

Proceedings of the 2nd Annual Consultative Forum on Non-Native Species

3 March 2005

Zoological Society, London



SCOTTISH EXECUTIVE



Llywodraeth Cynulliad Cymru
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2nd Annual Consultative Forum on Invasive Non-Native species

Zoological Society, London, 3 March 2005

Introduction

The 2nd Consultative Forum on Non-native Species, considered the future of the annual Forum, which takes its direction from key recommendation 8 of the Working Group report of the Review of Non-native Species Policy – i.e. that stakeholders should be **fully consulted and engaged** in the development of invasive non-native species policies and action, through a mechanism such as a consultative Forum.

The programme of the first Forum was designed to be participative, but the format met with mixed reactions. This year's Forum took a more traditional approach, with a programme of speakers on specific subjects and discussion time after each presentation and proved to be more popular with delegates.

Progress, February 2004 – March 2005

One of the outcomes from last year's Forum was a list of recommendations for Defra:

- To agree the role, terms of reference and mandate of the new co-ordinating body – Linda Smith provided further details in the programme.
- To make a clear commitment to maintaining this Forum – this 2nd Forum is proof of this commitment and we are already planning one for 2006.
- To identify existing capacity and activities to guard against duplication – Ian McLean provided further details in the programme.
- To identify the highest priority species and the action that should be taken against them – Richard Baker reported on a very successful research programme.
- To produce a clear strategy on education and awareness — the first Code of Practice aimed at providing advice on the use of non-native plants was launched by the Minister, Ben Bradshaw, at the Forum. Trevor Renals suggested additional ways forward at the end of the sectoral session on plants.

This covered most of morning programme along with Duncan Isles, of the Scottish Executive, reporting on the legislative measures that have been put in place within Scotland and those planned within England and Wales.

The afternoon session was a sectoral one on plants. Delegates' thoughts on this section of the Forum and whether similar sessions should be used in future programmes are considered below.

In addition to the initiatives discussed at the Forum itself, two further achievements during the period prior to the Forum should be noted: firstly, the Government and Devolved Administrations completed a consultation on their response to the Review of Non-native Species Policy; secondly, the England and Wales administrations issued a consultation paper on the Review of Part I of the Wildlife and Countryside Act 1981. Both of these documents and the summaries of the responses can be found on Defra's website.

Progress, March 2005 – Present

Since the Forum took place in March 2005 the English and Welsh administrations completed their consultation on the review of Part I of the Wildlife and Countryside Act. An analysis of the responses is available at: <http://www.defra.gov.uk/corporate/consult/wildlifeact-part1/index.htm>.

Following the consultation Defra has introduced a number of proposed amendments to the Wildlife and Countryside Act 1981 through the Natural Environment and Rural Communities Bill currently making its way through Parliament.

Two of the provisions concern non-native species. The first introduces an offence for the selling, or advertising for sale, of certain non-native species – the particular species to be subject to this provision to be consulted on and listed by order at a later date. The second introduces a power for the Secretary of State to issue guidance, or approve guidance issued by others – this guidance being admissible in court.

In addition, Scotland has now amended Schedule 9 with the addition of 13 (mainly aquatic) plant species as proposed in its 2004 consultation. They also intend to consult further on additional amendments to Schedule 9 (some of which were proposed by respondents in the 2004 consultation), as well as on the use of the power to ban sale of certain (high risk) non-native species.

It is hoped that the English and Welsh administrations will be able to undertake a similar consultation reviewing Schedule 9 before the next Forum.

The first meeting of the Programme Board of the co-ordinating mechanism took place at Defra's Bristol offices on 12 September. For various reasons the meeting decided that the next Forum would take place a little later in the year than normal, in either late April or early May. There will be a report on the progress of the Board and establishment of the Secretariat and various working groups at the Forum.

Presentation by the Minister, Ben Bradshaw

Launch of the Horticultural Code of Practice and announcement of the Co-ordinating Mechanism

“This time last week my private secretary and I, the New Zealand Minister for Nature Conservation and the President of Forest and Bird, the New Zealand equivalent of the RSPB, were crawling over a plateau in the southern Alps on New Zealand’s south island pulling up Scots Pine saplings.

The President of Forest and Bird, who was our host for the day was making us do this to give us some first hand physical experience of the size of the challenge facing New Zealand because of non-native invasive species.

The project on an area of land just acquired by the Department of Conservation was to restore an area of upland transformed in recent years by livestock grazing and the planting of European conifers to its original native New Zealand beechwood.

Now, New Zealand, with its unique biodiversity and the relatively recent arrival of man, is perhaps the most extreme example of a country battling against non-native species. In many ways that battle defines the country – with the Kiwi (one of its unique flightless birds to have survived) adopted as its national symbol.

But here in Britain there has been increasing concern in recent years about the impact of non-natives on our traditional flora and fauna. The grey squirrel continues to make its remorseless advance, pushing our native reds into ever smaller pockets in the far north of England and Scotland. The mink continues to wreak havoc on our rivers. The highly sexed ruddy duck threatens the European white-headed duck with extinction. In the plant world I have seen in my own region in South West England the challenges posed by Japanese Knotweed and Himalayan balsam.

Just as our Victorian ancestors had little idea what they were doing when they imported a small number of what they considered to be delightful north American grey squirrels to grace and entertain them in their parks and gardens, so the gardeners, horticulturalists and botanists of the past had little inkling of the potentially devastating impact of bringing interesting foreign plants back from their trips abroad.

But today, there can be no excuse. We know what can happen and we all have a responsibility to avoid causing the monster hogweeds and grey squirrels of the future.

So, it is with that in mind that I have two announcements to make at this, the 2nd Annual Non-native Species Forum.

The first is that we in Government are setting up a new Programme Board, a co-ordinating mechanism to ensure that the threat from non-natives is tackled strategically and across government and our agencies. We will draw on the New Zealand experience and our own successful partnerships like that against wildlife crime to ensure that policy and action on non-natives is co-ordinated across all those Government bodies and agencies where it needs to be.

One of the responsibilities of the board will be to publish Codes of practice and that brings me to my second announcement – the launch of the first of these Codes of practice for horticulture today.

Now, we should not forget that exotic plants have and can bring positive benefits. They have made our gardens and landscape more interesting and have contributed to agriculture, horticulture and forestry. But when they are invasive they can be devastating. They transform ecosystems and threaten native and endangered species. They can cause enormous economic damage to agriculture, forestry and infrastructure. The cost of controlling Japanese Knotweed has been estimated at £1.56 billion. Non-native invasive species can damage public health and have been identified as one of the main causes of biodiversity loss world wide.

So this horticultural Code of practice will be a vital tool in the battle against damaging exotic plants. It should be required reading for everyone who uses plants, landscape designers, importers, retailers, garden centres and everybody who uses plants in their own back gardens. The timing of this launch – just before the Easter rush to buy new garden and pond plants – is a great opportunity to get the non-native species message across. Damaging invasions have not been the fault of deliberate or malicious activities by the public. That is why this is a voluntary Code. But the Government will not hold back from further statutory measures if the need arises and this Code already has potential teeth.

The draft Natural Environment and Rural Communities Bill published last month will allow breaches of such a Code of practice to be used as evidence in criminal proceedings. Another measure in the Bill will ban the importation and sale of non-native invasive species that are known to cause problems. These will be a subset of the species listed on Schedule 9 to the Wildlife and Countryside Act 1981. At present the only terrestrial plants listed are Japanese Knotweed and Giant Hogweed, but we are reviewing that schedule this year and expect to add more plants to the list. We are currently consulting on the proposals and would welcome your views. More Codes will follow and this forum will take your views on the most pressing candidates.

While I was with my New Zealand counterpart last week he got a telephone call from a highly excited official from his department with the news that four female Kakapo had laid some eggs. The first time for a number of years. The kakapo is a large green flightless parrot – the largest parrot in the world. It used to be common all over New Zealand, but since the introduction of mammals by man, like many of New Zealand's birds the kakapo has suffered

a calamitous decline, so that today only 83 kakapo survive closely monitored on a remote island off the South Island. This momentous event was the main news in New Zealand. The kiwi, in spite of all the efforts being made to save it, is expected to be extinct in 20 years. We are fortunate not to have quite the same scale of challenge as New Zealand, but challenges we have and I am sure that the programme board and Code being launched today will help us meet them.”

PRESENTATION SUMMARIES AND DISCUSSIONS

The Co-ordinating Mechanism: its role, responsibilities and resources

Linda Smith, European and Non-Native Species Team, European Wildlife Division, Defra

One of the most important recommendations in the report of the Working Group on Non-native Species Policy concerned the question of effective coordination of activities within Great Britain, across disparate organisations and between countries. The Working Group recommended the designation of 'a single lead coordinating organisation to undertake the role of coordinating and ensuring consistency of application of non-native species policy across Government'.

Government initially considered that the Joint Nature Conservation Committee might fulfil this role, but subsequently recognised that its current biodiversity remit would need to be widened significantly if it were to do so. Instead, Government has decided that a Programme Board approach, bringing together representative bodies of the various sectors with an interest, would provide a more effective and influential mechanism.

The Board itself will establish its key priorities, taking account of the work programmes of bodies represented on and through the Board, but also seeking to influence decision-making. It will help develop a vision for non-native species policy in Great Britain, and a strategy for addressing key issues. It will need to coordinate effective public awareness initiatives, and engage stakeholders. It will report to Ministers in the devolved administrations as well as to Defra Ministers.

Such a Programme Board will require a discrete Secretariat and an allocated budget. Defra Ministers are seeking to secure the latter through discussion on the forthcoming spending round, and discussions are taking place on how best to establish the former. We anticipate that, if funding bids are successful, we will be establishing a shadow Board within the next few months, and recruiting the Secretariat which will support it. This is likely to include scientific as well as administrative expertise.

The Programme Board will constitute a coordinating mechanism: it is not proposed that it should take over the delivery function carried out by its members. Nevertheless, it should be authoritative, and influential. This new approach should produce a step change in the development of ideas and delivery of outcomes on non-native species issues in Great Britain.

Forum debate which took place after the presentation

Structure and representation

- Keith Davenport, OATA: pleased at the establishment of the Programme Board, but criticised the absence of an industry representative. Industry implements the actions determined by Government and it is crucial that they have a voice on the board.
- Rosemary Ward, Gardening Which? magazine: suggested that one member of the Programme Board has liaison remit, to ensure that everyone with an interest is informed of developments and decisions.
- Judith Webb, representing the Forestry and Timber Association, the Country Landowners Association and the Deer Initiative: need to think carefully about buy-in from stakeholders – perception is very important.

Speaker's response:

- The Programme Board will need to address the interface between government and industry.
- It is difficult, if not impossible, to choose a single industry representative to sit on Programme Board. It is a practice within Defra for Programme Board members to have distinct remits – one could have a liaison function.
- A liaison function may be more appropriate for the Secretariat, although it is recognised that the Programme Board will have more authority.
- Government envisages that working groups will do most of the work. Industry will have representation on individual working groups, where they can focus on areas where they have the greatest interest, or a separate industry working group could be established.

Scope of future action

- Roger Cook, European Squirrel Initiative: delighted that the Co-ordinating Mechanism will have a Great Britain-wide remit, but is concerned that it will simply co-ordinate excuses for inaction.
- Phil Hulme, CEH: will the Programme Board be taking responsibilities for functions currently carried out by others – for example ACRE's responsibility for carrying out risk assessments?
- Jonathon Reynolds, Game Conservancy Trust: are we allowed to know how much money will be going into the setting up of the Programme Board?

Speaker's response:

- The Minister has said that this initiative will look forward to prevent future problems – it may not be possible to deal with all the existing problem non-native species.

- The Programme Board will co-ordinate functions that are being carried out by other bodies who have the expertise.
- The financial arrangements are still in discussion, but the bid is for a year on year increase.

Communication

- Ian Epps, National Federation of Anglers: Government is very good at telling people what they should be doing, but not very good at communicating what they have done. Stakeholders have had no feedback since the last Forum, until this Forum.

Speaker's response:

- Government recognises that communication is an important issue but it is dependent on resources. The webpage on non-native species issues is going live on the Defra website today; it is envisaged that this will eventually be a Programme Board website which will inform stakeholders of Programme Board news. The Secretariat may also be able to take on this function.

Audit of existing capacity and activities for dealing with non-native species issues in Great Britain

Dr Ian McLean, Joint Nature Conservation Committee

The arrangements for dealing with non-native species in Britain are complex, having evolved piecemeal over time with the functions spread across numerous national and local organisations. As a result, it is difficult to gain a clear picture of organisational responsibilities and of the resources devoted to dealing with non-native species (in terms of preventing the entry of problem species, conducting surveillance of those present and suppressing or eradicating the most damaging non-native species that are established here). This paper discusses the reasons for undertaking the proposed audit of current arrangements for dealing with non-native species in Britain (to be commissioned by Defra) and considers the benefits that will follow from using the results of the audit to improve the delivery of these functions.

Key questions addressed in this paper

- What do we know about the current arrangements for dealing with non-native species in Britain?
- Why do we need an audit now?
- What happens next?

What we know about the current arrangements for dealing with non-native species in Britain

The Defra *Review of Non-native Species Policy* (Anon, 2003) included a useful summary of the major organisations involved with non-native species (Annex 10) as well as a summary of the relevant biological recording schemes (Annex 7) and the approximate costs to Government for implementing the key recommendations (Annex 12). These annexes are a good start to describing the current arrangements, but they need to be taken further to identify existing accountabilities and how key decisions are taken, while the cost of the present arrangements is currently unknown (as noted below). Individual sectors have their own protocols and guidance, that for plant health being probably the best developed within a well-established international framework for dealing with plant pests and diseases.

What we don't know about the current arrangements for dealing with non-native species in Britain

The following questions about the current arrangements for dealing with non-native species in Britain cannot be answered properly at present.

How much money is spent? The total spend of Government Departments and Agencies, Local Authorities, Non-governmental Organisations and private individuals is unknown at present.

Who is responsible for what? While the major organisational responsibilities are known and described in Annex 10 of the Defra Review, the ways in which these functions are delivered and how they relate to each other are not well-defined or described. The degree to which there are gaps or overlap and duplication of effort is also unknown.

Who coordinates whom? The management and operational links between the different Government bodies and who makes the key decisions are not clearly described, while the respective accountabilities are not properly defined.

How can we improve the current arrangements step-by-step? Without a clear picture of the current arrangements, it is impossible to make improvements in a sensible manner that improves delivery and seeks to make savings where possible.

Why do we need an audit now?

An audit is needed now so that we understand how the issues and problems are dealt with before any major changes are made following the establishment of new coordinating arrangements. There are limited staff and supporting resources available to tackle non-native species problems in Britain and it makes sense to ask “How can available people and funds be deployed better?” Simplifying the arrangements and making the processes transparent and more effective must be key aims for the future, but these aims will only be realised if there is a shared picture of the current situation that is a reference point to improve upon.

An audit is also a first step towards engaging everybody to build a better system in Britain for dealing with non-native species more effectively. The sooner that the different organisations involved are brought into discussions about the current arrangements and how these operate, the sooner we can put in place the necessary improvements that are urgently required for establishing properly coordinated and effective measures in the key areas of prevention, surveillance and dealing with existing problems.

What happens next?

Defra will produce a project specification and commission the work in the usual way by placing a contract with an appropriate organisation. The contractor appointed will proceed by asking all relevant bodies about their roles, funding and governance through searching annual reports and similar literature, plus through interviewing key people to find out how the current arrangements are delivered in practice.

A report to Defra by the contractor will describe the current arrangements, their costs and management, as well as identifying problems and weaknesses. Any gaps or overlaps in current responsibilities will be highlighted as needing attention. An audit of this type does pose significant

challenges to the different organisations involved because to be successful it must draw attention to existing shortcomings.

The next step after the audit is delivered is to identify possible ways to overcome the shortcomings that have been identified. This will be the responsibility of the new coordinating Programme Board in the first instance, but will require close working with all the Departments and Agencies if the necessary changes are to be made in a reasonable timescale.

Learning from abroad

A review of biosecurity risks in New Zealand (Office of the Auditor General, 2002), following on from previous reviews, indicated where roles and responsibilities of Government agencies were unclear, together with other shortcomings in the management and direction of the work. This helped to initiate improvements in New Zealand systems (Garthwaite, 2004) culminating with the release of a National Biosecurity Strategy in 2003 that has enabled a more coherent approach to managing the risks and to safeguarding native biodiversity.

We need a similar approach to reviewing systems in Britain, but adapted to our circumstances and needs, which are different in some important respects from the situation in New Zealand. In general, we should be more outward-looking towards others in Europe and the rest of the world, to seek out and take on board the lessons learned elsewhere in the fields of ecology, management and organisational arrangements and in operational practice.

What are we aiming for?

At this point it is worth considering in broad terms what we are aiming for in Britain. The main criterion is: will the new arrangements deliver better results? Given the dispersed and poorly coordinated approach to dealing with non-native species in Britain, we also should be looking for improved value for money and aiming to make financial savings where more streamlined arrangements are viable.

Finally, we should be seeking to put in place clear simple arrangements that people will understand and support, thereby building greater public knowledge of the issues and a will to take the necessary actions to reduce future risks and deal with existing problems more effectively.

References

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- Garthwaite, R. (2004) *Biosecurity in New Zealand: a summary of the framework and major issues prior to the development of the National Biosecurity Strategy*. Unpublished JNCC paper, Peterborough.

Office of the Auditor General (2002) *Ministry of Agriculture and Forestry: Management of Biosecurity risks*. Report of the Controller and Auditor-General, New Zealand.

Forum debate which took place after the presentation

- Dick Shaw, CABI Bioscience: as well as detailing the amount of money being spent by government and its agencies on non-native species, the audit needs to include what invasive species actually cost us. The provision of horror story figures will generate funding.
- Keith Davenport, OATA: research effort can estimate costs, but it is important to remember that non-natives also bring benefits. We need to carry out cost-benefit analysis to properly understand the issues.
- Ian Danby, BASC: the costs of those carrying out actions to control species under biodiversity action plans should also be included in the audit. BASC is the main control agent for grey squirrel and mink.
- Alistair Taylor, Natural History Museum: Scientific institutions should also be included in the audit. They are responsible for funding a great deal of research into non-native species.
- Rosemary Ward, Gardening Which? Magazine: requested a timetable for the audit.

Speaker's response:

- Biodiversity costs are extremely difficult to calculate – no accepted method is yet available.
- A contract to carry out an audit has not yet been let by Defra, but it is possible that it will concentrate first on government and agency costs. Additional costs such as control by NGOs and research funding could possibly form a second tier.
- The audit is likely to take place in 2005/2006.

Legislative measures arising out of the review of non-native species policy

Duncan Isles, Scottish Executive

Action in Scotland

- GB Review of Non-native Species (March 2003)
 - Key Recommendation 5 – *Revise and update existing legislation to improve the handling of invasive non-native species issues.*
- Consultation by Scottish Executive (Aug-Sept 2003)
- Immediate legislative opportunity - Nature Conservation (Scotland) Act (passed in May 2004)
- New provisions came into force on 1 October 2004

Nature Conservation (Scotland) Act

- Widespread support for action on non-natives
- Unanimous support for 3 specific measures
- Other proposals made but not incorporated in final legislation – various reasons for leaving these out
- Changes have effect as amendments to the Wildlife and Countryside Act 1981
- Amended section 14, plus new sections 14A and 14B
- Further consultation on additions to Schedule 9 (March 2004) – announcement on outcome due in near future.

Detail of Scottish Changes

- Amendments to Section 14 of Wildlife and Countryside Act 1981
 - Hybrids of “non-resident” and schedule 9 animals/plants now covered
 - New offence of allowing schedule 9 animals to escape from captivity
- New Section 14A
 - Gives Scottish Ministers power to prohibit the sale of specified “non-resident” and schedule 9 animals or plants (inc hybrids)
 - Criminal offence to sell banned species
 - Executive will need to consult on list of species before using powers
 - Designed to target most serious threats
- New Section 14B
 - Power for Scottish Ministers to issue or approve guidance
 - Breach of guidance is not an offence in itself
 - But guidance does have “evidential value” in any prosecution
 - Gives additional weight to relevant Codes of Practice
 - Analogous to status of Highway Code
- Other Measures
 - Biodiversity duty on all public bodies in Scotland

- Land Management Orders, Nature Conservation Orders, Interdict and other powers to protect SSSIs, Natura sites and related land.
- Greater flexibility to update/amend Schedule 9

Future Legislative Action

- Scotland
 - Probable changes to Schedule 9 in Scotland – result of 2004 consultation and further scientific advice
 - Potential use of power to ban sale of certain species in Scotland
- England and Wales
 - Major ongoing consultation by Defra – responses to Chris Bear by 24 March 2005

Key Defra proposals on non-native species

- Review/update schedule 9
- Retain the provisions of section 14 as they are
- Cover hybrids of non-native species
- New powers to control, contain or eradicate schedule 9 species
- New right of access to private land to deal with non-native threats
- Introduce a power to issue guidance or approve guidance issued by others
- Adopt the use of a general licence for re-release of certain rehabilitated non-native species subject to specific conditions
- Restoration orders, to be imposed by courts
- Introduce a restricted ban on import and/or sale of non-native species
- Ban on unauthorised translocation of species out of their natural range

Forum debate which took place after the presentation

- Phil Hulme, CEH: noted that new legislation in Scotland applies to unauthorised releases of non-native species and asked who authorises releases?
- Ruth Waters, EN: interested in the greater flexibility in amending the species listed on Schedule 9 and asked how quickly this could be done?
- Ian Epps, National Federation of Anglers: asked whether Defra has a list of farmers who farm non-native species, so that they can be targeted for monitoring and enforcement action. Mentioned the case of wild boar that have escaped/been released by farmers.
- Tracey Edwards, JNCC: the term non-resident is used within the Nature Conservation (Scotland) Act 2004. The Ballast Water Convention does not allow for risk assessments to be carried out within geopolitical borders, eg. species introduced from South Devon to Scotland, as they do not

consider this to be translocation of an alien species. This does not fit well with Defra's proposals.

- Brian Elliot, Maritime and Coastguard Agency: Defra is discussing how to implement the IMO convention within GB. The Convention recommends regional arrangements, and Defra is looking at how risk assessments can be used to address the issue.
- Michael X, Fishing and Angling Conservation Trust: it is important to get facts correct before apportioning blame. Some of the species introduced via ballast water exchange have been blamed on anglers.

Speaker's response:

- Releases are authorised by Government under section 16(4) of the Wildlife and Countryside Act 1981.
- Amendments to Schedule 9 could be actioned very quickly, in theory as soon as Ministerial approval was granted. In practice, any proposals would be considered by Government's scientific advisors and be subject to a 12 week consultation process.
- Noted that a list of farmers farming non-native species would be useful.
- Noted that very few, if any, introductions are deliberate or malicious – which is why Codes of Practice are so important.

Identification of priority species for action: risk assessment research

Richard Baker, CSL

The work on non-native risk assessment was funded by Defra European Wildlife Division and undertaken over the last 12 months or so by a consortium of the six UK Institutes/Universities.

Our objectives were challenging: to create a scheme which can be used to determine which non-native species can enter, establish and cause significant impacts in the UK. Clearly the scheme needs to work for any organism, whatever the taxon and the habitat. Most of these species are unintentional introductions, but the scheme must also work for possible intentional introductions, like the beaver, and biocontrol agents, such as the Mirid bug.

The need for this work was recommended by the Defra non-native review in 2003. This review also recommended that plant health risk assessment standards, which are already highly developed, be used as the starting point.

So we started from the European & Mediterranean Pest Risk Assessment Scheme and adapted it for intentional introductions. Thus, *Crassula helmsii* (New Zealand Pygmyweed) may be okay in aquaria and garden ponds, but not elsewhere. We also extended it to other taxa and other habitats. We then tested it with 33 non-native species from 12 taxon-habitat combinations.

The scheme, as developed, is in two main sections. The first section determines whether a detailed risk assessment is needed with 16 yes/no questions. The detailed section has 51 questions requiring 5 levels of response from very low to very high and a written justification. The scheme is provided in an 82 page manual and as an Excel template.

Four examples of best practice are given – Japanese knotweed, topmouth gudgeon, Indian house crow and *Metarhizium*. The first two are already present and known to be highly damaging. The Indian house crow is absent, but poses a threat to songbirds. *Metarhizium* is a fungal pathogen proposed for biological control.





We have also created and tested six additional modules to support the main scheme, provide a specification for an electronic toolkit and identified gaps and areas for future work. I'll now describe the modules in more detail.

Invasive Attributes

Pheloung et al listed the attributes of invasive alien plant species in Western Australia and constructed a spreadsheet so that different species can be rated according to the presence and absence of these attributes. We constructed spreadsheets for UK plants and fish. This technique is particularly useful when there are no records of a species' invasiveness in the literature.

Pathway Risk Assessment

In addition to assessing an organism, this module allows pathways to be rapidly assessed and analyse a pathway based on many organism assessments. We give two examples: human assisted entry of fish and ship assisted entry of birds.

Receptor Risk Assessment

The next module allows you to assess things the other way round, for example, oak trees, slow flowing watercourses – how vulnerable are these to invasive non-native species.

Economic Impact Assessment

Impact assessment is often the most challenging component of risk assessment. This module gives examples of each level of risk from minimal to massive and provides the key questions, which need to be answered to build up a picture of how economic losses may change over time. An example for *topmouth gudgeon* was provided.

Summarising Risks and Uncertainties

This module helps when you've answered all the questions and need to come to a conclusion. Simple averages of the scores for the questions answered tend to overestimate low risk and underestimate high risk, which authors themselves take into account. We explored a different approach, which maps scores to conditional probabilities. As you can see the conditional probability approach most closely accords with the author's opinions.

Risk Management Scheme

The last module helps select risk management options. The primary approach of this module, which is also based on an EPPO scheme, is on selecting options for preventing entry. Examples include; an explanatory leaflet on importing invertebrates, a RHS policy statement, a Colorado beetle poster and a brown rot contingency plan. If all this fails, there's always the bonfire.

You can start the process from the point of view of an organism, a pathway or a receptor. You then determine whether a detailed risk assessment is warranted, helped as necessary with a spreadsheet on invasive attributes. You then explore the potential for entry, establishment and impacts, helped by the economic impacts module. The Summary and uncertainties module assists with the conclusion to risk assessment and you can then explore risk management options.

With the limited time and funds available, we've identified several gaps and key areas for further work. Clearly the scheme needs to be tested more thoroughly. Validation can be undertaken, eg. by assessing an organism based on knowledge available, say, in 1960. The modules can all be enhanced, particularly by looking at other techniques for summarising risks and uncertainties, environmental impacts and prioritising pathways and receptors. Although we have constructed an Excel template, ideally we should have a user-friendly electronic toolkit with, eg. links to National Biodiversity Index datasets.

In conclusion, we believe that the UK non-native risk assessment scheme provides the first structured framework for assessing any non-native organism to the UK. We do hope that it will now be tested by experts and funds made available to provide advice, take on board comments, collate and analyse risk assessments and enhance its functionality and user friendliness.

Lastly I'd like to thank all the individuals and organisations for taking part in such a fascinating year or so of work. We hope it proves useful.

Forum debate which took place after the presentation

- Unidentified delegate: asked whether the mechanics of spread and different policy scenarios had been taken into account, for example the fragmentation of habitats?
- Fred Rumsey, Natural History Museum: questioned whether the scheme was too plant derived and not appropriate to non-vascular plants. Different attributes apply to other species. Asked whether rapidity of spread was considered?
- Jonathon Reynolds, Game Conservancy Trust: questioned whether the research took into account competition with native species?

- Dr Lee, University of Wales at Swansea: asked whether a database would be set up where all risk assessments could be deposited?
- Stephen Hunter, Plant Health Division, Defra: noted the achievements of the research, but noted that there are often large gaps in knowledge about particular species. Questioned how this problem was addressed by the methodology?

Speaker's response:

- The research was unable to cover everything – it identified gaps and made suggestions for the future, eg. modelling the effects of CAP reform and climate change.
- It did take into account competition from native species and rapidity of spread.
- It is not possible to identify invasiveness attributes, as some species will be invasive in one area, but not in another. Life history traits play only a small role.
- The methodology advises assessors to compare species with similar species that more is known about; to indicate where gaps in knowledge exist (to flag up need for further research); and to adopt the precautionary principle, ie. assume risk is high.
- It is for Defra to determine next steps.

SECTORAL SESSION: PLANTS

The problem

Case study 1: Tree Fern Imports

Steve Ashby, Plant Health Division, Defra



The work of Defra's Plant Health Service, which includes Plant Health Division, the Plant Health and Seeds Inspectorate, and the Plant Health group of the Central Science Laboratory, involves negotiations in Brussels on European Plant Health policy, plus international negotiations in respect of drawing up international standards related to trade in plants and plant products.

The issue of tree fern imports became prominent for the Plant Health Service last year, with several important findings of pests in consignments of tree ferns. There had been some findings of pests in previous years but last year the

problem got significantly worse. We don't know why this is – clearly there has been a big increase in interest in Tree ferns as a result of TV programmes and displays, such as at the Chelsea Flower Show. But also we think that there has been some change in approach in the exporting countries – inspectors report that consignments are not being fumigated, while the increase in demand could have brought more exporters into the market.

Most tree fern imports come from Australia and New Zealand. Unlike some plants there are no specific requirements applying to tree ferns imported into the European Union. The UK's import requirements are the same as those applying to all member states of the European Community. There has been a debate in the past in the EC's Standing Committee on Plant Health, which agrees and oversees all import requirements, about which category they fall into – are they trees, or shrubs, or herbaceous perennials? But it is clear that, as "plants for planting" they are covered by the general requirements which apply to all plants for planting, principally that they must be grown in nurseries. Again, there is a problem with definitions – what does "grown" mean and what constitutes a nursery? The purpose of these requirements is to ensure that the plants have spent sufficient time under controlled conditions to allow pests to emerge and be treated. The exporting country must issue a Phytosanitary Certificate - a declaration that the plants are free from harmful organisms and that they meet the importing country's stated requirements.

So what happens to the ferns when they arrive? All plants for planting must be inspected for pests and diseases and to ensure that they comply with import requirements. For cost and convenience reasons they are mostly inspected at the importer's premises. The Plant Health and Seeds Inspector checks the plants to make sure they are free from pests. Given the conditions under which tree ferns are transported – packed tightly in shipping containers, it was more effective to check the plants once they had been on the importers' premises for a period of time. Problems tend to be easier to find once the plants have been potted up and broken dormancy.

In one particular case the inspector had been called back by the importer – who responsibly had recognised there was a problem. Having acclimatised, yellow flatworms started emerging from the pots. Alerted by this the inspector collected a whole menagerie of non-native species, including beetles, caterpillars, centipedes, millipedes, cockroaches, yellow flatworms, land shrimps, nematodes, slugs, spiders and wasps. The range of invertebrates found was a challenge for the CSL diagnostic team responsible for identifying the species and giving a preliminary assessment of the risks associated.

The yellow flatworms were discovered to be of the species *Fletchamia sugdeni*. A Melbourne trap-door spider was also found. This is from the same family as the notorious Sydney Funnel Web spider, but its venom is not harmful to humans. It could, however, give a nasty bite.

In another case we've recently had a report of a yellow flatworm emerging from a tree fern bought in Belgium and moved to Scotland - this would appear to have escaped detection when the plant was imported into Belgium, and shows that this is not just a British problem.

The finding of this menagerie of creatures in several different consignments suggested strongly that the import requirements were not met – all these creatures suggested that the plants were being taken straight from the forest.

These findings also highlighted the fact that the inspectors only had limited powers to deal with the issue – where there were not plant pests present they needed to seek the co-operation of the importer to tackle the other pests. But there were clearly wider concerns about the possible threat to the environment if some of these pests were to establish, as well as threats to operators handling material in which there are Australian spiders, and to buyers if these were to escape detection. We know from examples such as the New Zealand flatworm that there is the potential for creatures arriving with imports to become established.

So the action the Plant Health Service took was to write to the exporting countries to remind them of our import requirements and their wider responsibilities to restrict the spread of invasive species. We also outlined what we would understand by the term “nursery”, not just a patch of forest with a fence round it. Although it took a good while to get a response, we heard in January that Australia were suspending exports of tree ferns to the EU and were requiring exporters to ensure that the ferns were nursery-grown

Soon after that we heard that New Zealand were taking similar action. In both cases we have now agreed some transitional measures to allow trade to continue and avoid major losses for people who have already agreed contracts. One importer was bringing in 50 containers of tree ferns to meet an existing contract.

In the longer term we hope to address this issue in the Plant Health Standing Committee in Brussels in order to clarify the import requirements, possibly by agreeing specific requirements for this trade.

The nub of the problem, and why this seemed to be a good case study for this forum, is that under current legislation, the Plant Health Order 1993, the PHSI have powers to take action when they find a plant pest or suspected plant pest. With one of the problem consignments they were able to find nematodes in soil and in another a Eucalyptus beetle – both of these are known to be plant pests and so the PHSI were able to use their powers to require destruction of parts of the consignment. But for a lot of the other creatures found, such as the spiders, they did not have powers – they could advise the importer that by allowing the pests to move with the plants they might be in breach of the Wildlife and Countryside Act 1981, but they did not have the powers to destroy plants known to be infested with the menagerie of beasts mentioned.

We have discussed this issue with Defra's European Wildlife Division and this has led to the inclusion in the proposals for amendment of the Wildlife and Countryside Act, a provision to extend powers to PHSI to take action against pests that are not regulated plant pests. If these proposals are accepted this should lead to an improvement in the situation.

Forum debate which took place after the presentation

- Rachel Garthwaite, JNCC: asked whether it is Defra's intention to legislate against hitch-hiking pests?
- Ian Epps, National Federation of Anglers: asked whether vegetables are inspected prior to being displayed in supermarkets. Scare stories of spiders, etc?
- Ian Bainbridge, Scottish Executive: epiphytes are also carried on tree ferns; has any research been carried out on these hitch-hikers?
- Alistair Taylor, Natural History Museum: the same applies to bryophytes.

Speaker's response:

- The difficulty is that plant pests are defined as pests that harm plants – most hitch-hikers simply inhabit the plants, and leave after arrival. There is no intention to change the definition of plant pest at this time.
- Fruit is inspected, but not vegetables.
- Australia and New Zealand have been made aware of the problem of hitch-hiking plants associated with tree ferns.

Case study 2: Kew's General Policy on Non-native Species

Helen Long, Royal Botanical Gardens, Kew



As a scientific institution, Kew contributes to the issue of invasive species in a variety of ways, including support to Defra, Kew's sponsor department; support to UK overseas territories; reviewing procedures for plant distribution to other gardens; and student project research into invasive species impacting Kew's horticulture.

There are ways that Kew is able to link with Defra and provide input at the policy level which has implications for UK government.

- Participation in the Working Group on the Review of Non-native Species Policy
- Input to the Working Group on the Horticultural Code of Practice.
- Acting as a representative on the UK delegation for CBD meetings.
- Informing Kew's visiting public about invasive plants affecting natural vegetation.

While some of the ways Kew interacts with Defra are formal, e.g. participation, there are also less formal ways that we can help distribute the policy outcomes and their messages through the interpretation of information to our visiting public. For example, our interpretation boards, one of which is located in the Conservation Area at Kew. And explains how non-native *Smyrniium perfoliatum* is threatening to overwhelm the bluebell wood around Queen Charlottes Cottage. On 22 May Kew will be hosting one of the events to celebrate the governments Year of the Volunteer and this will involve a mass *Smyrniium* pull to control this invasive species in the Conservation area at Kew.

There are also several ways in which Kew supports the UK's overseas territories.

- By being a member of the Overseas Territories Conservation Forum.
- Capacity building – including: training places on Botanic Garden Management & Herbarium techniques courses; assistance with biodiversity mapping, habitat and species assessments in situ; and

provision of advice and participation in discussions with NGO's and local governments.

- Taxonomic support, eg. identification, for baseline surveys.

Kew has a living collection of over 30,000 taxa. It supplies and exchanges plants and seeds with botanical institutions from around the world. We recognise that historically, botanical gardens have been a source of invasive non-native species, eg. Oxford ragwort, Himalayan Balsam. We are reviewing our distribution practices for our living collections in the light of invasive species. However, the size of our collections and the number of transactions each year mean that attempts to produce individual species risk assessments for each material request would dramatically increase the work load of many core staff within the living collections and the Millennium Seed bank. Further, as recipients are based all over the world, what might be assessed as a problem species in one country or region may not behave similarly in another. Conversely, though, species which are not yet known to cause problems should not be regarded as being free of risk should they escape in new situations.

These are some of the steps we are taking/have taken.

- To increase the knowledge we have about our own collections and the natural vegetation on site, the outcomes of a series of student projects on invasive species will be recorded on our plant records database where this involves documented accessions. If it occurs as a naturalised species in the wider habitat, data will be entered into our wildlife database.
- We intend to use the GISP list of known invasive species to flag existing known invasive species on the relevant accession records.
- An output indicating that a plant is a known invasive onto the despatch note at the time of preparing a despatch would also help to educate and alert staff and recipients to potential risky materials.
- Kew recently updated its standard Material Supply Agreement to take account of invasive species. The Agreement reminds the recipient of their responsibility to comply with their national regulations when importing species. It is important to emphasise that recipients will have a better knowledge of their local environment which could affect their selection of species and how they may behave under differing conditions from Kew.

Within Kew's collections we are working to establish baseline data on what species present problems to us in specific areas and Horticultural Diploma Students have been tasked with researching invasive species on site. Some of these may be ornamental plants, which, while not regarded globally as invasives or pernicious weeds, show invasive characteristics and potential

under our site conditions. Those species further identified as problematic on the Kew site should therefore be distributed with caution.

Also within the London microclimate we are seeing an increase in the numbers of new pest and diseases entering the UK each year, eg. Wisteria Scale and Horse Chestnut Leaf Miner. With possible climate change also comes new challenges for recognising which new plant species may also become problematic or potential invasives.

There are possible impacts for Kew if there is increased regulation. Kew is currently monitoring the issue of invasive species and potential increases in regulation of imports could have a knock on implication for its ability to access materials for its work. Scientific research depends on the ability to source and acquire a wide diversity of plants and research outputs may contribute to conservation of biodiversity.

Also, increasingly Kew depends on its paying visitors. The quality of their experience ranges from the variety of plants in our horticultural displays to the way in which Kew presents information to the public through its formal and informal education.

Kew welcomes the Horticultural Code of Practice and plans to distribute it to all horticultural staff and students and use it in education programmes. This is one way that Botanic Gardens can actively contribute to education and awareness raising and spread the message, not the plants.

Forum debate which took place after the presentation

- Phil Hulme, CEH: could use the fact that a plant is rampant within botanical gardens as an indication that it could be a problem in the private garden.

Codes of Practice – a possible solution? The Horticultural Code of Practice

David Gilchrist, Horticultural Trades Association

A Code of Practice is a set of mutually agreed guidelines or procedures, which are to be followed in order to meet what is deemed to be best practice. As the threat of non-native invasive species being introduced into the countryside is now a serious concern, the development of a Code for horticulture at large seems a sensible way to proceed in response to the review report that the Government endorsed on non-native invasive species. The gardening industry has benefited over many years from the introduction of non-native species, but good practice is required to ensure that these garden plants do not escape and become an issue in the landscape. One has only to look at the average garden and realise that the number of species grown there have come from all over the world and have enhanced both garden and landscape considerably over the last hundred years.

There is an increasing awareness in the horticultural sector of the problems and costs of dealing with non-natives when they become invasive. Consider the issues concerning *Fallopia japonica*, the Japanese knotweed, in certain parts of the country and the huge costs of dealing with its removal and prevention. Many organisations have said they will support and monitor this initiative in the form of a Code of Practice. It is important to remember that horticulture is an incredibly diverse industry and covers both the professional and amateur to such an extent that an awareness programme is quite clearly an important aspect to consider and can only really be enforced by education.

A voluntary Code offers a professional Code of Practice designed to curb the use and distribution of invasive plants species. Accompanying this approach must be the education of all plant users in order to address the problem. It is possible, however, that some Government legislation may be required if the Code proves ineffective. Again, the important thing to consider is the diversification across horticulture from allotment holders to professional architects, it is such a wide remit. It is also true to say that we have over 20 million active gardeners in the UK and a considerable number of professionals too and so, therefore, if this Code is to work it requires all concerned with plants to take an interest in it.

Initially the Code is voluntary but by aiming to promote a standard of reasonable behaviour that will help prevent the spread of non-native species. Any voluntary initiative does need to be monitored in order to see that it works. All organisations involved in horticulture have a responsibility to ensure that the Code of Practice is addressed and made aware to all parties. Can it work? Of course it can work if all participants remain vigilant and follow the guidelines as laid down by the Code. These can be seen in detail on the website where the Code has been put so that it can be amended at any given time and kept up-to-date. Today we have seen the launch of the leaflet which should be made readily available to all interested parties.

The Code has identified a clear purpose and practical function with guidelines that can be adhered to by all in the horticultural industry from gardening clubs to landscape architects. In its original aim it is intended as an all embracing concept

It is important that the industry gets behind the Code to ensure that it functions and the invasive issue is addressed at all times. It may be that we need to treat it a bit like a first aid course and continually revisit it so that it is kept in people's thinking at all times. The Code contains links to guidance on control and disposal of non-native invasive plants, again this is an area which really needs to be brought home to everyone who gardens and utilises plants in the landscape. We need to be creating awareness and also encouraging familiarity with possible plant problems, ensuring that risk assessments are addressed where possible. It would be prudent to encourage the precautionary approach at all times and for all persons dealing with plants to know what they are growing and buying and, of course, planting or introducing to the landscape whether it is in a garden or on a commercial site.

Furthermore, correct plant labelling is vital and the information on the label needs to be concise and accurate and there are responsibilities here for the grower and for those retailers selling plants through their garden centre outlets. It is also important to be familiar with the law. It is no excuse to say that you were not aware of the law or the conditions that relate to plants. There are several laws already in place that can help us and this may also be utilised shortly in the review of the Wildlife Act.

Finally, if you work in the horticulture industry and are advising clients, customers or consumers, be sure to know exactly what you are specifying and avoid recommending plants that could potentially be invasive once established. The key comment taken from the leaflet is to "spread the message and not the plants".

Forum debate which took place after the presentation

- Dick Shaw, CABI Bioscience: welcomed the Code but suggested that it would only be followed by responsible people. Informed the Forum that he had recently seen a company advertising Himalayan balsam as a plant worth using "if you want to fall out with your neighbours".
- Phil Hulme, CEH: the Code needs quality assurance – for example a kite mark or certification scheme.
- Bridget Martin, University of Lancashire Law School: to make the Code effective we need to urgently update Schedule 9 and bring a prosecution.
- Tony Dickerson, Royal Horticultural Society: pointed out that the plant finder published by the RHS is a factual list of plants. It does not recommend their use.

Lessons learnt: discussion on how the Code of Practice (CoP) could apply to other sectors; determination of next sector to develop a Code

Led by Stephen Hunter, Plant Health Division, Defra

- Trevor Renals, Environment Agency: rather than choose a new sector this year we should consolidate the Horticultural CoP, which is aimed at industry, with a “gardeners charter”.
- Rosemary Ward, Gardening Which? Magazine: The Horticultural CoP is aimed at gardeners as well.
- Bridget Martin, University of Lancashire Law School: with global warming more and more exotic species are surviving in the wild than would once have done. The Dangerous Wild Animals Act has recently relaxed its provisions and people are releasing pets they no longer want. Suggest a CoP for the pet industry.
- Roger Cook, European Squirrel Initiative: experience of CoPs used in the area of animal health and medicines. Success depends on buy-in from the sector it is aimed at – vital to have logos of every organisation who has signed up to it on the cover.
- Keith Davenport, Ornamental Aquatic Trades Association: Elliot Morley has been publicising a fly tipping initiative recently – we should use this to publicise the CoP.

Education and awareness strategy

Trevor Renals, Environment Agency

The impact of non-native invasive species is a recent concept to many people within the UK. As the public begin to perceive the damage that is done by these organisms there will be an expectation for appropriate action. It is important that the public realise that they have a crucial role to play and strategic effort should empower them to do so.

Information strategies need to differentiate between prevention and control. Prevention strategies need to target specific pathways of spread, such as the Code of Practice for those involved in horticulture. Advice should be sector-orientated.

Control strategies need to provide either advice that can be used in a variety of situations, or a diversity of specific methods to suit most requirements. The language must be appropriate for a wide audience of diverse background. Information sheets, dispersed either via the internet or from appropriate events and outlets, tend to comprise the most common form of media. Control advice tends to evolve as 'good practice' is developed. The challenge with maintaining information with regards control methods is capturing that information, auditing it and refining the advice that is made available.

The forum approach to invasive species management has been adopted in many parts of the UK. Some fora are species-based, such as the Cornwall Knotweed Forum. Other groups are based to specific catchments or locations, such as the Tweed Forum. Such groups are usually motivated by either the problem associated with a single species or the threat to a particular area.

Traditionally, non-native species issues impact on some aspect of a range of organisations, landowners and public bodies without being the sole concern of any one of them. The forum approach has the advantage of sharing the problem amongst a range of stakeholders. Each organisation brings a fresh perspective to the problem. Control methods can be compared and control programmes co-ordinated. Many members are reluctant to commit to control programmes until effort on neighbouring infestations can be perceived. A forum can also develop a local character to appeal to local communities. It is often hard to convince a landowner to commit resource or change management behaviour for a problem he or she may not have perceived. Many are tired of receiving land management advice from government agencies, and are more receptive to local initiatives.

The Cornwall Knotweed Forum was established in 1997 and comprises of approximately sixty partners. The Forum has placed a strong emphasis on public engagement, producing leaflets for householders, hauliers/developers, etc and adopting a strong Cornish identity to engage with local communities. The public have been encouraged to record knotweed on recording sheets that were given out with leaflets. Organisations such as The Ramblers and Women's Institute were also involved in recording. Records were audited

using a differential global positioning system and parish maps of knotweed distribution were provided to Parish Council Tree Wardens for audit and review.

We know of 2983 distinct areas of knotweed in Cornwall, comprising 240 ha of land. Approximately half of these sites are in active management. This resource has come from Forum partners, utilising existing land management budgets, but in an effective and co-ordinated manner. Previous control efforts had been piecemeal, often using ineffective control methods, sometimes resulting in further spread. The Forum has no dedicated budget or staff.

An example of the benefit that can be accrued from a well-informed local community can be observed after the flooding incident that occurred in Boscastle on 16th August 2004. The Jordan stream, a tributary of the River Valency, supported isolated clumps of knotweed that were washed down into the town. Knotweed rhizome contaminated much of the alluvium over part of Boscastle. Once the presence of knotweed was confirmed amongst the flood debris, and the recognition features of rhizome explained to the local community, local people systematically picked through and sieved the debris and removed the rhizome. The community realised the potential consequences of knotweed infestation and was not prepared to let it happen to their community.

There is a risk that once a lead organisation is identified and adopts a strategic role regarding non-native invasive species management, there will be less incentive for local partnerships. It is important that the new structure is designed in a manner that will continue to facilitate local fora, rather than seek to replace them. The problem must continue to be shared amongst a range of organisations if management is to be effective.

The lead organisation should provide guidance on priority target species and the best methods for their control. The decision whether control should be attempted at all should also be taken at a strategic level. Having identified the method and nature of control programmes, targeted funding should be made available to local groups. Many invasive weed infestations are associated with regions or urban areas that also attract alternative funding sources, which may be matched against the central government funding.

The cost of controlling Japanese knotweed using current methods was estimated at £1.56 billion in 2003. We must consider the cost-benefit of all potential methods and adopt the most cost-effective means of delivery if we are to make a difference.

Forum debate which took place after the presentation

- Ian McLean, JNCC: asked about targets.
- Tony Dickerson, Royal Horticultural Society: the review Working Group considered and dismissed the creation of an operational capacity.

Discussions have focussed on prevention, which is important, but it is also important to control and/or eradicate species already here.

Speaker's response:

- The Cornwall Knotweed Forum set an ambitious business plan to eradicate JK from Cornwall by 2005 – ambitious, but necessary. The new target is of eradicating the hybrid which can act as a male pollinator for JK, which is descended from a female clone.
- Eradication and control are important – especially as it is these actions which have the most impact with the general public and are most likely to receive funding. No-one sees species that have been prevented from coming in.

Role and terms of reference of the Forum – facilitated discussion

- David Parker, Countryside Council for Wales (session chair): suggested that the Forum's programme should contain case studies, a report of research undertaken during the year, and reflect the wide range of organisations present.
- Bridget Martin, University of Lancashire Law School: It would be useful to have at least one case study to examine in detail.
- Dick Shaw, CABI Bioscience: questioned whether holding the Forum once a year is sufficiently frequent.
- Rachel Garthwaite, JNCC: The Forum provides an important opportunity for information exchange, and active engagement from stakeholders. This role should be separated out from providing the opportunity for stakeholders to have an input into policy formation.
- Ian Danby, British Association for Shooting and Conservation: The forum should have the role of reviewing the last 12 months and looking forward to the next.
- Phil Hulme, Centre for Ecology and Hydrology: There are potential sources of conflict between different sectors with an interest in NNS issues. The Forum could look at ways to resolve these conflicts.
- Alistair Taylor, Natural History Museum: Important to view the forum in relation to the functions of the Programme Board with strategic role, working groups with a limited membership – the Forum casts the net wider. Stakeholders should be encouraged to make presentations. Also need to look at European initiatives.
- Roger Cook, European Squirrel Initiative: Urged caution regarding commitments – last year's Forum recommended that Defra should ensure legislation is enforced by 2005. It would have been better to have framed the recommendation in terms of ensuring that the public knows what legislation there is and what is being proposed.
- Patricia Lee, University of Wales at Swansea: the Forum is an opportunity for information to be passed to the public via Press Notices, journalists present during the sessions etc. The media should be invited every year.
- Tony Dickerson, Royal Horticultural Society: Key area is education and awareness – need to get the message out to the general public.
- Ian Bainbridge, Scottish Executive: the review report contains a diagram showing how diffuse the "general public" is, in terms of how they need to

be informed. One of the roles of this Forum is to discuss how the message can be promulgated to each sector.

- Tracey Edwards, JNCC: we need to be clear about what sort of action is the responsibility of the Programme board, the Working groups and the Forum.
- Judith Webb, Forestry and Timber Association: danger of the Forum becoming a talking shop. It needs to press the Programme Board (PB) to determine deliverables and an action plan. The Forum should steer the PB's work.
- Linda Smith, European Wildlife Division, Defra: For information - the Bern Convention requires the preparation of national strategies on invasive non-native species. A seminar is to be held in June and there will be a conference in 2006.

Panel: questions from the floor

*Panel members: Brian Elliot, Maritime and Coastguard Agency
Trevor Renals, Environment Agency
Iain Bainbridge, Scottish Executive
Sandy Greig, Forestry Commission
Keith Davenport, OATA*

Q: Fiona Wren, Environment Agency: Which working groups would each of the panel members like to see set up as a matter of priority?

- Trevor Renals: suggested following the Review format – have the same working groups, but with a stronger emphasis on public information.
- Iain Bainbridge: risk assessment and research; promotion and publicity – 5 major sectors, each needing a different approach; industry liaison.
- Brian Elliot: Ballast water working group already exists, but suggested a more general marine working group.
- Keith Davenport: A WG to develop an aquatic Code of Practice; publicity very important.

Q: Dick Shaw, CABI Bioscience: Should fungi be added to Schedule 9 of the Wildlife and Countryside Act 1981?

- Iain Bainbridge: no objection in principle.

Q: Tracey Edwards, JNCC: Referred to the planned gap analysis research project and asked how can we ensure it captured all the scientific research conducted outside the scope of statutory funding streams?

- Trevor Renals, EN: this would be one of the benefits of raising the profile of the Forum via media attention – once the scientific community know that this is being undertaken the information would flow to us; suggested a website for people to send information to, as well as get information from; suggested the National Biodiversity Network should also form part of the research as it works with voluntary sector to record information.
- Iain Bainbridge: Defra is hoping to be able to fund gap analysis to look at how effective monitoring is and set priorities for future action. The general public could be asked to monitor priority species identified by risk assessment process.
- Keith Davenport: there is a danger of this becoming a dissertation factory - we need practical action not research grant applications

Q: Ecoscope: Noted that the risk assessment methodology will identify potential high risk species and asked who would identify and decide which action should be taken, ie. whether they should be eradicated or controlled?

- Brian Elliot: the marine environment is a very difficult area to carry out eradication which is why the focus has to be on prevention. This issue has been raised on the ballast water working group.
- Trevor Renals: Not all invasions need to be controlled – not all create the same level of harm. We need to know what the costs and benefits of a particular action are before we can take this decision.
- Ian Bainbridge: important to realise that the risk assessment tool which has been developed is a draft tool. We still need to check that it works and consider how it should be used. Suggest that it needs a further contract to test top 200 species, and then we would be in a position to prioritise actions. Ultimately, it is the Government's decision on how money should be spent.

Participant Feedback

Twenty four feedback forms were returned to Defra (ie. 26% of attendees).

Do you consider the holding of an Annual Forum for stakeholders to be a worthwhile activity?

- A unanimous “yes” was received in answer to this question!
- Qualifying comments included:
 - must continue to be more about invasive species and less about the organisation;
 - it provides all stakeholders with a useful roundup on developments during the previous 12 months;
 - the meeting gives the opportunity to network - very important to have this face-to-face contact in an e-mail dominated world;
 - the forum could, and should, be a valuable tool in steering the priorities of the Programme Board. A report from them, with time for discussion, should be a central part of future fora;
 - it brings together a divergent range of interests from Government, industry and the media all of which are crucial to making progress against non-natives;
 - it is vital that future fora show real progress taking place otherwise they threaten to become talking shops only; and
 - there is an opportunity to ask questions of key players; and formal and informal discussion time allows catching up with the very wide range of interests in this area.

Do you think the Forum should be organised by the new Secretariat, or by a separate working group?

- Of those expressing a view, 71% felt that the role should fall to the new Secretariat, the rest feeling that future fora could be organised by a working group.
- Some felt that there needed to be a steer from the new Programme Board, but most of those expressing a view wanted the content to remain useful and stakeholders having an input into the agenda and speakers.

Would you prefer the Forum to be held in London every year, or to rotate between venues in England, Scotland and Wales?

- Preference was split almost fifty/fifty between London, as this offers the most convenience for travel arrangements, and rotating the venue

between the different administrations, as this offers a better opportunity for involvement of different Ministers.

- There were a few suggestions that the Forum could be held in London every other year, rotating it in the intervening years.

Are there any aspects of this year's programme that you think worked particularly well and would like to see again? Were there aspects that should not be repeated?

- The presentations and case studies were well received and most people found them useful.
- A couple of people felt it was a shame the Minister could not stay longer and participate in some Q&A.
- While most respondents felt the programme was useful and well balanced, about a third expressed some disappointment in the way the Panel and Q&A sessions worked – comments included:
 - the Q&A session could have been longer.
 - the Panel should also have included those giving presentations.
 - the group was too large for the type of Q&A session held and would have benefited from smaller groups or being led by trained facilitators.
- Suggestions for future Fora included:
 - a progress report, especially once the Programme Board is established.
 - maintaining the presentation and case study format.
 - developing the Panel session.
 - maintaining a focus on particular topics.

Do you have any comments about the venue or catering?

- In general everyone was happy with the venue and catering, although a few attendees found the coffee/tea to be cold once they had arrived.
- Also, because the Forum was held on a cold, crisp March day, the heating in the auditorium struggled.

Any other comments.

- In addition to some people making a request to be invited to future Fora and kept up to date on specific issues, other comments included:
 - with such a relevant location, it might have been nice to have a few words from a zoo person.
 - if it is the intention to hold further meetings away from London, could you ensure that venues and public transport facilitate completion of the Forum in one working day without the need for an overnight stop.
 - organised, informative and productive.
 - I like that so much information is available on the website, but it is still really important to have a Forum to learn from others. Without funding it will be difficult to implement any actions. I would like to know what resources will be provided for the proposed work.
 - Forum - useful, however delegates will be happier next year if there has been more action with respect to doing something. I appreciate that it takes time to develop a GB-wide system, but several people I spoke to were expecting a little more to have occurred. Whether this was a fair point of view they did not say.
 - the role of industry was the major concern. I am still unconvinced that they should be on the coordinating body, but certainly key to the functioning of the working groups and this would need highlighting at future Fora.
 - as a speaker I think IBM could have done a bit more with the facilities, eg. made sure that there was a remote control in order to operate the PC from the podium, or actually stationing it on the lectern, and providing a laser pointer. They had at least two people there, no doubt at some considerable cost to Defra, whose sole function seemed to be to load presentations.
 - there seems to be a general presumption that all stakeholders have a vested interest or a duty to regulate their own practices or to instigate remedial action and that all the Government need to do to fulfil its own obligations is to encourage/organise them. This is not the case for farming/forestry landowners, who have enough economic worries without incurring any more expense. Joining up INNS thinking with agri-environment schemes such as the ELS would be sensible here. For instance, why not designate regions within which verifiable absence of Japanese knotweed would earn Brownie points towards ELS? Many other possibilities along similar lines spring to mind.
 - it would be worth considering inviting speakers/ reps from other countries to take part in the forum and to share information on

respective invasive non-native species policy measures and best practice.

- The focus on INNS is dominated by policy makers and researchers - we hear little about what is actually happening on the ground (perhaps not as much as we think) to combat invasives.

- the only observation that came partly from the review of Wildlife and Countryside Act 1981 is that under that legislation there are specific duties and responsibilities for local government. However, there did not seem to be anyone from local government on the attendance list; nor does there seem to be any provision for local government in the new co-ordinating body.

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