

Scottish Biodiversity List Social Criterion: Results of a survey of the Scottish population

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The Scottish Biodiversity List project, undertaken by Scott Wilson on behalf of the Scottish Executive during 2005, aimed to identify a list of flora, fauna and habitats of principal importance for the conservation of biodiversity in Scotland. The requirement to produce this list was included in the Nature Conservation (Scotland) 2004 Act, to help public bodies to carry out their duties to further the conservation of biodiversity.

The first stage of the project was the development of a set of scientific criteria that would be used to identify species and habitats for inclusion in the list. This work and full details of the agreed criteria were reported in full in December 2005.

In addition to the scientific criteria, a single social criterion was employed to assess which non-domestic species and habitats in Scotland were most important to the Scottish public. TNS were commissioned to undertake a survey to identify these socially important species and habitats by including a series of questions in their monthly omnibus, the Scottish Opinion Survey (SOS). For the purposes of the survey the 'importance' of species and habitats was defined as "important for any reasons including for conservation, for their own personal enjoyment, as economically important (e.g. fishing), simply their favourite, as symbols of Scottish identity or just that they are nice to see."

The results of this survey led to the production of 'top 10' lists of the animals, plants and habitats which represented those most important to the Scottish population. These lists contributed an additional eight species and two habitats to the Scottish Biodiversity List.

Main Findings

- The majority of Scottish adults stated that they thought that all species of plant were of equal importance (58%) while around half thought that all animals or all plants were equally important (50% and 47% respectively). In contrast, much smaller proportions stated that they thought that no plants, animals or habitats were important (6%, 5% and 2% each).
- The animals most frequently selected as being important were the red or roe deer, red squirrel and golden eagle. Each of these were identified as important by around half of respondents who provided a preference.
- Other animals selected as important by at least a quarter of those with a preference included dolphins, porpoises and whales, the wild salmon, badger and osprey.
- Heather was the most frequently selected plant, perceived as important by half of those with a preference while around two-fifths selected the Scots pine. Other plants selected most frequently were the bluebell or harebell, oak and thistle.
- When asked about the habitats of most importance, the most frequently identified were hills and mountains, lochs, woodland, beaches and rivers and streams.

Introduction

This bulletin presents the key findings of a survey undertaken in 2005 to determine the species and habitats of most importance to the Scottish public. This survey formed part of the wider Scottish Biodiversity List project¹ which aimed to identify a list of flora, fauna and habitats considered to be important for the conservation of biodiversity in Scotland. The production of this list was a requirement of the Nature Conservation (Scotland) 2004 Act and was undertaken by Scott Wilson under the direction of a steering group comprising members of the Action Plan and Science Group (APSG) of the Scottish Biodiversity Forum (SBF).

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In addition to the scientific criteria, a single social criterion was developed to assess the importance of species and habitats. This criterion was defined as *“non-domestic species, and habitats important to the Scottish public.”*

The inclusion of a social criterion in the production of the list follows the Convention on Biological Diversity's definition of biodiversity importance, as stated in the Scott Wilson report: *“The Convention defines importance using social, scientific and economic parameters. Social reasons for a feature's importance may include nature conservation, personal enjoyment, economic value, **popularity** and identity.”*²

Interpreting the criterion

The survey required members of the public to identify animals, plants and habitats natural to Scotland which were important to them. For the purposes of the survey important was defined very broadly as **‘important for any reasons including for conservation reasons, for personal enjoyment, as economically important (e.g. fishing), simply favourites, as symbols of Scottish identity or just that they are nice to see.’**

Survey method

The data used to apply the social criterion was obtained through a survey of a representative sample of 1,033 Scottish adults aged 16 and over. The survey was undertaken in September 2005 using the Scottish Opinion Survey (SOS), the monthly omnibus survey conducted by TNS. Interviews were undertaken in 50 sampling points across the country with quota targets set on the basis of gender, age-group, social class and working status.

Questions were split across three sections relating to animals, plants and habitats.

1 Production of the list of species and habitats considered to be of principal importance for the purpose of biodiversity conservation in Scotland (The Scottish Biodiversity list), Scott Wilson, December 2005 (<http://www.biodiversityscotland.gov.uk/pageType2.php?id=35&type=2&avID=92>)

2 Ibid Pg 2

In the questions relating to animals and plants, respondents were initially asked, without any prompting, to state the species of most importance to them, with respondents allowed to choose up to 5 animals or plants. In the second part of each section respondents were shown a list of animals or plants and asked to indicate which, if any, were as important as the ones they had already selected. Up to 5 more species could be selected. The lists shown to respondents each contained over 30 species,³ as agreed during a workshop attended by members of the Scottish Executive and consultants from Scott Wilson and TNS. The third and final question in the animal and plant sections asked respondents to select a single, most important animal or plant from the list of species they had identified as important.

In the questions relating to habitats no initial unprompted question was asked. Instead, respondents were asked to identify up to 10 habitats of importance from a list of 34 types. Respondents were then asked to choose the single most important habitat.

General importance of species and habitats

When asked to specify the plants, animals and habitats which were of most importance to them, large proportions of respondents indicated that they believed that all were of equal importance. As Figure 1 illustrates, this was particularly the case when respondents were asked to specify plants of importance, with over half (58%) providing the response that ‘all were equally important’. By comparison, half of Scots indicated that all animals were equally important (50%) while a slightly smaller proportion provided this response in relation to habitats (47%).

In previous research undertaken by TNS for the Scottish Executive,⁴ a similar finding was obtained and, when probed, respondents indicated that this view was based upon an appreciation that damage to one species or habitat could create harm to another.

Figure 1 also illustrates the smaller proportions of respondents who felt that no animals, plants or habitats were of importance (5%, 6% and 2% respectively) or that they did not know which were important (6%, 9% and 2%). It is likely that many of the respondents who provided these responses did so due to a lack of insight or interest in the subject.

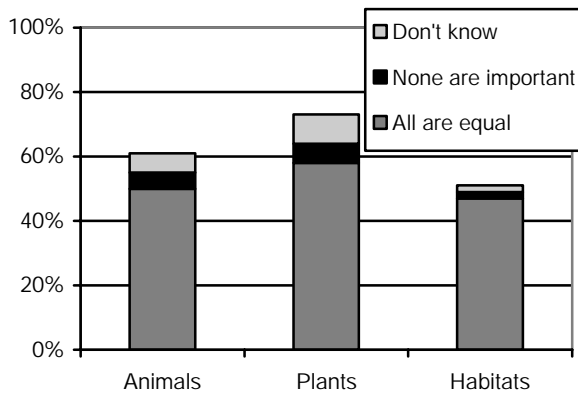
It is notable that, in general, respondents were more likely to be uncertain of which plants were more important than others, while higher proportions were able to spontaneously state types of animal of importance to them. This finding suggests that, in comparison to plants, there are higher level of awareness and interest in animals amongst the Scottish population.

In the following sections, results are based upon the responses provided by those who indicated that any animals,

3 Lists contained 36 animals and 33 plants.

4 An economic assessment of the costs and benefits of Natura 2000, Jacobs Gibb in association with TNS.

Figure 1: General importance of animals, plants and habitats



plants or habitats were more important than others. In other words, these results exclude those who stated that all species or habitats were equal, none was important or that they did not know.

Animals

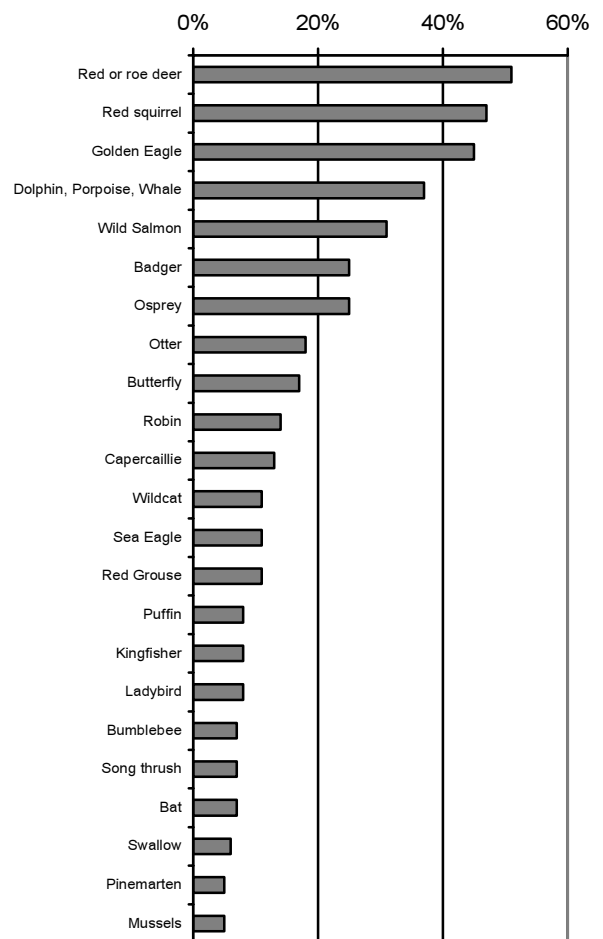
The first section of the survey asked Scots to provide their views on the importance on animals which lived naturally in Scotland. The first part of the question was asked without any prompting, allowing respondents to spontaneously select the animals of most importance to them. In the second part of the question respondents were shown a list of animals and asked to indicate which, if any, were as important as the ones they had already selected.

Figure 2 illustrates the combined responses from the first and second questions, i.e. the proportions of respondents selecting each animal either with or without prompting. Only those animals selected by 5% or more of those who stated a preference are shown.

The red deer and roe deer category⁵ represents around half of those who selected any animal as important **for any reason** (51%) while slightly smaller proportions selected red squirrel (47%) or golden eagle (45%) and 37% selected dolphin, porpoise or whale. Wild salmon, badger and osprey were each selected by at least a quarter of respondents while the other animals listed were selected by smaller proportions.

Finally, respondents who had indicated which animals were most important to them were asked which of those they had mentioned was *most* important. Reflecting the results obtained previously, most respondents were unable to state that a single animal was most important to them. However, amongst those who did suggest a single most important species, the animals selected most often were the red squirrel, golden eagle, dolphin, porpoise or whale and deer.

Figure 2: Ranking of most important animals



Plants

In the second section of the survey Scots were asked a similar series of questions regarding the importance of plants which grow naturally in Scotland. Respondents were asked to select the plants of most importance to them without any prompts before being shown a list of plants and asked to select any as important as the ones they had just mentioned.

Figure 2 illustrates the combined responses from these questions, i.e. the proportions of respondents selecting each plant either with or without prompting. Only those plants selected by 5% or more of those who stated a preference are shown.

Half of those respondents who stated a preference selected heather as important (50%) while just over two-fifths selected the Scots pine (42%). The other most frequently selected plants included the bluebell and harebell, oak and thistle (33%, 32% and 32% respectively). Other plants mentioned by more than a fifth of those who provided a preference were the snowdrop, rowan and Scottish primrose (24%, 22% and 21%).

Respondents who had indicated which plants were important to them were also asked to select a single most important plant. Again, most respondents were unable to state that a single plant was more important than all others. However, amongst those who did suggest a single, species, the heather, thistle, oak and Scots pine were chosen most often.

⁵ Due to the high number of respondents who did not distinguish the type of deer in their response, mentions of deer, red deer and roe deer have been combined into a single category. Responses relating to dolphins, porpoises and whales have also been grouped for similar reasons.

Figure 3: Ranking of most important plants

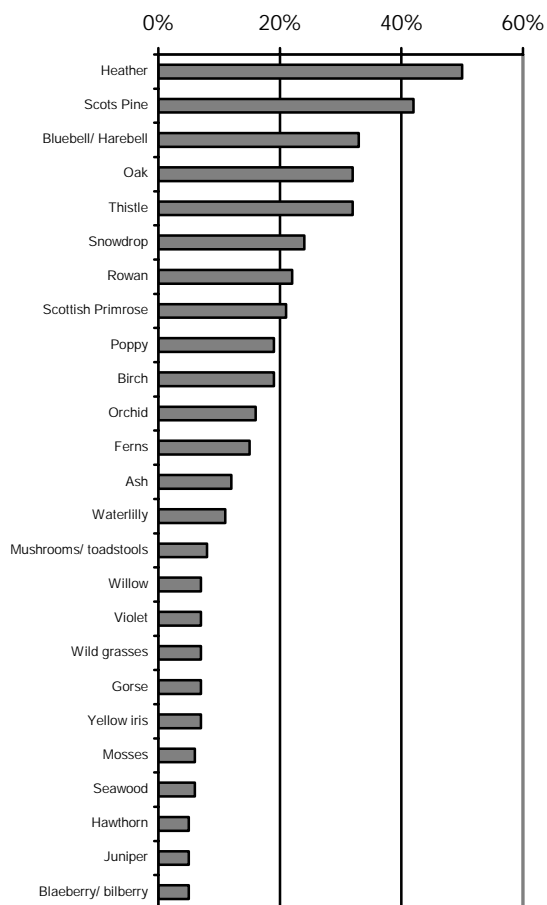
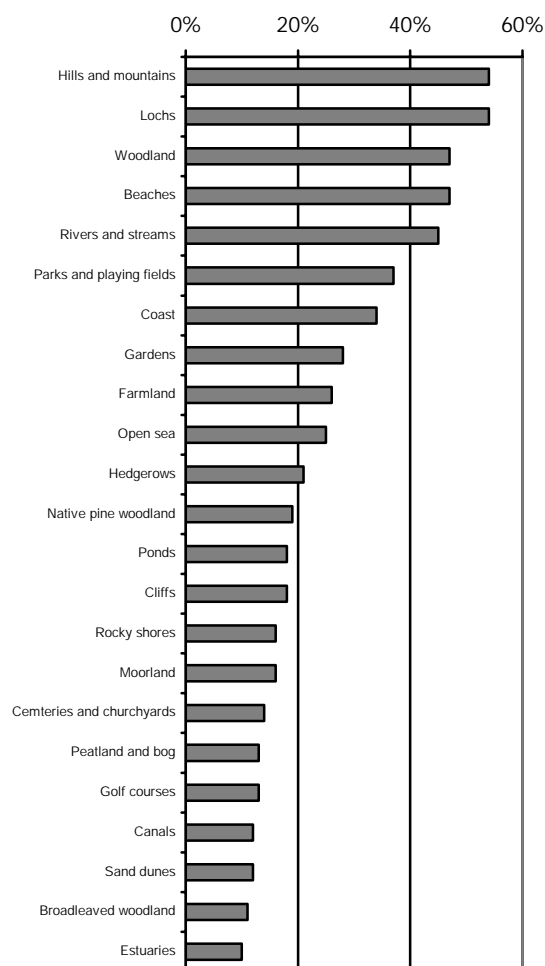


Figure 4: Ranking of most important habitats



Habitats

Finally, respondents were shown a list of the most common habitats found in Scotland and asked to select those which were more important to them. Those selected by 10% or more of respondents who provided a preference are shown in Figure 4.

The largest proportions of respondents indicated that the most important habitats were hills and mountains (54%), lochs (54%), woodland (47%), beaches (47%) and rivers and streams (45%). It is also notable that over a third of those who stated a preference thought that parks and playing fields were amongst the most important (37%). Other habitats selected by at least a quarter of respondents were the coast (34%), gardens (38%), farmland and open sea (25%).

Recreation

The inclusion of a series of questions on the September 2005 SOS as part of the Scottish Recreation Survey⁶ also allowed some analysis of responses against the results of this survey.

This analysis suggested that there was some correlation between the frequency that Scots took part in outdoor recreation and their views on the importance of different types of native species and habitats. Regular participants in countryside recreation were generally more likely than those

who rarely or never undertook activities to rate a greater variety of animals, plants and habitats as important.

‘Top 10’ animals, plants and habitats

To translate the results obtained from the survey of the Scottish public into a format which could be applied to the Scottish Biodiversity List, a ‘top ten’ list of animals, plants and habitats native to Scotland was produced, as illustrated in Table 1.

It was decided to use the ‘top ten’ of each of the three categories rather than setting a minimum percentage threshold following detailed discussions with the Scottish Executive and members of the Scottish Biodiversity Forum. This approach will facilitate the analysis of a future repeat of this survey, allowing the identification of shifts in public opinion without being fixed to 2005 thresholds.

It is notable that the types of animals and plants which were selected as most important are those which are often used to represent Scotland. Deer, golden eagle, wild salmon, heather and thistle are all included in the ‘top 10’ animals and plants.

⁶ Scottish Recreation Survey 2005, Scottish Natural Heritage

Table 1: 'Top 10' animals, plants and habitats

	Animals	Plants	Habitats
1.	Red or Roe Deer	Heather	Hills and mountains
2.	Red Squirrel	Scots pine	Lochs
3.	Golden Eagle	Bluebell/harebell	Woodland
4.	Dolphin, Porpoise, Whale	Oak	Beaches
5.	Wild Salmon	Thistle	Rivers and streams
6.	Badger	Rowan	Parks and playing fields
7.	Osprey	Scottish Primrose	Coast
8.	Otter	Poppy	Gardens
9.	Butterfly	Ferns	Farmland
10.	Robin	Orchid	Open sea

While the most frequently selected important habitats are also typical 'icons' of Scotland (hills, mountains and lochs), it is also notable that parks and playing fields are seen as important amongst many respondents. These findings reflect the wider roles of different types of habitats and open spaces for personal enjoyment.

It is possible that this survey will be repeated in the future as part of the updating of the Scottish Biodiversity List. A number of the animals, plants and habitats which were selected by significant proportions of respondents in the 2005 survey but were not included in the 'top 10' lists could well be ranked more highly if the survey was repeated. The animals and plants with the greatest potential of inclusion in a future 'top 10' are capercaillie, wildcat, sea eagle, red grouse and water lily. Similarly, habitats narrowly missing inclusion in the 2005 'top 10' which could be included in a future list are hedgerows, native pine woods, ponds and cliffs.

Conclusions

These results informed the development of the total Scottish Biodiversity list of over 2,100 species and habitats and, in effect contributed an additional 8 species and 2 habitats that do not qualify under the scientific criteria.

These findings could usefully inform further in-depth qualitative research to elicit the 'value' of these key species and habitats which could also further clarify **why** selected species and habitats were considered important to the Scottish public.

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ISBN 0-7559-2989-6

