



**BLACK REDSTART SURVEYS  
AND HABITAT ASSESSMENT**

at

**BIRMINGHAM EASTSIDE**

On behalf of

**Groundwork Birmingham  
& Solihull Ltd**

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## EXECUTIVE SUMMARY

1. At the request of Katie Prangle, Sustainable Eastside, Birmingham, Land Care Associates undertook a survey for black redstarts (*Phoenicurus ochruros*) at four sites across Birmingham, which are to have green roof installations in the next year or two.
2. All survey work was carried out in accordance with guidelines drawn up by the Black Redstart Action Plan Working Group for London and consisted of a daytime habitat assessment and three dawn surveys.
3. The black redstart is fully protected as a Schedule 1 species under the Wildlife and Countryside Act (as amended) 1981.
4. The survey sites were:
  - Site 1: Islamic Relief Centre, Sampson Road North, Birmingham (SP 0854 8569)
  - Site 2: Hall 3, International Convention Centre, Birmingham (SP 0628 8682)
  - Site 3: Birmingham Voluntary Services Council, Digbeth Road, Birmingham (SP 0745 8654)
  - Site 4: Proposed substitute roof – late instruction.
5. The daytime habitat assessments were undertaken during June on all four sites. Dawn surveys were also carried out during June and commenced at least 1 hour before sunrise, continuing for at least 3 hours. The site building and an area of approximately 500m radius from the site was assessed in each case. Dawn surveys were only carried out at sites 1, 2 and 3.
6. No sign of nesting activity was identified at any of the sites during the surveys. At site one a confirmed sighting, a possible sighting and two song identifications were made over the three days. Sites two and three had only one possible sighting each and no song identifications.
7. The ICC (site 2) offers very little suitable habitat for black redstarts, although the introduction of a green roof will replace some valuable brownfield habitat to the area. All three other sites have potential for supporting breeding populations and their presence should not be ruled out.

8. The main mitigation activities recommended for the species within areas of development are the inclusion of green roofs in plans. This is already underway and should greatly benefit black redstarts that are present and encourage more to breed within the area.
  
9. Other mitigation activities should include the installation of black redstart nesting boxes and a maintenance of as much brownfield habitat as possible.

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# 1. INTRODUCTION

## 1.1. Background

This survey was requested by Birmingham City Council and Groundwork Birmingham and Solihull in order to evaluate several areas within Eastside for their potential to support breeding populations of black redstarts. Survey sites were all buildings that are to have ‘green roofs’ installed in the next year or two. Specific details of the planned green roof designs were unavailable at the time of survey.

The brief of the surveys was as follows:

- Undertake a desk study in order to obtain information on known black redstart nests and activity in the area.
- Undertake an inspection of any buildings chosen for the instalment of green roofs to determine their existing value as black redstart nesting habitat.
- Survey the immediate surrounding area of each building in early morning to assess the presence or likely absence of black redstarts.
- Surveys will be carried out during April – June, optimal time for undertaking black redstart surveys.

Information regarding black redstarts and the legislation surrounding them is provided in Appendix I.

## 1.2. General Site Description

Eastside is one of the largest urban regeneration projects in the UK, covering 170 hectares of Birmingham City Centre. The current area of Eastside is a post-industrial landscape with heavy road infrastructure and few natural elements. As a result of this landscape many species that are adapted to post-industrial or brownfield sites have colonised the area. Eastside is still in the early stages of development but already significant wildlife habitats are being lost to development. The black redstart (*Phoenicurus ochruros*) is one such species that uses these post-industrial landscapes for foraging, nesting and roosting.

The four sites were identified for the survey work; see Appendix III for location map;

Site 1: Islamic Relief Centre, Sampson Road North, Birmingham (SP 0854 8569).

Site 2: Hall 3, International Convention Centre, Birmingham (SP 0628 8682)

Site 3: Birmingham Voluntary Services Council, Digbeth Road, Birmingham (SP 0745 8654)

Site 4: Ladbrooke House, Bordesley Street, Birmingham (SP 0779 8663)

A full survey was undertaken on sites 1 to 3 with only a daytime habitat assessment and desk study undertaken for site 4 as this was a late addition to the project.

### **1.3. Access Details**

Sufficient access for the purpose of the dawn surveys was obtained through existing public rights of way combined with assistance from security staff at the Islamic Relief Centre. During daytime surveys respective staff assisted with roof access at the ICC and BVSC allowing all necessary areas of sites to be covered.

### **1.4. Proposed work**

It is Land Care Associates' understanding that on each of the sites a section of roof will have a 'green roof' installed within the next two years. These roofs are designed as early successional post-industrial habitats with the aim of increasing the numbers of Black Redstarts in the centre of Birmingham. The buildings have been chosen as they have high public profile, are on known black redstart sites and/or already have a community outreach and education programme.

## 2. DESK STUDY

### 2.1. Pre-existing information on black redstarts at or near the survey sites

In general there are many records within 2km of the sites. However, Birmingham, like any other urban area is a very dynamic landscape and positive records of black redstarts within an area of 2km from a site shows that there is potential for migration of individuals or small populations, but not necessarily that the site is capable of supporting birds. Below is a summary of records found within 500m of each site (Appendix IV). For full details of all records within 2km please see Appendix II.

#### 2.1.2. Site 1

Within the area of the Islamic Relief Centre, there have been only a handful of records within 500m of the site. These are concentrated to the north and northwest of the site with three out of four records being located on the canal.

#### 2.1.3. Site 2

Although the ICC is known as a historic breeding area for the black redstarts, there are only two recent records within 500m of the site. Both these records are of individual birds seen on buildings to the southwest of the site.

#### 2.1.4. Site 3

The BVSC is located between areas of recent development and the Eastside area. All of the recent records are located to the east of the site, except one, a record from near New Street Station. The majority of the other records are associated with the Moor Street viaduct and brownfield sites within the proposed Eastside redevelopment area.

#### 2.1.5. Site 4

Ladbroke House is located close to the BVSC and as a result shares many of the same records, with some additional records to the north and east of the site.

## 2.2. Status of the black redstart in the local/regional area

There is a paucity of research on black redstarts in the UK and much of the available information comes from work done in Sweden, which, like London, is at the northwestern edge of its range. There are, however, several common factors that experienced observers and researchers believe are key to the breeding success of black redstarts in the UK.

Primarily the species seems to favour ‘wasteland’ with sparse vegetation and a stony substrate, which is often the landscape of a typical brownfield site. If a thick scrub layer develops either through planting or succession then the black redstart may be out competed by species such as the robin (*Erithacus rubecula*). For nesting they tend to require complicated structures that simulate craggy cliff faces, which are their natural habitat in continental Europe. These complicated structures provide a variety of ledges and holes for nesting and also high points, which are used as singing posts. Black redstarts feed on insects and therefore require habitats that provide high insect biomass such as canals.

The first recordings of black redstarts breeding in Birmingham was at the University in 1943 with another breeding pair recorded in the city centre in 1952 (Donovan *et al*, 2004). Numbers slowly increased up until the end of the 20<sup>th</sup> century when extensive redevelopment removed many of the brownfield sites causing a catastrophic collapse in the Birmingham populations and reducing the national population by more than 50%. It is estimated that Birmingham and the Black Country presently holds between 5% and 10% of the national population, which now stands at less than 100 breeding pairs ([www.blackredstarts.org.uk](http://www.blackredstarts.org.uk)) with estimates of 35 pairs in 1999. According to the Atlas of Breeding Birds the population varies between 60-100 pairs annually, although the last estimate was 35 pairs in 1999.

The black redstart is also a biodiversity action plan species for Birmingham and the Black Country (BBCBAP), which highlights the importance of local populations in lieu of the possible thinning of populations throughout London and the southeast. Black redstarts are also protected to some degree by *Planning Policy Statement 9: Biodiversity and Geological Conservation* (2005), which states that ‘local authorities should take steps to further the conservation of habitats and species of principal importance through their planning function.’ *Planning Policy Statement 1: Delivering Sustainable Development* (2005) also offers some assistance through stating that

‘planning should facilitate and promote sustainable and inclusive patterns of urban and rural development by protecting and enhancing the natural and historic environment, the quality and character of the countryside, and existing communities.’

It is believed that the distribution and numbers of the black redstart are controlled by the availability of suitable breeding and foraging habitat. The future regeneration of areas in which the black redstart currently breeds could lead to a significant reduction of such sites. Without its needs being accommodated, there is a danger that this bird could become very rare, if not extinct, in the Birmingham area, which in turn will threaten its national status.

### 2.3. Status of the black redstart at the national level

The black redstart is a relatively recent colonist of the British Isles migrating in from Europe in the 1920s. In continental Europe the bird is common and associated with terrain such as mountains and cliffs. However, in the UK, black redstarts are more commonly associated with urban environments particularly the post-industrial ‘brownfield’ landscapes of many of the UKs urban areas such as London and the West Midlands, with populations also found in Norfolk and Suffolk.

The UK population is currently thought to vary between 80 and 120 breeding pairs, however the last estimate by the Rare Breeding Birds Panel in 1996 estimated there to be only 28 – 65 pairs. It is likely the case that due to the elusive nature of the bird that it is under recorded.

The black redstart is one of the UK’s rarest birds and is afforded full protection in the UK as a Schedule 1 breeding species under the *Wildlife & Countryside Act 1981* (as amended) It is therefore an offence to disturb the birds or their nest sites during the breeding season. In addition, the black redstart is also listed as a *Red Data Book* species, and is on Appendix II of the *Berne Convention on the Conservation of European Wildlife and Natural Habitats 1979*. In addition black redstarts have been identified as a Species of Conservation Concern in the UK Biodiversity Action Plan (UKBAP).

### 3. METHODOLOGY

All survey work was carried out in accordance with guidelines drawn up by the Black Redstart Action Plan Working Group for London. The surveys consisted of two components:

- A daylight survey of the building to assess the features that are most suitable for nesting black redstarts and to assess the immediate surrounding area for potential foraging sites.
- Three separate dawn surveys over a number of weeks for at least 3 hours, commencing from at least 1 hour before dawn, at each location in favourable weather conditions.

#### 3.1. Day-light Site Assessment

During the daylight surveys, access to the roofs designated for 'green roofs' were obtained providing good vantage points to visually survey the immediate surrounding habitat. During these visits surveys were also carried out for any existing nest sites.

On each survey the surrounding areas were also surveyed covering a radius of approximately 500m from each designated building depending on access restrictions surrounding the site. All habitats assessed as suitable for foraging were recorded within this area.

#### 3.2. Dawn surveys

Surveys commenced at least one hour before sunrise and continued for at least three hours. The surveyors attempted to obtain maximum information in the time available by walking all accessible areas of the site and the immediately surrounding area. During these surveys special attention was paid to areas of high foraging probability. At all times surveyors were carefully listening to birdsong in order to identify any black redstart calls and location of call.

Although it is recommended that five dawn surveys are carried out throughout the breeding season (May – June), on the clients request only three were undertaken as the breeding season was almost over.

### 3.2.1 Date and Time of Surveys

#### Daylight Survey

Each site was assessed for black redstart habitat criteria as outlined on [www.blackredstarts.org.uk](http://www.blackredstarts.org.uk).

Each site was surveyed separately by the same surveyor (James Bunyan) on the following dates.

Site 1: Islamic Relief: Friday 9<sup>th</sup> June, 2006

Site 2: ICC: Friday 23<sup>rd</sup> June, 2006

Site 3: BVSC: Friday 2<sup>nd</sup> June, 2006

Site 4: Ladbroke House: Tuesday 27<sup>th</sup> June, 2006

#### Dawn Surveys

##### *Survey 1:*

Surveyors: Site 1: Islamic Relief: Tim Moughtin, Kerry Kilshaw

Site 2: ICC: Claire Wilmer, Andy Taylor

Site 3: BVSC: James Bunyan, Alan Shepherd

Date: Friday 2<sup>nd</sup> June

Time Started: 03:45

Time Finished: 07:00

Sunrise Time: 04:50

Weather: Cool and windy.

##### *Survey 2:*

Surveyors: Site 1: Islamic Relief: James Bunyan, Kerry Kilshaw

Site 2: ICC: Tim Moughtin, Andy Taylor

Site 3: BVSC: Sara Carvalho, Alan Shepherd

Date: Friday 9<sup>th</sup> June

Time Started: 03:45

Time Finished: 07:00

Sunrise Time: 04:46

Weather: Clear skies with slight breeze.

Black redstart survey

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**Survey 3:**

Surveyors: Site 1: Islamic Relief: Sara Carvalho, Tim Moughtin

Site 2: ICC: Claire Wilmer, Andy Taylor

Site 3: BVSC: James Bunyan, Kerry Kilshaw

Date: Friday 23<sup>rd</sup> June

Time Started: 03:45

Time Finsihed:07:00

Sunrise Time: 04:45

Weather: Clear skies.

**3.3. Constraints on Surveys**

Due to the surrounding environment, in many of the survey areas excessive noise due to traffic was present by approximately 06:30. This inevitably affected to some degree the surveyor's ability to hear and distinguish bird songs during this time.

## 4. Results

### 4.1. Day-light Site Assessment

#### 4.1.1. Site 1

The Islamic Relief Centre building (Trafalgar House) is located to the south east of the current extent of the Eastside Sustainability development area. Nonetheless surveys identified many areas of importance in the immediate surrounding area to the building.

- The site itself has a large area of degraded tarmac and concrete to the north west of the building. This area is suffering with encroachment from ephemerals and short perennials making a mix of hard landscape with scrub vegetation – ideal habitat for foraging black redstarts (Appendix V, Plate 1.2).
- The northern boundary of the site is marked by the Grand Union canal and offers some small pockets of possible foraging habitat along its banks but is relatively free of good black redstart habitat (Appendix V, Plate 1.2).
- Beyond the canal to the north and also to the east are a number of railway lines with associated embankments and bridges. These may offer some degree of foraging habitat with the bridges also offering potential nesting sites. However no evidence of nesting was observed on these structures.
- Trafalgar House itself is in poor condition with missing windows (on top floor) and may offer some potential nesting habitat in its present state (Appendix V, Plate 1.1). However, extensive visual surveys were carried out on the exterior and interior of the building (where access was possible for birds) and no evidence of nesting black redstarts were identified (Appendix V, Plate 1.3).
- To the west there is no suitable foraging habitat however a large church may offer possible nesting sites within the complicated structure.
- To the south light industrial units and associated car park and open areas. These may offer some degree of foraging habitat but the simple industrial units are unlikely to offer possible nesting sites.

#### 4.1.2. Site 2

The International Convention Centre (ICC) is located just west of the city centre falling outside the Eastside Sustainable Development area, however, the ICC was built on an area historically known for black redstart nesting sites. As the surrounding area to this site has already undergone

extensive redevelopments it is apparent that the area offers little in the way of nesting or foraging sites for black redstarts.

- At present the extensive ICC roof is predominantly paving slabs with areas of aggregates present. This offers no good foraging habitat. Hall 3 of the ICC is located in the north-east corner of the structure and has been selected for a green roof instalment.
- To the north of the site there is a matrix of residential high-rise and areas of urban parkland (trees, shrubs and amenity grassland). This type of landscape is not suitable for black redstarts (Appendix V, Plate 2.1, 2.2).
- The remainder of the surrounding area is an urban mixed use area including offices, residential and entertainment (restaurants and leisure). The area is hard landscaped and is generally a very clean and tidy environment offering no suitable habitat for the black redstarts to forage or nest (Appendix V, Plate 2.3).
- All the surrounding canals retain very little vegetation or industrial areas again making an unsuitable habitat.
- There are no railway lines in the immediate area as the majority are underground throughout this area of Birmingham. However, a line running from New Street station to the west surfaces just west of the National Indoor Arena approximately 500m to the west of the ICC. At the entrance to this tunnel structure there are many ledges and associated stony vegetated ground that may offer good nesting and foraging sites.

#### 4.1.3. Site 3

The Birmingham Voluntary Services Council (BVSC) is located in the heart of the city centre, between the recently completed Bullring redevelopment area and the Eastside area.

- The area is a mix of light industry and offices in old and refurbished buildings. There are, however, a number of disused derelict sites in close proximity to the BVSC building.
- The adjoining building to the south-east of the BVSC is a derelict factory building with extensive suitable nesting sites including ledges around the building and large holes at various points offering birds good access to sites within the structure (Appendix V, Plate 3.1).
- At the rear of this factory building is a plot of land used as a car park. This area is under encroachment from ephemerals and short perennials making a mix of hard landscape with scrub vegetation – ideal habitat for foraging black redstarts.
- Also to the north of the BVSC a smaller area of sheltered disused land remains surrounded by various buildings that may offer some nesting sites. This area of land again looks ideal for

foraging habitat at present but may become overgrown in the future if not managed to some degree (Appendix V, Plate 3.2).

- Approximately 200m to the north of BVSC the Moor Street viaduct offers good foraging and nesting opportunities together with forming a green corridor through the area (Appendix V, Plate 3.3).

#### 4.1.4. Site 4

Ladbroke House is situated close to BVSC on the southeast edge of the proposed Eastside Sustainable Development area.

- This area is typified by a variety of light industrial and office units with areas of open hard land used predominantly for car parks. As a consequence the area has high potential for foraging black redstarts (Appendix V, Plate 4.1, 4.2).
- Ladbroke House is situated just 50m north of the Moor Street viaduct green corridor. As a result any installed green roofs may become quickly colonised by bird species using the green corridor for foraging and nesting including the black redstart (Appendix V, Plate 4.3).
- Immediately to the south, east and north large expansive areas of hard landscaping used for car parks are present. The area to the east in particular offers a rough gravel/tarmac area adjoining the Moor Street viaduct with a perimeter of encroaching ephemerals and short perennials making a mix of hard landscape with scrub vegetation – ideal habitat for foraging black redstarts (Appendix V, Plate 4.3). These car park areas, although used heavily during the day are often empty during the early or late hours of the day when the majority of foraging occurs.
- The importance of the Moor Street viaduct throughout this area cannot be understated. The linear feature offers not only good foraging on top along the periphery of the railway lines but also provides extensive nesting opportunities within the complicated structure.

#### 4.2. Dawn surveys

Table 1: Details of all positive identifications of black redstarts within the study area.

Date	Site	Sighting/Song	Time	Grid ref	Details
2/06/2006	1	Song	04:20	SP083857	Male heard singing from direction of church
		Song	05:21	SP086857	Male heard singing from bridge
		Sighting	04:33	SP086857	Male seen perching on railway bridge
	2	None			
	3	None			
9/06/2006	1	None			
		Sighting	05:05	SP076867	Possible sighting (seen only very briefly)
		Sighting	05:45	SP057868	Possible sighting (seen only very briefly)
23/6/2006	1	Song	04:25	SP083857	Male heard singing from direction of church
		None			
		None			

## 5. EVALUATION

### 5.1. Site 1 – Islamic Relief Centre

#### 5.1.1. General

The Islamic Relief centre has very good potential for successful black redstart breeding habitat. The building is located very close to both a canal and two railway lines creating the complex and diverse landscape that black redstarts favour.

Although the building itself offers some opportunity for nesting sites in its present state no evidence of use by black redstarts was found. It is likely that the several bridges in the immediate vicinity would be more suitable for nesting, especially taking into account the scheduled development works planned for the building. It was also the case that the only positive visual identification of black redstarts was on the railings of one of the railway bridges.

There are substantial areas of slightly degraded concrete and asphalt at the rear of the building that are ideal for foraging behaviour which also lie adjacent to the paths of the canal and railway. This is reflected in the positive sighting and identification of black redstart songs within close proximity.

Overall, this sight offers an overall good habitat for black redstarts and provided the most positive signs of breeding populations within the Eastside sustainable development area.

#### 5.1.2. Significance of Green Roof installation

The introduction of a green roof within this area would be of substantial benefit to the black redstarts that are likely to be within the area and the project should be fully encouraged. This site in particular should, if at all feasible, install a biodiverse green roof as with the development of the area it is likely that foraging grounds being utilised will be lost or their quality reduced through ‘improvements’. If the black redstarts that are presently in the area, are to return in future years the footprint of foraging grounds should be maintained as much as possible.

## 5.2. Site 2 – International Convention Centre

### 5.2.1. General

The ICC is a prominent attraction within an area of extensive redevelopment in the heart of Birmingham city centre, which was historically a local stronghold for the black redstart. However, due to the extensive redevelopment of the area much of the post-industrial brownfield sites suitable for black redstarts have been lost and replaced by a clean landscape typified by trees, shrubs and amenity grass. The vast majority of the canal system close to the building has also been extensively renovated with the removal of all wasteland and redevelopment of derelict industrial buildings. This makes the immediate surrounding area to the ICC particularly unsuitable for the foraging of the black redstart.

In addition the vast majority of the buildings within the area are simple in physical structure lacking the complexity of ledges and other structures that the black redstarts seem to require for nesting. The nearest potential habitat is located approximately 0.5km to the west where the railway tunnel to Birmingham New Street station comes above ground. As a consequence it is not likely that any black redstarts will breed in the immediate area of the ICC in the near future.

### 5.2.2. Significance of Green Roof installation

Although the area is particularly unsuitable, as a prominent building of international recognition, the planned green roof at the ICC could provide extensive opportunities for raising the awareness of the black redstarts plight rather than providing important habitat.

## 5.3. Site 3 – Birmingham Voluntary Services Council

### 5.3.1. General

The Birmingham Voluntary Services Council building located on the edge of the recent extensive redevelopments of Birmingham city centre is situated within an area that continues to offer several compartments of good brownfield habitat for the black redstart population. Although no confirmed identifications were obtained from the area, there are several areas with good potential for both foraging and nesting. The areas directly behind the BVSC building in combination with the proximity of the Moor Street railway viaduct and other pockets of rough aggregate substrates offers perhaps the best foraging of all four sites.

The large derelict factory building located directly south east of BVSC appears to offer substantial potential for nesting sites with many holes and ledges throughout the north and east walls of the structure. In addition the region close to Moor Street is a historical location for breeding pairs.

### 5.3.2. Significance of Green Roof installation

The importance of the green roof installation at this site cannot be overestimated. The area at present offers several good areas of foraging habitat that may be lost with the redevelopments likely in the future. The installation of a biodiverse green roof would provide essential mitigation to these developments with regard to the black redstarts.

## 5.4 Site 4 – Ladbrooke House

### 5.4.1. General

Although no dawn surveys were specifically carried out around the Ladbrooke House site, the building is approximately 350m away from BVSC site and as a consequence received some degree of assessment during the dawn surveys of that site. The area immediately around Ladbrooke House is of a very similar structure to that of the BVSC. The extensive car parking areas (in particular the perimeters) offer good foraging habitat. These areas, and indeed the building itself are adjacent to the Moor Street Viaduct and as a consequence have good probabilities of being used by black redstarts for foraging. Ladbrooke House itself did not appear to offer many suitable nesting sites and again it is likely that the adjacent viaduct structure is more suitable.

### 5.4.2. Importance of Green Roof installation

Again, green roof installation within this area may offer new quality habitat for black redstarts remaining within the area. This site is likely to be colonised quickly by black redstarts as the roof is incorporated into the home range of any existing individuals or breeding pairs using the Moor Street Viaduct. The installation of a biodiverse green roof would provide suitable habitat and potentially offer a very good assessment of the success of biodiverse green roofs for black redstarts, if indeed, breeding pairs are present within the Moor Street viaduct complex.

## 6. RECOMMENDATIONS AND DISCUSSION

This survey was initiated within the context of four planned green roofs within Birmingham. Obtaining baseline information before the installation of green roofs, combined with the long term monitoring of the impact of such structures is paramount for the evaluation of green roof initiatives. Green roofs have been advocated as one of the best mitigation methods for black redstarts within post-industrial areas under development and as a result this section is in part unnecessary. However, there are other mitigation efforts that may also be employed.

The key to mitigation is to not only ensure present habitat levels but also to enhance sites wherever possible. As mentioned the most important facet of black redstart ecology is the requirement of nutrient poor substrate with a variety of low-density ruderal communities. These are precisely the habitats that should be aimed for within the context of the green roof installations. In addition to the planned green roofs, terrestrial landscaping and construction of nesting sites can also play a vital role.

### 6.1. Green Roofs

Green roofs are not a new concept and can come in a variety of forms (gardens, turf, sedum matting etc.); however, it is the understanding within this project all 'green' roofs will involve the installation of a biodiverse roof comprising of crushed aggregate material. These roofs may be seeded or unseeded by typical local brownfield site vegetation, but to provide the best possible habitat for black redstarts the roofs should be varied in structure and include plenty of perching material such as larger aggregate material or boulders, dead branches or artificial song posts. The substrate thickness should also vary allowing for a diverse microhabitat, increasing the potential insect diversity and biomass for the black redstarts to feed on.

### 6.2. Terrestrial Landscaping

Terrestrial landscaping follows exactly the same principles as the biodiverse green roofs – a simulation of the brownfield site habitat that is to be lost through development. An avoidance of classic urban park landscapes is key. A mixture of trees, shrubs and amenity grass is not ideal habitat for black redstarts and will only increase their competition with other birds such as robins

and wrens, which thrive in such areas. Again a nutrient poor, arid style landscape simulating the brownfield sites should be the aim of any black redstart mitigation landscaping plans.

In Birmingham many of the historical strongholds are located within the old complicated urban landscapes associated with the canal and railway networks. Wherever possible any such structures should be preserved allowing historical breeding site to be maintained.

### **6.3. Nesting Sites**

In some locations the availability of nesting sites may be a larger constraint than foraging sites. Black redstart nest boxes are simple open fronted structures that can be inexpensive to produce and install. However, it is important to locate nest boxes in suitable positions to maximise chances of being used. Nest boxes should be located under balconies or overhangs, within utility buildings or other semi enclosed structures. Wherever possible access should be restricted somewhat allowing small birds access but preventing larger birds, especially feral pigeons, from entering. As many nest boxes as is practical should be installed maximising the selection available to breeding pairs.

### **6.4. Site Specifics**

Three of the four sites surveyed have good potential for black redstarts to be present in the immediate surrounding area with the present habitat. The ICC does not appear to offer much suitable habitat at present although the possible sighting of a black redstart approximately 500m to the west indicates that through habitat improvements such as green roofs and nest boxes, there may be potential in the future.

The three other sites that remain within a post industrial landscape all offer varying degrees of suitability for supporting black redstarts. In addition to the installation of green roofs on all three sites, further mitigation efforts could be made. These concentrate mainly on the provision of nest boxes. Although small pockets of unused land may remain after development and these areas should seriously be considered for terrestrial landscaping for the benefit of the black redstarts.

### **6.5. Timing of Mitigation or Development Work**

Work should be done outside the bird breeding season (i.e. work should be carried out between

September and March). If work must be carried out in the breeding season, it should be done so with extreme caution and under the supervision of a qualified ecologist.

## 6.6. Monitoring

As with any implementation project with specific aims, the importance of post project monitoring cannot be overestimated. Gaining valuable knowledge on the success or failure of projects attempting to provide much needed black redstart habitat will enable future projects within Eastside, other regional or national projects with the detailed contextual information required to improve decision making throughout any green roof installation project. It is, therefore, highly recommended that experienced ecologists or ornithologists survey the green roof installation sites and the immediate surrounding area annually. It is also recommended that surveys for black redstarts are coordinated with other surveys for flora and invertebrates providing a comprehensive assessment of the impact of green roofs on local biodiversity.

## 7. REFERENCES

Donovan, R.G., Bell, D., Bloxham, M., Curry, P., Duke, S., Jones, D., Loram, A., Poulton, M., Parry, C. & Sadler, J.P. (2004). *Biodiversity Audit of Eastside, Birmingham*. Prepared for Sustainable Eastside. The University of Birmingham and The Wildlife Trust for Birmingham and the Black Country. (Pre-publication proof).

[www.blackredstarts.org.uk](http://www.blackredstarts.org.uk) accessed 7<sup>th</sup> July 2006.

## APPENDIX I

### Legal Obligations and the Black Redstart.

- The black redstart is fully protected as a Schedule 1 species under the Wildlife and Countryside Act (as amended) 1981. Making it an offence to kill, injure or capture the bird, its eggs or young and to cause damage or destruction to its nest. In addition it is an offence to intentionally disturb the bird while it is building its nest, or is in, on or near a nest containing eggs or young, or disturb the dependent young of such a bird.
- It appears in Appendix II of the Bonn Convention on the Conservation of Migratory Species of Wild Animals, which encourages a range of states to conclude agreements to benefit the species.
- The Countryside and Rights of Way Act (2000) also provides further protection through making it an offence to recklessly disturb birds during the breeding season. This gives significant responsibility to landowners and site managers to take particular care on sites where black redstarts are known to, or likely to, breed.

English Nature or the Police should be contacted immediately if any breach of the above regulations is thought to have occurred.

### Other important notes

Planning Policy Guidance 9 (Nature Conservation, 1994) states that the key to the conservation of wildlife is the protection of the habitat on which it depends. More specifically, in relation to protected species, paragraph 47 states that *‘The presence of a protected species is a material consideration when a local planning authority is considering a development proposal which, if carried out, would be likely to result in harm to the species or its habitat. Local authorities... should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the protection of the species.’*

The black redstart is listed on the Red Data Book of Birds, as a Species of Conservation Concern on the UK Biodiversity Action Plan (1995).

Black redstart survey

Project Ref.:

P167/1

## APPENDIX II

Records from within 2km of **Islamic Relief Centre** (Provided by Ecorecord)

	Details	Numbers	Grid Ref	Site Name	Locality	Date Recorded
1	possible breeding	1 pair	SP070867	Birmingham and the Black Country (Overview)		28-May-98
2	male	1	SP071869	Warwickshire Vice-county	Corporation St.	11-Jun-03
3	proved breeding		SP074868	Warwickshire Vice-county	Moor St.	Jun-02
4	in flight	1	SP075865	Warwickshire Vice-county	Digbeth Police Station	13-Jul-03
5	proved breeding	5	SP076866	Warwickshire Vice-county	Coventry St./Alison St. viaduct	Jun-02
6	possible breeding	1 pair	SP076867	Birmingham and the Black Country (Overview)		24-May-98
7			SP077865	Warwickshire Vice-county	Oxford St., Digbeth	2002
8	juvenile	1	SP077865	Birmingham City	Railway viaduct, Oxford Street, Digbeth	27-Jun-99
9			SP077868	Warwickshire Vice-county	New Canal St.	2002
10	male	2	SP078869	Warwickshire Vice-county	Moor St. Station	Apr-02
11	male	1	SP078869	Warwickshire Vice-county	Boxing Club, Fazeley St.	Apr-02
12	possible breeding		SP078858	Birmingham and the Black Country (Overview)		1998
13	male		SP078860	Birmingham City	Corner Cheapside/Lombard Street	31-May-00
14	juvenile	1	SP078860	Birmingham City	at rear of Cleary's PH, Cheapside	27-Jun-99
15	male	1	SP080861	Warwickshire Vice-county	Moseley St./Alcester St.	2-May-03
16	male	1	SP080861	Warwickshire Vice-county	Moseley St./Alcester St.	4-May-03
17			SP080861	Warwickshire Vice-county	St. Anne's Church, Cheapside	2002
18	proved breeding		SP079860	Birmingham City	St. Anne's Catholic Church	-1999
19			SP079860	Warwickshire Vice-county	Moseley St., Cheapside	2002
20	singing/mating calls		SP081872	Warwickshire Vice-county	Curzon St.	2002
21	male	1	SP082859	Warwickshire Vice-county	Bradford St. Police Station	13-Jul-03
22	proved breeding	1 pair	SP082864	Birmingham and the Black Country (Overview)		11-Jul-98
23	male	1	SP083869	Warwickshire Vice-county	Montague St.	4-May-03
24	singing/mating calls		SP083865	Warwickshire Vice-county	Liverpool St. Bus Garage	2002
25	male	1	SP083865	Warwickshire Vice-county	Liverpool St. Bus depot	28-Apr-03
26	singing/mating calls		SP083862	Warwickshire Vice-county	Upper Trinity St.	2002
27			SP084863	Warwickshire Vice-county	Adderley St.	2002
28			SP085860	Warwickshire Vice-county	Bordesley Station	2002
29	singing/mating calls		SP085861	Warwickshire Vice-county	Canal off Coventry rd.	2002
30			SP098849	Warwickshire Vice-county	Armoury rd., Sparkbrook	2002
31	singing/mating calls, Male	1	SP075868			10/5/2005

Black redstart survey

Project Ref.:

P167/1

Records from within 2km of **International Convention Centre** (Provided by Ecorecord)

Details	Numbers	Grid Ref	Site Name	Locality	Date Recorded
1		SP060874	Warwickshire Vice-county	Legge Lane	5-Jun-03
2 male	1	SP060874	Warwickshire Vice-county	Camden Drive/Legges Lane	16-Jun-03
3 female	1	SP060873	Warwickshire Vice-county	Camden Drive	14-May-03
4 male	1	SP061875	Warwickshire Vice-county	Frederick St.	May-03
5		SP061875	Warwickshire Vice-county	Regent St., Jewelry Quarter	2002
6 male	1	SP063864	SP08NE 1:10,000 Map	Buildings off Holliday Street	21-Jul-98
7 male	1	SP063876		Junction of Regent Place & Caroline Street	May-99
8 proved breeding	1 pair	SP063876	Birmingham and the Black Country (Overview)		08 APR 1998 - 08 JUN 1998
9 possible breeding	2 pairs	SP065873	Birmingham and the Black Country (Overview)		1-Jun-98
10 possible breeding	1 pair	SP065873	Birmingham and the Black Country (Overview)		May-98
11 male	1	SP066872	Warwickshire Vice-county	Lionel St.	8-May-03
12 carrying food	1	SP066872	Warwickshire Vice-county	Lionel St.	7-Jun-03
13 carrying food	1	SP066872	Warwickshire Vice-county	Lionel St.	7-Jun-03
14 singing/mating calls		SP066875	Warwickshire Vice-county	Mary Anne St./St. Paul's Square	8-Jun-03
15 singing/mating calls	1	SP066873	Warwickshire Vice-county	Lionel St. by Ambulance Station	11-Jun-03
16 male	1	SP067866	Warwickshire Vice-county	Mailbox Car Park	2-Jun-03
17 present	3	SP066873		Old Nurses Home, corner Lionel Street & Ludgate Hill	1-Jul-00
18 possible breeding		SP066874	Birmingham and the Black Country (Overview)		1998
19 proved breeding		SP067869	Warwickshire Vice-county	Victoria Square, Council House	2002
20 male	1	SP067874	Warwickshire Vice-county	Lionel St. Car Park	5-Jun-03
21 proved breeding	2	SP067874	Warwickshire Vice-county	Lionel St./Great Charles St. car park	2002
22 proved breeding	1	SP067872	Warwickshire Vice-county	Great Charles St./Cornwall St.	2002
23 male	1	SP067875	Warwickshire Vice-county	Water St./Livery St.	21-Jun-03
24 male	1	SP068874	Warwickshire Vice-county	Snow Hill Station	6-Jun-03
25		SP068867	Warwickshire Vice-county	Navigation St.	2002
26 possible breeding		SP068872	Birmingham and the Black Country (Overview)		1998
27 female	1	SP068874	Warwickshire Vice-county	St. Paul's Metro Station	4-Jun-03

Black redstart survey				Project Ref.:	P167/1
28	possible breeding	1 pair	SP070867	Birmingham and the Black Country (Overview)	28-May-98
29	male	1	SP071869	Warwickshire Vice-county	11-Jun-03
30	singing/mating calls, Male		SP070872	St Pauls Metro	16/4/2005
31	Male	2	SP070872	St Pauls Metro	19/5/2005
32	Male	3	SP070872	St Pauls Metro	8/5/2005
33	singing/mating calls, Male	2	SP069873	Lionel Street	8/5/2005
34	singing/mating calls, Male	1	SP069873	Lionel Street	14/5/2005
35	seen		SP067869	Warwickshire Vice-county	Victoria Square, Council House 1/6/2005

Black redstart survey

Project Ref.:

P167/1

Records from within 2km of **Birmingham Voluntary Services Council** (Provided by Ecorecord)

Details	Numbers	Grid Ref	Site Name	Locality	Date Recorded
1		SP060874	Warwickshire Vice-county	Legge Lane	5-Jun-03
2 male	1	SP060874	Warwickshire Vice-county	Camden Drive/Legges Lane	16-Jun-03
3 female	1	SP060873	Warwickshire Vice-county	Camden Drive	14-May-03
4 male	1	SP061875	Warwickshire Vice-county	Frederick St.	May-03
5		SP061875	Warwickshire Vice-county	Regent St., Jewelry Quarter	2002
6 male	1	SP063864	Birmingham (146)	Buildings off Holliday Street	21-Jul-98
7 male	1	SP063876	Birmingham City	Junction of Regent Place & Caroline Street	May-99
8 proved breeding	1 pair	SP063876	Birmingham and the Black Country (Overview)	All Saints Street to Snow Hill Station	08 APR 1998 - 08 JUN 1998
9		SP063878	Birmingham and the Black Country (Overview)		1983
10 possible breeding	2 pairs	SP065873	Birmingham and the Black Country (Overview)		1-Jun-98
11 possible breeding	1 pair	SP065873	Birmingham and the Black Country (Overview)		May-98
12 male	1	SP066872	Warwickshire Vice-county	Lionel St.	8-May-03
13 carrying food	1	SP066872	Warwickshire Vice-county	Lionel St.	7-Jun-03
14 carrying food	1	SP066872	Warwickshire Vice-county	Lionel St.	7-Jun-03
15 singing/mating calls		SP066875	Warwickshire Vice-county	Mary Anne St./St. Paul's Square	8-Jun-03
16 singing/mating calls	1	SP066873	Warwickshire Vice-county	Lionel St. by Ambulance Station	11-Jun-03
17 male	1	SP067866	Warwickshire Vice-county	Mailbox Car Park	2-Jun-03
18 present	3	SP066873	Birmingham City	Old Nurses Home, corner Lionel Street & Ludgate Hill	1-Jul-00
19 possible breeding		SP066874	Birmingham and the Black Country (Overview)		1998
20 proved breeding		SP067869	Warwickshire Vice-county	Victoria Square, Council House	2002
21 male	1	SP067874	Warwickshire Vice-county	Lionel St. Car Park	5-Jun-03
22 proved breeding	2	SP067874	Warwickshire Vice-county	Lionel St./Great Charles St. car park	2002
23 proved breeding	1	SP067872	Warwickshire Vice-county	Great Charles St./Cornwall St.	2002
24 male	1	SP067875	Warwickshire Vice-county	Water St./Livery St.	21-Jun-03
25 male	1	SP068874	Warwickshire Vice-county	Snow Hill Station	6-Jun-03
26		SP068867	Warwickshire Vice-county	Navigation St.	2002
27 possible breeding		SP068872	Birmingham and the Black Country (Overview)		1998
28 female	1	SP068874	Warwickshire Vice-county	St. Paul's Metro Station	4-Jun-03
29 singing/mating calls		SP068876	Warwickshire Vice-county	St. Paul's Metro Station/Constitution Hill	8-Jun-03
30 male	1	SP068876	Warwickshire Vice-county	St. Paul's Metro Station/Constitution Hill	6-Jun-03
31 female	1	SP068876	Warwickshire Vice-county	St. Paul's Metro Station/Constitution Hill	5-Jun-03
32 young	1	SP068876	Warwickshire Vice-county	St. Paul's Metro	6-Jun-03

Black redstart survey				Project Ref.:	P167/1
Station/Constitution Hill					
33	possible breeding	1 pair	SP070867	Birmingham and the Black Country (Overview)	28-May-98
34	male	1	SP070875	Warwickshire Vice-county	MAY 1999 - JUN 1999
35	possible breeding		SP070876	Birmingham and the Black Country (Overview)	1998
36			SP070876	Warwickshire Vice-county	Shadwell St. 2002
37	male	1	SP071869	Warwickshire Vice-county	Corporation St. 11-Jun-03
38			SP072878	Warwickshire Vice-county	Princip St. 2002
39	male	1	SP073875	Warwickshire Vice-county	Children's Hospital May-99
40	probable breeding	1 pair	SP075880	Birmingham City	old factory 5-Aug-85
41	proved breeding		SP074868	Warwickshire Vice-county	Moor St. Jun-02
42	in flight	1	SP075865	Warwickshire Vice-county	Digbeth Police Station 13-Jul-03
43	proved breeding	5	SP076866	Warwickshire Vice-county	Coventry St./Alison St. viaduct Jun-02
44	probable breeding		SP075885	Warwickshire Vice-county	Jul-02
45	possible breeding	1 pair	SP076867	Birmingham and the Black Country (Overview)	24-May-98
46	fledged	2	SP076881	Birmingham and Fazeley Canal (107)	5-Aug-85
47			SP077865	Warwickshire Vice-county	Oxford St., Digbeth 2002
48	juvenile	1	SP077865	Birmingham City	Railway viaduct, Oxford Street, Digbeth 27-Jun-99
49			SP077868	Warwickshire Vice-county	New Canal St. 2002
50	male	2	SP078869	Warwickshire Vice-county	Moor St. Station Apr-02
51	male	1	SP078869	Warwickshire Vice-county	Boxing Club, Fazeley St. Apr-02
52	possible breeding		SP078858	Birmingham and the Black Country (Overview)	1998
53	male		SP078860	Birmingham City	Corner Cheapside/Lombard Street 31-May-00
54	juvenile	1	SP078860	Birmingham City	at rear of Cleary's PH, Cheapside 27-Jun-99
55	male	1	SP080861	Warwickshire Vice-county	Moseley St./Alcester St. 2-May-03
56	male	1	SP080861	Warwickshire Vice-county	Moseley St./Alcester St. 4-May-03
57			SP080861	Warwickshire Vice-county	St. Anne's Church, Cheapside 2002
58	proved breeding		SP079860	Birmingham City	St. Anne's Catholic Church -1999
59			SP079860	Warwickshire Vice-county	Moseley St., Cheapside 2002
60	singing/mating calls		SP081872	Warwickshire Vice-county	Curzon St. 2002
61			SP081879	Warwickshire Vice-county	Windsor St. 2002
62	male	1	SP082859	Warwickshire Vice-county	Bradford St. Police Station 13-Jul-03
63	proved breeding	1 pair	SP082864	Birmingham and the Black Country (Overview)	11-Jul-98
64	male	1	SP083869	Warwickshire Vice-county	Montague St. 4-May-03
65	singing/mating calls		SP083865	Warwickshire Vice-county	Liverpool St. Bus Garage 2002
66	male	1	SP083865	Warwickshire Vice-county	Liverpool St. Bus depot 28-Apr-03
67	singing/mating calls		SP083862	Warwickshire Vice-county	Upper Trinity St. 2002

Black redstart survey				Project Ref.:	P167/1
68		SP084863	Warwickshire Vice-county	Adderley St.	2002
69		SP085860	Warwickshire Vice-county	Bordesley Station	2002
70	singing/mating calls	SP085861	Warwickshire Vice-county	Canal off Coventry rd. Duddeston Railway Station	2002
71		SP089878	Warwickshire Vice-county		2002
72	singing/mating calls, Male	1 SP075868			10/5/2005
73	singing/mating calls, Male	SP070872			16/4/2005
74	Male	2 SP070872			19/5/2005
75	Male	3 SP070872			8/5/2005
76	singing/mating calls, Male	2 SP069873			8/5/2005
77	singing/mating calls, Male	1 SP069873			14/5/2005
78	seen	SP067869	Warwickshire Vice-county	Victoria Square, Council House	1/6/2005

Black redstart survey

Project Ref.:

P167/1

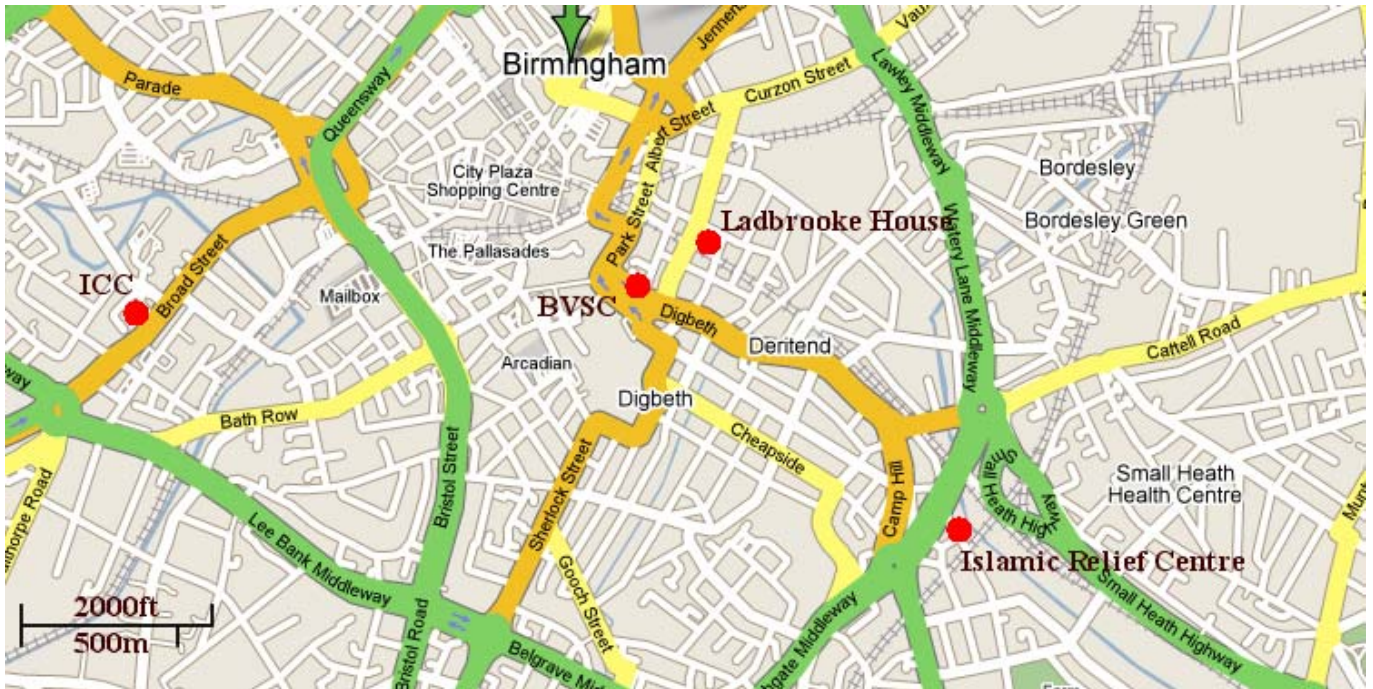
Records from within 2km of **Ladbrooke House** (Provided by Ecorecord)

Details	Numbers	Grid Ref	Site Name	Locality	Date Recorded
1		SP060874	Warwickshire Vice-county	Legge Lane	5-Jun-03
2 male	1	SP060874	Warwickshire Vice-county	Camden Drive/Legges Lane	16-Jun-03
3 female	1	SP060873	Warwickshire Vice-county	Camden Drive	14-May-03
4 male	1	SP061875	Warwickshire Vice-county	Frederick St.	May-03
5		SP061875	Warwickshire Vice-county	Regent St., Jewelry Quarter	2002
6 male	1	SP063864	Birmingham (146)	Buildings off Holliday Street	21-Jul-98
7 male	1	SP063876	Birmingham City	Junction of Regent Place & Caroline Street	May-99
8 proved breeding	1 pair	SP063876	Birmingham and the Black Country (Overview)		08 APR 1998 - 08 JUN 1998
9		SP063878	All Saints Street to Snow Hill Station		1983
10 possible breeding	2 pairs	SP065873	Birmingham and the Black Country (Overview)		1-Jun-98
11 possible breeding	1 pair	SP065873	Birmingham and the Black Country (Overview)		May-98
12 male	1	SP066872	Warwickshire Vice-county	Lionel St.	8-May-03
13 carrying food	1	SP066872	Warwickshire Vice-county	Lionel St.	7-Jun-03
14 carrying food	1	SP066872	Warwickshire Vice-county	Lionel St.	7-Jun-03
15 singing/mating calls		SP066875	Warwickshire Vice-county	Mary Anne St./St. Paul's Square	8-Jun-03
16 singing/mating calls	1	SP066873	Warwickshire Vice-county	Lionel St. by Ambulance Station	11-Jun-03
17 male	1	SP067866	Warwickshire Vice-county	Mailbox Car Park	2-Jun-03
18 present	3	SP066873	Birmingham City	Old Nurses Home, corner Lionel Street & Ludgate Hill	1-Jul-00
19 possible breeding		SP066874	Birmingham and the Black Country (Overview)		1998
20 proved breeding		SP067869	Warwickshire Vice-county	Victoria Square, Council House	2002
21 male	1	SP067874	Warwickshire Vice-county	Lionel St. Car Park	5-Jun-03
22 proved breeding	2	SP067874	Warwickshire Vice-county	Lionel St./Great Charles St. car park	2002
23 proved breeding	1	SP067872	Warwickshire Vice-county	Great Charles St./Cornwall St.	2002
24 male	1	SP067875	Warwickshire Vice-county	Water St./Livery St.	21-Jun-03
25 male	1	SP068874	Warwickshire Vice-county	Snow Hill Station	6-Jun-03
26		SP068867	Warwickshire Vice-county	Navigation St.	2002
27 possible breeding		SP068872	Birmingham and the Black Country (Overview)		1998
28 female	1	SP068874	Warwickshire Vice-county	St. Paul's Metro Station	4-Jun-03
29 singing/mating calls		SP068876	Warwickshire Vice-county	St. Paul's Metro Station/Constitution Hill	8-Jun-03
30 male	1	SP068876	Warwickshire Vice-county	St. Paul's Metro Station/Constitution Hill	6-Jun-03
31 female	1	SP068876	Warwickshire Vice-county	St. Paul's Metro Station/Constitution Hill	5-Jun-03
32 young	1	SP068876	Warwickshire Vice-county	St. Paul's Metro	6-Jun-03

Black redstart survey				Project Ref.:	P167/1
Station/Constitution Hill					
33	possible breeding	1 pair	SP070867	Birmingham and the Black Country (Overview)	28-May-98
34	male	1	SP070875	Warwickshire Vice-county	St. Chad's Church MAY 1999 - JUN 1999
35	possible breeding		SP070876	Birmingham and the Black Country (Overview)	1998
36			SP070876	Warwickshire Vice-county	Shadwell St. 2002
37	male	1	SP071869	Warwickshire Vice-county	Corporation St. 11-Jun-03
38			SP072878	Warwickshire Vice-county	Princip St. 2002
39	male	1	SP073875	Warwickshire Vice-county	Children's Hospital May-99
40	probable breeding	1 pair	SP075880	Birmingham City	old factory 5-Aug-85
41	proved breeding		SP074868	Warwickshire Vice-county	Moor St. Jun-02
42	in flight	1	SP075865	Warwickshire Vice-county	Digbeth Police Station 13-Jul-03
43	proved breeding	5	SP076866	Warwickshire Vice-county	Coventry St./Alison St. viaduct Jun-02
44	probable breeding		SP075885	Warwickshire Vice-county	Jul-02
45	possible breeding	1 pair	SP076867	Birmingham and the Black Country (Overview)	24-May-98
46	fledged	2	SP076881	Birmingham and Fazeley Canal (107)	5-Aug-85
47			SP077865	Warwickshire Vice-county	Oxford St., Digbeth 2002
48	juvenile	1	SP077865	Birmingham City	Railway viaduct, Oxford Street, Digbeth 27-Jun-99
49			SP077868	Warwickshire Vice-county	New Canal St. 2002
50	male	2	SP072869	Warwickshire Vice-county	Moor St. Station Apr-02
51	male	1	SP078869	Warwickshire Vice-county	Boxing Club, Fazeley St. Apr-02
52	possible breeding		SP078858	Birmingham and the Black Country (Overview)	1998
53	male		SP078860	Birmingham City	Corner Cheapside/Lombard Street 31-May-00
54	juvenile	1	SP078860	Birmingham City	at rear of Cleary's PH, Cheapside 27-Jun-99
55	male	1	SP080861	Warwickshire Vice-county	Moseley St./Alcester St. 2-May-03
56	male	1	SP080861	Warwickshire Vice-county	Moseley St./Alcester St. 4-May-03
57			SP080861	Warwickshire Vice-county	St. Anne's Church, Cheapside 2002
58	proved breeding		SP079860	Birmingham City	St. Anne's Catholic Church -1999
59			SP079860	Warwickshire Vice-county	Moseley St., Cheapside 2002
60	singing/mating calls		SP081872	Warwickshire Vice-county	Curzon St. 2002
61			SP081879	Warwickshire Vice-county	Windsor St. 2002
62	male	1	SP082859	Warwickshire Vice-county	Bradford St. Police Station 13-Jul-03
63	proved breeding	1 pair	SP082864	Birmingham and the Black Country (Overview)	11-Jul-98
64	male	1	SP083869	Warwickshire Vice-county	Montague St. 4-May-03
65	singing/mating calls		SP083865	Warwickshire Vice-county	Liverpool St. Bus Garage 2002
66	male	1	SP083865	Warwickshire Vice-county	Liverpool St. Bus depot 28-Apr-03
67	singing/mating calls		SP083862	Warwickshire Vice-county	Upper Trinity St. 2002

Black redstart survey				Project Ref.:	P167/1
68		SP084863	Warwickshire Vice-county	Adderley St.	2002
69		SP085860	Warwickshire Vice-county	Bordesley Station	2002
70	singing/mating calls	SP085861	Warwickshire Vice-county	Canal off Coventry rd.	2002
71		SP089878	Warwickshire Vice-county	Duddeston Railway Station	2002
72		SP090881	Warwickshire Vice-county	Cato St., Nechells	2002
73	singing/mating calls, Male	1	SP075868		10/5/2005
74	singing/mating calls, Male		SP070872		16/4/2005
75	Male	2	SP070872		19/5/2005
76	Male	3	SP070872		8/5/2005
77	singing/mating calls, Male	2	SP069873		8/5/2005
78	singing/mating calls, Male	1	SP069873		14/5/2005
79	seen		SP067869	Warwickshire Vice-county Victoria Square, Council House	1/6/2005

**APPENDIX III**



Location of four survey sites within Birmingham City Centre.

## APPENDIX IV



Location of Site 1: Islamic Relief Centre showing 2km radius buffer. Black redstart records held by EcoRecord are shown. See Appendix II for full details of all records.



Location of Site 2: International Convention Centre showing 2km radius buffer. Black redstart records held by EcoRecord are shown. See Appendix II for full details of all records.



Location of Site 3: Birmingham Voluntary Services Council showing 2km radius buffer. Black redstart records held by Ecorecord are shown. See Appendix II for full details of all records.



Location of Site 4: Ladbrooke House showing 2km radius buffer. Black redstart records held by EcoRecord are shown. See Appendix II for full details of all records.

## APPENDIX V

### 1. Islamic Relief

	<p>Plate 1.1 View of rear of Islamic Relief building (Trafalgar House). At present the car park area offers some foraging habitat</p> <p><i>Potential nesting sites within structure.</i></p> <p><i>Potential foraging sites within area to the rear of the building.</i></p>
	<p>Plate 1.2 View from top floor of Islamic Relief building showing position of car park in relation to the canal. Throughout this area the canals act as important green corridors.</p> <p><i>Railways and associated bridges may offer suitable nesting sites.</i></p> <p><i>Ideal foraging habitat.</i></p>
	<p>Plate 1.3 Inside of top floor of Islamic Relief building.</p>

2. International Convention Centre



Plate 2.1 View towards northwest from roof of Hall 3 of the ICC with section of roof to be greened in extreme foreground.

*The immediate surrounding area is lacking brownfield sites.*



Plate 2.2. View towards northeast from roof of Hall 3 of the ICC with section of roof to be greened in extreme foreground.




*The immediate surrounding area is again lacking brownfield sites. Park style landscaping is not suitable for foraging black redstarts.*



Plate 2.3 View from Cambridge Street of Hall 3.

*Note that building is 'clean' and has very few possible sites for nesting black redstarts.*

3. Birmingham Voluntary Services Council

	<p>Plate 3.1 View from adjacent multi-storey car park looking down on to an ideal foraging habitat.</p> <p><i>BVSC roof to be 'greened' is just visible.</i></p> <p><i>Potential foraging and nesting sites within derelict factory.</i></p> <p><i>Ideal foraging habitat.</i></p>
	<p>Plate 3.2 View from adjacent multi-storey car park looking down on to an ideal foraging habitat close to the BVSC roof to be 'greened'.</p> <p><i>BVSC roof to be 'greened' is just visible.</i></p> <p><i>Ideal foraging habitat.</i></p>
	<p>Plate 3.3 View from adjacent multi-storey car park south across Birmingham.</p> <p><i>The railway bridge (leading up to Moor Street Station) is clearly visible as a green corridor.</i></p>

4. Ladbrooke House



Plate 4.1 Further large car park areas provide more suitable foraging area.



Plate 4.2 Small brownfield site in the immediate vicinity may also prove important for black redstarts.

*Brownfield sites such as this close to the railway bridge often offer very good foraging and nesting habitat.*



Plate 4.3 Area surrounding Ladbrooke House offers many suitable site for nesting and foraging black redstarts.

*Ladbrooke House.*

*Proximity of railway bridge offers both good habitat for nesting and foraging along with being an important green corridor link.*

*Expansive car parks with some vegetation makes ideal foraging habitat.*