, and winner of the student oral prize for her talk on tracing the geographical origin of *Salmo trutta* L. using scale microchemistry, gives us her view on the meeting.

'The breadth of topics covered by talks and posters at the FBA Annual Scientific Meeting 2009, allowed a useful exchange of information between delegates, on a range of topical issues relating to freshwater systems. The atmosphere was particularly welcoming to those of us who are relatively new to the field of freshwater research, providing a chance to meet freshwater scientists and to hear about the work in which they are currently engaged. It also provided a valuable opportunity for students to present their research to a wide audience. The conference organisers did an excellent job of putting together a very successful event.'
