



Review of Local Records Centres in the UK

Report to:

**Natural England
Northminster House,
Peterborough,
PE1 1UA**

On behalf of the Statutory Agencies, National Biodiversity Network and National Federation for Biological Recording.

Mike Lush, Dr Eleanor Hewins, Dr Sarah Toogood, Rob Frith

JUST ECOLOGY Limited
Woodend House, Woodend
Wotton-under-Edge
Gloucestershire
GL12 8AA, UK

March 2007

© JUST ECOLOGY 2006

Acknowledgements

JUST ECOLOGY and exeGesIS would like to give their sincerest thanks to all the interviewees who kindly gave their time to be interviewed for this work, as listed in Appendix 2. We would also like to thank the Project Steering Group, as listed in Appendix 1, for the opportunity to carry out this work, for their direction and support.

The authors would like to thank James Perrins, David Mitchell and Jon Young (exeGesIS), and Jeff Kirby (JUST ECOLOGY), for their constructive comments on the first draft of this report.

Disclaimer

The views or opinions presented in this report are those of the interviewees, or are the impressions of the interviewers gained from conducting the interviews, and do not necessarily represent those of JUST ECOLOGY Ltd. LRC interpretation of interview questions varied, despite guidance from interviewers.

Table of contents

Acknowledgements	i
Disclaimer	i
Table of contents	ii
Executive summary	1
1 Introduction	6
2 Methodology	8
2.1 Local Record Centre selection and interview arrangements.....	8
2.2 Questionnaire design.....	8
2.3 Interviews	8
2.4 Review of Local Record Centre responses.....	9
2.5 Analysis and reporting	9
3 Results.....	10
3.1 Basic factual information.....	10
3.1.1 Local Record Centre status	10
3.1.2 Local Record Centre objectives.....	13
3.1.3 Local Record Centre coverage	14
3.1.4 Local Record Centre data holdings	14
3.2 Relationships with local data providers.....	14
3.2.1 Local Record Centre volunteer data sources	14
3.2.2 Ensuring record submission from volunteers.....	16
3.2.3 Services provided to volunteers.....	17
3.2.4 Local Record Centre non-volunteer data sources	18
3.2.5 Data flow between Local Record Centres and National Schemes and Societies	20
3.3 Links to other networks and scales.....	21
3.3.1 Local Record Centre networks	21
3.3.2 Wider networks.....	21
3.4 Relationship with the NBN	22
3.4.1 Providing access to data via the NBN Gateway	22
3.4.2 Use of data on the NBN Gateway.....	23
3.4.3 Overall impression of the NBN	24
3.5 Data content, coverage and quality	26
3.5.1 Provision of data to Local Record Centres	26
3.5.2 Validation and verification.....	28
3.5.3 Data management systems.....	29
3.6 Policies and operation of Local Record Centres.....	31
3.6.1 Use of staff resources.....	31
3.6.2 Enhanced functions	32
3.6.3 Marketing.....	33
3.7 Staff Conditions	33
3.8 Key benefits provided by Local Record Centres.....	35
3.9 Viability of Local Record Centres.....	36
3.9.1 LRC sustainability.....	36
3.9.2 Financial viability	37
3.9.3 Meeting existing needs.....	39
3.9.4 Staffing concerns.....	39
3.10 Ideal position	40

3.10.1	Future planning.....	40
3.10.2	Biodiversity data demand	41
3.11	Blocks to achieving an ideal position	42
3.11.1	Changes needed if funding was dependant upon open access provision of data at the finest geographical resolution	42
3.11.2	The key players and how would they need to change	42
3.11.3	Moving towards open access and Local Record Centre sustainability	43
4	Comparison of questionnaire findings with the NBN Position Statement on Local Record Centres	44
4.1	Local Record Centres within the NBN	44
4.2	Essential functions.....	45
4.2.1	Partnership	45
4.2.2	Impartiality	45
4.2.3	Non overlapping	46
4.2.4	User led.....	46
4.2.5	Services.....	46
4.2.6	Data requests	46
4.2.7	Data capture service.....	46
4.2.8	Data scope	47
4.2.9	Data coverage – species	47
4.2.10	Data coverage – habitats.....	47
4.2.11	Metadata	48
4.2.12	GIS	48
4.2.13	Staff resources	48
4.3	Enhanced functions	49
4.4	Detailed assessment of LRCs against three essential functions	49
4.4.1	Responding to data requests within the Environmental Information Regulations 2004	49
4.4.2	Data scope including records of fauna, flora, habitats and sites of wildlife importance	50
4.4.3	Documented validation and verification procedures	51
4.4.4	Combined assessment of LRCs against the three essential functions	51
5	Ability to deliver against local authority and statutory agency needs	52
5.1	Local Authority requirements.....	52
5.1.1	Informing decisions in the planning process.....	52
5.1.2	Helping to implement and monitor LBAPs and identifying sites of importance for biodiversity conservation.....	52
5.1.3	Help to plan conservation strategies.....	53
5.1.4	LRC functions that can assist with Local Authority needs	53
5.2	Statutory Agency requirements	54
5.2.1	English Nature/Natural England requirements	54
5.2.2	Scottish Natural Heritage requirements.....	55
5.2.3	Countryside Council for Wales requirements	55
5.2.4	Environment & Heritage Service requirements.....	55
5.2.5	Environment Agency requirements.....	56
5.2.6	LRC functions that can assist with statutory agency needs.....	56
5.3	Assessment of whether LRCs are fulfilling local authority and statutory agency requirements	56

5.3.1	Providing species and habitat information	56
5.3.2	Other LRC functions	57
6	Recommendations	58
6.1	Funding.....	58
6.2	Establishment of Local Record Centres.....	59
6.3	Building relationships.....	60
6.4	General recommendations	61
6.5	Further work	61
7	Evaluation of the questionnaire and interview technique	63
7.1	Local Record Centre inclusion and personnel	63
7.2	Issues arising from questionnaire interpretation	63
7.3	Project execution	64
8	Glossary.....	65
9	References	66
	Appendix 1 - Project steering group members	67
	Appendix 2 – Local Record Centres (and other stakeholders) interviewed for this work.....	68
	South West of England.....	68
	South East England and Greater London.....	69
	East of England.....	70
	West Midlands of England.....	70
	East Midlands of England.....	71
	Yorkshire and Humber Region of England	72
	North West of England	73
	Wales	73
	Scotland	74
	Northern Ireland	75
	Appendix 3 – Questionnaire.....	76
	Appendix 4 – List of volunteer groups that LRCs would like to work with	92
	Appendix 5 – List of special interest groups with data exchange agreements with one or more LRCs	94
	Appendix 6 – Maps	95
	Appendix 7 – Detailed assessment of LRCs against three essential functions	105

Executive summary

Local Records Centres (LRCs) are organisations that have the common objectives of collecting, collating and disseminating a range of environmental information for a given geographical area. Collectively they maintain upwards of 30 million individual species and habitat records, so they are a highly important link in biodiversity data flow, the information they provide being used by a variety of data users. However, LRC coverage of the UK is incomplete, with an estimated 14% of the country by area without an existing LRC.

Therefore JUST ECOLOGY were contracted by English Nature, on behalf of the Statutory Agencies, National Biodiversity Network (NBN) and National Federation for Biological Recording (NFBR), to conduct a review of LRCs in the UK to assess the factors preventing or supporting the establishment of LRCs. A selection of 58 organisations were included, who were interviewed using a standard questionnaire. The review covered three main themes: LRC sustainability; the ability of LRCs to work within the NBN; and their capacity to conform to the NBN Data Exchange Principles.

The main findings are summarised below:

1. LRC models: Though LRCs operated under a range of different legal and managerial circumstances, no single LRC model was found to be inherently better. Instead success was linked to good long-term management and high quality staff. The use of data sharing partnerships, where responsibility for the management of biodiversity data was shared among a range of organisations, was also identified as occasionally occurring.
2. Data from the voluntary sector: On average 70% of species records maintained at LRCs came from the voluntary sector. However, not all voluntary groups submitted records to LRCs; 67% of established LRCs could name voluntary groups that they did not work with but would have liked to. The obstacles to this were predominantly the volunteers themselves and lack of resources. Good communication was identified as the key factor in ensuring that this 'missing' information was submitted.
3. Service provision to the voluntary sector: In return for records submitted LRCs offered a wide range of services to volunteers, though 87% of LRCs felt that they needed to offer more. Lack of resources was stated as the main reason why this was not possible.

4. Data from the non-voluntary sector: Whilst only 16% of species records came from the non-voluntary sector, they submitted a greater proportion of habitat records (43% compared with 17% for the voluntary sector). The remaining 14% of species records and 40% of habitat records were probably generated internally, though the exact reason for the discrepancy is unclear. The LRCs may have had another source that was not accounted for in the questionnaire.

76% of LRCs could name non-volunteer organisations that they did not work with but would have liked to. The main obstacles to this were that the organisations did not want to get involved, together with lack of resources on the part of LRCs to enable joint working.

5. LRC and National Schemes and Societies (NSSs): Some potential problems were identified regarding data flow between LRCs and NSSs (in the 81% of cases where any occurred), as it often became unclear who the data custodian was, which meant that different levels of access could be applied to the data. However, the importance of having this information held by both NSSs and LRCs was recognised, as it ensured that biological information was used at both a national and local level. Furthermore NSSs allowed for more expert data verification than could be provided by most LRCs alone. Local representatives of NSSs were often used by LRCs to verify records.
6. Organisational networks: The importance of LRC networking, both with each other and with other organisations, was recognised. 93% of LRCs felt the need to network with other LRCs, as it offered them a greater level of stability, a forum within which to discuss problems, and combined political power. 74% of LRCs also felt the need to network with other organisations, as it allowed for a range of benefits, such as data exchange, economies of scale, sharing of ideas and to plan conservation efforts.
7. LRCs and the NBN: Only 26% of LRCs were providing data to the NBN Gateway, the most commonly stated reason for not providing data being that LRCs did not have the resources to do this. Another obstacle identified was software bugs within Recorder 2002 and 2006. Moreover, only 35% of LRCs used data available via the NBN Gateway, the most frequent reason being that they did not have time to do so, and also concerns regarding its usefulness to them as they generally felt they had the best datasets for the county.

55% of LRCs felt that the NBN concept both helped and hindered; the majority of the rest felt it helped; only one LRC felt that the NBN was of no benefit at all to LRCs. In general LRCs liked the principle of national data collation and provision and found the NBN guidance and standards useful, but viewed the NBN as competition for data and a threat to funding for LRCs.

8. Validation and verification: Only one LRC did not validate the data submitted by volunteers. 93% used county recorders from the voluntary sector to verify data for specific taxa.
9. Staffing requirements: The staffing levels of LRCs varied considerably, depending upon the products and services they provided. The average was approximately 3 FTE staff members. The majority of staff time was spent on analysis and reporting, data entry and data management. Volunteer time was also important, with an average contribution of 14 hours per week given by volunteers toward the running of the LRC.
10. Staff recruitment and retention: 26% of LRCs had problems recruiting staff, mostly due to staff pay and conditions and the lack of suitable candidates. 28% of LRCs also felt that they had problems retaining staff, though this increased as the number of FTE staff increased. The most frequent problem for existing LRC staff was staff conditions and the lack of a defined career structure.
11. Enhanced functions: 54% of LRCs provided one or more enhanced functions, as defined by the NBN Position Statement on Local Records Centres.
12. Other data suppliers: 39% of LRCs were in competition with other data suppliers, mainly recording groups and conservation organisations, who sometimes also ran a charged enquiry service. Better and more comprehensive data, and quality of service, was thought to distinguish LRCs from these competitors.
13. Risks in support arrangements: Funding insecurity and lack of funding were the main risks in LRC support arrangements. The average operating cost was £91,200 per annum, though this varied enormously. The majority of funding came from local authorities, statutory agencies, wildlife trusts and LRC enquiry charges. No LRC had funding security for more than 3 years into the future.

14. Funding requirement: £70-80k was identified as the basic funding requirement for an LRC supporting 2-3 staff members. In order to fulfil an average LRC vision an average budget of £110-120k and 3-4 staff would be required. However, the budget needed to meet the visions of LRCs varied greatly, as it was dependant upon the geographical area covered and the range of services offered.
15. Resource related performance: 57% of LRCs said that they could not meet all user needs with their current structure and resources, so they were unable to perform some essential roles.
16. Predicted changes in demand: 81% of LRCs expected an increased demand for biodiversity data, mainly due to: BAP and climate change monitoring; the Strategic Environmental Assessment Act; Planning Policy Statement 9; Local Development Framework; Farm Environmental Plan and Higher Level Stewardship requirements.
17. Statutory requirements: At least eleven LRCs felt that it would be beneficial to make the establishment and funding of LRCs with defined basic functions a statutory requirement.
18. Changes required if funding was dependent upon open access to data at the finest geographical resolution: The LRCs would need better core funding, assured safeguards for the protection of confidential data and permission from the recorders to release the data. They felt that this increased core funding would have to come from mainly governmental organisations.
19. Changes required for open data access: 77% of LRCs stated that improved financial security and funding was the single most important factor to enable open access and LRC sustainability.

The report makes comparisons with the NBN Position Statement on LRCs. This indicated some discrepancies between the vision of the NBN for LRCs and that of the LRCs themselves. Important discrepancies include:

- 24% of LRCs were not partnership led, though the NBN Position Statement states that they should be.
- The NBN Position Statement states that LRCs should ensure impartiality, though in a few cases this was questionable.
- Some overlap of LRC boundaries existed, though the NBN Position Statement stated that there should be none.
- The NBN Position Statement states that LRCs should be user led, though in some cases this did not occur.

- Not all LRCs could meet the demands of providing basic biodiversity information services and responding to data requests, despite these being essential functions of the NBN Position Statement.
- Not all LRCs held habitat datasets, though the NBN Position Statement states that they should hold or have access to all that are available.
- The NBN Position Statement states that LRCs should have metadata on their data holdings, though 17% had none.
- 12% of LRCs did not use GIS, though the NBN Position Statement states that they should use it to help with their operations.
- 60% of existing LRCs lacked sufficient staff to carry out the essential functions given in the NBN Position Statement.

The report also assesses each LRC against three essential LRC functions from the NBN Position Statement, namely:

- Responding to data requests within the Environmental Information Regulations;
- Data scope including records of fauna, flora, habitats and sites of wildlife importance;
- Documented validation and verification procedures.

These have been summarised in maps illustrating the coverage of qualifying LRCs. These indicate that only 46% of the UK (by area) was covered by LRCs that qualified on all three criteria.

The report also attempts to summarise the statutory information requirements of local authorities and statutory agencies, using planning, policy and public service agreement documents. The current status of LRC fulfilment of these functions is discussed, as far as possible. This indicated a gap of unknown size where this information is not being made available to local authorities and statutory agencies by LRCs.

Finally recommendations are made relating to: funding; the establishment of LRCs; building relationships between LRCs, the NBN and others; national policy; and further work to advance complete geographical coverage by LRCs.

1 Introduction

Local Records Centres (LRCs) are organisations that have the common objectives of collecting, collating and disseminating a range of environmental information for a given geographical area, usually a county or another administrative area. LRCs in the UK operate under a diverse array of set ups and fulfil a diverse range of functions and services in addition to their basic objectives.

Though many parts of the UK have well established LRCs, others still lack full functionality, are in development phases or are absent altogether. Where they exist and function successfully they are a highly important link in biodiversity data flow, and are often critical in the provision of species and habitat data. They also provide local context for biodiversity information and mechanisms for dissemination that National Schemes and Societies (NSSs), who usually hold large national datasets for specific taxa, cannot provide. This local context is important as it allows features of local importance to be recognised and highlighted, and allows for relationships with local data providers and users to be developed.

The information provided by LRCs is utilised by a variety of data users, including local authorities and developers for planning purposes, local authorities and conservation groups for the maintenance and enhancement of biodiversity, and by statutory agencies for policy and monitoring purposes. As a result there is a recognised need for LRCs to provide services not only to various sectors of government, but also to a range of other parties.

It is an objective of the National Biodiversity Network (NBN) Trust that 'LRCs should be incorporated as important, interconnecting foci for the collection, collation and provision of regional or sub-regional biodiversity information'. Scottish Natural Heritage (SNH) maintains the position that if there is a demonstrated need for an LRC by stakeholders they will support the creation of one. English Nature's position (taken forward into Natural England), is to participate in the establishment of an effective network of LRCs. Though there has been good progress towards the goal of adequate LRC coverage, it has not yet been achieved and it has been recognised that progress has been slow. Furthermore, the diversity of LRC operations and range of issues faced by individual LRCs is also recognised, and these require full review before future resources can be allocated to the situation.

As a result of this, JUST ECOLOGY, working with exeGesIS, was contracted by English Nature (now part of Natural England), on behalf of the Statutory Agencies, NBN and NFBR, to conduct a review of LRCs in the UK. This was undertaken between February and May 2006 by interviewing LRCs and other stakeholders where no LRC existed. These interviews formed the basis for an analysis of LRC sustainability, their ability to work within the National Biodiversity Network (NBN) and their capacity to conform to the NBN Data Exchange Principles. Additional analysis was also conducted within March 2007 to further investigate specific points, as requested by the project steering group.

2 Methodology

2.1 Local Record Centre selection and interview arrangements

A list of most LRCs in England, Scotland, Wales and Northern Ireland was made by the Project Steering Group (see Appendix 1 for a full list of Steering Group members). Where no LRC existed the Project Steering Group selected representatives from potential key stakeholders (hereby included in 'LRCs'). The list was then split between JUST ECOLOGY and exeGesIS, with JUST ECOLOGY covering the 44 English LRCs and exeGesIS covering the 17 others. The statutory agencies (English Nature, Scottish Natural Heritage, Countryside Council for Wales, Environment and Heritage Service) wrote to each of these organisations to ensure their support for the project. Unfortunately, three of the selected LRCs could not take part in the study, either because they did not want to, or because a mutually agreeable time for interview could not be arranged. Those LRCs that were involved in this work are listed in Appendix 2.

JUST ECOLOGY and exeGesIS then arranged interviews with the LRCs. The LRCs were informed of the purpose and likely duration of the interview, and in most cases were sent a copy of the questionnaire in advance to prepare with. Any other queries relating to the purpose of the study were also answered at this point.

2.2 Questionnaire design

A detailed brief for the interviews was provided by the Project Steering Group. This was used as a basis for the questionnaire, with questions designed by JUST ECOLOGY and exeGesIS. A final draft of this was tested in the interview with the Environmental Record Centre for Cornwall and the Isles of Scilly (ERCCIS), in agreement with the LRC, to refine the structure of the final questionnaire. This was then finalised with the Steering Group and sent out to all of the LRCs. The final questionnaire can be found in Appendix 3.

Though the questionnaire was completed as a single entity, with continuous numbering to allow for the design of one database only, in practice three versions were used for existing LRCs, prospective LRCs, and areas where there was no LRC.

2.3 Interviews

Most interviews were conducted in person at each LRC. However, there were inevitably a few occasions where this was not possible, either because of the cost of reaching these LRCs, or because a suitable date could not be found. In these instances the interviews were conducted by telephone, though sometimes a questionnaire was already completed in advance by the LRC. Most "in person" interviews were also recorded on a Dictaphone to ensure that as much relevant information as possible could be captured. LRCs were informed that the recordings would remain confidential and only used by JUST ECOLOGY during data entry.

To ensure consistency throughout, the interviews were conducted by a limited number of people within JUST ECOLOGY and exeGesIS. In total six interviewers were used, with two individuals conducting the bulk of the interviews. Interviewers took care to talk around the questions, in order to capture non-quantifiable information not directly addressed by the questionnaire. Supporting documents such as annual reports and marketing leaflets were also collated and provided as part of the final output. Interviewers communicated with each other throughout the project to resolve any issues and clarify questions within the questionnaire.

2.4 Review of Local Record Centre responses

ExeGesIS created an Access database to contain the information and facilitate data analysis. The interviewers entered the information for each of their interviews into this database. Summary reports were created for each question.

Once the interviews had been conducted, the database was used to automatically generate reports for each LRC, which were sent out to the interviewees for checking. This resulted in some changes, though not all responded within the deadline. In some cases interviewees responded to provide information not available at the time of the interview; in others it was to clarify certain points of fact, particularly where the database could not contain the information in the format in which it was originally given.

2.5 Analysis and reporting

The following results sections broadly follow the format of the questionnaire (see Appendix 3), though there are exceptions where it was felt that individual questions were better reported out of order. A comparison of the LRC responses with the NBN Position Statement on LRCs was carried out using the findings and some additional analysis.

3 Results

3.1 Basic factual information

3.1.1 Local Record Centre status

As is shown in Table 3.1, the majority of interviewees classified themselves as established full LRCs. Two interviewees considered themselves to be an LRC in an early stage of development and one was currently inactive. In total nine potential or actual stakeholders were interviewed, of which seven were representing planned LRCs.

Table 3.1 – Q.10: LRC status

LRC type	England	Scotland	Wales	Northern Ireland	UK
Established full LRC	36	8	1	1	46
Establishing LRC			2		2
Currently inactive LRC		1			1
Prospective LRC	7				7
No LRC		2			2
All interviewees	43	11	3	1	58

LRCs had a number of different operating structures including limited companies, local authorities, wildlife trusts and partnerships. Table 3.2 shows that the most common arrangement for the LRCs interviewed was to exist as part of a local authority. It should be noted that some LRCs fitted into more than one of these categories, i.e. an LRC could be hosted by a local authority but managed by a partnership.

Table 3.2 – Q.25: What is the legal status of your LRC (all LRCs) (n=58)?

Legal status	England (n=35)	Northern Ireland (n=1)	Scotland (n=9)	Wales (n=3)	UK (n=48)
Local authority (part of or hosted by)	13		4		17
Charity	5		4		9
Limited company	4		2	3	9
Wildlife trust (or trading company)	9				9
Partnership	5		1		6
Other	4				4
Museum service (part of or hosted by)	2	1			3
Not for profit organisation			1	1	2
Voluntary recording group			1		1

Although local authorities controlled or hosted the largest number of LRCs, within this arrangement there was a wide variety of LRC effectiveness, activity and stability. In the majority of cases, LRCs directly managed by local authorities were extremely effective, proactive and much more stable than many non-local authority LRCs. However the reverse also seemed to be true in some noteworthy cases. Even in some of the more stable local authority LRCs some stagnant datasets were being used to meet Local Authority requirements, no matter how out of date or inconsistent that data might be.

Local authorities could exert significant control over other LRCs (such as independent or Wildlife Trust hosted) through funding and positions on LRC steering groups. However, this control was less direct than when the LRC was local authority hosted.

Table 3.3 shows that the majority of existing LRCs were managed by a steering group, usually composed of partner organisations. Table 3.4 shows that all prospective LRCs were intended to be managed as part of a local authority but governed by a steering group. It is worth noting that, in addition to their overall management, the management of some LRCs is determined by SLA requirements. It can be seen that some LRCs had more than one type of management, though some are mutually exclusive.

Table 3.3 – Q.29: What is the management structure of your LRC (existing LRCs only)? Percentages are calculated from the total number of LRCs.

LRC broad supervision	England (n=35)	Northern Ireland (n=1)	Scotland (n=9)	Wales (n=3)	UK (n=48)
Steering group (usually made up of partners)	25 (71%)	1 (100%)	4 (44%)	1 (33%)	31 (65%)
Managed by local authority	6 (17%)		6 (67%)		12 (25%)
Managed by wildlife trust	9 (26%)		1 (11%)		10 (21%)
Managed by museums service	6 (17%)	1 (100%)			7 (15%)
Board of directors	1 (3%)		1 (11%)	3 (100%)	5 (10%)
Board of trustees	3 (9%)				3 (6%)

Table 3.4 – Q.29: What is the management structure of your LRC (prospective LRCs only)? All prospective LRCs interviewed were in England. Percentages are calculated as in Table 3.3.

LRC broad supervision	England (n=5)
Steering group (usually made up of partners)	4 (80%)
Managed by local authority	4 (80%)
Managed by wildlife trust	0
Board of directors	0
Managed by museums service	0
Board of trustees	0

The review suggests that there was no one LRC status and management model that was consistently better, but that the success of an LRC was more closely linked to good long term management and high quality staff, though dependence on key staff could be a concern (see Table 3.42).

This review found some LRCs operated through existing or planned data sharing partnerships. These were either: a) where organisations, each with its own remit, connected to an LRC to ensure data flow; b) or where different organisations combined to produce the complete LRC package. An example of the former was Hampshire Biodiversity Information Centre, which managed all habitat data and some of the species data for the county, but had links with a strong network of local specialist groups who managed and distributed their own data. An example of the latter was a planned LRC for Derbyshire, which will be formed from the Derbyshire Wildlife Trust, Peak District National Park Authority and Derby Museum and Art Gallery, as follows:

Derbyshire Wildlife Trust	<ul style="list-style-type: none">• The point of contact for the LRC.• Manage sites for areas outside the National Park and habitat data.
Peak District National Park Authority	<ul style="list-style-type: none">• Manage sites and some species data for the National Park area.
Derby Museum and Art Gallery	<ul style="list-style-type: none">• Manage species data for Derbyshire.

The planned Lancashire Biodiversity Network intends to operate as a series of hubs. Each hub would be an organisation with a stake in biodiversity data management, including the recorders, main statutory bodies, the county council and the wildlife trust. This would then be coordinated through the county councils IT network, with one permanent member of staff at the county council responsible for facilitating the data flow. Several LRCs were considering this type of relationship, but Lancashire is making use of a pre-existing system to achieve it.

Taking partnership working one step further was the Highland Biological Recording Group, who raised the idea of having an LRC with a data mobilisation manifesto, rather than the traditional data management manifesto. In this model they would mobilise data on the NBN Gateway, which would then be the query mechanism, freeing them from the necessity of many other LRC duties. This would allow the LRC to spend more of its time servicing the needs of biological recorders in making data flow to the NBN efficient. However, it would mean that interpretation could not be provided for the data – which, if not provided by the LRC, would be provided by another organisation locally. There were questions over how this would be funded, if the direct link to the data users was lacking. However, the Highlands were a different situation from the rest of the UK, having different development pressures (for example, comparatively low pressure for housing, but higher pressure for windfarms) and subsequently different requirements for biodiversity data.

3.1.2 Local Record Centre objectives

Table 3.5 shows that 11 (24%) of established LRCs had a formally agreed constitution, with a further seven (15%) planned. Both of the establishing LRCs had a formally agreed constitution.

Table 3.5 – Qs.26 & 27: Does your LRC have a formally agreed constitution? If not, is one planned?

LRC Type	Country	Yes	No	Planned	unknown	Total
Established	England	8	16	6	6	36
	Northern Ireland	1				1
	Scotland	1	6	1		8
	Wales	1				1
Established UK Total		11	22	7	6	46
Establishing (Wales only)		2				2
Inactive (Scotland only)					1	1

The written objectives of the LRCs vary but six major broad objectives could be determined, as shown in Table 3.6.

Table 3.6 – Q.28: What are the written objectives of your LRC (established, establishing, inactive and prospective LRCs)?

Broad objective	Frequency	% of LRCs
Collect, collate and manage biodiversity information	26	46
Provide access to biodiversity information	25	45
Promote biological recording	9	16
Strategic planning (incl. development control, wildlife sites, etc.)	7	13
Based on NBN guidance/other professional guidance	3	5
Provide analysis/interpretation of biodiversity information	1	2

Table 3.6 shows that 16% of existing and prospective LRCs stated promoting biological recording as a broad objective. It is likely that this figure would have been higher if they were asked about encouraging recording specifically. Table 3.18 illustrates this, as 70% of existing and prospective LRCs encouraged participation in NSS surveys or intended to.

Building recording capacity was an enhanced service listed in the NBN Position Statement on LRCs (Anon, 2004) and was undoubtedly very important from a conservation of biodiversity perspective. It also ties in with local authority commitments to life-long learning, which local authority based LRCs may have been required to encourage. Conversely, some LRCs struggled to establish relationships with recording groups, often due to time limitations or personnel issues, and therefore found it hard to obtain records from these groups.

It was notable how the objectives varied in complexity, precision and suspected usability. Some LRCs seemed to struggle to think of the objectives when questioned, whereas others produced a long list from one of their supporting documents. Very often the former had a very simple 'one-stop-shop' attitude, which is in essence accurate but not very clear in actually defining the role of the LRC. A few LRCs gave very brief and clear mission statements that summarised their overall objectives.

3.1.3 Local Record Centre coverage

Map 1 illustrates the area of the UK covered by the LRCs interviewed, as perceived by the LRCs themselves. 195,875 km² (79%) of the UK was covered by an LRC that classed themselves as an existing LRC. The category “Existing LRC” includes all organisations that classified themselves as established, establishing or inactive. 22,749 km² (9%) of the UK was not covered by a LRC, though 13,655 km² of this (6% of the UK) was covered by an LRC that classed themselves as a prospective LRC. This is discussed in greater detail in Section 4.

Recorders were often uncertain of LRC boundaries, which presented a problem in making sure that data are submitted to the correct one. rECOrd and others were making moves to resolve this by accepting all data records and then passing data on to the relevant LRC.

3.1.4 Local Record Centre data holdings

It was very difficult to assess total LRC data holdings accurately; electronic species records are easily countable whereas habitat information is measured by area and data held in paper format is difficult to quantify. It is possible that some LRCs excluded paper records from their data holdings, as they are not easily interrogated.

The average data holdings for established LRCs was approximately 700,000 individual records. The maximum held at any one LRC was over 9 million, with an overall total within the established LRCs interviewed of over 30 million.

This is discussed further in Section 4.4.2.

3.2 Relationships with local data providers

The overwhelming data flow theme that was discussed repeatedly during interviews was the importance of good communication at all levels of data flow. This benefited the recorders, as they felt that they were getting a better level of service; benefited the LRC as they increased the amount of data flow; and benefited the NBN as more data became available. The importance of this cannot be understated, as it is key to ensuring that data flow is as effective as possible and that the NBN and LRCs remained viable in the long term.

3.2.1 Local Record Centre volunteer data sources

Table 3.7 shows the proportion of species and habitat records received by LRCs from the voluntary sector. The proportion of species records has been weighted against the estimated total species data holdings of each LRC. However, it was not possible to do this for the proportions of habitat records, as the total habitat data holdings were less easy to estimate and measure, so the average figures are derived by directly averaging the unweighted percentages. As a result the figures for the proportion of habitat data received from the voluntary sector are likely to be less accurate than that of the proportion of species data, and may over- or under-estimate the actual proportions.

Table 3.7 – Qs.37 & 38: What proportion of your species and habitat records came from the voluntary sector over the last year (established, establishing and inactive LRCs)?

Record type		England (n=32)	Northern Ireland (n=1)	Scotland (n=8)	Wales (n=2)	UK (n=43)
Species	Average	74.84	100	69.05	40.01	75.00
	Minimum	5	100	10	40	5
	Maximum	99	100	100	50	100
Habitat	Average	1	0	12.5	0	3.07
	Minimum	0	0	0	0	0
	Maximum	10	0	80	0	80

Table 3.7 shows that the proportion of species records received by LRCs from the voluntary sector varies greatly, from 5 to 100%, with an average of 75%. The figures for habitat records ranged from 0 to 80%, but the average was much lower than for species data. Hence it was clear, even with the potential errors within the habitat data, that the majority of species data came from the voluntary sector but the majority of habitat data came from elsewhere.

59% of existing LRCs had written agreements with volunteers (either individual volunteers or volunteer groups) over the supply and use of data, whilst a further 20% planned to introduce them within the following year. 11% of existing LRCs stated that they were not planning introducing this sort of agreement within the following year.

67% of established LRCs stated that they would like to work with volunteer groups or organisations that they did not. This was particularly true for bird and mammal groups, as shown in Table 3.8. With regard to birds, much of this was due to a desire to have access to BTO data, as the BTO did not regularly provide their data to LRCs. Most of the mammal groups that LRCs wished to work with are badger or bat groups, who believed that the data they held was too sensitive to be released and often charged for access to it. A complete list of the volunteer groups that LRCs would like to work with is provided in Appendix 4.

Table 3.8 – Q.40: Which volunteer groups would you like to work with but currently do not (established, establishing and inactive LRCs)?

Type of volunteer organisation	England (n=30)	Scotland (n=6)	Wales (n=2)	UK (n=38)
Special interest groups (birds)	13	7	2	22
Special interest groups (mammals)	15	2		17
Special interest groups (general)	9	2		11
Special interest groups (invertebrates)	5	4		9
Special interest groups (plants)	3	4	2	9
Individual recorders	4			4
National Trust / National Trust for Scotland	2	1	1	4
Special interest groups (reptiles and amphibians)	3			3
Anglers	2			2
Special interest groups (fungi)	1	1		2
Wildlife Trust groups	1	1		2
Museums			1	1
Ramblers	1			1
Universities	1			1

Table 3.9 shows the obstacles to working with volunteer groups. Issues with volunteers were the obstacle to working with volunteer groups that LRCs were most concerned about. This occurred particularly at the recorder/LRC level, where certain recorders would refuse to associate with an LRC, which could result in datasets being withheld. Often this could be based upon personality clashes: it was interesting to hear words such as ‘competition’ and ‘suspicion’ being used to describe some volunteer attitudes towards LRCs. Sometimes this could be rectified given a significant level of commitment to resolving the issues – though this is something that LRCs could rarely afford given their already tight budgets. There were also off-the-record occurrences of LRC staff members who created rifts between the recorders and the LRC, through bad management, poor people skills, etc.

Table 3.9 – Q.41: What are the obstacles to working with volunteer groups that you would like to work with but currently do not (established, establishing and inactive LRCs) (n=49)?

Obstacle	Frequency
Issues with volunteers	35
Resources	17
Confidentiality/data sensitivity	6
Data incompatibility (including LRC reluctance to accept paper data)	6
LRC issues	6
No local representative for organisation	5
Arrangements in progress	2

3.2.2 Ensuring record submission from volunteers

89% of established LRCs knew that not all biodiversity data collected within their area was submitted to the LRC. Data that didn’t go to the LRC often went to a wide range of locations, including NSSs, County Recorders and local specialist groups. In the latter two cases the information was often verified and then passed on to the LRC. This also often happened where there were local representatives of NSSs. However, some records submitted direct to NSSs were still missed (see Section 3.2.5).

Table 3.10 shows that 80% of existing and prospective LRCs intended to ensure the submission of data to them through good communication. One also mentioned that a financial incentive for the recorders might also increase the likelihood of data being submitted to the LRC, though at least five other LRCs offered other support (see Section 3.2.3). The value of investing effort in acquiring certain information was questioned as the usefulness of the information was not known; an example being the BBC Springwatch survey.

Table 3.10 – Q.68: How will you ensure that all records come to your LRC in the future (established, establishing, inactive and prospective LRCs)?

Method	Frequency	%
Communication	45	80
Formal agreements	11	20
Demonstrating the value of the LRC	7	13
Support	5	9
Prioritisation of volunteer groups	4	7
Technical development	4	7
Financial incentive?	1	2

3.2.3 Services provided to volunteers

Table 3.11 shows the facilities offered to volunteers by LRCs. Note that these services were each offered by over 50% of established LRCs. Nevertheless, 87% of existing LRCs stated that they felt the need to do more for volunteers to maintain their support. When asked what the obstacles to this were, 93% stated lack of resources, as shown in Table 3.12.

Table 3.11 – Q.53: Do you provide any of the following services for volunteers (established, establishing, inactive and prospective LRCs)?

Service	Established	Establishing	Prospective
Provision of local contacts	42 (91%)	2 (100%)	5 (71%)
Training/ Technical advice on recording	40 (87%)	2 (100%)	5 (71%)
Meetings with volunteers	31 (67%)	2 (100%)	5 (71%)
Forums or conferences	30 (65%)	2 (100%)	5 (71%)
Other published material	29 (63%)	1 (50%)	4 (57%)
Meeting space	28 (61%)	2 (100%)	3 (43%)
Use of other office facilities	28 (61%)	2 (100%)	4 (57%)
Newsletter	24 (52%)	2 (100%)	4 (57%)
Other	23 (50%)	1 (50%)	3 (43%)

Table 3.12 – Q.55: What are the obstacles to doing more for volunteers to maintain their support (established, establishing and inactive LRCs) (n=42)?

Obstacle	Frequency
Time/staff shortage	34
Resources (unspecified)	14
Finances	10
Equipment/facilities	8
All resource issues	39
Politics	4
Lack of interest from recorders	2
Recorders too far away.	2
Record centre in the early stages of establishing relationships	1
Would lead to confusion	1

3.2.4 Local Record Centre non-volunteer data sources

Table 3.13 shows the non-volunteer organisations that existing LRCs had worked closely with in the previous year, though this is thought to be incomplete as some LRCs had not prepared complete answers to this question. The counts are the number of individual relationships, rather than the number of organisations that work with all LRCs, which means that there will have been instances of an LRC working with more than one organisation or *vice versa*.

Table 3.13 – Q.42: Which non-volunteer organisations (e.g. EN, SNH, CCW, Defra, local authorities, etc.) have you worked closely with over the last year (established, establishing and inactive LRCs)? Voluntary organisations may be included here where the LRC has worked closely with paid staff members, such as Wildlife Trusts, the RSPB, National Trust and Wildfowl and Wetlands Trust.

Non-volunteer organisation	England (n=36)	Scotland (n=9)	Wales (n=3)	Northern Ireland (n=1)	UK (n=49)
Local authorities	76	8	7		91
Statutory agencies	-	-	-	-	47
English Nature	34				-
Scottish Natural Heritage		9			-
Countryside Council for Wales			3		-
Environment and Heritage Service				1	-
Other	28	2			30
Environment Agency	23		2		25
Wildlife Trusts	15	1			16
Utilities companies	13				13
Defra RDS	12				12
FWAG	9				9
Consultancies	7	1			8
Forestry Commission	2	4	2		8
Museums	7				7
National Park Authorities	5		1		6
RSPB	3	3			6
LBAP groups	2	1	1		4
AONBs	3				3
Businesses	3				3
National Trust / National Trust for Scotland	2	1			3
Universities	3				3
Highways Agency	2				2
Other LRCs	2				2
SEPA		2			2
Department for Agriculture and Rural Development				1	1
MoD	1				1
NBN	1				1
NFBR	1				1
Plantlife	1				1
Police	1				1
Wildfowl and Wetlands Trust	1				1

Table 3.14 shows that the proportion of species and habitat records received by LRCs from the non-voluntary sector varied greatly. As in Table 3.7 the proportion of species records has been weighted against the estimated total species holdings of each LRC, though again it was not possible to do this for habitat records. However, it is clear that a larger proportion of habitat records came from the non-voluntary sector than the voluntary sector. The reverse was true for species records.

Table 3.14 – Qs.44 & 45: What proportion of species and habitat records came from the non-voluntary sector over the last year (established, establishing and inactive LRCs)?

Record type	Average	Minimum	Maximum
Species	14.40	0	90
Habitat	43.07	0	100

76% of LRCs stated that they would like to work with non-volunteer organisations that they currently did not work with. Table 3.15 shows that Defra and the Forestry Commission were the two mostly commonly named non-volunteer organisations that LRCs would most like to work with. The Environment Agency, local authorities and the National Trust also featured frequently in responses to this question.

Table 3.15 – Q.48: Which organisations would you like to work with but currently do not (established, establishing and inactive LRCs)? This excludes those organisations that were mentioned only once. CEDaR did not identify organisations that they would like to work with but currently do not, so Northern Ireland is therefore excluded.

Organisation	England (n=36)	Scotland (n=9)	Wales (n=3)	UK (n=49)
Defra	19 (53%)			19 (39%)
Forestry Commission	11 (31%)	2 (22%)		13 (27%)
Environment Agency	12 (33%)			12 (24%)
Local authorities	8 (22%)	2 (22%)		10 (20%)
National Trust	6 (17%)	1 (11%)	1 (33%)	8 (16%)
Utilities companies	3 (8%)		3 (100%)	6 (12%)
English Nature	5 (14%)			5 (10%)
SEPA		5 (56%)		5 (10%)
Colleges/universities	1 (3%)	3 (33%)		4 (8%)
British Waterways	3 (8%)			3 (6%)
Consultants	2 (6%)	1 (11%)		3 (6%)
National Park Authorities	2 (6%)	1 (11%)		3 (6%)
RSPB	3 (8%)			3 (6%)
Businesses	2 (6%)			2 (4%)
Defence Estates/MoD	2 (6%)			2 (4%)
Highways Agency	2 (6%)			2 (4%)
LBAP groups		2 (22%)		2 (4%)
NBN		1 (11%)	1 (33%)	2 (4%)
Countryside Agency	1 (3%)			1 (2%)
Scottish Executive		1 (11%)		1 (2%)

Table 3.16 shows that the two biggest obstacles to working with non-volunteer organisations were that the organisation could not or would not get involved, and that the LRCs themselves lacked the resources to establish the relationship.

Table 3.16 – Q.49: What are the obstacles to working with the organisations that you currently do not (established, establishing and inactive LRCs) (n=49)?

Obstacle	Frequency
Organisation can't/won't get involved, e.g. no funding to support additional work	27
Resource issues	23
Too little information on who to deal with, what the benefits will be, etc.	6
Currently making arrangements	5
Confidentiality	3
Don't know	3
Internal LRC problems	3
Database incompatibility	2

Where there was no LRC, biodiversity data went to a wide variety of voluntary and non-voluntary organisations.

3.2.5 Data flow between Local Record Centres and National Schemes and Societies

There were significant problems ensuring that data flow from recorders through to the NBN via LRCs was effective. One of these was the complexity of sharing data between LRCs and NSSs. Table 3.17 shows that overall, a greater number of LRCs provided at least some data to NSSs (71%) than received data in return (57%). However, this does not equate to overall data flow, as it does not indicate the quantity of data flowing in each direction.

Table 3.17 – Matrix showing data flow from NSSs to LRCs (Q.69) and LRCs to NSSs (Q.71) (established, establishing, inactive and prospective LRCs).

		LRC to NSS (Q.69)			Total
		No	unknown	Yes	
NSS to LRC (Q.71)	No	7 (12%)	-	13 (22%)	20 (35%)
	unknown	-	4 (7%)	1 (2%)	5 (9%)
	Yes	6 (10%)	-	27 (47%)	33 (57%)
Total		13 (22%)	4 (7%)	41 (71%)	58 (100%)

Table 3.17 also shows that more LRCs provided data to NSSs without any return (22%) than *vice versa* (10%). This may indicate that NSSs had no data to provide to any LRCs or that LRCs were happier to provide data without reciprocation. It was not generally a function of NSSs to forward biodiversity data to the LRCs. Judging from the comments made by LRCs, the most common arrangement for data flow directly between these organisations was both ways by request only.

Sharing of data between LRCs and NSSs risked data duplication, as the same data was being held within the LRC and the NSS. This had advantages and disadvantages. It was beneficial as the data could be used at each scale: by LRCs to add to the local picture of total biodiversity and by NSSs to create a national overview for a particular taxon. This was recognised by some LRCs when asked whether they duplicated what NSSs provide, who responded that they did not as LRCs were able to add local context to data.

Table 3.18 shows that 70% of existing or prospective LRCs did or would actively encourage volunteer participation in NSS surveys.

Table 3.18 – Q.73: Does your LRC actively encourage local volunteer participation in national schemes and societies surveys?

LRC type	England	Northern Ireland	Scotland	Wales	UK
Established (n=46)	23 (50%)	1 (2%)	6 (13%)	1 (2%)	31 (67%)
Establishing (n=2)	-	-	-	0 (0%)	0 (0%)
Inactive (n=1)	-	-	1 (100%)	-	1 (100%)
Prospective (n=7)	7 (100%)	-	-	-	7 (100%)
All LRCs (n=56)	30 (54%)	1 (2%)	7 (13%)	1 (2%)	39 (70%)

3.3 Links to other networks and scales

3.3.1 Local Record Centre networks

93% of established LRCs felt the need to operate as part of a wider network of LRCs. The reasons for this were wide ranging, but most the frequently cited were:

- It allows for common standards;
- Data exchange;
- Political strength – it's easier to deal with larger organisations at a regional level;
- Problem solving;
- Regional/national contexts.

LRC networking offered LRCs a greater level of stability, a forum within which to discuss problems and combined political power. This was demonstrated by LRCs in one area making a group decision not to provide data to one organisation that was unwilling to pay. If only one LRC had agreed to this data supply it would have created a precedent that would have affected them all. Regional LRC networks also allowed them to approach funding bodies as a consortium.

3.3.2 Wider networks

74% of established LRCs felt the need to operate as part of a wider network of organisations, not limited to other LRCs. Again, the reasons given for operating as part of a wider regional network of organisations were wide ranging, but most the frequently cited were:

- Data exchange;
- Direct link to SLA holders;
- Economies of scale;
- To promote a greater understanding;
- Sharing of ideas;
- LBAP involvement;
- Lobbying the development sector;
- To plan conservation efforts.

96% of established LRCs felt that they had a role in supporting the provision of biodiversity information on a wider geographic scale. The reason for this in every case was for the purposes of conservation and biodiversity monitoring.

80% of established LRCs said that they needed to link to NSSs, for the following reasons:

- Data exchange;
- To facilitate verification;
- So that the NSSs can provide the bigger picture;
- To avoid duplication.

Two of the three LRCs that said they didn't feel a need to link to NSSs said that this was because the recorders linked to the NSSs on their behalf.

Though not included in the formal interview, some LRCs expressed confusion over the remit of the NFBR. These LRCs felt that the NFBR could have done more to represent the needs of LRCs and the recording community as a whole. Recorders were well represented by organisations such as the British Naturalists Association and NSSs, but LRCs were fairly poorly represented. However, the LRC technical forum, the recently established Association of Local Biodiversity Information Centres (ALBIC) and LRCs working together regionally may resolve this issue.

3.4 Relationship with the NBN

3.4.1 Providing access to data via the NBN Gateway

Table 3.19 shows that only 26% of established LRCs were providing data to the NBN Gateway. The main reason for this appears to be that they did not have the resources to do this, as shown in Table 3.20, though a host of other reasons were also cited.

Table 3.19 – Q.87: Do you use the NBN Gateway as a way of providing access to data?

LRC type	England	Northern Ireland	Scotland	Wales	UK
Established (n=46)	10 (22%)	0 (0%)	2 (4%)	0 (0%)	12 (26%)
Establishing (n=2)	-	-	-	1 (50%)	1 (50%)
Inactive (n=1)	-	-	1 (100%)	-	1 (100%)
Prospective (n=7)	5 (71%)	-	-	-	5 (71%)
All LRCs (n=56)	15 (27%)	0 (0%)	3 (5%)	1 (2%)	19 (34%)

Table 3.20 – Q.88: What factors are restricting your LRC from uploading data to the NBN Gateway as a way of providing access (established, establishing, inactive and prospective LRCs)?

Reason	Frequency	% of LRCs
Resources ¹	33	70
Data flow issues	10	21
Concerns over NBN Gateway operation	8	17
Data incompatibility	7	15
Concerns over NBN Gateway data quality/completeness	6	13
Prefer to provide data locally	6	13
Can't see any benefit	3	6
Intellectual property rights / confidentiality	3	6
Lack of or poor communication from the NBN	3	6
Limitations due to data providers	2	4
LRC data holdings limited	2	4
NBN Gateway and LRC have conflicting remits	2	4
Recorder 2000/6 software bugs	2	4
Gateway use of datasets: LRC data holdings are much broader	1	2
Is the role of the NSSs	1	2
LRC data unverified	1	2
Other work priorities	1	2
Technical difficulties	1	2

Concerns were raised over how sensitive data, often badger and bat data, could be restricted within larger datasets when exporting from Recorder. It was not possible to restrict detailed access to information on the NBN Gateway based on geographical area, which was suggested as a requirement by some LRCs concerned about giving access to large datasets for single site queries.

Other concerns were that problems could occur if data were supplied to the NBN Gateway by both the LRC and NSS, as record duplication could make it appear as though there was double the number of records. Furthermore, each organisation could provide the data with different restrictions, which would interfere with the objectives of each. It was apparent that custodianship of these duplicated datasets needed to be more clearly defined, though this is a problem not just limited to use of the NBN Gateway.

3.4.2 Use of data on the NBN Gateway

As shown in Table 3.21, only 35% of established LRCs used data available via the NBN Gateway, but that all prospective LRCs intended to use it. However, this did not take into account how much they used it, and very few LRCs used it regularly. 16% of LRCs did not have time to use the NBN Gateway, whilst many said that they could access better information via local specialists and that the data resolution on the Gateway was not high enough (see Table 3.22). Many were perhaps, unaware of the information available or believed that there was nothing of interest on it.

¹ Resource issues were wide ranging and included lack of time to learn how to use the NBN Gateway, lack of time to upload data, lack of IT infrastructure to be able to manage data on the NBN Gateway, etc.

Table 3.21 – Q.92: Do you make use of species data available through the NBN Gateway? Four of the established LRCs chose not to answer this question.

LRC type	England	Northern Ireland	Scotland	Wales	UK
Established (n=46)	11 (24%)	0 (0%)	5 (11%)	0 (0%)	16 (35%)
Establishing (n=2)	-	-	-	1 (50%)	1 (50%)
Inactive (n=1)	-	-	1 (100%)	-	1 (100%)
Prospective (n=7)	7 (100)	-	-	-	7 (100%)
All LRCs (n=56)	18 (32%)	0 (0%)	6 (11%)	1 (2%)	25 (47%)

Table 3.22 – Q.93: Why do you not use the NBN Gateway and what alternative mechanisms do you use (established, establishing, inactive and prospective LRCs)?

Reason	Frequency	% of LRCs
Limited time	9	16
Better information available from local specialists	8	14
Data resolution not high enough	8	14
Doesn't add to LRC data	7	13
Data not trusted	3	5
Lack of data on Gateway	3	5
Difficulty using Gateway	2	4
Format unsuitable	2	4
Unclear how it works	2	4
Couldn't access data - couldn't afford charge imposed by BTO	1	2
LRC offered to take part as a trial, but NBN declines	1	2
No internet connection	1	2
Not in remit	1	2

One thing that could perhaps be highlighted by the NBN themselves, once the LRCs have an adequate understanding of the NBN Gateway, is the potential for using the NBN Gateway as an advertisement. Two LRCs commented that it would be more appropriate for the NBN to take the role of providing metadata on the biodiversity information available, without actually providing access. By placing their data on the NBN Gateway, freely accessible at low resolution, LRCs would advertise and demonstrate the potential usefulness of the data they held to data users. Dataset metadata were the perfect place to state the actual data holdings and their potential use. It also allowed potential data users (including the LRCs themselves) to know where individual datasets were held.

3.4.3 Overall impression of the NBN

Table 3.23 shows that the majority (55%) of existing and prospective LRCs felt that the NBN both helped and hindered. It is noticeable that a greater number of establishing and prospective LRCs thought that the concept helped than did the established LRCs. Only one LRC (an established one) said that they thought the NBN concept hindered.

Table 3.23 – Q.94: Does the NBN concept help or hinder? Note that not all LRCs answered this question.

LRC type	NBN Helps	NBN Hinders	NBN Helps & Hinders
Established	14 (30%)	1 (2%)	27 (57%)
Establishing	1 (50%)	0	1 (50%)
Inactive	0	0	1 (100%)
Prospective	4 (57%)	0	2 (29%)
All LRCs	19 (34%)	1 (2%)	31 (55%)

The reasons for this are given in Table 3.24, which shows that the guidance and standards provided by the NBN, as well as the ability to make data available through the Gateway are the things that LRCs considered to be most useful (both cited by 41% of the LRCs). It also shows that LRCs viewed the NBN Gateway as competition for data, especially national datasets, and a potential threat to LRC funding (cited by 30% of LRCs). This concern was neatly summarised by a comment from one LRC:

‘The NBN allows users to get the impression that there is a source of information that can answer everything without LRC input or without charge. This reinforces the popular misconception among semi-informed that information is a free public good which materialises without effort or investment.’

Table 3.24 also shows that LRCs felt fairly strongly that the NBN had not integrated effectively with the LRC network already in place.

Table 3.24 – Q.95: How does the NBN help or hinder (established, establishing, inactive and prospective LRCs)?

Helps	Frequency	% of LRCs
Data collation and provision	23	41
Guidance and standards	23	41
Concept	12	21
Platform for promoting data and suppliers	9	16
Platform for promoting recording and data use	7	13
Development of Recorder 6	2	4
Funding for specific projects	2	4
Technical support	2	4
Has forced LRCs to talk	1	2
Identification of gaps in data	1	2
Hinders		
Competition for data and funding	17	30
Does not integrate properly with the LRC network	13	23
Creates confusion	10	18
Lacks local context	8	14
Doesn't provide necessary data	6	11
Lack of trust	4	7
Data is not up to date	3	5
Provides little to recorders	3	5
Problems with Gateway administration	1	2

Though it had not formed part of the formal interview, eight LRCs (14%) perceived communication problems with the NBN. This was to some extent included in the 18% of LRCs that felt that the NBN created confusion (see Table 3.24). One LRC commented that they were so far removed from the NBN that all they saw was the newsletter. At least two others had offered part of their functions to act as demonstrations for the NBN, with little or no response from the NBN. There was sometimes a feeling that LRCs had been side-tracked by the NBN whilst they ensured the support of the NSSs. Some LRCs also felt that they had been poorly informed about the NBN. Unfortunately LRCs often did not have the time or resources to give to fully understanding the NBN.

Similarly, some LRCs felt that the NBN was too focussed on getting data on the NBN Gateway, leaving little support for the data providers. They felt that there should be more reciprocation, though this did not have to involve the flow of data back to the LRC, and could include support, training, etc. They felt that they had more support in the past through the development of NBN guidance, but that the focus had shifted away from this.

Table 3.25 shows that 54% of established LRCs used NBN guidance or agreements. Many of these LRCs already had the systems in place, so their use of these publications would be limited. However, all of the prospective LRCs used NBN guidance or agreements, indicating that they were highly useful when setting up LRCs. NBN guidance documents were sometimes modified or simplified for specific use within the LRC.

Table 3.25 – Q.90: Do you use any of the NBN guidance or agreements?

LRC type	Frequency	% of LRCs
Established	25	54
Establishing	1	50
Inactive	1	100
Prospective	7	100

3.5 Data content, coverage and quality

3.5.1 Provision of data to Local Record Centres

Table 3.26 shows that LRCs mainly had data exchange agreements with special interest groups, local authorities and wildlife trusts. However, LRCs may have exchanged data with other users without a formal data exchange agreement.

Table 3.26 – Q.98: With which data providers do you have a data exchange agreement (established, establishing, inactive and prospective LRCs) (n=56)?

Data provider	Frequency
Special interest groups	47
Local authorities	17
Wildlife Trusts	13
Statutory agencies	9
Environment Agency / SEPA	5
Individuals	5
National Trust / National Trust for Scotland	3
Defra	2
Other charities	2
Consultancies	1
Educational institutions	1
Forestry Commission	1
Museums	1
Other LRC	1
Utilities	1

89% of established LRCs were aware of at least one dataset that they did not have access to. The types of dataset are listed in Table 3.27, which shows that the majority of these datasets were held by special interest groups: general interest, bird, invertebrate, mammal and plant groups.

Table 3.27 – Q.100: What types of datasets are you aware of but do not have access to (established, establishing and inactive LRCs) (n=49)?

Dataset type	Frequency
General	36
Bird	27
Invertebrate	15
Mammal	15
Plant	13
Environment Agency / SEPA	6
Consultancy	5
Defra	4
Marine/aquatic	4
Statutory agency	4
Educational Institution	3
Forestry Commission	2
Local authority	2
Fungi	1
Herpetological	1
Museum	1

It was a general concern for most LRCs that Defra did not submit data to LRCs. The LRCs appeared to be unaware of reasons for this, such as data being collected for specific projects and Defra having strict agreements with landowners over the use of the data.

LRCs were aware of some consultancy datasets that they did not have access to. There is potential for LRCs to set up arrangements with planning authorities to pass the data on when planning applications were made, and this already took place in a very small minority of (local authority hosted) LRCs. However, this would only be a partial fix, as it was not always necessary for developers to submit all of the biodiversity information on a site.

Though not captured by the formal interview, a small number of LRCs also expressed their suspicions that certain of the larger consultancies were building their own databases of biological information and not sharing the information with the LRC. This may potentially cause two problems:

1. This data could not be used for purposes not related to the work for which it was obtained.
2. The main reason for doing this must have been to save money by not having to request LRC data, but this meant that the data used would not be complete or up to date. Only by combining all available biodiversity data could all conservation concerns be taken into account.

3.5.2 Validation and verification

All LRCs validated at least some of the data submitted by volunteers, with the exception of one LRC still in the process of establishing.

Table 3.28 shows that 93% of existing or prospective LRCs had or intended to have arrangements with county recorders for specific taxa to facilitate record verification, which meant that the data were often passed on by the county recorder to the LRC and relevant NSS. Where there was no suitably experienced volunteer recorder in the area it often fell to the LRC staff or was left unverified, though rare or new species to an area may be scrutinised more closely. National experts were used rarely for this work, unless they were particularly active in the area, probably because they would otherwise have been inundated with records to verify. This must mean that, even where local specialists were used, records often went unverified for obscure taxa (Siphonaptera, Collembola, etc.). Attitudes to these unverified records varied; some were entered on the database under the reasoning that some data are better than none at all, whereas others were not entered at all.

Table 3.28 – Q.105: Do you involve local representatives/experts of national schemes and societies in data verification?

LRC type	No.	% of LRCs
Established	44	96
Establishing	2	100
Inactive	1	100
Prospective	4	57
All LRCs	52	93

Table 3.28 also shows that only 57% of prospective LRCs intended to use experts from NSSs in data verification, which may mean that they had either overlooked this side of verification or had not got to a stage of development where they had considered it.

Validation and verification is discussed in more detail in Section 4.4.3.

3.5.3 Data management systems

Table 3.29 shows that the most frequent data repository software used by LRCs was Recorder 2002, which 43% of LRCs used as a main data repository.

Table 3.29 – Q.109: What software do you use as the main data repository (established, establishing, inactive and prospective LRCs)?

Software	Frequency	% of LRCs
Recorder 2002	24	43
Recorder 3.x	12	21
Recorder 6	11	20
MapInfo	10	18
ArcGIS	7	13
Access	6	11
Mapmate	3	5
Marine Recorder	2	4
Recorder 2000	2	4
Recorder 3.x (upgrading soon)	2	4
(Planning to use Recorder 6)	1	2
Access (cetacean data)	1	2
Currently devising own new database.	1	2
Erecords (and internal database)	1	2
MapInfo (sites and habitats)	1	2
Original format	1	2
Other (Lotus approach - own designed, in house)	1	2
Recorder 3.x (soon to be v6)	1	2
Self designed Paradox database	1	2

The list of software used by LRCs other than their main data repository was almost identical, as shown in Table 3.30. This may indicate that it was hard for LRCs to determine a main data repository, as they tended to use a number of them or used different ones for different purposes.

Table 3.30 – Q.110: What software do you use other than as the main data repository (established, establishing, inactive and prospective LRCs)?

Software	Frequency	% of LRCs
Recorder 2002	24	43
Recorder 3.x	12	21
Recorder 6	11	20
MapInfo	10	18
Access	6	11
ArcGIS	6	11
Mapmate	3	5
Marine Recorder	2	4
Recorder 2000	2	4
Recorder 3.x (upgrading soon)	2	4
(Planning to use Recorder 6)	1	2
Access (cetacean data)	1	2
ArclInfo	1	2
Currently devising own new database.	1	2
Erecords (and internal database)	1	2
MapInfo (sites and habitats)	1	2
Original format	1	2
Other (Lotus approach - own designed, in house)	1	2
Recorder 3.x (soon to be v6)	1	2
Self designed Paradox database	1	2

Table 3.31 shows that the most frequently used systems to query data and produce reports were MapInfo (45%), Access (39%) and Recorder 2002 (34%).

Table 3.31 – Q.111: What systems do you use to query and produce reports (established, establishing, inactive and prospective LRCs)?

Software	Frequency	% of LRCs
MapInfo	25	45
Access	22	39
Recorder 2002	19	34
ArcGIS	16	29
Recorder 3.x	15	27
Excel	14	25
Recorder 6	8	14
Dmap	6	11
Mapmate	6	11
Other	2	4
Cobra (bird recording)	1	2
Geo Conservation	1	2
MapInfo/Access application	1	2
Marine Recorder	1	2
MS Office	1	2
Paper	1	2
Posgress QL	1	2
Recorder 2000	1	2
Recorder 6 (planning)	1	2
Self designed Paradox database	1	2
Word	1	2

Table 3.32 shows that when asked what IT infrastructure LRCs needed the most frequent response was general improvements, which was mentioned 26 times. Improvements to Recorder software also featured highly, as issues with Recorder were mentioned on 16 occasions. LRC thoughts on providing better data management services were very similar, though online submission of data, field IT equipment, Recorder satellite networks and specific solutions to problems were also mentioned.

Table 3.32 – Q.115: What software / IT infrastructure do you need to help you operate more effectively (established, establishing and inactive LRCs) (n=49)?

Requirement	Frequency
General infrastructure	26
Recorder upgrade/developments	16
Web interrogation of data	15
Server	13
IT support	10
GIS	9
OS data / species dictionary	7
Automated reporting	3
Other database	2
Website	2
Paper document management systems	1

3.6 Policies and operation of Local Record Centres

3.6.1 Use of staff resources

Table 3.33 shows the large range of FTE staff at the LRCs interviewed, from 0.1 staff members to over 9. This most likely depended upon funding, the geographical area covered, the state of LRC development and the number and quantity of enhanced functions offered. When interviewees split their job between LRC and non-LRC duties it could be difficult for them to estimate FTE LRC staff time, as the roles became blurred.

Table 3.33 – Q.32 What is the FTE (Full Time Equivalent) of people working at the LRC at present (n=49)?

LRC type	Average FTE	Minimum FTE	Maximum FTE
Established	2.87	0.1	9.4
Establishing	2.10	1.2	3
Inactive	0	0	0

Figure 3.1 shows that analysis and reporting took up the most time for established LRCs, averaging at 19% of all staff time. Data entry and management also took up large proportions of staff time (16% and 12% respectively). However, the individual figures varied, as one LRC spent all staff time on data entry, whilst another spent almost all staff time on analysis and reporting.

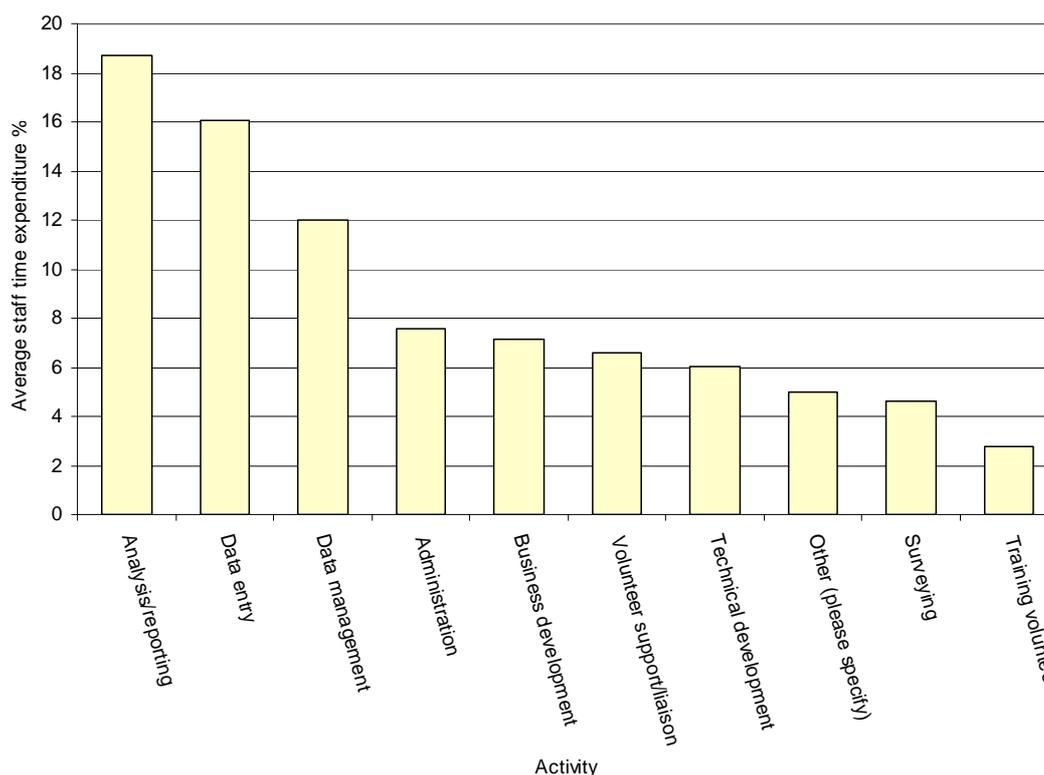


Figure 3.1 – Graph showing paid staff time spent on a variety of activities (established, establishing and inactive LRCs) (n=49).

Many LRCs felt that they spent disproportionately large amounts of time chasing funding or promoting their existence. This distracted them from their core work of managing data, supporting recorders and promoting recording. Despite these factors forming an important part of the NBN Position Statement of LRCs, importance of this core work was not always recognised by funding bodies, as it did not lead directly to a useable product. There was a disinclination of funding bodies to support any LRC activity that did not directly lead to a required service.

On average 3.2 volunteers helped out at each established LRC, though the maximum number was very high at 18 volunteers. These volunteers contributed on average approximately 14 hours each week, though the maximum was 75 hours – equivalent to about 10 working days each week.

3.6.2 Enhanced functions

54% of established LRCs provided advice or other ecological support in addition to the provision of information. Table 3.34 shows that the range of services provided was broad, but that administration of the wildlife sites system (including any other definition of locally important sites, for example County Wildlife Sites, Sites of Importance for Nature Conservation, Sites of Nature Conservation Interest, etc.) was the most frequently cited.

Table 3.34 – Q.127: What other advice or ecological support do you provide (established, establishing and inactive LRCs)?

Service	Frequency	% of LRCs
Administration of wildlife sites system	10	20
Contextual information on data supplied	8	16
Data interpretation	8	16
Survey	7	14
Educational / awareness raising work	6	12
Consultancy service / other projects	4	8
Recommendation / advice	4	8
GIS / digitising services	3	6
Screening of planning lists	3	6
BAP support	1	2
Marine data management	1	2
Methodology development	1	2
Species ID	1	2

The provision and range of enhanced services on offer often depended upon the local situation. For example, there was no need for an LRC to offer biodiversity data interpretation services if the local wildlife trust or county ecologist already did this – in many cases the LRCs established links with the relevant organisations.

3.6.3 Marketing

52% of established LRCs carried out some form of marketing activity. Table 3.35 shows that the two most frequent forms of marketing activity were leaflets, bookmarks or mail shots and personal contact through meetings, workshops, etc., which were used by 36% of LRCs.

Table 3.35 – Q.131: What sort of marketing activity do you carry out (established, establishing, inactive and prospective LRCs)?

Activity	Frequency	% of LRCs
Leaflets/bookmarks/mail shots	20	36
Personal contact	20	36
Website	13	23
Newsletters	11	20
Press releases	9	16
Other	6	11
Posters/displays	6	11
Publications	4	7
Re-branding	2	4
Questionnaires	1	2

3.7 Staff Conditions

Staff conditions were analysed against LRC status, with key results as follows:

- All established LRCs provided a pension for their staff, with the exception of 5 (10%), which were all charities (66% of all charitable LRCs).
- Most established LRCs could provide salary security to staff, though there were two exceptions, as only 56% of charitable LRCs and 89% of local authority LRCs could provide this.

- 79% of established LRCs conducted regular formal appraisals by line managers for staff.
- All LRCs provided training for staff members, except for one which was local authority based.

As can be seen from Table 3.36, the breakdown of established LRCs with links to other career structures was more varied. It shows that local authority based LRCs were most likely to have links to other career structures, but that even here it was less than half of them (47%). No charitable LRC had links with other career structures.

Table 3.36 – Q.144: Do you have links with other career structures (established, establishing, inactive and prospective LRCs)?

Legal status	Frequency	% of total
Local authority	9	47
Partnership	1	20
Limited company	1	11
Wildlife trust	1	11
Charity	0	0

26% of established LRCs stated that they had problems in recruiting staff. Table 3.37 shows that the main obstacles to recruiting staff were staff conditions (salary, lack of career structure, length of contact, etc.) and the lack of candidates with the required combination of technical and management skills.

Table 3.37 – Q.149: Do you have problems in recruiting staff (established, establishing and inactive LRCs) (n=49)? Some LRCs gave more than one problem with recruiting staff.

Obstacle	Frequency
Staff conditions	21
Lack of suitable candidates	19
Unappealing location	2
Advertising costs	1

28% of established LRCs said that they had problems retaining staff. Table 3.38 shows that the biggest problems that LRCs had with retaining staff were poor salaries and lack of security. Often, LRC work was used as training by staff to get to a proficient level, whereupon they moved elsewhere. Staff with IT skills could obtain larger salaries in the commercial jobs market. The number of FTE staff at each LRC was related to whether they felt they had problems retaining staff, as is shown in Figure 3.2. The LRCs suggested that LRC accreditation and staffing structure could be a possible solution to this.

Table 3.38 – Q.152: What are the problems you have with retaining staff (established, establishing and inactive LRCs) (n=49)? Some LRCs gave more than one problem with retaining staff.

Problem	Frequency
Poor salaries	6
Poor security	6
Lack of career structure	5
Short-term contracts	3
Morale issues / politics	2

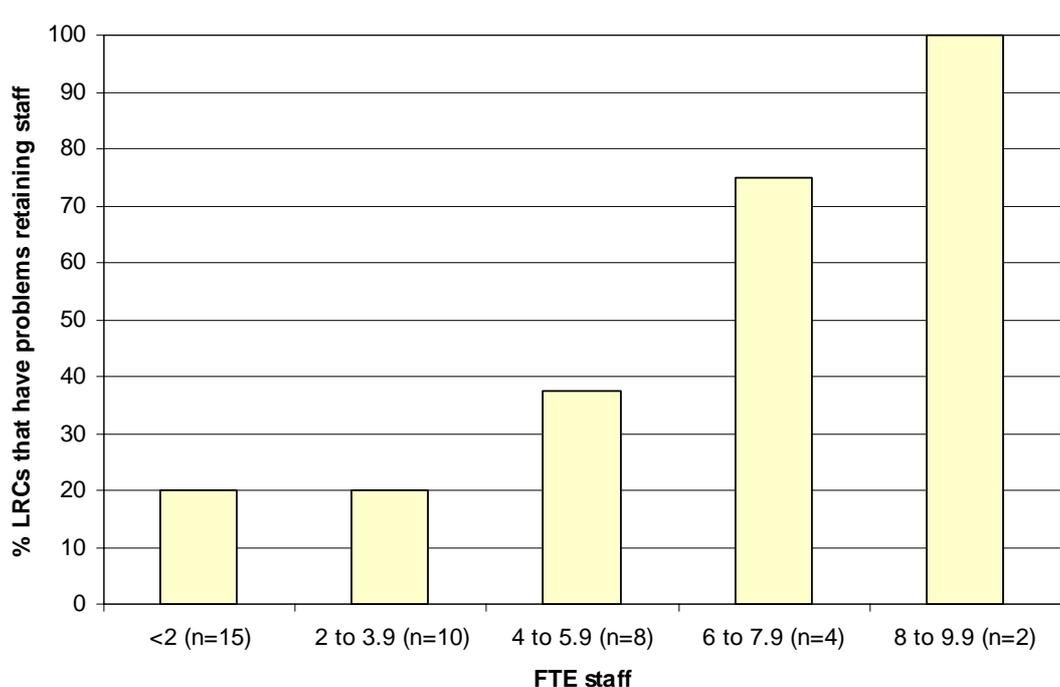


Figure 3.2 – Number of FTE staff against problems retaining staff (established, establishing and inactive LRCs) (n=49).

3.8 Key benefits provided by Local Record Centres

Table 3.39 shows that the most frequently cited benefit of having an LRC was to be a central comprehensive data resource.

Table 3.39 – Q.155: What do you see as the main benefits of your LRC (established, establishing, inactive and prospective LRCs) (n=59)?

Benefit	Frequency
Central comprehensive data resource	57
Benefits to wildlife	32
Facilitating data flow	29
Data quality/standard	27
Education and research	25
Cost effective	18
Local knowledge	8
Impartiality	5

39% of established LRCs stated that they were in competition with other data suppliers within their geographical area. Table 3.40 shows that the competition was mainly from recording groups, many of whom also ran a charged enquiry service, and conservation organisations, of which nine out of ten were wildlife trusts. The LRCs believed that their better data and quality of service set them apart from their competitors, as shown in Table 3.41.

Table 3.40 – Q.167: What other information suppliers are you competing with in your geographic area (established, establishing, inactive and prospective LRCs) (n=59)?

Competition	Frequency
Recording group	24
Conservation organisations	10
Local authorities	4
Consultancies	3
NBN Gateway	3
Other LRCs	2

Table 3.41 – Q.168: What are the unique qualities of your LRC versus other comparable data sources (established, establishing, inactive and prospective LRCs) (n=59)?

Quality	Frequency
Higher quality, more comprehensive data	28
Quality of service	22
Wider range of outputs	6
Context	3
Impartiality	2

3.9 Viability of Local Record Centres

3.9.1 LRC sustainability

Many LRCs indicated that they led a precarious existence, due to:

- Insufficient funding commitment from prospective partners;
- Supporting organisations reducing or removing funding¹;
- Prospective partners failing to appreciate the legislative requirements or need for the services an LRC would provide;
- Prospective partners failing to agree on priorities and/or ways of moving forward;
- Concerns from a small number of local naturalists or consultants that their interests will be compromised, failure to engage with these issues or for the majority view of local naturalists to be asserted;
- General lack of interest from other parties that should have been more involved;
- Lack of internal management.

¹ This may be because the LRC did not fulfil the requirements for funding, though no instances of this were encountered in this review.

Table 3.42 shows the perceived threats to LRCs in order of importance. Funding was the main concern, both the low level and the lack of security. Also of great concern was the reliance on key members of staff.

Table 3.42 – Q.187: What are the risks in your support arrangements (established, establishing, inactive and prospective LRCs)? The first number in each cell is the number of times the threat was cited, whilst the percentage in brackets is the proportion of LRCs that cited the threat. Some LRCs cited more than one threat that fell into the same category.

Threat	England (n=43)	Northern Ireland (n=1)	Scotland (n=9)	Wales (n=3)	UK (n=56)
Funding insecurity	27 (60%)	1 (100%)	3 (33%)	2 (67%)	33 (57%)
Lack of funding	14 (33%)		4 (22%)	1 (33%)	19 (30%)
Reliance on key staff members	9 (21%)		5 (56%)	1 (33%)	15 (27%)
Staff sourcing problems, incl. volunteers	7 (16%)		1 (11%)	1 (33%)	9 (16%)
Instability from umbrella org / partners	7 (16%)				7 (13%)
National policy changes	6 (12%)				6 (9%)
Non-core work	3 (5%)		1 (11%)		4 (5%)
Data provider withdrawal	2 (5%)				2 (4%)
Competition for consultancy work	2 (2%)				2 (2%)
Intellectual property rights	1 (2%)				1 (2%)
Lack of understanding from users	1 (2%)				1 (2%)
NBN	1 (2%)				1 (2%)

Five prospective LRCs stated that there had been previous but failed attempts to establish an LRC in their area. In all cases this was due at least in part to lack of funding, though one encountered distrust from the recording community.

3.9.2 Financial viability

Probably the biggest concern of all LRCs was funding insecurity (see Table 3.49 and Table 3.42). This related not just to the amount of funding, but also to the duration of the funding provided to the LRC. Some LRCs endeavoured to supplement their Service Level Agreement or grant funding by carrying out contracts or investing money. However, this may not have been appropriate to all LRCs, as some may not have been set up in a way that would allow this.

The average operating costs for an established LRC was £91,254 per annum for 2.9 FTE staff. However, one (a volunteer natural history society based LRC) managed to survive on £1,000 per annum and 0.1 FTE staff, whilst the highest funded LRC had an annual budget of £363,000 and 5 FTE staff. The non-volunteer based LRC with the lowest level of funding received £14,800 per annum and 0.6 FTE staff.

Table 3.43 shows the sources of LRC funding. This highlights the differences in the funding even from the same organisations from LRC to LRC. This means that individual funding bodies may provide one level of funding to one LRC and another level (or none) to another LRC. This appears to be totally unrelated to data provision, the area covered or any other measure, but may instead be due to local branches of the funding bodies having different budgetary or other priorities.

Table 3.43 – Q.178: Which organisations provided financial support (established, establishing, inactive and prospective LRCs)? F = Frequency of support; A = Average of total funding.

Income %		LRC type			All LRCs
		Established	Establishing	Prospective	
Data requests / project income ¹	F	30		2	32
	A	13		22	13
Defra	F	1			1
	A	0			0
Educational institutions	F	2		1	3
	A	5		0	3
Environment Agency / SEPA	F	13	2	2	17
	A	7	7	17	8
Forestry Commission	F	3	2		5
	A	6	25		13
FWAG	F	2			2
	A	1			1
Highways Agency	F	1			1
	A	6			6
HLF and other grants	F	7		3	10
	A	30		32	31
Investments	F	1			1
	A	4			4
Local authorities	F	66	7	7	80
	A	18	6	23	17
Museums	F	3			3
	A	33			33
National Trust / National Trust for Scotland	F	1			1
	A	2			2
Private sector / utilities	F	9			9
	A	2			2
RSPB	F	3			3
	A	4			4
Special interest groups	F	2			2
	A	6			6
Statutory agencies	F	27	2	4	33
	A	22	35	13	22
Wildlife Trusts	F	26		1	27
	A	12		17	12

¹ Some LRCs mentioned ethics in pricing for enquiries, indicating that they had a sliding scale for commercial enquiries. For those enquiries leading to potentially detrimental developments they imposed higher charges than for standard data searches.

The threat of budget cuts at the local authority level decrease the stability of LRCs. At best budget cuts could lead to a reduction of LRC funding; at worst they could mean that local authority-run LRCs were abandoned, as they were seen to be dispensable.

Though it did not form part of the formal interview, the LRCs noted the increasing use of biodiversity data by Defra generally, the RDS and FWAG, without specific funding support. Though it may be argued that Defra fund LRCs indirectly through the statutory agencies and there could be concerns over double funding if Defra funding was available directly, it was believed that statutory agency funding did not generally cover Defra data requirements as well.

The situation of Defra funding will undoubtedly change in England as the RDS and English Nature become part of Natural England, though this provided additional worries for LRCs (mentioned by 7%). Because of the combined staff base and remit in Natural England, many LRCs expected an increase in demand for biodiversity data. This would stretch any funding agreements that they had with English Nature, so they expected these to be re-negotiated to cover the requirements of Natural England. The greatest risk perceived was any delay in funding whilst this was being negotiated.

Because of the way that funding was arranged, no LRC had funding security for more than three years into the future, the average being 1.27 years. It also meant that four (57%) prospective LRCs were not confident that they would be able to achieve funding security.

3.9.3 Meeting existing needs

57% of established LRCs stated that they could not meet all existing user needs from their structure and resources. This meant that they were unable to perform a range of essential roles, such as data entry, dealing with enquiries, support for recorders and LRC development. Enhanced services were also an issue, as those that did not result in a direct income needed to be funded somehow or abandoned.

In addition, LRCs were concerned that funding bodies were very focussed upon their own particular needs, without concern for the core work of the LRC. English Nature funding often required significant amounts of work that took a disproportionately long length of time, such as habitat or site data capture in GIS. However, LRCs were often financially insecure and therefore more likely to agree to less than favourable terms in order to obtain funding. It needs to be appreciated that the required outputs for funding should be realistic.

3.9.4 Staffing concerns

Table 3.44 shows that over 40% of LRCs felt they did not have all the database and GIS skills that they needed. 26% of LRCs did not have all of the management skills that they needed. However, though these LRCs did not have all the skills they needed, they often stated that they had learnt to cope with what skills they had.

Table 3.44 – Established LRCs needing more database (Q.188), GIS (Q.189) and management (Q190) skills

Skills needed	Frequency	% of LRCs
Database	22	48
GIS	19	41
Management	12	26

3.10 Ideal position

3.10.1 Future planning

Table 3.45 shows that 72% of established LRCs had some sort of forward plan. Not surprisingly the proportion of prospective LRCs with such a plan was higher (86%).

Table 3.45 – Do you have a forward plan, business plan and/or strategy for development?

LRC type	Yes	% of LRC
Established	33	72
Establishing	2	100
Inactive	0	0
Prospective	6	86
All LRCs	41	73

LRCs were asked what level of resources they would need to meet basic requirements. (see Table 3.46). Care should be taken with the analysis of financial data, as it was not always possible to include grants and in-kind services, which could be significant in some cases, and initial set up costs for new LRCs were included. However, the analysis clearly shows that £70-80k was the basic funding requirement for an LRC supporting 2-3 staff members.

Table 3.46 – Q.202 & Q.203: What size budget and FTE staff would meet your basic requirements?

LRC type	Average budget required £	Maximum budget required £	Average FTE staff required	Maximum FTE staff required
Established	76,579	300,000	2.68	8.5
Establishing	40,030	80,000	2	2
Prospective	40,000	125,000	0.71	2

An average budget of £110-120k would have been enough to fulfil LRC visions, supporting 3-4 staff members (see Table 3.47).

Table 3.47 – Q.200 & Q.201: What size budget and FTE staff would meet your vision?

LRC type	Average budget required £	Maximum budget required £	Average FTE staff required	Maximum FTE staff required
Established	118,539	500,000	3.53	14
Establishing	100,000	100,000	3	3
Prospective	61,714	180,000	2.86	6

However, it should be noted that the funding requirements of LRCs shown in Table 3.46 and Table 3.47 depended largely on the area covered by the LRC and the quantity of biodiversity information required for that area, with some LRCs requiring significantly more than the average figures quoted.

3.10.2 Biodiversity data demand

Most of the LRCs felt that the last few years had seen a substantial increase in the demand for biodiversity data, and 81% expected this trend to continue (see Table 3.48). Many reasons were given for this, including:

- BAP and climate change monitoring;
- The Strategic Environmental Assessment Act;
- Planning Policy Statement 9;
- Local Development Framework;
- Farm Environmental Plan and Higher Level Stewardship requirements;

Table 3.42 implies that all LRCs had concerns about how this might be achieved, since 100% predicted risks in their current arrangements. This in turn led to a requirement for the establishment of new LRCs where none existed and for the development of existing LRCs to meet the demands.

Table 3.48 – Q.205: How do you think future demand with change (established, establishing, inactive and prospective LRCs) (n=59)?

Change in demand	Frequency cited ¹	% of LRCs citing
Increased demand for biodiversity data	77	81
Better access to data	13	21
Increased demand for data interpretation	4	7
Increased LRC data holding	3	6
Working with NBN	3	6
Networking with other LRCs	3	4
More non-core work from clients	2	4
Increased promotion of LRC	2	2
Increased support for local authorities	1	2

However, there is no statutory requirement for LRCs, so the requirement is almost entirely LBAP and planning driven. This has definite shortcomings, as fulfilling the biodiversity data requirements for planning does not necessitate all LRC functionality, e.g. managing data, supporting recorders or promoting recording. There is therefore a considerable risk that in some areas the LRC remit would become solely to fulfil planning requirements, without the other important services that LRCs provide – a concern expressed by the LRCs. A particular concern was the wording of Key Principle 1 in PPS9, which states that:

‘Development plan policies and planning decisions should be based upon up-to-date information about the environmental characteristics of their areas’.

¹ Some LRCs mentioned more than one change in demand that fell into a single category, particularly with regard to demand for biodiversity data. This provided additional information to help judge how important the LRCs felt it was.

This implies that it is not an actual requirement for planning departments to use biodiversity information or that this is up to date. The LRCs felt that making the establishment of LRCs with defined basic requirements a statutory requirement would eliminate this risk.

3.11 Blocks to achieving an ideal position

3.11.1 Changes needed if funding was dependant upon open access provision of data at the finest geographical resolution

When asked about provision of data at the finest geographical resolution, four main themes were identified from the LRC responses:

1. Many LRCs felt the need for better core funding in order to cover the costs of doing this. Work was driven by SLA holders and partners, who generally had different requirements, and may need persuading to allow the LRC to provide data in this way. Other LRCs specifically mentioned resources, both staff based and technological, which was funding dependant.
2. Assuming that the access was uncharged, some LRCs believed that the level of core funding from national and local government would have to greatly increase. Following the SW pilot project the LRCs concluded that they would need to obtain 90% of their core funding from local and national government and statutory agencies on a sustainable basis. If this happened they could cope with uncharged free access at the highest resolution.
3. Safeguards need to be incorporated for the protection of confidential data. This would be needed to convince recorders that their data are secure.
4. Even if all this was in place, the LRCs would often have to gain permission for release of this data at this level from the recorders. In many cases the LRCs suspected that recorders would be initially suspicious of this, some of whom would withdraw their data. This would create a large amount of administrative work in addition to the work required to ensure the quality of the data was high enough, particularly if the point of access was the NBN Gateway.

3.11.2 The key players and how would they need to change

The majority of LRC responses related in some way to increased funding from government and key data users, including local authorities, Defra RDS, Office of the Deputy Prime Minister, Environment Agency, Forestry Commission and the National Trust / National Trust for Scotland. The continued support received from English Nature upon restructuring as Natural England was also seen as important within England (though note that many LRCs felt that this funding should increase, as they expect to see an increased workload as a result of an increase in data requirements).

In parallel with this, many LRCs felt that these organisations needed to change their attitudes regarding where their data was managed (in-house or out-sourced), what level of support they would generally provide, the use of biodiversity data in decision making, and their requirements for funding (i.e. whether it was viewed simply in terms of value for money or as providing a public service).

LRCs also noted that Defra wanted a consistent biodiversity dataset across Great Britain. In order to achieve a consistent dataset there would have to be national funding for core LRC services, including funding for capacity building and encouraging recording at the local level. If all funding came from national government it would alleviate the potential for double funding.

One LRC made the following comment: that the Ordnance Survey, Meteorological Office and British Geological Survey should make their data free or affordable for use in LRCs, etc. At least one LRC was currently unable to afford Ordnance Survey base map tiles for GIS work and did not have them provided under a local authority or statutory agency licence.

3.11.3 Moving towards open access and Local Record Centre sustainability

Table 3.49 shows very clearly that the majority (77%) of LRCs cited improved financial security and better resources as the most important item to be addressed to ensure open access and LRC sustainability.

Table 3.49 – Q.209: What is the single most important aspect that would help move towards open access and sustainability for LRCs (established, establishing and inactive LRCs)?

Important aspect	Frequency	Frequency %
Improved financial security / resourcing	36	77
Changes to data supply agreements / recorder attitudes	3	6
Continued/improved commitment from data users	2	4
Make LRC function statutory	2	4
Association of Local Biodiversity Information Centres	1	2
Improved software	1	2
Staffing	1	2
Stronger environmental legislation	1	2

Table 3.49 shows that only two LRCs stated that LRCs becoming a statutory requirement was the most important aspect that would help move towards open access and sustainability. However, although the question ‘Should LRCs be a statutory requirement?’ was not directly asked in the questionnaire, from the discussions with the LRCs it seems that only two having this concern might be an under representation of the opinion. Being a statutory requirement would offer a much more stable environment for LRCs to operate within and ensure that the statutory requirement for biodiversity data was adequately fulfilled.

4 Comparison of questionnaire findings with the NBN Position Statement on Local Record Centres

4.1 Local Record Centres within the NBN

A significant part of the NBN Position Statement on LRCs is summarised neatly in the bullet points in part 3 (Anon, 2004). These state that:

- Represent the local delivery of the NBN vision;
- Promote NBN standards;
- Link professionals with volunteers and data providers with data users;
- Disseminate biodiversity information held by local organisations throughout the NBN;
- Are custodians of key NBN datasets;
- Make biodiversity information accessible to users both through direct communication and through the gateway.

Since all but one point related directly to the NBN, these bullet points assume that NBN principles should be a high priority for LRCs, and indeed many LRCs would like to have been able to assign this high priority. However, Section 3 has shown that LRCs spend most of their time providing products and chasing future funding.

For the majority (77%) of LRCs in the UK, ensuring that they are properly funded (or funded at all) was their biggest concern (see Table 3.49). It would seem that none would be able to aspire to the NBN-focussed 'ideal' LRC until much of the concern about financial viability is lifted.

Another key part of the NBN Position Statement that was not being fulfilled was that data users should also contribute to the overall data holdings. Whilst it was less of a concern to existing LRCs than financial security, the fact that certain organisations had data holdings that were not contributed to LRCs was an issue that was mentioned frequently (see Table 3.15).

This was often due to restrictions on the data: in the case of Defra they had confidentiality agreements with landowners; in the case of consultants the data usually belonged to the client who did not wish to release the data. However, this was a position not always appreciated by LRC staff, as shown in Table 3.16. This would need to be resolved in order to ensure that data users really were contributing data.

Table 3.27 shows that consultancy datasets were mentioned only five times as datasets that LRCs were aware of but did not have access to. However, this did not correspond with the frequency of comments made about the reluctance of environmental consultancies to provide them with biodiversity data. (Whilst this was an important influence on data flow and completeness, it was likely and understandable that LRCs may have been highlighting the issue because consultancy staff were conducting the interviews.) In most cases this was a misconception, as the majority of consultancies would be very happy to provide the data they collected to LRCs. The concern should have been the reluctance of the users of consultancy services to allow their data to be used.

4.2 Essential functions

The following key points illustrate where there were differences between the LRCs and the NBN Position Statement.

4.2.1 Partnership

The NBN Position Statement states that LRCs should be partnership led. 76% of the LRCs included in this study were partnership led (a partnership was defined here as a steering group, board of directors or board of trustees; see Table 3.3). However, it was noticeable that those that weren't seemed to struggle much more for survival. This was most noticeable with the one inactive LRC, which was part of the local authority. In this instance responsibility for the LRC had been removed from the job description of the person who had originally managed it. As a result it was no one's responsibility at the time of the interview. It appeared that partnerships provided much more stable support for LRCs, most likely due to the shared responsibility for keeping the LRC active.

4.2.2 Impartiality

The NBN Position Statement states that LRC constitutions and documented policies should ensure impartiality, though in a few cases the impartiality of a particular LRC was questionable. The results indicate that 8% of LRC staff provided some subjective interpretation of data (see 'Recommendation / advice', Table 3.34). 'Data interpretation' was also a grey area, as this could be subjective interpretation or the supply of contextual information. In some instances managing the LRC was often only part of the respondents' job and it may have been difficult to separate the roles. Reassuringly, although not asked directly, three of the respondents specifically said that they aimed to remain impartial.

4.2.3 Non overlapping

The NBN Position Statement states that LRCs should not overlap with other LRCs, though this did occur. Most of the overlaps between LRCs were small areas of uncertainty along administrative boundaries, where data sharing took place. In other cases the LRCs had different remits; the Humber Environmental Data Centre (HEDC) overlaps with a number of other LRCs, but have a very specific remit of providing environmental data to industry within the region. HEDC was planned with the full support of the LRCs that covered the region. In all cases of overlap attempts were being made to resolve any outstanding issues.

4.2.4 User led

The NBN Position Statement states that LRCs should primarily exist to meet the needs of their users, though this was not always the case. Some LRCs had become stagnant and were not fully meeting the requirements of their funders or the recorders. In some cases the LRCs were barely functioning, where there was a noticeable lack of interest from key players, such as local authorities and statutory agencies, who had allowed the LRC to decline. The funders and users may not have been aware that the biodiversity data available was out of date or the dangers of this.

4.2.5 Services

The NBN Position Statement states that LRCs should be capable of offering at least basic biodiversity information services to their users. This was generally the case, all but one of the established LRCs could offer these services to local authorities, etc. In the one case where this did not happen it was mainly due to little desire from the users, as discussed in the previous point. Some LRCs stated that they lacked the funding required to demonstrate how useful they could be.

4.2.6 Data requests

The NBN Position Statement states that LRCs should be capable of responding to minimum requirement data requests within a reasonable time period. However, some LRCs commented that they struggled to meet the demands of the data requests submitted to them, due to staffing and resource shortages. In some cases they added that data requests were the highest priority, so other functions suffered as a result. This is discussed in more detail in Section 4.4.1.

4.2.7 Data capture service

This varied considerably. Some LRCs seemed to perform this function adequately, sometimes to the detriment of other functions, whereas others had a large backlog. 2% of established LRCs stated that they did not spend any time on data entry. This appeared to depend upon the requirements for funding and the stage of LRC development.

4.2.8 Data scope

The NBN Position Statement states that the scope of an LRCs data holdings should include species and habitat records, as well as sites of wildlife importance. However, 31% of established LRCs held species data but not habitat data. In some of these cases habitat data was managed by another organisation, which may have been performing certain LRC functions. However, this was different from the more important question of how many LRCs have management of habitat data within their remit, which cannot be assessed from these results. This and the following two sections are discussed in greater detail in Section 4.4.2.

4.2.9 Data coverage – species

The NBN Position Statement states that LRCs should aim to hold or have access to all available species data. 90% of existing LRCs were aware of species or habitat datasets within their geographic area that they did not have access to. It was very likely that almost every LRC lacked access to some important species data, due to the peculiarities of working with volunteer recorders and professional organisations. Some LRCs also had a backlog of data to catalogue, as discussed earlier, which would result in the data being unavailable.

Table 3.27 shows that it was mainly species datasets that LRCs were aware of but did not have access to. Some local special interest groups, notably those dealing with mammals, birds and herptiles, provided data directly to the users rather than to the LRC, sometimes at a cost. There were datasets that could have been utilised that most LRCs did not have access to, for example consultancy and Defra datasets. The description of this essential service in the NBN Position Statement needed an accurate definition of what ‘available data’ actually means.

4.2.10 Data coverage – habitats

The NBN Position Statement states that LRCs should aim to hold or have access to all available habitat data. There was considerable variation in the coverage of habitat data within the LRCs. Some had complete and up to date (and even electronic) geographical coverage, or were at least very close to achieving this. Others had habitat coverage of areas of conservation importance. However, even here they were likely to lack some datasets due to restrictions on their use, as with the consultancy and Defra datasets discussed in the previous point.

Other LRCs had most of the available habitat information, though this may have been old and limited in coverage, whilst some had no habitat coverage at all. In these instances, LRCs appeared to have little interest in habitat data, their main concern being species data.

4.2.11 Metadata

The NBN Position Statement states that LRCs should know what data it holds and describe this in a publicly available location. One of the surprising things about this project was that LRCs seemed uncertain of what was meant by metadata. The interviewers were instructed to make clear that this was a written summary of data holdings, though it is likely that some of the LRCs that answered positively actually meant that they could create a list of data holdings if it were required. Nevertheless, eight (17%) of the existing LRCs responded that they held no metadata.

4.2.12 GIS

The NBN Position Statement states that LRCs should use GIS to help it capture, manage, manipulate, analyse and display data. 88% of existing or prospective LRCs used or intend to use GIS to help with data management. A limitation on the use of GIS was the required skill level; some LRCs did not have the staff base to deal with GIS.

Though it did not form part of the standard interview questionnaire, some commented that they did not have access to Ordnance Survey (OS) data and that it cost too much for them to purchase. As the use of GIS was an essential function, basic OS coverage should have been provided by partner organisations, though this was likely to be a particular problem where the LRC was managed independently and had no source of OS data. If this proves too expensive for LRCs and partner organisations then there is a question over the wisdom of having this as an essential service.

4.2.13 Staff resources

The NBN Position Statement states that LRCs should employ and arrange training of staff as necessary to undertake the other essential functions, with an FTE of no less than two. 60% of existing LRCs lacked sufficient staff to carry out what they considered to be their basic functions (see Table 4.1). Whilst LRC basic requirements might not equate to the essential functions in the NBN Position Statement, it was obvious that these LRCs were likely to lack the staff resources to carry out all of the essential functions. This was usually due to insufficient funding for additional or more highly trained staff.

Table 4.1 – Qs.32 & 203: Do you have enough staff to meet your basic requirements? Not all LRCs gave a response for question 203, so these have been removed from the analysis.

LRC type	No. of LRCs	No. lacking staff	% not meeting requirements
Established	40	24	60
Establishing	2	1	50
Inactive	1	1	100
All existing	43	26	60.47

4.3 Enhanced functions

Enhanced functions were often highly important or even essential to the areas that LRCs cover. Table 3.34 gives a list of some of the types of enhanced services provided by LRCs. Significant additional research is required to produce a complete list of the types of enhanced services, including those not in the NBN Position Statement.

4.4 Detailed assessment of LRCs against three essential functions

4.4.1 Responding to data requests within the Environmental Information Regulations 2004

The Environmental Information Regulations 2004, generally known as EIR, require that public authorities should be able to supply environmental information to any who request it. It also establishes a 20 day response time during which the data should be supplied, though this can exceptionally be extended to 40 days when a particularly large request is made. Charges can be made to cover the costs of doing this, though a schedule of charges per unit of work should be made available.

The extent to which this applies to LRCs varies. Those that are part of local authorities are more likely to be classed as public authorities than independent LRCs. However, the NBN Position Statement states that all LRCs should be able to supply data within the requirements of the EIR.

Figure 3.1 shows that the majority of paid staff time was spent on analysis and reporting, which would include responding to data requests. This proportion varied from LRC to LRC, but two of the established or establishing LRCs stated that they spent no time on analysis and reporting. This implies that they were not responding to data requests. In one instance the LRC was still in the establishing phase, so most of its paid staff time went into business development. In the other instance all paid staff time went into data entry. Unsurprisingly, the inactive LRC also spent no time on analysis and reporting. These data are mapped in Map 2.

Also included in the EIR is a requirement to allow public access to data. The majority of LRCs provided or intended to provide public access to the data they managed. Two each of the established and establishing LRCs responded that they did not allow public access to data, as shown in Map 3. The establishing LRCs were probably at too early a stage in their development to allow public access. Reports from the interviewers indicate that there may have been a slight confusion over the meaning of the question, in as much as most LRCs would not want to allow free and unscheduled public access, but would allow arranged access to data or respond to a data request from the public. In the majority of cases this had to be clarified by the interviewer, but it is possible that the few negative responses may relate to this uncertainty.

One method of providing access to data is via the internet, either the LRCs own website or the NBN Gateway. Of those LRCs interviewed, 23 responded that they provided or intended to provide access to data through one of these means, whilst 24, all of which were established LRCs, did not (see Map 4). The majority of those that provided or intended to provide internet access referred to the NBN Gateway as the means by which this could be achieved (see Table 3.19). Interestingly, subsequent to the interviews it was noticed that some of the 'unknown' responses came from LRCs that already had data on the NBN Gateway, indicating some confusion over this question.

The NBN Position Statement's requirement for LRCs to fulfil EIR focuses on response times to data requests. Unfortunately, the questionnaire did not ask what the average response time was, so no quantifiable data was collected in the question. As a result it is not possible to assess whether LRCs respond to data requests within the 20 day limit, but the information collected that relates to this can be found in Section 4.2.6. No questions were asked that specifically related to charging schedules for data requests.

4.4.2 Data scope including records of fauna, flora, habitats and sites of wildlife importance

The NBN Position Statement states that LRCs should have fauna, flora, habitats and sites of wildlife importance within the scope of their data holdings. This can be split into species records, covering fauna and flora, and habitat and site data, as in some cases the latter may be difficult to separate.

Whilst all the LRCs interviewed were asked about their data holdings, they were not specifically asked about their data holding remit. It is possible that some LRCs did not hold one type of data simply because it was not available. Nevertheless the current data holdings of the LRCs interviewed was analysed.

Map 5 gives an estimation of the species data holdings at each LRC. This varied from 600 records at one of the LRCs in the establishing phase, to 9,400,000 records at a six year old LRC in an area with a long history of recording. Note that not all LRCs were able to provide an estimate of their species data holdings, and are shown as having no records on the map. However, all established LRCs interviewed had species data in their data holdings, as shown in Map 6.

Map 7 shows those LRCs with habitat data in their data holdings. Four LRCs held no habitat data, two of which were located on some of the more remote Scottish islands and may not have access to such data. One of the two English LRCs without habitat data holdings had been in existence for less than a year.

Information on sites of wildlife importance cannot be assessed using the data collected, as questions were not asked specifically relating to this.

4.4.3 Documented validation and verification procedures

The NBN Position Statement states that LRCs should ensure quality control by having documented procedures in place for validation and verification, working in partnership with others. This is discussed in part in Section 3.5.2.

Map 8 shows that all LRCs had data validation procedures in place (though one establishing LRC had not had opportunity to actually validate any data, as discussed in Section 3.5.2). However, the data indicated that two LRCs only partially validated data. One suggested that they validated data 'not always, but mostly', the other stated that only ornithological and botanical data was validated. However, this may be partially due to confusion over the terminology, so they may actually be referring to verification of data.

In contrast, verification is a more complicated issue, as there are a variety of ways in which it can be achieved. The data was interpreted and mapped as shown in Map 9. This shows that two established and one prospective LRC had no system for verifying data. One of the established LRCs stated that they did not verify records as they were not entering data at that time.

4.4.4 Combined assessment of LRCs against the three essential functions

The results from these assessments were combined to establish whether each geographical area was covered by an established LRC that qualified under all three essential functions. Some decisions had to be made regarding validation and verification, so partial validation and ad hoc verification of data was not considered to meet the requirements. The results of this indicate that only 113,633 km² (46%) of the area of the UK is known to be covered by a LRC that qualifies on all three criteria, though those LRCs that were not interviewed may also qualify. This assessment was otherwise based purely on the questionnaire responses and does not necessarily reflect the opinions of individual LRCs, the interviewers or the authors. This is shown in Map 10.

5 Ability to deliver against local authority and statutory agency needs

The following section attempts to assess the information requirements of bodies funding LRCs, covering the statutory requirements of local authorities and statutory agencies. It also attempts to assess how well LRCs are fulfilling these information requirements.

5.1 Local Authority requirements

Local Authorities have a range of statutory requirements that require them to incorporate biodiversity issues into their considerations of the environmental, social and economic interests of the local population. These include:

- Informing decisions in the planning process;
- Helping to implement and monitor LBAPs;
- Identifying sites of importance for biodiversity conservation;
- Helping to plan conservation strategies.

5.1.1 Informing decisions in the planning process

PPS9 outlines the Government's objectives for the planning process to follow the UK Biodiversity Action Plan (BAP) and states in the Key Principles in the Guide to Good Practice (Office of the Deputy Prime Minister, 2005):

'Development plan policies and planning decisions should be based upon up-to-date information about the environmental characteristics of their areas.'

The information required for this may include species, habitat and site-based data from LRCs that are maintaining and managing existing databases on the authority's behalf. The requirement for up-to-date information means that data suppliers, LRCs or otherwise, must be actively collating and supplying information to planning authorities.

5.1.2 Helping to implement and monitor LBAPs and identifying sites of importance for biodiversity conservation

Helping to implement and monitor LBAPs and identifying sites of importance for biodiversity conservation are specifically covered as planning considerations in PPS9 – Regional Spatial Strategies, as stated in the Guide to Good Practice (Office of the Deputy Prime Minister, 2005):

'Regional planning bodies should liaise closely with regional biodiversity fora or equivalent bodies, English Nature or its successors and the Environment Agency to identify the current regional and sub-regional distribution of priority habitats and species, internationally and nationally designated areas, and broad areas for habitat restoration and re-creation.'

These two requirements are also more generally covered by the individual countries BAP targets, for example:

England Biodiversity Strategy: *'The Public Service Agreements between Government and local authorities provide the opportunity to include biodiversity indicators. These indicators and targets need to be monitored and fed into the process of establishing high-level indicators in the future. We propose to use the following biodiversity indicators in this area of work: Progress with LBAPs in England (H4); Condition of SSSIs in Local Authority ownership (L1); Community Strategies with biodiversity elements (L2); Incorporation of biodiversity objectives in regional programmes and strategies (L3)'* (England Biodiversity Group, 2002).

Scottish Biodiversity Strategy: *'Local authorities should therefore fully support the Local Biodiversity Action Plans, and take account of them in all their decision making...'* (Scottish Executive, 2005).

LRCs should be perfectly placed to help monitor the distributions of LBAP species and habitats, being able to draw together information from a range of data sources. They also have good links with recorders and may be better placed to coordinate specific monitoring programmes.

LRCs should also be able to collate and disseminate information relating to designated areas, both statutory and non-statutory sites, and areas for habitat restoration and recreation.

5.1.3 Help to plan conservation strategies

Biodiversity is a key consideration of Communities and Local Government's Public Service Agreement Target 8 – Liveability (Office of Deputy Prime Minister, 2006a) that contributes to the delivery of the Government's "Cleaner, Safer, Greener Communities" programme. This programme identifies that:

'Biodiversity should be a part of local authorities' key strategic plans, and they should incorporate biodiversity within their Community Strategies' (Office of Deputy Prime Minister, 2006b)

This principle is also a constituent of BAP strategy targets, as stated by the England Biodiversity Group (2002; see quotation above).

The information and services provided by LRCs can be key to successfully meeting these objectives.

5.1.4 LRC functions that can assist with Local Authority needs

LRCs can assist in fulfilling these requirements by:

- Providing species/habitat inventories for a given site/area;
- Providing species/habitat context for a given region;
- Automatically screening planning applications;
- Digitising information generated by EIAs and other paper based information;
- Maintaining and managing existing databases on the authority's behalf;
- Coordinating monitoring programmes.

5.2 Statutory Agency requirements

All of the statutory agencies require access to and the ability to distribute biodiversity information at a national scale in order to fulfil their statutory requirement to conserve biodiversity countrywide.

5.2.1 English Nature/Natural England requirements

English Nature in particular was strongly supportive of LRCs role in the conservation of biodiversity, as typified by its Position Statement on LRCs (English Nature, 2002):

'As a member of the National Biodiversity Network Trust, English Nature will participate in the establishment of an effective network of Local Record Centres. We believe that this can be achieved through local partnerships to establish centres where none exist, and by reviewing and rationalising existing centres to ensure that they meet the required standards.'

Specifically, English Nature's Position Statement on LRCs states that it would support Local Record Centres to provide a range of services, as follows:

- *'Manage our biological records, ensuring that relevant past, and future data, is deposited with the centres;*
- *Develop information products with the Local Record Centres that support easy access to environmental information by the public and statutory users, including local authorities, regional observatories and national Government and agencies;*
- *Encourage local surveys that focus on the species, habitats and natural features that are of national importance in a local area;*
- *Contribute to stable funding of Local Record Centres through service level agreements that clarify the services provided to us by the centres and what we expect of them in return;*
- *Encourage other funding partners, including Local Authorities and agencies, to consider options for heritage data centres that will include the range of purposes and services we require from Local Record Centres;*
- *Provide access to contextual information on Natural Areas, SSSIs and biodiversity targets that enable Local Record Centres to meet the information needs of users;*

- *Work with the National Biodiversity Network partners to establish appropriate standards and systems of surveillance that meet the biodiversity needs of regional and national Government.'*

5.2.2 Scottish Natural Heritage requirements

Scottish Natural Heritage have identified a need to make supporting information available so that it can be used in all decisions affecting natural heritage, in particular: securing protected area management, supporting biodiversity action, adding to natural heritage knowledge and safeguarding Scotland's landscapes. Their corporate strategy (Scottish Natural Heritage, 2003) states that they will:

'...record and promote an understanding of the main changes and trends in [Scotland's] natural heritage, increase the information available about them, and help to develop Local Record Centres and the National Biodiversity Network...'

5.2.3 Countryside Council for Wales requirements

Countryside Council for Wales have committed themselves to establishing complete LRC coverage of Wales. Their corporate plan (Countryside Council for Wales, 2004) states that:

'Local Record Centres (LRCs) have an important role to play in protecting the environment by providing a rich source of information. We are working in local partnerships to develop and use four LRCs across Wales.'

They then use a real example of the support they envisage LRCs to provide:

'The Biodiversity Information Service for Powys and the Brecon Beacons National Park (BIS) is already improving access to our data, enabling us to collect it once but use it many times over. The LRC also scans planning applications for us and provides information about Tir Gofal farms. BIS provides us with an excellent model for developing LRCs elsewhere and is actively supporting the development of the other LRCs by advising partnerships across Wales. The Wales Biodiversity Partnership will continue to help fund this work.'

5.2.4 Environment & Heritage Service requirements

The EHS has already identified that improving the availability of information on biodiversity, raising the general awareness and understanding of biodiversity and encouraging action for biodiversity at a local level are central to the UK Biodiversity Action Plan. These are considered to be particularly important for the success of a Northern Ireland Biodiversity Strategy. They supported the establishment of a LRC for Northern Ireland, CEDaR, which continues to provide important services:

'CEDaR is accepted as the focal point for the collation and storage of environmental information in Northern Ireland. The achievements of the project have been recognised recently by the consortium developing the National Biodiversity Network (NBN) in the United Kingdom.' (Environment & Heritage Service, 2007).

5.2.5 Environment Agency requirements

The Environment Agency has its own in house database, BioSys, for managing records from aquatic macro-invertebrate surveys. However, they nevertheless recognise the need for LRC services:

'We share this information with Local Records Centres and the National Biodiversity Network (www.nbn.org.uk). In return, we are able to tap into records to confirm the distribution of species, which we have responsibility for under the UK BAP. This information and advice from specialist groups has allowed us to map the distribution of these species and habitats and use it to develop our regional biodiversity strategies.' (Environment Agency, 2006).

5.2.6 LRC functions that can assist with statutory agency needs

LRCs can assist in fulfilling these requirements by:

- Providing contextual information on species, habitats or sites;
- Providing distribution maps for priority species, habitats and sites;
- Managing core datasets on behalf of statutory agencies;
- Providing access to information to the public and statutory users;
- Digitising information currently held in paper files.

5.3 Assessment of whether LRCs are fulfilling local authority and statutory agency requirements

5.3.1 Providing species and habitat information

Of the 41 established LRCs that provided information on their customers 39 (95%) stated that they provided information to local authorities, whilst 33 (80%) stated that they provided information to the appropriate statutory agency. It is possible that the LRCs not included within this analysis forgot to include these organisations in their answer.

Although they do provide data to the relevant statutory agency, the inactive LRC has not been included because they receive a very small number of data requests each year from all data users, so the data they provide to the statutory agency is probably insignificant in comparison with the other data provider covering the same area.

However, established LRC cover only 63% of the UK, as shown in Map 1. Some of these gaps are where LRCs were not interviewed, whilst others are being filled by establishing and prospective LRCs.

LRCs should also be providing public access to data, as specified by statutory agency requirements. Most existing LRCs provided this service, as discussed in more detail in Section 4.4.1.

5.3.2 Other LRC functions

Provision of the other LRC functions required by local authorities and statutory agencies cannot be assessed, since specific questions were not asked. Three of the four LRC functions identified that are not covered by data provision (management of statutory agency or local authority datasets, capturing data to agreed standards, automatically screening planning applications) would most likely form specific agreements between the LRC and the local authority or statutory agency. Coordinating monitoring programmes would be an enhanced function, none of which were included in the questionnaire.

6 Recommendations

6.1 Funding

In the view of LRCs, probably the key priority for ensuring LRC establishment and continued success is funding stability. The funding needs to be sufficient and guaranteed for longer than a single year in order for the LRC to carry out its functions effectively and survive in the long term. This needs to cover data management, not just data provision, as this is what LRCs actually spend much of their time doing.

Four types of funding need consideration:

- There must be funding for basic core functions, e.g. those listed in the NBN Position Statement on LRCs. This has to be weighed against the need for the information by all users, not just local and national government. It also has to include servicing the needs of the voluntary recorders to ensure a continuous supply of new information.
- In addition to this, LRCs need to be funded for supplying specific products or services to funding bodies, as currently happens with SLAs and similar arrangements.
- Funding should be available for the provision of enhanced functions, such as those listed in the NBN Position Statement. This should be focused on those areas where the LRC carrying out the role is pivotal, because there is a particular need and either no other organisation performs the role or because the LRC is the only organisation that can adequately perform the role.
- In order to ensure a consistent coverage of biodiversity data, specific funding needs to be targeted at LRCs with small or out of date data holdings for capacity building or data gathering.

It was noted that core funding of LRCs should include the costs of facilitating data flow, from recorder, through LRC to the NBN. This is a highly significant part of LRC work that is often overlooked by funding bodies. However, the benefits of funding this work specifically would be great, as it would ensure that more of the data was received from recorders and more went to the NBN Gateway.

In addition, funding to LRCs currently made through English Nature should be re-assessed upon the establishment of Natural England. This is to account for the likely increase in demand for data, due to combined remits of English Nature and the RDS and the advent of Environmental Stewardship.

6.2 Establishment of Local Record Centres

In order to gain a sustainable network of LRCs in the UK there is a requirement for LRCs to be established in some areas. In each area there will be different requirements and the local situation will dictate exactly how the LRC should operate. However, from this review it is possible to highlight those things that seem to work best and make general recommendations based on the opinions of the consultees.

- It is sensible to establish LRCs under partnership management. The partnership should be composed of all relevant parties, including representatives from local authorities, statutory agencies, wildlife trusts, the local BAP, the recording community, and commercial users (e.g. utilities companies). This seems to allow for a greater amount of stability for the LRC, as its existence does not rely upon the interests of one party only.

However, existing LRCs should not be forced into partnership management where alternative management functions effectively.

- New LRCs need to be established where none currently exists and there is a recognised requirement. However, overlapping LRCs are acceptable where they perform markedly different roles, and should be considered for areas that have considerable development pressure if it would result in a benefit to biodiversity, even where this area is covered by one or more LRC. Overlapping LRCs of this sort should work very closely together to ensure completion of data and best use of resources.
- The salaries of LRC staff should fit the skill requirements of their job and should be comparable to those of similar jobs in other organisations. This will ensure a greater degree of staff permanence, which will lead to a better quality of service as long term staff become more adept at providing the service.
- It seems essential that all LRCs are provided with adequate Ordnance Survey map coverage for their areas, as these data are usually too expensive for the LRC to afford, but are essential for many LRC operations. This should also apply to licenses for essential software, such as GIS.
- Other basic items, such as internet access, IT and administrative support should be either provided directly or funded.

- There should be a member of staff within each LRC whose job includes guiding data flow, as it should improve the relationships between the LRC and recorders, as well as the LRC and the NBN, leading to an increase in data flow. This gives a 'public face' to the LRC. It is also beneficial if the LRC staff base includes active members of specialist groups, as it helps with recorder relations and obtaining data. It would also be beneficial to have someone ensuring that data flow is efficient at a national level.

6.3 Building relationships

To ensure the success of the NBN and its objectives, it is essential that good relationships are developed and maintained by the NBN with data providers such as LRCs. The NBN has a NSS Officer, so it should also be appropriate to create an LRC Officer to develop this sort of relationship with LRCs.

This may also help to bridge the apparent local gaps between the LRCs and the statutory agencies. However, steps also need to be taken to ensure that there is a fuller understanding and appreciation of LRCs and statutory agencies acting as equal partners in those areas where this does not already occur.

Following from this, the relationship between Defra and LRCs in England should be addressed. However, with the formation of Natural England there may develop a stronger relationship, particularly if the concerns over Defra data exchange can be resolved.

It may be appropriate for LRCs to try to ensure that all planning applications are submitted with complete data and that the data is submitted to the relevant LRC. This will ensure that the currency and relevance of LRC-held biodiversity data remains high and will gain the most benefit for the environment. National guidance on data flow is very important in ensuring that the arrangements are effective.

There also needs to be a much better definition of dataset custodianship between LRCs and NSSs, to ensure that they do not provide the same data independently at different resolutions. Each would then use the NBN Gateway for accessing the others data, managed by data access agreements.

It may be valuable for the NBN to work very closely with one LRC as a demonstration of what can be achieved by integrating the information held by both, so that the NBN Gateway, or a bespoke interface with the Gateway, is the primary means of querying data using GIS tools. A suitable LRC for this would be well established and in an area that many recorders visit from elsewhere, so that a greater number of additional records would be available through the NBN Gateway (i.e. those submitted to NSSs but not the relevant LRC).

The LRCs also need to communicate regularly through such channels as the LRC technical forum, the recently established Association of Local Biodiversity Information Centres (ALBIC) and also by forming regional alliances.

6.4 General recommendations

At least eleven of the LRCs consulted called for LRCs to be made a statutory requirement. However, this may not always have been recorded, as it was not specifically asked and would have been in addition to the questionnaire. The impression gained from the interviewees was that the majority of LRCs would like LRCs to be made a statutory requirement.

Following from discussions about LRCs and NSSs providing duplicated data there needs to be national guidance on data flow to minimise the issue.

Also, it is very hard for recorders to know which LRC to submit information to within an unfamiliar area and submitting it to a NSS is no guarantee that it will be available locally. As a result it is recommended that LRC coverage be mapped and made available to recorders through the NBN Gateway or another similar freely available mapping system (e.g. MAGIC) to ensure that the maximum amount of data is submitted to the correct LRC. Ultimately this will not matter if all data are made available through the NBN Gateway and queried from there.

6.5 Further work

Two major pieces of work are required if complete geographical coverage by LRCs is required.

Firstly, this review was only able to touch on the funding requirements of the LRCs. However, this is essential for understanding the financial situation of LRCs across the country, so it is recommended that a further, more detailed review be conducted focussing on this, using data collected during this review as a basis. It should at least take into account the following aspects, relating to staff time and salaries¹:

- income from SLA's and other financial arrangements;
- income from grants;
- income from investments;
- income from specific projects;
- income from data requests;
- income specifically for enhanced services;
- other income generated;
- expenditure saved though in kind services and other support;

¹ It should be recognised, however, that some LRCs may be reluctant to answer these questions as it may show that much of their core work is supported with funding for specific products or services. This review would thus need to be conducted with the utmost confidence, using only conglomerated and anonymous figures.

- expenditure on data management;
- expenditure on data flow facilitation, including recorder support;
- expenditure on fulfilling SLA / other agreed products;
- expenditure on specific projects;
- expenditure on data requests;
- expenditure on enhanced services;
- any shortfall in income and how this is covered.

Secondly, there should be the development of a national strategy for LRCs, to include support for those that already exist, establishing new LRCs, prioritising the areas where the need is greatest, and dealing with the data flow conflicts between LRCs and other data holders. However, the main part of this should identify and ensure adequate funding sources for all LRCs that would fulfil the objective of complete geographical coverage in a fair and reasoned way.

In addition, further work is required to investigate the ways of ensuring that the maximum use is made of data collected. An idealistic recommendation would be to make the submission of commercially collected biodiversity information to LRCs a legal requirement, but this is currently impossible due to data ownership constraints. However, if this data were to be made widely available it would help to ensure that all biodiversity data are available for use, therefore making the most benefit of the information.

This situation would benefit from further study to determine how the most use may be made of commercially collected biodiversity information.

7 Evaluation of the questionnaire and interview technique

7.1 Local Record Centre inclusion and personnel

Some additional 'records centres' were suggested for inclusion before this work commenced. However, these were rejected and were therefore not interviewed. Most were in Scotland, which may have biased the results towards the rest of the UK.

Furthermore, where no LRC existed, some of the individuals interviewed questioned why they had been selected for interview, as they believed that they were the wrong person. These individuals were most likely less informed to answer particular questions.

7.2 Issues arising from questionnaire interpretation

As was inevitable with a questionnaire of this type and scale, a number of problems were encountered. These may have affected the results or led to discrepancies, despite positive efforts to ensure consistency. The main problems encountered were:

- It was difficult in some cases to know which of the three questionnaires to use, as there was a degree of LRC establishment between no LRC and prospective LRC where it was planned but none of the detail had been established. In these cases a mixture of questions from all three questionnaires were asked as appropriate.
- Some of the questions were hard to answer on the spot, so LRCs that either could or did not do any preparation produced less complete answers.
- More categorisation prior to the interviews may have made analysis easier, though this would have depended upon anticipating the sorts of responses, which was difficult in many cases.
- The questionnaire also contained some 'self assessment' questions (e.g. questions 157, 158 and 168). As some of the LRCs rightly suggested, if it was necessary to find out the benefits of the LRC (questions 155 and 156) the customers should be asked. As a result, these questions were interpreted differently by different LRCs.
- Questions 36 and 37 also presented problems, as most LRCs encouraged data to come through groups, rather than from individuals. The interviewers endeavoured to make clear that groups should be included in this question.
- Question 66, which asked where data that the LRCs did not receive went to, was also difficult for them to answer. In most cases the LRCs had no idea where the data went, so it is likely that there was some guess work involved in answering this question.

- Question 177, which asked about running costs, was difficult for some LRCs to answer as they did not have access to the information. In these cases their hosting organisation had full control over finances. As a result some of the answers to this question were underestimates.
- Question 177 did not immediately lead to the inclusion of data requests. This information was not included elsewhere, so the interviewers made efforts to include it here. In general terms, the financial information here can only be used as guidance, as much more detailed information would be needed to precisely determine the level of funding or additional funding required.

7.3 Project execution

In terms of developing a greater understanding of the operation of LRCs across the UK and the problems they face this review has been extremely useful. In particular, face to face and telephone interviews allowed cross-cutting themes to be drawn out that would not have been identified with a questionnaire alone.

The face to face approach proved to be a very successful way of reaching the information needed, allowing interviewers to clarify the meaning of difficult questions, talk around answers and cover LRC specific issues not covered by the generic questionnaire. Telephone interviews were also acceptable, especially if this was simply to clarify answers to a questionnaire that had already been returned.

The length of the questionnaire may have been an issue. Many LRCs found the length of time this took was very difficult to accommodate, so serious consideration should be given to producing a questionnaire of similar length in the future.

8 Glossary

BNA	British Naturalist's Association.
Defra	Department for Environment Food and Rural Affairs
ELS	Environmental Stewardship Entry Level Scheme
FWAG	Farming and Wildlife Advisory Group
HLF	Heritage Lottery Fund
HLS	Environmental Stewardship Higher Level Scheme
LBAP	Local Biodiversity Action Plan
LRC	Local Record Centre
NBN	National Biodiversity Network
NFBR	National Federation of Biological Recorders
NSS	National Scheme and Society
RDS	Defra Rural Development Service
SEPA	Scottish Environmental Protection Agency
SLA	Service Level Agreement

9 References

- Anon. 2004. *NBN Trust Position Statement on Local Records Centres*. National Biodiversity Network. [available from: <http://www.nbn.org.uk/downloads/files/LRCs%20Position%20Statement%20with%20JHB%20cover.pdf>].
- Countryside Council for Wales, 2004. *Corporate Plan: 2005 - 08 "Working together to create a better Wales"*. [available from: <http://www.ccw.gov.uk/Generalinfo/index.cfm?Subject=aboutus&lang=en>].
- England Biodiversity Group, 2002. *England Biodiversity Strategy Chapter 9 -Local and regional action*. [available from: http://www.ukbap.org.uk/EBG/england_biodiversity_strategy.asp].
- English Nature, 2002. Position Statements - Local Record Centres. [available from: http://www.english-nature.org.uk/text_version/news/statement.asp?ID=15].
- Environment Agency, 2006. *How our work helps biodiversity - the second five years. Parts 1-2*. [available from: http://www.environment-agency.gov.uk/commondata/acrobat/parts12_1597773.pdf].
- Environment & Heritage Service, 2007. http://www.ehsni.gov.uk/biodiversity/bio_inf.htm (March 23rd 2007).
- Office of Deputy Prime Minister, 2005. *Planning for Biodiversity and Geological Conservation – A Guide to Good Practice*. [available from: <http://www.communities.gov.uk/index.asp?id=1501970>].
- Office of Deputy Prime Minister, 2006a. *PSA Target 8 – Liveability*. [available from: <http://www.communities.gov.uk/index.asp?id=1123014>].
- Office of Deputy Prime Minister, 2006b. <http://www.cleansafergreener.gov.uk/en/1/pandoenhancenv.html> (23rd March 2007).
- Planning Policy Statement 9: Biodiversity and Geological Conservation, 2005.
- Scottish Executive, 2005. *Scotland's Biodiversity: It's in Your Hands, A strategy for the conservation and enhancement of biodiversity in Scotland*. [available from: <http://www.scotland.gov.uk/Publications/2004/05/19366/37246>].
- Scottish Natural Heritage, 2003. *Scottish Natural Heritage's corporate strategy*. [available from: http://www.snh.org.uk/pdfs/strategy/policy/SNHcorp_strat03.pdf].

Appendix 1 - Project steering group members

Richard Alexander
Sites and Surveillance Team
English Nature
Northminster House
Peterborough
PE1 1UA
richard.alexander@english-nature.org.uk
01733 455518

Bill Butcher
National Federation for Biological
Recording
c/o Somerset Environmental Records
Centre
Tonedale Mill
Wellington
Somerset
TA21 OAW
bill.butcher@somerc.com
01823 664450

Alan McKirdy
Scottish Natural Heritage
Battleby
Redgorton
Perth
PH1 3EW
Alan.McKirdy@snh.gov.uk
01738 458568

Jim Munford
National Biodiversity Network Trust
c/o The Kiln
Mather Road
Newark
Nottinghamshire
NG24 1WT
01636 670090
j.munford@nbn.org.uk

Helen Wilkinson
Countryside Council for Wales
Campws Plas Penrhos
Ffordd Penrhos
Bangor
Gwynedd
LL57 2BQ
helen.wilkinson@ccw.gov.uk
01248 385492

Mark Wright
Environment and Heritage Service
Commonwealth House
35 Castle Street
Belfast
BT1 1GU
mark.wright@doeni.gov.uk
028 9054 6604

Appendix 2 – Local Record Centres (and other stakeholders) interviewed for this work

South West of England

Tim Corner and Daniel Marshall
Bristol Regional Environmental
Records Centre (BRERC)
Ashton Court Visitors Centre
Ashton Court Estate
Long Ashton
Bristol
BS41 9JN
0117 9532140
info@brerc.org.uk

Eleanor Bremner
Devon Biodiversity Records Centre
Shirehampton House
35 - 37 St David's Hill
Exeter
Devon
EX4 4DA
01392 279244
devonwt@cix.co.uk

Trevor Edwards
ERC for Cornwall and the Isles of
Scilly (ERCCIS)
Cornwall Wildlife Trust
Five Acres
Allet
Truro
Cornwall
TR4 9DJ
01872 240777
WIS@cornwt.demon.co.uk

Ian Carle
Gloucestershire Centre for
Environmental Records
Church House
Standish
Stonehouse
Gloucestershire
GL10 3EU
01453 822761
gcer@gloswild.cix.co.uk

Bill Butcher
Somerset Environmental Records
Centre
Tonedale Mill
Wellington
Somerset
TA21 0AW
01823 664450
bill.butcher@somerc.com

Purgle Linham
Wiltshire & Swindon Biological
Records Centre
Elm Tree Court
Long Street
Devizes
Wiltshire
SN10 1NJ
01380 725670
brc@wiltshirewildlife.org

Carolyn Steele
Dorset Environmental Records Centre
Library Headquarters
Colliton Park
Dorchester
Dorset
DT1 1XJ
01305 225081
derc@dorsetcc.gov.uk

South East England and Greater

London

Martin Harvey
Buckinghamshire and Milton Keynes
ERC
Museum Resource Centre
Tring Road
Halton
Aylesbury
Bucks
HP22 5PJ
01296 696012
erc@buckscc.gov.uk

Mandy Rudd
Greenspace Information for Greater
London (GIGL)
London Wildlife Trust
Skyline House
200 Union Street
London
SE1 0LW
020 7803 4278
enquiries@wildlondon.org.uk

Nicky Court and Andy Barker
Hampshire Biodiversity Information
Centre
Ashburton Court West
The Castle
Winchester
Hampshire
SO23 8UE
01962 846741
nicky.court.hbic@hants.gov.uk

Steve Smith
Kent and Medway Biological Records
Centre
Tyland Barn
Sandling
Maidstone
Kent
ME14 3BD
01622 685646
info@kmbrc.org.uk

Alistair Kirk
Surrey Biological Records Centre
c/o Surrey Wildlife Trust
School Lane
Purbright
Woking
Surrey
GU24 0JN
01483 795448
alistair.kirk@surreywt.org.uk

Henri Brocklebank
Sussex Biodiversity Record Centre
Woods Mill
Henfield
West Sussex
BN5 9SD
01273 497553 / 554
sxbrc@sussexwt.org.uk

Philippa Burrell
Thames Valley Environmental
Records Centre (TVERC)
c/o The Oxfordshire Museum
Fletcher's House
Park Street
Woodstock
Oxon
OX20 1SN
01993 814147
philippa.burrell@oxfordshire.gov.uk

Dr Colin Pope
Isle of Wight Council
Countryside Section
Council Offices
Seaclose
Fairlee Road
Newport
PO30 2QS
01983 821000
colin.pope@iow.gov.uk

East of England

Graham Bellamy and Keith Balmer
Bedfordshire and Luton Biodiversity
Recording and Monitoring Centre
c/o The Wildlife Trust
Priory Country Park Visitor Centre
Barkers Lane, Bedford
Bedfordshire
MK41 9SH
Tel: 01234 355435
brmc@bedsbionet.org.uk

James Jacomb
Cambridgeshire and Peterborough
Biological Records Centre
The Manor House
Broad Street
Great Cambourne
Cambridge
CB3 6DH
Tel: 01954 713571
james.jacomb@wildlifebcnp.org

Martin Hicks and Rob Rees
Hertfordshire Biological Records
Centre (HBRC)
c/o Environment
County Hall
Pegs Lane
Hertford
Hertfordshire
SG13 8DN
01992 555220
biorec.info@hertsc.gov.uk

Pat Lorber
Norfolk BRC
Union House
Gressenhall
Dereham
Norfolk
NR20 4DR
01362 869292/3
nbrc@norfolk.gov.uk

Martin Sanford
Suffolk Biological Records Centre
Ipswich Museum
High Street
Ipswich
Suffolk
IP1 3QH
01473 433547
sbrc@globalnet.co.uk

Emma Simmonds and Martin Wakelin
Biological Records Information for
Essex
Essex County Council
County Hall
Chelmsford
Essex CM1 1QH
Tel: 01245 437655
Emma.Simmonds@essexcc.gov.uk

West Midlands of England

Sara Carvalho
EcoRecord
28 Harborne Road
Edgbaston
Birmingham
B15 3AA
0121 454 1808
enquiries@ecorecord.org.uk

Steve Roe
Herefordshire Biological Records
Centre (HBRC)
PO Box 144
Hereford
Herefordshire
HR1 2YH
01432 261538
hbrc@herefordshire.gov.uk

Sue Swales and Dan Wrench
Shropshire County Council
Sustainability Group
Shire Hall
Abbey Foregate
Shrewsbury
SY2 6H2
0845 678 9000

Craig Slawson
Staffordshire Ecological Record
The Wolseley Centre
Wolseley Bridge, Stafford
Staffordshire
ST17 0WT
01889 880100
info@staffs-ecology.org.uk

David Lowe
Warwickshire Biological Records
Centre
Warwickshire Museum Field Services
Ecology Unit
The Butts
Warwick
Warwickshire
CV34 4SS
01926 418060
davidlowe@warwickshire.gov.uk

Simon Wood
Worcestershire Biological Records
Centre
Lower Smite Farm
Smite Hill
Hindlip
Worcester
WR3 8SZ
01905 759759
records@wbrc.org.uk

East Midlands of England

Rob Johnson and Pete Acton
Nottinghamshire Biological and
Geological Records Centre
Natural History Museum
Wollaton Park
Nottingham
Nottinghamshire
NG8 2AE
0115 915 3909
nbgrc@ncmg.demon.co.uk

Graham Walley and Darwyn Sumner
Leicestershire Environmental
Resources Centre
Holly Hayes
216 Birstall Road
Birstall
Leicestershire
LE4 4DG
0116 267 1950 ext 28
gwalley@leics.gov.uk

Margaret Haggarty
Lincolnshire Environmental Records
Centre
Banovallum House
Manor House Street
Horncastle
LN9 SHF
01507 526667
mhaggerty@lincstrust.co.uk

Terry Smithson
Northamptonshire Biodiversity Record
Centre
Lings House
Billing Lings
Northampton
NN3 8BE
01604 405285
terry.smithson@wildlifebcnp.org

Jo Brown
Conservation Manager
Derbyshire Wildlife Trust
East Mill
Bridge Foot
Belper
Derbys
DE56 1XH
01773 881188

Nick Moyes
Derby Museum & Art Gallery
The Strand
Derby
Derbyshire
DE1 1BS
01332 716655
nick.moyes@derby.gov.uk

Yorkshire and Humber Region of England

Simon Pickles and Clare Langrick
North & East Yorkshire Ecological
Data Centre
St William's College,
5 College Street,
York,
YO1 7JF
01904 557235
info@neyedc.co.uk

Jenny Watts and Jan Bolton
West Yorkshire Ecology
c/o Learning and Leisure Dept.
Parks and Countryside
7th Floor West Merrion House
Merrion Centre
Leeds
West Yorkshire
LS2 8DT
0113 2375310
westyorkshireecology@leeds.gov.uk

Bill Ely
Rotherham Biological Records Centre
Greenspaces Unit (Culture and
Leisure)
Rotherham Metropolitan Borough
Council
Norfolk House
Walker Place
Rotherham
S65 1AS
01709 822437
bill.ely@rotherham.gov.uk

Jean Glascock
Sheffield Biological Records Centre
City Ecology Unit
Meersbrook Park
Brook Road
Sheffield
South Yorkshire
S8 9FL
0114 2734481
jean.glascock@sheffield.gov.uk

Colin Howes
Doncaster Museum and Art Gallery
Chequer Road
Doncaster
DN1 2AE
01302 734287
colin.howes@doncaster.gov.uk

North West of England

Steve Hewitt
Carlisle Museum BRC
Tullie House Museum
Castle Street
Carlisle
CA3 8TP
01228 534781
steveh@carlisle-city.gov.uk

Steve McWilliam
rECOrd
Oakfield House
Chester Zoological Gardens
Upton
Chester
Cheshire
CH2 1LH
01244 383749 / 383569
manager@record-lrc.co.uk

Christine Bennett
Merseyside Biobank
From Oct 2006:
The Estate Barn
Court Hey Park
Huyton
Liverpool
0151 934 4954
christine.bennett@eas.sefton.gov.uk

Jon Hickling
[Lancashire Biodiversity Network]
English Nature
Cheshire to Lancashire Team
Pier House
Wallgate
Wigan
Lancashire
WN3 4AL
01942 820342
jon.hickling@english-nature.org.uk

Steve Garland
Bolton Biological Records Centre
Bolton Museums, Art Gallery and
Aquarium,
Le Mans Crescent,
Bolton.
BL1 1SE
01204 332211
steve.garland@bolton.gov.uk

Wales

Janet Imlach,
Powys & Brecon Beacons National
Park Environmental Records Centre
Great Britain Limited (Trading as BIS)
1st Floor Offices
Coliseum House
7 Wheat Street
Brecon
Powys
LD3 7DG
01874 610881
info@b-i-s.org
<http://www.b-i-s.org/>

Dr Rob Davies
West Wales Biodiversity Information
Centre Ltd
Landsker Business Centre
Llwynybrain
Whitland
Carmarthenshire
llanunwas@btopenworld.com

Roy Tapping
Cofnod - North Wales Environmental
Information Service
Intec, Ffordd y Parc,
Parc Menai,
Bangor, Gwynedd.
LL57 4FG
01248 672603
roy.tapping@cofnod.org.uk
www.cofnod.org.uk

Scotland

Paul Harvey
Shetland Biological Records Centre
Garthspool
Lerwick
Shetland
ZE1 0NY
01595 694688
sbrc@zetnet.co.uk
www.shetland-heritage.co.uk/amenitytrust/natural_heritage/sbrc/sbrc.html
Soon to be replaced by:
www.nature.shetland.co.uk/brc/

Nadine Russell
Orkney Biodiversity Records Centre
Orkney Library & Archive
44 Junction Road
Kirkwall
Orkney
KW15 1AG
01856 873166
biodiversity@orkneylibrary.org.uk
<http://www.orkneylibrary.org.uk/obrc/html/home.html>

Nick Littlewood
North East Scotland Biological
Records Centre
NESBReC
Room G41/G42
23 St Machar Drive
Aberdeen
AB24 3RY
01224 273633
nesbrec@aberdeenshire.gov.uk
www.nesbrec.org.uk

Simon Scott
Take a Pride in Fife Environmental
Information Centre (Formerly Fife
Environmental Recording Network)
Hanover Court
North Street
Glenrothes
Fife
KY7 5SB
01592 413793
shelley.mccan@fife.gov.uk

Bob Saville
Lothian Wildlife Information Centre
Vogrie Country Park
Gorebridge
Mid Lothian
EH23 4NU
01875 825968
info@lothianwildlife.co.uk

Mark Pollitt
Dumfries and Galloway Biological
Records Centre
Campbell House
The Crichton
Bankend Road
Dumfries
DG1 4ZB
01387 247543
mpollitt@dgerc.org.uk
www.dgerc.org.uk

Jon Mercer
Scottish Borders Biological Records
Centre
Harestanes Countryside Visitor Centre
Scottish Borders Council
Ancrum
Jedburgh
TD8 6UQ
01835 830405
sbbrc@scotborders.gov.uk

Jonathan Watt (IMAG) and Murdo
McDonald (HBRG)
Museum & Art Gallery (IMAG),
Castle Wynd,
Inverness
IV2 3ED
Tel: 01463 237114
and
Highland Biological Recording Group
(HBRG)

Gavin Smith, David Wood, Louise
Gregory
Scottish Natural Heritage
1 Kilmory Industrial Estate
Kilmory
Lochgilphead
Argyll
PA31 8RR
01546 603611
gavin.smith@snh.gov.uk

Dr Malcolm Ogilvie
Islay Natural History Trust
Port Charlotte
Isle of Islay
PA48 7TX
01496 850288
malcolm@ogilvie.org
<http://www.islaywildlife.freereserve.co.uk>

Dianne Holman
Scottish Natural Heritage - SW Region
19 Wellington Square
Ayr
KA7 1EZ
Tel: 01292 261392
dianne.holman@snh.gov.uk

Northern Ireland

Damian McFerran
Centre for Environmental Data and
Recording (CEDaR)
National Museums and Galleries of
Northern Ireland
Ulster Museum
Botanic Gardens
Belfast
Northern Ireland
BT9 5AB
Tel: (028) 9038 3154
damian.mcferran@magni.org.uk
www.habitas.org.uk

Appendix 3 – Questionnaire

Following are the questions that were asked to the LRCs. Some did not apply to each LRC, but they were included in the numbering so that only one database was required. The LRCs were divided into three main types, existing, prospective and no LRC, so the questions indicate which LRCs they apply to.

1. Basic factual information

1. Name of organisation
2. Address of organisation
3. Date of discussion
4. Start time
5. End time
6. Duration
7. On site? Yes No
8. Name of researcher
9. Name of principal respondent
10. LRC status?
11. Supporting documents

No LRCs only

12. Who do you think are the main users of biological information in your region? Please complete the table below, adding the types of information you think each potential customer needs, the reason the information is needed (e.g. planning/development, personal interest) how they meet their current information needs and what requirements they have that are not being met.

	User	Information needed	Why is it needed?	How meet current needs	Requirements not being met
1					
2					
3					
4					
5					
6					
7					

Review of Local Records Centres in the UK

	User	Information needed	Why is it needed?	How meet current needs	Requirements not being met
8					
9					
10					

13. Is there an existing partnership for sharing biological data? Yes No

14. If yes, who are the members and what are the objectives?

15. Why is an LRC not being planned for your area?

16. Have there been attempts to establish an LRC previously? Yes No

17. If yes, what were the factors in it failing to establish?

- Insufficient funding commitment from prospective partners to reach a critical mass
- Prospective partners failing to agree on priorities and/or ways of moving forward
- Concerns from a small number of local naturalists or consultants that their interests will be compromised / failure to engage with these issues or for the majority view of local naturalists to be asserted
- Other (specify)

18. What are the possible alternatives to establishing an LRC (locally, regionally or nationally)? Please also give the advantages and disadvantages of each, and state which your favoured option is.

	Alternative	Advantages	Disadvantages	Favoured alternative
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

19. Who are the key players and what do they need to do to make it happen?

Existing and prospective LRCs

20. What local authority areas are / will be covered (wholly or partially) by your LRC?
21. What is / will be the area (km²)
22. Does your coverage overlap with another LRC? Yes No
23. If so, what arrangements do you have to allow for sharing of data?

Existing LRCs only

24. How many years has your LRC been in existence?

25. What is the status of your LRC?

- Charity
- Limited company
- Local Authority
- Part of a Wildlife Trust
- Other (please specify)

(Tick all that apply)

26. Does your LRC have a formally agreed constitution? Yes No
27. If not, is one planned? Yes No

Existing and prospective LRCs

28. What are/will be the written objectives/purposes for your LRC?

29. What is/will be the management structure of your LRC?

Existing LRCs only

30. How many staff (temporary or permanent) are working for the LRC at present?
31. How many contractors are working for the LRC at present?
32. What is the FTE (Full Time Equivalent) of people working for the LRC at present?
33. How many species and habitat records does your LRC hold at present?
34. Section summary for final report

2. Relationships with local data providers

Existing LRCs only

35. Which volunteer groups / organisations have you worked closely with over the last year (the answer to this could be very long and may require some preparation)?
36. How many volunteer individuals have supplied you with more than 10 individual records over the last year (approximately)?
37. What proportion of your species records comes from these key volunteer individuals over the last year?

38. What proportion of your habitat records comes from these key volunteer individuals over the last year?
39. Are there any volunteer groups / organisations you would like to work with but currently do not? Yes No
40. If yes, please list them.
41. If yes, what are the obstacles?
42. Which non-volunteer organisations (e.g. EN, SNH, CCW, Defra, local authorities, etc.) have you worked closely with over the last year?
43. How many non-volunteer organisations have supplied you with more than 10 individual records over the last year?
44. What proportion of your species records comes from these key non-volunteer organisations over the last year?
45. What proportion of your habitat records comes from these key non-volunteer organisations over the last year?
46. How many of these organisations supply you with other data, e.g. OS data, habitat inventories, etc?
47. Are there any non-volunteer organisations you would like to work with but currently do not? Yes No
48. If yes, please list them.
49. If yes, what are the obstacles?

Prospective and no LRCs only

50. Who are the main biodiversity data providers in your geographical area? Please complete the table below listing the 20 main data providers, including whether they consist of volunteers or not, what taxa they cover, who they currently make their data available to, and what support or funding they receive and from whom.

	Organisation	Volunteer?	Taxa covered	Who receives their data?	Support or funding they receive.
1					
2					
3					
4					
5					
6					
7					

Review of Local Records Centres in the UK

	Organisation	Volunteer?	Taxa covered	Who receives their data?	Support or funding they receive.
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Prospective LRCs only

51. Which of the groups listed above, or which individual volunteers, will the LRC work with?

No LRCs only

52. From where else is biological data generated?

Existing and prospective LRCs only

53. Do/will you provide any of the following services for volunteers?

- | | Yes | No |
|--|--------------------------|--------------------------|
| • Meeting space | <input type="checkbox"/> | <input type="checkbox"/> |
| • Use of other office facilities, e.g. computers | <input type="checkbox"/> | <input type="checkbox"/> |
| • Newsletter | <input type="checkbox"/> | <input type="checkbox"/> |
| • Other published material | <input type="checkbox"/> | <input type="checkbox"/> |
| • Provision of local contacts | <input type="checkbox"/> | <input type="checkbox"/> |
| • Training/ Technical advice on recording | <input type="checkbox"/> | <input type="checkbox"/> |
| • Forums or conferences | <input type="checkbox"/> | <input type="checkbox"/> |
| • Meetings with volunteers | <input type="checkbox"/> | <input type="checkbox"/> |
| • Other (please specify) | <input type="checkbox"/> | <input type="checkbox"/> |

(Please tick all that apply)

Existing LRCs only

54. Do you feel you need to do more for volunteers to maintain their support?

Yes No

55. If yes, what are the obstacles?

Existing and prospective LRCs only

56. Do/will you have written agreements with volunteers over the data they supply and how you use it? Yes No

57. If yes, please summarise what these agreements are/will be.

Existing LRCs only

58. If no, do you plan on doing so in the next year? Yes No

60. What proportion of volunteers submit records at each of these intervals (as individuals rather than by quantity of records submitted)?

- Daily _____ %
- Weekly _____ %
- Monthly _____ %
- Seasonally/yearly _____ %
- Greater than yearly _____ %

61. What proportion of records from groups/volunteers is received in each of the following formats over the last year?

- Verbally, incl. phone _____ %
- Email – unstructured _____ %
- Online recording form _____ %
- Paper notes – not on recording form _____ %
- Standard paper recording form _____ %
- Electronic spreadsheet _____ %
- Recording software _____ %
- Reports _____ %
- Other (please specify) _____ %

Existing and prospective LRCs only

62. Do/will you commission surveys through volunteers? Yes No

Existing LRCs only

63. If yes, please describe the types of survey you have commissioned in the past.

64. If yes, how many volunteers have taken part in commissioned surveys in the last year?

Existing and prospective LRCs only

65. Do/will all records submitted by local volunteers come straight to your LRC? Yes No

66. If not, where do/will other records go, and do/will they eventually come to your LRC?

Prospective LRCs only

67. Where have volunteer records gone up until now?

Existing and prospective LRCs only

68. How will you ensure that all records come to your LRC in the future?

69. Does/will your LRC receive data from national schemes or societies that also rely on and support volunteers? Yes No

70. If yes, please state which ones.

71. Does/will your LRC provide data to national schemes and societies? Yes
No
72. If yes, please state which ones
73. Does/will your LRC actively encourage local volunteer participation in national schemes and societies surveys? Yes No
74. Section summary

3. Links to other networks and scales

Existing and prospective LRCs

75. Do you feel you need to operate as part of a wider network of LRCs (i.e. regional, country, UK)? Yes No
76. Why/why not?
77. Do you see any need to operate as part of a regional network of organisations (not limited to other LRCs)? Yes No
78. If yes, what would be the benefits of this? If not, why not?
79. Do you think you have/will have a role in supporting the provision of biodiversity information on a wider geographical scale, i.e. contribute to the bigger picture? Yes No
80. Why/why not?
81. Do you need to link with national schemes or societies? Yes No
82. Why/why not?
83. Is there a need for wider data holdings than just biodiversity (e.g. geological, landscape etc.)? Yes No
84. Why/why not?
85. Section summary

4. Relationship to the National Biodiversity Network

Existing and prospective LRCs only

86. How do you see your LRC relating to the NBN?
87. Do/will you use the NBN Gateway as a way of providing access to data? Yes No
88. If not, what, if any, are the factors restricting your LRC from doing so?
89. What alternative mechanisms do/will you use?
90. Do/will you use any of the NBN guidance or agreements, e.g. the NBN Data Exchange Principles? Yes No
91. If yes, which ones do/will you use?

92. Do/will you make use of species data available through the NBN Gateway?
Yes No
93. If not, please state why not and describe what alternative mechanisms you use/will use to access data from regional or national sources.
94. Does the NBN concept help or hinder? Help Hinder Both
95. Please explain how you think it helps or hinders.
96. Are you aware of any other LRCs developing NBN web services (e.g. querying from within a GIS)? Yes No
97. If yes, which ones?

5. Data content, coverage and quality

Existing and prospective LRCs only

98. With which data providers do/will you have a data exchange agreement?

Existing LRCs only

99. Are there any datasets that you are aware of but do not have access to?
Yes No
100. If yes, please list them.
101. Do you have a record of your current data holdings (at least summaries of taxonomic, geographical and date coverage, and number of records)? Yes No

Existing and prospective LRCs only

102. Do/will you validate¹ data submitted by volunteers? Yes No
103. If yes, please describe how the data is/will be validated.
104. How do/will you verify² data quality?
105. Do/will you involve local representatives/experts of national schemes and societies in data verification? Yes No
106. If yes, please list these societies or schemes.
107. Do/will you run any automated electronic checks on your data? (*Blank for don't know*) Yes No
108. If yes, please describe what checks are/will be carried out and how often.
109. What software do/will you use as the main data repository?
- Access Yes No

¹ Validation – checking that all the information required to make it a record is sufficient, i.e. that it fulfils the criteria for 'what, where, when and who'.

² Verification – expert checking that the record is most likely correct, i.e. was the identification accurate, is it likely to be in that area / habitat, etc.

- Recorder 3.x Yes No
- Recorder 2000 Yes No
- Recorder 2002 Yes No
- Recorder 6 Yes No
- Marine Recorder Yes No
- Mapmate Yes No
- MapInfo Yes No
- ArcGIS Yes No
- Other (specify) Yes No

110. What software do/will you use other than as the main data repository?

- Access Yes No
- Recorder 3.x Yes No
- Recorder 2000 Yes No
- Recorder 2002 Yes No
- Recorder 6 Yes No
- Marine Recorder Yes No
- Mapmate Yes No
- MapInfo Yes No
- ArcGIS Yes No
- Other (specify) Yes No

111. What systems do/will you use to query and produce reports?

- Access Yes No
- Recorder 3.x Yes No
- Recorder 2000 Yes No
- Recorder 2002 Yes No
- Recorder 6 Yes No
- Marine Recorder Yes No
- Mapmate Yes No
- MapInfo Yes No
- ArcGIS Yes No
- Other (specify) Yes No

112. Do/will you have a web site? Yes No

113. Can/will web users interrogate your datasets via your own website? Yes
No

114. What other systems do/will you use to manage data (e.g. paper records, surveys etc.)?

[Existing LRCs only](#)

115. What software / IT infrastructure do you need to help you operate more effectively

116. Can you think of any ways of providing better data management services, including both data capture and dissemination?

117. Section summary

6. Policies and operation of the LRC

[Existing LRCs only](#)

118. Over the past year, what proportion of paid staff time has been spent on each of the following roles?

- Volunteer support/liaison (other than training) _____%

Review of Local Records Centres in the UK

- Data entry _____%
- Data management _____%
- Analysis/reporting _____%
- Technical development _____%
- Business development _____%
- Surveying _____%
- Training volunteers _____%
- Administration _____%
- Other (please specify) _____%

Existing and prospective LRCs only

119. Do/will you have policies for data release? Yes No
120. If yes, please describe what they are/will be.
121. Do/will you provide public access to data? Yes No
122. If yes please describe how this is/will be achieved.
123. If not, please could you state why not?
124. Do/will you have any formal links with institutions holding biological collections and archives? Yes No
125. If yes, please list these institutions.
126. Does/will your LRC provide advice or other ecological support, in addition to the provision of information? Yes No
127. If yes, please describe what is/will be provided.
128. Do/will you have procedures for data security (e.g. fire, data corruption, backup etc.)? Yes No
129. If yes, what are they?
130. Do/will you carry out any marketing activity? Yes No
131. If yes, what sort of activity do/will you carry out
132. If yes, who is/will be targeted?
133. Do/will you seek feedback from customers on your service provision? Yes No
134. If yes, how do/will you go about it?
135. Do/will you use work planning? Yes No
136. If yes, please describe your systems.

7. Staff Conditions

Existing LRCs only

137. How many volunteers help run the LRC (excludes survey work and providing records)?

138. On average, how many hours do volunteers contribute per week

Prospective LRCs only

139. Will you use volunteers to help run the LRC? Yes No

Existing and prospective LRCs

140. Do/will you provide a pension scheme for permanent and/or fixed term contract staff? Yes No

141. Do/will you pay statutory sick pay? Yes No

142. Are you/will you be able to provide salary security (including annual increments in line with inflation) to your permanent staff? Yes No

143. Are the staff/will the staff be subject to regular formal appraisals by line management? Yes No

144. Do/will you have links with other career structures? Yes No

145. If yes, please describe them.

146. Do/will you provide training for your staff? Yes No

147. If yes, please describe what training you/you will provide and how it is administered.

148. Do/will you have an active health and safety policy? Yes No

Existing LRCs only

149. Do you have problems in recruiting staff? Yes No

150. If yes, please describe the obstacles.

151. Do you have problems in retaining staff? Yes No

152. If yes, please describe what the problems are.

8. Key benefits provided by the LRC

Existing LRCs only

153. Who are your main 'customers'? Please complete the table below, adding the types of information each customer needs and where they heard about your LRC (for consultants, please specify the contracting body where known).

	'Customer'	Information needed	Where they heard about your LRC, if known
1			
2			
3			
4			
5			

6			
7			
8			
9			
10			

Prospective LRCs only

154. Who do you see becoming the main 'customers' of the LRC? Please complete the table below, adding the types of information you think each customer needs, how they meet their current information needs and what requirements are not being met.

	Potential 'customer'	Information needed	How meet current needs	Requirements not being met
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Existing and prospective LRCs only

155. What do you see as the main benefits of your LRC?

	Benefit
1	
2	
3	
4	
5	

156. Who will benefit most?

	Beneficiaries
1	
2	
3	
4	

Existing LRCs only

157. Do you think your customers would agree with you about the main benefits of your LRC? Yes No

158. If not, why not?

Existing and prospective LRCs only

159. Do/will you review your services on a regular basis? Yes No

160. If yes how often do/will you review them? Less than yearly Yearly
More than yearly Continuously

161. Please describe.

Existing LRCs only

162. Are there any services that you could provide that customers do not currently request and that are within the remit of your LRC? Yes No

163. If yes what (e.g. digitisation of data, biodiversity data interpretation, assistance with EIA, training for recorders, etc.)

164. Are there any services customers ask for that you cannot provide? Yes
No

165. If yes, please list them

Existing and prospective LRCs only

166. Are you/will you be competing with other information suppliers in your geographic area (e.g. consultants, recording groups, etc.)? Yes No

167. If yes, please list them.

168. If yes, please describe what the unique qualities of your LRC are/will be versus other comparable data sources.

Existing LRCs only

169. Do you duplicate what national societies and schemes provide?

Prospective LRCs only

170. Is there an existing partnership for sharing of biological data? Yes
No

171. If yes, who are the members and what are the objectives?

172. Have there been attempts to establish a record centre previously? Yes
No

173. If yes, what were the factors in it failing to establish?

174. What are the possible alternatives to establishing a record centre, either locally, regionally or nationally?

175. Who are the key players and what do they need to do to make it happen?

176. Section summary

9. Viability of your LRC

Existing and prospective LRCs only

177. What are the total/estimated annual operating costs of your LRC (including staff, premises, overheads etc.)?

178. Which organisations (or types of organisation) in your geographical area provided/will provide financial support (in 2005/6 financial year)? Please list all supporting organisations (largest financial contribution first), indicating whether or not they provided/will provide support, and if they do not/will not provide support, why not. Please also add what sort of agreements you have/will have with them (e.g. SLA, MoA, grants) and what is/will be required as a condition of the funding (deliverables).

	Name / type of supporting organisation	Proportion of total funding	If no financial support, why not?	Type of agreement	Deliverables
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

179. Do/will you use funding formulae to take account of differences between geographical areas or workloads associated with different LAs? Yes
No

180. If yes, what are they?

181. Do/will your data holdings and data provision act as performance indicators for SLA's and other agreements? Yes No

Existing LRCs only

182. For how many years ahead (06/07 is year 1) do you have funding security (i.e. reasonable assurance that funding will be available to enable you operate with at least the resources you had in 05/06)?

183. Do you have financial security for all permanent staff (at least as secure as the LRC)? Yes No

Prospective LRCs only

184. Are you confident that the LRC will be able to achieve funding security?
Yes No

Existing and prospective LRCs

185. Can/will you meet all existing user needs from your current structure and resources? Yes No

186. If not, what needs are/will you not able to meet?

187. What are the risks in your current/proposed support arrangements (includes financial or staff/volunteers)?

Existing LRCs only

188. Do you have all the database skills you need within your LRC staff? Yes
No

189. Do you have all the GIS skills you need within your LRC staff? Yes
No

190. Do you have all the management/administrative skills you need within your LRC staff? Yes No

191. Do you have all the taxonomic identification skills you need within your LRC staff? Yes No

192. What training would the LRC staff most benefit from?

Existing and prospective LRCs

193. Do/will you produce an annual report including a budget/accounting report or something that performs the same function? Yes No

194. Section summary

10. Ideal position

Existing and prospective LRCs

195. What is your vision for your LRC?

196. Do you have a forward plan, business plan and/or strategy for development? Yes No

197. If yes, what period do they cover (in years)?

198. If yes, how do you plan to finance them?

Prospective LRCs only

199. If not, is there a plan to produce them? Yes No

Existing and prospective LRCs

200. What size budget is 'enough' to meet your vision (including staff costs)?

201. How many FTE (Full Time Equivalent) staff members does this include?

202. What size budget would meet your basic requirements (i.e. not meeting your ideal vision, but adequate to provide a basic service to users and volunteers)

203. How many FTE staff members does this include?
204. Do you see your LRC operating within the NBN? Yes No
205. How do you think future demand will change (e.g. public access, SEA etc.)?
206. Section summary

11. Blocks to achieving your ideal position

Existing LRCs only

207. If funds were dependant upon you providing open access to data at the finest geographical resolution (i.e. finest resolution available rather than 10km resolution), what would need to change?
208. Who are the key players that need to change to meet your ideal position and what would they need to alter in the way they operate?
209. What is the single most important aspect that would help move towards open access and sustainability for LRCs?
210. Section summary

All LRCs

211. Can we contact them again for more information if necessary? Yes
No
212. If yes who should we contact?

Appendix 4 – List of volunteer groups that LRCs would like to work with

A complete list of the volunteer groups that LRCs would like to work with but do not is shown in the following table, along with a count of the number of times it was mentioned. This information was specifically requested by the project steering group and is not for general release.

Name	England	Scotland	Wales	Grand Total
BSBI	1	3	1	5
BTO	1	2	1	4
RSPB	1	2	1	4
Badger Group	3			3
Bat Group	3			3
National Trust	2		1	3
Badger Groups	2			2
British Bryological Society	1		1	2
Butterfly Conservation (more formally)	2			2
National recording schemes	2			2
Scottish Ornithologists' Club		2		2
West Midlands Bird Club	2			2
A few other county groups	1			1
A local barn owl charity	1			1
Amphibian and reptile group	1			1
Anglers	1			1
Avon Badger Group	1			1
Badger and otter group	1			1
Bird Club	1			1
Bird Club - do communicate, but future working relationship is not guaranteed	1			1
Bird groups	1			1
British Dragonfly Society		1		1
British Lichen Society		1		1
British Trust for Ornithology	1			1
Bryophytes (County Recorder)	1			1
Derbyshire and Nottinghamshire Entomological Society	1			1
Derbyshire Ornithological Society	1			1
Devon Bird Group - trying to negotiate	1			1
East Kent Badger Group	1			1
Edinburgh Natural History Society		1		1
Everybody collecting biological or geological information for West Wales			1	1
Herpetological Conservation Group.	1			1
Highland Biological Recording Group members who will not share data		1		1
Huntingdonshire flora and fauna society.	1			1
Individuals	1			1
Invertebrate Group - few records as yet	1			1
Leeds and York Universities (especially millennium volunteers)	1			1
Local Badger consultant		1		1
Local Fungi Group		1		1

Review of Local Records Centres in the UK

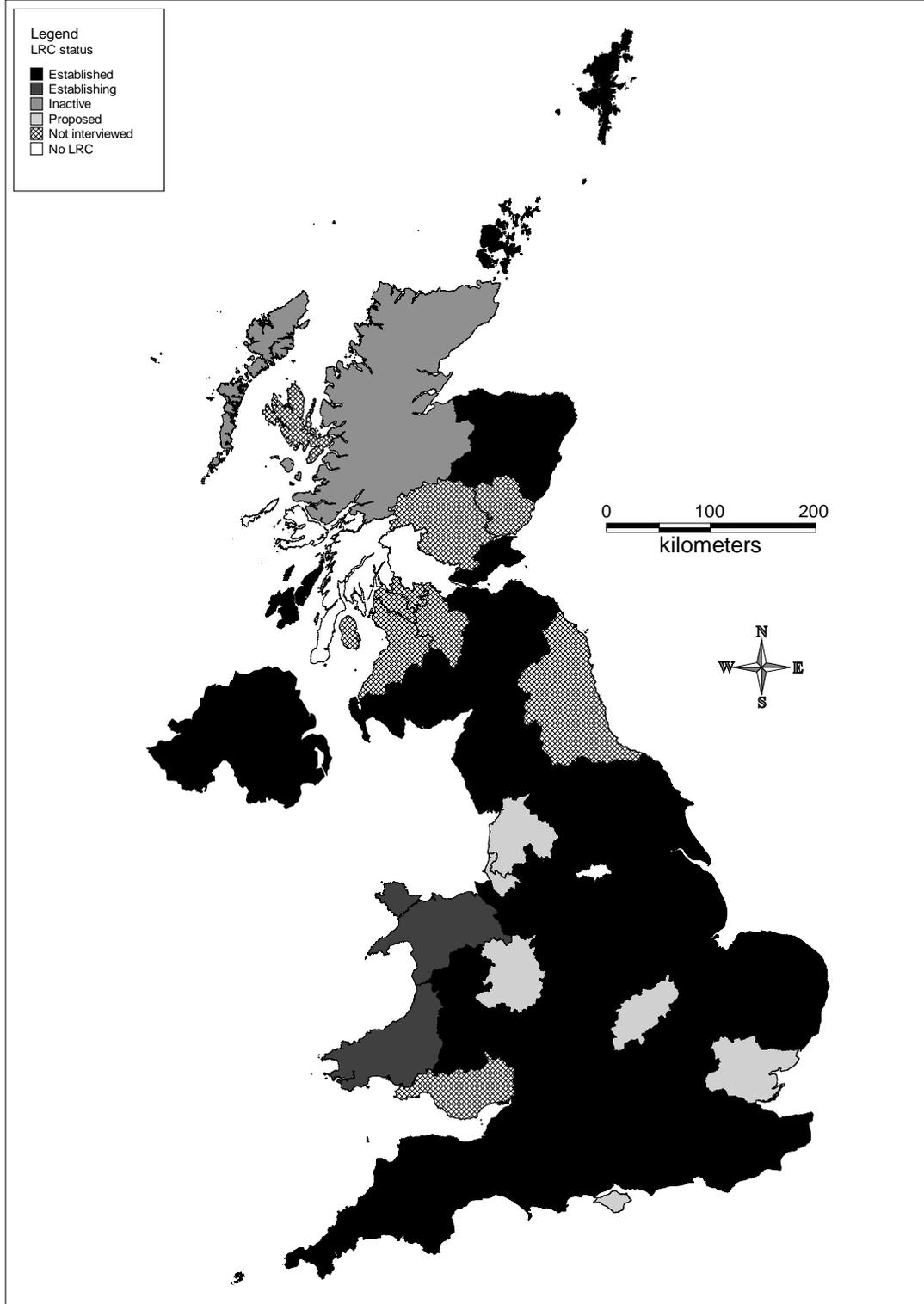
Name	England	Scotland	Wales	Grand Total
Local Hoverfly recorder		1		1
Local Moth Group		1		1
Local Raptor Group		1		1
London, Essex and Herts. Amphibian and Reptiles Trust	1			1
Mammal Society/Steven Harris (Bristol University)	1			1
Mycological Society	1			1
National groups without local representatives	1			1
National Museum of Wales			1	1
National Recording Schemes in general.	1			1
National Trust for Scotland		1		1
Natural History Society (formalise)	1			1
North Yorkshire Bat Group	1			1
Note that records from the Lincolnshire Naturalists' Union tend to come from their reports, not direct.	1			1
One recorder is not providing records.	1			1
Other 'friends of' groups	1			1
Other Gloucestershire Natural History Society County Recorders who don't currently supply data.	1			1
Plant Group - Atlas was developed in parallel.	1			1
Ramblers (work with some but would like more)	1			1
Scottish Badgers		1		1
Sheffield Bird Study Group	1			1
Spider Recording Scheme		1		1
Sussex moth group	1			1
Various others		1		1
West Kent Badger Group	1			1
Wildlife Trust ecology groups	1			1
Wildlife Trusts		1		1
Wiltshire Badger Group	1			1
Wiltshire Ornithological Society	1			1

Appendix 5 – List of special interest groups with data exchange agreements with one or more LRCs

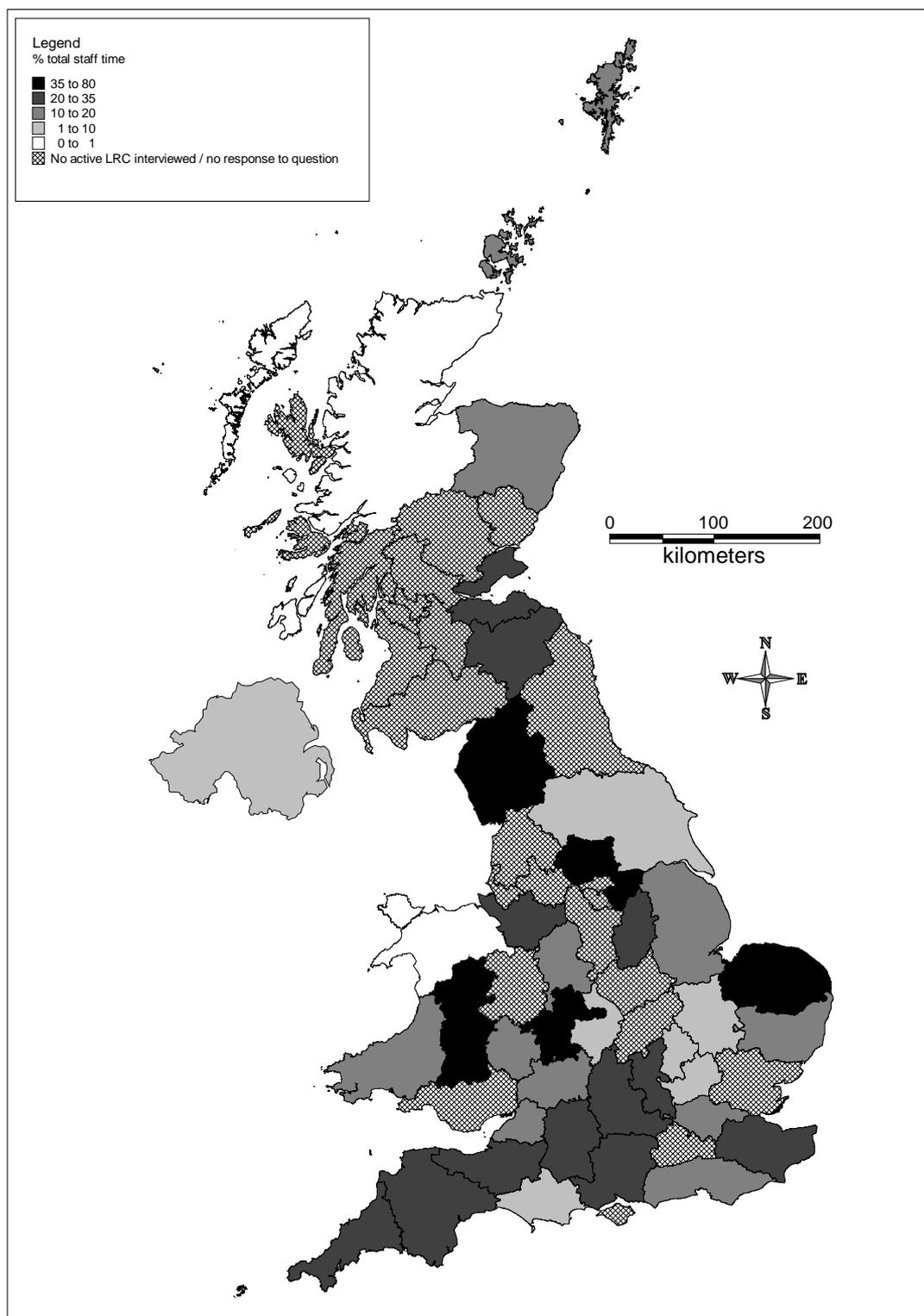
Amphibians and reptiles groups
Natural History Society.
Badger Groups
Bat Groups
Bedfordshire Badger Group
Bedfordshire Bat Group
Bedfordshire Natural History Society
Bird Clubs
BRERC recording groups
Bristol Naturalists (informal)
British Arachnid Society
Bryophyte groups
BSBI
Butterfly Conservation
Butterfly Conservation (Sussex Branch)
Butterfly Conservation (West Country Branch)
Cumbria Biological Data Network (working towards)
Cumbria Bird Club (working towards)
Derbyshire Flora Group
Dragonfly society
Entomology groups
Fungi groups
Gloucestershire Natural History Society
Hampshire Amphibians and Reptiles Group
Hampshire Mammal Group
Highland Biological Recording Group members
Herpetological Conservation Trust
Hertfordshire Amphibians and Reptile Group
Hymenoptera groups
Lepidoptera groups
London Bat Group
Other local volunteer recording groups
Somerset Rare Plants Group
Somerset specialist groups
Sorby Naturalists - though exchange is still patchy
Spider groups
Sussex Ornithological Society
West Yorkshire Bat Group

Appendix 6 – Maps

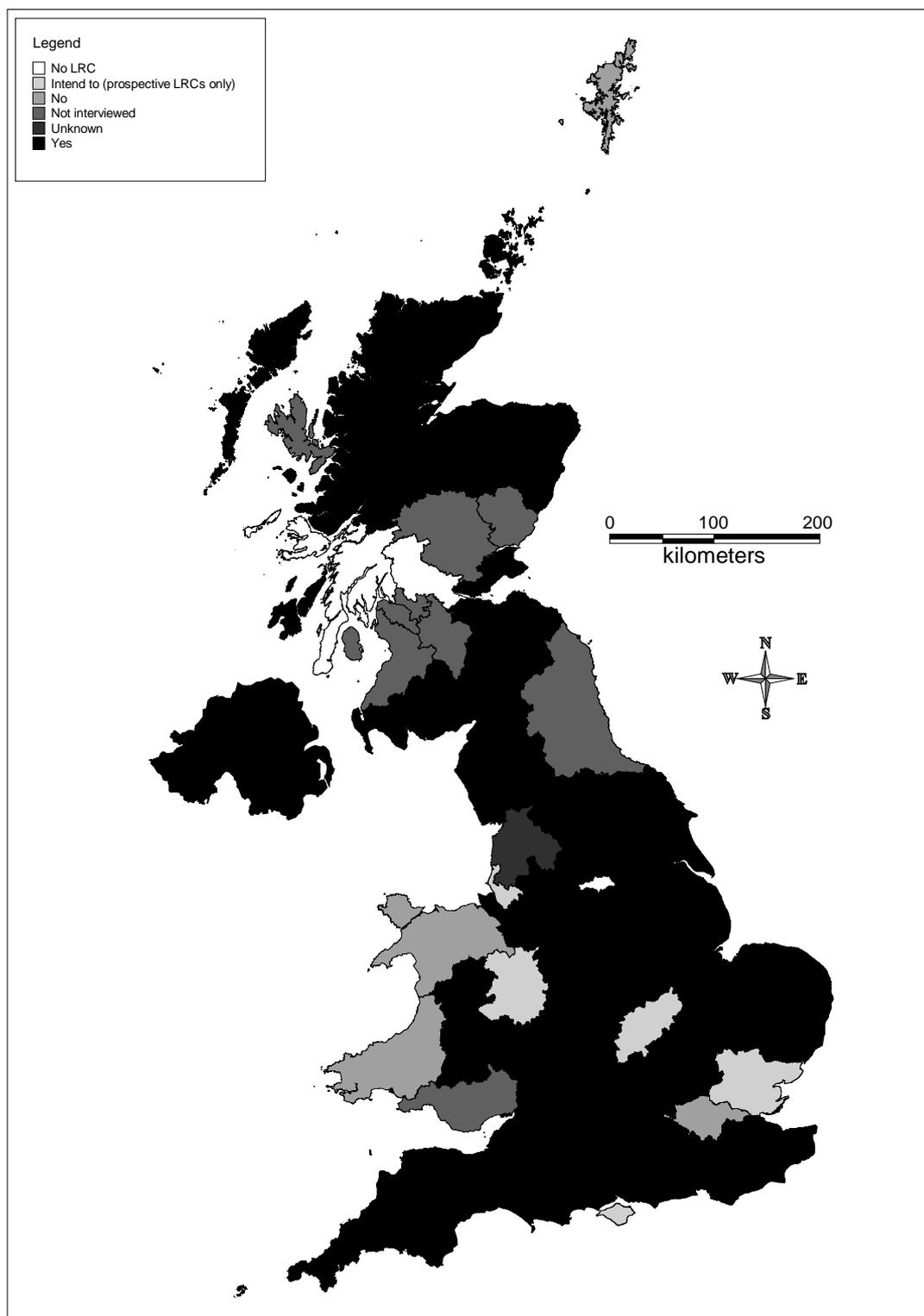
This information contained in these maps was specifically requested by the project steering group and is not for general release.



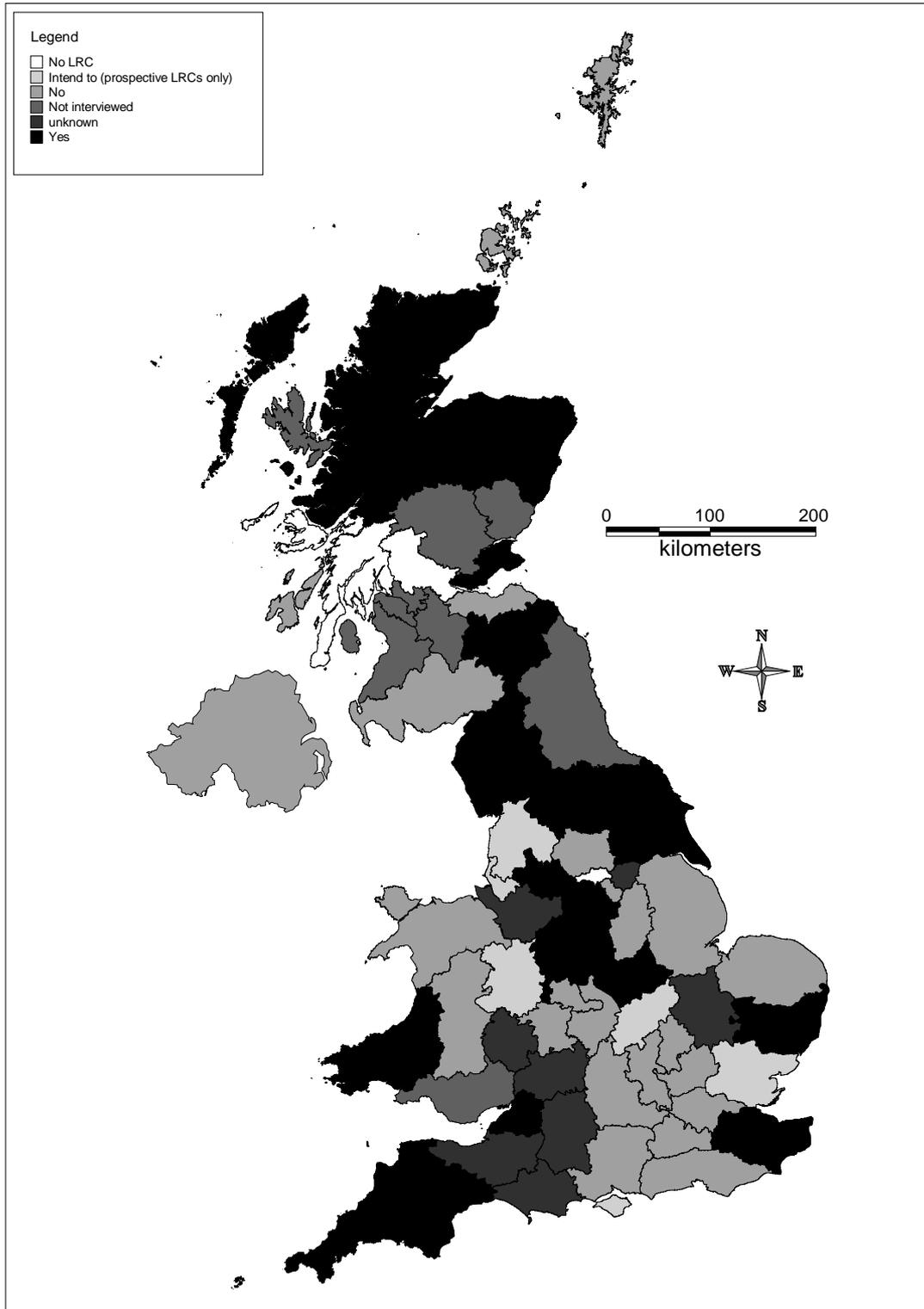
Map 1 – LRC status, based upon the LRC's own perceptions.



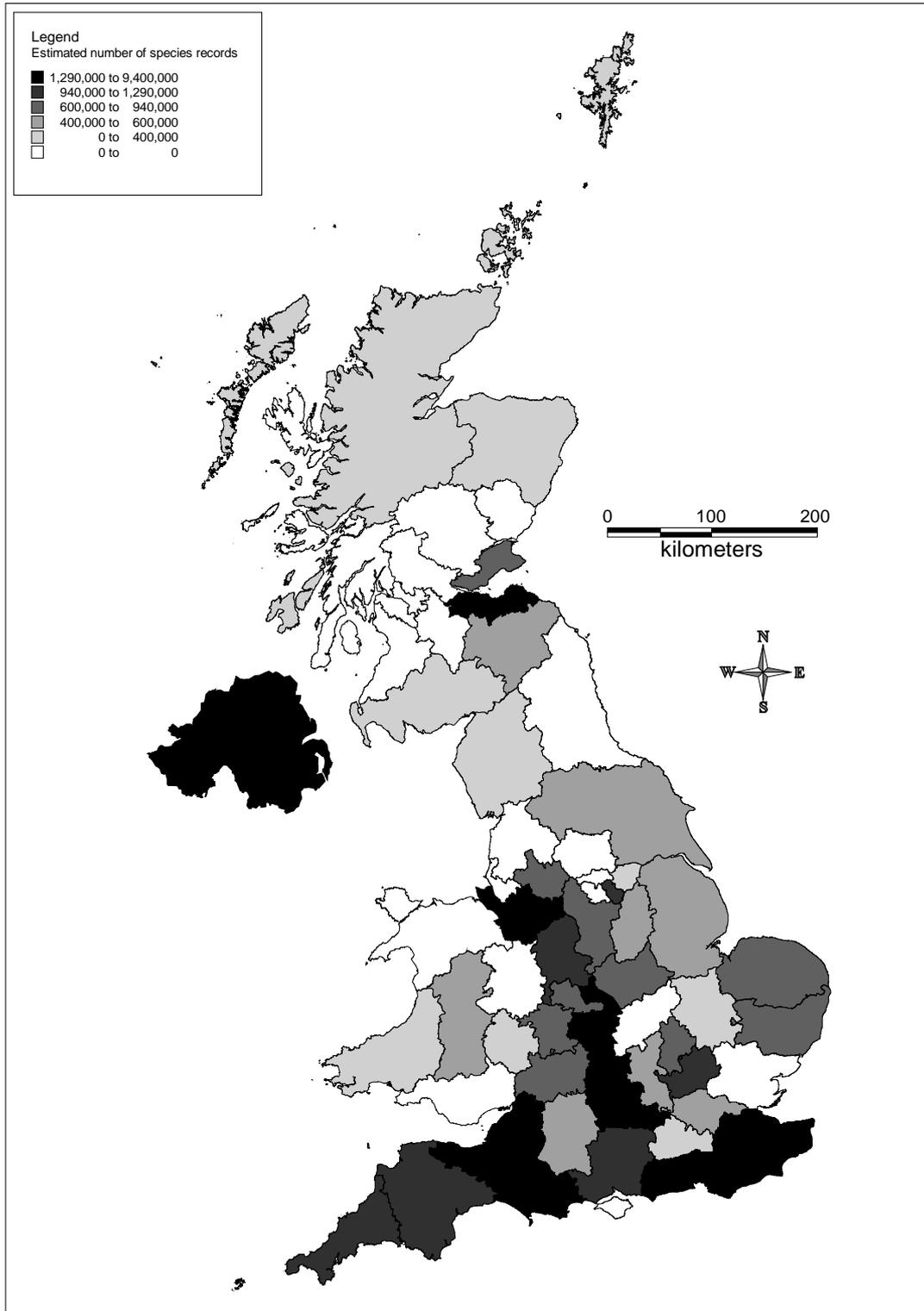
Map 2 – The proportion of time spent on analysis and reporting at each LRC.



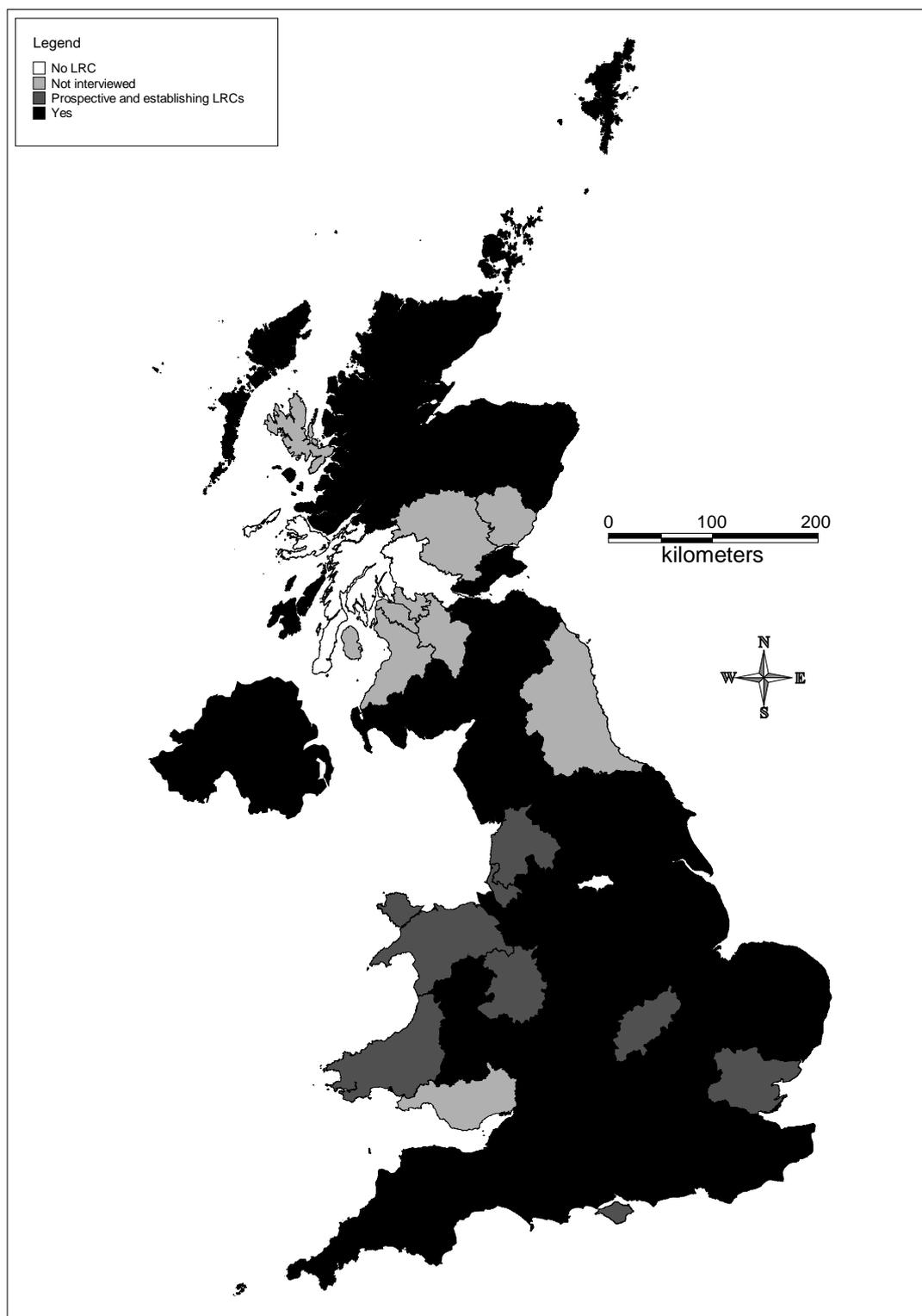
Map 3 – LRCs that provided or intended to provide public access to the data they managed. Note that this question may have been interpreted differently by different interviewees.



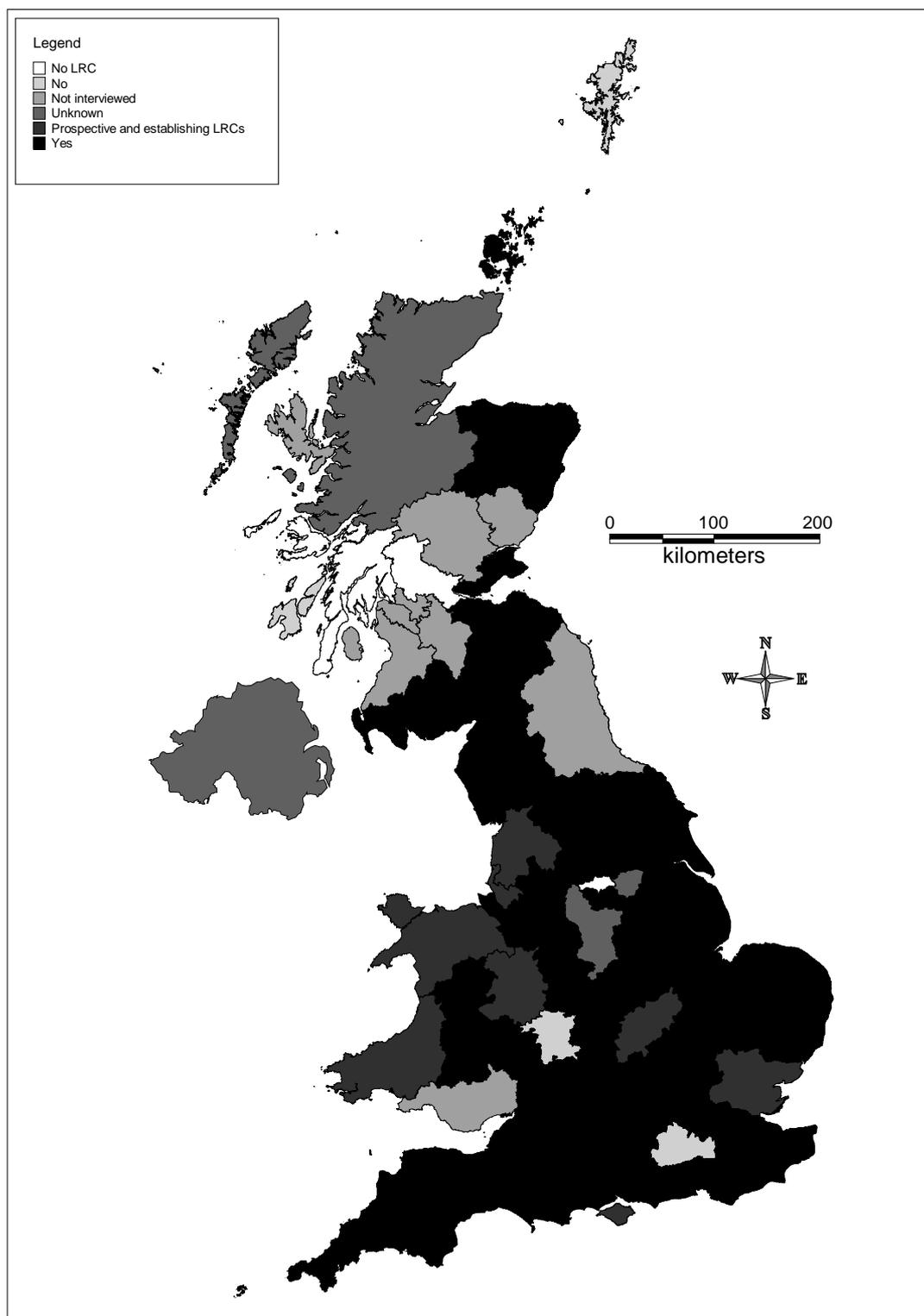
Map 4 – LRCs that provided or intended to provide access to data via the internet.



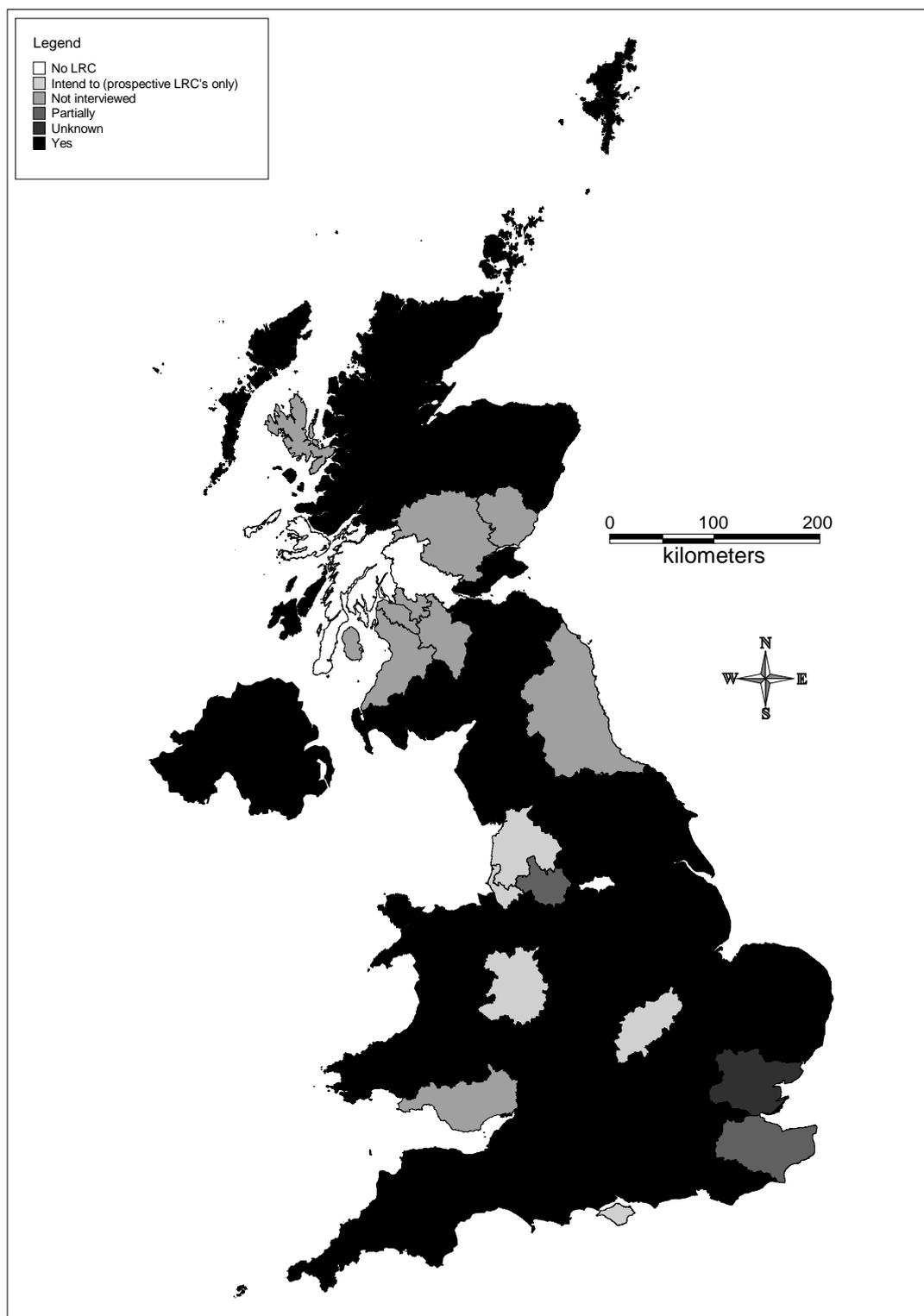
Map 5 – Estimated number of species records held by each LRC. This is indicative only, as some LRCs were unable to provide an accurate estimate, especially of paper data holdings.



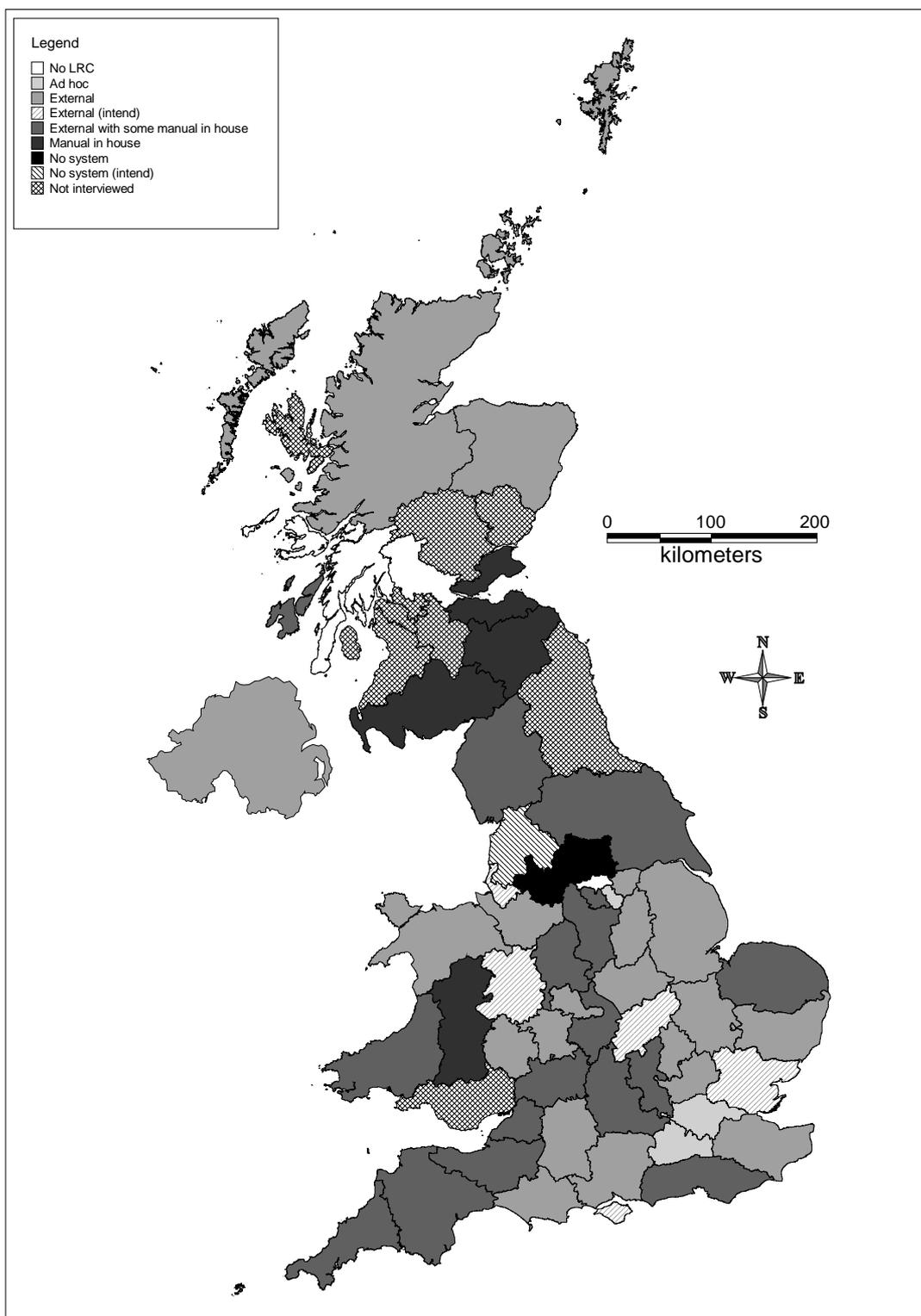
Map 6 – LRC with species data holdings.



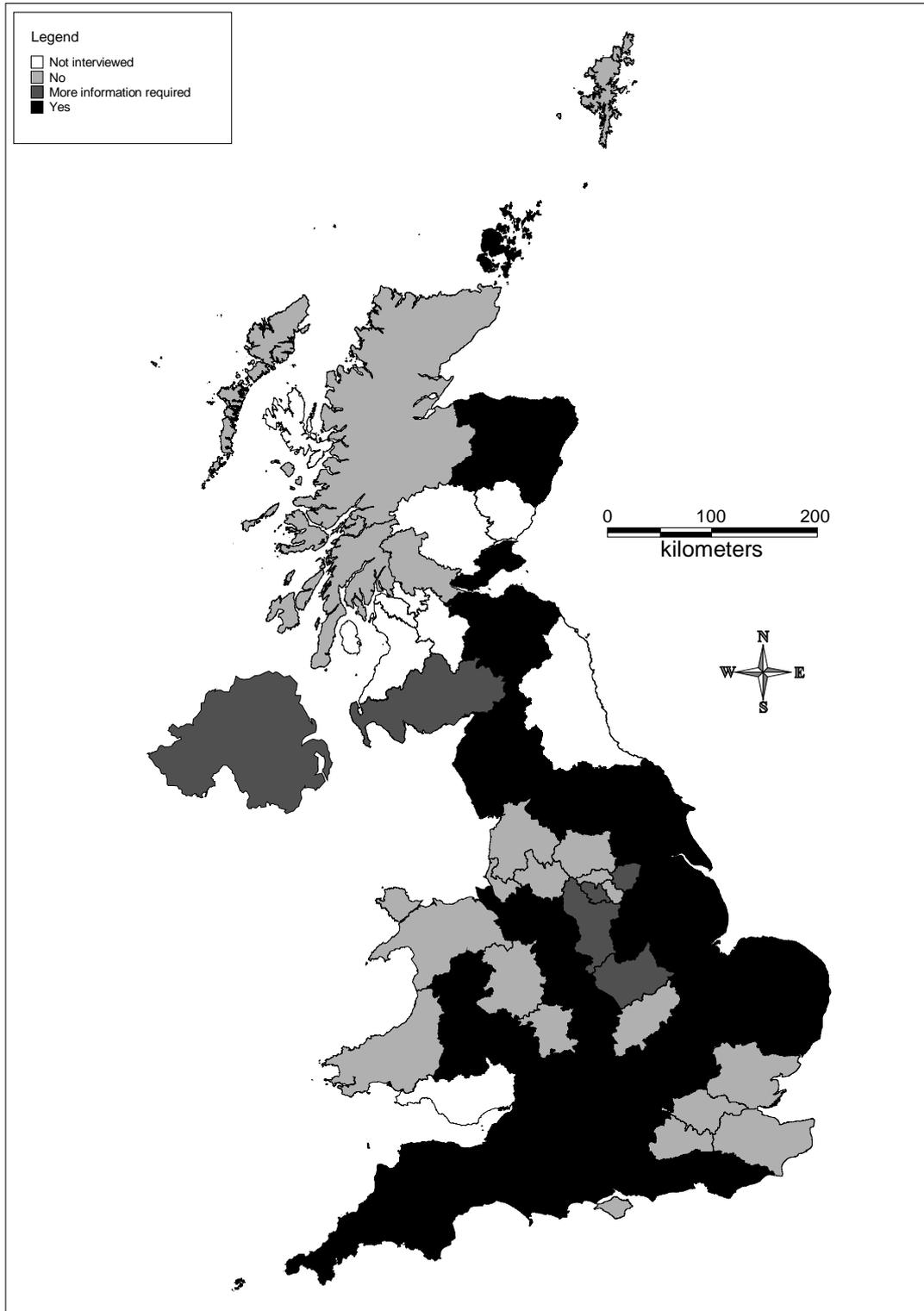
Map 7 – LRCs with habitat data holdings.



Map 8 – LRCs with data validation procedures.



Map 9 – LRC verification procedures.



Map 10 – Areas covered by existing LRCs that respond to data requests, hold species and habitat data, and validate and verify the data they hold, based solely upon questionnaire responses.

Appendix 7 – Detailed assessment of LRCs against three essential functions

The following table details the analysis of each LRC against three essential functions made in Section 4.4. The information contained in this table is based purely on the questionnaire responses and does not necessarily reflect the opinions of individual LRCs, the interviewers or the authors. This information was specifically requested by the project steering group and is not for general release.

LRC name	LRC status	Time spent on analysis and reporting %	No of species records	Species records within data holdings	Habitat records within data holdings	Validate data	Data verification procedure	Fulfils the three essential functions
Bedfordshire and Luton Biodiversity Recording and Monitoring Centre	Established	5	611000	Yes	Yes	Yes	External	Yes
Bolton Biological Records Centre	Established	Unknown	750000	Yes	Yes	Partially	No system External with some manual in house	No
Bristol Regional Environmental Records Centre	Established	10	4000000	Yes	Yes	Yes	External with some manual in house	Yes
Buckinghamshire and Milton Keynes Environmental Records Centre (BMERC)	Established	30	500000	Yes	Yes	Yes	External with some manual in house	Yes
Cambridgeshire and Peterborough Biological Records Centre	Established	6	150000	Yes	Yes	Yes	External	Yes More info required
CEDaR (Centre for Environmental Data and Recording)	Established	4	2000000	Yes	Unknown	Yes	External External with some manual in house	More info required
Derby Museum and Art Gallery	Established	Unknown	800000	Yes	Unknown	Yes	External with some manual in house	required
Devon Biodiversity Records Centre	Established	20	1111000	Yes	Yes	Yes	External with some manual in house	Yes

Review of Local Records Centres in the UK

LRC name	LRC status	Time spent on analysis and reporting %	No of species records	Species records within data holdings	Habitat records within data holdings	Validate data	Data verification procedure	Fulfills the three essential functions
Doncaster Museum, Environmental Records Section	Established	80	215000	Yes	Unknown	Yes	External	More info required
Dorset Environmental Records Centre	Established	1	1600000	Yes	Yes	Yes	External	Yes
Dumfries and Galloway Environmental Resources Centre (part of Solway Heritage)	Established	Unknown	70000	Yes	Yes	Yes	Manual in house	More info required
EcoRecord	Established	40	603000	Yes	Yes	Yes	External	Yes
Environmental Records Centre for Cornwall and the Isles of Scilly	Established	30	1000000	Yes	Yes	Yes	External with some manual in house	Yes
Gloucestershire Centre for Environmental Records	Established	10	756934	Yes	Yes	Yes	External with some manual in house	Yes
Greenspace Information for Greater London	Established	15	430000	Yes	Yes	Yes	Ad hoc	No
Hampshire Biodiversity Information Centre	Established	25	1134038	Yes	Yes	Yes	External	Yes
Herefordshire Biological Records Centre	Established	15	300000	Yes	Yes	Yes	External	Yes
Hertfordshire Biological Records Centre	Established	5	1000000	Yes	Yes	Yes	External with some manual in house	Yes
Islay Natural History Trust	Established	0	200000	Yes	No	Yes	External with some manual in house	No
Kent and Medway Biological Records Centre	Established	30	1500000	Yes	Yes	Partially	External	No
Leicestershire Environmental Resources Centre	Established	Unknown	761243	Yes	Yes	Yes	External	More info required
Lincolnshire Environmental Records Centre	Established	10	500000	Yes	Yes	Yes	External	Yes
Lothian Wildlife Information Centre	Established	30	2294000	Yes	Yes	Yes	Manual in house	Yes
Norfolk BRC	Established	50	726000	Yes	Yes	Yes	External with some manual in	Yes

Review of Local Records Centres in the UK

LRC name	LRC status	Time spent on analysis and reporting %	No of species records	Species records within data holdings	Habitat records within data holdings	Validate data	Data verification procedure	Fulfils the three essential functions
North and East Yorkshire Ecological Data Centre	Established	5	500000	Yes	Yes	Yes	house	Yes
North East Scotland Biological Recording Centre (NESBREC)	Established	18	165000	Yes	Yes	Yes	External with some manual in house	Yes
Nottinghamshire Biological and Geological Records Centre	Established	25	500000	Yes	Yes	Yes	External	Yes
Orkney Biological Records Centre	Established	10	150000	Yes	Yes	Yes	External	Yes
Powys & Brecon Beacons National Park Environmental Records Centre Great Britain Limited (Trading as	Established	50	500000	Yes	Yes	Yes	Manual in house	Yes
rECOrd	Established	20	9400000	Yes	Yes	Yes	External	Yes
Rotherham Biological Records Centre	Established	39	1012000	Yes	Yes	Yes	Ad hoc	No
Scottish Borders Biological Records Centre	Established	25	580000	Yes	Yes	Yes	Manual in house	Yes
Sheffield Biological Records Centre	Established	Unknown	Unknown	Yes	Yes	Yes	External with some manual in house	More info
Shetland Biological Records Centre	Established	15	160000	Yes	No	Yes	External	No
Somerset Environmental Records Centre	Established	25	1800000	Yes	Yes	Yes	External with some manual in house	Yes
Staffordshire Ecological Record	Established	10	1049286	Yes	Yes	Yes	External with some manual in house	Yes
Suffolk Biological Records Centre	Established	15	937197	Yes	Yes	Yes	External	Yes
Surrey Biological Records Centre	Established	Unknown	375000	Yes	No	Yes	Ad hoc	No
Sussex Biodiversity Record Centre	Established	18	1290000	Yes	Yes	Yes	External with some manual in	Yes

Review of Local Records Centres in the UK

LRC name	LRC status	Time spent on analysis and reporting %	No of species records	Species records within data holdings	Habitat records within data holdings	Validate data	Data verification procedure	Fulfils the three essential functions
Take a Pride in Fife Environmental Information Centre (Formerly Fife Environmental Recording Network)	Established	30	700000	Yes	Yes	Yes	house	Yes
Thames Valley Environmental Record Centre	Established	20	2000000	Yes	Yes	Yes	Manual in house External with some manual in house	Yes
Tullie House Museum, Carlisle City Council in partnership with Cumbria Biological Network	Established	35	398129	Yes	Yes	Yes	External with some manual in house	Yes
Warwickshire Biological Records Centre	Established	5	2003500	Yes	Yes	Yes	house	Yes
West Yorkshire Ecology	Established	50	Unknown	Yes	Yes	Yes	No system	No
Wiltshire and Swindon Biological Records Centre	Established	25	570000	Yes	Yes	Yes	External	Yes
Worcestershire Biological Records Centre	Established	40	750000	Yes	No	Yes	External	No
Cofnod - North Wales Environmental Information Service	Establishing	0	0	No	No	Yes	External External with some manual in house	No
West Wales Biodiversity Information Centre Ltd	Establishing	10	600	Yes	No	Yes	house	No
Inverness Museum Biological Records Centre	Inactive	0	81575	Yes	Unknown	Yes	External	No
Biological Records Information for Essex	Prospective	N/A	0	N/A	N/A	unknown	External (intend)	No
Isle of Wight Council	Prospective	N/A	0	N/A	N/A	Intend	External (intend) No system	No
Lancashire Biodiversity Network	Prospective	N/A	0	N/A	N/A	Intend	(intend)	No
Merseyside BioBank	Prospective	N/A	0	N/A	N/A	Intend	External (intend)	No
Northamptonshire Biodiversity Record Centre	Prospective	N/A	0	N/A	N/A	Intend	External (intend)	No

Review of Local Records Centres in the UK

LRC name	LRC status	Time spent on analysis and reporting %	No of species records	Species records within data holdings	Habitat records within data holdings	Validate data	Data verification procedure	Fulfils the three essential functions
Shropshire County Council	Prospective	N/A	0	N/A	N/A	Intend	External (intend)	No
Arran Biological Records Centre	Not interviewed							
Ayrshire Biological Records Centre	Not interviewed							
Glasgow Museums Biological Records Centre	Not interviewed							
Naturebase (Dundee Museum)	Not interviewed							
North and South Lanarkshire Biological Records Centre	Not interviewed							
North East Environmental Records Centre	Not interviewed							
Perth Museum Biological Records Centre	Not interviewed							
Renfrewshire Biological Records Centre	Not interviewed							
Skye Environmental Centre Ltd	Not interviewed							
South East Wales Biodiversity Records Centre (SEWBRc)	Not interviewed							