

Effects of environmental change on the incidence and spread of invertebrate pests and disease vectors: implications for crop and livestock production

Application deadline: 4 October 2011, 4pm

Summary

Under the auspices of its *Living With Environmental Change* strategic priority, and as part of the wider Living With Environmental Change partnership, BBSRC invites proposals, within the area of the Council's remit, for research to:

- identify the likely effects of climate or other environmental changes on the incidence and spread of invertebrate pests and disease vectors, and their consequences for crop production and animal health;
- and
- inform policies or practices for mitigating or adapting to those effects.

Background

In 2008, BBSRC published the report of a review of the Council's role in research relating to environmental change. Informed by an open consultation that solicited views from a wide range of stakeholders, the *Review of BBSRC Research Relevant to Environmental Change*¹ was carried out by a broadly-based group of experts in relevant disciplines, chaired by Professor Alistair Hetherington of the University of Bristol. Inputs were also made to the group by representatives of other funders of research, including DEFRA, the Environment Agency, NERC and the Scottish Government. The review group's recommendations on future research priorities are reflected in a BBSRC-wide *Living with Environmental Change* strategic priority².

In the light of the review group's report, and of BBSRC's participation in the wider cross-Research Council and cross-Government Living With Environmental Change (LWEC) partnership³, BBSRC organised a workshop in March 2010 to consider more specifically the effects of environmental change on the incidence and spread of invertebrate pests and disease vectors and, in particular, their implications for food production and water supply.

Participants in the workshop considered:

- the research challenges and opportunities of monitoring, understanding, predicting, mitigating and managing the incidence and spread of invertebrate pests and disease vectors in the face of environmental change;
- the implications of those effects for agriculture: livestock management, animal health, arable crops, horticulture, bioenergy crops, farming practices and land management;
- and their implications for safe and secure crop and livestock production;

with a view to identifying research challenges and scientific opportunities to inform policy and practice for mitigating and adapting to the effects of environmental change in this area.

¹ www.bbsrc.ac.uk/organisation/policies/reviews/scientific_areas/0810_environmental_change.pdf

² www.bbsrc.ac.uk/funding/bbsrc_priorities.pdf

³ www.lwec.org.uk

Scope

Proposals are sought for research to identify the likely **effects of climate or other environmental changes on** invertebrate pests and disease vectors, and their **consequences for animal health and crop production**, and to inform **policies or practices for mitigating or adapting to those effects**.

Multidisciplinary or interdisciplinary proposals are encouraged, especially, where appropriate, for projects that would employ - at relevant scales - mathematical modelling or systems approaches; likewise, proposals that would address - as an integral part of a project - social or economic issues associated with the proposed biological research.

Proposals for research involving inputs from industrial or other stakeholders would be particularly welcomed.

Eligibility

This highlight call is subject to our usual responsive-mode eligibility criteria.

The call is also open to RESAS's Main Research Providers (MRPs) that do not have higher education institution (HEI) status (listed below), within the scope of the existing co-funding collaboration in food security and living within environmental change between BBSRC and the Scottish Government's Rural and Environment Science and Analytical Services (RESAS) - see related links above. Eligible institutions include:

- Biomathematics & Statistics Scotland
- The James Hutton Institute
- Moredun Research Institute

Prospective applicants from those institutions who are considering submitting an application in response to the call are also asked to contact us as soon as possible.

How to apply

Applications should be submitted through the Research Councils UK's Joint Electronic Submission (Je-S) system, using the standard proposal form, identifying the call type as '**Invertebrate pests and disease vectors**' before our responsive mode grant application deadline of **4pm on 4 October 2011**.

In addition, applications involving RESAS's non HEI MRP's (listed above), must be sent as an outline to the RESAS contact (see external contacts below) by **2 September 2011**, for checking and approval, before a full application is submitted to us through the Je-S as outlined above.

Funding for this call is not "ring-fenced", and proposals will be assessed by BBSRC's most appropriate Research Committee⁴ in competition with other responsive-mode grant applications, but the high strategic relevance of this area of research will be taken into account in the assessment process.

⁴ www.bbsrc.ac.uk/funding/grants/areas.html

Research in this area addresses the interests of some other LWEC partners, besides ours. Applications submitted in this area may be considered for co-funding by these partners on a case-by-case basis, but co-funding will not be considered in the applications' assessment.

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