

# **ENVIRONMENT AND RURAL DEVELOPMENT COMMITTEE**

Wednesday 20 September 2006

Session 2

£5.00

© Parliamentary copyright. Scottish Parliamentary Corporate Body 2006.

Applications for reproduction should be made in writing to the Licensing Division,  
Her Majesty's Stationery Office, St Clements House, 2-16 Colegate, Norwich NR3 1BQ  
Fax 01603 723000, which is administering the copyright on behalf of the Scottish Parliamentary Corporate  
Body.

Produced and published in Scotland on behalf of the Scottish Parliamentary Corporate Body by Astron.

---

# CONTENTS

Wednesday 20 September 2006

	Col.
<b>ITEMS IN PRIVATE</b> .....	3437
<b>SUBORDINATE LEGISLATION</b> .....	3438
Inshore Fishing (Prohibition of Fishing for Cockles) (Scotland) (No 2) Order 2006 (SSI 2006/383) .....	3438
Avian Influenza (Preventive Measures) (Scotland) Amendment Regulations 2006 (SSI 2006/399) .....	3438
Products of Animal Origin (Third Country Imports) (Scotland) Amendment (No 2) Regulations 2006 (SSI 2006/419) .....	3438
<b>PETITION</b> .....	3439
Lamlash Bay (No-take Zone and Marine Protected Area) (PE799) .....	3439

---

## ENVIRONMENT AND RURAL DEVELOPMENT COMMITTEE

26<sup>th</sup> Meeting 2006, Session 2

### CONVENER

\*Sarah Boyack (Edinburgh Central) (Lab)

### DEPUTY CONVENER

\*Eleanor Scott (Highlands and Islands) (Green)

### COMMITTEE MEMBERS

\*Mr Ted Brocklebank (Mid Scotland and Fife) (Con)

\*Rob Gibson (Highlands and Islands) (SNP)

\*Richard Lochhead (Moray) (SNP)

\*Maureen Macmillan (Highland and Islands) (Lab)

\*Mr Alasdair Morrison (Western Isles) (Lab)

\*Nora Radcliffe (Gordon) (LD)

\*Elaine Smith (Coatbridge and Chryston) (Lab)

### COMMITTEE SUBSTITUTES

Alex Fergusson (Galloway and Upper Nithsdale) (Con)

Trish Godman (West Renfrewshire) (Lab)

Jim Mather (Highlands and Islands) (SNP)

Jeremy Purvis (Tweeddale, Ettrick and Lauderdale) (LD)

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

\*attended

### THE FOLLOWING ALSO ATTENDED:

Mr Stewart Maxwell (West of Scotland) (SNP)

### THE FOLLOWING GAVE EVIDENCE

David Donnan (Scottish Natural Heritage)

Ross Finnie (Minister for Environment and Rural Development)

John Hermse (Mallaig and North West Fishermen's Association)

Don Macneish (Community of Arran Seabed Trust)

Eamon Murphy (Scottish Executive Environment and Rural Affairs Department)

Professor Callum Roberts (University of York)

Alistair Sinclair (Scottish Creelers and Divers)

Patrick Stewart (Clyde Fishermen's Association)

John Thomson (Scottish Natural Heritage)

Tony Wass

### CLERK TO THE COMMITTEE

Mark Brough

### SENIOR ASSISTANT CLERK

Katherine Wright

### ASSISTANT CLERK

Jenny Goldsmith

### LOCATION

Committee Room 2



## Scottish Parliament

### Environment and Rural Development Committee

*Wednesday 20 September 2006*

[THE CONVENER *opened the meeting at 09:33*]

### Items in Private

**The Convener (Sarah Boyack):** Good morning. I have received one apology for lateness from Alasdair Morrison, but I am not aware that anyone else will be late. I welcome members, the press and the public to the meeting and remind them to set their mobile phones and BlackBerrys to silent.

Agenda item 1 is items in private. Do members agree to take in private agenda item 3, which is consideration of our supplementary stage 1 report on the Environmental Levy on Plastic Bags (Scotland) Bill, and any consideration of drafts of that report at future meetings until we have concluded our consideration? Do members also agree to take in private agenda item 5, which is consideration of arrangements for the stage 1 debate on the Crofting Reform etc Bill? To let all interested parties know what we decide to do, the committee's decisions will be published in our minutes on the website. Is that agreed?

**Members indicated agreement.**

## Subordinate Legislation

**Inshore Fishing (Prohibition of Fishing for Cockles) (Scotland) (No 2) Order 2006 (SSI 2006/383)**

**Avian Influenza (Preventive Measures) (Scotland) Amendment Regulations 2006 (SSI 2006/399)**

**Products of Animal Origin (Third Country Imports) (Scotland) Amendment (No 2) Regulations 2006 (SSI 2006/419)**

09:34

**The Convener:** We have three negative instruments to consider. The Subordinate Legislation Committee considered the instruments and made no comments. Do members have views on the instruments?

**Eleanor Scott (Highlands and Islands) (Green):** I have a question about SSI 2006/383, which will probably not be answered given that no Executive official is here. The papers that accompany the order mention illegal fishing by hand pickers and the danger of hand picking at night, but the order refers only to vehicles. Am I reading it right?

**Mark Brough (Clerk):** I understand that the cockle fishery was opened in such a way that any hand picking of less than 3kg per day for the pot was allowed, but more than that was subject to the regulating order.

**The Convener:** Does that help?

**Eleanor Scott:** Yes—that is fine. I just wanted clarification.

**The Convener:** It is probably good to have that information on the record.

Are members content with the instruments and happy to make no recommendation to the Parliament?

**Members indicated agreement.**

**The Convener:** We will discuss our supplementary stage 1 report on the Environmental Levy on Plastic Bags (Scotland) Bill in private, so I invite the official report and broadcasting staff to leave.

09:36

*Meeting continued in private.*

10:04

*Meeting continued in public.*

## Petition

### Lamlash Bay (No-take Zone and Marine Protected Area) (PE799)

**The Convener:** Under agenda item 4, we will consider petition PE799 from the Community of Arran Seabed Trust, or COAST, requesting that the Parliament supports its proposals to close an area of Lamlash bay to all forms of marine life extraction and the rest of the bay to mobile fishing gear. Before we hear from the witnesses, I ask members to delegate authority to me to consider any claims for witness expenses that arise from the petition. Is that agreed?

**Members** *indicated agreement.*

**The Convener:** Thank you.

We will take evidence from four witness panels: the petitioners, the fishing sector, Scottish Natural Heritage and the Minister for Environment and Rural Development. We have written evidence as requested from North Ayrshire Council, which is the authority responsible for implementing the biodiversity action plan in the area concerned.

Appearing in support of the petition are Don Macneish, chair of COAST and representing the petitioners; Professor Callum Roberts, professor of marine conservation at the University of York; and Tony Wass, a commercial angling skipper on the Clyde. I welcome you all and thank you for coming; I also thank COAST for its helpful written submissions, which have been circulated to all. For the record, COAST has previously made a presentation to nearly but not quite all committee members and showed us round the area in question on a boat trip.

**Nora Radcliffe (Gordon) (LD):** I ask Professor Roberts to outline for the committee the benefits of having marine protected areas and no-take zones in general, and specifically in Lamlash bay.

**Professor Callum Roberts (University of York):** No-take zones are a simple tool. Although much can be said about all sorts of scientific aspects that relate to the potential effects of marine reserves or no-take zones on the fauna, flora and species that occur in those areas, it is worth keeping in mind that such zones are a very simple, straightforward, commonsense approach to protecting the environment. No-take zones simply stop animals being killed by fishing gears, allowing them to live longer, become more numerous and produce more eggs so that more offspring will survive to populate the area that is being protected.

Experience from different parts of the world is that offspring that are produced in a marine reserve will contribute to reseeded fishing grounds. After we have protected an area from fishing for five or 10 years, people witness large increases in the amount of fish present—when I say fish, I mean round fish, white fish and shellfish. Organisms that are exploited can increase in abundance by two to three times in a few years of protection; often they increase by five to 10 or more times over longer periods of protection.

The increases in the stock sizes of the animals in such protected areas translate into even bigger gains in the amount of reproductive output, so we could end up with 10 or even 100 times as many offspring being produced by protected populations that can then go towards reseeded the surrounding fisheries because those offspring—of largely commercial species—have floating pelagic larval or egg stages that allow them to drift off and reseed areas that are open to fishing.

Using no-take zones is not complicated science; it is a commonsense approach to protection. People often get too hung up on questions such as, “Is this the right place to do something? Is this the right place to protect?” because we do not have the specific data on the water currents, the oceanography or the species that are present in an area. None of that really matters. Experience tells us that if we protect from exploitation an area that has been exploited in the past, benefits will accrue rapidly in that area. I would expect to see that happen in Lamlash bay. Having reviewed the evidence on no-take zones from around the world on several occasions in the past 15 years of doing research on them, we conclude that marine reserves and no-take zones are a near-universal tool that will work in any exploited area.

A lot of people like to paint the evidence in a certain way by saying, “Well, species that live in the tropics might benefit from those zones because they are different to the species that live here”, but that is not the case. Many of the species that live here share similar characteristics with the species that live in places that have produced highly successful marine reserves. Many long-lived and highly mobile species have benefited in tropical marine reserves, just as you would expect some of the longer-lived and more mobile species to benefit from marine reserves in Scottish waters, not just around Lamlash bay and the Clyde.

Benefits can be expected—they will happen quite rapidly and will be detectable within five years. Within 10 years, the bay will be a very different place from what you would see if you went diving there today, because protection will create space for nature that will allow recovery from the impacts of fishing and produce a much

more biodiverse, structurally complex and rich assemblage of species in that area.

**Nora Radcliffe:** Are you saying that the effects are beneficial for migratory as well as territorial species?

**Professor Roberts:** That is right. Some of the sedentary species will benefit more readily from protection in a particular area, but migratory species can benefit from marine reserves in a couple of ways. First, it makes sense not to catch animals prematurely and, if their nursery grounds are protected, there will be greater survival to larger, commercially valuable sizes. In fact, protecting nursery grounds is a standard fishery management tool that has been employed since the 19<sup>th</sup> century, with great success in many cases. Secondly, migratory species benefit from increased feeding opportunities in marine reserves. The greater quantity of marine life attracts them in, provides them with sustenance and allows them to reach their full reproductive capacity, so reserves are important places for migratory species.

If places that are important concentration sites for migratory marine fish are protected, benefits are seen over the whole range of such species. For example, in the United States Virgin Islands, there is a spawning aggregation site for the red hind, which attracts fish from tens or even hundreds of kilometres away to come to that site to spawn. Protection of that area from fishing during the spawning season has led to an increase in the size of fish and the abundance of the groupers across a much wider area, despite the fact that the marine reserve covers only 1.5 per cent of the fishing grounds.

**Nora Radcliffe:** But it is in the right place.

**Professor Roberts:** Precisely.

**Maureen Macmillan (Highlands and Islands (Lab):** I have been told that all that happens in a no-take zone is that the number of predators increases and that, if man is not taking the fish, predators such as starfish take them instead, so that we end up with the status quo. Have you any evidence of that?

**Professor Roberts:** In fact, in marine areas around the world in which there is protection from fishing, there is an increase in pretty much everything. I am talking about an increase in aggregate. There are species whose numbers go up dramatically and other species that do not benefit quite so dramatically, but the mix, in aggregate, results in much more across a wide range of species. It is not just the predators that increase in number; the predators have to feed on something. Recent evidence from the Bahamas showed increases in the number of predators and increases in the numbers of their prey species.

That has certainly been my experience in the marine reserves that I have dived in and studied in detail around the world.

Following protection, I would expect to see a decrease in the number of starfish in a place such as Lamlash bay. Scavengers such as starfish tend to increase in areas that are regularly disturbed by fishing and in which trawl nets are damaging and breaking up some of the organisms on the sea bed. Those species are not particularly desirable from a fisheries perspective, but they come to dominate in areas that are open to exploitation. An area that is off limits to fishing returns to a much more natural state and ends up with a much more diverse, broad-spectrum community of life.

**Mr Ted Brocklebank (Mid Scotland and Fife (Con):** As the convener said, we visited Lamlash bay. The area that you are talking about is not the whole of Lamlash bay but quite a small part of it. Are you telling us that designating such a small area—I suppose that we could call it a boutique no-take zone—would have important effects for the whole of the Clyde estuary?

10:15

**Professor Roberts:** No, I am not saying that at all. We would use that area to get a proof of concept and to demonstrate some of the changes that would be likely to occur if we established marine reserves more widely in the Clyde estuary.

From reviewing the science behind marine reserves, I have found that studies that have considered how much of the sea we need to protect in order to benefit fisheries and protect representatives of the full spectrum of wildlife and biodiversity in the sea have come up with figures of between 20 and 40 per cent of the sea. Much of the science that underlies those calculations is based on what percentage we would need to protect to maximise the benefits to fisheries. A far greater benefit to fisheries around the Clyde would be obtained if we had a much more extensive network of no-take zones throughout the region. I have suggested on a number of occasions that setting a target of protecting around 30 per cent of the sea from fishing would maximise the benefits to fisheries and to conservation, and would deliver the ecosystem integrity and viability that would underpin sustainable fisheries in the future.

At the moment, a major troubling aspect of the way in which fishing is carried out is that it is destructive of the environment that sustains the production. If we do not look after the environment that produces the animals, our fisheries will be on a highway to hell.

**Mr Brocklebank:** I do not think that anyone doubts the overall wisdom of what you say, but do you not accept the argument of the Executive and

of Scottish Natural Heritage that the sample area that you have proposed is too small and that, instead of designating what I have described as a boutique no-take zone, the issue should be part of a wider and more scientific study?

**Professor Roberts:** Portraying the area that we propose to designate as a boutique no-take zone would be wrong, in the sense that the designation of that area has wide community support. Experience from round the world shows that, in the long run, areas that have community support produce much more successful marine reserves than places that do not. I accept that working towards the establishment of a large-scale network of marine reserves around Scotland is an important goal in the long run. Indeed, I presume that Scotland, as part of the United Kingdom, has committed to creating such a network under the world summit on sustainable development commitment to establish national networks of marine protected areas by 2012.

We can talk about a grand design and how we could create from scratch and implement a network of marine protected areas, but in my experience that approach has rarely worked, although there are a few cases in which it has been successful—for example, in the state of Victoria in southern Australia. In other cases, it has led to too little happening much too slowly. Canada has gone down the grand design route and, after about 20 years of deliberation, has implemented only a paltry number of marine protected areas. Although Canada has a good scheme with an excellent set of criteria for establishing such areas, it has not got round to using it.

It is much better to implement protection in a timely way, as opportunities allow, and to integrate that with more of a top-down approach. A strategic plan could incorporate top-down input from Scottish Natural Heritage, for example, and a bottom-up element, which would result from communities identifying opportunities to produce genuine conservation dividends in their areas.

It would be extremely disappointing if the Executive decided not to support a community-driven initiative, given the importance of having communities on board to the establishment of protected areas under a strategic plan. If the Executive was seen to reject a community that had come to it with a well worked-out plan, that would certainly scare off many communities that might otherwise think that the Executive would act on their behalf to protect the environment.

I would certainly like to see more marine reserves around the country. That is the way in which we have to go to undo some of the great harm that more than a century of intensive fishing has done. To see the impact that fishing has had

on the marine environment in this country we have to go back a long time. I have brought with me a report from 1887, which investigated the impact of the newly introduced beam trawl fishery on the fish stocks of the Clyde. The evidence that the fishing industry gave was almost universally against the trawlers. For example, Mr Duncan Martin, a fisherman from Campbeltown said:

“Fifty years ago turbot were plentiful; fishermen could easily, during certain seasons, fill their boats. Turbot and other fish had been fairly abundant until a few years ago, now very scarce”—

because of the beam trawlers.

There are countless similar testimonies, such as:

“if beam trawling is allowed to go on unchecked, the chief fishing banks in the Clyde (already greatly exhausted) will soon be so destroyed that for many years the yield will not meet the working expenses.”

We have seen that happen: the prophesy has been realised over time.

If we take the long view, we can see that the fish stocks that we have left are a miserable fraction of what it is possible to have out there. They are certainly the dog-end of a badly exhausted fishing industry. The fishing fleet today relies on a handful of species and has put itself in a perilous position in terms of its long-term prosperity.

**The Convener:** I am conscious that nobody else on the panel has said anything so far. Do you want to add anything on the Lamlash issue?

**Tony Wass:** On areas of destruction in fishing, I see the sea bed as a field. In England, when all the hedges were taken out and huge fields were formed, biodiversity completely disappeared; people are starting to put back all the hedgerows to bring back biodiversity. Biodiversity in the Clyde has been completely taken away.

We can trawl right up to the beaches today. With the technology that we have, such as satellite navigation and side scan sonar, we can go within 3ft of a wreck—we could go over this table—so there is nowhere to hide. We are so efficient it is unbelievable. If the fishermen of 20 or 30 years ago saw the technology that we have today they would not believe what we can do. We can see a fish stock 200ft away and catch the fish. The technology is so good that if we do not create hiding places, we will have nothing.

At the moment, the Clyde is full of fish. I am an angler and I could show any gentleman or lady on the committee hundreds of thousands of fish. There are millions of fish, but they do not grow, because the biodiversity is not there and they are taken as a bycatch.

At the moment, a large cod stock is entering the Clyde. It is huge; such stocks have not been seen



for 20 to 30 years. That might present us with an opportunity to save some of these fish for the future—it might be the only chance that we get for the next 20 years.

**Don Macneish (Community of Arran Seabed Trust):** COAST would like to move this project forward. The community has come together to try to offer some form of protection for the area around it. In engaging in that process, we have found that we end up with poles—fishermen on one side and conservationists on the other. COAST comprises both people who fish privately and conservationists. We are on the middle ground, which we think is the basis on which to move forward. We are quite happy to meet the fishermen and try to construct a formal way forward. We want statutory protection of Lamlash bay. We need the integrity of a no-take zone and a marine protected area within Lamlash bay to be protected in law so that fishermen and the general public are protected and so that we can move the issue forward.

The environment agencies and Scottish Natural Heritage are all taking the grand plan line, which is way above the community's heads. The community wants to keep it simple; it wants to move forward and it wants some form of protection now, before it is too late. Grand plans take a long time to construct and even longer to implement.

**Richard Lochhead (Moray) (SNP):** Tony Wass spoke about the cod returning. If I heard him correctly, he said that the fish are not growing and will be caught as a bycatch. Who is catching them as a bycatch and how is that happening?

**Tony Wass:** They are mostly caught by the prawn fishermen. They cannot avoid the cod, even though the nets that they use are better than they used to be. There has been a big improvement, but the bycatch is still enormous. I do not have any figures, but the amount is considerable.

**Richard Lochhead:** The Minister for Environment and Rural Development, Ross Finnie, says that the bycatch is minimal and negligible these days.

**Tony Wass:** I disagree and we can prove it.

**Richard Lochhead:** Are you talking about Lamlash bay?

**Tony Wass:** There is no protection in Lamlash bay at all. The boats can trawl virtually anywhere that they want. The technology exists to enable them to go anywhere.

**Richard Lochhead:** So the bycatch is being caught in Lamlash bay.

**Tony Wass:** Oh yes.

**Richard Lochhead:** By prawn boats.

**Tony Wass:** Probably.

**Don Macneish:** The fishermen do not prawn trawl within Lamlash bay. They prawn trawl outside it, but the juvenile stock that we are talking about are highly mobile and, if they are in Lamlash bay at the moment, that is probably why they are alive.

**Richard Lochhead:** That was my point. I was trying to clarify that, because I did not think that there were prawn boats in Lamlash bay.

**Tony Wass:** The trawling that is done in Lamlash bay is mostly for scallops. I apologise, because I made a mistake. The scallop fishing is intensive and the scallop boats are the ones that go into Lamlash bay.

**Richard Lochhead:** I have a question for Don Macneish and Professor Roberts on the process for establishing marine protected areas. I can increasingly appreciate the case for them—other countries clearly have them—but I cannot get my head round the complexity in the government of Scotland's waters, including the inshore waters. Do you agree that we need a clear framework with set criteria to which communities and users of our waters can adhere and which will provide a clear process for establishing marine protected areas? What do you think of the current system and what practice in other countries offers the best model for us to follow?

**Professor Roberts:** The most successful models are those that allow national Governments to make recommendations about where marine protected areas might be implemented and allow local communities to nominate places where they could be created. From the amount of time and effort that has been invested in trying to establish one small protected area in Lamlash bay, it is clear that what we might call the present system in Scotland does not work. It could be said that you do not yet have a system for creating a national network of marine protected areas and it is incumbent on you now to work out how to do that, but that is not to say that you should put on hold sound proposals that have broad support. A model that would work well for the nation would allow for bottom-up and top-down protected area creation.

The proposed area at Lamlash is small; the term "boutique no-take zone" was used earlier. The marine reserves around the world that really got people thinking were almost the same size as that which is proposed for Lamlash bay, but some of them were a lot smaller. I have been in marine reserves of 1km<sup>2</sup>, which contained spectacularly different communities of wildlife that come in from the areas immediately surrounding them.

In the Philippines, New Zealand, Chile and South Africa very small marine reserves have acted as powerful demonstrations that protecting

the environment from fishing could work well. In response, they spawned national strategies to develop more extensive and ambitious networks. It would be sensible to allow a trial to monitor what is happening in the area and in adjacent areas at the same time as developing a more coherent national strategy for a network that will be representative of the full spectrum of biodiversity and which can also contribute to fisheries management objectives.

10:30

**Don Macneish:** At the weekend, I spoke to Bill Ballantine, the founder of the no-take zone concept, who was over from New Zealand at a conference. When I asked him about the process that would move the idea forward, he said that the idea usually came from the people who took it to their political representatives and that it moved forward from there into law. He also said that it was normally the civil servants and protection agencies that would stop it moving forward.

COAST has a social as well as an environmental problem. Twenty per cent of the population are members and they want something to happen. When we started the project, we went to the Scottish Executive Environment and Rural Affairs Department and said that we were not prepared to start the process if we were just going to flag up the issue and get people to join and engage in the political process, only to see them being snubbed yet again. This is a real chance for us to consider the issue and to implement some form of protection that will empower people and ensure that what they care about actually happens.

**Rob Gibson (Highlands and Islands) (SNP):** You said that the proportion of people in Arran who support COAST is about 20 per cent. How will they be consulted and become engaged with the process if the MPA and NTZ are to be set up?

**Don Macneish:** Initially, we realised that the fishermen were fundamental to our moving forward. At that stage, we were very green and naive, so we engaged with the fishermen who operated around the island. We got them all into a pub one evening, laid a map out on the table and told them what we wanted to do. We then asked them which areas would hurt them least and they identified Lamlash bay. From that, we started intensive diving on Lamlash bay and found maerl beds, sea grass areas and other areas of scientific interest, such as nursery areas. The fishermen chose the area in the beginning, but once we found out what was there we became very keen.

When I say that 20 per cent of the population support the proposals for Lamlash, I mean that 20 per cent of the population are members of

COAST. We have not found anyone who does not support the proposals. We spent five years going around trying to identify people who had an issue with what we are trying to do so that we could accommodate them.

**Rob Gibson:** How would they be engaged in the process if the NTZ were set up?

**Don Macneish:** I do not understand the question.

**Rob Gibson:** Let us assume that an order sets up the NTZ in the way that the community group that has proposed it says that the community wants it. How would the community be involved?

**Don Macneish:** The community would be involved. You cannot sail a boat into Lamlash bay without seeing the glint of a telescope through a set of curtains. That will be our first line of defence. People monitor the area. I get phone calls all the time from people who ask, "Do you realise that somebody is scallop dredging in Lamlash bay?" I say, "That is very interesting, but actually they are performing their lawful duty. Thank you very much." Each time somebody comes in we log the name of the boat, but that is to enable us to establish the fishing effort in the area. People would be directly engaged and we would continue to hold public meetings. We do promotional work, including showing people underwater footage and films that are of interest to them. A core group of people are interested.

**Rob Gibson:** The Executive has suggested that if COAST's proposals were agreed to, it would set a precedent that might lead to a more general squeezing out of the fishing industry through multiple demands for fishing-free areas. Given that Government, SNH and commercial fishermen are not the only stakeholders, can the panel comment on who all the stakeholders are? Does the panel have a view on the balance that ought to be struck in respect of other stakeholders in managing the situation?

**Don Macneish:** My personal view is that everybody in Scotland is a stakeholder. Everybody has the common-law right to fish, therefore they are stakeholders. Obviously, fishermen derive their income from fishing so they are stakeholders. However, my family has lived on Lamlash bay for seven generations, has fished in Lamlash bay for seven generations and has watched the decline of fishing for seven generations. I hope that we are the first generation that sees an attempt to turn that round.

**Professor Roberts:** I will give the example of the experience from the Florida keys. In the run-up to the establishment of Florida keys national marine sanctuary in 1995, a series of hearings were held throughout the keys for people to express their views on the nature of the proposed

zoning plans, of which there were a number of alternatives. The National Oceanic and Atmospheric Administration ran those hearings, which I suppose is the equivalent of the Scottish Fishermen's Federation and Scottish Natural Heritage, since conservation and fisheries management roles are embodied within it.

The people of the Florida keys who did not have a direct economic stake in the sea, for example those who were interested in snorkelling, who enjoyed the sea and liked to know that the wildlife there was protected rather than plundered, tended not to turn up to the meetings because they expected their interests to be represented by the NOAA. However, it had stepped back into an arbitrator's role. It expected to get the full range of people's opinions on the environment, but in the end it heard mostly from people who had a direct economic interest.

It is difficult to engage the wider public with marine protection issues in creating protected areas. We are in a rare situation in which the public have initiated a proposal and are saying, "We feel passionately about this. We would like to see this area protected. We would like to see our right to the protection of the environment implemented in this instance." They are not asking for a lot, given that the major part of the area would remain open to commercial exploitation and interests in a manner that would be unchanged from before. Obviously, that position would gradually shift over time as the number and size of marine protected areas increases, as it inevitably must if we are to improve the state of fisheries and the environment.

I regard it not as a squeezing out of our fishing interests but as a long overdue rebalancing of the fishing industry with the environment, which will ultimately be of great benefit to that industry. Creating MPAs of a sufficient scale will supply fishermen with a long-term supply of fish, as opposed to their just moving on to the next species that nobody had previously thought of eating but which is becoming a gourmet item somewhere in the south of France. If we want a healthy fishing industry in the Clyde, we need a lot more marine protection.

**Tony Wass:** The biggest losers in the fishing industry have been the fishermen themselves. Thirty years ago, 90 per cent of the catch in the Clyde was white fish; today, 90 per cent of it is prawns. There has been a complete turnaround. The fishermen are reliant on only one product—prawns. If anything happens to them, the fishing industry in the Clyde is finished. We must make a change and we must have MPAs. We cannot continue with the status quo—it must change.

**Rob Gibson:** So the sea angling that you talked about relies on the whitefish species as well.

**Tony Wass:** That is correct, sir.

**Elaine Smith (Coatbridge and Chryston) (Lab):** Some of what I wanted to ask about community involvement was asked by Rob Gibson and was addressed. It is important that we heard that COAST does not have the full support of everyone on Arran—20 per cent of Arran people are members.

COAST has promoted the MPA plan for 10 years. Don Macneish talked about speaking to the fishing interests, so are there compromise alternatives to the MPA plan? Is a voluntary approach possible or suitable? Further, can Don Macneish explain a bit more about his motivation in starting all this?

**Don Macneish:** Absolutely. On my motivation, there is no financial gain for me in being a member of COAST; in fact, it is the reverse. Several organisations fund us, including SNH, but nobody gets any wages and our time is given freely to COAST to try to promote the MPA plan. If—or when, as I like to think—that plan is implemented, a great financial burden will be lifted from me.

My motivation is that I started diving around Arran 30 years ago and I saw the decline in marine life. We seem to get pushed into a polarised position in which it us against the fishermen, but Howard Wood and I spent time as divers in the 1970s and 1980s assisting fishermen by going underneath their boats to remove nets that had got caught up in the propellers. However, when the real decline in fish stocks started in the late 1980s, we asked ourselves whether we could address that situation. That was when we started raking around to find out what was happening in other parts of the world. I ended up at one point in New Zealand, where I have relatives. I went to see Bill Ballantine and became engaged with the whole process.

I then came back and had a look at what had been done in Scotland. SNH had attempted to establish a closed area in Loch Sween but had got it wrong. The community was not involved at all and, at the last moment, when the scheme was about to be implemented, Magnus Magnusson pulled the whole thing because a few people came in and started shouting that they had not been consulted. Ever since, SNH has had a post-traumatic Loch Sween attitude. As soon as communities, fishing and no-take zones or closed areas come up, red lights go on in central SNH and it starts walking backwards.

We started to build a consensus in Arran by going round and speaking to everybody. To begin with, many people just shook their heads as if they were talking to mad people. However, we eventually met SEERAD officials, who said that they wanted to do what we suggested. We then

held public meetings, formed an association and moved on from there.

**Elaine Smith:** Is a voluntary approach possible? Can a compromise be reached, or does the measure have to be carried out in the way that you propose?

**Don Macneish:** I do not think that compromise is a dirty word, especially when many people with different points of view face a problem that must be solved.

**Elaine Smith:** I am asking whether that would work practically.

**Don Macneish:** Practically, we can have a compromise. However, we cannot have a voluntary agreement, because not everybody would agree. The one or two people who did not agree would wreck everything. In an ideal world, if we could have a voluntary agreement we would not need one. That is the problem.

10:45

**Professor Roberts:** I can give a couple of examples of voluntary agreements that have failed. At St Agnes bay, off the north Cornish coast, lobster fishermen agreed to create a no-take zone to benefit their lobster fishery, as has happened successfully in other countries, but one lobster fisherman refused and basically ruined the scheme for everybody. At Lyme bay, off the Dorset coast, a voluntary agreement was set up for several years to protect the area from scallop dredging. The agreement resulted in the recovery of corals, sea fans and other life, but one or two fishermen started fishing and then others said, "If they are going to do it, so are we," and all the recovery was ruined in a matter of months. If people suddenly decide that they no longer agree with a voluntary agreement, it is gone with disastrous effect and everybody suffers.

**Eleanor Scott:** For the benefit of those who were not at the committee's visit to Lamlash bay, I ask the representatives of COAST to describe the bay. It strikes me that it is not a pristine site that you are trying to keep free from the hand of man; it is full of evidence of the hand of man.

**Don Macneish:** Absolutely. The concept of marine spatial planning applies to areas of water with multiple uses. Lamlash bay fits that criterion in spades. We have a large mooring area with many yachts, people who fish, a fish farm and a mussel farm. A large Outward Bound school costing £5 million is being built in collaboration with North Ayrshire Council, so a lot of children will come from the mainland for recreation in the area. North Ayrshire Council has designated Lamlash bay as a recreational area. The Waverley ferry sails through the bay and the Admiralty's ships are

in and out all the time. The area has multiple uses. If we want to show that protecting such areas can bring benefits, the bay would be a good area to choose, because it is not a pristine area that we would leave alone and then draw conclusions from.

**Eleanor Scott:** Do all the stakeholders who use Lamlash bay in various ways support COAST?

**Don Macneish:** Absolutely. They have all been consulted, apart from the commercial fishermen, who are unconvinced at present. However, I hope that we can move to some sort of compromise while maintaining a no-take zone.

**Eleanor Scott:** How many fishermen come from the island of Arran and what sort of fishing do they do?

**Don Macneish:** One independent creel fisherman travels round the island from Machrie to fish for prawns and lobsters and two other boats fish for prawns and lobsters. They are crofters more than full-time commercial fishermen. One boat fishes razor fish all the time.

**Eleanor Scott:** Where do the commercial fishermen who would be affected by the no-take zone—those who currently fish in Lamlash bay—come from?

**Don Macneish:** They come principally from Carradale. I spoke recently to several men from Tarbert, and they do not use the bay that much.

**Maureen Macmillan:** I want to follow up the line of questioning on commercial fishermen. It strikes me that it is the scallop dredgers or divers who will lose out. The problem is that they will not be able to get their scallops from Lamlash bay, and they will not be interested in the cod, because that is not their kind of fishing.

I notice that the Clyde Fishermen's Association has suggested another approach, in which there would be financial backing for the cultivation and laying of scallop seed in Lamlash bay. What discussions have you had with the CFA about having a protection area in the bay while allowing its members to have some scallop fishing?

**Don Macneish:** We have been in negotiations with the CFA, which are at a fundamental stage at the moment. If it is possible, we would like to move with the CFA so that we can run our project in Lamlash bay while possibly finding an area outside or adjacent to the bay for a reseeding project. As I said, negotiations are at a fundamental stage. We want to move the project forward, but if there has to be a bolt-on situation we will consider that as well.

**Professor Roberts:** It is interesting that the scallop fishermen are posing the most opposition, as they stand to gain the most from the MPA and

receive immediate benefits. Experience from other parts of the world shows that scallops regenerate quickly in marine reserves. They bounce back within a few years. Their numbers and sizes increase dramatically, and their offspring can be transported to surrounding areas for reseeded. In fact, I think that reseeded in Lamlash bay will not be necessary, because it will happen as a result of the protection. The scallops will regenerate normally.

If we do the reseeded in the area proposed for nature conservation, the objective of creating a more natural environment will be partly compromised by the farming aspect. The compromise position of allowing scallop dredgers to go into Lamlash bay from time to time is not compatible with nature conservation, because dragging scallop dredgers across the bottom would take the situation back to the beginning. The scallop communities that develop will take decades to reach their full biological potential. There are also slow-growing coral, sea fans and so forth. If they are trawled every few years, the area will simply turn back to sand and mud and we will lose a great deal of the benefit that has accrued.

**The Convener:** Would there be opposition to developing a more integrated project with a no-take zone and marine protected area in Lamlash bay while resources are invested in adjacent scallop beds? The no-take zone has been talked about as a five to 10-year process, so we would be excluding scallop dredging in the long term. That would lead to other species developing and growing to a larger size, but there is still the question of how we manage the economic activity needs of those who currently use Lamlash bay. Have there been discussions with people adjacent to Lamlash bay and further up the coast about the scallop issue? It has been suggested to us that the issue is insurmountable. We will ask the fishermen on the next panel about that, but I am interested to get COAST's perspective.

**Don Macneish:** We have discussions from time to time. Recently, we had discussions with the Clyde Fishermen's Association and SNH to explore ways forward. Nothing concrete came out of that, but we are looking at the possibility of moving things forward. SNH tried to push us down the voluntary agreement route, but that would be a waste of effort on everyone's part, because we would be waiting to identify the one person who decided that he was not in the voluntary agreement.

**The Convener:** We have explored the matter in some depth. Thank you for giving evidence. You are more than welcome to stay for the subsequent evidence sessions.

We will take a two-minute break. I ask the second panel of witnesses to come to the table.

10:56

*Meeting suspended.*

10:58

*On resuming—*

**The Convener:** I welcome our second panel. Representing the fishing sector are Alistair Sinclair, who is the secretary of Scottish Creelers and Divers; Patrick Stewart, who is the secretary of the Clyde Fishermen's Association; and John Hermse, who is the secretary of the Mallaig and North West Fishermen's Association.

Thank you for your useful written submissions, which have been circulated to members.

**Mr Brocklebank:** On the face of it, COAST's suggestion seems reasonable. We are talking about only a small part of Lamlash bay and, according to the evidence that has been led, about species that will regenerate and benefit fishermen in five or 10 years' time. What is the basis of your objection? Why do you not believe that the suggestion is a good idea that will help the fishermen?

11:00

**Patrick Stewart (Clyde Fishermen's Association):** Having heard the previous panel's views on fishermen, I am glad that security took my horns away before I came in.

We do not oppose the principle behind the proposal. I do not understand how the idea that we oppose it has got into the arena. The committee should be aware that I represented the Scottish Fishermen's Federation on the Irish sea pilot, which resulted in "Review of Marine Nature Conservation: Working Group report to Government", which is the fundamental document that will guide us for the next decade and more on matters of marine nature conservation. Section 7 of the review sets out clearly what marine protected areas are and what they should achieve. It states that they should not be individual areas but should be

"components of an ecologically-coherent network of areas."

It is the state that is responsible for establishing that. The state can take advice and listen to lobbying from whomever it likes and COAST has every right to lobby for Lamlash bay to be a part of that. I am sure that, in due course, the Scottish Executive, which has competence in the matter, will take those views into account when it sets up an ecologically coherent network.

Having been part of the Irish sea pilot and contributed to the review of marine nature conservation, I could hardly be said to be opposed to the principle of marine protected areas.

However, this proposal stands on its merits, and it has no merit, because there is no evidence that it will achieve anything that is claimed for it. It will deprive of the economic returns from the area those communities that have an equal interest in the area but which happen not to see it from their front doors.

**Mr Brocklebank:** We heard that much of the ecological advice from elsewhere in the world suggests that, if the area were left fallow for five or 10 years, that would help it. Are you saying that the professor got it wrong?

**Patrick Stewart:** The professor allows his enthusiasm for marine protected areas to run away with him. As far as I know, he has not studied Lamlash bay. In fact, Bill Ballantine, the great guru who was mentioned, was filmed standing at Lamlash bay for the "Landward" programme and saying, "You could spit across here. This does not matter." But it matters to the fishermen of the Firth of Clyde. It matters desperately to them if the possibility arises that, because communities do not like the sight of fishing boats at their front door, they can demand of the Scottish Parliament and the Executive that the area be closed to fishing.

As has been said, the matter is one for the people and not just for those who are involved locally. The people of Scotland are about to be consulted on the proposals for marine nature conservation, and very important they are too. Professor Roberts's dramatic demonstration of the damage that beam trawls did in the Firth of Clyde in the 19<sup>th</sup> century resulted in a closure brought about by the pressure of Duncan Martin and his colleagues.

The Clyde Fishermen's Association stands for the protection of the marine nature environment and the cod recovery plan in the Clyde. The marine protected area in the Clyde is the child of the CFA. Our only sorrow is that the Executive will not make it more effective in the way that we proposed. The weekend ban on fishing in the Firth of Clyde is also the child of the CFA. The committee knows that the CFA stands for a reduction in scallop effort. To characterise us as somehow indifferent to the environment, particularly in Lamlash bay, is a calumny.

**The Convener:** To be fair, I do not think that anyone has done that today, in any sense. If you listened to the previous questions from committee members and the responses, you would know that that was not the tone of the discussion that we had.

**Patrick Stewart:** I refer not to the discussion but to the submission that was made by COAST.

**Alistair Sinclair (Scottish Creelers and Divers):** SCAD has supported the COAST

proposal for some time. The fishermen have to realise that they do not have a God-given right to take what is in the sea. There are communities that rely on sea angling for custom at their bed and breakfasts and hotels. Part of their income comes from the sea, and whenever there are no fish in the sea there are no angling tourists. Angling tourism is a huge business in countries such as Norway where there are still fish to catch.

**John Hermse (Mallaig and North West Fishermen's Association):** We supported the Clyde Fishermen's Association's call for a ban on mobile fishing and a seasonal closure in a marine protected area in the Clyde where it has been proved that cod spawning takes place. We have asked for that, but we have been refused it up until now. We will carry on trying to get that.

We want protected areas and regeneration areas. I was among those who were responsible for the reseeded project that is taking place at present around the Isle of Man. We can establish such areas only where there are sufficient tidal, current and oceanographical data to support such a concept. To my knowledge, COAST has not provided those data and no research has been commissioned that supports the proposal.

Nevertheless, we want no-take zones and reseeded areas. In fact, there are zones in the Western Isles that have seasonal closures for spawning. Two no-take zones that do not work are Broad bay, just outside Stornoway, and Lyme bay. Broad bay was closed for 10 years and is now a waste ground. It is completely stagnant and virtually no life exists in that area today. Professor Roberts referred to Lyme bay, and I think that he exaggerated the effects there. There was a voluntary agreement in Lyme bay, but one or two people broke that agreement.

A petition for the total closure of 60 square miles of Lyme bay was put to Ben Bradshaw, the Parliamentary Under-Secretary of State for Local Environment, Marine and Animal Welfare, via English Nature and the Devon Wildlife Trust. After considering very tenuous evidence from English Nature, Ben Bradshaw found in favour of the fishing industry. That was a momentous decision, which shows that the fishing industry in that area can work and still maintain the integrity of the natural environment, including the protected species.

**Eleanor Scott:** We have heard in previous evidence that the Clyde has been reduced, over the years, from a productive fishing area to a prawn and scallop fishery—an area with just two commercially significant fish stocks. Why has that happened?

**Alistair Sinclair:** Since the demise of the 3-mile limit in 1984, the mobile sector in the Clyde has

been fishing more or less right up to our beaches. The mobile sector has fished every species to near exhaustion, and we are now working on the last worthwhile species, which is nephrops. If we do not keep our eye on the situation, the nephrops will go, too, and we will have the kind of stagnant bays that Mr Hermse has talked about.

**Patrick Stewart:** It is a complex issue, which I will deal with species by species. The Clyde spawning herring stock collapsed when an algal bloom descended on the spawning grounds at Ballantrae banks in the late 1980s. Before that, our herring were fished by a passive method called ring netting, which was invented in Tarbert. That was overtaken by pair trawling, which the association did its best to prevent from happening in the Clyde. However, we were unsuccessful in persuading the Scottish Office to ban that. A combination of too intense fishing effort and adverse ecological conditions contributed to the demise of the herring. There are still herring, but they are not fished in any commercial quantities.

The white-fish situation is more difficult to quantify, as white-fish stocks spread over wide areas of sea and the generation of white fish in the Clyde does not necessarily happen in the Clyde. As you have heard, we are doing what we can to ensure the regeneration of cod stocks. There are still haddock and other white fish in the Clyde, but nephrops—which is not an inferior species; it is being marketed everywhere as Scottish langoustine—is a super product that is doing very well. There was a 39 per cent increase in the west of Scotland total allowable catch this year. Scallop fishing continues as well.

The situation has changed. In my view, it has changed for the worse, but there it is. That happens in life.

**John Hermse:** I would like to make it clear, following Alistair Sinclair's remarks about stagnant areas, that the stagnant sea near Lewis is attributable to there being no fishing effort rather than too much fishing effort.

**The Convener:** Can you explain why there are no fish left if there is no fishing?

**John Hermse:** I am no scientist, but I know that, when a farmer harrows a field, the seagulls follow the tractor picking up worms and things. Similarly, a fisherman who fishes the sea bed will agitate the sea bed and cause organisms to—I do not know the proper word—travel distances, interact with one another and become more fecund, I imagine.

Professor Mike Kaiser of the University of Wales, Bangor, has been retained by the Scottish Executive as the authority on sea bed degradation as a result of fishing interaction. In a paper that he published on 15 October 1997, entitled "Damage limitation on the seabed", he states:

"Bottom fishing in the world's oceans has been compared to clear-felling of forest habitats. This implies that fishermen systematically sweep entire areas of the seabed in order to maximise their catch. If this were true, fishermen would have become extinct years ago."

He continues:

"However, in some cases habitat or community changes may have already occurred, such that excluding fishing gears from these areas would achieve little. Clearly a rocky reef community is unlikely to re-establish itself if the reef has been removed by fishing gears. Furthermore, change is not necessarily deleterious. Agriculturalisation of the land has enabled the development of civilisation. In the North Sea the growth of young sole has increased dramatically since the 1960s, as has the fecundity of the plaice. These changes have been attributed to an increased food supply for these flatfish, possibly associated with a change in the fauna due to trawling."

I hope that that helps to answer your question.

**Maureen Macmillan:** What was the state of Broad bay when the no-take zone was established? Was it comparable to Lamlash bay at present? Lamlash bay has quite a lot of fish in it. I know about Broad bay and I am told that there is nothing but starfish there now.

**John Hermse:** Luckily, I asked that question of two fishermen who worked in Broad bay in the three months preceding the closure. About 10 to 15 years ago, the two boats were averaging £5,000 per week in that area.

**Maureen Macmillan:** Was that for scallops?

**John Hermse:** Yes.

11:15

**Maureen Macmillan:** Were other fish caught in Broad bay, or were scallops the only catch that was available?

**John Hermse:** Broad bay also had a lot of plaice. It was known as a plaice nursery. To my knowledge, there are no plaice in Broad bay today. Up until the closure, it provided good plaice fishing.

I should add that the horrible thing is that no scientifically led research has been done on that closure. That is a great loss to the industry and to the community in general.

**Eleanor Scott:** Can Patrick Stewart clarify how many boats are involved in fishing in Lamlash bay?

**Patrick Stewart:** For a start, the position is that no white-fish fishing takes place in Lamlash bay, so the sea anglers have no competition. As we heard in a correction, no prawn trawling takes place in Lamlash bay. The only fishing is scallop dredging, which is done mainly by vessels from Carradale, Ayrshire and—despite what Mr Macneish said—Tarbert. Depending on the

season and the stocks, a minimum of four or five operations per annum might take place or, at a maximum, perhaps 10 times that number. However, it depends. At the moment, very little scallop dredging takes place in Lamlash bay because the stocks have been depleted as a result of the failure to introduce technical measures to protect them.

On the effects of scallop dredging, John Hermse quoted a piece of research from 1997, but I can beat that by quoting a 2006 paper by Dr Susan Gubbay. As an adviser to English Nature and DEFRA on marine protected areas, she is an expert on these matters. In reference to the research that has been done on scallop dredging, she states:

"Large scale investigations of scallop dredging on soft sediment communities in Port Phillip Bay, Australia, recorded physical changes to the surface of the seabed (pits, depressions and tracks) immediately after the dredging activity. No physical differences were apparent between dredged and control sites eleven months later".

The effects do not last for decades, as Professor Roberts suggested they do.

**Richard Lochhead:** Many issues are thrown up by this complex matter, but I want to pick up on Patrick Stewart's suggestion about how marine protected areas should be created. Perhaps John Hermse can give his view as well.

One issue for debate is whether marine protected areas should be created by a community-driven process as in this case—albeit that I share the concerns that are outlined in the submission about the lack of an overall framework for the establishment of such areas—or through a top-down process that is driven by the state. If I picked him up correctly, Patrick Stewart suggested that the creation of marine protected areas should be driven by the state on behalf of the people of Scotland rather than by communities making proposals and having an influence over whether a marine protected area should be established.

**Patrick Stewart:** You misunderstand me. The criteria should be agreed at state level on the basis of a scientific assessment. In other words, there should be an objective assessment of what the criteria should be for a marine protected area. The state and those who advise the state—in this case, Scottish Natural Heritage—should provide advice on which sites should be designated so that the sites eventually form a coherent network. The state, through Parliament, should then designate marine protected areas and enforce whatever regulations are applied to them. That is on one level.

However, nothing should be put in the way of allowing communities to suggest areas to fill that network. If we are to save our marine

environment, the community must be involved. Without ownership—I hate that modern expression—by the people, the system is bound to fail.

**Richard Lochhead:** But your point is that Lamlash bay does not meet any set criteria because there are no set criteria that it should meet.

**Patrick Stewart:** There are no criteria and what is amazing is that the promoters have suggested none. One might be driven to the conclusion that the only criterion that the proposal meets is that it is in their back yard; in other words, they are not suggesting that Ayr bay, Loch Long or Loch Fyne be closed—funnily enough, it is Lamlash bay.

We have always met COAST when a meeting has been suggested. It may disapprove of the way in which I represent the interests of my members, but that is what I am paid to do. However, we have maintained friendly relationships; indeed, I am assisting COAST in opposing a Marine Harvest fish farm application just to the north of the proposed closed area. I am doing the lobbying for COAST through my contacts. I hope that we are successful.

At our first meeting with COAST, which was only in 2003, I suggested the idea of a scallop regeneration area, because if you want people to agree with you, you have got to give them something. COAST understands that the community of Carradale has an equal interest in Lamlash bay with the communities of Arran. A scallop regeneration project would bring benefits—not just possible benefits, but benefits based on experiments done in the Port Erin marine laboratory on the Isle of Man. We do not need a trial—we know that such a project will be successful. The legislation to underpin that and prevent incursion already exists in the Sea Fisheries (Shellfish) Act 1967. No wheels have to be invented. The scallop fishermen would get something that would encourage them to ensure that the area was protected and COAST would get almost everything it wanted. Scallop fishing would be controlled and people would not, by any manner of means, be able to go there whenever they wanted. The committee that would control the regeneration area would include representatives of COAST, as well as the fishermen. That would seem to me to be a positive way forward. I want to give you some good news. At the meeting with SNH three weeks ago, the proposal was once again rejected by COAST, but I am pleased to say that at the door of the committee room, Mr Macneish said to me that COAST is now prepared to consider it. That is very good news indeed.

**Elaine Smith:** Mr Stewart, you said something about the community of Arran that I did not follow. You said that it wants Lamlash bay to be



considered, but you talked about other areas in Ayrshire and so on. If other communities had worked on a proposal for 10 years, perhaps they would have put in a petition and we would be considering it. I am not clear what your point was about the Arran community. Twenty per cent of the community are members of COAST and the rest of the community supports the petition. Lamlash bay seems to be in quite a unique circumstance for taking forward this kind of no-take zone, so what point were you making?

**Patrick Stewart:** Lamlash bay is not unique—do not delude yourself into thinking that it is. Its geomorphic make-up, biodiversity and so on are the same as those of the rest of the Firth of Clyde. The point that I was making was that this is the community of Arran wanting part of Arran closed off. I understand that, but we are not told that other areas in the Firth of Clyde are already closed. If you want a trial, therefore, you only have to go to Loch Ryan or the Gare loch, which have been closed since 1986, to see the effect of no-take or marine protected areas. There is nothing novel in what is being suggested here. To say that such an area is unique and groundbreaking is not true because it already exists.

You might remember that the Holy loch has been used for purposes other than fishing. When the military use for it ended—and before we had heard of COAST—the Clyde Fishermen's Association proposed that the Holy loch be made a no-take zone, for the very purpose that we are discussing. However, that was not approved, even though the Holy loch would have been ideal, given that it had not been fished—although there were a lot of Coca-Cola cans and things that glow in the dark on the bottom.

**Elaine Smith:** I am still not entirely clear about this. However, I am sure that we will not be deluded into anything. We will take evidence and come to a conclusion.

**The Convener:** Mr Stewart, what do you think about the evidence in Loch Ryan and the Gare loch?

**Patrick Stewart:** An experiment was done in the Gare loch by the marine laboratory, or the Fisheries Research Service, as it now is. One of our skippers was involved in the work and was trawling an area and comparing it against a no-trawled area. I do not know what the outcome of that was.

**The Convener:** It is proposed that research be carried out to find out the impact of a no-take zone.

**Patrick Stewart:** Research has been done in the Gare loch by Government scientists.

**The Convener:** So we can ask Scottish Natural Heritage, I suppose.

**Patrick Stewart:** SNH might not know about it, because it was the Fisheries Research Service, or its predecessor, that did the work.

**The Convener:** We would expect the information to be out there.

**Maureen Macmillan:** We are getting mixed messages. You are saying that there have been successful no-take zones in other parts of the Clyde that have, presumably, created biodiversity. However, we hear that Broad bay in the Western Isles is a desert. We are trying to get some kind of perception of what will happen. Both things cannot be right.

**Patrick Stewart:** I have said nothing about the success of the zones. We are not allowed to fish in those areas, so I cannot tell you anything about them in that regard.

**Maureen Macmillan:** Can you give us any clues? Do you have any idea whether there has been an increase in biodiversity?

**Patrick Stewart:** No.

**Maureen Macmillan:** Who would know that?

**Patrick Stewart:** You would have to ask the Executive if it has any information. It might not have, because I am not aware of any trials apart from the one that was carried out in the Gare loch.

**The Convener:** There does not appear to be systematic monitoring. We will have to take that up with the Executive and SNH.

**Rob Gibson:** On the possibility of having marine spatial planning and the like, have you suggested to SEERAD that the Clyde Fishermen's Association would be quite happy to have a complete network of marine protected areas in perhaps 20 years' time?

**Patrick Stewart:** No. I do not know the connection between the two things. We understand that marine protected areas are coming and we expect to be involved in the planning for those. When they will happen, I cannot say; that is not in our hands. I do not know where the figure of 20 years comes from, but the fact that you used the phrase "marine spatial planning" gives me a clue. The Scottish Fishermen's Federation, of which the Clyde Fishermen's Association is part, suggested that the marine spatial plan that is proposed by the Department for Environment, Food and Rural Affairs in relation to its draft marine bill should not be binding for 20 years, during which time the criteria would be worked out. Would that be the point that you are getting at?

**Rob Gibson:** No, it would not. The question is to do with whether it is in the interests of the Clyde Fishermen's Association to have an early agreement or a later agreement.

**Patrick Stewart:** As I have told you, from day one, we have sought an agreement and we continue to do so. That is why I was heartened to hear what Mr Macneish said this morning.

**Rob Gibson:** I am interested to hear you say that. Mr Macneish is proposing a means whereby scientific evidence can be gathered. However, if you noted the remarks that I made in the committee last week in relation to the order closing the cod fishery in the Clyde, the exact name of which I cannot remember, you will know that the scientific basis for establishing any evidence is flimsy, to say the least, as SEERAD has said. Do you accept that it would be a good idea for communities such as those that are involved in COAST to create the opportunity for more detailed knowledge to be gathered? We have such a small amount of knowledge about the benefits of such a zone.

**Patrick Stewart:** If you are asking whether I support the funding of research into marine biology matters, the answer is yes.

**Rob Gibson:** I am not asking that. Lamlash bay is in no way comparable to Loch Ryan, the Gare loch or Broad bay, because it has two entrances—it comprises an island and a bay and is not a V-notch in the land. I am asking whether research there would be of benefit.

11:30

**Patrick Stewart:** I would be delighted by that. Research took place at Lamlash bay last week. The marine laboratory at Millport is conducting research there right now with our full support.

**Rob Gibson:** Does anyone else on the panel wish to comment?

**Alistair Sinclair:** We have no benchmark for the marine environment around Scotland's coast. We have no parameters that allow us to say, "This is how it is and this is how it should be." The COAST proposal would give us a plateau from which to work. On that basis, surely it must be the way forward. We will be able to examine the site before and after any decision has been made. The marine lab at Millport is just round the corner, so Rupert Ormond and co are handy. We could take the information that they gather and create a set of standards for other pieces of ground around the Scottish coast.

**Rob Gibson:** It is suggested that only 5 to 10 per cent of the maerl beds that used to exist in Lamlash bay are left. I presume that they have been degraded by overfishing. Would they provide

a good base for evidence, given that we are talking about finding an exemplar of the forces that we must balance?

**Alistair Sinclair:** We must start somewhere.

**Rob Gibson:** You feel that Lamlash bay is a place where you might be able to do that.

**Alistair Sinclair:** Exactly.

**Patrick Stewart:** Perhaps the member could share with us the evidence that 5 to 10 per cent of maerl beds are left and that what is left is degraded. I understand from the evidence that the bay provides the best example of maerl beds in the Firth of Clyde, although that may not say much about them.

**Rob Gibson:** Do you suggest that SEERAD should gather such information? If so, would it not be a good idea to implement COAST's proposal, as that would further our knowledge?

**Patrick Stewart:** Of itself, COAST's proposal would do nothing to further our knowledge. What furthers our knowledge is scientists having the money to do research. If Professor Robin Cook of the FRS were sitting here, he would support such a proposal 100 per cent.

**John Hermse:** I would like ecologically coherent networks—that was the phrase that Patrick Stewart used—but only after the required research has been done. If the proper research is done, we can target areas properly before they are closed for 10 years on a whim or on the basis of inverted nimbyism or whatever—I do not know. We cannot take chances with people's livelihoods and have diversification from fishing, because a proposal such as that for Lamlash bay would cause hundreds of proposals to pop up all over the place and fishermen would fish in a square inch. The situation is extremely dangerous.

We should have some closed areas and have a network, but only after the required research has been done. After going on at great length about the success of marine protected areas, Professor Roberts said that Lamlash bay would be used as a proof of concept. Why? I argue that we surely have enough scientific knowledge to find out which areas can be used, rather than operating ad hoc.

**Rob Gibson:** If we were discussing a community's proposal to stop overgrazing by sheep or deer on land, would you say that the community could not take control of the land but should wait for a national plan to be put in place?

**Patrick Stewart:** May I answer?

**Rob Gibson:** The question was to John Hermse.

**Patrick Stewart:** John Hermse would like me to talk about what the Wildlife and Countryside Act

1981 says. It makes provision for such proposals through management arrangements that SNH puts in place and monitors. The position is clear on land: if grazing must be reduced on a site of special scientific interest, a management agreement will be entered into and the owner of that land will receive payment for profit forgone. That arrangement is different. There is no difficulty with your example, except that such a situation does not happen at sea.

**Rob Gibson:** But the owner of the land is the Crown Estate.

**Patrick Stewart:** No. The owner of the land is the farmer—

**Rob Gibson:** Under the sea in Lamlash bay?

**Patrick Stewart:** The owner of the fishing, or the right to fish, was established by this Parliament—or the previous one—in 1705. The people of Scotland were given the right to fish, and anyone who wants to abridge that right has a heavy responsibility to discharge.

**The Convener:** That is what we are debating.

**Nora Radcliffe:** Rob Gibson has covered one of the aspects that I wanted to ask about. I wanted some clarification on reseeding scallops. Would that happen in the marine protected area? Would people still respect the no-take zone if there was an agreement with COAST? Is that the proposal?

**Patrick Stewart:** Not quite. The no-take zone would be the reseeding area. It would be protected by a several order preventing all fishing. However, the Scottish Parliament amended the legislation to allow creel fishing in a several order area. The several order comes under the 1967 act, as does the regulating order controlling access in the rest of Lamlash bay, the area designated as an MPA.

**Nora Radcliffe:** What would be the nature of the controlled access?

**Patrick Stewart:** Controlled access would be under fishing licence, conditions of which are enforced by the Scottish Fisheries Protection Agency and approved by the Minister for Environment and Rural Development. The Parliament recently passed an act saying that private orders made by regulating companies could be enforced by the state, provided the minister—not the Parliament, by the way—approved the terms of the order.

**Nora Radcliffe:** That clarifies that.

You said yourself that the area is very small, even in relation to the coast of Arran. It does not sound like there is a massive fishing effort there, and I take on board your argument that there is no evidence that it is particularly significant. You described the situation as typical. Can you see no merit in doing something in a small, typical area

that will not disadvantage an awful lot of fishing effort almost as a benchmark for what can and cannot happen with marine protected areas and no-take zones?

**Patrick Stewart:** I think that you heard from Professor Roberts today that all the research on that has been done. We know what can happen. We know what happens in temperate waters. We know what happens with mobile and sessile stocks. We know what the effects are. There is no need to have an experiment.

We support the proposal of having an ecologically coherent network of marine protected areas. There is not much point in standing against that. I have explained how that should happen. My point is that it is not appropriate to have a standalone MPA in Lamlash bay that is not part of the coherent network that is envisaged. That is all—there is no opposition to the principle.

**Nora Radcliffe:** How far are we from establishing that coherent network? How good is our knowledge in that regard?

**Patrick Stewart:** The Minister for Environment and Rural Development will be giving evidence later. He chairs a group called AGMACS—the advisory group on marine and coastal strategy—that advises him on marine nature conservation. I am sure that the minister will be able to help you on that subject.

**Nora Radcliffe:** Is one of the reasons why you are so nervous about the proposal the fact that it will set a precedent? I think that John Hermse said that his association foresaw small measures of this sort having a cumulative effect, should they be taken to be a precedent.

**John Hermse:** We are worried about areas being designated without the proper scientific rationale.

If I may, I will go back to your previous question to Patrick Stewart about reseeding areas and no-take zones. I was involved in the reseeding project in the Isle of Man. The Isle of Man has had in place a no-take zone for scallops—a test area—for nine or 10 years. Professor Roberts is right to say that there has been great regeneration there, not only in the number but in the fecundity of the scallops. One of the side effects is that the spat from that area, on the south-west of the Isle of Man, is travelling all the way round the island. It is regenerating the north-east area, including Ramsey bay. To me, that is fantastic. I want to be involved in something like that, but I do not want wee areas just to pop up on a whim.

**Nora Radcliffe:** Could you see Lamlash bay eventually being such an area?

**John Hermse:** I do not know. It could be, but let us get the research done.

**The Convener:** What would be the objection to the suggestion that we heard earlier of having a reseeded area near Lamlash bay, so that there would be the no-take zone and then an area that would be seeded and accessible to the fishing industry?

**John Hermse:** I would be inclined to favour a reseeded area, but I would have to see the fine detail first, to see what interaction there would be with the adjoining no-take zone. I would not like to say at this stage that I am in favour of a specific proposal.

A scallop strategy is currently being worked up as part of Mr Finnie's sea-FAR group. One of the key elements of that strategy is research into areas for reseeded, and we have been suggesting that to the Executive since 1998 and even before the Scottish Parliament was established.

**Patrick Stewart:** The reseeded area arose from the COAST proposal, which suggested that the area at Hamilton rock, at the north end of Lamlash bay, would be ideal for its NTZ. We discussed that with COAST and with the Carradale fishermen. Some refinements were made to the proposal, but everyone seemed happy that that was the appropriate area for the NTZ, and the MPA seemed ideal for the control area. Mr Gibson said that Lamlash bay is different because it has two entrances, and that is right. That is why scallop regeneration in that area could be extremely important, because the spat would have two ways out, north and south. One of the areas that is suggested for the network in the review of marine nature conservation is at the south end of Arran, at Brown Head, which is not that far from Lamlash bay, so spat going there could be a big benefit.

Scallop dredging takes place all round the coast of Arran. Nobody has mentioned redistribution of effort. As you may be aware, the Firth of Lorne is about to be closed under a ministerial order and there will be huge displacement of effort from there. Both things happening at the same time would be unfortunate, but perhaps we will get the other closure stopped.

**Mr Alasdair Morrison (Western Isles) (Lab):** I would like to follow up what Mr Stewart and Mr Hermse have said in response to other questions. I am trying to recall what was said three years ago, when we were discussing reducing the number of dredges that boats could tow behind them. Can you remind me which side of the argument you gentlemen were on?

**Patrick Stewart:** I was on the goodies' side.

**John Hermse:** I was on the goodies' side also.

**Patrick Stewart:** We wanted a weekend ban on scallop dredging in the south-western waters of Scotland.

**Mr Morrison:** My powers of recall are not what they used to be. Were you in favour of reducing the number of dredges that boats could tow on each side?

**Patrick Stewart:** Yes. We thought that the minimum that we could get away with was eight, but that if we could get it lower, that would be fine. As it happened, it was brought down to eight, thanks to your support.

**Mr Morrison:** It is worth noting that some committee members—the nationalists and the Greens—were opposed to that. I say that on the record for the sake of clarity.

**The Convener:** I have a brief question for Alistair Sinclair. There were discussions about where the no-take effort would actually take place. Do you have a view on how feasible it would be to have scallop beds seeded?

**Alistair Sinclair:** I have no opinion on that. I understand the points of view of the Clyde Fishermen's Association and the Mallaig and North West Fishermen's Association: those guys have got to fish. Fishermen's rights are being eroded every day, and we must try to stem that erosion. I say that with the caveat that the Lamlash bay proposal is probably our best chance of doing something for the marine environment for the future. We should think about the future rather than today.

**The Convener:** I thank the three witnesses for their evidence. Like the previous panel, they are more than welcome to stay on.

There will be a suspension for a couple of minutes to allow us to change witnesses.

11:45

*Meeting suspended.*

11:48

*On resuming—*

**The Convener:** I welcome our third panel. John Thomson is SNH's director of strategy and operations in west areas and David Donnan is a senior fisheries advisory officer for SNH. Quite a lot of information from SNH has been included in previous committee papers. We have many questions to ask you about your written evidence and as a result of our interplay with this morning's witnesses.

**Eleanor Scott:** Can the panel give us a general overview of the state of the marine ecosystem in the Clyde? What initiatives are already in place to protect it?

**The Convener:** It would be useful to get your perspective on the areas that have already been

shut at Loch Ryan and Gare loch. Are those restrictions being monitored systematically? For the record, it would be helpful to know how those areas fit into your overall strategy.

**John Thomson (Scottish Natural Heritage):** I will pass that straight to my colleague David Donnan, who is the technical expert.

**David Donnan (Scottish Natural Heritage):** I will tackle the second question first. A few closures or restrictions that are in place in Scotland have been mentioned this morning. Most of them are a result of the implementation of the Inshore Fishing (Scotland) Act 1984. A variety of measures are in place, ranging from gear restrictions and temporal closures—an area might be closed for six months and then open for six months—through to the exclusion of mobile gear. Broad bay, which has been mentioned, has such an exclusion, as does Gare loch in the Clyde and Loch Gairloch in Wester Ross. Unfortunately, since the restrictions have been implemented, no systematic assessment or research has been done on them. Therefore, we cannot say whether they have been beneficial and have fulfilled the objectives for which they were implemented.

**Eleanor Scott:** What is your view of the health or otherwise of the marine ecosystem in the Clyde generally?

**David Donnan:** As with everywhere in Scotland and elsewhere, the fortunes of the Clyde have fluctuated. We have already heard that the situation with the commercial fish species has changed—the herring and white fish are not what they were. However, the water quality in the Clyde has changed. Recovery from the heavy industrial pollution in the upper Clyde is on-going and damaging activities, such as the dumping of sewage sludge, have been removed. The Clyde has had mixed fortunes.

**Eleanor Scott:** For which areas of the Clyde do we have the best knowledge of the local ecosystems?

**David Donnan:** The Clyde has been studied for a long time—since the marine station at Millport was established in the 19<sup>th</sup> century—so we have an enormous legacy of knowledge about it. We have less knowledge about the specific distribution of habitats and species, particularly habitats on the sea bed. The Clyde is not peculiar in that. I am saying not that we do not know anything, but that our knowledge is not as full as we would like. The largest systematic study in which our agency was involved and which was relevant to the Clyde occurred as part of the marine nature conservation review, which involved a systematic survey of the Scottish sea lochs and was based at Millport marine station. That study gave us pretty good information about the sea lochs in the upper

Clyde. However, we have less information about the wider Clyde sea area.

**Eleanor Scott:** People from Millport have been involved in COAST and have carried out research on the habitat at Lamlash bay. Would you say that we know as much about Lamlash bay as we know about anywhere else in the Clyde estuary, excluding the sea lochs?

**David Donnan:** When we first had contact with COAST about Lamlash bay, relatively little was known about the bay. One of the first interactions that we had was to encourage COAST to gather information about the habitats and species in the area. COAST used the seasearch project, which we fund, through which volunteer amateur divers collect information. That built a good base of knowledge. As you heard this morning, the marine station at Millport has also carried out some supplementary work. We have a reasonable understanding of Lamlash bay.

**Mr Brocklebank:** Can you develop the point about whether Lamlash bay has any particular characteristics that would make it valuable as a no-take zone or an experimental bay? Is it one of several different bays in that part of the Clyde?

**David Donnan:** On your visit to Arran, you will have seen the maerl beds there. That habitat is of significant conservation value because it is rich in flora and fauna. Reefs or aggregations of worms—in the case of Lamlash bay, the maerl is plants—create a three-dimensional heterogeneity and complexity to the sea bed that would not otherwise be there. Put simply, they provide living space for animals and plants. Therefore, such beds are an important part of our marine biodiversity.

Recently, some interesting research has been done, funded partly by SNH and carried out at the marine station at Millport, into the ecological significance of habitats such as maerl beds and their importance to commercial species. As we have heard today, the maerl habitat is of specific importance to scallops. Scallops need certain conditions to enable the larvae to settle out of the water column on to the sea bed, and maerl provides that in spades.

There is a potential win-win scenario. The conservation of the habitat is important not just from a general biodiversity point of view, but for its commercial significance.

**Mr Brocklebank:** On the face of it, those appear to be arguments for Scottish Natural Heritage to support COAST. Lamlash bay sounds like a very good place to carry out experimentation and have this trial for five to 10 years. However, as I understand it—having seen the vox-pop video that we were shown on Arran, which included comments from Mr Thomson—that is not your

view. You do not want to designate the bay a marine protected area in isolation—is that correct?

**John Thomson:** Perhaps I can clarify our position. We have always been sympathetic to what COAST is trying to achieve and we are supportive of its interest in the local marine environment. As David Donnan said, we have previously provided COAST with both advice and a certain amount of funding to help it to improve the survey information on Lamlash bay. We also accept what Professor Roberts said about the evidence from around the world that no-take zones and marine protected areas of various kinds can be beneficial not just to conservation interests, but to fisheries interests. We are coming from a broadly sympathetic stance.

However, we have some reservations about the specific proposal. Broadly, they fall into two categories relating to the two possible purposes. The first reservation is from a strictly conservation standpoint. The main category of marine designated sites, at the moment, is the Natura 2000 series. As we have tried to explain in our written evidence, on the information that we have available to us, we do not think that Lamlash bay stacks up as a Natura 2000 site, so it does not qualify for designation on those grounds. Nevertheless, as David Donnan said, we think that Lamlash bay is of significant conservation interest—we are not disputing that at all.

12:00

The second reservation relates to fisheries management. The argument has been advanced—even by COAST representatives themselves—that Lamlash bay is too small to make its designation as a no-take zone a good fisheries management measure. That is not to say that there would be no benefits, but the benefits would be quite limited because of the limited area involved. As you will know from our written evidence, our feeling has been that the big prize is a much wider system of marine spatial planning and marine management with—as the fisheries interests have acknowledged—some sort of ecologically coherent network of protected areas. Lamlash bay could form one of those, and the degree of community support for that would make it a very good candidate. That is the context in which we have preferred to see the proposal.

Having said that, we believe that, if there is willingness on all sides, there is scope for some sort of trial or pilot scheme in Lamlash bay or, preferably, a slightly wider area, which we think could be of great benefit. Up to now, we have not pressed for that because of the history of confrontation and conflict over the issue, of which you will have seen evidence in your investigations. We feel that the way forward for marine

management must be a coming together of the various interests in recognition of the potential mutual benefits. We understand why COAST has been frustrated by the slowness of the process until now and we have a lot of sympathy for that, given what was said earlier about the pace of improvement in fishing technology, which is increasing the pressure all the time. Nonetheless, we feel that such a measure will work only if we can bring all the interests together. Therefore, we have been heartened this morning by the extent to which we think that that is beginning to happen. That is not to say that it does not need more impetus, but it is beginning to happen.

**Maureen Macmillan:** My questions have been answered. I was going to ask about the possibility of Lamlash bay being used for a pilot project, given that other areas have been closed and nobody has researched the effects. I was also going to ask whether you think there is room for compromise between the two sides. I am encouraged by what you have just said. Can SNH do anything to move things forward?

**John Thomson:** David Donnan may want to comment on the technical aspects. We are broadly happy to continue to play the role that we have tried to play until now in providing objective and—we hope—constructive advice and, within the limits of our resources, a certain amount of funding. As others have emphasised, it is important that the effects of any marine protected area designation be properly monitored. We would be keen both to advise on the nature of that monitoring and to help to fund it, although we would have difficulty funding it on our own, given our resource constraints.

**David Donnan:** As John Thomson said, part of the support that we have offered to COAST has been in trying to seek ways in which the proposal can be progressed constructively. The previous panel mentioned several things that are relevant beyond the context of COAST's proposal, such as the need to develop a robust management regime for the scallop fishery, the sea fisheries strategy and the action plans that are developing. As Mr Hermse said, there has been a long history of discussion over how to achieve those things.

We have been considering the possibility of developing a project that will move all that forward. It would be of relevance not just to COAST, but to the scallop fishery more widely and to implementation of the new inshore fisheries framework. The proposed inshore fisheries groups will be required to develop management plans for their areas, and the project would feed into that process.

What COAST proposes is a trial. To do a trial, it is necessary to gather information and assess it and to monitor the project with sufficient scientific

rigour. On the negative side, we have said that the area in COAST's proposal is too small to deliver that objective and have advised COAST to be careful about promising more than the trial could deliver. However, to think about the proposal in a wider context, a scallop project would require that a larger area and a larger range of management options be considered—Lamlash bay certainly has a strong case for being part of any such project.

SNH has said that we expect a future scallop fishery regime to contain a strong spatial element: there would be areas where no scallop fishing would be allowed, areas where only hand gathering of scallops would be allowed and areas where there would be seasonal or rotational closures. To demonstrate that, we would need to consider a slightly wider area, but Lamlash bay could fit the bill for the area where no scallop exploitation would be allowed.

**Maureen Macmillan:** Would that include a no-take zone where no scallop or line fishing would happen?

**David Donnan:** Yes. There are two problems with such a project. One is that it takes resources; so, in order to gather those resources we would need to make the project relevant in a wider context—that is where the grand scheme of things comes into play. The other aspect is that we need to bring many different parties together.

**Maureen Macmillan:** Thank you. That was encouraging; I hope that it was also encouraging to the other people who are listening. What kind of timescale might you be considering?

**David Donnan:** The proposal has emerged in the relatively recent past, as we heard today, so we are only in the early days of developing it. However, we hope to get things started by the next financial year. That is what we are considering.

**Rob Gibson:** The committee has heard evidence from COAST that in 1995 SNH was investigating how marine nature reserves should be pursued in Scotland and that it expected then to reach a conclusion in the near future. Has that work been concluded and, if not, what is the delay?

**John Thomson:** I will pass that over to David Donnan to answer in detail. I think that, back in 1995, we were investigating the identification of a network of Natura 2000 protected sites. One seeks to represent in such a network certain habitats that are specified in the habitats directive; a Natura 2000 network would not by any means cover all marine habitats or marine ecosystems that would be of interest. That was the primary activity in which we were engaged in 1995 but, at the same time, eventually abortive efforts were

being made to establish a marine nature reserve at Loch Sween. That has also been mentioned.

**David Donnan:** John Thomson has answered the question. I think that COAST was referring to the process of nominating the special areas of conservation under the habitats directive, which was under way in 1995.

**Rob Gibson:** With more scientific knowledge, you might decide that Lamlash bay could be a special area of conservation. However, the report from the Prime Minister's strategy unit "Net Benefits: A sustainable and profitable future for UK fishing" said that MPAs should be tried and tested. Will MPAs be tried and tested in Scotland and, if so, where?

**John Thomson:** We are certainly moving towards some sort of MPA network. I hope that we do not do so on a trial basis because—as has been said—there is already a lot of experience of such an approach in other parts of the world. We are keen to see MPAs explored in the right sort of context.

I go back to the point that I made about Lamlash bay. MPAs need to emerge from a process of planning in which all the interests are involved—there is a wide range of them, including some that are not represented here today—and in which people accept that there is mutual benefit to be had from a regime that includes MPAs. As David Donnan said, MPAs come in many shapes and sizes. There is a tendency to identify marine protected areas simply with no-take zones, but NTZs are only one example of an MPA. We can protect the marine environment in many other ways that fall short of NTZs, although they are an important component. We hope to move towards an MPA network: I am pretty sure that that is what is now in the Executive's mind. Certain international commitments require the United Kingdom to move towards a system of MPAs.

**David Donnan:** As John Thomson said, the special areas of conservation are marine protected areas and work on them is continuing. We are also engaged in other relevant research; for example, we have collaborated with fishermen, the marine laboratory in Aberdeen and the University of Glasgow in considering an example of spatial management in an area in Wester Ross, where we are examining the creel fishery for prawns. As a result of the fisheries management measures that are in place there is an area where there is no fishing, an area where there is mobile-gear fishing and an area where there is static-gear fishing. We are concluding that research now and are working on the results.

**Rob Gibson:** I am well aware of the Wester Ross example—it is near where I live. In the debate about setting up marine national parks, a

huge amount of flak has come from communities who feel that such a park might be imposed upon them. In this case, a community is looking for a means to take part in the furtherance of scientific knowledge and the restocking of particular areas. Is not the potential of a community that favours such an approach—in contrast with the large areas where people are expressing extreme concern about further regulations—something that you should take on board and support?

**John Thomson:** We can fairly claim to have taken that on board. Over the years we have done a good deal to help and support the COAST initiative, on the basis that we value and appreciate a coastal community taking an interest in its resource. However, a point about communities that comes up constantly in SNH's work on protected areas on land as well as at sea is that there are different communities—there are communities from the global level down to the household. As has been pointed out, a community beyond the local community on Arran has an interest in Lamlash bay; Carradale fishermen and fishermen from elsewhere on the Clyde use it. Their interests cannot be neglected, but must also be taken into account. In the jargon, they are stakeholders, too.

We must find a mechanism for bringing those communities together. A potential strength of a marine and coastal national park—I am not particularly advocating such a national park for the Clyde or anywhere else—is that, like a terrestrial national park, it can provide a mechanism for trying to bring those different perspectives to bear. Where there is perceived to be a wider interest, such an approach might involve the injection of resources from a wider community into management of the local environment because that is seen as being of wider national or community interest. I make the caveat that although it is certainly the case that there is community support for COAST, which we welcome, other communities' interests must also be taken into account.

12:15

**Rob Gibson:** Although another community might have an interest in Lamlash bay, you would agree that the Executive would not necessarily take into account a veto because it can decide to make an order on the basis of what it thinks it wants to do, without necessarily getting consensus. The fact that the consensus building that you talk about takes a long time means that a decision might not be reached until long after Lamlash bay has lost even more of its potential for regeneration.

**John Thomson:** That is obviously the worry, which is why I used the word "impetus" earlier. We

think that the process needs more impetus; we have heard evidence today that it is beginning to build up.

**The Convener:** You said that not everyone was involved in today's discussion. We tried to invite everyone who would be interested, so who have we missed out?

**John Thomson:** I have in mind people such as recreationalists other than those who represent recreational angling or fishing interests. I am not sure to what extent other forms of recreation are necessarily an issue in relation to management of Lamlash bay because I am not sufficiently familiar with the detail, but I make the general point that representatives of such interests can be involved in discussion of marine management issues. In some areas, there are people with aquaculture interests and it is increasingly the case that there are likely to be people with renewable energy interests, although I do not think that that is the case with Lamlash bay.

**The Convener:** We assumed that some such people were members of COAST, so we took the view that they were involved in the process.

Is there anywhere else in Scotland where there is a similar community engagement process? I am conscious that one of the representatives of fishing interests said that he was nervous about such proposals popping up everywhere. Are there any other areas that are serious contenders for such work, where there is both broad-based community support and buy-in from SNH? It feels as if the COAST initiative has been developing for a long time. Are there rivals out there?

**David Donnan:** You may be aware that the community on Fair Isle has for some time had a similar objective to that of COAST. Its proposal has not been hung on the designation of a no-take zone, but it has involved the imposition of restrictions on fishing in the area and the adoption of some form of protection for the marine environment. There are a few other similar initiatives elsewhere in Scotland—those in Wester Ross and Mull spring to mind.

An issue that has been highlighted by the COAST proposal and, to an extent, by the coastal national park work has been that although a variety of mechanisms exist for delivering community engagement in the terrestrial environment—examples of which are community woodlands and local nature reserves—we lack similar initiatives in the marine environment. I could go on about the fact that marine conservation has been the Cinderella of the conservation movement and has lagged behind terrestrial developments for a while. The lack of marine community initiatives has been raised.



**The Convener:** Do you think that scope exists for more impetus to be given to the project in 2007?

**David Donnan:** Yes.

**The Convener:** What form will that impetus take? It is apparent that a dialogue is going on.

**David Donnan:** The impetus is threefold. We have already undertaken work on the role of certain habitats and, in particular, on their importance as nursery habitats for certain commercial species, such as scallops. The work that we have done will serve as a basis for further progress.

The second impetus is the implementation of the inshore fisheries framework and the establishment of inshore fisheries action groups. Finally, the work of the sea fisheries advisory and reference group, or sea-FAR, and the sea fisheries strategy action plans, including a potential plan for scallops, will also be an impetus. This project would feed into the requirements of all that work.

**The Convener:** You think that instead of automatically cutting across that work the project will feed into and develop it.

**David Donnan:** The project will definitely not cut across any work. For example, the inshore fisheries groups will be required to develop a management plan and a set of management objectives. We would like to be able to provide inshore fisheries action groups with good advice and examples of good practice—in this case, with respect to the scallop fisheries—along the lines of the experience in the Isle of Man and the United States, to which Mr Hermse referred. As I said, we expect inshore fisheries action groups' management plans to include a spatial element and to deliver protection for habitats or areas that are important not only for their biodiversity value or their sensitivity to activities but for their fisheries. With maerl beds, we hit both objectives at once.

**Elaine Smith:** Mr Donnan said that there has been a long history of discussing the issue. Given that this work would have no detrimental effect on or cut across the wider strategy, there seems to be little reason not to go ahead with it. However, I wonder whether Mr Thomson will expand on the financial issues that he mentioned.

**John Thomson:** As David Donnan said, to get the maximum out of any pilot or trial scheme, you need to invest in proper monitoring. Other witnesses have pointed out that a number of closed areas have already been introduced around the Clyde but that we cannot, because no one has monitored their impact, draw any conclusions from them. If this project goes forward, it must be monitored to ensure that we

can reach some conclusions that all parties can agree to.

**Elaine Smith:** You said that SNH alone would not be able to take that forward.

**John Thomson:** SNH would find it difficult to find the resources to carry out that monitoring.

**Elaine Smith:** Where would further resources come from?

**John Thomson:** I hope that we would be able to draw down money either from the Executive or from Fisheries Research Services. Certainly any money would be helpful and would supplement any investment by SNH.

**Nora Radcliffe:** Did anyone know that there were maerl beds in Lamlash bay before you carried out your investigations?

**David Donnan:** Off the top of my head, when we first spoke to COAST, we had no records of maerl beds in that area. They were discovered as a result of COAST's work and the sea-search surveys. We had records of other maerl beds around Arran.

**Nora Radcliffe:** How do the maerl beds in Lamlash bay compare with those in Loch Laxford and Loch Maddy for extent and quality? Are they as good? Are they better? Indeed, are they comparable?

**David Donnan:** They are good typical examples of such beds and have all the expected characteristics. As for size, they cover a relatively small area, compared with the beds in Loch Maddy, Orkney and, in particular, the Western Isles.

The committee will excuse me if I go too deeply into the matter—it is one of my interests—but I should point out that there are different types of maerl bed. For example, the maerl beds in Loch Laxford and Loch Maddy have different characteristics, which depend on, for example, whether they lie in sheltered waters and so on.

**Nora Radcliffe:** There is a range of types of bed.

**David Donnan:** Yes, that is probably the simplest way of putting it. However, the Lamlash bay beds are very good examples.

**Nora Radcliffe:** I just wanted to know how you would score them for desirability.

I want to draw together a few threads. You say that you want to give good advice on good practice as the marine protected areas strategy develops. This morning, we heard how long it can take to develop confidence among the different communities and interests, and to get them to the table and talking to each other. As someone

pointed out, some more progress was made outside the committee room door this morning. Is there a strong argument for taking forward this proposal as a trailblazing exercise that will build on years of work and enable you to provide good information and advice on good practice as you move towards introducing a wider network of protected sites that might, in the future, be selected according to stronger ecological criteria? Surely the information that you received from Lamlash bay will help you to progress any subsequent initiatives.

**John Thomson:** The simple answer is yes. If fisheries interests and COAST are interested in establishing a trial project in Lamlash bay, we should seize the opportunity to do so.

**The Convener:** I thank the witnesses for giving evidence and for providing a written submission in advance. Your evidence has been very helpful.

I suspend the meeting so that we can change over witnesses. The Minister for Environment and Rural Development will be here presently.

12:27

*Meeting suspended.*

12:32

*On resuming—*

**The Convener:** We move on to our final panel. Minister, while you were in Cabinet this morning the committee had a most interesting series of questions and discussions. There have been some interesting exchanges both in the room and at the door, as people on previous panels have listened and talked to each other and had some side conversations. The mood of colleagues around the table, particularly given SNH's response this morning, is that there may be scope for agreements that would develop COAST's proposal and that could bring together all the key players to move forward.

We have scheduled you for introductory comments, minister, which I am more than happy to take if you have prepared them, but I wanted to give you a sense of the most interesting discussion that we have had, and that there is scope for moving forward. People have used the word "compromise" not as a dirty word, but as a positive opportunity to bring different sides to the table and, potentially, to move forward. The discussion has been constructive, with lots of difficult questions for everybody. It is now over to you. I know that this is not the usual way in which I introduce you to the committee, but this morning's have not been our usual discussions.

**The Minister for Environment and Rural Development (Ross Finnie):** I am extremely pleased that that has been the tone, tenor and substance of the discussion. This is without any shadow of a doubt a difficult issue, but in my view there must be a compromise. If pressed, I will explain why I believe that, despite the case that COAST makes for measures, proposals or plans that might give it additional comfort, its proposal does not meet the requirements for full statutory provision. However, it is important to get all the relevant parties around one table, even if—I am not sure whether the convener is suggesting it—one of us has to wear a blue Boutros Boutros-Gali hat.

**The Convener:** Rather you than me.

**Ross Finnie:** Thank you, convener. To be serious, I do not deny—and have never denied—that there are issues here. For a variety of reasons, however, I am unable to accept the proposition from the two extremes of the argument. If the committee is advancing to me that what has emerged in the evidence backs that up, then I am much encouraged. The two extremes of the argument are not sustained. While I do not have the evidence, particularly on a scientific basis, that would allow me to recommend statutory provision, I am happy to seek some form of compromise on both sides. On the one hand, that would mean that there would not necessarily be a statutory underpinning, but on the other it would require acknowledgement of the need for measures, an agreed plan or a proposal that would encompass the majority of the points being made by both sides. I am happy to take questions on where I think that there are problems in simply moving straight to any designation, although that is not in any way to undermine some of the genuinely held views of COAST and those who represent it.

**The Convener:** There has been quite a debate about the nature of Lamlash bay and of the extent to which the process that has brought the petition to us has been illustrative or useful. You raised the statutory issue. Nora Radcliffe wanted to ask about that.

**Nora Radcliffe:** It would be useful for us to know what is and is not possible under current legislation. Will you clarify whether COAST's proposals would be possible under current legislation? If not, where would something similar fit into legislative parameters?

**Ross Finnie:** There is a range of issues. For me or any minister to lay orders in Parliament, we have to consider a range of criteria and be satisfied that robust and objective criteria are being applied. If I start from the top down—I would rather do it the other way round but I do not think that I can—and take the current wish on the

Executive's part to consider a network of marine protected areas, we have to be satisfied that each area being designated is proportionate and representative and has characteristics and so on that would meet those criteria. Taking those criteria on their own, it would not be proportionate for us to recommend a statutory underpinning for the area in COAST's petition. Clearly, the issues that are there would meet the criteria, but if you applied a statutory underpinning to that simple, small segment, you could not justify a pattern across the coast. That is not to deny that there are issues within the COAST proposal that should be taken forward, but we have to try to do that on a non-statutory basis.

**Nora Radcliffe:** When you say non-statutory, does that mean voluntary?

**Ross Finnie:** Yes.

**Nora Radcliffe:** Without any recourse or leverage against anyone who breaches the voluntary code?

**Ross Finnie:** I talked about the objective criteria. Although there are often arguments about who to consult, our statutory consultee on these matters is SNH. I did not hear SNH's evidence, but its proposition to my department is that the area does not merit a particular designation, unless it contradicted that proposition this morning.

**The Convener:** I have been discussing quietly with the clerk how we might proceed. I would like all the committee members to ask questions.

Minister, from our earlier discussions, it seems that people have moved on slightly, although a lot of work still needs to be done. Earlier, we explored the statutory issue in some depth. We can envisage a situation in which all the fishing organisations sign up to an MPA, following which there is potential for the area to be expanded, so a discussion takes place about the management of it but one or two private interests override that. The question is what would happen if there was no statutory basis for enforcement and those who were good got punished because they did not get access.

**Ross Finnie:** Well, that would be true anywhere. I appreciate that there are specifics and that you are required to answer the question that COAST raised. However, my difficulty is that Arran is not the only area in which there are issues and an apparently polarised position; nor is it the only area in which we might consider using statutory powers—if we believe that they are justified by objective criteria—and developing inshore fisheries management. That is what we call it, but it is not exclusive to fisheries; it is about trying to get people with different interests round the table. If we can get people to buy into the process, it is more likely that the criteria will be met; that would

be better than imposing something in which the criteria were a bit marginal. However, I do not deny that the issue is a tricky one.

**Mr Brocklebank:** Minister, what began to emerge from the evidence that we took earlier is that SNH is sympathetic to COAST's aspirations and can envisage an NTZ in a wider marine protection area being a valuable part of what is planned. Without putting words into the SNH witnesses' mouths, I think that SNH would be prepared to add impetus to COAST's plan and help to develop it. However, SNH might not be able to afford to do that on its own, particularly in the short term. I know that I cannot tie you down to specifics on this issue, minister, but would you be prepared to consider sympathetically the provision of Executive funding to help the COAST plan happen?

**Ross Finnie:** We have issues around the designation of areas as tourist sites and the related issue of trying to get a network of MPAs. We continue to work on that and Eamon Murphy may say something about it.

If we could get the parties around the table to discuss not only the specifics of what has been proposed, but what might be agreed to, that could lead to a slightly broader and different discussion about wider MPAs, which would raise different issues. Our position is similar to the committee's in that it is difficult to deal with the question that is asked when, in attempting to answer it, the question changes. Clearly, the proposal for a bigger MPA is an issue in this case. The scale of what was initially proposed is really quite small, which has a bearing on the objective criteria that might be applied to facilitate the use of the powers that we undoubtedly have. Eamon, would you like to pick up on that?

**Eamon Murphy (Scottish Executive Environment and Rural Affairs Department):** I can add something to address the particular question about funding. We have always said that if research proposals came through the inshore fisheries groups structure, we would be interested in supporting and facilitating those as well as we could. It would be partly incumbent on IFGs themselves to try to source some funding, but we would be willing to help and to contribute. We in the FRS would certainly be interested in a project such as that under discussion. We would also seek to use the new European fisheries fund measure that is about to come on stream.

Therefore, the answer to Mr Brocklebank's question on funding is yes, absolutely.

**Mr Brocklebank:** One of the problems for COAST is that the process has been going on for a long time. From what we have heard so far, it is

likely to go on for a long time yet, until we get the overall picture worked out.

What seemed to be emerging this morning is the idea that the Lamlash bay area might be used as a pilot no-take zone that is part of a larger scheme, particularly if the right research was applied. On-going research would obviously cost money, but that question was raised this morning. If the assurance was taken on board, it could start to open a lot of gates.

12:45

**Eamon Murphy:** We have tried to make it clear to COAST and other stakeholders that we would like wider discussions sooner rather than later as part of the IFG structure—it sounds as though what has been discussed this morning would fit in with that. We have talked about doing that later this year, so by next spring we should be much further down the road on the process. We are happy to have that dialogue as soon as possible.

**Eleanor Scott:** Minister, you said in your introduction that you do not have the evidence to proceed on a statutory basis. What evidence would you need?

**Ross Finnie:** Getting back to Ted Brocklebank's point, one of the delicate issues relates to SNH. I am in some difficulties, as I do not want to miscall SNH. You will have to forgive me, as I am going on the basis of its last report to us. If it has reported further thoughts or reflections to you, I do not wish to create a division.

However, on the size and nature of the area proposed, neither SNH nor the FRS could advise us that the particulars proposed would result in an environmental benefit per se or that no-take and no-fishing measures in the area would specifically enhance the stocks. There is a question about size, area and precise location in that. A scheme would come about only if all parties were willing to have a broader discussion and recognised that there might have to be an element of compromise on what was initially proposed.

**Eleanor Scott:** You talk about all parties. Through our discussions with COAST, the evidence that we have heard and read, and the visit to the area that the committee was privileged to make, we have been aware that salmon aquaculture, shellfish aquaculture, angling, creel fishermen, diving, sailing and water sports interests are all signed up to the idea. Stakeholder involvement does not get much better. How much more could you wish for?

As for size, the area is the size that it is. However, there is a concern that the scheme could set a precedent and close off more areas to fishing than fishermen would like. In that respect,

is small size not an advantage? Moreover, is the question of stock benefit not precisely why we want to have a pilot?

**Ross Finnie:** I do not disagree with that, and the idea of a precedent is not an issue for me. It is more a question of being clear from an SNH or FRS view that, although people have strongly held views about a particular area and its features, it has to be objectively assessed by either SNH or the FRS that it would benefit from or could be part of a pilot and that it meets the criteria for stock assessment and nature conservation. In the previous examination by both those bodies, what was proposed did not meet the criteria.

**The Convener:** To help you out, I should say that it would not be fair to say that SNH turned 360° in front of us this morning. We were more testing out the question whether, if the COAST proposal was supplemented and discussions were held with fishing interests, it would create a different scenario for conservation and allow more management issues to be brought into research and analysis and a wider area to be covered.

The consensus around the table is that we have an opportunity to consider some of the issues raised. Rather than knocking back the COAST petition, we could consider what opportunities might arise from developing the proposals with the interest groups from which we have heard this morning. The minister might reflect on some of the issues raised.

I do not think that it is fair to put you under the cosh and ask you to respond to discussions that you have not heard. However, we feel that the discussion moved on this morning, which was helpful.

**Ross Finnie:** We ought to explore the wider issue of our designations and marine protected areas, rather than just the situation in Lamlash bay. Given our wider statutory responsibilities, I would not want you to think that we are considering just that area.

**Eamon Murphy:** A number of other initiatives are going on in the Clyde. As you heard earlier, there is an annual Clyde closure for cod spawning. The Scottish sustainable marine environment initiative relates to broader marine spatial planning.

The Lamlash bay proposal could perhaps be supplemented by proposals for a broader network of sites. If there is a broader proposal, we would certainly be receptive to it and would be happy to consider it. The kernel of the issue is whether statutory underpinning is justified. If everyone around the table is in agreement, statutory underpinning might not be required, at least at the outset. However, we are open to considering all those issues.

**Rob Gibson:** We discussed the restrictions in the Clyde for cod spawning. The letter that the committee received from SEERAD referred to boundaries. The scientific basis for choosing the area of closure is flimsy, but you were prepared to introduce an SSI on the back of it. In what way would a regulatory order on Lamlash bay be different?

**Ross Finnie:** We are actively engaged with the FRS regarding the major issue of cod spawning in inshore areas, which relates to the cod recovery plan. We have varying evidence from around the coast. The issue, which applies not only to an area on the Clyde, relates to the material nature of sitings and how policy is made on the recovery plan. Although we are always interested in evidence from specific areas, I would not want to make any policy in relation to inshore fisheries unless I had substantial evidence. There is some evidence and we are concerned about the situation. However, we need much more detailed information to determine what we should do about it, given that the evidence is a bit varied. There is an issue about how we manage conflicting evidence, particularly with regard to the nephrops fisheries. I would need a clearer picture before I could make a closure order or create an MPA that would have wide ramifications for the cod recovery plan.

**Rob Gibson:** So, SEERAD's proactivity in this matter is fairly limited. It was not SEERAD who brought about the current moves to close the Firth of Lorne fishery; that happened as a result of local pressure and the European Union saying what we should be doing in that area under the law. Given that we have a willing community on Arran, surely it is worth trying to build upon that good will. I accept that agreements might be reached to broaden the COAST proposal, but if the proposal is not underpinned by statutory terms, is it not likely to fall by the wayside?

**Ross Finnie:** I am happy to accept at face value—I am not quibbling—the consensus that exists among all the parties. If that is what the committee has heard this morning, I am delighted. However, that is not entirely the position that we enjoyed before the committee's hearing this morning.

**Rob Gibson:** I did not say that. I am talking about the fact that the minister can make orders regardless of whether an agreement exists among all the parties. In this case, there may be a move towards finding some accommodation. That is a very welcome development on the part of fishing and conservation interests. However, if the agreement is only voluntary, surely the Executive cannot take forward a marine spatial policy on that basis.

**Ross Finnie:** Let us not move from the issue of inshore fisheries management, which is fraught with difficulties, to the issue of why I have not put marine spatial management on a statutory underpinning. If I introduce marine spatial planning, I will introduce it with statutory underpinning.

I am sorry that Mr Gibson seems to disregard the efforts that we have made over recent years to get agreement on an inshore fisheries management strategy from the many and different competing interests around Scotland's coasts. It has taken a long time to get all those parties around the table, but we are trying to get people to buy into a process rather than simply exclude certain people. That is how we have tried to work. If agreement cannot ultimately be achieved, that is not to say that we should just impose a solution and tell people to get on with it. That has not been our approach to inshore fisheries management.

I use the phrase "inshore fisheries management" because a whole raft of nature conservation and marine conservation issues are wrapped into that process.

**Rob Gibson:** Will the process take five years then, or 10 years or 20 years?

**Ross Finnie:** No, it will not. Until fairly recently—when my officials who were across there found that a most unfortunate delay had been caused inadvertently by my department—we thought that we had set up a meeting with the various parties. That meeting might, or might not, have resulted in the outcome that the committee has achieved today. However, we were not hanging about waiting on a meeting; the meeting was scheduled to take place and we had hoped to make progress from that.

**The Convener:** Okay, that is quite a good place to leave this discussion. We want to finish by 1 o'clock, so that gives us two minutes to finish our discussion and deal with the next item. I thank the minister and his officials for giving evidence this morning. I will allow a quick two minutes for the minister and his officials to leave before we conclude our committee business.

Colleagues, we now need to decide how to proceed with the petition. We have not gone into private so I will not ask members of the public to clear the room, but I ask those who are leaving to do so quietly.

I suggest that we write to the minister to draw his attention to our discussion this morning. Having talked to colleagues during that last brief break, I suggest that the COAST proposal has the potential to be developed in consultation with fishing interests if a provision on the seeding of scallops in a geographically adjacent area is added to the original proposal. We want to ask the

minister to develop the proposal with the fishing interests, the COAST petitioners, Scottish Natural Heritage and other agencies, such as the Fisheries Research Services, that would need to be involved in that discussion. We should ask the minister to consider that proposal. Given SNH's suggestions about the prospect of doing something in 2007, we should ask that the rest of 2006 be used to develop the proposal further.

We will send the minister a copy of the *Official Report* of today's meeting so that he can see the range of discussions that we have heard. We will ask the minister to view the COAST petition in the positive light of the exchanges that we had around the table this morning. Is that agreed?

**Members** *indicated agreement.*

**The Convener:** We will keep the petition open until we receive a response from the minister so that we can ensure that we have dealt with the petition properly.

Under agenda item 1, we agreed to consider item 5 in private.

13:00

*Meeting continued in private until 13:08.*

Members who would like a printed copy of the *Official Report* to be forwarded to them should give notice at the Document Supply Centre.

No proofs of the *Official Report* can be supplied. Members who want to suggest corrections for the archive edition should mark them clearly in the daily edition, and send it to the Official Report, Scottish Parliament, Edinburgh EH99 1SP. Suggested corrections in any other form cannot be accepted.

The deadline for corrections to this edition is:

**Monday 2 October 2006**

PRICES AND SUBSCRIPTION RATES

OFFICIAL REPORT daily editions

*Single copies: £5.00*

*Meetings of the Parliament annual subscriptions: £350.00*

The archive edition of the *Official Report* of meetings of the Parliament, written answers and public meetings of committees will be published on CD-ROM.

WRITTEN ANSWERS TO PARLIAMENTARY QUESTIONS weekly compilation

*Single copies: £3.75*

*Annual subscriptions: £150.00*

Standing orders will be accepted at Document Supply.

Published in Edinburgh by Astron and available from:

**Blackwell's Bookshop**  
53 South Bridge  
Edinburgh EH1 1YS  
0131 622 8222

**Blackwell's Bookshops:**  
243-244 High Holborn  
London WC1 7DZ  
Tel 020 7831 9501

All trade orders for Scottish Parliament documents should be placed through Blackwell's Edinburgh

**Blackwell's Scottish Parliament Documentation**  
Helpline may be able to assist with additional information on publications of or about the Scottish Parliament, their availability and cost:

**Telephone orders and inquiries**  
0131 622 8283 or  
0131 622 8258

**Fax orders**  
0131 557 8149

**E-mail orders**  
[business.edinburgh@blackwell.co.uk](mailto:business.edinburgh@blackwell.co.uk)

**Subscriptions & Standing Orders**  
[business.edinburgh@blackwell.co.uk](mailto:business.edinburgh@blackwell.co.uk)

**RNID TYPETALK calls welcome on**  
18001 0131 348 5412  
Textphone 0845 270 0152

[sp.info@scottish.parliament.uk](mailto:sp.info@scottish.parliament.uk)

All documents are available on the Scottish Parliament website at:

[www.scottish.parliament.uk](http://www.scottish.parliament.uk)

**Accredited Agents**  
(see Yellow Pages)

and through good booksellers

Printed in Scotland by Astron