We, Dr Sam Hillyard (Durham University) and Professor Garry Marvin (University of Roehampton), responded to an invitation from Natural Resources Wales, to bid for a contract, with the remit: ‘to provide an external, independent assurance role of the evidence assessment stage’ of NRW’s ‘Review Into the Use of Firearms on Land Managed by Natural Resources Wales’. We were each interested in being considered for this contract because of our individual research specialisms in human-environmental-wildlife issues from sociological and anthropological perspectives (Note 1).

Having been awarded the contract we were asked to produce a review of the conclusions of NRW’s produced as part of the consultation process. In particular we were asked provide:

- Indication of whether you agree with the levels of confidence we have attached to statements and assessments
- Recognition of any perceived bias in the presentation of analysis
- Suggestions about changes that could be made prior to the public consultation
- Identification of any gaps in evidence/suggestions for further work after the Review
- Recommendations about how to support the public consultation process as per possible second stage involvement

NRW sent each of us copies of the submissions it had received and their subsequent review of these submissions. We both read the submission, without consultation between ourselves, and we only then read NRW’s review.

Overall we have confidence, from the documentary evidence, that the review has been fair, transparent, and represents reasoned account/evaluation of the submissions. We are also satisfied that NRW’s scoring/ranking of the submissions, from the most subjective/personal to rigorous academic analysis, has been fair. We would have evaluated the submissions in a similar manner. We are in agreement with the levels
of confidence that NRW has attached to the submissions. We were not able to detect any perceived bias in the presentation of the submissions within the report. In particular we would like to draw attention to the Exel Spread Sheet document relating to submissions. This is a most carefully-produced document relating to 304 items. Each item, document, article etc., has been considered and categorised in terms of its standing, nature and content. This is a good, tangible, piece of evidence for how the authors of the report considered the material that formed the basis of the Synthesis of Evidence. This is extremely important for the transparency of the process. A person reading the report, and having access to the spread sheet should have a clear understanding of how the summaries and conclusions were reached.

We would like to note that although there will be, for many people, a fundamental background issue here in terms of the ethics of gamebird shooting for sport and the killing of deer as part of a management regime, NRW was not charged with exploring these ethical issues. We have not considered issues of ethics in our reading of the submissions. As with NRW’s review we have focused our attention on issues of management of the use of firearms.

However, we note that in terms of the remit of the review, the role of NRW in its present configuration has changed and expanded, which allows much broader questions to be asked and evaluated in terms of how the countryside can be used and enjoyed by all. For example, the Sustainable Management of Natural Resources and the goals of Well-being have not received the recognition they deserve in the past. It provides an important balance with traditional priorities of economic benefits and has served to expose where further research is required. Although well-being did feature in several submissions by a number of stakeholders, this issue also dovetails with a very clear evidence gap. Simply, we do not have any independently-sourced information about the social aspects and health benefits of participating in the activities surrounding shooting. As claimed by a number of shoots detailing their activities and expenditure, shooting generates a revenue stream in remote parts of the country in the non-tourist season and also where opportunities for social contact may be comparatively limited. This kind of evidence formed part of the Burns Inquiry (particularly Chapter 4 ‘Social and Cultural Aspects’ of the final report), including different funded studies by Cox and Milbourne, the former of which was the more
sophisticated and nuanced regarding the social importance of participation. Sporting shooting is likewise something of a ‘totalising’ activity, i.e. not a hobby easy discarded nor taken-up.

In the light that there is no alternative evidence, this literature will be of relevance, but has significant limitations in both the qualitative (cf. Milbourne 2002) and quantitative studies (cf. Ward 1999). These cannot be transposed to well-being and shooting.

In that light, we offer the following recommendations, as there are several policy and research gaps that have come to light during the review and which merit further scrutiny.

**Reflections, Recommendations and Research Gaps**

As the review concludes, it should be made clear on what grounds shooting is allowed to continue *i.e.* what evidence has been included and with what weighting. For example, this may include the balance between culling and the NRW forest management mandate. Given the variety of terrains and conditions within the areas of land owned or leased by the NRW, it seems sensible to evaluate these on a case-by-case basis where necessary.

1. In some fields, lacking critical mass of research evidence, some research papers are disproportionately cited in evidence in some submissions. For example, Bicknell *et al.* and Dubois *et al.* and, perhaps, the portfolio of work emerging from the Oxford Lead Review Group. This evidence base merits expanding or risks providing the impression of certainty when research is still in-progress. Of all the submissions, the work of the GCWT is, in our opinion, the most academically sophisticated, and based on extensive empirical work and peer-reviewed research papers. Their work also underpins the *Code of Good Shooting Practice* which is universally supported by the shooting community. This portfolio of work should be granted greater significance. Here we note that Bicknell is employed by the RSPB and we suggest that, for fairness, the report from the GCWT should be weighted equally. Overall the evidence base merits
expanding or risks providing the impression of certainty when research is still in-progress

2. The possible alternatives to the use of firearms is, as yet, under-explored. Inter-disciplinary research on both ecological, social and economic criteria will be critical here. The question of lead shot is one such area. The conclusion of asking participants to consider alternatives to lead shot is sound. The evidence base is, as yet, insufficient to demand a new policy; hence the Government’s recent confirmation of the existing legislation. On that basis, it would be appropriate to adopt a consistent approach. It also raises the question as to why NRW has not followed Welsh Government policy on the use of snares.

3. The research evidence base surrounding shooting and stalking is overwhelmingly ecological and economic. The cultural questions, as alluded to above including the cultural acceptability of these and the activities that support them (i.e. predator control), are yet to be given serious research attention. Hunting for example has a far broader research base in terms of social and cultural aspects. The communities built around foxhunting and those built around shooting are not the same, but they do overlap. What constitutes ‘communities’ here would be worth exploring. We suggest that it would be useful to consider further research into the social and cultural worlds of shooting – overall – what does it contribute to social cohesion, social activities, a cultivation of the awareness of the natural world, and an engagement (for example in terms of food) with the products of the countryside.

4. NRW’s remit includes the well-being of future generations and the organisation has an appetite to advocate best practice. This may include, in relation to lead shot, proactively advocating the use of fibre wad cartridges on NRW land or land managed by NRW. This would exceed present hallmarks of best practice.

5. We also note, in terms of issues relating to the local economy and social/cultural engagement with the local countryside, the submission from Bettws Hall. The submission is from an interested party but, in our opinion, it offers a very useful case study. Further studies of the ripple effects – captured by both quantitative and qualitative research mechanisms – of recreational shooting on land managed by NRW would be useful for understanding and evaluating its multi-dimensional elements.
Overall

Recommendations
In our judgement NRW’s conclusions concerning shooting and the use of lead shot are well considered and should be adopted.

Research gaps
The social and cultural value of game shooting for those associated with the activity.
The use of lead ammunition and its impact on the countryside.
The status of different species and their control, including raptors and non-native species.
Compliance and non-compliance with both guidelines and the law.

Having concluded this initial independent report on the evaluation of evidence we would both be happy to engage with any further consultation on, or public discussion of, issues raised in this review.

NOTES 1
See for example:

Sam Hillyard


Garry Marvin


Dr Sam Hillyard
(Reader in Sociology)

Garry Marvin
(Professor of Human-Animal Studies)