



British Ecological Society

Response to the NERC Review, “Developing a National Strategy in Systematics and Taxonomy”

The British Ecological Society

“Advancing ecology and making it count”

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Introduction

The British Ecological Society (BES) is the learned society for ecology in the UK. Founded in 1913 and with 4,000 members, the British Ecological Society supports ecologists and promotes ecology; the study of living things and their relationship with the environment in which they live.

The British Ecological Society (BES) welcomes the opportunity to respond to the NERC expert review exploring needs and capabilities for systematics and taxonomy research in the UK. Comments from the British Ecological Society focus on the UK Systematics and Taxonomy Strategy (‘Developing a National Strategy in Systematics and Taxonomy’), rather than the ‘UK Taxonomics and Systematics Review – 2010’.

General comments

The BES commends the efforts of the expert review group in considering the appropriateness of a national strategy for systematics and taxonomy in the UK and supports the overall ambition outlined by the group’s recommendations. We wish to highlight three areas deserving further attention:

1. The Review document does not at present make a strong case for long-term sustainable funding to support systematics and taxonomy in the UK. Specific funding opportunities for taxonomy in the past have been welcome, but short-lived. Although politically difficult, due to the current economic climate, the point must be made that strategic long-term funding is needed to support the health of the discipline.
2. Support for taxonomy and systematics at undergraduate level and engendering early interest amongst school pupils were out of the scope of the review. These are vital topics which the BES believes deserve full consideration. Although we appreciate that a separate review is unlikely, due to economic constraints, we understand that the Linnean Society is working on this issue through the ‘Training, Careers and Resources’ sub-committee of its Taxonomy Standing Committee. We call on the NERC, and the TCC if formed, to support the work of the Linnean Society in this regard.

3. The Review acknowledges that descriptive taxonomy has disappeared from UK universities (p20, 10.2) but does not discuss the barriers to taxonomists and systematists presented by the academic reward system and how to address these. Unless taxonomists return to universities, contributing to Masters courses and undergraduate tuition, it is unclear how the potential descriptive taxonomists of the future are to be inspired and encouraged to pursue this as a career, and so how skills gaps are to be filled.

Universities are reluctant to appoint taxonomists to permanent posts since the value of this work has not been recognised by the Research Assessment Exercise criteria in the past: these researchers do not bring in large grants or publish in high impact journals. There is an opportunity for the Research Excellence Framework (REF) to address barriers by recognising the significance and importance of the work of systematists and taxonomists. There may be opportunities for researchers to highlight the impact of their work, due to the nature of taxonomy and systematics as fundamental enabling sciences, underpinning work to answer questions important to policy and society, and allowing the UK to assess progress against national and international environmental targets.

Potential systematists and taxonomists must be able to see opportunities for career progression, and career paths, including in academia, in order to improve recruitment to the discipline. The BES is supportive of the recommendations relating to structured career paths and job creation outlined in the Linnean Society's 2010 'Taxonomy and Systematics Review' (p19- 20)¹. A fundamental part of any national strategy for systematics and taxonomy must be to address education, training and careers opportunities.

Comments on the recommendations

Recommendation 1: A national strategy in systematics and taxonomy should be developed

The BES supports the development of a national strategy for systematics and taxonomy. We agree that it is important that the strategy be modified as our understanding of the main issues improves. As the review acknowledges, the taxonomic community is broader than the three largest institutions in the UK (Natural History Museum, Royal Botanic Gardens Kew and Royal Botanical Gardens Edinburgh). Under Recommendation 1 it is sufficient to state that the Strategy will be developed in partnership with the taxonomic community and unnecessary to mention the NHM, Kew and RBGE as particular consultees. This will be important if the Taxonomic Coordination Committee (TCC) is to act as a 'coalition of the willing' and succeed in bringing different actors together; all must feel that their views are respected equally, rather than that particular institutions' views are given precedence.

Recommendation 2: A UK Taxonomy Co-ordination Committee (TCC) should be set up to develop and review the National Strategy in Systematics and Taxonomy

A UK Taxonomy Co-ordination Committee could prove very valuable in bringing together those with an interest in systematics and taxonomy research. In order for the TCC to succeed as a 'coalition of the willing', it is important that all members feel that their voice is heard and respected,

¹ Cutler, D. and Temple, R. (2010) *Taxonomy and Systematics Review*. The Linnean Society of London.

and that appointment to the TCC is open and transparent. We are concerned by the statement (p9, 2.12) that BIS should appoint the members of the TCC, if providing sponsorship. Members should be appointed by the taxonomic and systematics community themselves, through an open recruitment process.

Locating the secretariat within one of the major taxonomic institutions could also lead to tensions within the TCC, particularly given the statement earlier in the document (p8, 2.9) that the Strategy will be developed 'especially' with regard to the three largest relevant institutions in the UK, as alluded to in our response to recommendation 1. There is also a statement later in the document (p11, 4.2), that 'the TCC should have 'a role in identifying independently the major priorities for large capital investment in taxonomy infrastructure at the national level'. This independence could be seen to be compromised unless the location of the secretariat and composition of the TCC are considered carefully. Again, we stress that appointments to, and the operations of, the TCC must be open and transparent in order to gain maximum support from the systematics and taxonomy communities.

As mentioned in the document, the Linnean Society has established a Taxonomy Support Committee (TSC) as a standing committee of the organisation. It is important that the TCC works with the TSC in developing a Strategy, avoiding any duplication of activity.

As currently written (p9, 2.14), the TCC will not act as an 'advocate of taxonomy', or 'lobby....for increased funding for the subject'. It is possible, and desirable, for the TCC to advocate the importance of the discipline to policy-makers and the public, without this being conflated with aggressive lobbying or campaigning. The Linnean Society is characterised in this paragraph as an organisation around which others can rally to lobby for greater investment in taxonomy and systematics. We argue that the TCC and Linnean Society should support one another in developing a Strategy for systematics and taxonomy in the UK. If through this it becomes apparent that greater funding will be needed to support the health of the discipline, allowing it to fulfill its function as an enabling science to answer important policy questions, then the TCC and Linnean Society should together draw this to the attention of funders of science.

Recommendation 3: Science spend in taxonomy should be categorised as National Capability, Research Programme or Responsive Mode.

This headline recommendation does not adequately reflect the content of the underlying text. We suggest that this should be re-drafted to state that 'all public funders of taxonomy and systematics in the UK' are being asked to adopt this categorisation.

The recommendations as a whole should be revisited as in some cases we felt these did not clearly and accurately summarise the main meaning of the underlying text; particularly important for those only accessing the Executive Summary.

Recommendation 16: Provision of small grants for volunteer scientists and recognition of their contributions by learned societies and other bodies should be encouraged.

The BES supports this recommendation and is currently developing a small award to recognise the contribution of volunteer scientists to the science of ecology, which we hope to launch in 2012.

Recommendation 17: The TCC should bring together the UK taxonomic community to list and prioritise time- limited major research programmes or “grand challenges” that would advance UK taxonomy and systematics.

Recommendation 18: The Research Councils should continue to provide competitive funding to support excellent science involving taxonomy that comes within their remits and ensure their committees contain the appropriate expertise.

The BES supports these recommendations. The Living With Environmental Change (LWEC) initiative could perhaps provide a platform for cross-Research Council funding of a ‘grand challenge’ programme.

We note the point made (p19, 9.3) that ‘each funding body would tension such requests against competing projects and priorities’. Funders must necessarily support the best scientific research across disciplines; it is vital therefore that they can recognise the strategic importance of support for systematics and taxonomy and can fairly assess these funding proposals. Ensuring that grant committees contain relevant expertise is an important step, but there is also a need for the taxonomics and systematics communities to make a stronger case for support for their discipline. In this context, the TCC, working in partnership with others, can play an important role as an advocate for the discipline, representing a wider, coordinated, body of systematists and taxonomists (see comments with regard to recommendation 2).

The BES contributed to a response from the Society of Biology (then the Institute of Biology and Biosciences Federation) to the House of Lords’ 2008 inquiry into systematics and taxonomy ². Providing information for the response, colleagues working in systematics and taxonomy commented that in order to secure funding from the Research Councils, a project proposal needs to be predominantly non-taxonomic, with a small taxonomy element, to succeed. As drafted, recommendation 18 supports a continuation of this approach; we argue that the recommendation should encourage Research Councils to ‘support *excellent taxonomic research* that comes within their remits’, rather than ‘*excellent science involving taxonomy*’.

Further information

For further information about the BES or with respect to this response, please contact:

Ceri Margerison
Policy Manager, British Ecological Society
t: +44 (0)20 7685 2510
e: ceri@britishecologicalsociety.org

² Systematics and Taxonomy: Response to the House of Lords Science and Technology Committee, February 2008. http://www.britishecologicalsociety.org/documents/policy_documents/consultation_responses/The_State_of_Systematics_and_Taxonomy_Research.pdf