

Bat survey of Ballybrack River Valley, Douglas Co. Cork



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1.0 Introduction

Currently there are nine species of bat known to occur in Ireland. All species and their roost sites are strictly protected under both European and Irish legislation including:

- **Wildlife Act 1976 and Wildlife (Amendment) Act, 2000 (S.I. No. 38 of 2000)**
- **Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna 1992 (Council Directive 92/43/EEC)**
- **European Communities (Natural Habitats) Regulations, 1997-2005**

Furthermore as a signatory to the European Bats Agreement (Agreement on the Conservation of Bats in Europe) 1993, Ireland is required to protect their habitats, requiring the identification and protection from damage or disturbance, of important feeding areas. All Irish bat species are listed in Appendix II of the Bern Convention (1979), as species requiring protection.

The current red data book lists Leisler's bat as near threatened in Ireland (Marnell *et al.* 2009). Brandt's bat is currently listed as "data deficient" as it has not been proven to date to be breeding here Boston *et al.* (2010). All other bat species are listed as "least concern" in that there is no evidence that they have suffered a population decline.

Table 1: Bat species recorded in Ireland

Bat species	Distribution
Common pipistrelle <i>Pipistrellus pipistrellus</i>	Widespread
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	Widespread
Nathusius's pipistrelle <i>Pipistrellus nathusii</i>	Only confirmed breeding in Ulster
Leisler's bat <i>Nyctalus leisleri</i>	Widespread
Brown long-eared bat <i>Plecotus auritus</i>	Widespread
Lesser horseshoe bat <i>Rhinolophus hipposideros</i>	Restricted to Cork, Kerry, Limerick, Clare, Galway and Mayo.
Whiskered bat <i>Myotis mystacinus</i>	Widespread but localised.
Brandt's bat <i>Myotis brandtii</i>	Only one confirmed record in Wicklow. Not confirmed as a breeding resident.
Daubenton's bat <i>Myotis daubentonii</i>	Widespread but restricted to aquatic environments.
Natterer's bat <i>Myotis nattereri</i>	Widespread but localised.

1.2 Site description

The Ballybrack river valley is located within Douglas Village, a suburb of Cork city. It follows the Ballybrack River and is approx. 2km in length. The valley is divided into two components with Douglas Community Park located north of Church road, which has a formal structure, with planted trees, short grass, a playground and community centre, while the area south of Church Road consists of mixed broadleaf woodland, riparian alder woodland and rough grassland. The woodlands within this area have some mature stands of beech and lime, which would have good potential for bat roosts. Although situated within an urban setting, the valley is connected to the wider countryside on the southern end. The two main habitats within the valley; freshwater stream and broadleaf woodland, are known to be important habitats for bats (Vaughan *et al.* 1997).

2.0 Survey methodology

The valley was surveyed on the 24th June 2013. The survey commenced at 21:00 and was conducted over three hours. Prior to dusk (21:57), the site was surveyed to assess its potential for bats in relation to foraging and roosting. After sunset bat activity was recorded using a bat detector (Echometer 3, Wildlife Acoustics). Bat activity was monitored along the footpath running along the valley and also along the woodland paths.

3.0 Results

Four species of bat were recorded in the Ballybrack valley; the soprano pipistrelle, common pipistrelle, Leisler's and an unidentified *Myotis* species (Fig. 1). Activity within the site was concentrated along the Ballybrack River, particularly within the alder woodland on the western boundary with the Ardcarraig Apartments.



Fig. 1: Results of bat survey of Ballybrack river valley, Douglas, Co. Cork. Red dots represent records of soprano pipistrelle, green dots represent records of common pipistrelle, yellow dots represent records of leisler's bat and black dots represent records of *Myotis* spp.

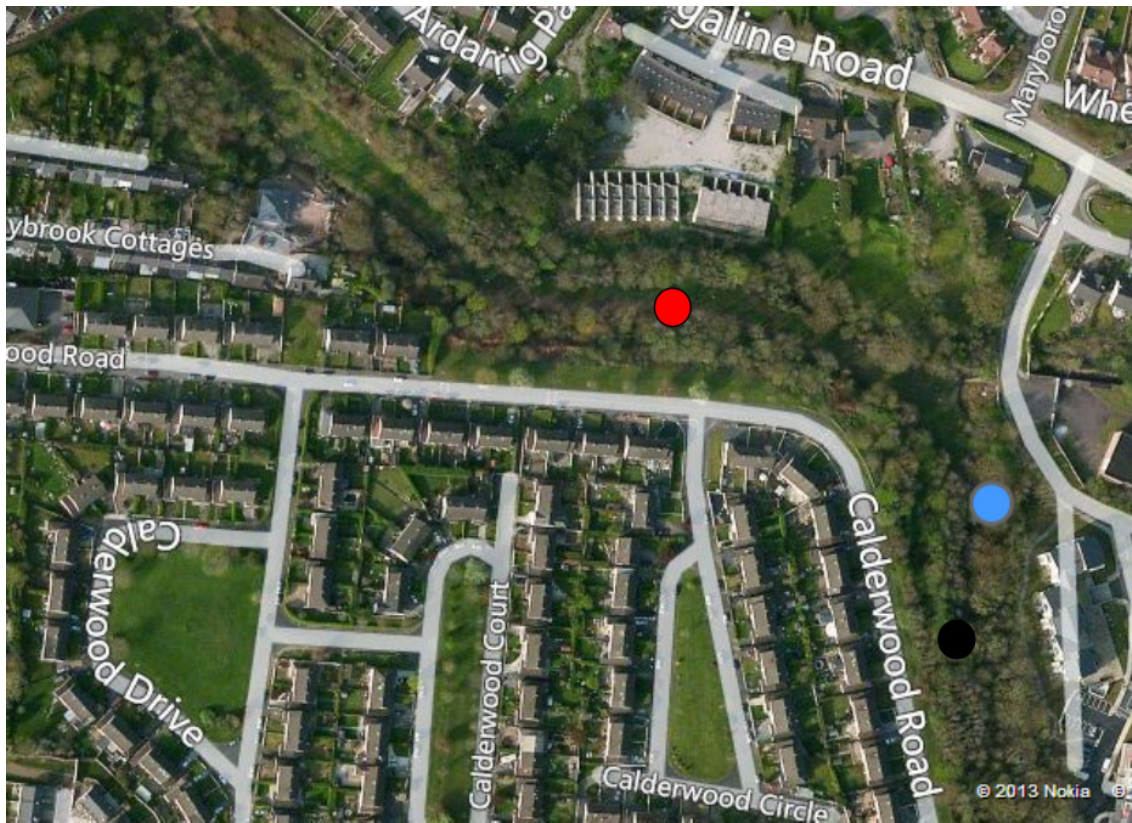


Fig. 1 (Continued)

4.0 Discussion

Both Leisler's bat and the two species have been recorded from other green spaces in Cork city and are generally more adaptable to urban environments due to their tolerance for artificial lighting, while *Myotis* bat species (Whiskered, Natterer's and Daubenton's) tend to avoid areas that are lit-up at night, possibly due to their slower flight, which makes them more vulnerable to predation (Bat Conservation Trust 2008). The presence of *Myotis* bats within the Ballybrack valley is therefore likely possible due to the connectivity to the surrounding countryside on the southern end and the fact that the valley is sufficiently dark. However, there is some light pollution from the surrounding urban area, particularly at the northern end of the valley and from the Ardcarraig Apartments.

Due to limited time, a roost survey of the valley was not conducted; however, there are a number of mature trees within the site, particularly in the woodland next to Ballybrack house and along the river, next to the Ardcarraig apartments. There is also potential for bat roosts in buildings adjacent to the valley, such as Ballybrack House, while an old bridge-like structure exists within the woodland on the western side of the valley, which has potential as a night roost and perhaps as a winter roost, depending on the level of human disturbance (there was evidence of drinking activity).

The proposed cycle route could impact on the local bat community in the Ballybrack valley through the installation of artificial lighting, which would affect the *Myotis* bats foraging on the site and through the direct loss of foraging habitat and possibly roosting sites if trees are being cleared to widen the existing path next to the river. A more detailed survey would be required to determine the potential impacts of the proposed cycle route and to survey the roosting potential of mature trees on the site and suitable buildings adjacent to the valley.

References

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