



HOUSE OF LORDS

# Environment and Climate Change Committee

## Corrected oral evidence: Protected Areas

Wednesday 22 March 2023

10 am

Watch the meeting

Members present: Baroness Parminter (The Chair); Baroness Boycott; Baroness Bray of Coln; Lord Bruce of Bennachie; Lord Grantchester; Baroness Jones of Whitchurch; Lord Lilley; Lord Lucas; The Lord Bishop of Oxford; The Duke of Wellington; Lord Whitty; Baroness Young of Old Scone.

Evidence Session No. 2

Heard in Public

Questions 18 - 28

### Witness

[I](#): Baroness Willis of Summertown CBE, Professor of Biodiversity, University of Oxford.

## Examination of Witness

Baroness Willis of Summertown.

Q18 **The Chair:** Good morning, colleagues, and welcome to the second evidence session of our inquiry into Protected Areas. We have two panels today. In the first panel, we are delighted to have Professor Baroness Kathy Willis of Summertown, one of our own, who is a professor at Oxford University. We will move on to the second panel a bit later on.

I am going to start without further ado. I just remind members that, if they have relevant interests to declare, to please do so. We have been starting to look at the issue of Protected Areas. There is a degree of difference about the current environmental quality of the land that might be included in the Government's aim of meeting their 30 by 30 target. It would be really helpful if you could start by saying a few words about your perspective on the current environmental quality of that land.

**Baroness Willis of Summertown:** Thank you for inviting me to this. It is an area very close to my own research interests and where I have worked for the last 30 years. If I may, I would like to take that question back slightly to ask, "Protection for what?"

I sent you the slides yesterday to say that we are not clear in this country about what we are protecting in that 30 by 30. If we are saying 30 by 30 for all protected landscapes, as we signed up to in COP, which includes pure biodiversity and rare endangered species or, more broadly, land that also has a really important value because of its role in natural capital, health and well-being, flood risk reduction, et cetera—that is all very firmly within the Environment Act—you could say that, right now, we have around 28% of land that is protected. If you take it down to the areas of special scientific interest, I looked it up and I think—I cannot remember what I said yesterday—it is 12% of categories 1 to 4, which are the highly Protected Areas for wildlife and nature.

There is a real issue in here about what the state of this land is for these different categorisations. My answer is that it is not good for any of them because, when you look at the land that is of special scientific interest—the pure nature—the estimates say that we are looking at a tiny percentage that has been properly analysed and shown to be in a good state. About 3% to 5% is in a good state.

Looking more broadly, I was thinking, "What about the other categories of Protected Areas in the 28%?" I cannot answer that because it has not been assessed. Protected Areas in the national parks, for example, are not routinely assessed. We do not have a baseline that says, "This is what it is now. How is it improving for these different categories that we are requiring of nature?"

I was trying to think of some examples yesterday evening. If we think about land that we are protecting because the nature on the land helps flood risk reduction, I can think of two very small case studies that have been done by Wessex Water and Thames Water where you could say that

they are protecting headlands because, if you cut the trees down, they will increase the amount of solutes in the water and ruin the water quality—but we do not have Protected Areas for natural capital, basically.

**Baroness Young of Old Scone:** Could I just ask for clarification on that? It strikes me that 30 by 30 was an emanation of the biodiversity convention so the original intention of 30 by 30 was, presumably, biodiversity conservation rather than natural capital conservation.

**Baroness Willis of Summertown:** I looked up the take-home targets that we took from the Kunming-Montreal biodiversity agenda, which has four overarching goals. The first is effectively to restore 30% of degraded nature. You could say that that is the pure biodiversity that we should be looking at for the 30%.

You also have safeguarding criteria in there, as well as restoring and enhancing nature's goods and services. Then you come back to this question. If you take nature and say, "By doing 30 by 30, we will restore the goods and services along with it", that will not happen because a lot of areas that are really important as SSSIs, for example, do not overlap with the land that is important for flood risk reduction. The two are very different.

One is dealing with a process that is really important. The other is dealing with protecting biodiversity because it is rare, iconic and endangered. A number of studies show that you cannot automatically assume that, by protecting one thing, you are going to get the next thing.

Q19 **Lord Lilley:** Are existing monitoring methods and datasets sufficient? If not, what improvements are needed?

**Baroness Willis of Summertown:** No, they are absolutely not sufficient, in the sense that we have a six-year cycle for SSSIs, for example. You would need to ask a practitioner about this but, as far as I understand it, they go back every six years. We are way behind on this. Only 50% of them have been assessed in recent years and the Government are trying to improve that.

For many of the other areas, there is no assessment. There is no baseline against which to measure trends; this is another real problem. When I was on the Natural Capital Committee, we did a piece of work looking at the publicly available datasets to assess our natural capital assets. Many of them have not been updated, so it is very patchy, and you have to pay to use some of them. With the soil database, for example, if you want high-quality soil data in the UK, you have to pay a lot of money to get that.

**Baroness Boycott:** Who do you pay?

**Baroness Willis of Summertown:** Right now, it is held by Cranfield University. In some ways, this is where it all goes very wrong because public money was used to pull together this data. This database should be publicly accessible to everybody but it is not. Hedges are also really

important in the UK. I have not checked recently but, when I last checked, they had not been updated since 2006.

There is not a consistency in asking, "Which datasets do we need, how do we create a baseline and how do we measure against that?" We do not have to cover the whole of the UK. We absolutely must move on from using clipboards and start using the technologies that are coming through, because there is still far too heavy a reliance on sending people out into the field and we do not have enough people to do that. With technology now, it is perfectly possible to do many of these things.

**Lord Lilley:** In answering the first question from Baroness Parminter, you said that there is no consistency, but what should we be seeking?

**Baroness Willis of Summertown:** We should be seeking to come up with a baseline map of the UK, almost like a land zonation system, which has been recommended in a report from one of the other Select Committees, where we know which areas in the UK are important. We would then have a designated process that means we can measure those areas and see how they are improving. We do that with infrastructure but nature still seems to be very low on our agenda. We just seem to think that we can pick it up and move it elsewhere, and that somehow it will carry on being fine.

What we need is a blueprint, really, which says, "In the UK, these areas are really important for the different aspects that we have signed up to in terms of Protected Areas in COP 15 and other legislation", and then we go from there.

**Lord Lilley:** We do have various types of Protected Areas that we say are important.

**Baroness Willis of Summertown:** If we say that those are Protected Areas and are important, we need to make sure that we are measuring them. Right now, when we look at our species declines, I would say that they are failing. Whatever we are doing, we are not doing it well enough, which we will come to in a later question. If it was an experiment, I would say that it was an absolute failure. You would change your experiment.

Q20 **Lord Grantchester:** Good morning. Given the paucity of assessments and this new imperative, can generalisations be made between designations and their performances? Could it be usefully determined that some generalisations of sites are better at meeting the 30 by 30 target and more suitable for it than others? I just wondered whether there is a rule of thumb that could be useful as to how well the designations as a whole and between themselves are working.

**Baroness Willis of Summertown:** If you were to rip up the designation process right now and start again, you would work out which are the most important areas for biodiversity and which are the most important areas for the key societal benefits that we want from nature, make sure that they overlap and then start with that basis.

For example, if you are going to plant forests to meet carbon drawdown, you would want to layer on top of that and make sure that there are deciduous forests so that you start to get more biodiversity in there. You would have access for people to walk through there so that you are building up those layers.

- Q21 **Lord Lucas:** The Botanical Society of Britain and Ireland has just published its latest edition of the complete mapped survey of British flora. Does that not demonstrate that we have the resources to do the mapping if we can get it together, particularly in combination with the new technology that you suggest? Rather than thinking of 30 by 30 as areas over there somewhere, we could use it in a much more fragmented way, so a corner of a school playground could be maintained as another effective area-based conservation measure, say, and all this nature conservation could be much closer to us and much more involving of us, really tying in our responsibility.

**Baroness Willis of Summertown:** I totally agree. Where we are right now with nature conservation in the UK is that, if you looked down from a plane or at satellite imagery, you would find all these tiny little pots of SSSIs splattered across the UK landscape. They are not joined up. Therefore, we have ended up with little islands. Any ecologist worth their salt knows that an island surrounded by agricultural land, however brilliant that island is, will not survive.

We need to work out how we are going to connect them, which comes back to your point that we need to create corridors. They could be big or small, but we need to join up our biodiversity in the UK and not just say that we are going to join up only the bits that are perfect now. By joining up those little pots with things like the edges of fields or field margins, which are really important connectivity corridors, as are urban corridors, we get a network and our biodiversity will recover. Things have to move but we are not allowing them to move right now.

- Q22 **Baroness Young of Old Scone:** My understanding of the way that SSSIs have gone, which are primarily designated for specific species that were rare or under threat, is that they have been comparatively successful in stopping the decline of those species and protecting them from being eradicated. However, they do not do the job for species that are more widespread through the landscape and more dependent on general, for the most part farmed, countryside. Is that your understanding also?

**Baroness Willis of Summertown:** Yes and no. I did a very quick examination yesterday just using satellite imagery and shapefiles from publicly available sources to look at the SSSIs in England. Nearly a third of them are less than 10 hectares. Once you start to get down to that sort of size, you may well be able to protect the species in those 10 hectares. This comes back metapopulation theory. You have lots of small populations working well in the individual but, if you join that up overall, what you see is an overall decline. They become more and more depauperate because things cannot move between them.

Coming back to the Lawton report, which said “bigger, better and more joined up”, what are we doing to make SSSIs bigger? We tend to focus on them just being better but what do we need to do to enlarge those SSSIs and connect them across the landscape? That will turn around this decline.

**Baroness Young of Old Scone:** Absolutely, but you are not suggesting that we abandon the SSSIs.

**Baroness Willis of Summertown:** We should be taking SSSIs as, “This is what good looks like and this is what we want to raise the bar to for all other sites”. Let us say that we have a recreational playing field, which is in category 5 or 6 of the IUCN. We should be asking, “What would we need to do to this landscape to turn it into an SSSI?”, so that we are always looking to get to the good for all aspects of our landscape in the UK that we deem to be protected in whichever of those IUCN categorisations that we have.

Q23 **The Lord Bishop of Oxford:** I am going to change my question slightly in the light of what you said. You used the phrase, intriguingly, “Rip it up and start again”.

**Baroness Willis of Summertown:** Yes.

**The Lord Bishop of Oxford:** Is this a good moment to do that, given the new challenge and rising public awareness? If it is, how would we frame a recommendation for that to be seriously considered?

**Baroness Willis of Summertown:** This goes back to the point that I was just making about trying to get everything up to an acceptable standard. If someone gave me a completely clean slate, I would take what we have, because there is no point in just ignoring the areas that we already have, then use graph theory or any other theory—this is how we work out where to put train stations, for example—to work out where across the landscape would be the best place to create a corridor, for example a corridor that went from Land’s End to John O’Groats, linking up every protected area, whatever its categorisation, in the UK.

That is what I would do. I do believe that that would turn around our decline because things could move. By doing that, you are also making it bigger and more joined up.

**The Lord Bishop of Oxford:** That is really helpful. What already works well and what would work well as the regulatory regime grows for SSSIs and HPMAAs for the future?

**Baroness Willis of Summertown:** There are various things that work well. First of all, you have to have local buy-in. We cannot do this and just plonk down policies on local people and farmers. I am not sure that the people behind me would agree but I feel that, in some ways, we are not bringing people with us. We tend to just say, “You now need to do this”. Many SSSIs work because they are linked up. There are green

corridors across farmland. There are set-asides. All those things are really important.

Where SSSIs work well, it is about understanding that, in order for an SSSI to thrive, you have to introduce ecological processes. You cannot have a protected area, put a fence around it and say, "We are now going to protect fritillaries", for example. You need to bring in grazing cows at a particular time of year to turn up the soil and get the seeds going. Then you have beautiful water meadows like those we have in Oxford, with fritillaries everywhere. If you just put a fence around it and think, "Well, that's it, now it's protected", that is when it all starts to go really wrong.

If I might just add to that, that is why some of the rewilding projects, love them or hate them, are working so well because they are reintroducing the ecological processes that are important for maintaining soil fertility and creating scrubland. That is when you get the birds, the butterflies, the hedgehogs and all of those things. The framing of it is very much that "protected" means that we must put a fence around it and not really touch it.

**The Lord Bishop of Oxford:** What I am hearing you say is that you would put ecological systems above individual species protection in the ranking of priorities.

**Baroness Willis of Summertown:** Yes. If you bring in the right ecological systems, you will find that, nine times out of 10, the thing comes back.

**Baroness Boycott:** You said that it needs to be like railway systems. Would you look at the compulsory purchase of land in order to do this, if you could start from scratch?

**Baroness Willis of Summertown:** If I could start from scratch, I would work out what the blueprint looked like to connect everything up. First of all, you would work with the landowners. You could bring it into ELMS because you are paying for public goods. You would say, "This is on your land. We want it to be a corridor. We'll pay you for maintaining it as a corridor". You could also work with the railway companies, for example, and say, "We want a 40-metre corridor along your railway".

Q24 **Lord Whitty:** You said earlier that, if it was a small SSSI or similar protected area in the middle of agricultural activity, it would not succeed, yet you are saying that there should be corridors that would, by and large, be across agricultural land and be relatively small and narrow. Will they not also be affected by agriculture? You also said, positively, that it is a good idea to bring cows in at certain times of the year.

**Baroness Willis of Summertown:** It really depends. The example that I was giving with cows was water meadows. Particularly when you are thinking about some of the water meadow species that you want, they need to have a grazing regime in there.

In terms of corridors joining up one SSSI with another, I have worked with farmers on this. If you model it perfectly, it goes across the middle

of a field. The farmer will go, "That's a really good field", but it is perfectly possible to work out a way around the edge, where they get payment for the set-aside, and you get the same effect. By joining them up, you are greatly increasing the area of the SSSI. Things can move between them.

**Lord Whitty:** But you still have the effect of agriculture being either side of the corridor.

**Baroness Willis of Summertown:** Our whole landscape is going to be like that. We have to have patches of biodiversity.

**Lord Whitty:** Will it work?

**Baroness Willis of Summertown:** It absolutely works. Let me just give you one example of where it has worked really well, which is in the Netherlands. They decided to join up all their Natura 2000 sites with corridors. In polder land, which is below sea level and totally artificial, they have a corridor. If a road is in the way, as you will see next time you are driving in the Netherlands, they build an ecoduct over the top. They make sure to put hedges on either side so that not only large but also small mammals can move. It works; things move across the landscape.

Q25 **Baroness Jones of Whitchurch:** I need to declare an interest as a member of the South Downs National Park Authority. I wanted to revisit ripping up and starting again.

**Baroness Willis of Summertown:** I should never have said that.

**Baroness Jones of Whitchurch:** Listening to the debate so far and the evidence that we took last week, the thing that comes across to me is the urgency of all of this. Whether it is 30 by 30 or some of the other targets that have been set, they are all going in the same direction, which is that there is some urgency in terms of tackling biodiversity decline and so on. I am interested to know what you think are the quickest mechanisms.

Ripping up and starting again might be the perfect way to do it but is there sufficient stuff in the legislation that we already have, such as the Environment Act, to get us on that journey more quickly? It worries me a little that we will come up with a recommendation that is all embracing but, knowing how quickly things move, could take 10 or 15 years to happen. Do we already have the mechanisms?

As a supplementary to that, is the existence of national parks and areas of outstanding natural beauty one of the mechanisms? Is there something in all of that, given what is already in the Environment Act and what could be in the levelling-up Bill in terms of national parks' powers, that could accelerate the move that we really need?

**Baroness Willis of Summertown:** I was only slightly jesting. I regret talking about ripping up and starting again. What I meant was more that our policy framework is so complicated right now that I would take what we have on the ground and work out how we are going to improve it



quickly without worrying so much about which categorisation it sits in, so that is the qualification.

National parks are absolutely critical to this because they are the bigger bit. We need to bring in the Glover review's recommendations and work out how we can enhance these national parks for biodiversity and for the other ecosystem services and natural capital that they provide. National parks are one of our absolute gems.

The other aspect of what we already have is the green belts. Right now, only 16% of our land is green belt, but its only reason for being green belt is spatial separation. They do not have an environmental designation in there. If we took our green belts and asked, "What do we need to do to make them an SSSI or the equivalent?", that is already a really large amount of UK land that we could start to move towards having connectivity, access to nature and all the things that we want, in close proximity to people.

I was looking at the National Planning Policy Framework this morning. Right now, the wiggle room for people to build on green belts is very large. We need to put nature on the same footing as infrastructure, rather than seeing it as a secondary thing that can be picked up and moved. There is lots that we can do now. We cannot wait. You are right.

**Baroness Jones of Whitchurch:** What needs to happen for the national parks to be better at doing what they are doing now? We have the Glover proposals, which are quite a long list of recommendations, but are there just one or two of those that you think are critical?

**Baroness Willis of Summertown:** Each national park needs to have a clear strategy. They need to have a baseline as to what they have now, how they are going to improve biodiversity in the national parks and what actions they are going to bring in in the next five years, and to get going on it.

**The Chair:** For information, there is an amendment in the levelling-up Bill that would put the Glover review into practice and create a statutory role for nature for national parks and AONBs, which I am sure members may wish to look at further.

Q26 **Baroness Boycott:** This follows on, in a way, and looks at the systems that we already have in place. It runs through the different nature recovery networks. We have found in this committee that they are complicated and that it is very hard to get an instant sense of what each one means. You said—I would like to explore this because it is something that I did not realise—that many of these bodies compete within the umbrella of Defra for the same pot of money.

Therefore, they are proposing to the Secretaries of State different ways that they can come at, essentially, the same problem. You outlined really well, in your idea of "scrap it and tear it up", that we could just build corridors everywhere, in which the things could have multiple uses and a lot of these things could come under the same umbrella.

I wonder whether you could just talk through the bodies we have and whether they are overlapping in ways that are very counterproductive or productive. Just before you end, since we have not asked you about marine, maybe you could touch on that, but mostly it is about trying to disentangle this network.

**Baroness Willis of Summertown:** The network issue is another reason why I sent those slides round. The piece of work to categorise or designate UK Protected Areas within the IUCN framing was done only in 2016, so this thing has grown.

In the Government, we have the Joint Nature Conservation Committee, which produced the data on the Government's website saying that 28% of our land is protected. You then have Natural England, which does other things in there. You have two bodies, both working for nature, effectively, but both under the umbrella of Defra. You then have the Environment Agency, which is also under the umbrella of Defra. I am not sure what the marine one is called, but you have about five or six bodies all sitting under Defra and all competing for the same pot of money.

If one looked, there is an awful lot of crossover going on in terms of what they are working on. To this day, I still get very muddled about the distinction between the JNCC and Natural England. Where does the division sit between what they are responsible for? Then you have the national parks. It is a real muddle. In a sense, you want to bring all the environmental parts under one heading, rather than having all these organisations, because they start competing for money, resources and information and you end up with this very big and very complicated system.

**Baroness Boycott:** What would you do if, as Lord Lucas asked you, you could wave a magic wand?

**Baroness Willis of Summertown:** I would probably create a separate Department for Nature that has all these put in it. I do not think that biodiversity necessarily sits very well under Defra either because Defra focuses very much, understandably, on farming and food needs. You could also have a separate subsection. You could merge Natural England and the Environment Agency, or the parts that deal with landscape, as well as the JNCC, because I cannot see how you are ever going to get to clarity otherwise.

**Baroness Boycott:** What about all the different funding models, such as being able to get your money from ELMS or from biodiversity net gain? Are they sufficiently driving people to improve whatever is around them—their land or their premises—or not, because people do not quite get it?

**Baroness Willis of Summertown:** People do not quite get it right now. ELMS has potential—it is the idea of public money for public goods, so you have to demonstrate what the public goods are—but there is no mechanism that I am aware of right now where somebody can ask, "What are the public goods that you will pay me for?" They have to do the legwork to work out what public goods their land owns. Many people

do not have the data or the skill sets to do that so they are left thinking, "The only thing that I could do for public good would be a wildflower meadow", whereas there are many other things that could be done for public good. Flood risk reduction and clean water are ones where we are just not doing it.

**Baroness Boycott:** That all sounds extraordinarily straightforward when you say it like that; you should be able to just get a small pamphlet and do the stuff. Why are we not doing that?

**Baroness Willis of Summertown:** I do not know. I cannot answer that because I do not know, I am afraid. Every time I look at it, it seems to have got more and more complicated. Goodness knows how the landowners are dealing with this stuff. At the end of the day, you want buy-in from the landowners, but you need to give them the tools and technology to determine what their baseline is and which areas they could improve to get maximum benefit for biodiversity, for water and for everything else. What are the opportunities on a landowner's land for enhancing natural capital? We need to say, "We'll pay you for them. If you plant these trees, we'll give you this amount of money".

**Baroness Boycott:** I just want to clarify what you said before about paying Cranfield for soil. Is that the only way? Is there no government mechanism whereby you can get someone to come and establish your soil base for free?

**Baroness Willis of Summertown:** No.

**Baroness Boycott:** How much do you pay?

**Baroness Willis of Summertown:** I am not sure.

**The Chair:** There is someone on the second panel from Cranfield so you might be able to ask them.

Q27 **The Duke of Wellington:** I declare my land interests as in the register. You have very accurately described the complexity of this whole subject. As you just referred to, you cannot quite understand how landowners cope with this. It is true because landowners and farmers are faced with ELMS coming along, which is a very good idea, but it has become so complex that an ordinary farmer or landowner probably needs to employ a consultant to try to navigate their way through the multitude of programmes envisaged in ELMS. I am sure that all of them are very much for the public good but it has become very complicated.

We were told that, coming out of the EU, we would have a simpler system of supporting food production and other rural activities, but it has become extraordinarily complex. In terms of nature restoration, surely the secret really is in ELMS, which probably has the potential to do more for nature restoration than anything else we are talking about but is not easy to navigate.

**Baroness Willis of Summertown:** This is what it comes back to: we need be driven by data to start off with and use a data approach to say, "This is your land. This part of your landscape would be really important because it links up this SSSI with that SSSI. Would you be interested in creating a corridor there? If so, we will pay you to do that". Right now, it is asking the landowner to be the scientist, to be the deliverer and to be absolutely everything. If you are lucky, you will get a bit of money for it, but it does not work. It is the wrong way round; it puts too much onus on the landowner. The idea is very good and the potential is huge but the delivery mechanism right now is broken.

Q28 **Baroness Bray of Coln:** You have given us some very strong views today—and very interesting, too. Is what you are saying a widely held view in the world in which you mix in terms of diversity of ecosystems? Are a lot of other organisations pushing for what you are?

**Baroness Willis of Summertown:** Yes. I have come very much wearing a university hat. You probably have my declared interests but I set up a spin-out company, since I was so frustrated by this, doing natural capital assessments because this just is not working. It is a widely held view. So many landowners I speak to share this viewpoint that people want to do the right thing. Why would someone not want to do the right thing?

**Baroness Bray of Coln:** Where is the pressure being brought from and where is it being applied to?

**Baroness Willis of Summertown:** That is the question, really, because there is a certain deafness to listening to what landowners are saying about how complicated all of this is becoming. Again, with the levelling-up Bill, which is one of the things to reduce bureaucracy, we need to bring some of these things in here to do just that and to quickly bring online these environmental management tools that people can use. We have been promised those for 12 years by Defra and they have not arrived yet. We are trying to ask the landowners to do things without giving them any of the tools to do them. It is widely held.

We also need to think about the governance of nature and landscapes in the UK. We have NGOs that are fantastic but their governance is through their membership. Their membership pay them because they want to protect that sort of biodiversity. We need to keep that, because it is really important, but governance more generally for nature, because of the societal benefit that it provides, needs to be very firmly back within government. In the same way that we should have a right to education and to health, we should have a right to nature in this country that is not being driven only by NGOs. That needs to go very firmly back into the mindset of how we manage nature.

**Baroness Bray of Coln:** It could have a Minister attached or something.

**Baroness Willis of Summertown:** Yes.

**The Chair:** I am going to have to bring this session to a close. You have given us lots to think about. Thank you very much, Professor Willis. We

really appreciate your time this morning.