



**OFFICIAL REPORT**  
AITHISG OIFIGEIL

# Environment, Climate Change and Land Reform Committee

**Tuesday 17 September 2019**

**Session 5**



The Scottish Parliament  
Pàrlamaid na h-Alba



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**ENVIRONMENT, CLIMATE CHANGE AND LAND REFORM COMMITTEE**  
**24<sup>th</sup> Meeting 2019, Session 5**

**CONVENER**

\*Gillian Martin (Aberdeenshire East) (SNP)

**DEPUTY CONVENER**

\*Finlay Carson (Galloway and West Dumfries) (Con)

**COMMITTEE MEMBERS**

\*Claudia Beamish (South Scotland) (Lab)

\*Rachael Hamilton (Ettrick, Roxburgh and Berwickshire) (Con)

\*Angus MacDonald (Falkirk East) (SNP)

\*Mark Ruskell (Mid Scotland and Fife) (Green)

\*Stewart Stevenson (Banffshire and Buchan Coast) (SNP)

\*attended

**THE FOLLOWING ALSO PARTICIPATED:**

Jo Judge (National Biodiversity Network Trust)

Craig Macadam (BugLife)

Don McGillivray (Scottish Government)

Lorraine Walkinshaw (Scottish Government)

Ellen Wilson (Scottish Biodiversity Information Forum)

**CLERK TO THE COMMITTEE**

Lynn Tullis

**LOCATION**

The Robert Burns Room (CR1)



## Scottish Parliament

### Environment, Climate Change and Land Reform Committee

*Tuesday 17 September 2019*

*[The Convener opened the meeting at 09:30]*

#### Interests

**The Convener (Gillian Martin):** Welcome to the 24th meeting in 2019 of the Environment, Climate Change and Land Reform Committee. I remind everyone to switch off their mobile phones or put them on silent, as they may affect the broadcasting system.

I welcome Rachael Hamilton to her first Environment, Climate Change and Land Reform Committee meeting. We look forward to working with her. I extend my best wishes to John Scott MSP, who will not be with us for a wee while; we hope for his speedy return.

**Members:** Hear, hear.

**The Convener:** I invite Rachael Hamilton to declare any relevant interests.

**Rachael Hamilton (Ettrick, Roxburgh and Berwickshire) (Con):** Thank you for your welcome, convener. I have no relevant interests to declare.

## Deputy Convener

09:31

**The Convener:** The next agenda item is to choose a new deputy convener. The Parliament has agreed that only members of the Scottish Conservative and Unionist Party are eligible for nomination as deputy convener of the committee. I invite a member of that party to nominate one of their number for the post.

**Rachael Hamilton:** I nominate Finlay Carson.

*Finlay Carson was chosen as deputy convener.*

## Biodiversity Targets: Biological Data Infrastructure

09:31

**The Convener:** The next agenda item is to hear evidence as part of our biodiversity inquiry. This morning, we will focus on the infrastructure for biological data. I am delighted to welcome Ellen Wilson, chair of the Scottish biodiversity information forum; Jo Judge, chief executive officer of the National Biodiversity Network Trust; and Craig Macadam, conservation director at BugLife.

To start us off, I ask Ellen Wilson to give us some background to the SBIF's "A Review of the Biological Recording Infrastructure in Scotland". How was the SBIF review conducted? Who was involved? What were the key findings of that review?

**Ellen Wilson (Scottish Biodiversity Information Forum):** It was a publicly open review, which we undertook as a result of a 2009 petition to Parliament on biological data. We undertook a series of stakeholder consultations; we had a big public questionnaire that got about 290 responses from across Scotland and beyond. We undertook interviews with key stakeholders and then had a series of workshops, each of which focused on a different topic: governance, funding, data flows—which are problematic—and service provision.

We found a really serious long-term problem that has not been remedied for over 40 years, despite review after review highlighting the same issues. There are gaps in service provision across Scotland, so there is not an equal situation across Scotland for those who want to use the services or for those who want to take part in biological recording. A different quality of environmental information is available for decision making in different areas, and different numbers of people are involved.

We found that there has been chronic underfunding since the origins of collecting the biological data. We probably receive 10 per cent of the funding that we really need to make that work well. There is a lack of joined-up working, as many organisations are involved and it is really hard to know where to submit records; it is therefore hard to know where to get records from. A huge effort is involved in obtaining records and in being certain that we have access to all the information that there is. It costs every single sector lots of time, money and effort to find out what is out there and then to start decision making. Therefore, we are not where we want to be.

**The Convener:** So there is not necessarily a lack of data. There is probably a lot of data out there, but it is not being collated.

**Ellen Wilson:** There is a lot of data out there that is not getting to the surface to be used to draw insights from. However, there is a lot of opportunity to remedy that, because we found huge enthusiasm and a sector in which everybody wants to work together. Scotland leads the way in having a community of interest that really wants to take matters forward. We have an almost unprecedented opportunity right now.

**The Convener:** Thank you for that summary.

**Finlay Carson (Galloway and West Dumfries (Con):** I understand that the NBN atlas is based on the atlas of living Australia. What does Scotland's biological data infrastructure look like at the moment? How joined up is it? What are the key gaps, and who can access it? How can it be opened up?

**Jo Judge (National Biodiversity Network Trust):** The NBN atlas Scotland is part of the wider NBN atlas, which covers the whole of the United Kingdom. As you said, it is based on the atlas of living Australia. It is a platform with huge potential to be able to fill some of the gaps and to make data accessible—for there to be one place that everybody knows is the one-stop shop for biodiversity data.

There are many people out there collecting. That is brilliant but, as Ellen Wilson pointed out, there are many routes for what they can do with that data. Our aim is for all of that data to end up in the NBN atlas Scotland. However, there are some people who just record for their own interests and do not want to share the data, there are people who do not know what to do with the data once they have collected it, and there is a plethora of organisations that have their own data submission routes. Not all of that data makes it to the NBN atlas Scotland.

**Finlay Carson:** What implications does that have for how biodiversity data are collected and assessed? Does it have an immediate practical impact on biodiversity conservation in Scotland?

**Ellen Wilson:** It does. It means that there are data gaps. Gaps happen because a recorder is not motivated to go and cover an area, the records have not come in, or someone is holding on to records because they want to take their own opportunities with them rather than make them openly available. That underinforms or delays decision making that is based on the records.

**Finlay Carson:** You mentioned funding. What is the strategic role of the Scottish Government and Scottish Natural Heritage? What is their role in data collection?

**Ellen Wilson:** SNH is brilliant at supporting many of the smaller groups out there. It provides strategic guidance on the data gaps and takes a strong interest. It is very supportive of the community; there are lots of scientific groups that steer interest in Scotland. Support from the Scottish Government and SNH is very welcome.

**Finlay Carson:** Is there more that they can do? Are they doing as much as they can do to ensure that the atlas is populated?

**Ellen Wilson:** In a strategic sense, they are doing what they should be doing; the shortfall lies in the funding. We have heard brilliant words that are often not backed up with sufficient sustainable funding that would take the pressure off the network.

**Stewart Stevenson (Banffshire and Buchan Coast) (SNP):** Let me take the issue of data a little bit further. First, is there a baseline? Obviously, if we are trying to measure change, we need to know what that is against. Where does that baseline come from?

Secondly, we have heard that the data come from a diverse range of sources. Is there a normalisation process to ensure that different bodies that attempt to gather the same data have a decent chance of coming up with the same answer? For example, I imagine that BugLife might have standards about the size of a bit of ground to mark off to count bugs on, but different organisations might do things in different ways and come up with different results.

Finally—I am asking all my questions in a one—you said that you are currently getting funded to 10 per cent of your current need. Where does that claim come from? How do you justify that? I could always say that I am getting paid 10 per cent of what I think I am worth, but I would find it difficult to defend that statement.

**Ellen Wilson:** If the funding was based on what we are worth, it would be far more. I will take the baseline question and hand over to Craig Macadam for the normalisation question.

The baseline is clearly way beyond 1972, because our biodiversity losses stem from decades ago. The great thing about biological recording is all the Victorian notebooks and all the things that we can digitise over time. Those things come on stream more and more as we support people to go into their attics and find notebooks that can be digitised, so our baseline is constantly improving. Nonetheless, we still have to take it from a time when there is sufficient data to have a baseline. Baselines are what they are or when you want them to be. Craig Macadam might want to add to that.

**Craig Macadam (BugLife):** I would say the same sort of thing. I am a recorder. I run the recording schemes for mayflies and stoneflies, which are two groups of aquatic insects. I have data from the early 1900s and from yesterday—somebody sent me records. It is really important that the baseline changes. As time goes by, we need to—

**Stewart Stevenson:** You are not saying that the baseline changes, are you?

**Craig Macadam:** No, the baseline does not change, but our interpretation—

**Stewart Stevenson:** The delta from the baseline changes.

**Craig Macadam:** Yes. For instance, when we do a status review to look at the conservation status of a species, we will use a point of measurement. At the moment, the point of measurement for the two groups that I record is 1990. In 10 years' time, when we do the next status review, we might make the point of measurement 2000, but all that historical data is still used.

**Stewart Stevenson:** I want to pick up on the issue of normalisation. Are you satisfied that previous generations of bug watchers, if I can use that term, would have been as good at identifying what bugs they were finding? If a different standard was applied with regard to whether it was a mayfly that was being identified or whether it was being confused with something else, that would produce different results. In general terms, how do you manage that?

**Craig Macadam:** At the very basic level, we are looking at the occurrence of a species. With the groups that I am looking at, it is really important to have the ability to look at old records. If a record has been published in a scientific journal, the chances are that it will be a good record. If a specimen is in a museum collection, it will be possible to go and look at it. For some of the rarer species, we are doing that—we are making sure that we are getting good-quality data in.

Verification is very important with all records. As recorders and people who run recording schemes, we make sure that we verify records to ensure that we are getting good-quality data in now. To an extent, we have to take on trust what has been done in the past. It is often possible to tell from where a species has been found whether it is likely to be the species in question. In the odd case, you think, "There's no way that species would be there," but when you go away and do a bit of digging, you might find that it has changed its name, so people were recording something different.

**Stewart Stevenson:** I have a final little question. Who uses your data, beyond people with a strict and focused environmental interest?

**Ellen Wilson:** Every sector uses it. The education sector uses it for kids at the pre-school and school levels, and universities will use it to help students with their studies and to get them outdoors. The commercial sector will use it for looking at where and where not to put developments. Government will use it for informing agri-environment scheme prescriptions and for looking at community planning issues and empowering communities. A vast number of people use the data. There is no sector that does not use it.

**Stewart Stevenson:** But not all those users make a financial contribution.

**Ellen Wilson:** No.

**Stewart Stevenson:** That is enough—thank you.

**Mark Ruskell (Mid Scotland and Fife) (Green):** I want to develop that theme. Various groups collect data—you mentioned commercial bodies, such as bodies that are looking to develop wind farms. Will you give us an insight into some of the issues with data sharing? In answer to Stewart Stevenson, you talked about common standards, but there is a wider issue to do with the commercial sensitivity of data and how accessible it is.

**Ellen Wilson:** There is. The commercial sector will often say that it does not have the capacity in its contracts to supply the data, or that it would have to put its prices up to factor into its contracts the data management that would be needed. Things are very fast moving. Commercial companies often do not have an interest in sharing their data, because they think that, if they shared it, their competitors would get ahead. However, if the situation changed so that everyone shared their data by default, that would be less of an issue.

The bigger issue that companies in the commercial sector face is access to records. Never mind organising themselves to share their own records, they have to go and cast about for data. That is a very time-consuming exercise that prevents them from costing up their jobs properly. It is very hard for them to understand where to get all the data from. They will often have to go and see 10 different people. They will have to go and see the British Trust for Ornithology recorder, the RSPB, the national biodiversity network, the local records centre and Scottish Natural Heritage, not to mention all the other local people who keep records, to know that they have a true picture of what is going on. That is on top of having to collect their own data. Either way, it is messy.

**Mark Ruskell:** There is obviously quite a lot of cost involved if a farmer or land manager has to employ an ecologist, or if a developer has to employ a team of ecologists over a number of seasons to develop an environmental impact assessment, for example. Do you see ways in which we can get more collaboration between companies in the commercial sector? That was a major issue associated with the development of wind farms in the outer Firth of Forth. Significant delay was incurred as a result of a legal challenge, which was partly down to data and partly down to understanding what the impact would be. That has had an impact on jobs and our ability to meet our climate change targets, and has led to on-going uncertainty about the impact on biodiversity.

**Ellen Wilson:** Exactly.

**Mark Ruskell:** How can we resolve that? If that is a problem for developments in Scotland, we need to find a sensible way through.

09:45

**Jo Judge:** The National Biodiversity Network Trust does not just have the atlas; we are involved in setting standards and that sort of thing. We are trying to work with the commercial organisations, and we are starting off with the bigger ones that not only have more data to share but have more need for the data that is already there. Those discussions are starting.

There are a couple of problems. As Ellen Wilson said, commercial users do not build into their estimates that they will have to spend some time sorting out the data and sharing it. There is also the fact that quite a lot of local authorities do not have suitably qualified people to look at planning applications and developments. Quite a lot of the time, it is possible to get through a planning application without having the full information about the biodiversity in the area. We are trying to improve that in two ways, one of which is by working with the commercial organisations. For example, we are working with Arcadis, which is one of the biggest commercial consultancies. Arcadis is going to try to change the way in which it records its data so that it can be passed on easily. That is the sort of thing that we need to do.

The other side of it is to try—perhaps through legislation or in other ways—to ensure that data that goes to local authorities is passed on and local authorities have access to the data that they need to see whether the requirements of planning applications have been fulfilled.

**The Convener:** There are some quite good models of that. I am thinking of the Aberdeen offshore wind farm in my area. Quite a lot of data has been collected by Vattenfall, which has won nature awards because of what it has done. Do



you agree that it is quite a good public relations exercise for companies to do that?

**Jo Judge:** Yes.

**Craig Macadam:** Environmental impact assessments were mentioned. An EIA can be done for a development, all the information can be gathered from various sources, new survey information can be produced, and then that can go and sit on a shelf. The development might then not go ahead, or a development next door might go ahead, and the information that was gathered will not be not used, because it was not available—it was in a book. If it were available online in the NBN atlas or otherwise, there would be efficiencies—people would not have to repeat the surveys, because they would know that the surveys had already been done.

**Angus MacDonald (Falkirk East) (SNP):** The SBIF has clearly done some good work. However, I was concerned that the 2017 SBIF review report notes, in relation to Craig Macadam's 2010 petition, that

"the primary underlying issue—a lack of sufficient, sustainable funding—has yet to be resolved".

I think that Ellen Wilson touched on that earlier. First, what are the key recommendations of the review? Secondly, what are the key features of the model that you would ultimately like to see? How could that be delivered?

**Ellen Wilson:** We would like to see a series of national and regional hubs in Scotland to provide services and give full coverage across the country. However, due to economies of scale, that would be regional rather than local. Those would come in under the governance of the NBN Trust and would be able to work across the UK, either through a series of partnerships or by coming together.

Those hub frameworks would provide services to recorders, local authorities and people on the ground, and they would make sure that the data flows through properly. They would also provide education outreach, engagement and so on and can help in interpretation of the data. They would provide all our services and can ever improve those.

In addition, there are also our superpartners. As well as the hubs, which are very visible, there are the people who curate the museum collections and who run the big platforms such as birdtrack or the Botanical Society for Britain and Ireland plant database—that infrastructure is rather hidden, but it also needs sustainable funding. A list of our superpartners can be found in the review.

We need funding to cover our operating costs. We are not looking to make a profit; the funding would be to cover the operating costs so that our people do not have to worry about funding year on

year. You would be surprised how much of the network's time goes into securing funding in order to be there next year. Indeed, not all the organisations make it. The main thrust of the review is that we are looking for a source of public funding that would take the funding challenges off the table and would facilitate open data. If we have sustainable funding, the data can become open. That is the prize, as it means that everyone can access the data. However, there is a cost, and someone needs to cover it.

Therefore, we are looking for help with the mechanism to cover our basic operating costs at least until such time as the value-added services generate more income, which could start to offset the running costs. Right now, we are not in a position to run such high-value services, despite everybody crying out for them.

**Angus MacDonald:** I think that my colleague Claudia Beamish might touch on funding requirements shortly. In the meantime, what feedback have you had from the Scottish Government and other stakeholders on the recommendations and the preferred models that are set out in the review?

**Ellen Wilson:** All our stakeholders have broadly welcomed the review. Local communities and the current local environmental record centre community are welcoming what is almost a lifeline that helps them to continue to provide their services. SNH has been fantastic and sees how the review ties in to support its strategy and delivery of our national outcomes. SNH also sees that it is not possible to deliver the Aichi targets without resolving the issues. We might succeed against only about five of the Aichi targets if we do not improve in this area.

There has been deep interest but, as ever, the problem comes back to where we find the funding. We recognise that it is a shared challenge. It is not the case that there are available budgets, which is why we are looking for a new mechanism to find out how we can support the funding.

We have had no real criticism that I am aware of. In fact, we have had interest from other countries, so I am regularly invited to speak to groups in other countries—most recently, England—to explain what the review has set out to achieve and how we are getting on. All eyes are watching us and whether we can achieve the solutions that we are looking for.

**Angus MacDonald:** I am sure that SNH will be delighted to hear your comments. We will be having representatives from SNH at a committee meeting at the beginning of October and we look forward to hearing from them.

**Claudia Beamish (South Scotland) (Lab):** I will briefly extend the discussions about funding. I

understand that the economic value of the benefits as set out in the review is estimated to be

“in the region of £7 billion per annum for Scotland”,

which is very positive. However, it has been suggested that what needs to go in—the catalyst for that value—is £2.85 million.

**Ellen Wilson:** That is right.

**Claudia Beamish:** I am interested in trying to connect that with some of the financing models that have been highlighted in our Scottish Parliament information centre briefing, which are models that are used by European banks that have committed to supporting environmental public good funding. In France, it is the Caisse des Dépôts Groupe. Did the review consider whether there is a role for the Scottish national investment bank? More broadly, how is the money going to be driven towards such projects and this very important issue? Could the network become self-sustaining? I am just looking to have a general discussion about the way forward.

**Ellen Wilson:** It would be brilliant to find a source of funding such as the example that you give of the Scottish national investment bank, were one to come through. There is a concern about funding dropping further post-Brexit. We are all aware that the post-Brexit climate will bring its own challenges, but there are also opportunities. We did not investigate that source in the review. We just set out the need for a mechanism. We did not exhaustively explore all the possible mechanisms, but that could be done.

On your question about how the funding could be driven through to deliver the projects and the results that we are looking for, that is why we have been clear on the governance that is needed around the endeavour. We need to work that through, with the NBN Trust as our lead governance body, and look at how we will deliver that. The deliberate reason for having a national hub is to provide the leadership and the drive in Scotland, and the vision and the energy to ensure that the projects are properly run and have the promised return.

Could the network be self-sustaining? It is difficult to be self-sustaining in an open data world, because you remove the ability to gain commercial value from your crown jewels. That is why we focus on the added-value services, but they are some way down the road, so it is hard to anticipate and model their likely value. We would like to transform the infrastructure over the coming five to 10 years, then regroup and look hard at what we can do with added-value service delivery to sustain us at a higher level and bring in wider communities of funding. So many stakeholders in the area are working well that there must be a way

of funding the work, but getting that buy-in is a challenge.

**Jo Judge:** There is so little funding at present that, in some ways, any increase would be very welcome.

On the question of the network becoming self-sustaining, we need the investment to start off with, as Ellen Wilson said, so that we get the infrastructure working properly, be it the digital data sharing infrastructure or the wider infrastructure around the sector, before we start to look at how we can add value to those services and bring money in. At present, we do not have the funding, the resources or the people to investigate that properly. We are all trying hard just to stay where we are, let alone moving forward.

The SBIF recommendations contain ways in which things can be done under a phased approach, so the full amount of funding would not necessarily be needed straight off. Also, investigations could be made in parallel with the development of the infrastructure to look at the potential for other funding mechanisms. However, with the way things are at present, unfortunately, quite a high level of support is needed from the public sector in order for us to be able to get things going in the right direction.

**Claudia Beamish:** Craig, will you give a view from the perspective of a specific organisation? Have you had discussions on the issue with other organisations at that level?

**Craig Macadam:** We have discussed funding through the SBIF and the partners in it. I agree with Ellen Wilson and Jo Judge that it is key to get to a place where we can offer services, with the time spent delivering them being charged for and those funds then being used to support the wider service. There are some examples of small local representatives that do that at present. They have service level agreements with local authorities to provide data for planning applications, and when consultants come to them, they charge for the time that they spend preparing the reports. There are examples of how it could work, but we need to ensure that we have the infrastructure to be able to deliver such services Scotland-wide.

**Jo Judge:** We also need to ensure that we have as much data as we can get. If the data flows have not been sorted out and we do not have all the data available, it will be a hard sell, because we will be saying to people, “We can provide you with these services, but we might only have half of the data.”

**Craig Macadam:** That is key. If you do not keep putting liquid in the top end of a pipeline, you will not get anything coming out the other end. We need to keep gathering data and to support the

recorders, the recording schemes and the other bodies that are collecting data to ensure that we have the data available to power the services.

10:00

**Ellen Wilson:** I should have mentioned earlier that we have a plan among our recommendations for a community fund. I think of that fund as being a bull's-eye with rings, at the very centre of which is the verifier network. The verifiers are our taxonomic experts, and that taxonomic expertise is the unique selling point of the whole infrastructure. That does not exist anywhere else, and you cannot buy it. People grow, grow into and build their recording knowledge up to the level of expertise that Craig Macadam has on river flies, for instance.

Our community fund would be designed to start with the verifiers, giving them access to a fund that will give them a boat trip, say—covering their expenses if they want to go to an island or covering the cost of ethanol for preserving specimens and bringing them to a museum. Those costs mount up. The need for verification is growing with the growth in our participation.

The second ring of the bull's-eye is the recorders. They might need a microscope to help take their skills to the next level, they might need to get to a remote place or they might need to come to Edinburgh for training, for instance. The third level consists of community groups and schools, perhaps in more deprived areas where people do not have access to certain things. Groups might need to get pairs of welly-boots or waterproofs if they are to get outdoors.

All those things build the inclination of recorders to give back to the infrastructure and make their data open. Without that, we can get a one-way street, where it is just take, take, take. That aspect needs to be unlocked—it is part of the SBIF's vision.

**The Convener:** I am keen to give you the opportunity to talk about and give an example of an added-value service. Craig Macadam touched on the subject of consultancy for planning applications. In any situation where you are asking for funding, you are expected to give some detail about what you think that funding might lead to. Can you give us an example of a big added-value service?

**Ellen Wilson:** We are talking about a bespoke service for any user group. If we take agri-environment, there would be a need to provide the right information to inform local farmers as they apply for their prescriptions and we would need to take that all the way through. We might work with local government to build up the information that they need in parcels, so that they do not have to

do the legwork themselves. They should have information parcelled in the right way to inform specific decisions.

The aim is to save people from having to go around multiple providers. The NBN Trust is considering how we provide an added-value service so that somebody who wants all the records for a couple of species across the UK can go to one place to get them. That saves them time in pulling the data together.

There are some innovative services. With new insights, we are exploring how to bring together all the different types of data, including environmental DNA—or eDNA—birdwatchers' records and data from remote sensing. There are new ways to bring together and offer new insight in an interactive and meaningful way for the customer or user.

The service to be provided depends on who the user is. The committee might want to have all sorts of services for Scotland. There are the state of nature reports, for example, which are a service provided to you through the third sector.

**Craig Macadam:** The agri-environment schemes provide a good example of services with a limited budget. We want to ensure that that budget delivers the best for the environment. If we do not know where to target the schemes and the prescriptions, we are not getting the best for the environment. With the right data and the right interpretation of the data, however, we get an added-value service from the data and we can ensure that the right prescription is going to the right place to bring the best benefit for biodiversity.

**Finlay Carson:** This is a kind of daft-laddie question. We often hear that the national health service saves £500 million a year if we get people out walking in the countryside, for instance, but we do not see the budgets for creating paths or increasing public spaces. If the SBIF review suggests that a transformed recording infrastructure could help to underpin an economic value of £7 billion, and if providing it might cost the public purse only £2.85 million, why is it such a hard sell? What are the barriers to telling the Government about that investment of £2.85 million to underpin £7 billion? Why is that such a hard sell?

**Ellen Wilson:** That is indeed the question. I do not think that it is a hard sell at all. The return on the proposed investment is massive. Even according to our most conservative estimate, the return is many times greater. It is so high because of the taxonomic expertise, the openness of records and the participation of communities.

To my mind, investing in a transformed recording infrastructure is a no-brainer, but it takes political will to follow that up. We are here today because we are looking to the committee to help

us to make that case, which stacks up. Although it does not make an economic return, it makes a valuable return to Scotland.

**Jo Judge:** Part of the reason why it is a hard sell to get people to put more funds towards it is that we are victims of our own success. We rely hugely on volunteers to collect and verify the data, and we often rely on volunteers to collate the data and do the data management. Unfortunately, some people think that volunteer effort is free. Often, people do not appreciate that although lots of volunteers collect the data, that might just be written down or put on an app; a lot needs to be done to that data to make it usable for conservation, policy and planning decisions.

It appears that we have always been able to fulfil the requirements of the country nature conservation bodies by getting them their biodiversity indicators, and there seems to be a misconception that that means that we can continue doing that in the future. Because of all the different ways to record data and the different types of data that we might want coming in, a lot of investment in technology will be necessary to make that data available and to make it interoperable with things such as earth observation systems. It seems to me that it is a case of convincing people that, although we have been able to manage up until now, we are at a critical stage. If we do not get further investment now, we are likely to lose hundreds of years' worth of rich wildlife data that is unparalleled anywhere else in the world. We want to keep it that way but, in order to do so, we need more funding.

**Mark Ruskell:** Do you see there being more of a role for data collectors in regulation and enforcement? For example, I am aware of the work of the raptor study groups in providing a good evidential base around raptor persecution, which I know that the police are interested in. Is such work being valued and rewarded?

**Ellen Wilson:** It is valued, and not just in controversial areas such as raptor persecution. There are all sorts of other areas in which the role of data collectors in providing evidence is of value. For example, our evidence can help to detect invasive non-native species quickly and thereby avoid the costs of those species spreading further. Data collectors can be extremely helpful in all sorts of ways, and the evidence that they collect is highly valued by all concerned.

**Craig Macadam:** The recording scheme for mayflies and stoneflies, of which I am a recorder, has about 350,000 records across the UK, about 80 per cent of which come from the routine monitoring that is done by the Scottish Environment Protection Agency, the Environment Agency and Natural Resources Wales. They provide data to the scheme so that we can look at

distribution changes and the conservation value. We can then provide that data to the NBN atlas and other people. That process works in places, but it does not work everywhere.

To go back to Mr Carson's question, people understand what the NHS does and why education and policing are important, but biodiversity is still a bit of a Cinderella subject—people do not understand why we need all this wildlife, why it is important and what the value of it is. Not just in data provision but in all aspects of biodiversity conservation, we face the challenge of making people understand what we risk losing.

**Angus MacDonald:** You will be aware that the programme for government included the biodiversity challenge fund. I am curious to hear what impact you think that will have.

**Ellen Wilson:** It will not have a huge impact.

**Craig Macadam:** Its impact—certainly on the infrastructure—will not be huge. However, there is a requirement on people who receive that funding to provide any records to the NBN atlas. When BugLife has had funding from Scottish Natural Heritage, there has been a requirement for us to produce any records we hold and give them to the NBN atlas. We submit something like 20,000 records a year because of that requirement. That is one impact. I do not think that there are any projects specifically on the infrastructure.

**Rachael Hamilton:** Can you give us some examples of how the voluntary sector can help to deliver the recommendations in the review? How many recommendations require buy-in from the Government and will that be part of the forthcoming environment strategy?

**Ellen Wilson:** We are very keen for it to be part of the forthcoming environment strategy. The strategy needs some infrastructure to provide the evidence to ensure that it is well informed, to measure its success and to monitor its impact.

The role of the voluntary sector is writ through the review. How the sectors work together is absolutely key, as is the way in which the voluntary sector provides and delivers some of the superpartner provision. That work will be really important in some of the system simplification that we have in mind. One of our recommendations relates to simplifying how we integrate. We need to work at sector level to create an integrated sector, rather than having multiple bits of infrastructure that do not bolt together that well. It is key that we come together to consider how to work as a single sector in order to facilitate the infrastructure.

**Rachael Hamilton:** I want to pick up on your comment on superpartnership delivery. What groups are involved in that?

**Ellen Wilson:** It is the major taxonomic recording schemes—the big players who manage the flow of all the records for specific taxonomic groups, such as the British Trust for Ornithology, which runs the birdtrack project in partnership, the plant database that is run in partnership by the Botanical Society of Britain and Ireland and similar schemes, such as Butterfly Conservation's moth and butterfly recording. Those organisations provide big bits of the infrastructure for the records to flow through and that is part of how it all happens.

I should also mention the Biological Records Centre, which supports all the smaller schemes and provides the platforms for those schemes to channel their records through and to engage and receive records from the public. The Biological Records Centre and the big single-taxonomy non-governmental organisations are really important players for us, along with the big national collections from some of the museums, such as the National Museums of Scotland and the UK species inventory database at the Natural History Museum in London. The UK species inventory maintains all the taxonomic lists for the UK. That takes effort to run and maintain and demands expertise from all the verifiers. It is a very large partnership of experts who work together to create the sector.

**Rachael Hamilton:** What level of buy-in do you need from the Government?

**Ellen Wilson:** High. We have explained that we cannot achieve the level of funding that is needed on our own. The problem has dogged every generation. My biggest shock as chair of SBIF was when I undertook the literature review and realised that the issue almost predated my birth. Previously, I had felt partly responsible: I have been a data manager at the RSPB for 23 years and I felt that I was the problem. However, I realised that the problem is 40 years old—it predates me and it has not been tackled. That is what gives the review energy. We should not pass the problem to the next generation, who would yet again say that they do not have the funding, despite the requirements being fully evident.

I must thank Debs Muscat from the Cumbria local environmental records centre, who has a newspaper clipping from 1902 that sets out the need for infrastructure, engagement, funding and so on. The problem has persisted for a long time. It is time that it was fixed and we need public support to do that.

**Jo Judge:** Although Ellen Wilson says that the investment needed from Government is high, when we compare it to investment in other things, such as the new Queensferry crossing, which cost something like £60 million or £1 billion—a huge amount of money—it is not. The benefit that we

would gain from a fully working biodiversity infrastructure in Scotland is huge—that is the £7.6 billion figure.

In that context, the amount of money that we are asking for in order to make that infrastructure work is a drop in the ocean. We could compare it with the huge amounts of money that have been sunk into many things that have then not even appeared. It seems a huge amount compared with the funding that we get across the sector in Scotland at present, which is less than £500,000. It is a huge jump from that, but in the grander scheme of things, it is not a massive figure.

10:15

**Rachael Hamilton:** You put a huge economic value on your volunteers. Do you know what percentage of them are verifiers? Will you have to strike a precarious balance in using those volunteers to deliver on the recommendations in your review? If so, are you confident that that will be sustainable?

**Ellen Wilson:** With the investment being provided, yes—it would be sustainable. The recommendations aim to build that capacity in our volunteer community.

Craig, do you know the percentage who are verifiers? It is not high.

**Craig Macadam:** It is not high. A system is in use for verification through a website called iRecord, which is run by the Biological Records Centre. The coverage is not complete for all groups. For the major groups, it is pretty complete for verifiers. There is at least one verifier for the major groups such as plants, mammals, birds and so on. For the invertebrates and fungi, it is less complete, but there is still a good coverage of species. There is at least one verifier nationally for that group. Locally, some areas have county recorders. For example, we might have a recorder for the Lothians, who will verify the records that come in to them. However, as Ellen Wilson said, it is about building capacity because, with the greatest respect, a lot of these people are not that young.

**Rachael Hamilton:** Your ability to digitise is an important part of the review. It seems to me that it is very important to record data on a regional basis. You have a lot of historical data, but on the ground there are different circumstances, different species, different climates and so on. How will you engage those volunteers? Will they have the capacity to use a digital platform that then feeds into your national hub?

**Ellen Wilson:** The engagement comes in many forms. Partly, it comes through the regional and national hubs that we have described, which will

be through the NBN trust and the local environmental record centre network. They do lots of outreach in communities. They do bioblitzes and really get the enthusiasm going locally. However, we also have all the national recording schemes, which again do engagement by taxonomic theme and get people out recording. There are lots of ways in which we can build that capacity and get people enthused and motivated.

**Jo Judge:** The new generation of biological recorders will expect to be able to do that digitally. They will want to be able to click a button in an app that will put in the time and place before they enter what they have seen. There will be a huge change in the volume of data that we get; that is an issue in itself, but I do not think that it will be a problem to get volunteers to go more digital.

**The Convener:** We are rapidly running out of time, so we will move on with some questions from Mark Ruskell.

**Mark Ruskell:** Are there any major differences in the data infrastructure across the UK?

**Ellen Wilson:** There are some. The ways in which we are organised vary. In Northern Ireland, there is one local record centre for the country, in effect. In Wales, there are four centres that are already working together with a more commercial model. In England, the picture is more disparate, but England is much bigger, so there are many more players involved, and probably more politics. In Scotland, there is an opportunity, probably uniquely, to progress with a community that is really strong and together.

**Jo Judge:** There are differences, but at present there are still many similarities to do with wanting to get everything to a central place and wanting to have standards across the various organisations that are collecting data. The superpartners work at a UK level rather than just at a national level within the UK.

All those things are working together, so there are definite benefits from things that will happen through the SBIF review for the rest of the UK, but there would be different challenges if the review was to be implemented in England in particular.

**Mark Ruskell:** You have touched on the potential implications of European Union exit for funding and how that might affect data access. Is there anything else that you want to reflect on? When the committee took evidence from Michael Gove just before the summer recess, an area that we were interested in was what would happen if we left the European Environment Agency and that side of things and whether there was potential for associate membership. Do you want to raise any other points about EU exit?

**Ellen Wilson:** If Brexit or any other changes to our relationship with Europe come to pass, that would be an opportunity to redefine environmental funding as part of redesigned schemes and to factor in some of the infrastructure needs.

**Jo Judge:** That could include the importance of data and data sharing, which is missing from our environmental regulations at the moment.

**Mark Ruskell:** Thank you.

**The Convener:** Are there any examples of international best practice in that area? Is any country doing well at what you suggested?

**Ellen Wilson:** Australia is probably a good example.

**Jo Judge:** Other countries have a very different landscape; the NBN trust—and, by extension, all the people who contribute to the network—are part of the Global Biodiversity Information Facility. In the vast majority of the countries that are involved in GBIF, the data comes mainly from scientific research that is funded by Governments, so they do not have our issues of lack of resourcing for volunteers and the challenges of making data open.

Fifteen countries are adopting an infrastructure that is based on the atlas of living Australia. We are leading the way in adapting it to make it better, with more tools that are relevant to Scotland and the rest of the UK. However, it is hard to make comparisons with other countries, because of differences in funding and where the data comes from.

**Ellen Wilson:** It is worth noting that the Australian Government invested 50 million Australian dollars to boost investment in that area—it saw the value of doing so.

**The Convener:** I thank the panellists for coming along to explain all that to us. There will be a brief suspension to allow a change of witnesses.

10:22

*Meeting suspended.*

10:26

*On resuming—*

## European Union (Withdrawal) Act 2018

### REACH etc (Amendment etc) (EU Exit) (No 3) Regulations 2019

**The Convener:** The next item on our agenda is to hear evidence from Scottish Government officials on the REACH etc (Amendment etc) (EU Exit) (No 3) Regulations 2019. Committee members will remember that we had some outstanding questions on this statutory instrument. I am delighted to welcome, from the Scottish Government, Lorraine Walkinshaw, who is solicitor for environmental protection in the rural affairs division, and Don McGillivray, who is deputy director for environmental quality and the circular economy.

As an umbrella question, could you outline why you are satisfied with the SI that has come before the committee?

**Don McGillivray (Scottish Government):** This SI is the third in a series of instruments that relate to the new UK REACH—registration, evaluation, authorisation and restriction of chemicals—regime for the regulation of chemicals. The committee has already consented to the first two SIs in the sequence; the third SI amends the transitional arrangements for substances of very high concern.

The reasoning behind the third SI is to create a smoother transition for UK companies that currently have an application for authorisation in the system for substances under annex XIV. It was recognised that, under the arrangements that were put in place by the first two SIs, companies that had submitted an application for authorisation could, in certain circumstances, find themselves overnight unable to use that substance in the event of a no-deal exit. The SI creates a transitional regime with a period of approximately 18 months to allow those companies to submit an application for authorisation within the UK system before they have to stop using the substance.

**Mark Ruskell:** You talked about smoothing the transition—this instrument does not really change anything, which is why you have identified it as category A. The consent notification states that the amendments in the regulations are aimed at

“smoothing the transition ... rather than changing any of the objectives of the new regime.”

However, have things not changed in the past couple of months? There is a new Administration at Westminster, which has identified as a policy

priority that it will not stay aligned, and is not pursuing alignment, with EU environmental regulations. Does that not change the underlying policy objective of the whole replacement REACH framework that is being put in front of us?

**Don McGillivray:** It has certainly not changed the Scottish Government’s objectives with regard to that regime.

**Mark Ruskell:** It is the same regime.

**Don McGillivray:** It is exactly the same. There are some transitional provisions to smooth the hard edge that would be created by a hard exit from the EU, but the regime that we are putting in place in the UK is the same as the EU regime: it is essentially a carbon copy. The underlying science is the same. We should be making science-based and evidence-based decisions under this regime.

I am sure that, if ministers were here, they would say that they have concerns about some of the statements that the UK Government has made on future alignment with EU environmental standards. However, in this case, what we are putting in place has not changed—it is a carbon copy of the EU regime.

10:30

**Mark Ruskell:** How can it be a carbon copy of the EU regime if it dismantles all the committees and expert working groups that allow environmental NGOs, health bodies and even devolved Administrations to get involved in decision making?

**Don McGillivray:** A significant amount of progress has been made on that since I was at the committee before the summer. Last week, I spoke to the Health and Safety Executive and I understand that a pool of scientific experts will be put in place to perform the same function as the one that the EU expert committees provide. As I understand it, at EU level, the NGOs play a role as observers in some of those committees, and the plan is to replicate that in the UK system. NGOs and other stakeholders will be allowed to act as observers in the part of the process where wider expertise is brought to bear.

**Mark Ruskell:** Where will Scotland’s voice be in this?

**The Convener:** You are raising wider concerns, which I share, but how do they relate to the statutory instrument that we are considering, which is very narrow?

**Mark Ruskell:** With respect, the SI is a third amendment to the regime and was an opportunity to embed the committee structure in the REACH regulations. We are now on a third iteration. I am

perhaps asking about what is missing rather than what is in front of us.

Where will Scotland's voice be in the Health and Safety Executive on the issue? Environment is devolved to the Scottish Parliament, so where is our voice in the UK regulatory structure? How do we ensure that our voice on health and environmental safety is heard at UK level?

**Don McGillivray:** That goes back to the structure that was created under the first SI. There are two relevant points. The first is that, under the UK REACH regime, the decisions are made by the secretary of state with the consent of devolved ministers. That is the key point of influence for the Scottish Government. We have a decision-making role in the UK REACH regime at ministerial level.

The other relevant point is that one provision in the REACH regulation—I think that it is article 77, but I cannot remember the exact number—puts in place a duty to create and use structures in the regime to provide the best scientific and technical advice. That is where the new arrangements that the HSE is putting in place stem from. Those arrangements already have a statutory basis under that provision.

**Lorraine Walkinshaw (Scottish Government):** Under article 77, the new agency is duty-bound to take into account scientific evidence. Also, if the agency is considering any environmental matters, it will have to consult the Environment Agency, which is duty-bound to consult SEPA. If SEPA asks the Environment Agency to pass on information to the new agency, it must do that.

**Don McGillivray:** I stress that the concerns from the NGOs and others were legitimate because, a few months back, there was not much detail about how the function that the EU committees perform would be replicated in the UK regime. The situation has moved on in the past few months and there is now a much stronger sense of how the broader scientific evidence, the engagement of NGOs and the transparency element will be brought to bear in the UK system.

**Mark Ruskell:** I have one final question, which is on the issue that was raised with earlier regulations about the potential for repeat animal testing under the new regime, which would be unnecessary and cruel. What is the current assessment of that? When Michael Gove was in front of the committee several months ago, he said that he was not really aware of the issue and that he would go away and think about it. Is anybody going away and thinking about it? Obviously, the prospect of repeat animal testing concerns a lot of people. We have gone through years of animal testing to ascertain whether chemicals are safe, and to go through it all again just for the sake of it seems daft.

**The Convener:** I should remind everyone that we accepted the offer of the UK minister in the Department for Environment, Food and Rural Affairs to come up to speak to us about all those issues. There has been a change in personnel—that offer was made by the previous incumbent—but we wrote back to say that we wanted them to come up, and the new incumbent will be doing so. A lot of the questions that Mr Ruskell is asking can be put to them, but if Mr McGillivray is happy to answer from his perspective, that is fine.

**Don McGillivray:** The answer remains the one that I gave to the committee a number of months ago: our expectation is that a commercial arrangement will need to be reached among companies that want to register in the UK system to access data that is held by companies that registered a chemical under the EU regime. We expect that it will work very much as a commercial negotiation.

It is not possible to entirely rule out additional animal testing, but there is no reason why it should happen if the expectation that UK companies will be able to negotiate access to that data is fulfilled.

**Angus MacDonald:** We know that it is more than likely that costs will increase for stakeholders if they have to reregister a substance in the UK REACH regime even though they have already met the associated costs in the EU REACH regime. Can you tell us whether the fees will be on a par with those under the EU regime? Given that the formation of the UK REACH regime is no fault of UK companies and that fees will already have been paid under the EU REACH regime, has the UK Government considered waiving charges?

**Don McGillivray:** Again, we have discussed that point with the UK Government and the HSE. Under the new UK REACH regime, transitional arrangements are in place whereby no fee will be charged for notifying the HSE of a substance that a company later intends to register or for grandfathering registrations into UK REACH, provided that a valid registration under EU REACH was held by a UK-based company when article 50 was triggered, which was 29 March 2017. If a company already had a registration at EU level, it will not cost to move it into the UK regime.

However, if a fresh application has to be made by a UK company, that will involve real work for the HSE, which will have a real cost; in those circumstances, a fee will be payable, as is the case under the EU regime. The UK Government is largely carrying the cost of funding the HSE for any work that is not supported by fees. Obviously, the extent to which the Scottish Government can make a commitment on behalf of the UK Government for things that it is funding is limited, but the transitional provisions allow for no fee for grandfathering and in some other circumstances.



**The Convener:** Thank you very much for coming and explaining all that to us.

10:38

*Meeting suspended.*

10:40

*On resuming—*

**The Convener:** The next agenda item is consideration of a proposal by the Scottish Government to consent to the UK Government legislating using the powers under the European Union (Withdrawal) Act 2018 in relation to the REACH etc (Amendment etc) (EU Exit) (No 3) Regulations 2019. Do members have any comments to make on the regulations?

**Mark Ruskell:** The Scottish Government officials' contribution was very useful and it has moved the debate on a little bit. I accept that the amendment is about transitioning to the new regime. However, I still have concerns about the totality of the regime that it is proposed will be put in place. I do not accept that it is a carbon copy of what currently exists under EU REACH. As a result of that, there is a danger that we will lose alignment with European regulations and that the quality of the committee structure that exists under the EU REACH regime, which has deep stakeholder involvement, will not be replicated within the HSE. I accept that there has been some progress—perhaps more on a voluntary basis in the discussions that took place with the HSE over the summer—as Mr McGillivray said.

I would welcome our taking more evidence from UK ministers on the wider framework and how we regulate chemicals and pesticides. It is a bit of a can of worms. We need to get more information on this area, and we should have the opportunity to do so in the months to come.

**The Convener:** I agree that we should have the UK minister up here as a matter of urgency to address the wider concerns about what the replacement for REACH will look like and whether it will be a carbon copy. However, do you have any comments on this particular instrument, which is about the transitional arrangements?

**Mark Ruskell:** I have concerns about giving full consent to it right now, so I would abstain in a vote on it.

**The Convener:** Okay, we will have to move to a vote.

Is the committee content to agree to the Scottish Government's proposal that consent be given to the regulations?

**Members:** No.

**The Convener:** There will be a division.

**For**

Beamish, Claudia (South Scotland) (Lab)  
Carson, Finlay (Galloway and West Dumfries) (Con)  
Hamilton, Rachael (Ettrick, Roxburgh and Berwickshire) (Con)  
MacDonald, Angus (Falkirk East) (SNP)  
Martin, Gillian (Aberdeenshire East) (SNP)  
Stevenson, Stewart (Banffshire and Buchan Coast) (SNP)

**Abstentions**

Ruskell, Mark (Mid Scotland and Fife) (Green)

**The Convener:** The result of the division is: For 6, Against 0, Abstentions 1.

The committee has agreed that it is content with the proposal and it will inform the Government accordingly.

That concludes the public part of the committee's business for today. At its next meeting, which will be on 24 September, the committee will hear from the Minister for Rural Affairs and the Natural Environment on two affirmative instruments. It will also consider a number of negative instruments and a draft report on the Scottish Government's budget for 2020-21.

We will now move into private session. I ask that the public gallery be cleared, as the public part of the meeting is now closed.

10:43

*Meeting continued in private until 11:44.*



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