

## Policy Briefs: Communicating Effectively to Policy-Makers

Effective communication of sound scientific results to decision- and policy-makers is of utmost importance. So many environmental challenges require fast, accurate and reliable communication. If you have ever tried to write a 'comprehensive abstract' of the findings, basic methodology and recommendations of a research paper in less than two A4 pages with no jargon or irrelevant information, you will know how complex and challenging it can be.

A 'brief' is a very concise version of an already published scientific paper. A policy-brief targets policy- and decision-makers whilst management briefs specifically provide recommendations for managers.

The BES Policy Training Workshop, run with NERC from 2009 – 2011, provided an opportunity for early-career researchers to practice their skills in communicating to policy-makers, both verbally and in writing. Researchers were invited to produce a 'POSTnote' style brief, which was then critiqued by peers at the workshop. This exercise inspired the innovative exhibition and contest which took place during the 3<sup>rd</sup> Congress for Conservation Biology ECCB2012, held from 28<sup>th</sup> August to 1<sup>st</sup> September this year, in Glasgow.

We welcomed briefs from professional organisations, and six courageous young scientists competed for an award. This initiative aimed to encourage conservation biologists to try the exercise. The exhibition showed the diversity of the policy briefs in format and quality, and highlighted the fact that communicating about science remains a challenge. The winners are Claire Feniuk and David Williams from Cambridge University (UK) for their brief about wildlife and farming (land-sharing vs land-sparing), and Jean-Yves Humbert (University of Bern, Switzerland) for his brief about mowing practices providing refuges for orthopterans in meadows.

The British Ecological Society, Oxford University Press, and SCB Europe provided prizes; Alter-Net, BELSPO and LWEC have helped to advertise the event; and Kate Trumper, Paul Walton, Jiska van Dijk, Per Sjogren-Gulve, Barbara Livoreil and Ceri Margerison were Jury members: many thanks to them all.

### **Barbara Livoreil**

President-Elect, Society for Conservation Biology – Europe Section

The winning policy briefs are reproduced in the next three pages. Pages 12-13 are the brief from Claire Feniuk and David Williams summarising the paper by Phalan *et al* (2011) Reconciling Food Production and Biodiversity Conservation: Land Sharing and Land Sparing Compared. *Science* **333**: 1289-1293  
Page 14 is Jean-Yves Humbert's brief on Humbert *et al* (2012) Uncut grass refuges mitigate the impact of meadow harvesting on orthopterans. *Biological Conservation* **152**: 96-101

## Policy brief - ECCB Glasgow 2012

### Grassland management to enhance invertebrate conservation

Leaving uncut grass refuge protects (prevents mortality) grasshoppers and bush crickets from the impact of mechanical harvesting.



#### Background

Extensively managed meadows with low input of fertilizers are among the most biodiversity-rich elements of European agricultural landscapes. These low-input meadows require regular harvesting (cutting) to avoid vegetation succession, and this in turn promotes high plant diversity. Modern mechanized meadow harvesting techniques have, however, severe impacts on orthopteran (i.e. grasshoppers and bush crickets) and other field invertebrates, and direct mortality can be as high as 80%. In view of this, we experimentally investigated if a 10% uncut grass refuge in the centre of meadows can mitigate the negative impact of harvesting on orthopteran populations. Population densities of orthopterans in fields and refuges were measured before mowing, after mowing and after baling, and compared to plots of similar size which were entirely mown (N = 6).

## Policy brief - ECCB Glasgow 2012

#### Findings

During harvesting orthopteran densities declined dramatically in mown areas, but doubled in uncut refuges. We observed that during the mowing stage some individuals moved to uncut areas, thereby escaping the impact of post-mowing stages. After baling final orthopteran populations were on average 54% higher in plots with an uncut refuge compared to plots without. At the University of Bern, we are currently investigating the long-term effects of these refuges on several taxa.



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#### Conclusions and management recommendations

The enhancement of biodiversity is a primary objective in many low-input meadow systems, for which farmers often receive subsidies. Our results show that leaving uncut grass refuges is a simple and effective practice to reduce the negative impact of harvesting on orthopterans. From the literature we know that these refuges will also benefit other invertebrate taxa by providing shelter and food sources when the rest of the field has been mown. We recommend leaving uncut grass refuges of at least 10% of the field area, and mowing towards the refuge, as this is likely to drive field invertebrates into it. These refuges should be retained until the next harvesting event, and the location of the refuge should change from time to time.

**Original paper:** Humbert J.-Y., Ghazoul J., Richner N., Walter T. 2012. Uncut grass refuges mitigate the impact of mechanical meadow harvesting on orthopterans. *Biological Conservation* 152:96–101.

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