Efectividad de las medidas agroambientales para la conservación de la fauna y la flora europeas

M. Díaz, R.A. Baquero, F. Fernández, J.L. Yela, E.D. Concepción, J. de Esteban

Departamento de Ciencias Ambientales. Facultad de Ciencias del Medio Ambiente. Universidad de Castilla-La Mancha. E-45071 Toledo, España

Las ayudas agroambientales de la Unión Europea no benefician a la fauna y la flora silvestres tanto como cabría esperar, según un estudio internacional en el que ha participado el Departamento de Ciencias Ambientales de la Universidad de Castilla-La Mancha y que se acaba de publicar en la revista Ecology Letters (vol. 9, pp. 243-254). En el estudio se midió la abundancia y riqueza de especies de plantas, aves, abejas, saltamontes y arañas en unos 200 campos de cultivo en los que se aplica la medida agroambiental más extendida en cada país, comparándolas con las de campos control cultivados de modo habitual. Los campos de estudio se localizaron en Holanda, Alemania, Reino Unido, Suiza y España. Menos de la mitad de las comparaciones demostraron mejoras significativas, aunque la abundancia y riqueza de especies fue casi siempre ligeramente mayor en los campos con medidas que en los controles. En España, donde se evaluó la medida de extensificación de cultivos de cereal para la protección de las aves esteparias, se encontraron efectos significativos y positivos sobre la abundancia de aves, de aves amenazadas, de plantas arvenses y de arañas, siendo por tanto la primera demostración de que estas medidas son efectivas en nuestro país, aunque se desconocen aún las causas de esa efectividad.

Los resultados de este y otros trabajos realizados por el mismo grupo internacional se presentaron en un congreso celebrado el 30 y 31 del pasado enero en Wageningen (Holanda). Las conclusiones del congreso, (ver Anexo 1), indican que las medidas agroambientales pueden ser una importante herramienta para la conservación de la biodiversidad en Europa si se mejora sustancialmente su base científica, se desarrollan objetivos cuantitativos adaptados a la realidad de cada región europea, se evalúa el grado de consecución de estos objetivos y sus causas mediante diseños rigurosos integrados en el proceso de planificación y ejecución de las medidas, se incorporan los resultados de estos estudios en la mejora continua de las medidas y se implica a los agricultores mediante programas de formación adecuados.

Anexo 1. Main conclusions of the End-Symposium of the 'EASY'-project

'Evaluating current European Agri-environment Schemes to quantifY and improve nature conservation efforts in agricultural landscapes' (QLK5-CT-2002-01495). 30-31 January 2006. Wageningen, the Netherlands

1. Agri-Environment Schemes (AES) do not currently adequately protect farmland biodiversity at a European or national scale, but there are enough examples of individual schemes which do protect biodiversity to suggest that, given correct evidence base, design, targeting and funding, AES could provide adequate protection for biodiversity. Ecological information on the impacts of schemes on land abandonment and the associated biodiversity implications are lacking.
2. In order to work and to demonstrate that they have worked (or not), AES need clear objectives and targets. These objectives and targets should be area-specific, realistic and quantitative in terms of changes in abundance, range or diversity of specified species or species groups and be time delimited.
    "what we want, where and by when"
3. For future improved success of AES, region specific farmer training and advice will be a key issue to enhance farmland biodiversity.
4. In general, there is sufficient ecological insight and geographical information to identify the objectives, outcomes and

targeting for potential AES prescriptions. However, ecological insights are often lacking for spatial scale effects and for temporal and ecosystem service effects.

5. Wide-scale ecological evaluations, well-integrated in scheme design and implementation, should be linked to specific case studies on the causes of effectiveness of lack thereof. Ecological insights into cause and effect are important for the design/re-design process, for which monitoring and clarity of objectives are key. Ecological assessment should be transparent, inclusive and carried out by skilled ecologists.

6. The results of evaluation and cause-effect studies should be used to improve the design of schemes. Agri-environment schemes should be regarded as working hypotheses that need constant adjustment.

The main conclusions are a condensed summary of the conclusions of four groups of Symposium participants each discussing a slightly different question related to the ecological effectiveness of agri-environment schemes. Below, the original conclusions of each of these discussion groups are given.

Group 1

Do agri-environment schemes adequately protect farmland biodiversity?

Key statements

1. Answering the question

AES do not currently adequately protect farmland biodiversity at a European or national scale but there are enough examples of individual schemes which do protect biodiversity to suggest that, given correct evidence base, design, targeting and funding, AES could provide adequate protection for biodiversity.

2. Targeting

"what we want, where and by when". In order to work and to demonstrate that they have worked (or not), AES need clear objectives and targets. These targets need to be:

a) Population levels or densities
b) Bio-geographic range
c) Restricted in time

3. Wider context

Factors outside AES design can determine the success or failure of the scheme, e.g.:

a) Financial resources
b) Payment levels
c) Training
d) Advisory support
e) Administration
f) Farmer acceptance of the scheme
g) Country priorities
h) Legislative framework

4. Implementation

For future improved success of AES, region specific farmer training will be a key issue to enhance farmland biodiversity.

5. Scheme design

We need a multi tiered scheme which can operate at landscape scale, protect ecosystem functioning and species. E.g. a "light green" scheme with broad coverage coupled with a "dark green scheme", which has more focused options for rare species. This only reflects the current protection (backwards locking). Everybody agrees that AES do have the potential to adequately protect farmland biodiversity, provided the suggestions of the EASY workshop are implemented.

Group 2

Do we have sufficient insight in the ecological effects of agri-environment schemes?

In general, there is sufficient ecological insight and geographical information to identify the objectives, outcomes and targeting for potential AES prescriptions for simple, complex and existing high value habitat.

Considering the actual achievement of prescriptions, there is still a mixed picture, **_when_** they are monitored with some successes but insufficient ecological understanding. Ecological insights are often lacking for spatial scale effects – landscape scale and configuration -and for temporal and ecosystem service effects.

Schemes can act as natural experiments. Insights into cause and effect are important for the design/re-design process, for which monitoring and clarity of objectives are key. We need to increase the profile of ecologists and ecological insights into the design stage.

Group 3

Can we improve the ecological effectiveness of agri-environment schemes?

In order to be able to do this, clear and quantifiable objectives for schemes need to be formulated. We need information on the expected and realized responses of ecosystems/target species and underlying mechanisms. Recommendations for scheme implementation need to be area specific. Farmers need to be helped with the implementation of schemes by the provision of ecological information. We need to have more information on the effectiveness of 'abandonment schemes'

Group 4

Can we improve ecological evaluation studies of agri-environment schemes?

Agri-environment schemes should have area-specific, realistic quantitative goals in terms of changes in abundance or diversity of specified species or species groups. Evaluation programs should be designed and implemented together with the scheme. Points 1 and 2 should increase cost effectiveness by allowing the estimation of the sampling effort required and more efficient linkage of the results to the objectives of the scheme. Wide-scale ecological assessment should be linked to specific case studies on the causes of effectiveness of lack thereof. Ecological assessment should be transparent, inclusive and carried out by skilled ecologists.