COMMENTS BY SIR JOHN LAWTON ON THE ENVIRONMENT AND SUSTAINABILITY COMMITTEE ENVIRONMENT (WALES) BILL

In 2010 a committee I had chaired submitted a report to Defra entitled *Making Space for Nature: A review of England's Wildlife Sites and Ecological Network*. The report had a significant influence on the Westminster Government's subsequent Natural Environment White Paper (*The Natural Choice: securing the value of nature*, HM Government, June 2011 CM 8082), and (amongst other recommendations) led to the establishment of 12 Nature Improvement Areas in England. Given this background I was asked by Mr Alun Davidson (Clerk to the Environment and Sustainability Committee at the National Assembly for Wales) to comment on the Welsh Government's Environment Bill and accompanying Explanatory Memorandum (EM). Specifically he asked me whether I "might be able to help in terms of explaining whether the proposals in the Bill align with your findings or whether there are other/better ways for the Welsh Government to address and halt biodiversity loss."

The draft bill refers to *Making Space for Nature* (e.g. in para 24 of the EM), but unfortunately with an error; the report is not "UK wide", but refers specifically to just England, and says nothing about marine conservation. However, the scientific principles underpinning its recommendations apply broadly to any kind of habitats anywhere in the UK.

Let me preface my remarks with a caveat. I am a scientist not a lawyer and policy formulation through detailed and highly technical legislation is not one of my strengths. However, Mr. Davidson very kindly sent me a copy of RSPB Cymru's Evidence, which I have also read (with a declaration of interest – I am a Vice President of RSPB), and on the basis of their expert evidence (with which I entirely agree) feel I only need to make two general, but substantial comments.

The emphasis in the legislation on ecosystem processes, not biodiversity per se.

Whilst I welcome the emphasis on ecosystem processes and the need to restore and enhance them I share RSPB's considerable concerns that the proposed legislation is incredibly weak on targets to restore and enhance biodiversity (the specific focus of Mr. Davidson's question to me). Let me quote from *Making Space for Nature* (pp.3-4):

"Whilst we were writing this report, several well-meaning colleagues asked us, essentially, 'why we had to bother with all these species?' Wouldn't it just be simpler if we could find a surrogate for species – broad landscape character for instance. Unfortunately this point of view has no basis in science. Landscapes can be richer or poorer in species and you cannot tell just by looking at them from a distance. An analogy helps. Art galleries exist for people to enjoy paintings and sculpture. However pretty the gallery, however striking its architecture, it is useless as a gallery if it contains no works of art. Species keep conservation efforts honest, and there is no surrogate metric that can reliably assess conservation success or failure without knowing what is happening to populations of plants and animals in the landscape. We would know nothing about the global loss of biodiversity without knowing what is happening to species all over the world."

I am afraid the proposed legislation falls miserably at this first hurdle, and needs considerable improvement to ensure rigorous monitoring of what is happening to, and clear targets for the restoration of, Wale's precious flora and fauna. An obvious action would be to "make space for nature" through, for example, the equivalent of England's Nature Improvement Areas, of sufficient magnitude and scale across Wales to make a real difference.

Making Space for Nature summarised what needs to be done in four words: "more, bigger, better and joined". More and bigger protected areas, that are better managed and better connected. I see nothing in the proposed legislation that will guarantee the necessary actions to restore and enhance Wale's biodiversity.

Experimental Schemes

As an environmental scientist I was obviously interested in this part of the proposed legislation, described essentially as powers to suspend statutory requirements for experimental schemes that might help us manage the environment more effectively by doing things in a different way. It sounds good. But as RSPB Cymru points out, it could also be used with evil intent (though they are too polite to put it like that). To put it bluntly, it could (in the wrong hands) be a license to trash biodiversity.

With my scientist's hat on I am also worried that even with good intentions the difficulties of making it work effectively are huge. To learn anything from an experiment the 'treatments' (what you propose to do) have to be replicated, and there have to be replicated 'controls' where there are no treatments, or ongoing 'old treatments' continue. Replication is expensive, and for the kinds of land-management practices I can imagine here, needs to be continued for several years (the proposed three years maximum is rarely likely to be very informative). Without proper replication the 'experimental scheme' has no scientific validity and cannot tell you anything worth-while. I see nothing in these proposals to ensure that Experimental Schemes will be properly carried out with sufficient scientific rigour to ensure that large amounts of tax-payers' money are not wasted on worthless trials.

I hope these brief remarks are helpful. I would be more than willing to expand on them if they are unclear, or come and talk to you about them if that would help.

Professor Sir John Lawton CBE FRS 25th June 2015