



As part of research being carried out by the University of Stirling, we would like to know your views and opinions about the future management of the Uplands in Scotland – those parts of the countryside found above lowland farmland. This aim of this research is to help to inform future government policy.

All your answers to this survey are completely confidential, anonymous and will not be revealed to anyone outside of the research team.

To say thank you for helping us with this research you can choose to be entered into a prize draw for a £100 cash prize. If you would like to be entered, please fill in the slip below. This will be detached from the survey before your answers are looked at to ensure anonymity.

If you have any questions, please get in touch.

Many thanks.

Yours faithfully,

Rose Hanley-Nickolls

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0131 535 4301

PLEASE ENTER ME INTO THE PRIZE DRAW!

Name: _____

Email address/contact details: _____

First, we would like you to read the following information:

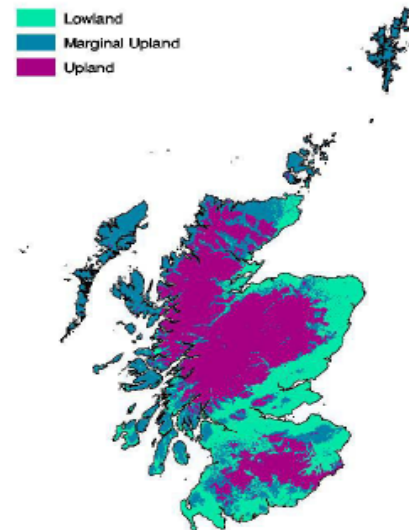
THE UPLANDS OF SCOTLAND

The “Uplands” are made up of a number of important habitats, including heather moorland, peat land and rough grassland.

Upland heather moorland is managed by burning and grazing, by sheep, cattle and deer. This creates a unique ecosystem which is very important for many birds such as skylarks, lapwings and a number of birds of prey, but also for mountain hares.

This map shows the distribution of uplands in Scotland.

Figure 1 The distribution of uplands, marginal uplands & islands, and lowlands, as defined by the Countryside Survey 2000 (Haines-Young *et al.*, 2000).



Source: Centre for Ecology and Hydrology

Q.1 Have you ever visited any area of the uplands *in Scotland*?

Yes ☐

No ☐ → Please go to question 4

Q.2 If yes, can you say how many visits you have made in the last 12 months?

Q.3 Why did you make these trips to the uplands? Please tick all that apply.

Cycling ☐

Horse riding ☐

Walking ☐

Wildlife viewing ☐

Other ☐

→ Please state _____

Q.4 If no, why have you never visited an area of uplands?

Unaware of uplands ☐

Not interested ☐

Too far to travel ☐

Other ☐

→ Please state _____

Please read the following information

About half of the heather moorlands found in the uplands in Scotland are managed for grouse shooting. As well as using heather burning to keep the heather in good condition, many landowners employ game keepers to look after the grouse, for example by protecting them from predators.

Red grouse shooting provides many economic and social benefits to remote Scottish upland areas. If there are enough grouse, shooting is the primary source of income in many upland estates. In Scotland grouse shooting contributes £5 million to the rural economy a year and supports about 1,240 jobs.

In areas where there are no longer enough grouse to maintain a shoot, land owners are using moorland for forestry or sheep grazing. This is thought to have contributed in part to the decline in heather moorland in the U.K. Since 1950 over 30% of grouse moorland has become unmanaged, and between 1940 and 1970, 20% of heather moorland was lost.



Red grouse

Hen Harriers

This survey focuses on one of the birds of prey found on the uplands, the hen harrier.

Q. 5 Have you ever heard of hen harriers?

Yes ☐

No ☐

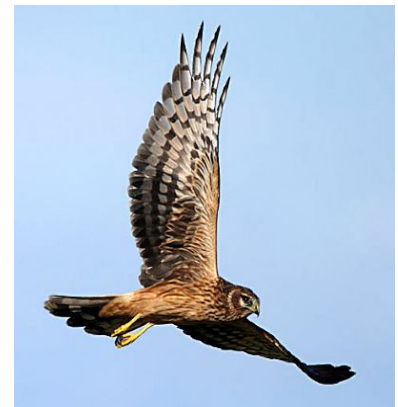
Please read the following information

Hen harriers are a medium sized bird of prey which breed on heather moorlands in the uplands. There are roughly 633 pairs *in Scotland*, and they are an 'at risk' species in England. Hen harriers have been protected by law since 1954.

Hen harriers are threatened by the loss of their habitat, and also by illegal human persecution. Hen harriers eat red grouse. This can significantly reduce grouse numbers to the extent that grouse shoots become uneconomical and close, affecting those people relying on grouse shooting for jobs and income

As a result of this, hen harriers are the most illegally persecuted bird of prey in the U.K, especially in Scotland. Between 55 and 74 female hen harriers are killed every year in Scotland, although the real figure is likely to be much higher as not all deaths are reported.

There is a clear link between illegal persecution and land managed for grouse shooting, with hen harriers producing 25% less chicks and female hen harriers living only half as long on grouse moorland, compared to other parts of the country.



Hen harrier

Q.6 How similar is this to your previous knowledge of hen harriers?

1 2 3 4 5

Very different ----- Very similar

I had no previous knowledge of hen harriers ☐

Q.7 Do you think anything should be done to protect hen harriers *in Scotland*?

Yes ☐

No ☐

THE FUTURE OF GROUSE MOORLANDS IN THE SCOTTISH UPLANDS and HEN HARRIERS.

There are several possible changes to land management which we could make to reduce conflict between those who want grouse to shoot and those who want more hen harriers. However, these changes would all cost money.

These changes may also help another bird which lives on the upland moorlands – the golden eagle.

Please read the following information.

Golden eagles are a large bird of prey with a 2 meter wingspan. They feed on small birds and mammals, and sometimes also on carrion. There are 442 pairs of golden eagles in the U.K., 440 of which are found in Scotland.

Golden eagles mate for life and usually have 1 fully fledged offspring a year. If one of the pair dies, the other eagle will not take a new mate.

The golden eagle population has recovered during the 20th century due to the decline in grouse shooting and legal protection. They are however absent from many areas of suitable habitat, especially where grouse moorland is the dominant land type.

This is due to illegal persecution of golden eagles mainly taking place on and around grouse moors. Carcasses are poisoned with illegal pesticides and left out to poison eagles as well as other predators.



Golden eagle

There are 3 potential ways in which land and conservation management could be changed to help hen harriers. These are:

TOUGHER LAW ENFORCEMENT

This would combine scientific techniques such as forensic analysis of suspected poisonings with increased monitoring. Extra wildlife crime officers would be employed by the police and more resources put into prosecution. This should lead to a greater rate of detection of illegal persecution and more successful prosecutions of those involved. This would benefit both hen harriers and golden eagles, but may also lead to a loss of grouse shooting and jobs if successful.

DIVERSIONARY FEEDING

“Feeding stations” would be set up next to hen harrier nests to try to reduce the number of grouse killed by hen harriers, by providing them with an alternative food source. This method has proved successful for other birds of prey, and in some trials involving hen harriers. This would probably have a neutral effect on golden eagle populations. Money would be needed to provide meat for the feeding stations, and to employ people to operate and manage the scheme.

MOVEMENT OF HEN HARRIERS

Each moor would be assigned a hen harrier “quota”. If hen harrier numbers rose above this quota, eggs and chicks could be moved to a different site to avoid too much damage to grouse numbers. In addition to reducing conflict between grouse moor managers and conservationists, this could also improve the conservation status of hen harriers by deliberately extending their range into other suitable habitat. Money would be required for monitoring, transportation and care of eggs and chicks which were moved under the scheme.

We are interested in what the people of Scotland think about the best way forward for uplands land management, including the conservation of hen harriers and the management of grouse moors. But as we said above, “doing something” about the current problem would be costly, and these costs would need to be paid for by new taxes.

We’d now like you to think about some possible, hypothetical choices which society might make about hen harriers and grouse in the uplands.

In the following four tables there are four options for you to choose from – one for each option as described above (LAW, FEED or MOVE) and a fourth “DO NOTHING” option which does not benefit either hen harriers or golden eagles, but also does not cost anything. If you choose one of the actions (LAW or FEED or MOVE) the **cost** level indicated is the amount of extra tax which a household like yours might have to pay a year if the government went ahead with that option.

Please carefully consider your existing household expenditures and income when choosing from the options below – the cost shown is an extra annual expenditure you would have to pay.

Don’t worry if you are not an expert! Your view counts and is very important to us. For each table please simply choose **one** option only by ticking the appropriate “YOUR CHOICE” box. Please tick one box only in each set of options.

Option A – please choose which you prefer (tick one box only)

CHOICE A	DO NOTHING Maintain current management.	LAW Stricter law enforcement.	FEED Feeding stations away from grouse.	MOVE Move eggs and chicks to new sites.
HEN HARRIER	Population decline	20% population increase.	Maintain current population.	10% population increase.
GOLDEN EAGLE	Population decline	Population decline.	Maintain current population.	10% population increase.
COST	£0	£5	£10	£30
YOUR CHOICE (please tick one only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OPTION B – again, please choose one only.

CHOICE B	DO NOTHING Maintain current management.	LAW Stricter law enforcement.	FEED Feeding stations away from grouse.	MOVE Move eggs and chicks to new sites.
HEN HARRIER	Population decline	20% population increase.	Maintain current population.	20% population increase.
GOLDEN EAGLE	Population decline	Maintain current population.	10% population increase.	10% population increase.
COST	£0	£5	£10	£30
YOUR CHOICE (please tick one only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OPTION C – again, please choose one only!

CHOICE C	DO NOTHING Maintain current management.	LAW Stricter law enforcement.	FEED Feeding stations away from grouse.	MOVE Move eggs and chicks to new sites.
HEN HARRIER	Population decline	10% population increase.	20% population increase.	20% population increase.
GOLDEN EAGLE	Population decline	10% population increase.	10% population increase.	Maintain current population.
COST	£0	£5	£30	£5
YOUR CHOICE (please tick one only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

And the last – Option C – please choose one only...

CHOICE D	DO NOTHING Maintain current management.	LAW Stricter law enforcement.	FEED Feeding stations away from grouse.	MOVE Move eggs and chicks to new sites.
HEN HARRIER	Population decline	Maintain current population.	Population decline.	Population decline.
GOLDEN EAGLE	Population decline	Maintain current population.	Maintain current population.	10% population increase.
COST	£0	£5	£10	£30
YOUR CHOICE (please tick one only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q. 12 If you have chosen the “Do nothing” option in **every** question above, could you tell us why?

Now, please read back over the information provided and your answers to make sure you are happy with your choices, sometimes people change their minds when they have had longer to think about something.

ABOUT YOU

To help us understand your answers, we need to know a little bit about you.

The information you provide in this survey is completely confidential – this information cannot be connected with you personally.

Q.12 What is your age?

16-25 ☐ 26-40 ☐ 41-65 ☐ 66+ ☐

Q. 13 Are you:

Male ☐ Female ☐

Q. 14 Where do you live?

Countryside ☐ Town/City ☐

Q. 15 Where did you grow up?

Countryside ☐ Town/City ☐

Q.16 Do you, or have you ever been hunting?

Yes ☐ No ☐

Q. 17 Are you a member of any organisation? (E.g. RSPB, NFU etc.)

Please list.

Q. 18 What is your profession?

Q. 19 What is your household income after tax?

< 9,999		60,000-69,999	
10,001-19,999		70,000-79,999	
20,000-29,999		80,000-89,999	
30,000-39,999		90,000-99,999	
40,000-49,999		100,000+	
50,000-59,999			

Any further comments?

If you would like to make a comment on the survey or anything else, please do so in the box below.

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Thank you for your help!