

Environment, Climate Change and Land Reform Committee

Tuesday 12 March 2019



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ENVIRONMENT, CLIMATE CHANGE AND LAND REFORM COMMITTEE 9th Meeting 2019, Session 5

CONVENER

*Gillian Martin (Aberdeenshire East) (SNP)

DEPUTY CONVENER

*John Scott (Ayr) (Con)

COMMITTEE MEMBERS

- *Claudia Beamish (South Scotland) (Lab)
- *Finlay Carson (Galloway and West Dumfries) (Con)
- *Angus MacDonald (Falkirk East) (SNP)
- *Mark Ruskell (Mid Scotland and Fife) (Green)
- *Stewart Stevenson (Banffshire and Buchan Coast) (SNP)

THE FOLLOWING ALSO PARTICIPATED:

Dr John Armstrong (Marine Scotland Science)
Simon Dryden (Marine Scotland)
Mike Flynn (Scottish SPCA)
David Green (Crown Office and Procurator Fiscal Service)
Keith Main (Marine Scotland)
Detective Chief Superintendent David McLaren (Police Scotland)
Sara Shaw (Crown Office and Procurator Fiscal Service)

CLERK TO THE COMMITTEE

Lynn Tullis

LOCATION

The Robert Burns Room (CR1)

^{*}attended

Scottish Parliament

Environment, Climate Change and Land Reform Committee

Tuesday 12 March 2019

[The Convener opened the meeting at 09:32]

Decision on Taking Business in Private

The Convener (Gillian Martin): Welcome to the ninth meeting in 2019 of the Environment, Climate Change and Land Reform Committee. I remind everyone to switch off or turn to silent their mobile phones, as they might affect the broadcasting system.

Agenda item 1 is to decide whether to take agenda item 5 in private. Do members agree to do so?

Members indicated agreement.

Wildlife Crime Annual Report 2017

09:32

The Convener: Under agenda item 2, we will take evidence on the Scottish Government's "Wildlife Crime in Scotland: 2017 Annual Report". I am delighted to welcome our guests: Detective Chief Superintendent David McLaren, specialist crime division, Police Scotland; Sara Shaw, head of wildlife and environmental crime unit, Crown Office and Procurator Fiscal Service; David Green, deputy head of specialist casework and head of the Scottish fatalities investigation unit, Crown Office and Procurator Fiscal Service; and Mike Flynn, chief superintendent, Scottish SPCA. Good morning.

Wildlife crime is a controversial subject. It is good news that reports of wildlife crime seem to be coming down. What do you think has contributed to the 11 per cent reduction in wildlife crime since the previous report? Has there been a genuine decrease, or have there simply been fewer reports of wildlife crime? How can you figure that out?

Detective Chief Superintendent David McLaren (Police Scotland): When we look at percentage changes in such small numbers of crimes, assessing the cause can sometimes be quite challenging. There is certainly much wider awareness of wildlife crime across the country, and a lot of the work that we do with partners highlights the real feeling, across the country, that the public, generally, want to see a reduction in wildlife crime. We hope that the partnership work that we are doing to raise awareness and our prevention work are having some effect, but I caution that when the numbers are so small, any fluctuation is difficult to interpret.

The Convener: Do other panel members have thoughts on why there has been a reduction in crime? What is working?

Mike Flynn (Scottish SPCA): There has been a marked reduction in the number of reports of illegal snaring, compared with the number a good few years ago. That crime still occurs, but there are a lot fewer reports than there were previously.

The Convener: I noticed that the number of reported crimes against birds is still quite high.

Detective Chief Superintendent McLaren: Yes. Although the number of bird crimes is quite large, the number of crimes against protected species is still quite low; there were in the region of 50 crimes against birds in general, but the number of crimes involving the persecution of raptors was quite low. Clearly, keeping that

number low is a main area of focus for us, as members of the raptor persecution priority delivery group.

The Convener: Have there been any significant changes in how the statistics are recorded or collated? You said that the numbers are very small, but has there been any change in methodology since the previous report?

Detective Chief Superintendent McLaren: Not at all. You might be aware that we have different recording systems across the country, but we apply standard crime recording processes across Scotland. There has been no change in that regard since the previous reporting year; the numbers were recorded as they have been in years gone by.

The Convener: You have highlighted some of the challenges in interpreting the statistics, given that the numbers are very small. Are there any other challenges in the presentation of the statistics? For example, given the reduction in wildlife crime, a bit of complacency could creep in, so it is important to highlight the areas in which the numbers have perhaps not decreased as much as you would have liked. What are the remaining challenges? We still have a long way to go, because we do not want any wildlife crime.

Detective Chief Superintendent McLaren: Absolutely. It is worth highlighting the fact that the report includes only recorded crimes, but there is an awful lot of investigation into suspected wildlife crimes that are reported to us. The numbers look fairly small but, over the years, we have been successful in raising the profile of wildlife crime, so a lot more cases of suspected wildlife crime are reported to us, and we have done a lot of work with our partners. Rather than being complacent, we are going far in the other direction. When we suspect that a crime has been committed but we are not absolutely sure, the level of investigation with our partners is such that, should we find out further down the line that there has been, for example, a bird poisoning, we are content that we have already captured the basics, at the early stages. That level of investigation often takes place in cases in which there has been no crime.

The Convener: You have hit on the fact that evidencing such crime is complicated.

Detective Chief Superintendent McLaren: I would not say that it is complicated, but it is challenging because of the nature of the crimes. Most crimes occur in fairly rural locations where there are few witnesses. Nowadays, in conventional crime investigation, closed-circuit television, forensics and telecommunications data all add to building a case, whereas those opportunities often do not exist when investigating wildlife crimes. Quite often, we rely on our

relationships with land owners and land users in the areas in which the crimes have been committed. Partnership working is really important so that, when wildlife crimes are reported, we can make those connections and realise the opportunities.

The Convener: My colleagues will dig a little deeper.

John Scott (Ayr) (Con): Do the witnesses welcome the reduction in the number of recorded crimes? The news seems to be good, but it has not necessarily been said, or even implied, that it is good news. I think that it is good news. Do you?

Detective Chief Superintendent McLaren: Absolutely. Any reduction in any type of crime is good news, and prevention is key to what we are trying to do across the whole wildlife crime piece. Any reduction in wildlife crime is excellent, and we hope that we have had some influence and success in reducing it.

However, as I have said, we are wary, as always, about being complacent. We are not high fiving each other because there has been a reduction, because we know that wildlife crime is still going on and that there is still a significant challenge, particularly in cases in which it is difficult to establish whether a crime has actually occurred. As I said, a lot of wildlife crime investigations are on-going. I absolutely welcome the reduction, but we are certainly not complacent.

The Convener: Before John Scott continues, Finlay Carson wants to come in, briefly.

Finlay Carson (Galloway and West Dumfries) (Con): Thank you, convener. I am the species champion in the Parliament for bats. I will have more questions about bats later, but first I have a question about the number of crimes that have been committed. The report does not give an accurate assessment of crimes committed; it shows confirmed offences. There has been a marked increase in investigations into allegations of bat crime—I think that there were 27 allegations, which is a fourfold increase—but there is no mention of bat crime in the report. Why is there such a discrepancy?

Detective Chief Superintendent McLaren: Do you mean in relation to dedicated areas in the report on bat crime?

Finlay Carson: Yes.

Detective Chief Superintendent McLaren: I might be wrong, but I understand that bats come under general wildlife legislation—there is specific legislation for some wildlife types—so are categorised generally rather than as a species. I would be happy to double check that, but that is my understanding. I think that the issue has come up before in relation to bats.

Finlay Carson: Although the report has separate areas for "other wildlife offences", it suggests that there have been no bat offences, but 27 incidents were reported. Are we missing some data and failing to get a true reflection of what is going on?

Detective Chief Superintendent McLaren: An incident might involve someone coming to us to report that they suspect that a crime has been committed, so we carry out an investigation to establish whether a crime has occurred, but we might not reach the threshold for reporting that a crime has taken place in the reporting period, hence the discrepancy between the numbers.

Finlay Carson: Thank you.

John Scott: I should have declared an interest: I am a farmer.

How has the wildlife and rural crime special constable role, which was announced last year, operated in practice? Is the pilot project continuing?

Detective Chief Superintendent McLaren: The pilot project continues and will have been going for a full year by the start of April, so an evaluation will be done towards the end of this month. There was an evaluation after six months, which looked at the number of deployments of special constables in the Cairngorms national park, in partnership with the park rangers, and considered the kind of work that they were getting involved in.

The Cairngorms national park lead attended the most recent raptor persecution priority delivery group meeting, and it is fair to say that the general feeling—which came out in the initial evaluation—is that although the special constables are well deployed in the park, much of their activity is engagement work with park users and landowners; their involvement in wildlife crime investigation has been fairly minimal.

The park will have an opportunity to feed into the evaluation at the end of the month. I think that the feeling is that although the special constable role has been positive in the context of engaging with the community in the park, it is difficult to see great benefits from it in relation to tackling wildlife crime. However, I caveat that by saying that prevention is a really difficult thing to measure. We will see where we go on that after the evaluation at the end of the month.

Mark Ruskell (Mid Scotland and Fife) (Green): The deployment of special constables was announced as part of a package of measures, primarily to tackle raptor persecution. Are you saying that the officers have not been successful in identifying areas where raptor persecution is

taking place and in bringing forward evidence that might lead to prosecutions?

09:45

Detective Chief Superintendent McLaren: It is important that we let the full evaluation take its course and see what impact the special constables have had on crime in the national park over the past year. It is fair to say that before their deployment in the park, the number of wildlife crimes was not significant, so as part of the evaluation, we will be looking at what intelligence the special constables have gathered while they have been deployed and at their engagement with landowners and land users in the park. Prevention is really difficult to measure, but I guess that we will compare the past year, when there have been deployments in the park, with the years before that.

You are right to say that the special constable project is part of a much wider response by Police Scotland and partners to raptor persecution all over Scotland and not just within the national park.

The scale of the national park brings challenges. The special constables we deployed to the park were already special constables who lived outwith the park area. We had to get them from their home address to the park and team them up with a ranger or another special constable. The park is not the most hospitable of places for travelling around, particularly during the winter months.

I look forward to getting the evaluation and assessing the success and challenges of the deployment over the past year.

John Scott: What proportion of special constables' role is dedicated to wildlife crime compared with rural crime? Do you have a ballpark figure for that?

Detective Chief Superintendent McLaren: Although the objective in the national park is to tackle wildlife crime, it is a given that any police officer or special constable will also have wider responsibilities, such as watching and patrolling the area. I do not see the value in separating the two. These are police patrols in an area where we have rural crime and wildlife crime. As I said, though, the figures on the level of deployment in the park will be made clear in the evaluation.

John Scott: The evaluation is not yet complete, but has Police Scotland formed any views on the success of the pilot and whether it could be rolled out to other areas? Have you learned any other lessons that you could share with the committee? I appreciate that the proper evaluation will be presented in due course.

Detective Chief Superintendent McLaren: I would rather wait and see the evaluation. Will

there be learning? Absolutely. There are always lessons from initiatives such as deployment for a specific crime-prevention or crime-enforcement purpose, which can be rolled out across the country. However, it would be folly for me to make any assessment until we get the evaluation and get a feel for how successful the pilot has been.

John Scott: You are positive about it, though—we hope.

Detective Chief Superintendent McLaren: Absolutely. We talk often about the challenges of wildlife crime. We are keen to look at different ways of doing business to see what is successful and what is not. Like all our resources, special constables are a finite resource and we need to make sure that we are putting them in the right places to be effective. It is no different with wildlife crime. Once we get the evaluation, we will be able to assess that.

John Scott: How much can be inferred from the regional figures presented in the report, for example the fact that the Highlands and Islands recorded the highest number of wildlife crime offences? To what extent is that influenced by the distribution of resources?

Detective Chief Superintendent McLaren: It is the biggest geographical area in the country, so it figures that if wildlife crime is occurring in rural locations, the largest rural location in the country will have the highest figures.

On deployment, we look at the figures on a monthly basis. We have wildlife crime officers in each of our divisions and we liaise with the national wildlife crime unit on intelligence and we have our analytical product to ensure that we deploy our officers in the right places at the right times as much as possible.

John Scott: Finally, how is resourcing currently affecting the ability of Police Scotland and the Scottish SPCA to investigate and prevent wildlife crime? What is the current resourcing picture beyond the pilot project?

Detective Chief Superintendent McLaren: In relation to the Cairngorm national park, or nationally?

John Scott: Nationally.

Detective Chief Superintendent McLaren: As I said, we have dedicated officers in each of our divisions, but it is fair to say that, on their own, an officer or a part-time officer in a division will not make a massive difference. In a lot of respects, they are the divisional experts when it comes to providing advice, guidance and support and so on for investigations.

Over the past year, we have run a number of courses, not just for local community cops as you

might expect, but for more specialist officers, so that they have an understanding of wildlife crime when bringing their skills to our investigations. There is a lot of training for our control room staff, particularly for call handlers, to ensure that when they take calls about potential wildlife crimes, they are able to identify early on whether a wildlife crime is being reported to them and whether there might be opportunities to deploy officers quickly.

Stewart Stevenson (Banffshire and Buchan Coast) (SNP): You said that most of the special constables were redeployed from elsewhere. Did the initiative bring in new special constables who have a particular interest in wildlife crime?

Detective Chief Superintendent McLaren: The pilot started before I was in post, so I am not completely au fait with the process for how those special constables were identified, but I can certainly double-check and get back to you.

Countrywide, we are constantly looking to increase our numbers of special constables—they are a really valuable resource for us. During the engagement on the Cairngorms national park, we considered whether having special constables in the park, engaging with people who are working in or using the park, would encourage others to come forward and get involved. Again, as part of the evaluation we could cover whether anyone has come from the park.

Stewart Stevenson: I am an enthusiast, because in my previous life I had staff working for me who were special constables, so I saw their value. I encourage you to seize the opportunity for the role in wildlife crime.

Claudia Beamish (South Scotland) (Lab): I will turn the focus to prosecution and sentencing. Difficulties in finding evidence have been touched on, and we will come to that later. First, what are the key challenges and barriers to achieving higher numbers of prosecutions for wildlife crime?

Mike Flynn: Basically, the challenge is in investigation of wildlife crime. As DCS McLaren said, there are a lot more cases reported in which we can identify a crime than there are cases in which we can identify a suspect, to the level of the statutory requirements of the Crown Office and Procurator Fiscal Service.

I know that the numbers have gone down, but more offences are being committed. No badger offences are listed for the year that we are talking about. That is because cases have been dealt with not through the Protection of Badgers Act 1992, but through the Animal Health and Welfare (Scotland) Act 2006, because dogs have been used and the evidence has shown that injuries to them were caused by badgers.

The difficulties are to do with detection and the nature of wildlife crime. As DCS McLaren has highlighted, it is not routine, it is not caught on closed-circuit television and it is not done in front of plenty of witnesses.

Claudia Beamish: What is your view, DCS McLaren?

Detective Chief Superintendent McLaren: I covered that issue earlier when I talked about the need to reach the required threshold. When we have significant investigations, we engage with the Crown Office and Procurator Fiscal Service regularly. It is not the case that we just drop a report on a desk and say that we have done as much as we can. There is constant dialogue to make sure that we have, as we work through a case, an understanding of where the threshold might be. Undoubtedly, that is a challenge. The remote nature of the places where most of the crimes are committed makes it very difficult to gather evidence.

Claudia Beamish: On vicarious liability, the RSPB Scotland report, "The Illegal Killing of Birds of Prey in Scotland 2015-17", says:

"We also became aware, in spring 2017, that a vicarious liability prosecution, following the earlier conviction of a gamekeeper for killing a buzzard, was being dropped after 14 previous court hearings as Crown Counsel considered 'it was not in the public interest to continue the case to trial."

What are your comments on that?

Detective Chief Superintendent McLaren: I will pass that to my colleagues from the Crown Office.

Sara Shaw (Crown Office and Procurator Fiscal Service): Crown counsel's considerations took into account the facts and circumstances of that case. The COPFS is under a duty to keep cases under review, which means reviewing the evidence not only when a case is first reported to us, but when there is an on-going prosecution. In that case, the evidence was reviewed by Crown counsel, in keeping with that duty, and it decided that it was no longer in the public interest to continue with prosecution.

Claudia Beamish: The COPFS report also shows that only one wildlife crime conviction resulted in a custodial sentence. Is the current sentencing regime providing a sufficient deterrent to those who are engaged in wildlife crime?

David Green (Crown Office and Procurator Fiscal Service): I have to say that it would be quite inappropriate for the Crown Office to comment on that question because such issues are entirely outwith our control. Sentencing is entirely a matter for the courts—and, of course, for Parliament, in setting the levels that judges can impose.

Claudia Beamish: I respect that view. Is anyone else able to comment on the deterrent aspect of sentencing and the lack of custodial sentences being given?

Mike Flynn: I agree with David Green. It is entirely for the court to look at the individual circumstances of a case, although there is quite often public outcry that sentences do not appear to be having any great deterrent effect.

Detective Chief Superintendent McLaren: As David Green said of the COPFS, I think that it would be inappropriate for Police Scotland to comment on sentencing matters. Anecdotally, I know that individuals who get caught are well aware of what sentence they might get and what will follow if the court finds them guilty. However, it is difficult to say whether that is a deterrent. I guess that such issues are looked at on a case-by-case basis.

Claudia Beamish: How does the COPFS respond to concerns that it is not sufficiently transparent in communicating the rationale for its decisions on wildlife crime cases? Scottish Badgers says that it works positively with the police, but a significant number of incidents were reported in the timeframe in question—the figure was, I think, 80—and it has not always been clear why cases have not been taken forward. RSPB Scotland has highlighted the issue, too, so it would be helpful to hear your comments on that. I am not saying that what has been suggested is the case, but I would appreciate it if you could respond to those concerns. How do your communications work?

Sara Shaw: The wildlife and environmental crime unit liaises and works very closely with partner agencies including Police Scotland, the SSPCA and, on occasion, the RSPB and Scottish Badgers. We meet when appropriate. Due to suppression of data, the report does not show the specific number of badger-related cases that were reported to COPFS in the year in question, but I am not aware of any issue with the cases that Scottish Badgers has reported to the COPFS. When there have been such concerns in the past, the organisation has approached the team, and we have met and had useful discussions with it. That liaison certainly extends to Police Scotland, too. I am not sure whether you are seeking to address a particular issue.

Claudia Beamish: I have very specifically addressed the issue by highlighting Scottish Badgers' concern that, despite the fact that there were 80 incidents, it does not know why cases were not prosecuted. I appreciate that it is a challenge to prosecute such cases: that is the point that I am making. Could you consider committing to checking with non-governmental organisations and others that you work with—and

members of the public who might report a crime to ensure that, when they report incidents, the reports are responded to and followed up?

Sara Shaw: The COPFS can consider prosecution only when a matter is reported to it. Scottish Badgers might well have had 80 incidents notified to it in various ways, but that does not mean that COPFS has received 80 reports of badger crime. Every report that we receive in relation to wildlife crime—or any offence—is considered carefully; we consider whether there is sufficient evidence and whether it will be in the public interest to raise a prosecution or to take alternative action.

Claudia Beamish: I am sorry if I am not being clear—I am simply saying that two organisations have highlighted to the committee that they are not always getting feedback on the incidents that they report. I am not criticising decisions on whether the incidents have gone forward to prosecution; I am asking whether you could consider the issue of feedback with the groups that you work with.

10:00

David Green: We would be happy to have such discussions. We received a total of 94 reports of all wildlife crime. The 80 cases that those organisations are aware of might well be being investigated by Police Scotland and others, but the reports on them have not made it to the Crown Office. If we do not know about them, we cannot comment; we would be unable to tell the partner agency anything, because the case is not known to us. If an agency has specific concerns about a specific matter that has been reported to the Crown Office, my team will be happy to discuss the particulars with it.

Claudia Beamish: I appreciate that. That was not my point, which concerned reporting to the police. I want a commitment, please.

Detective Chief Superintendent McLaren: There is a real distinction between incidents and crimes.

Claudia Beamish: Absolutely.

Detective Chief Superintendent McLaren: In relation to incidents, we have good working relations with Scottish Badgers. I meet it a couple of times a year to iron out issues and to ensure that I can address them from a strategic level and feed that across the country—for example, if there is poor communication or it is concerned about our response to crimes or reported incidents. I personally take such issues up with Scottish Badgers. The last meeting I had was six or seven weeks ago—or a little longer now. I do not recognise 80 as the number of cases raised with

me on lack of feedback. I will address that criticism with them.

Angus MacDonald (Falkirk East) (SNP): Mike Flynn mentioned badgers earlier in the meeting. We know that six offences relating to badger persecution were recorded in 2016-17, compared with seven in 2015-17, and that four of those offences concerned damage to badger setts. In the statistics for the number of wildlife cases received by the COPFS in the 2017 report, information on badgers is absent, with the explanation that it is "data suppressed". Can you explain what that means, and how many of the six offences relating to badger persecution that were recorded by Police Scotland in 2016-2017 were referred to the procurator fiscal?

Detective Chief Superintendent McLaren: I will have to get back to you on the finer detail of that. Sara Shaw might have a response on your first question.

Sara Shaw: On page 82 of the report, the first paragraph explains COPFS policy on our data protection responsibilities and explains why there has been suppression of data in line with those responsibilities in some places in the report. We are not in a position to confirm the exact number because in some cases, the number is fewer than five—as is explained in that first paragraph.

Angus MacDonald: Did you say "fewer than five"?

Sara Shaw: Yes. The report says:

"where the number of cases is fewer than 5, these figures have been replaced with an asterisk. In some cases, it may have been necessary to apply a further suppression to a figure equal to or higher than five to prevent other suppressed data being deduced through subtraction. This applies to all data being published by COPES"

Angus MacDonald: According to our briefing, there were six offences relating to badger persecution in 2016-17. The report mentions that a five-year incident analysis of badger persecution was produced for the national wildlife crime unit. Can you provide any information on what that analysis showed, and the influence that it has had?

Detective Chief Superintendent McLaren: The analysis that has been produced by the Scottish Government is really helpful for the work of the national wildlife crime unit that I referred to earlier. That is the case not only in relation to badger persecution but across the whole wildlife crime arena. It can help us to identify problem areas and trends, and new tactics, techniques and modus operandi that are used by perpetrators. It is a work in progress and is very useful for identifying where we might have issues, and in our consideration of plans for how to tackle them.

Finlay Carson: Some crimes are not being recorded, even if there is enough evidence to prosecute, because of its not being in the public interest to do so. Three cases of bat persecution were not progressed because of lack of intent or recklessness. Does it need to be recognised that there should be more data sharing to ensure that a report is fit for purpose and that we address what could be seen as underreporting of offences rather than crimes? We are not getting a true picture.

Detective Chief Superintendent McLaren: That is quite a specific point that relates to disturbance of bat roosts. From an investigator's point of view and from the Crown Office's point of view, the legislation is quite unhelpful in that it details the wilful act aspect, but detail is missing in relation to disturbance. There must be evidence of mens rea or criminal intent in order for us to record a crime.

As I said earlier, I met an individual from the Bat Conservation Trust. We have recently talked about how we can make representation to the Scottish crime recording board so that we have more accurate recording. The issue is that innocent members of the public who are going about their business and have no wilful criminal intent can potentially disturb a bat roost and ultimately end up with a crime being recorded against their name. That does not seem to be proportionate. We must strike a balance so that we are able to record incidents but not criminalise people for completely innocent acts.

That is not to say that there are not instances in which there is criminal intent. It is really important that we investigate so that we can differentiate between the two. However, in some cases that have been raised recently, it has been very difficult to identify criminal intent.

We recognise that that is an issue, and it is probably for us to take forward through a tweak in the legislation. Generally speaking, in all crime there has to be criminal intent.

Finlay Carson: My next question is for the whole panel. Is it recognised that we should not just record crimes but, in order to see a true picture of what is happening, find a better and more transparent way of recording offences? An offence, intended or not, is still an offence. If someone disturbs a bat roost or a badger sett, that is still an offence, although it might not be a crime. Do we need more sharing of data among stakeholders in order to identify where offences have been committed?

Detective Chief Superintendent McLaren: I think that there is a specific issue with the legislation that causes the anomaly. We record incidents in which crimes have not necessarily occurred but on which we have carried out an

investigation because there was a suspected crime. It is difficult for me to see how we can be more transparent about how we gather information in relation to wildlife crime and report on it. The bat issue is a bit of an anomaly.

Sara Shaw: My team and Police Scotland have discussed that issue. I cannot comment on the intention behind the drafting of regulation 39(1)(d) in the Conservation (Natural Habitats, &c) Regulations 1994, but it is certainly quite stark that there is no mention of the offence being deliberate or reckless, although that is mentioned in previous provisions. It seems that it was intended that the legislation be drafted in that way. We discussed the fact that it appears to be the case that, although there might not be intent, a crime will have been committed based on the facts, and that probably qualifies for recording.

Stewart Stevenson: The rule of five is an Office for National Statistics restriction. No personal references are used—right across the board—if the number is below five.

David Green: The Crown Office follows that directive.

Stewart Stevenson: Yes. That was just an observation. My real question is a brief one. Can you point us to any academic research on deterrence? It is generally thought—by me, if by no one else—that deterrence is about being caught and not about the sentence thereafter. I wonder whether there is anywhere we could get a sense of whether that thing that I have picked up at some point in my life is correct or incorrect. Can anyone help with that?

Detective Chief Superintendent McLaren: We would welcome anything that could help us to wildlife crime and get а understanding of the individuals who are involved in it. If there is something academic that can help with that, we will take it on board. Because there are a wide range of different types of crime involving different species and areas of the country, and because there are only small numbers, with not many people being caught, it is a challenge to get a meaningful data set. However, we will be more than willing to take that work on board if you can point us in the direction of someone who would be willing to undertake it

The Convener: I would like to move on to video surveillance, which follows on quite well from the difficulties around prosecution. The issues are well recorded. What developments have there been in the admissibility of covert video surveillance evidence since the cases in which it was not admitted?

Sara Shaw: I am not aware of any particular developments in the law following those cases.

The Convener: RSPB Scotland has said that it believes that the decision about the admissibility of video footage placed more emphasis on perceived irregularity in obtaining evidence than on the actual criminal offence. How do you respond to that?

Detective Chief Superintendent McLaren: As investigators, we regularly have video evidence brought to us, and we share it with the Crown Office. There are often discussions about the admissibility of that evidence. There is a much wider issue to do with human rights and the really quite tight legislation that controls the deployment of covert tactics in investigations. I think that the committee has discussed previously the threshold for proportionality and necessity in the deployment of covert video recording, given its intrusive nature. On the police deploying it in relation to wildlife crime, my experience over the years has been that we have never met the threshold in terms of either the serious crime aspect or proportionality.

The video footage that comes to us often comes from other organisations that have recorded it, and the focus is often the intent with which the footage was recorded. If it was recorded for the purposes of monitoring or assessing behaviour—innocently, I guess—in a wildlife environment, it will be for the court to decide whether it is admissible. However, experience has shown that evidence from the focused deployment of video recording equipment has been inadmissible more often than not.

The Convener: The Poustie review made recommendations on enabling the admissibility of video evidence. That brings me back to my previous question about whether there have been any developments. Has any guidance been produced for people who want to help you all to identify wildlife crime on what is and is not admissible? Well-meaning people such as RSPB Scotland want to flag up instances of wildlife crime in order to help with your investigations and bring people to prosecution. What guidance do you give them to ensure that their video evidence will not be thrown out?

10:15

Detective Chief Superintendent McLaren: This is not a new issue; it has been kicking about for a number of years. We work closely with organisations that investigate or support the investigation of wildlife crime, such as RSPB Scotland and the SSPCA, and I hope that Mike Flynn will support me when I say that our partners are clear about the challenges around the use of video recording equipment on private land. We work closely on guidance on that, and I do not think that there is any ambiguity about the challenges around video recording.

Mike Flynn: There is no ambiguity from our point of view. I can remember only one recent case in which video evidence was used, and that was at the request of a landowner whose livestock were being targeted and snared. The use of the video evidence was admissible because it was taken with the landowner's permission.

Stewart Stevenson: Can a distinction be made between video evidence that can be used to inform an investigation and video evidence that can be used as part of a prosecution? In other words, although video evidence might not have the evidential trail that enables the prosecution to rely on it, can it be used by the investigator to establish what questions they should ask in trying to get evidence? Is that a proper distinction to make?

Detective Chief Superintendent McLaren: Yes, I think so. Any video evidence, whether it is admissible or not, may be used as intelligence in an investigation. We have to be really careful about the provenance of video evidence and the investigative work that follows directly from it, but we certainly take on board any evidence that is shared with us, and we have discussions with the Crown Office about its admissibility. It is always intelligence.

Mike Flynn: I agree with that. Quite a few of the cases that we get involve video evidence. In the first such case, we were given CCTV footage of a guy in a pub in Aberdeen hitting a bat with a pool cue. The video was not used as evidence, but we found the bat and witnesses, so there was corroboration.

Quite a few cases in the puppy trade have come out of videos on Facebook. As David McLaren said, the video evidence starts the investigation—it does not conclude it, but it gives people information to work on.

The Convener: It is a step towards the collection of more robust evidence, rather than the smoking gun itself.

Mike Flynn: Yes.

The Convener: I understand that. We will move on.

Mark Ruskell: I want to talk about a topic that Donald Dewar described as "Scotland's shame"—the persecution of birds of prey.

In the report, which relates to the year 2016-17, the Cabinet Secretary for Environment, Climate Change and Land Reform makes the point that the report probably does not capture the extent of raptor persecution in Scotland, particularly given what we know about the satellite tagging work that has been done.

I would like each member of the panel to answer this question, and I appreciate that you will do so in the way that is most relevant to your duties and responsibilities. What do you think is the top challenge around prevention, detection and prosecution of crimes that involve birds of prey, and what are you doing to ensure greater success?

Mike Flynn: I will probably say the same as Police Scotland. We can respond only to the information that is received. You will have seen how many birds the scientists say have been poisoned. Unless it can be proved that the poisoning was inadvertent after a poison was legally laid—an agricultural thing—an offence has been committed, but the issue is detecting the person who was responsible.

It is about having greater public awareness. The number of people who report wildlife crime to the SSPCA and the police is higher than it has ever been. It is well known that there are concerns out there.

David Green: The difficulty is the one that has been alluded to: such offences occur in places where they are not necessarily observed—in remote areas and so on—and the gathering of evidence is a problem. As Mike Flynn said, poisoned raptors are found, but were they poisoned where they were found or many, many miles away? All of those things present us with challenges. We do whatever we can, working with partners, to get sufficient evidence and, in all cases in which it is possible to do so—in which there is sufficient evidence—we will take proceedings, because that is what we do.

Sara Shaw: We stated before that we are committed to tackling wildlife crime and, in particular, raptor persecution. We take the matter seriously, and we have stated to the committee before and in correspondence that there is a strong presumption in favour of prosecution in cases that are reported to us when there is sufficient admissible evidence and it is in the public interest to raise the prosecution. Where we can, we will.

Detective Chief Superintendent McLaren: I chair the raptor priority group. It is fair to say that that group, with a host of partners around the table, works in quite a challenging partnership environment. Certainly, it is one of the most challenging partnership environments that I have worked in, from a policing point of view, given that there are people around the table who are at different ends of the spectrum in terms of their values—there are conservationists as well as those who are involved in the game industry. Our focus is on getting everyone working together around initiatives relating to the prevention, enforcement and intelligence side of things. I sit at

that table feeling that I have people's full support in pursuit of the crime reduction, prevention and investigation aspect of things. Lots of work is going on but, as others have said, there are great challenges, given the nature of the crime.

Mark Ruskell: With regard to the gathering of intelligence, when the committee took evidence on the previous wildlife crime report, we discussed the issue of scientific data. The report that we are discussing today mentions the bird of prey persecution maps, and we are aware that there are other forms of intelligence on population that can point to where persecution is most likely happening. One year on from our previous session on this, can you describe how you are now using that data, particularly in the light of the work on satellite tagging, to drill down and find out where that illegal activity is taking place? It is clear that illegal activity is taking place; there is, in all probability, no other reason why the birds are disappearing and why the satellite tags are stopping working. How are you using that hard ecological population data to drill down and stop the criminals?

Detective Chief Superintendent McLaren: That data is useful. As I said, we will absolutely take on board any information or data that we can use to assess problems or trends in various areas.

With regard to your point about satellite tags, I think that the reliability is improving. They have not always been greatly reliable. In the past six months to a year, there have been instances of birds seeming to disappear and then to reappear due to issues with the tags. That is always a challenge for us.

On the recording of crime, we need to be absolutely certain that a crime has taken place—as opposed to just considering that, in all probability, a crime has taken place—before we can record the incident as a crime. However, that is not to say that the information received is not used as intelligence to support further investigative work, applications to the Crown Office for warrants or any other activity that we want to undertake.

Mark Ruskell: In the 12 months since we last talked to the police about the issue, what has changed in how you are using that population data? Your predecessor gave a commitment to use that data more in your intelligence-led policing. How does that work with regard to special constables and information on the ground? You are clearly saying that, in many communities, there is a wall of silence—an omerta—around the evidence and that you have to use the data to work around that and drill down into what is happening.

Detective Chief Superintendent McLaren: We use the data to identify problem areas, and, when

we know that crimes have been committed, we can use that data in a way that is supportive of our investigation.

I take your point about species populations, but the issue is complicated. I am not a wildlife expert, and we have, on the one hand, reports that say that population decline is absolutely due to persecution, while, in other cases, we know that there are wider issues—for example, climate change—with certain species regarding the areas where we are trying to reintroduce them. The issue is not always persecution.

From an investigative point of view, we work with facts in trying to gather evidence. Intelligence is useful to support our investigations, and hard and fast facts that are actionable often just support the intelligence. We can use that information to get warrants, for example. Intelligence is therefore helpful, but the situations are not always black and white.

Mark Ruskell: Does the SSPCA have a view on that? I suppose you are quite constrained in what you can and cannot do at present.

Mike Flynn: A lot of the scientific evidence that has come out would not kick off any investigations for us. We know that things are going on in certain areas, but so do the police. Where evidence can be found, it will be reported.

Detective Chief Superintendent McLaren: | reassure the committee that, when satellite-tagged birds disappear, although that is not dealt with as an investigation to begin with, we will investigate it. For example, there was a case three or four weeks ago, down in the Borders, where a golden eagle went missing. We deployed a team down there with a search-and-recovery dog and recovered the bird, but the initial indications are that it died of natural causes. There was no crime in that case, but there was a fair amount of police activity in trying to identify whether a crime had occurred, and I reassure the committee that that example is not a one-off. If partners come to us and say that a bird from a protected species has disappeared and that the tag was last registered in X, Y or Z area, we will deploy and search with partners in that area, and we will, when appropriate, engage with the landowner.

The Convener: Some members want to come in on that theme. Claudia Beamish is first.

Claudia Beamish: I want to explore the issue further. In my South Scotland region, in the Leadhills and Wanlockhead area—it would not be appropriate to name the estate—there has been significant reporting of wildlife crime for the past 20 years, and it appears to be pretty intractable. To what degree can the police, with the help of the SSPCA, all partners and the public, focus on such areas and deploy what I appreciate are limited

resources to crack a problem that has gone on for far too long?

Detective Chief Superintendent McLaren: It is difficult to speak about individual cases and areas, but, as a starting point—

Claudia Beamish: I am giving that as an example.

Detective Chief Superintendent McLaren: Absolutely. I have been an investigator for all of my service in the police, and nothing hurts more than criticism about the level or efficiency of our investigations in any area of policing. I reassure the committee that, when crimes are reported to us, we seek every opportunity to detect those offences. We have covered in this evidence session the challenges that exist, but, if there is anything that we can do with our partners to obtain evidence so that we can report individuals to the procurator fiscal, we take those opportunities.

John Scott: I have two questions. First, I am interested in the reliability of the tags. I had assumed, perhaps naively, that they were 100 per cent reliable. If they are not as reliable as I had assumed, can you talk a bit about that? Also, have climate change and, in particular, the adverse winter weather conditions last year—the beast from the east—which certainly affected farming, affected the survival of all wildlife?

10:30

Detective Chief Superintendent McLaren: | am afraid to say that climate change and the survival of all wildlife are not really my bag-you will have to ask someone else about those issues. As far as the reliability of tags is concerned, improvements in technology mean that the quality of the devices that are being used is a million miles on from what it was years ago. However, there is still a margin of failure. Some tags are out in the extremes for a long time, they have issues and they fail. I have read reports about their reliability, but I do not want to get into the detail of the operational environment and why the tags on birds might fail. From an investigator's point of view, it is often difficult to hang your hat on a tag's disappearance definitely being the result of persecution. There is no doubt that that will be the case on some occasions, but differentiating between tag failure and persecution is a real challenge.

The Convener: Mark Ruskell will finish off this theme.

Mark Ruskell: I will go back very quickly to vicarious liability. Will any of the developments that we are expecting with regard to land reform and the new public register of controlling interests in land have any bearing on the ability of COPFS

to bring prosecutions under vicarious liability? Will they make that sort of thing easier?

Sara Shaw: It might assist in identifying the owner of an estate and facilitate the obtaining of evidence. I cannot comment on the detail of the changes, because I am not sighted on them, but such moves might well assist us.

Mark Ruskell: The register will extend beyond the owner to controlling interests, which might not be transparent.

Sara Shaw: I am sorry, but I am not sighted on the detail of those proposals.

Mark Ruskell: That is okay. We will wait and see.

John Scott: My next question is quite topical. Has Police Scotland discussed with the Scottish Government how the enforcement of laws under the Convention on International Trade in Endangered Species of Wild Flora and Fauna might be impacted by a no-deal Brexit?

Detective Chief Superintendent McLaren: We are monitoring that closely, but at this time we are unclear about what changes might come about in terms of the movement of CITES. The issue is on our radar and, when we have a clearer picture of Brexit and what some of the controls might be, we will adapt our processes. That engagement is ongoing.

John Scott: It is work in progress. Thank you very much.

The Convener: I believe that Angus MacDonald has some questions on freshwater pearl mussels.

Angus MacDonald: Indeed, convener. There has been some good work on tackling freshwater pearl mussel extraction, including the riverwatch schemes that have been established by the LIFE+ pearls in peril project. Can the panel provide more information on the outcomes of operation Caesar, which investigated the routes for the sale of freshwater pearl mussels, and on how those outcomes are being used or built on?

Detective Chief Superintendent McLaren: I am not sighted on that particular operation, but I can feed back to you on it.

Angus MacDonald: But you have heard of it.

Detective Chief Superintendent McLaren: I am familiar with the details of the operation, but not in any great depth, and I would not be comfortable to talk in any detail about it. However, I will say that with any operations or initiatives that we have, we pick up the sort of learning that you are talking about as a matter of routine and share it across all the different wildlife crime areas. If there are any learning opportunities, we make sure that they are realised across the board. I can

certainly get back to you with some of the finer detail about that operation.

The Convener: That would be most welcome. Stewart Stevenson has some questions about poaching and coursing.

Stewart Stevenson: I think that they have been covered, convener.

The Convener: Indeed. Finlay, did you have any questions on this?

Finlay Carson: I think that Mark Ruskell has some questions, too, but I would like to know where the figures for hunting with dogs or using dogs for fox control come into this.

Detective Chief Superintendent McLaren: In relation to cruelty?

Finlay Carson: In relation to crimes committed with dogs.

Detective Chief Superintendent McLaren: I am sorry, but I am not quite clear what the question is.

Finlay Carson: Table 1, of recorded wildlife crime, has information about hunting with dogs, in which there has been a marked decrease. Does that suggest that the introduction of the voluntary good practice guide is working?

Detective Chief Superintendent McLaren: It is difficult to say, given the numbers. We would hope that the guide's introduction has had an influence, but given the low numbers and the fluctuations over past years, it is difficult to make an assessment of its success or otherwise.

The Convener: Mark Ruskell has questions for the SSPCA.

Mark Ruskell: I want to explore the relationship between the SSPCA and Police Scotland and how that works in practice and the options that are available to Government—we have already mentioned special constables and their enhanced role in one area of Scotland.

What is your view on how the relationship works, and what the difference is between the treatment of wildlife crimes and that of crimes involving animals that are under the control of man, under the legislation?

Mike Flynn: Every day our inspectors work with members of Police Scotland. There have been occasions, particularly wildlife incidents, when we did not know anything about it until after the event. I am not saying that we should have known, particularly if the police were dealing with it. The cabinet secretary declined to give us powers under the Wildlife and Countryside Act 1981, but we can still deal with incidents concerning a wild animal or bird and we work constantly with the

police. We could not do a lot of our job without Police Scotland's assistance. In general, the cooperation between us is very good. Like anything else, there are areas in which it could be better.

Detective Chief Superintendent McLaren: I agree with that. We work with a lot of partners across wildlife crime. Given the numbers of crimes that are reported to us and the way in which they are spread across the country, our officers who deal with them have not always dealt with lots of wildlife crime before—I talked earlier about our wildlife crime liaison officers in the divisions providing support.

We do not always get engagement with partners right, but we have good working relationships so that, if we have issues, key individuals can pick up the phone to each other to iron them out. We welcome the SSPCA's support, particularly on intelligence information that goes much wider than wildlife crime to serious and organised crime—the SSPCA is a really valued partner for that. Like all partnership working, ours has evolved; it is not always plain sailing, but as long as we have the shared objective to tackle and investigate wildlife crime, we will always find a way.

Mike Flynn: Some of our special investigations have involved working with intervention units, which are having fantastic successes on animal welfare and on a range of things for Police Scotland. For example, we are working closely on known badger baiters and diggers. The relationship works very well in many areas.

Mark Ruskell: Would Police Scotland have any concerns if the SSPCA's powers with regard to wildlife crime were extended? Would that create practical issues on the ground?

Detective Chief Superintendent McLaren: In our submission about 18 months or two years ago, we were quite clear in our view that the power to investigate crime sits with Police Scotland and that the SSPCA is a key partner in support of that. I do not think that our position has changed, although I would have to see what your proposals and suggestions would be and whether they were different from the previous ones. I take you back to what I said five minutes ago: as long as we have the shared objectives of investigation and prevention, we have a good working relationship.

Mark Ruskell: What is the SSPCA's view? Are you actively seeking more powers? In your discussions with Government, are there any concerns? If so, what are they and what would you be able to address?

Mike Flynn: To be honest, we were informed at the same time as everybody else, when the Cabinet Secretary for Environment, Climate Change and Land Reform made her statement. If there was an issue, we never received a clear

definition of what it was. The original suggestion was made by Peter Peacock MSP, during the passage of the Wildlife and Natural Environment (Scotland) Bill. We accepted that and made the offer, which still stands.

After the announcement was made, we wrote to the cabinet secretary to say that, if the Government wanted to review the situation in five years' time, our offer would still be on the table. Regardless of that, as David McLaren said, our inspectors from Shetland to Stranraer are there to assist the police under the current set-up, as set out in the legislation, every day of the year.

Mark Ruskell: Under the law, the SSPCA has substantial animal welfare powers, particularly in relation to domestic animals that are under the control of man. Have issues been raised about the modernisation of the governance of those powers? Is the SSPCA fit for purpose in discharging and extending those duties?

Mike Flynn: Yes.

Mark Ruskell: Is your board aware of the issues?

Mike Flynn: Yes. The rules on disclosure and prosecution in relation to domestic animals are the same as those in relation to wild animals. With regard to the police's statement that they have primacy over wildlife crime, I made the argument at the time that, if we take it to that extreme, the police have primacy over dealing with domestic dogs that have been starved or kicked. Those are still crimes.

I have never understood why we can have powers over all domestic animals, which account for 95 per cent of our work and which include livestock as well as dogs and cats, but we are not considered fit for purpose in what is the smallest part of our work. However, we did not go in a huff when the cabinet secretary said that we could not get the powers. We still assist the police, and we need the police to assist us. We do not want that to change.

Mark Ruskell: What does the extent of your powers mean in a practical sense? What happens on the ground? For example, if you saw someone hitting a horse in an enclosed paddock, what could you do that you could not do if you saw the same person hitting a wild animal or destroying a fox inhumanely outside that enclosed paddock? I am not entirely clear what the big difference is.

Mike Flynn: It is quite easy. A lot of it is on the prevention side. If a badger has been caught in a snare but is still alive, we can deal with it because there is a genuine welfare issue and we can relieve suffering. Whether such an incident resulted in a prosecution is a different matter,

because our purpose is to protect the animal's welfare.

However, under section 19 of the 2011 act, if we remove a badger that has been caught in an illegal snare and we suspect that there might be other snares that could cause similar injuries, we have no right to retrieve them as evidence. We need to withdraw, report the matter to the police and hope that the police have the resources at that time to deal with it. We are talking about rural areas, so it could take two and a half days to search for illegal snares. During that time, no animal might be suffering, but every snare could catch something.

The main difference is that, if a live animal or bird is involved, we will deal with the incident and secure the welfare of the animal. We will then use whatever means to try to get the police to take the matter further.

Mark Ruskell: How would the police respond to such a situation?

Detective Chief Superintendent McLaren: As Mike Flynn said, we will attend the incident, depending on the location and the demand at the time. In our submission during the consideration of extending powers, we said that we hoped that the SSPCA's powers could be extended to allow it to seize evidence in such a scenario, so that there would be no loss of evidence. More often than not, we are able to attend incidents, and I am not aware of cases in which there has been a loss of evidence through the police being unable to attend or there being a delay.

Mike Flynn: The only cases that I can think of are those in which we have reported the matter to the police because we do not have the right to do anything, and a constable has not been available. There have been occasions when the police have bounced the matter back to us and said that we will need to do something because they cannot send someone. In the past, the police have said that an issue will be dealt with by a wildlife officer, but they might be off for the weekend. Our concern is that, in that case, there could still be illegal snares in the area that could damage something.

Mark Ruskell: Has that happened?

Mike Flynn: It has happened but, to be fair, it is rare.

Mark Ruskell: As an organisation, where can you add value? Where can you make the biggest impact in tackling wildlife crime? Is it badgers, bats, raptors or fox hunting with dogs?

10:45

Mike Flynn: We have had some good success with badger-related crime, as opposed to crimes

under the Protection of Badgers Act 1992, where you catch the offender at the sett. The majority of what we get is bashed-up dogs, where further corroborative evidence, such as videos, shows that the dog was injured because it was fighting a badger. In every one of those cases, we work closely with Police Scotland, because most of the people involved are also regular clients of Police Scotland.

Mark Ruskell: Indeed. Does Police Scotland have a view on where the SSPCA could bring additional value?

Detective Chief Superintendent McLaren: The SSPCA absolutely brings value, as do many of the partners that we investigate with. Each brings something different to the table. Quite often, when we are carrying out searches across all types of wildlife crime, we have a mixed resource. I would not pick one particular area. When we are investigating a crime, depending on the circumstances we will call upon different partners to support us where they can.

I have been involved in wildlife crime on and off for five or six years, and in that time there has been a massive shift and improvement in partnership working and our response to wildlife crime. It is like everything, though: there is still room for improvement. Partnership working will continue and I hope that we will continue to improve things.

Mark Ruskell: What is more effective, special constables or the SSPCA? Or is that the wrong question, because you need them all working together?

Detective Chief Superintendent McLaren: That is comparing apples with pears. The SSPCA has a clear role because of its expertise and function. Special constables have a different role altogether. We talked earlier about the difference between wildlife crime and rural crime. As far as a special constable is concerned, crime is crime, and they are there as a guard, watch and patrol, whereas the SSPCA has quite a narrow role in terms of crime.

Mike Flynn: There really has to be shared and trusted support either way. When people think about wildlife crime, they think about a poisoned bird and someone being reported, but an investigation involves a huge amount of work. Let us take badgers, for instance. If we take into account the veterinary and pathology reports, and the items that are seized by the police, such as mobile phones, that is hours and hours of work, which we regularly share with the police. To be honest, I have known a lot of police constables, mainly in middle management—sergeants and inspectors—who are delighted that we get involved, because instead of taking up a

constable's time for two shifts, they are used for an hour. We can get warrants in our name. We never serve a warrant without the presence of the police. If we have a warrant issued by the Crown Office, the police will always assist us.

John Scott: Mike Flynn referred to Peter Peacock and the third session of Parliament. Did you say that it was Peter Peacock's proposal on the Wildlife and Natural Environment (Scotland) Bill that was not accepted? Remarkably, I was the deputy convener of the committee that considered the bill, and the same minister, Roseanna Cunningham—then as now—also looked at the situation. That must be 10 years ago. I know that you are awaiting the evaluation, but on the evidence thus far, would you say that the development of special constables is the way forward to further reduce wildlife and rural crime? Would you be happy with enhancing the status quo?

Detective Chief Superintendent McLaren: I would prefer to wait until I see the evaluation and fully understand the success or otherwise of the initiative. I go back to what I said earlier. The focus should be on any opportunities or suggestions for a better or more effective way to deploy our resources and have them in the right place at the right time.

As I also said earlier, our resources are finite. Lots of different challenges and demands are placed on us. We will wait and see what the evaluation says and take it from there.

The Convener: I want to ask about drones. I have a constituency interest, because the Ythan has the largest seal haul-out site in the United Kingdom—I am proud of that, as you can probably tell—and there have been instances of drones disturbing the colony. That is probably unintentional in the majority of cases. Have you come across instances of drones being used with intent to cause harm or distress to wild animals?

Detective Chief Superintendent McLaren: I am not aware of any cases, but that is not to say that there have been no such cases. We deal with reports on a case-by-case basis; if there was a suggestion of criminality, we would investigate.

You are right to raise the issue. The use of drones has taken off—pardon the pun—and lots of people are using them, for a host of reasons. I imagine that they are used to monitor wildlife legitimately, but perhaps some people are not thinking about the consequences of what they are doing.

The Convener: Has Mike Flynn come across drones being used for a negative purpose?

Mike Flynn: I have heard of that happening, although nothing has been proven. The issue was

raised at the legislation, regulation and guidance sub-group of the partnership for action against wildlife crime in Scotland, which Professor Colin Reid chairs.

Scottish Natural Heritage is considering whether people should require a licence to use drones for certain purposes, because people have been taking aerial photographs of birds of prey, and if a drone gets too close to the nest it can disturb the birds and ruin the nesting site. SNH is actively looking at that.

The Convener: Okay. So far, there is no recorded criminality involving drones.

Detective Chief Superintendent McLaren: Not that I am aware of, but I can get back to you.

The Convener: Okay. It is an interesting area. John Scott has questions on beavers.

John Scott: Police Scotland will be aware that a Scottish statutory instrument has been laid to make beavers a European protected species. Have you considered how unlicensed interventions, including unlicensed culling, will be approached in the initial period after the instrument comes into force, and indeed thereafter?

Detective Chief Superintendent McLaren: I saw the news about that, two or three weeks ago. It is work in progress. We plan to sit down and consider the implications of the legislation. I guess that, as with all wildlife crime, we will seek a partnership approach to tackling any issues that arise.

John Scott: Do you foresee particular challenges in relation to the enforcement that is envisaged? Will there be an additional workload? How do you see things developing?

Detective Chief Superintendent McLaren: There are challenges right across the wildlife crime arena. The approach that we take to other types of wildlife crime works well, and I see no reason why it cannot be replicated to deal with issues to do with beavers. We will have to see how things play out in the fullness of time.

John Scott: Okay. Thank you.

The Convener: I think that that concludes our questions. I thank the witnesses very much for spending time with us and answering our questions.

10:53

Meeting suspended.

10:59

On resuming—

Subordinate Legislation

Conservation of Salmon (Scotland) Amendment Regulations 2019 (SSI 2019/56)

The Convener: Agenda item 3 is an evidence-taking session on a Scottish statutory instrument. I welcome to the meeting Simon Dryden, policy team leader, and Keith Main, policy manager, salmon and recreational fisheries, Marine Scotland; and Dr John Armstrong, director of freshwater fisheries laboratory, Marine Scotland science. Good morning to you all.

I will open by asking about the concerns that were raised in the consultation on the regulations and how they have been addressed.

Keith Main (Marine Scotland): The consultation ran from October to November last year, and we had representations from 39 individuals, which—for probably all sorts of reasons—was a significantly lower number than we had for last year's consultation.

The concerns that were raised were actually quite balanced. A number of people expressed concern that individual river gradings were too low-indeed, one or two of those concerns had come to us before. We have written to people to that, although the assessment methodology has moved on guite significantly in the 12 months since last time and although we have made some significant changes, our assessment remains that the rivers in question are below their conservation status and that it is not sustainable to allow people to kill and retain salmon. However, fishing continues on those rivers.

Almost exactly the same number of people said to us, "We think you've given our river too high a grading." There might be all sorts of reasons for that; one or two people told me that they were concerned that it gave an impression that the good times were back and there were lots of salmon in the river. Ever since the cabinet secretary launched the consultation in October and throughout our messaging on this, we have made it clear-and will continue to make it clear-that that is not the case and that there is a continuing downward trend in salmon returning to Scottish waters. The decline is actually quite steady at the moment. We are doing all sorts of things to try to address that, and I am sure that Simon Dryden and John Armstrong will talk about them later.

In short, we have made it very clear that within the boundaries of the model that we have developed, we can allow fish to be caught and retained on a greater number of rivers, but proper management arrangements must be in place. Quite a few rivers have gone from grade 3, which is mandatory catch and release, to grade 2, and we have made it clear this year that, with grade 2 rivers, the first line of defence is for catch and release to keep being promoted. Indeed, in grade 1 rivers where we think that exploitation continues to be sustainable, we always encourage people to catch and release as much as possible. In fact, every year more than 90 per cent of all fish caught by anglers are returned to the waters, which is helpful.

A number of individual cases were highlighted in the consultation. We have endeavoured to engage with everybody, and we have had quite an exchange of correspondence with all 39 of those who responded to the consultation, whether they were individual anglers, boards or whatever. We have written to them sometimes two or three times; we have talked to them on the phone; and we have had meetings with one or two of them. Indeed, later this week, we will have a catch-up meeting with the Loch Lomond Improvement Association, with which we engaged last year on a number of issues, and next week we will meet the Forth Rivers Trust. That is part of our on-going engagement to find out people's concerns with regard to the rivers.

The general message that emerged was that people accepted that we had taken big steps in developing the model this year. Some people still think that we have got things fundamentally wrong and that adult modelling is not the right approach, but we are doing other things around that. However, on the whole, we got a kind of split message this year. It was a bit odd.

The Convener: You said that you received many fewer submissions this time. Is that an indication of the general acceptance that these things have to be done and that angling can be enjoyed but the fish have to be released afterwards? Has there been a general change in attitudes in that respect?

Keith Main: To be honest, although I would like to think that that is the case, we should bear in mind that more than half the 192 representations that we received last year were from the Loch Lomond Angling Improvement Association and its members, who mobilised and had a letter-writing campaign. In terms of the pure numbers of people involved, that is where we were with the Loch Lomond assessment. This year, because of the ways in which we have changed the assessment and, for example, recalculated egg targets, people can retain fish in the Loch Lomond fishery. As a result, we have not had that letter-writing campaign; in fact, one or two people have said to

us, "Thank you—we agree with what you've done", and have stepped back.

If people think that they are not being forced to put back fish this year, it might simply be a case of their not wanting to stir the pot—they might simply be keeping their heads down. That is part of it, but I hope that we will also get the message across better.

Simon Dryden (Marine Scotland): Another part of the equation is that, last season, we successfully conducted national electrofishing surveys that sampled juveniles. Some of the criticism from anglers is that our assessment is based on adult returns, and they want us to take into consideration an assessment of juvenile abundance in rivers. We have made substantive steps towards that—nearly 800 sites were sampled last year. Although that work was driven by local biologists, volunteers took part in the process in a lot of areas. The work had a lot of coverage on social media.

I hope that the work will have a positive outcome. We committed to report the output from the exercise by the end of this month, and we are on track to do that and to share that paper with local biologists.

John Scott: The methodological changes between the 2018 and 2019 assessments appear to indicate an improvement in the status of salmon in a variety of rivers, when that is not the case. What are the practical implications of the different assessment method—how the egg requirements for each river are calculated and so on?

Dr John Armstrong (Marine Scotland Science): We have looked at additional data, and the assessment, which looks at the number of eggs required, is now based on Scottish data exclusively. Previously, we brought in data from various countries at the same latitude, but because we can now target our required estimates at Scottish rivers, we can get a more accurate and much narrower band of what is required. It so happens that we require fewer eggs than we thought we needed with the previous information.

John Scott: That explains the uplift in improvement.

Dr Armstrong: Yes.

John Scott: However, there is no real change, because it is just a different way of measuring things.

Dr Armstrong: That is correct. If one uses that method retrospectively, one finds that there is a continuing decline in the number of eggs being deposited by salmon generally, so we need to be a bit cautious. It looks as though rivers are in better condition, because of the new method;

nevertheless, there is still a downward trend in salmon numbers.

John Scott: Why is the number of deposited eggs in decline?

Dr Armstrong: The numbers of salmon returning from the sea are continuing to decline and their size is decreasing. Smaller fish have fewer eggs. Those two factors contribute to the decline.

John Scott: To be parochial for a moment, I notice that the rivers in Ayrshire—with the notable exception of the esteemed River Stinchar—are all grade 2 or worse. Certainly, the people in Ayrshire believe that the position is, to an extent, affected by fish farming further west and north, as the route that the salmon take goes through those fish farms on the way to the rivers. As a farmer, it seems to me that obstacles such as sea lice will, in all probability, reduce fertility, leading to the production of fewer eggs and affecting the fish numbers in rivers. I am essentially making up a proposition as I go along, but does it make sense that that might be one of the factors affecting the numbers of salmon in rivers?

Dr Armstrong: It is possible that sea lice will reduce the condition of adult salmon. A paper that was published recently hinted at that. However, the reduction in condition was quite small, so any impact from higher levels of sea lice on the fecundity of returning fish would probably be relatively small.

John Scott: Might I suggest that more work should be done on that? As a farmer, I know that things such as lice and ticks on sheep and other land-based livestock take down condition and thereby reduce fertility. There is a lot of veterinary work on that in mammals. I would welcome a further look at that.

Simon Dryden: I have been having a lot of dialogue with the Ayrshire Rivers Trust, and one of the major issues that it is seeking to contend with is diffuse pollution and sedimentation from farmland. It has been doing a lot of good work on green bank engineering to shore up river banks, on riparian tree planting and on fencing. Just this week, I have been collaborating with it on a bid that it is putting in to Scottish Natural Heritage to try to take advantage of the new biodiversity fund that was launched on 11 February. SNH is promoting bids of between £100,000 and £200,000, which need to be in by 5 April, and the Ayrshire Rivers Trust is going to put forward a bid with our support for work that will seek to progress the already good work that it has done with those three elements—fencing, riparian tree planting and green bank engineering.

John Scott: That is very helpful. Thank you.

Claudia Beamish: Two years ago, as those of you who were involved at the time will know, a considerable number of very serious concerns were held by local groups, and not just in Loch Lomond. It needs to be recorded in the Official Report that such concerns now appear to be much smaller in number, and the granularity of the science has certainly helped with that. I want to have that recorded.

I would like to ask two quick questions about the changes to the methodology. Two years ago—and, if I recall correctly, last year as well—there were concerns about the development of the egg requirements. I understand that 11 sites are now being assessed in relation to the egg targets. Are there plans to increase that number, partly in view of public confidence, but also in terms of the verification of science throughout Scotland?

Dr Armstrong: Yes. Where we can put in new fish counters, as we hope to, it will give us opportunities to generate stock recruitment relationships, which are used to come up with the egg targets. As things roll forward, we should continually increase the accuracy of the approach.

Claudia Beamish: On the adult assessments, I understand that the updated methods remove the geographical component from the process, with the relationship between catch and salmon numbers being determined by month and flow conditions. Will one of you—whoever is the appropriate person to do so—explain in more detail the benefit to the returning number of the removal of the geographical component? It is not clear to me why the geographical area is not considered along with the month and flow. Does that distort the overall picture, or not? Will you explain that to me and the committee, as laypeople? Well, I am a layperson, for sure.

Dr Armstrong: Geographical area is still considered as a possible factor in the models, but it so happens that, as more information has gone in, it no longer comes out as a significant factor.

Claudia Beamish: For those who will be looking at the *Official Report* for reassurance, will you explain why it is not regarded as significant?

Dr Armstrong: That is an interesting question. It is probably a statistical issue in that, when you have relatively few data, spurious factors can come out as being significant. As the availability of data increases, you get a more realistic assessment. I do not think that there is any great reason for geographical area not being significant, other than that it does not show any effect that is worth considering.

11:15

Claudia Beamish: I am sure that that will reassure people who wanted to know the answer to that.

John Scott: May I butt in? Are you saying, in essence, that the lack of data makes the findings statistically insignificant?

Dr Armstrong: One can look at how a range of factors, such as water flow, altitude and position in the country, influence the efficiency with which anglers catch fish. We are trying to work out which of those factors are important ones that should be retained in an overall model. As we have put more data into the pot, we have found that geographical position is no longer an important factor. That is perfectly reasonable—it is not obvious why it would be easier to catch a fish in the north than it would be in the south, but it so happens that in an earlier model, which involved fewer data. geographical position came out as being significant, probably because the numbers were rather low and it just so happened that there were a couple of high figures in the north.

John Scott: I expect that the skill of the fishermen is likely to be much more important than anything else.

Dr Armstrong: If that varies around the country, it will come out in the model.

Mark Ruskell: I am trying to get my head round how we have got to this point. I understand that the framework was brought in because of potential infraction proceedings in the European Union because of the conservation status of the salmon. The original driver was to do with the status of the salmon, not the status of angling associations. That is why we have the system in place.

However, it seems very counterintuitive that you are proposing that the river gradings be increased to allow catch and kill at a time when, unfortunately, the conservation status of salmon is declining rather than improving. The approach that you advocate seems to fly in the face of the precautionary principle. Are you not concerned that the EU might look at the matter again and say, "We see that you have a management framework in place, but the decisions that are being made are not precautionary and the conservation status of the species is failing"?

Simon Dryden: It is important to say that, with the wild sector, we have identified 12 groups of pressures that are impacting salmon, all of which we want to mitigate and address. Focusing on any single one of those groups of pressures, such as exploitation—the pressure from angling—is not the panacea when it comes to resolving the problems of wild salmon.

Let us look at angling specifically. The anglers are catching approximately 10 per cent of the stock, 90 per cent of which, on average, they are releasing. In other words, they are intentionally killing about 1 per cent of the stock. We estimate that, of the 90 per cent that the anglers release, 10 per cent of the fish will die as a result of the angling activity before spawning, even though they have been released. In a grade 1 river where our science suggests that the conservation limits are being met—we want to be science led—a potential 2 per cent impact on the stock is reasonable, especially given the social and economic benefits. On the River Tweed, for example, angling contributes £24 million to the rural economy. I am afraid that I do not know what the split is elsewhere; the Tweed is just a good example.

At the moment, we consider that we have got the balance right when it comes to the impact of angling, taking into account environmental, social and economic considerations, and allowing for retention in rivers where we assess scientifically that there is sufficient stock to allow some retention.

Mark Ruskell: You mentioned a principle in European law that amounts to a test of reasonableness. Has there been any assessment in the past year of the impact of the decisions that were made previously on the grading of rivers? Has moving a river from grade 1 to grade 2 or grade 3 had any impact in terms of the socioeconomic advantages of being able to catch and kill rather than catch and release? Do you follow what I am saying?

Simon Dryden: I think that I do.

Mark Ruskell: Basically, are there fewer people fishing as a result of a river going from grade 1 to grade 3? Does that stand up in terms of your decisions?

Simon Dryden: We are not sure whether there are fewer people fishing in rivers. However, at the moment, Scottish Enterprise, with two consultants, is conducting a three-month study to consider the issue. That study is looking at four areas of Scotland, and Scottish Enterprise will share the results of that study with us.

Mark Ruskell: So, when you say that, for economic reasons, it would be reasonable to allow catch-and-kill angling on a certain river rather than catch and return, you do not have an economic basis for that argument, although you might have in three months' time.

Keith Main: We have not done a study at the moment—absolutely not. As Simon Dryden says, Scottish Enterprise is looking at the issues in relation to some of the rivers on the east coast of Scotland.

This year and, particularly in the past two years, a lot of angling clubs, district salmon fishery boards and individuals have expressed concern through our consultation process that too many rivers have been assessed as grade 3. They have told us that that will have an impact on membership numbers, local businesses, bed-and-breakfasts, caravan sites and all the value-added elements around angling.

Mark Ruskell: I am keen to see what the evidence is on that. To be parochial, I live on the River Teith, which is a salmon river. It is a grade 1 river, but I think that the policy on the river has been not to allow catch-and-kill angling.

Simon Dryden: Yes.

Mark Ruskell: I still see people angling, I still see the launch of the salmon season being very successful, with distilleries getting involved in sponsoring the activity and so on. It all looks good to me. I am not sure whether even the voluntary restriction that is in place is turning people away.

Simon Dryden: I accept that we do not have a lot of data on that. In addition to the Scottish Enterprise study that is starting, we have launched the collection of effort data for this season. We hope that, over time, that will show us trends in effort, and we might be able to compare that against the grading of rivers to see whether there is an impact.

Fundamentally, the grading is science driven; as you said at the start of your questioning, it is conservation led. We are not setting the grades in relation to fisheries; we are setting them in relation to the conservation of salmon.

The Convener: Finlay Carson wants to ask a question on this theme.

Finlay Carson: I am confused by what you say about the evidence showing that the status of salmon in the rivers is decreasing. This year, we have 43 rivers where the grade has risen and only eight where the grade has fallen. You are saying that that is based on scientific evidence, but you are also saying that it is almost insignificant. I cannot quite marry up the two aspects. In the past, you based most of the conservation efforts on reducing the ability of anglers to catch and kill. However, this year, when the figures still show that there is a reduction in salmon in the rivers, the gradings have gone up. I cannot quite get my head round how, previously, the action that you were taking was all-important but, now, it does not seem to be quite so significant.

Simon Dryden: I will start, and John Armstrong might want to comment on the science. Essentially, what we are saying is that, if we had used the latest science—our improved egg targets—in 2016 and every subsequent year,

there would have been, historically, more rivers in the grade 1 and grade 2 categories.

We could be criticised for being too precautionary in previous seasons. We have given rivers a grade historically that required anglers to catch and release, but subsequent data—better science—has shown that we did not need to do that. For 2016 and subsequent years, we have published the number of rivers that would have been in grades 1 and 2 using the current methodology, so that anglers can see the graph and trend. We want to explain that the issue is not about stocks but about our evaluation or assessment of the stocks getting better and that we need to be science led. Some rivers had to be catch and release previously, but that was too precautionary.

Finlay Carson: So it is being admitted that basing the grade of a river on catch and release was flawed and that the grade was not scientifically based.

Simon Dryden: It was the best available science previously. We have always said that. Season on season, we have said that it is the best available science. What we have said this year is that, because we have been changing the methodology year on year, we now feel that we should freeze the methodology until the 2022 season. During that period, we will have our current methodology peer reviewed, which was something that was discussed at the committee last year. If you like, John Armstrong can talk in more detail about the progress that we are already making on that peer review. The catch data input into the model will change, but the methodology will not because we are freezing it so that we will get like for like going forward.

Keith Main: It may be worth emphasising that this is only the fourth year in which we are giving gradings and the regulations apply. As Mr Ruskell said, the measures were brought in largely because of the threat of infraction procedure from the European Union. We introduced a number of measures, such as spring conservation measures under which we changed the closed time for a lot of rivers, which is when people are not allowed to take fish. That was one of the measures that we introduced in 2015-16.

When we introduced the first set of regulations, our modelling was fairly new and broad brush. In the first set of regulations for the 2016 season, we assessed on the basis of fisheries districts. There were about 100 districts, which were, in broad terms, defined in the original Victorian legislation from the 1860s. We have refined that further each year. In the second year, for example, we responded to calls to assess individual rivers; and last year and this year, we have added more rivers to the assessment.

There has also been an awful lot of work on the scientific side to look at what is happening elsewhere, to refine the model and to respond to dialogue that we have had with fisheries trusts and boards, anglers and, indeed, the committee. We want individual rivers to be looked at; instead of using an all-Scotland target for egg deposition, we want to home in on individual rivers. It is all about improving the science. That does not necessarily mean that the science was wrong last year; it just means that it was the best we had available. There has been a lot of work to change the model this year.

I am no scientist, but it seems to me that the egg targets for the majority of rivers in Scotland have halved. The broad arithmetic means that the conservation requirement has changed, so we think that the models can allow some exploitation of fish on rivers. We know that the majority of anglers continue to return fish—more than 90 per cent of the fish that are caught are returned. Catch and release is therefore not something that we have imposed but something that exists and which people understand. River managers and anglers understand the need to engage in that conservation.

We are not pulling the rug out from under the previous science but responding all the time and making the science better. As Simon Dryden said, that means that we were arguably too precautionary last year. We still have a precautionary model, but it has a wee bit more room in it for some rivers and fisheries this year.

Stewart Stevenson: I have two questions relating to the 2 per cent figure and I will ask the difficult one first. Does 2 per cent mortality from fishing have any effect on the number of fish that come from the eggs and return to the sea? I can see two issues. If there are fewer young fish, there will be more food per fish, but there will also be fewer fish for predators to predate on. Therefore, I can see one pull and one push. Is it understood whether the 2 per cent mortality is statistically or causally having an effect on the number of fish that leave to sea after the reproductive cycle is complete?

11:30

Dr Armstrong: When we estimate the egg targets, we take into account all those factors—predation, competition between fish and food availability—to try to see how many eggs we need to fill the system. If we have more eggs, we do not get many more adults. We are not quite full under the methods that are recommended by the North Atlantic Salmon Conservation Organisation and the International Council for the Exploration of the Sea. We use maximum sustainable yield, which is just below full. If the level is below the critical filling

level, every lost adult, in principle, has an effect on what will go out. If it is over that level, we can put in as many adults as we want, but we cannot get more smolts out of the river.

Stewart Stevenson: Just to be clear, if we are looking at grade 1, we are looking at a situation in which the taking out of the 2 per cent is not having an effect. I see a nodding head.

My other question is very simple.

The Convener: We have only 15 minutes left for the third panellist, so you must be brief.

Stewart Stevenson: How variable is the 2 per cent? I presume that that is the figure for the whole of Scotland. How far does the figure move either side of 2 per cent?

Dr Armstrong: Given the general uncertainties, which I think we all understand—the more data we can get, the more precise we can be—variability around 2 per cent would not be a huge concern.

Finlay Carson: I want to move on to proposals for developing the model in the future. Last March, you agreed to look at the possibility of gathering more details and data on rod effort. Has that work been carried out? Given the season that we had last year, did you apply different rules because of its having been particularly dry, for example? How will that affect the model in the future?

You have talked about the juvenile assessment model. How will it play into future development of the framework and the model?

Simon Dryden: We introduced recording of effort on rod days for that season. We have sent out our topic sheet on that, and we have sent out and put on our website questions and answers. Everybody is aware of that: we will utilise the results and report back on them. Whether or not data is built into the model will depend on what it is. We need to see it first, and we have begun the process.

The third question, on juvenile assessment, is for John Armstrong to answer.

Dr Armstrong: We have talked about adults and working out how many eggs we think we need in order to fill a system. The juvenile assessment takes another approach. The system and the juveniles are looked at, and how full the system is is worked out. We have a different threshold: we have the number of juveniles that we would expect in an area at a particular altitude and with particular land use around it. We have an image of what an ideal juvenile population looks like, and we collect data to see how close the population is to that ideal.

Once we have that data and the adult data, we can put the two models and the two assessments together and look at how much coherence there is.

If we do not have coherence, we need to have a closer look at the system. However, we are getting very close to having the juvenile assessments going with the adult assessments. As Simon Dryden said, we should be in a position over the next month to see how well they mesh together.

Finlay Carson: The information will obviously include predation. Are there any plans on the horizon in relation to predators on rivers, or for legislation to license control of predators? I am thinking about cormorants, and so on. Do you foresee problems with predator control?

Simon Dryden: I will talk about piscivorous birds first. We have managed to secure £750,000 of European maritime and fisheries funding for research. This year, for the first time on the River Dee, we have acoustic-tagged three smolts with receivers in order to try to identify predation by birds, in joint work with the River Dee Trust. We have tagged smolts in the past, but if we were to tag pre-smolts, we could reduce the risk that handling and the tag pose in terms of mortality.

We have also just launched a piscivorous bird stomach analysis project. Scottish Natural Heritage has licensed four rivers—the Nith, the Tweed, the Dee and the Spey—and each has been given 36 goosanders and 36 cormorants, which will be killed over two periods and their stomachs analysed to examine their diet. That was done in the 1990s, too, so we will be able to compare the results of those lower numbers of birds with results from higher numbers of birds 20odd years ago to see whether diet has changed. For example, on the Tweed, eels historically made up quite a lot of the diet, and we think that that has changed. With four regionally dispersed rivers, we will be able to see whether there are differences in diet, because freshwater species differ in rivers across Scotland's regions. The south of Scotland, for example, tends to have a greater diversity than the north of Scotland.

Once we have the results of the stomach analysis and of this summer's River Dee acoustic tagging, we hope to do two other pieces of work. One will look for trends in the bird-count data that is supplied annually to Science and Advice for Scottish Agriculture for rivers on which a licence is wanted to manage birds through Scottish Natural Heritage.

The second piece of work will spend the bulk of the EMFF money in seasons 2020 and 2021 on experimental field work to establish what we can do to manage better the two protected species that I mentioned, if the evidence shows that we need to. We obviously want to protect both species, but we want an appropriate balance between the species that will ideally be achieved with non-lethal methods.

John Scott: You say that the measuring process will continue until 2022. How might the expected introduction of beavers impact on salmon numbers, in particular with regard to their ability to reach their spawning areas upstream?

Simon Dryden: That is a pressure that we will need to look at. I have mentioned 12 groups of pressures; beaver management is in one. There are methods: for example, a pipe can be stuck into beaver dams that would not reduce the level of water sufficiently to upset the beavers, but would allow smolts and salmon to migrate through the dams. John Armstrong might be able to talk about that a bit more. We will look at that research and, if resources allow it, we will work with the sector to implement such measures.

John Scott: I am sorry to introduce a mundane level of practicality into a discussion as esoteric as this. For a salmon, the pipe would need be three or four inches in diameter, which would rapidly reduce the level of an upstream dam if it were open constantly—which, I presume, would be needed to allow salmon to migrate through it. If it is only a two-inch pipe, salmon would not be able to get through it. How would it work?

Dr Armstrong: The concept is called a beaver deceiver. The entrance to the pipe is some distance upstream of the dam, and as it drains the water, the level goes down. The beaver cannot figure out why that is happening and it tries to repair the damage rather than block the pipe.

John Scott: You are missing my point. You need a pipe of at least four inches to allow a salmon to swim up through it. You will need a pipe of four or five inches in diameter.

Dr Armstrong: It is a large drainage pipe. In principle we know that salmon—

John Scott: If that pipe is running full bore from the water above, simple hydraulics tells us that it will empty the dam above it. How does that work, for example, with a six-inch pipe, which would be the optimum size to allow a fish to swim up through it?

Dr Armstrong: That would depend on the height of the entrance to the pipe at the top end, above the bank.

John Scott: Of course it would.

Dr Armstrong: It is just a concept. You are right to identify that there might be issues with beavers and upstream passage. A working group has looked at the issue. There has not been enough research done to determine how porous dams are to salmon.

John Scott: Essentially, the salmon will have to jump out of the pipe and back into the pool.

Dr Armstrong: The beaver deceiver is one possible solution, but it has not been fully explored.

Mark Ruskell: I will make the converse point to Mr Scott's. Do you see any ecological advantages to beavers being in a catchment, through improvement and extension of the range of available wetlands, or to their interaction with regeneration of riparian woodland that can shade particular areas and, given climate change, provide temperature benefits to salmonid species and the wider ecology—or is it all bad?

Dr Armstrong: There is probably a balance. There are definite benefits for some fish species. Trout, for example, would benefit very much from the pools behind beaver dams. As was mentioned earlier, the key issue is how much the dams might interfere with free passage of the spawning fish. That still has to be established.

Mark Ruskell: Would the introduction of beavers into a catchment enhance food species for salmonids and other species that are higher up the food chain?

Dr Armstrong: That is very complicated. Atlantic salmon tend to like fast-flowing waters, and trout like slower waters. Trout tend to outcompete salmon, so the situation might be good for trout and not so good for salmon. It probably varies enormously from place to place, so the issue will clearly need to be considered as the presence of beavers extends.

The Convener: Mark Ruskell will move on to the theme of riparian land.

Mark Ruskell: I raised a point last year about development of the methodology. There were issues around data collection, particularly in relation to the interests of the Loch Lomond Angling Improvement Association and Fintry, and whether you were even able to identify the owners of the riparian land. It was inferred that that had influenced the data in some way, because you had been unable to get access to the required stretch of river to count eggs. It is a question about who owns Scotland. Do you have greater certainty this year about who owns particular stretches of riparian area, and have you been able to get enough access to satisfy all the pressure groups and stakeholders that you have been able to conduct the most robust science possible?

Simon Dryden: Yes. I am pleased to report that we have greater assurance. For the River Endrick, we approached 70 potential owners of heritable rights and established 15 new owners, of whom 3 will send in tax returns from now on. They have given us their historical tax returns, but they will also give us tax returns in the future. The other 12 owners were able to confirm that they have dormant fisheries; they do not allow fishing. The

historical catches from those 15 owners were not significant, and would not have changed the River Endrick's grade.

Last year, I said that we did not know who owned the heritable rights for about 21 per cent of the river length. We now assess the figure to be about 7 per cent, which is in line with the national figure. We seek to improve the figure annually. Ideally, we would like an online salmon and sea trout catch repository, so that proprietors could submit catch information online. If we were able to deliver that, that would drive data-quality improvements and allow us to reduce the figure of 7 per cent.

Mark Ruskell: Thank you.

The Convener: The final question is from Finlay Carson.

Finlay Carson: It is a simple question. In March last year, I asked whether there was any expectation of a wild fisheries bill. Does Simon Dryden have confidence that such a bill will be introduced in year 3 of this parliamentary session, as has been suggested might be the case?

Simon Dryden: My understanding is that that is still a candidate bill. I cannot say more than that.

The Convener: I thank the panel for their time. I will suspend the meeting briefly.

11:45

Meeting suspended.

11:50

On resuming—

The Convener: Agenda item 4 is consideration of two instruments that are subject to negative procedure.

Members have no comments on the Conservation of Salmon (Scotland) Amendment Regulations 2019, so does the committee agree not to make any recommendations on the regulations?

Members indicated agreement.

Conservation (Natural Habitats, &c) Amendment (Scotland) Regulations 2019 (SSI 2019/64)

The Convener: Members will recall that the committee took evidence on the Conservation (Natural Habitats, &c) Amendment (Scotland) Regulations 2019last week from the Scottish Government and Scottish Natural Heritage. Does anyone have any comments?

John Scott: I would like to let the committee know that I intend to lodge a motion to annul the

regulations. In other words, I object to their being laid in the first place, and wish to pursue that objection, because I do not think that the case has been made for reintroducing beavers. Certainly, the harm that they do is becoming more and more apparent.

Stewart Stevenson: Obviously if our colleague lodges a motion to annul the instrument we will discuss that at the appropriate time. However, the regulations have nothing to do with the reintroduction of beavers, but are about managing the reintroduction that has already taken place. I see in our briefing note a long list of things that will not have any impact. The few that will, including

"Removing older dams ... Destroying lodges and chamber barrows ... Trapping and relocating beavers"

and

"Lethal control"

are already covered by existing cruelty to wildlife legislation. We will have the debate in due course, but I suspect that when we look at the effect of the regulations, we will see that they are simply systematising the existing situation. Right now, one cannot exercise lethal control of beavers haphazardly, randomly or cruelly, and the regulations merely create a framework within which lethal control can be operated as it is at the moment. I am therefore less than certain that I wish to support John Scott's proposal.

Mark Ruskell: I am disappointed to hear that there will be an attempt to stop the regulations becoming law. We have waited three years for protection of beavers to come in, and in that time there have been disastrous attempts to manage beaver populations by shooting pregnant animals and kits. Some serious welfare issues have arisen in connection with the matter, and there has been some strong lobbying to prevent the protection from being introduced, which has delayed things even further. I would not want the regulations to be delayed, especially given that we are in the middle of the kit-dependency season and there are—I am sure—interests out there shooting and killing animals as we speak.

I welcome clarification that the committee has had from SNH in the past couple of days on transparency in the proposed licensing regime. Quite frankly, we have a free-for-all at the moment, so I welcome the fact that there will be data based on local authority areas and the activities that will be permitted. The regime cannot be just a free-for-all; things have to be well understood and well controlled, and people must know that anyone who breaches the regime will be committing a wildlife crime.

I add that the data needs to be made available quarterly, given stakeholders' concern that we will see the continuation of highly inappropriate lethal control, particularly during the kit-dependency season. If the data that SNH has committed to providing were to be made available quarterly, we would be able to assess whether a close season was in operation, which would be in the best interests of animal welfare. That is the missing bit that I want to see. If there is any way of getting more clarity from SNH on that matter, I will take that into consideration when we come to our final debate and—I hope—a successful vote to introduce the protection.

The Convener: I thank everyone for their comments. We will continue our consideration of the instrument at a future meeting.

That concludes the committee's public business. At its next meeting on 19 March, the committee will hear from the Scottish Land Commission on its current work programme.

11:56

Meeting continued in private until 12:14.

This is the final edition of the Official F	Re <i>port</i> of this meeting. It is part of the and has been sent for legal dep	e Scottish Parliament <i>Official Report</i> archive posit.			
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