



Introducing environment

Red grouse debate

V/O:

I was keen to discuss the various dilemmas surrounding this aspect of conservation with a number of interested parties, and I soon found a very wide range of views emerging. I began by asking the broadcaster, Pippa Greenwood, if the upkeep of heather moorland should be paid for the shooting of red grouse.

Pippa:

I think it's extraordinary that in a developed world in a country which is meant to be populated by thinking and, hopefully, fairly intelligent people I think it is amazing that it's going on, because I can really see absolutely no excuse for it whatsoever, or any other kind of blood so-called sport, come to that. I think it's barbaric, would be to put it politely.

Man:

I have absolutely no problem with shooting something, after all we catch fish from the sea, it's a wild crop, and in fact I think there's every good reason to do it, because what it means is that people manage the land to favour that particular kind of wild life, and in so doing they're not only ensuring the long term future of that species, whether it's red grouse or whatever, but they're also ensuring the long term future of other animals associated with that habitat.

Man:

As an ecologist I have no problem with the issue of harvesting a bird, just like harvesting any other natural resources, as long as it's in keeping with the populations, so the RSPB's approach to this issue is which is the best form of land management in the uplands for the group of birds, for the biodiversity we're interested in, and this is where I guess science and ecology, and economics and politics start to mix, and historically areas that were lost from being grouse moors were either subjected to a forestation with non-native conifers, which is bad for upland birds, or were subjected to much bigger sheep densities and agricultural intensification. So if you look back over the last thirty or forty years management for grouse moors has been better for a range of birds than either of the two likely alternatives.

Man:

Grouse actually only live a very short time, even in captivity where they can't be shot, it's a very short-lived species, but the way in which shooting impacts on grouse is very interesting. Basically what happens with true management you have about seven times as many grouse as you otherwise would have, other things being equal, and then the shooting is to take the harvestable surplus off that to bring it down to probably five times as many grouse as you should have, so on a moor with shooting you have about five times as many grouse as you have on a moor without any shooting.

Man:

It's the management that increases the numbers. You don't set yourself back to nought by shooting all the ones that you've got, you harvest it sensibly, you want plenty to shoot next year, you build it on to a different plane altogether, and then manage it on that higher plane.

Pippa:

If the habitat needs to be conserved, whether it's wild flowers, animals of any sort, birds, furry or otherwise, to live in it then yes, of course it has to be maintained, and I'm very aware that that costs money, labour, as well as perhaps costing replanting, re-sowing, whatever it might be, but I don't see any reason why the money needs to come from such an extraordinary

process which is the total opposite to conservation. I don't see how you can in any way link conservation with shooting.

Man:

Management costs money. Nobody's going to manage or spend money unless they're going to get a reward at the end of the day, and the reward comes obviously through the enjoyment of shooting or eating grouse, a lot of people love to eat grouse, so that's where the reward comes in. Those people are prepared to pay for the management, they're prepared to look after the heather, they're prepared to make sure the sheep don't overgraze it, another virtue I suppose, but it does actually work. Motivation comes from the rewards.

Man:

One of the most striking things that you discover in talking to grouse moor owners and managers is that they care passionately, not just about shooting grouse because that's almost immaterial, it's the landscape, it's the way of life, it's the whole traditional scene they care passionately about. They spend their own money on this, remember they're relying to only a very limited extent on public funds, and they are very reluctant to let that go. So one is continually struck by the passion with which they care about these grouse moors.

Man:

In general in Scotland grouse numbers have been declining for most of this century. For most of that period there have been virtually no birds of prey on the moors and one of the findings from the study was quite unequivocally that birds of prey are not responsible for the long term grouse declines. The grouse go through a six yearly cycle in most places in Scotland, and the top of the cycle was in 1990. The Langham Study started in 1992, by which time the grouse numbers and the grouse bags were already dropping quite fast, as they have done every six years for the last few decades. What the increase in the numbers of birds of prey has done there is stop the grouse going back up on to the next cycle, so the birds of prey came into the cycle when the grouse were at a low point, and they've held the grouse at that low point for the last six years, and it's quite interesting that the numbers of grouse on the moor, both in spring and in autumn before shooting starts, have been not significantly different for the whole of that five year period.

Man:

On this particular moor there is only one cause and that is birds of prey. The keepers certainly see this problem as being one of primarily raptors. In very simplistic terms, in 1990 we shot four thousand brace of grouse and we had no nesting hen harriers; seven years down the road we had seventeen pairs of hen harriers and no grouse, and there is a straight line relationship between the two things, and during that time we had good breeding years. That is not disputed. At the same time, though, it's not just the grouse that have disappeared. All of the small birds on the moor have taken a similar knock. I well remember in 1992, which is when I first came to the estate, the golden plover in the spring piping on the moor, and now if you go up to the moor in the spring there are no golden plover, no golden plover return here to breed.

Man:

Well I think the whole problem of bird of prey predation on grouse presents a real dilemma for conservationists because on the one hand we have populations of birds of prey, most of which are extremely rare, not just in Britain but in Europe as a whole, so it's important that they are protected. Most of them are well below the level that they would naturally achieve in Britain as a result of persecution in the past, and we have to look after and protect these birds of prey. Our government are committed to biodiversity conservation. But on the other hand, conservationists also have a big interest in the continuance of grouse moors, because grouse moors are an exciting and interesting habitat. Without grouse moors we would have no red grouse, for example, they only live on heather moors, and grouse is a characteristically British bird, it's not found anywhere else. I think most conservationists are not concerned about the control of crows or magpies, simply because those species are so common, and so ubiquitous, it really doesn't matter if you remove them from relatively small areas of land, providing it's done in a humane way, of course. But when you're dealing with extremely rare and endangered birds of prey then it's a different issue because you really are having a big

impact, or could have a big impact on their populations and as we've seen, human persecution, mainly from gamekeepers, did eliminate half a dozen species of birds of prey from the whole of Britain towards the end of the last century, so it is possible to eliminate these species by overshooting, and we don't want that to happen again.

Man:

There are a lot of policy issues surrounding the future of grouse moors. We have public attitudes to hunting, we have public attitudes to the fate of subsidies, and indeed public consensus, we have the landowners' own perspective on this, to what extent are they prepared to continue investing heavily in grouse moors and we have, of course, the wildlife and countryside concerns. We've got to try and reconcile these and try and move forward in a way where we're not breaking the law, where we're satisfying public concerns for the countryside, and we're keeping the landowners on side, we're working with them so that they're not going to walk away from this deal and let the grouse moors go down the plughole.

Man:

This particular estate is 94,000 acres. Within this estate there are a number of communities and also there are a large number of tenants. People have their businesses here, people live here, people farm and people live in the local towns and so on, and anything we do, whether in terms of landscape or economically, tends to have an effect on local people. The effect that we have on people is very significant in the way we plan things.

Man:

The problem is that for the last forty years or so, and in particular in the last ten or twenty years, sheep farmers have been paid a head each payment for sheep which encourages them to keep high densities of sheep, so the grazing pressure in general has increased over the years, and this has led to suppression of heather, and to the growth of grass. So the first thing you have to do to restore heather moorland is to reduce the grazing pressure from sheep, and also to shepherd them differently, make sure they graze more uniformly over the whole heather moorland, rather than just on the low ground where the animals are fed in winter. And the second thing you have to do to manage heather properly is to burn it properly, on a regular rotation, and not burn large areas at one time, but relatively small patches on a rotation system.

Man:

With good grouse moor management you have a variety of heather types, you have this very attractive landscape, you've got a variety of soil types that sustains a quite bewilderingly diverse wildlife, so if we lose grouse moor management we lose that, and in its place we have rough grasslands due to heavy grazing pressure, or we have conifer forestation which is very poor for wildlife. In many ways science lies at the very heart of the resolution of the problem on grouse moors because it's only through having rigorous science subjected to pure review criticism that we can be quite clear about the range of arguments surrounding grouse moors. We have to be clear about factors accounting for higher densities of hen harriers in some areas, compared with others, we have to be clear about the impacts of hen harriers on red grouse, we have to be clear about the measures that can be put in place to try and divert hen harriers from red grouse in the short term, as well as in the long term. We have to be clear about the factors that are accounting for habitat variability in the short term, in the long term. Science is vital here. Unless we have research conducted to the very highest standard, people will always quibble over the findings and over the implications of that.

V/O:

Now it would be nice to think that amongst all the views we have just heard, somewhere lies the truth, but each person has his or her own particular truth, their way of seeing the issues. Can the scientists help to resolve these difficult dilemmas, and is the problem one of conserving rare animals like the hen harrier, or a broader community problem? Joan Soloman talked to a group of students who are about to start a science foundation course, and asked them for their reactions to what you've just heard.

Joan:

Well that was a very interesting tape, don't you think? A lot of different views on there. Now the question that I want to start by asking you was, did you come with an opinion? Did you come with an opinion, Ed?

Ed:

Yes. My opinion was to let the moorlands go back to nature, not to manage them, just let the grouse take care of itself, basically 'cos I favour the raptors more than the grouse, but after listening to this introduction I'm sort of changing my views and going towards the management side of it because I can see what they're trying to do in saving the land, and saving not only one species but several species.

Joan:

That's interesting. Did you, Helen, did you come with an opinion?

Helen:

Well, actually thought managing the land was a good idea.

Joan:

Yes.

Helen:

But also I can see the point of view that if you let it go back to nature that nature would take care of itself, where if the harriers sort of grew in the numbers, the grouse numbers would go down even further, and then the harriers would die back, so I think that they may balance themselves out in the end.

Joan:

There's a sort of natural balance in this?

Helen:

Yes. And I think maybe sometimes that if something isn't going to survive, then it wasn't meant to survive.

Joan:

A bit of fatalism there, I think, Helen.

Helen:

Yes, I think, yeah, that I do think that.

Joan:

Yes. Okay, Brian, did you have an opinion on this issue before you came?

Brian:

I'm afraid I didn't, and I'm afraid to some extent I still don't. The things that I had going through my mind were such things as the blood sports being barbaric, somebody said that earlier in the interview, and I think that although I probably eat game from time to time, I'd probably like a grouse if I knew what it tasted like, but the idea of the unspeakable in pursuit of the uneatable, that kind of approach, I don't know. I also thought of the class issue which is totally irrelevant probably. The other thing in my mind is what is the science here? But bearing in mind that somebody said that it's not a single issue, it actually has wider implications in economics, politics, and so on, so I don't really know but maybe I can make up my mind when I listen to these good people.

Joan:

Well, there's a wonderful balance here 'cos we have Ed who came with an opinion and has been able to listen impartially and wonder whether he was right, and Helen, I think, has maintained her view.

Helen:

Yes, I have actually, 'cos the thought of something being shot is terrible but I do admit that I eat game too, and as long as I don't think about it, it's fine. And the money that's coming from that, if it is going back into the land then it's sort of, I suppose, a necessary evil.

Joan:

What strikes me when I listen to you is that at least Brian and Helen are finding that the feelings that have arisen in you, the emotions have, to some extent, blocked out the scientific arguments. Do you think that's right, or am I being unfair to you?

Helen:

No, I think you are correct. I think that's just me personally, I sort of categorise things, have them in little boxes and that's how I see things, and keep things simple, so that's why I think I can just say well, that's fine managing it that way, and if we don't manage them then nature will take over.

Joan:

And Ed, are you the sort of person who tries to keep their feelings on one side and argue about management and ecology?

Ed:

Yeah, my feelings don't have a lot to do with this. The management of the land is the most important thing.

Joan:

Brian, do you think the management either by natural survival, or by man-made management, do you think that is interesting?

Brian:

Oh, it's certainly interesting, yes, it's certainly interesting, but this question of feelings gets to me a bit. I think it's important that we should use science to help us to understand the world but not to allow it to control the way we actually think, the way we do things. I don't mind the fact that I don't fully understand the issue. After this, perhaps I'll go home and read about it, but I think the feeling is important.

Joan:

Well, we're bound to have feelings about all these controversial issues, although there's some parts of science one might not have any feelings about. But then you think of those people who are talking to us in that tape. They may also not be presenting us with a straight scientific case, possibly they, each one, has an axe to grind. What do you think?

Ed:

Mmm, I didn't think of that, it's thrown me off course there.

Joan:

Well, one of them said they were from the RSPB.

Ed:

Yes, yes, he was sort of saying that they should breed the grouse.

Joan:

The harriers were the most important thing.

Ed:

Yeah, the harriers were the most important thing.

Joan:

Protected species. Nevertheless, no matter how much our feelings are involved, or we think that other people may have their own axe to grind, there was a great deal of talking about the science, wasn't there, about real science, applied science, good science, researched to the

highest standards. Did you think that they were right in saying that they were talking about science, was it interesting?

Ed:

Some of it was interesting. I think that the research has already been done for them, that they know through nature if they keep the moorlands managed, they keep the grouse, they keep all the other varieties of animals and birds, and they can keep the hen harrier. If they don't want that, and they revert to the sheep, they lose all their feathered friends and other animals, and the scientists already know this so, you know, a lot of the work for the scientist has already been done.

Joan:

We heard quite a bit about the research they'd done, didn't we?

Ed:

Yes.

Joan:

Some of it was quite complicated, short cycles and long declines. Let me ask you a difficult question, Brian, do you think science can resolve this issue one way or another?

Brian:

Do you mean to decide what is best in this situation? I'm not sure that it can. I think it can give people certain facts and information, but in the end it has to be made on moral judgements, I think, on what makes us humane, I mean if there were no human beings, nature would take its course in all sorts of ways, but because there are human beings we don't have to, we don't have to be dictated to by whatever the scientific findings are. Of course you could say that morality itself could be subject to scientific investigation, or there are some ways of doing things which are better than others, or are all ways doing things ultimately futile, you know, you could argue along on those ways. I think science is important but it mustn't, it mustn't govern us too much. I mean we hear all this thing about cloning at the moment, just because it can be done, it will be done, or something like that, but it is possible to have an ethical sense of where we're going.

Joan:

I think you think something like that, don't you, Helen?

Helen:

Yes, but I think sort of the research that they would have done will have been recorded and from that they can just see, and then they know what to do really.

Joan:

So you think the evidence is unequivocal, shows you exactly what you should do?

Helen:

Yes, I think that you can see from it what's happened.

Joan:

Well, I know the scientific evidence is complicated, but you're very anxious that the scientific facts and evidence don't push you too hard, and that you're able to take moral decisions.

Brian:

Yeah, I think that's important, to me anyway, and I think it probably should be important. After all, what is science, I mean science is a way of investigating what is true, what is the case, what the world is, what the world is made of, but it doesn't really tell us anything about what we should do with that information. We can't fly in the face of science, we can't go against it, but I don't think it really tells us how we should live our lives or anything.

Joan:

Ed, I didn't ask you this before but the scientific evidence was quite complicated, wasn't it?

Ed:
Yes.

Joan:
Did you get the hang of this six year cycle, and the long decline?

Ed:
A little bit.

Joan:
Yes.

Ed:
I think if I heard it again I would get more of it. I understand what they mean by the cycle, but they started to lose me after that when they were talking about the long decline, and I didn't quite get that. I know everything goes in cycles, and that's the way I look at it. To me the science of it can be too complicated.

Joan:
Yes.

Ed:
And I think it should be simplified.

V/O:
What struck me straight away about that intriguing discussion was just how attentive and responsive the students were. Listening to a lot of sometimes conflicting expert evidence isn't easy, and neither is offering an informed and instantaneous response. Should controversial issues of this type be thought of solely in terms of science by taking simply a cold, rational look? In that student discussion everyone seemed a little taken aback by the notion that expert speakers might have particular axes to grind, that they were coming to the issues from particular angles. Now science only works by general agreement amongst professionals about what is factually correct, but scientists are only human, they have points of view and particular experiences, and perhaps affiliations. Knowing when to believe what you learn and when to be sceptical which is, after all, one of the hallmarks of a good scientist, adds to your difficult task of coping with controversies as a student. Another thought: listening in to the pros and cons of a complex, scientific debate is for me no less demanding than reading about it. The comments from Ed, Helen and Brian were recorded as it happened, immediately after they've heard the experts' contributions for the first time. Of course you've got the opportunity to listen to the experts' views several times, which is one reason why audio is especially useful for studying. But let's come back to the science. Those students showed a willingness to listen to the scientific evidence, but there was also an off-the-cuff flavour, and sometimes science took a back seat. That's understandable, given how the debate was set up, and the amount of information they had to take on board. By listening to what the experts say several times over, you will appreciate more about why environments can't simply be left to their own devices. You'll know that the balance of nature can readily be upset, you'll know more about the complex interactions within eco systems. My hope is you'll have a better insight into the uncertainties and what remains to be found out, which helps explain why the arguments are so vigorous and finely balanced. So I think understanding the science is important in shaping a defensible and informed point of view of your own, and the fact there's no right or wrong answer leaves room for your own feelings, and means that all such questions are wonderfully, but infuriatingly, open. Finally, with the future of Langham so uncertain, science has another role in offering practical suggestions about how things might be changed for the better by trying different approaches that might allow hen harrier, shooting and grouse to co-exist, and using an experimental approach should tell us what works. But perhaps, as we'll hear, it's too much to ask that these experiments bring the debate to a neat, unanimous conclusion.

Man:

In the short term we're looking for measures which will kick start grouse moors and diversionary feeding seems to be an ideal solution in the short term.

Man:

Feeding your hen harriers, diverting them from the grass, a couple of years' diversionary feeding, grouse numbers come up, and then the grouse that you've got there can sustain predation by hen harriers.

Man:

Basically you wait until the harriers have settled in spring and then you give them an alternative food supply, and we've used dale chicks, chick cockerels which you can get free of charge from hatcheries, and we use laboratory rats which you can put out dead on the moor, we built perches on the moor, stakes, and then put these dead animals on the stakes every day, replacing them every day any that aren't eaten, and the harriers will feed these, and this reduces the predation on the grouse. In the experiment we did this year we had some pairs of harriers that were fed with the supplementary food, and others that were not fed and then we recorded the proportion of grouse in the fed and the unfed harrier pairs, and the pairs that were fed the supplementary food took hardly any grouse, whereas the ones that were not fed the supplementary food took a lot of the, especially young grouse, so certainly by providing an alternative food supply you can cut the summer predation on young grouse, and that will increase the number of grouse available at the end of the summer for shooting.

Man:

The problem with diversionary feeding with chicks or rats, or whatever, it actually reduces the amount of grouse that the harriers eat, but it improves the welfare of the harriers, it makes the place more attractive to harriers, increases the brood size of the harriers, so actually you're making the problem in the long run worse.