

# **The Farmland Wildlife Survey – raising awareness of wildlife habitats**

## **END OF PROJECT REPORT**

**RMIS 5190**

### **Authors**

---

Mairead Gabbett<sup>1</sup> BSc and John Finn PhD<sup>2</sup>

<sup>1</sup>Farmland Ecologist

<sup>2</sup>Department of Environment and Land Use, Teagasc, Johnstown Castle  
Environment Research Centre, Wexford.

This research was made possible by a grant from The Heritage Council.

### **Johnstown Castle Research Centre Wexford**

**August 2005**



---

---

Teagasc Headquarters, Oak Park, Carlow

## TABLE OF CONTENTS

<b>MAIN MESSAGES .....</b>	<b>1</b>
<b>SUMMARY .....</b>	<b>2</b>
<b>INTRODUCTION .....</b>	<b>3</b>
<b>OBJECTIVES .....</b>	<b>3</b>
<b>METHODS .....</b>	<b>3</b>
<b>Farm selection .....</b>	<b>4</b>
<b>Farmer questionnaire .....</b>	<b>4</b>
<b>Farmland wildlife survey .....</b>	<b>4</b>
<b>Report on farmland wildlife survey .....</b>	<b>5</b>
<b>Feedback .....</b>	<b>5</b>
<b>Additional information on wildlife .....</b>	<b>5</b>
<b>Common farmland habitats .....</b>	<b>6</b>
<b>RESULTS .....</b>	<b>6</b>
<b>Examples of common farmland habitats and their wildlife value .....</b>	<b>8</b>
<b>Field margins and hedgerows .....</b>	<b>8</b>
<b>Ponds .....</b>	<b>9</b>
<b>Streams and bankside vegetation .....</b>	<b>10</b>
<b>Woodland, scrub and copses .....</b>	<b>11</b>
<b>Small areas of species-rich grassland .....</b>	<b>13</b>
<b>Questionnaire survey on environmental awareness .....</b>	<b>14</b>
<b>Feedback on farmland wildlife survey and report .....</b>	<b>15</b>
<b>Overview of farmers' responses .....</b>	<b>15</b>
<b>Overview of advisors' responses .....</b>	<b>15</b>
<b>DISCUSSION AND CONCLUSIONS .....</b>	<b>16</b>
<b>Overview .....</b>	<b>16</b>
<b>Future improvements to the survey and report .....</b>	<b>17</b>
<b>How might the Farmland Wildlife Survey contribute to more effective policy? .....</b>	<b>17</b>
<b>ACKNOWLEDGEMENTS .....</b>	<b>19</b>
<b>APPENDIX 1 .....</b>	<b>20</b>
<b>Summary of Questionnaire Responses .....</b>	<b>20</b>
<b>Specific wildlife features on the farm .....</b>	<b>21</b>
<b>APPENDIX 2 .....</b>	<b>23</b>
<b>Summary of Farmers' Responses in Comment Cards .....</b>	<b>23</b>
<b>APPENDIX 3 .....</b>	<b>25</b>
<b>Summary of REPS Advisors' and Planners' Responses in Comment Cards .....</b>	<b>25</b>

## MAIN MESSAGES

*The Farmland Wildlife Survey involved a short visit (about 3 hours) to 19 REPS demonstration farms, and an identification of habitats and wildlife on each farm, with an emphasis on common farmland habitats such as hedgerows, ponds, watercourses, field margins, woodland, plant species and other areas of wildlife value. The survey results were provided to the farmer and Teagasc REPS advisor as a report with colour pictures of representative habitats, and an explanation of why these habitats were important for wildlife.*

- The Farmland Wildlife Survey has received positive feedback from REPS demonstration farmers, REPS planners and Teagasc REPS advisors.
- The Farmland Wildlife Survey appears to be a successful tool in meeting some of the needs of REPS demonstration farmers and advisors to communicate habitat and wildlife issues to farmers who visit demonstration farms as a REPS training activity.
- The Farmland Wildlife Survey should be conducted on all REPS demonstration farms.
- There should be a variety of resources developed to satisfy the considerable demand from REPS farmers, planners and advisors for more information on farmland habitats and wildlife.
- We recommend that the Farmland Wildlife Survey be considered as a supplementary measure offered to all REPS farmers. This would assist the identification of the main habitats on a farm, explain their wildlife value, and identify local species of significance. It would also raise farmers' awareness of habitats and increase the likelihood of habitat protection and maintenance.
- The piloting of this approach in one or two regions would help assess its introduction as a new measure.

“The way the REPS scheme is going, this kind of survey will become more common; [the scheme] will encourage creation of habitats and this type of survey will be valuable when deciding what to do and how to improve habitats and wildlife value on the farm”

*Teagasc REPS advisor*

## SUMMARY

The Farmland Wildlife Survey aims to support the wildlife objectives of the REPS and communicate a greater awareness of wildlife to farmers.

The Farmland Wildlife Survey was conducted on 19 farms that form part of the national network of demonstration farms for farmers who participate in the Rural Environment Protection Scheme (REPS). At each farm, an ecologist conducted a survey that identified existing wildlife areas on the farm. The survey highlighted the existing management practices that were beneficial to wildlife, and pointed out any management practices that could be changed or adopted to be more beneficial. The Wildlife Survey also focused on common wildlife habitats on each farm, such as hedgerows, ponds, watercourses, field margins, woodland, mature trees and farmyard features of wildlife value.

The attitudes and beliefs of the farmers were investigated with a short questionnaire. All farmers in the project farmed with some degree of sensitivity and consideration for wildlife and farm habitats. While most of the farmers were quite aware of farmland wildlife before joining REPS, most credited REPS for an increased awareness of the needs of wildlife in the farmed landscape. Most of the farmers believed there is a need for improved provision of information about identity and management of farmland habitats and wildlife.

The outcome of the farm survey was provided to each farmer as a short report with colour pictures of relevant wildlife features on their farm. The results of the survey were also summarised in a leaflet for distribution to farmers who visit the REPS demonstration farms.

Feedback on the farm visit or in subsequent comment cards was very positive. REPS planners have found the reports useful and interesting. In addition, some Teagasc REPS advisors are using the reports as part of farmer training visits to the demonstration farms. In this way, the Farmland Wildlife Survey complements wildlife objectives of the REPS and promotes a greater awareness of wildlife amongst farmers.

## **METHODS**

The last 20 years have seen a greater prominence of biodiversity in EU legislation, as evidenced by the Habitats Directive and the 'greening' of the Common Agricultural Policy. Increasingly, one sees a convergence of EU environmental and agricultural policy. Within Ireland, there is an unprecedented demand on the farming community to understand and manage agricultural land with appropriate consideration for its biodiversity.

Increasingly, a major instrument of biodiversity conservation among the majority of farmland will be the Rural Environment Protection Scheme (REPS), a stated objective of which is to 'protect wildlife habitats and endangered species of flora and fauna'.

To date, the majority of effort has been targeted at habitats of high conservation value that occur on extensive or traditionally managed farmland e.g. species-rich grasslands, heathland, peatland, eskers, etc. However, most of Ireland's wildlife is also solely or partly dependent on farmland that is primarily managed for semi-intensive and intensive agriculture. There appears to be a gap in conservation efforts and awareness-raising that targets the wildlife value of common or typical farmland habitats that are situated within agriculturally productive areas e.g. watercourses, hedgerows, field margins, ponds, woodland etc.

## **OBJECTIVES**

The farmland wildlife survey project was initiated to survey wildlife and habitats on REPS demonstration farms throughout the country and to raise awareness among farmers of the importance of their knowledge of wildlife, their management of farm habitats and how their decisions affect the quality and value of farm features as habitats for Ireland's wildlife. In turn, this could lead to an improvement in the awareness of visiting groups of REPS farmers about wildlife issues.

Specifically, this project aimed to:

- To conduct a wildlife survey on 19 REPS demonstration farms.
- To prepare a wildlife survey report for each participating farmer.
- To prepare a shorter leaflet form of the survey for visiting farmers.
- To conduct a qualitative questionnaire to investigate farmers' opinions on wildlife and the wildlife survey.
- To describe, implement and improve the process of conducting a wildlife survey.

### **Farm selection**

With the assistance of Teagasc advisory staff, 19 REPS demonstration farms were identified, and the farmer invited to participate in the project. The farms included beef and sheep dry stock enterprises, dairy and tillage. Other farm enterprises included forestry and free-range hens. Most of the farms visited were dry stock farms, which reflects the majority of farm enterprises that participate in REPS.

REPS demonstration farms were visited in the following counties: Limerick, Kerry, Clare (2), South Tipperary, Mayo, Donegal, Leitrim, Sligo (2), Longford, Roscommon, Kildare, Kilkenny, Carlow, Cork, Offaly and Louth (2).

### **Farmer questionnaire**

Farm visits started off with a short questionnaire that the farmer completed with the surveyor, which aimed to establish:

- What the farmer knew about habitats and wildlife on his farm and in his locality;
- How and if they felt REPS had benefited them and the wildlife on the farm;
- How they rated their knowledge and ability to talk about wildlife and farm habitats.

The questionnaire also enquired whether farmers felt that they needed more information on wildlife and habitats. Their information on types of habitats and wildlife, along with the farm map, were used to select areas of the farm to visit.

### **Farmland wildlife survey**

The farmland wildlife survey involved a farm walk with the farmer, who pointed out the various areas of the farm, and was asked about the farm management practices and the wildlife features. Where relevant, other wildlife features were pointed out, and photos were taken of all significant wildlife features.

Questions on general farm management and timing of management events were asked while looking at relevant habitats and farm features. Management of the habitats was discussed. Farmers asked many questions on various management issues including future plans for some habitats and how this would affect wildlife overall. Management of hedgerows, drains and ponds and the effects of previous management decisions were discussed. Farmers were also keen to point out features they found interesting or felt were significant to the project.

The farm survey took between 1½ and 3½ hours, depending on the time available to the farmer and the size of the holding. The survey focused on the farm areas visited by groups of REPS farmers, but included other habitat areas not covered in the REPS farm walk. The farm survey concentrated on lands around the farmhouse and buildings. In general, out-farms and rented lands were not visited. Most farmers had a good

knowledge of features, habitats and wildlife present on their farms and also the history of their farm.

### **Report on farmland wildlife survey**

The writing of the survey report was aided by taking notes in the field, compiling a list of plant species, and taking digital photographs. In the days after the visit to the farm, a short (5-10 pages) report on the farm wildlife survey was prepared for each farm visited, with farm habitats and features discussed in relation to their value for wildlife and their management. This report was provided to the farmer with some suggestions on opportunities to improve the wildlife value of the farm (these were not obligatory). A summary version (2 pages) of the wildlife survey was prepared for distribution to farmers who visit demonstration farms as part of the REPS training course.

### **Feedback**

Each report was sent out with a comment card and a stamped, addressed envelope. Farmers were asked to comment on both the farm walk and the report, and suggest any alterations or improvements to the report or farm walk.

In some cases the REPS advisor had conducted the REPS plan; in other cases, the advisors passed the comment card to the REPS planner for the demonstration farm. Each REPS advisor or planner who received the report was also sent a comment card, to provide remarks on the usefulness of the report and the summaries for REPS farm walk, and to suggest any improvements.

### **Additional information on wildlife**

Additional information on wildlife issues from the following groups was provided to several farmers who requested it:

- Teagasc
- Teagasc and Bird Watch Ireland
- Teagasc and the Office of Public Works (OPW)
- Butterfly Conservation (UK charity).
- Bat Conservation Ireland
- Seed Savers.

## RESULTS

### **Common farmland habitats**

Although Natural Heritage Areas (NHAs) and Special Areas for Conservation (SACs) receive a lot of attention, much of Ireland's wildlife is dependent on other areas (such as common farmland habitats) in the wider countryside being available for farmland wildlife. Here, therefore, we focus on common farmland habitats. Using the expertise of an ecologist, a major aim was to explain the specific features of common farmland habitats that make them important for wildlife. It is important to point out that not all farms will contain all farmland habitats. Although some farms are of greater wildlife value than others, almost every farm contains some common habitats.

The wildlife survey identified common habitats of wildlife interest on each farm, such as hedgerows, ponds, watercourses, field margins, woodland, mature trees and farmyard features of wildlife value (see Table 1).

The last three columns in the table indicate notable features of the built heritage (traditional farm buildings, stone circles, ring fort or stone walls), the presence of protected, rare or threatened species (bats, otters, rare plants), or the presence of habitats of high conservation value (e.g., turloughs, salmonid rivers, peatlands, and other NHA/SAC areas).



**Table 1: Overview of farmland habitats on selected REPS demonstration farms. These data are indicative only, and not for quantitative analysis**

County	main business*	river	stream	drains	pond	riparian	grassland	wet grassland	hedgerows	tree lines	field margins	woodland	plantation	scrub	built heritage	rare species	valuable habitats
Limerick	D, B, F	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kerry	B	✓		✓		✓			✓		✓			✓		✓	✓
Clare	B		✓	✓				✓	✓	✓	✓			✓	✓	✓	
Clare	B, F	✓	✓		✓		✓		✓		✓		✓	✓	✓		
Tipperary	B, S, F	✓						✓	✓	✓			✓	✓		✓	
Mayo	B			✓				✓	✓		✓			✓		✓	✓
Donegal	B, S		✓	✓	✓				✓	✓	✓			✓		✓	✓
Leitrim	B, F	✓		✓				✓	✓	✓	✓		✓				
Sligo	B	✓		✓				✓	✓		✓						
Sligo	B, S		✓	✓			✓	✓	✓	✓		✓	✓		✓		
Longford	B	✓		✓				✓	✓	✓	✓		✓				✓
Roscommon	B, S			✓	✓			✓	✓	✓							✓
Kildare	B		✓	✓	✓			✓	✓	✓	✓		✓	✓			
Kilkenny	S, T	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓		✓	✓
Carlow	S, B, T						✓		✓	✓				✓			✓
Cork	T, B	✓		✓	✓				✓	✓	✓			✓		✓	✓
Offaly	B, D, T	✓	✓	✓				✓	✓	✓	✓			✓	✓		✓
Louth	T, B, S	✓		✓	✓			✓	✓	✓	✓			✓	✓		
Louth	B		✓				✓		✓		✓			✓	✓		✓

\* B = Beef, D = Dairy, F = Forestry, S = Sheep, T = Tillage

## **Examples of common farmland habitats and their wildlife value**

Having identified common farmland habitats that occur on farms, a major aim was to communicate some general information about why these habitats were important to farmland wildlife. Some examples of this information is provided for a selection of habitats that are found on most farms.

Although it can be difficult to prescribe generic management practices to actively protect and maintain different types of habitat, general information was provided about a number of harmful management practices that should be avoided, because they can destroy the wildlife interest of an area. These include: overgrazing, undergrazing, changes to mowing regimes, ploughing and reseeded, spreading of chemical fertilisers, excess application of organic manure, and spraying of herbicides.

### **Field margins and hedgerows**

Field margins are areas of uncultivated vegetation that occur, for example, along the base of hedgerows, walls, fences and banks. It is easy to take them for granted, but field margins and hedgerows can offer an important habitat for threatened plant species, and a variety of animals that use field margins as feeding areas and as shelter. Bees, butterflies and hoverflies will be attracted to the wildflowers on which they feed and breed. Beetles, spiders and many other invertebrates occupy the base of the sward in the field margin, where they are an important food source for many other farmland animals (such as hedgehogs and frogs). Wide field margins with tall bulky vegetation of grasses and wildflowers (as in Figs. 1 and 2) are of greater wildlife value than narrow margins that are tightly grazed. The wildlife value of field margins is maintained by preventing them from being overgrazed or overgrown, not spraying herbicides and not spreading fertilizer and slurry on them (this also helps prevent the growth of problem weed species). Bats use hedgerows as flightlines when feeding and for cover when they are hunting at night. Thrushes, blackbirds, dunnocks, wrens and chaffinches all use hedges as nesting sites.



**Fig. 1.** This farm lane has a diverse hedgerow with wild vegetation at its base and a field margin at the edge of the field (Co. Sligo).



**Fig. 2.** Hedgerow, ditch and a field margin with a diverse and bulky sward provide excellent conditions for farmland wildlife (Co. Kerry).

### **Ponds**

The pond in Fig. 3 is located in an area that was previously drained and had once supported a similar water body. A variety of aquatic plants were found in and at the edge of this pond, including stoneworts, water mint, purple loosestrife and meadowsweet. In general, ponds will support waterfowl, frogs and a large number of aquatic insects including damselflies,

dragonflies, water boatmen, pondskaters and water beetles. Other birds, small mammals and insects will use the pond and the adjacent wet grassland habitat for shelter and hunting.



**Fig. 3.** This pond was voluntarily created in 2003, and is surrounded by common reed, a typical aquatic plant (Co. Louth).

### **Streams and bankside vegetation**

Streams and bankside (or riparian) vegetation (Figs. 4 and 5) support a variety of aquatic and terrestrial wildlife. Sections with shallow, relatively fast flowing water will support a range of aquatic insects including mayfly larvae and caddis fly larvae, and other important food items for fish. Fig. 3 illustrates a mixture of common reed, yellow iris and occasional willow trees. The trees will be important nesting and singing sites for birds. Such vegetation usually supports an abundance of insects that are important food for hedgehogs, frogs, and bats. Wildflowers that typically occur include meadowsweet, soft rush, hard rush, yellow iris and lesser spearwort, common reed, bur reed, bulrush, pondweed, duckweed and water-lily. However, such bank-side vegetation can need to be mown or trimmed every few years to prevent dominance by rank grasses and scrub.



**Fig. 4.** Stream and bankside vegetation support a range of plant species associated with aquatic habitats and wet grassland, which provide cover for other wildlife.



**Fig. 5.** A mixture of common reed, yellow iris and occasional willow trees along a stream provides habitat and food for a diversity of farmland wildlife that may not be available on other parts of a farm.

### **Woodland, scrub and copses**

Most farms have some trees, or small patches of woodland. Small areas of woodland (such as those in Figs. 6 and 7) can have trees of different ages that give the woodland a better structure. Where

grazing is absent or managed to prevent overgrazing, a diverse variety of woodland plants grow at ground level, such as hart's-tongue fern, violets, wood avens, enchanter's-nightshade, bluebells, wild garlic and primroses, along with other mosses, ferns and grasses.



**Fig. 6.** Small copse with mature trees of ash, beech, elm and sycamore, surrounded by a stone wall. (Co. Sligo.)



**Fig. 7.** Woodland at river's edge with a range of plant species at ground level (Co. Kilkenny).

### **Small areas of species-rich grassland.**

Many farms contain small areas of peatland, heathland, and species-rich grassland. The wet meadow in Fig. 8 is not fertilised, and is usually cut in early autumn for litter and then grazed by young cattle. This management allows for grasses and flowers to flower and seed but does not allow the grassland to become rank. A large number of wildflower and grass species thrive here, including devil's-bit scabious, hawkweed, meadow vetch, yarrow, sheep sorrel, tormentil, white clover, self-heal, cock's-foot, Soft and Hard Rush. It supports a wide range of insects including beetles, spiders, flies, damselflies and dragonflies. Butterflies, moths, hoverflies, and bees all feed on the nectar produced by flowering plants. Such meadows provide a good habitat for ground-nesting birds. Wet grassland that is not dominated by rushes can be an important habitat for breeding birds such as lapwing, redshank, snipe and skylark.

Species-rich grasslands can sometimes appear somewhat unremarkable after grazing or out-of-season (which can make them more difficult to identify for non-specialists) but are very important in conserving Ireland's plant and animal wildlife. Many of the plants and insects of highest conservation interest only occur on species-rich grassland.



**Fig. 8.** Small area of species-rich grassland on an extensive farm, with willow and oak trees in background (Co. Limerick).

### **Questionnaire survey on environmental awareness**

The questionnaire survey (see Appendix 1) was completed at the beginning of the farm visit. The number of farmers involved is too small for statistical analysis, but is useful to indicate the attitudes and values of the participating farmers. There were four main categories of questions:

- Habitats and wildlife
- Specific wildlife features on the farm
- REPS participation and wildlife
- Wildlife and REPS demonstration visits.

Most farmers said they had enjoyed doing the farm survey and either became more aware of the habitats or had learned something new about wildlife on their farm. All farmers in the project farmed with some degree of sensitivity and consideration for wildlife and farm habitats. While most of the demonstration farmers were quite aware of farmland wildlife before joining REPS, most credited REPS with an increased awareness of the needs of wildlife on their farm.

Most of the farmers believed there is a need for improved provision of information about how to identify and best manage common farmland habitats and wildlife. The farmers are very aware of their farm environment and how it has changed - they see their farm on a daily basis and notice the effects on wildlife from the removal of hedgerows, drainage and the cessation of certain farm practices that were beneficial to wildlife.

Interestingly, when asked about visiting groups of REPS farmers, about half of the demonstration farmers in our survey said that the visiting groups asked questions about wildlife. Most of these questions enquired about how to protect wildlife and the associated costs, although a small minority of questions were not so positive! The other half of demonstration farmers considered that visiting groups of farmers did not ask questions because they were uninterested or, as in most cases, felt they had received sufficient information from the REPS training course.

Further information on responses to the questionnaire is provided in Appendix 1.



## Feedback on farmland wildlife survey and report

The participating farmers completed the comment cards after conducting the farmland wildlife survey, and receiving the survey report. Teagasc REPS advisors and planners associated with the participating demonstration farms also responded after receiving the survey report and summary.

## Overview of farmers' responses

All the respondent farmers sent back very positive feedback on the farm walk and used the following adjectives to describe it: interesting, informative, educational, helpful, thorough and excellent. Five of the 13 respondents considered that the walk associated with the wildlife survey needed no improvement. Other comments requested more time and information about the survey, so that the farmers could provide and get more information about habitats

“The surveyor was farmer-friendly, quickly established a rapport and shared her knowledge and enthusiasm for the environment. I learned much and appreciated her visit and interest and hope that this type of survey took place on all REPS demonstration farms as it could be beneficial.”

*REPS demonstration  
farmer*

Commenting on the report that was provided to them, four farmers described it as ‘excellent’, two farmers described it as ‘very good’; other comments included ‘detailed’, ‘comprehensive’, ‘informative’, ‘well presented’, ‘good use of photos to illustrate habitats, and detailed the list of plants’. The report was described as being ‘easy to read’, ‘interesting’ and ‘understandable’ with the language used being ‘farmer friendly’. Twelve respondents felt the report would be useful for visiting groups of REPS farmer, because it provided additional information on farm habitats and wildlife, explained farm habitats in more detail and explained why these habitats were important for wildlife.

Most farmers felt the farm survey report could not be improved or were not sure how to improve it. Suggested improvements were for the survey to be conducted in the summer months, and to include a map of the farm.

Further information on farmers’ comments is provided in Appendix 2.

## Overview of advisors' responses

Eleven of the eighteen REPS advisors/planners completed and returned the comment cards.

Seven of the REPS advisors/planners considered that the survey report had given an informative and comprehensive account of the type of habitats and wildlife on the farm. They repeatedly commented on the good use of photographs to illustrate various habitats and the list of plant species, which gave an indication of the diversity on the farm.

Overall, the advisors/planners indicated that the report would be a very useful addition to the REPS training visits because:

- rather than just providing a habitat name for an area, the report explains the main features of the habitat, and why the habitat is of value to the variety of wildlife that occur there;
- the habitats and wildlife found on the REPS demonstration farm could be found on most other farms. Thus the report could make farmers more aware of wildlife and habitats on their own farms;
- they could use the information in the reports for identifying habitats on other farms;
- they would be used for discussion in the farmyard prior to a training visit by a group of REPS farmers;
- the photos helped bring the survey to life, and photos from a summer survey would better illustrate the habitats for farm visits that are conducted in winter and autumn.

There were mixed feelings about the summary version of the report, which contained less information and did not provide pictures of the habitats – generally, the advisors/planners preferred the full report and the inclusion of photos.

Further information on the comments is provided in Appendix 3.

## **DISCUSSION AND CONCLUSIONS**

### **Overview**

Most REPS demonstration farmers and Teagasc REPS advisors/planners in this study displayed a remarkable level of interest in farmland wildlife, concern for its protection, and expressed a strong desire for further information on farmland habitats and wildlife groups.

The Farmland Wildlife Survey appears to have been very well received by the farmers involved and the majority said they found it an interesting and rewarding experience. The farm survey walks and reports have received positive feedback from the farmers and Teagasc REPS advisors.

When interpreting this study, it is important to remember that these REPS demonstration farmers are not a random sample of REPS participants. An increased level of environmental awareness may have motivated their initial decision to be demonstration farmers. Their awareness of wildlife and habitats may have also increased because of their participation as REPS demonstration farms. However, both the farmers and advisors generally believed that the Farmland Wildlife Survey approach would provide useful information for the majority of REPS farmers visiting the demonstration farms.

Although the participants in this study are not a random sample of farmers, these demonstration farmers are not exceptional to the extent that they have viable, profitable farm enterprises. In addition to being a successful business, their farms contain many different habitats.

### **Future improvements to the survey and report**

Advisors, planners and farmers wanted more information on birds, mammals and invertebrates present on the farm; this was difficult to do in the relatively short time spent on each farm and would require a range of specialist expertise. Farmers, planners and advisors would like to have photographs of common farm plants, birds, mammals and insects at the back of the farm survey report. Alternatively, they would like a dedicated leaflet or booklet that could be distributed to all REPS farmers.

A suggested improvement was for the Farmland Wildlife Survey to create a habitat map for the farm, and for any future survey to investigate the possibility of using Teagasc's online REPS mapping system to do so.

### **How might the Farmland Wildlife Survey contribute to more effective policy?**

REPS advisors and planners were very aware that current trends in farm policy was moving to a more environmentally aware and sensitive type of farm management, with an increased emphasis on wildlife in agri-environmental schemes such as REPS. Some advisors and planners specifically identified a need for more training in identifying habitats and wildlife to assist them to more effectively implement REPS 3. This is an important finding in the context of this project and for the future development and effectiveness of the Rural Environment Protection Scheme.

For any specific habitat, the retention of existing examples of that habitat (and the associated management practices) should be a greater priority than either the restoration or creation of the habitat. In this study, farmers, planners and advisors specifically commented on the potential of the Farmland Wildlife Survey

being adopted much more widely to improve awareness about farmland wildlife, and better contribute to its protection and enhancement. Conducting the Farmland Wildlife Survey on an individual farm seems to confer a number of benefits toward the objective of protecting and maintaining habitats:

- Importantly, the identification of habitats and a detailed explanation of their wildlife value reinforces the message to farmers that *their* farm makes a contribution that is of value to wildlife.
- The survey is conducted by a specialist in farmland wildlife.
- The survey helps translate more abstract aims into practical reality.
- The survey could help customise general recommendations for habitats to the particular issues on a specific farm
- A farmer's local knowledge about traditional farming practices could be better incorporated.

Although it would obviously present opportunities, the implementation of a wildlife survey on a large number of individual farms would also present a number of challenges:

- Identify specialist personnel to conduct the surveys.
- Ensuring that such personnel have the required skills to identify habitats and rare species.
- Need to develop tools to assess the condition and quality of wildlife populations and habitats.
- Need to develop more consistent advice about how to manage wildlife.
- The cost of conducting a survey.

An implementation of the Farmland Wildlife Survey (or some similar survey) to complement REPS policy objectives might consider the following:

- The Farmland Wildlife Survey could be included as an option in a supplementary measure, for which a fixed payment would be provided. This option might only be chosen by farmers with an interest in wildlife, but the practical recommendations of the survey would very likely be implemented by such farmers.
- The Farmland Wildlife Survey raises the possibility of a scoring scheme that financially rewards farmers who have more wildlife habitats on their farm, and who have habitats of higher conservation value. Thus, larger areas of habitats of higher conservation value would contribute a higher score. Importantly, this would introduce a financial incentive to protect non-designated farmland habitats. At the moment, the recording of common farmland habitats in a REPS plan is not associated with an increased payment to reward a higher degree of protection and maintenance of habitats (payments

only occur in the case of habitats designated as NHAs or SACs).

- The implementation of the Farmland Wildlife Survey as part of the REPS could be piloted in one or two regions, in order to assess its effectiveness in furthering the aims of the REPS.

## **ACKNOWLEDGEMENTS**

We gratefully acknowledge the award of a Wildlife Grant by the Heritage Council. We are extremely grateful to the REPS demonstration farmers who kindly agreed to participate in this project. We also thank the numerous REPS advisors and other Teagasc advisory staff who so generously gave time and assistance to this project. We thank Eugene Ryan for his support, and Tina Aughney for assistance with designing the questionnaire survey and comment cards. All photos were by Mairéad Gabbett.

## APPENDIX 1

### Summary of Questionnaire Responses

#### Habitats and wildlife

**1. What do you understand by ‘habitat’?**

All farmers understood that a habitat was where wildlife lived, six farmers understood a habitat was a place for wildlife that was undisturbed, and particularly in the breeding or nesting season, and that it was not part of the productive farm.

**2. In your opinion, are there any habitats in your local area and on your farm?**

All farmers could list various habitats on their land and in their locality

**3. Do you consider any of these habitats to be of wildlife value?**

Most of the farmers could list wildlife that used the habitats.

**4. In general, do you think that it is the farmers’ responsibility to preserve habitats and wildlife on farms? Please explain.**

Yes	No	Partial responsibility
12	8	7

**5. Is any part of your farm designated under the following?**

*pNHA cSAC SPA pSPA Nature Reserve Other*

Thirteen farms had some form of designation. Seven farms had cSAC land including river band, floodplain, raised bog, Blackstairs Mountains and Lough Swilly. One farmer also farmed land in a SPA and another farmer felt his land may be designated an SPA in the future for Hen Harrier. Two farms had NHA on their land including a turlough and coastal headland. Two farmers may have land in a River SAC, but were not certain. One farmer had no designation on his land but an old farm building had a Lesser Horseshoe bat maternity roost. Another farm had autumn crocus (a Red Data Book plant) growing on his land. Ten farms had archaeological features on their land including stone circles, ring forts, souterraines, barrows, medieval villages, lookout towers and old pathways.

The above list shows the importance of farms and farming in the conservation of the Irish landscapes, its habitats, wildlife and history.

### **Specific wildlife features on the farm**

This part of the questionnaire aimed to help identify areas to visit on the farm walk. Farmers' responses to this section were often considerably added to in the field, where most farmers showed an extensive knowledge of their farms and the surrounding landscape.

**6. Please circle the features present on your farm: hedgerows, tree lines, ditches, drains, ponds, scrub, conifer plantation, broadleaved plantation, woodland, stone walls, streams, rivers, lakes, turloughs, riparian zone, blanket bog, raised bog, fen, cutover bog, coastal features, archaeological features, waste ground and other.**

**7. What wildlife do you see on your farm?**

**Please list the wildlife you have seen on your farm under the groups listed: birds, mammals, invertebrates, flowers/grasses, trees/shrubs, fish, fungi and amphibians**

From their responses to this question, nine of the farmers had comprehensive knowledge of wildlife, seven had a good knowledge and three had a modest knowledge of wildlife on their farm.

### **REPS participation and wildlife**

**8. What benefits, if any have you gained from participating in REPS?**

**9. In relation to your farm, are there any farming practices that you undertake under REPS that are beneficial for wildlife?**

Yes	No
18	1

**10. In general, do you think that there is a need to provide more information on habitats and wildlife in REPS? If yes, give details of the information required.**

Yes	No
15	4

### **Wildlife and REPS demonstration visits**

**11. How would you rank your knowledge of habitats?**

Poor	Adequate	Good	Very Good	Excellent
4	5	6	3	1

**12. How would you rank your knowledge of wildlife?**

Poor	Adequate	Good	Very Good	Excellent
2	5	8	3	1

**13. Do the visiting farmers ask you about habitats and wildlife issues?**

No questions	Negative questions	Positive
8	2	9

**14. In relation to queries, how would you rank your ability to discuss habitat and wildlife issues with visiting farmers?**

Poor	Adequate	Good	Very Good	Excellent
5	4	7	3	0

**15. In general, do you think that there is a need to provide more information on habitats and wildlife in REPS demo visits? If yes, please give details of the information required**

Yes	No
14	5

**16. From what sources did you receive your knowledge of habitats and wildlife?**

Farmers' knowledge was mostly derived from REPS courses, REPS planners, the REPS book, Teagasc and personal interest and experience.

More detailed information is available in the Final Report of the Farmland Wildlife Survey project, available from The Heritage Council.



## APPENDIX 2

### Summary of Farmers' Responses in Comment Cards

#### ***What did you think of the farm walk?***

All the farmers sent back positive feedback on the farm walk and used the following adjectives to describe the walk: interesting, informative, educational, helpful, thorough and excellent. Some farmers said they felt encouraged to do more for wildlife. One found it nice to have the various wild plant species identified. One farmer described the surveyor as enthusiastic about the environment, and felt her knowledge and enthusiasm was imparted without being intrusive or threatening. Another farmer was pleasantly surprised at the photographs from the survey.

#### ***Could the farm walk be improved in any way?***

Five of the thirteen responded did not think there was any improvement needed to be made to the farm walk. One respondent felt that the surveyor should make the farmer more aware of wildlife habitats. Another respondent felt the survey should be conducted in the summer to get the maximum benefit, three farmers felt more time should be given to the walk and if they had known more about what was involved they would have made more time in their schedule for it. One respondent would have liked more information about the project's aims and purpose at the beginning of the farm walk, so as to show more farm habitats to the surveyor. One respondent wanted more information on the farm building as habitats. Only one of the respondents did not answer this question.

#### ***What do you think of the report?***

The report was described by four farmers as excellent, two farmers described it as very good, other comments included 'detailed', 'comprehensive', 'informative', 'well presented', 'good use of photos to illustrate habitats, and detailed the list of plants'. The report was described as being 'easy to read', 'interesting' and 'understandable' with the language used being 'farmer friendly'.

#### ***Do you think that the report will be useful for visiting REPS course groups?***

12 respondents felt it would be useful as it gave additional information on farm habitats and wildlife, explained farm habitats in more detail and why they were important for wildlife. Some respondents felt it would bring up extra topics for discussion, one farmer wrote that the more information on habitats available the more interesting for farmers on the course. One respondent felt that it is only when you see the habitats described in print that you realised the diversity of habitats, species on the farm and make you more appreciative of the environment you live in. Only

one respondent felt that it would not be useful for visiting farmer groups.

***Could the report be improved in any way?***

Most farmers felt the farm survey report could not be improved or were not sure how to improve it. Some farmers felt a map would be useful in the report; others felt photos of common farm plants and animals would help identify in the future. One farmer recommended a more detailed survey or a baseline study of wildlife, particularly for farms just entering REPS. This could be re-assessed after five years to establish the degree of progress in terms of species and habitat improvement and to document and assess this.

***Any other comments?***

A selection of comments made by respondents is as follows:

“The surveyor was farmer-friendly and quickly established a rapport and shared her knowledge and enthusiasm for the environment. I learned much and appreciated her visit and interest and hoped that this type of survey took place on all REPS demonstration farms as it could be beneficial.”

“Well done! The survey should be useful for future REPS courses.”

“It would be good to give an idea of what the surveyor would be interested in seeing prior to the visit”

“I was glad of the visit. I found it interesting and I hope to improve my farm still further for wildlife.”

“The surveyor was very helpful in explaining about wildlife, in particular lichens.”

“Wildlife should be highlighted during REPS courses and farmers should be encouraged to look after their farms.”

“Thank you for the farm walk and report, my family and I enjoyed reading the report and enjoy our surroundings all the more for it.”

Another farmer stated he would act on some of the management information that the surveyor had given

## APPENDIX 3

### Summary of REPS Advisors' and Planners' Responses in Comment Cards

Teagasc REPS advisors/planners who were sent the survey reports and a summary of the reports were also asked to give feedback using comment cards. Eleven of the eighteen individuals responded.

#### ***What do you think of the Wildlife Survey?***

Seven REPS advisors/planners felt that the survey had given an informative and comprehensive account of the type of habitats and wildlife on the farm. One person had commented that the report was good and had mentioned interesting micro-habitats, on a demonstration farm which she felt had few habitats. Another felt that the report covered adequately what was on the farm, and two others found the report excellent and felt they had learnt a lot about the habitats present on the farm. Another REPS advisors/planner had found the report excellent and that it explained the value of habitats on farms very well. The report was considered to be comprehensive, in-depth and detailed, and that this type of wildlife survey are necessary on REPS demonstration farms. One advisor commented on the timing of the survey, which was carried out in summer when wildlife was abundant. The REPS courses are often run in autumn or winter to fit in with farming schedules; the survey gave additional detailed information on habitats that may not be apparent on a farm visit in winter. Advisors and planners commented on the good use of photographs to illustrate various habitats and the plant list, which gave an indication of how diverse the farm was.

#### ***Do you think the report will be useful for visiting REPS course groups?***

Most of the responses were positive with five of the REPS advisors/planners finding the report useful for various reasons. The respondents said that the report would be useful for other REPS farmers, because the habitats and wildlife found on the REPS demonstration farm could be found on most other farms and it would hopefully make farmers more aware of wildlife and habitats on their own farms. They commented on how the report explained what wildlife benefit from hedgerows, field margins and ditches and how their management was important for various birds, animals and insects. Other comments included that the report was written in farmer-friendly language with good use of photographs, that the report would be used for discussion in the farm yard prior to going out and then picking out habitats on the farm walk. REPS advisors also said the report was extremely helpful for them, to read up on the habitats on the farm prior to

the REPS course as make them more aware of wildlife and farm habitats, they found the information in the survey report down-to-earth and relevant. The reports were useful as introductions to the farm, it made them more aware of habitats including micro-habitats and how birds and animals benefited from the presence of various plants in field margins and hedgerows. The report had already been distributed to farmers on at least two farm walks.

One respondent felt the survey would only be of limited use without training in bio-diversity and wildlife for the REPS advisors/planners; the surveys needed the backup of dedicated wildlife and environmental specialists to provide advice and training for the REPS planners so they could adapt to the changing emphasis of REPS 3. One respondent felt that the survey report was too detailed for a REPS course group

***What do you think of the summary of the Wildlife Survey?***

The answers here were mixed. One person thought the summary was not as good as the report for farm visits, whereas another three felt it was very useful for REPS courses due to the easy-to-read format. Two respondents felt it was an excellent summary of wildlife on the particular REPS farm. Another found the summary adequate, but felt that most of the farmers on courses were not interested in wildlife and the advisors were not adequately informed of wildlife issues. One person had not used the summary and felt it would be of various use depending on particular farmers. Others commented that they had found the summary useful and had used it at courses but felt it needed photographs and pictures; that was very similar to the report but without the photographs, and; that it should be made shorter and more concise.

***Do you think the summary will be useful for visiting REPS course groups?***

Six respondents felt it would be useful or helpful in particular the local knowledge, another felt it would be useful as a handout, but it should be shorter and with less detail, another REPS advisor felt it would be used on courses but that the inclusion of photos would improve its usefulness. One REPS advisor felt the summary version would be useful only when advisors had been trained to deal with wildlife. One advisor felt the summary would be useful but to be given before farmers went on farm walk, another felt it was useful as the summary sheet focused on habitats on the particular demonstration farm, which can be demonstrated to farmer as having specific environmental benefits and these habitats occur on most farms. One advisor felt the farm survey report would be more useful for farmers as the photos help bring the survey to life. Other advisors/planners felt that the report was useful because it highlighted specific habitats on the

farm that can be demonstrated to farmers as having specific environmental benefits, and that these habitat types would occur on most farms.

### ***Could it be improved in any way?***

Four respondents did not think it could be improved in any way; here is a list of the other suggestions for improvement:

- “[Provide] a booklet with photos of habitats, plants their wildlife benefits and birds and animals associated with these plants and animals.”
- “The first step was training REPS advisors and having environmental and wildlife specialist to deal with wildlife aspects of REPS plans and then projects like this would be more useful. Most farmers are intensive and are not interested in wildlife.”
- “The use of local and common names for plants and animal would improve the report.”
- “Drawings of leaves of trees to help identify trees and plants in woodland and hedgerows, include pictures of mammals and insects to help farmers identify them.”
- Two people commented on the fact that a lot of plants were mentioned in the report and felt that pictures of the plants would help people to identify these plants on farm visits.
- “More reference to birds and mammals in the report”
- “A location and farm map or sketch would be useful.”
- “It would be good to explain to the farmer the benefits of wildlife on farms”

### ***Any other comments?***

Discussions and written responses indicated a need for specialist wildlife advisors or ecologists to be present at the farmer training visits to the REPS demonstration farms; advisors felt that they could not talk about wildlife adequately, and that a specialist could better deal with these issues.

A number of advisors and planners said that the report was useful to them and they had learned about farm wildlife from reading it. Some even said they now better understood the purpose of hedgerow maintenance and how it benefited wildlife from reading the report. One respondent felt that REPS planners were under a lot of pressure to bring in new clients and that they could not be expected to deal with the habitat aspects of REPS 3 without more training and more specialised staff.

Some advisors/planners identified a disincentive to give specific management prescriptions because a farmer could be penalised if they did not have the work completed. Another said that one person’s subjective judgement about the appropriate management for a habitat could be disputed by another expert. Thus, without

some form of habitat assessment, planners can find it easier to give simple advice about whether a habitat should or should not be fenced off rather than provide more specific and useful advice on proactive habitat management.