



BAT SURVEY REPORT
DEVELOPMENT AT MARTIN SAVAGE PARK,
DUBLIN 7

PREPARED FOR DUBLIN CITY COUNCIL.

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1. Introduction

Aidan Murphy Ecologist was commissioned by Flynn Furney Environmental Consultants to provide a bat survey and assessment for the proposed development of an all-weather pitch at Martin Savage Park, Dublin 7. A bat survey and assessment of the site was undertaken by Aidan Murphy on the 22nd September 2023. The survey involved walked transect survey and assessment of trees and buildings on site for bat roost potential.

The aim of the bat survey was to inform any ecological constraints with regard to bat species associated with the proposed development of the site and to assess the potential for significant impacts to bat species.

Aidan holds a BSc(Hons) in Wildlife Biology and an MSc in Ecological Assessment (UCC). He is a Qualifying Member of CIEEM (Chartered Institute of Ecology and Environmental Management), the chief professional body for Ecologists in Ireland and as such is bound by their professional code of conduct. Aidan has worked for seven years as a freelance ecologist with survey experience including bats, birds, freshwater & terrestrial invertebrates, and botanical surveys.

2. Legislation for bats

All bat species are protected by law in Ireland at a national and European level. Nationally, the Wildlife Act 1976 (amended 2000) makes it an offence to wilfully interfere with, or destroy, the resting or breeding place for bats. All species of Irish bats are listed under Schedule 5 of the Wildlife Act (1976) making it an offence to:

- Intentionally kill, injure, or take a bat
- Possess or control any live or dead specimen or anything derived from a bat
- Wilfully interfere with any structure or place used for breeding or resting by a bat
- Wilfully interfere with a bat while it is occupying a structure or place which it uses for that purpose.

The EU 'Habitats' Directive (92/43/EC; transposed into Irish law by EC Birds and Natural Habitats Regulations (S.I 477 of 2011) provides legal protection for bats and their roosts at a European Union level. Under the EU Habitats Directive, lesser horseshoe bats are listed as an Annex II species (afforded special protection). All other Irish bat species are listed in Annex IV (general protection) of this directive.

Regulation 51(2) of the Birds and Natural Habitats Regulations 2011 provides –“(2) *Notwithstanding any consent, statutory or otherwise, given to a person by a public authority or held by a person, except in accordance with a licence granted by the Minister under Regulation 54, a person who in respect of the species referred to in Part 1 of the First Schedule—(a) deliberately captures or kills any specimen of these species in the wild, (b) deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration, (c) deliberately takes or destroys eggs of those species from the wild, (d) damages or destroys a breeding site or resting place of such an animal, or (e) keeps, transports, sells, exchanges, offers for sale or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 12(2) of the Habitats Directive, shall be guilty of an offence.*” The grant of planning permission does not permit the commission of any of the above acts or render the requirement for a derogation licence unnecessary. In addition, the Irish government are signatories of the 1979 Bonn 'Convention on the Conservation of Migratory Species of Wild Animals' and the 1982 Convention on the 'Conservation of European Wildlife and Natural Habitats'. Ireland must also fulfil commitments under the 1991 'Eurobats Agreement' for the conservation of bats in Europe.

3 Site Location and Description

The study site is located in Martin Savage Park, Ashtown, Dublin 7. The centre of the site is ITM: 711575 737408. Martin Savage Park is bounded to the north by railway lines which run adjacent and parallel with the Royal Canal pNHA; to the south, east and west by housing estates (Kempton, Glendhu and Marin Savage Park Estate). Access to the clubhouse for St. Oliver Plunket's GAA club is located along the middle of the southern boundary of the park. Phoenix FC is located in the north-eastern end of the site.

4 Desk Study

Records from the National Biodiversity Data Centre (NBDC) for monad O1137 within which the site is located were extracted and reviewed for bat records for the site and surroundings (a monad is an area 1 km x 1 km square). Such information can identify bat species that may occur within a proposed development site or in the surrounding areas. It should be noted that an absence of records is likely to reflect an absence of survey data and cannot be taken as confirmation that a particular species is not present in the site or the surrounding area.

The NBDC website also hosts the Model of Bat Landscapes for Ireland, which has assessed the relative importance of landscape and habitat associations for bat species across Ireland (see Lundy et al. 2011). Accessed 27/09/2023

5. Methodology

Bat Activity Surveys (Transects)

Bat activity transect routes followed the paths and tree lines identified as important features used by bats. Transect surveys were undertaken using an Anabat Scout (full spectrum bat detector) and an Echometer Touch 2 Pro detector. The transects included walks over the central areas of the park. The walks were repeated twice. Weather conditions were optimum for bat activity during the surveys with calm, dry and mild conditions with air temperatures optimal for bat surveying see Table 1.

The survey was undertaken on 22nd September 2023 by Aidan Murphy. Surveys began at sunset and finished up to 95 minutes after sunset. Transects were walked slowly while recording geo-positioned bat registrations (recordings). Recordings were observed live, as well as being stored for later analysis.

Bat sonograms were manually analysed and identified to species level using specialist software, Wildlife Acoustics Kaleidoscope Viewer Pro. Activity analysis of recorded bat echolocation was defined as registrations/contacts per species within a 15 second (maximum) file. Multiple passes/calls/pulses of the same species within a (maximum) 15 s file count as a single registration.

Table 1. Details relating to bat surveys conducted on site in 22nd September 2023

Date	Survey Type	Survey Times (Sunset)	Weather	Temperature (°C)
22 nd Sept. 2023	Walked transect	19:25 – 21:00 (19:25)	30% cloud, no rain, no wind	13°C - 12°C

6 Results

6.1 Desktop study results

Records from the National Biodiversity Data Centre (NBDC) (<https://maps.biodiversityireland.ie/>) for monad O1137 within which the site is located were extracted and reviewed (accessed on 27/9/2023).

The monad O1137 returned the following bat records, the results are presented in Table 2 below.

Grid reference/ distance from site (100 m resolution)	Species	Recorder	Date of last record	Database
O110374 0.2 km NW of site	Daubenton's Bat	Daubenton's Volunteer. Dublin Bat Group surveys	24/08/2009	National Bat Database of Ireland
O1137 1km resolution (exact locatio unknown)	Daubenton's Bat Leisler's bat Soprano Pipistrelle	Niamh Roche. Dublin Bat Group surveys	08/09/1999	National Bat Database of Ireland

In addition, Bat Conservation Ireland's habitat suitability index¹, available to view on the NBDC online mapping portal, classifies tetrads O1137 within which the site is located, as having a medium suitability for bats, with a score of 23.33.

6.2 Field study results

Bats

Three species of bat were recorded foraging and commuting in or in close proximity to Martin Savage Park. The following species have been identified:

- Common pipistrelle (*Pipistrellus pipistrellus*)
- Soprano pipistrelle (*Pipistrellus pygmaeus*)
- Leisler's bat (*Nyctalus leisleri*)

Three of the most common bats in Ireland were recorded over the transect walks with bat pass counts in descending order: soprano pipistrelle (12), Leisler's bats (7) and common pipistrelle (2). The locations of bat activity encountered along transect routes (bat passes/ registrations) can be viewed in Figure 1 below.

It must be noted that each bat recording and mark on the map does not correlate to an individual bat, but is representative of bat activity levels/species present at locations surveyed. Bat activity was considered low during transect surveys at the study areas. No bat roosts were recorded on site.

Soprano pipistrelles

Overall foraging and commuting activity was seen to be low to moderate onsite. The species was dominant in the wider landscape – showing affinity to the hedgerow/ treeline along the northern boundary and the treeline along the southern boundary. Activity was relatively low along the eastern boundary with the western boundary notable for bats seen to commute through and not stop for foraging.

Leisler's bat

Characteristically recorded intermittently commuting at height over the site from dusk onwards and

throughout the survey. The site does not appear to be used by this species and the calls recorded are considered to be from commuting bats passing over the site.

Common pipistrelle

Overall foraging and commuting was seen as very low with two recordings registered near the GAA club. It is likely the two registrations were from the one bat.



Figure 1. Bat species recorded in Martin Savage Park, 22nd September 2023

Trees and buildings

The trees on site consist of a mixture of ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplatanus*), Norway maple (*Acer platanoides*), alder (*Alnus glutinosa*) and occasional beech (*Fagus sylvatica*). The trees are by and large young or semi-mature and are considered to have negligible bat roost potential.

The Phoenix FC Clubhouse building is of modern construction, is in excellent condition with no points of access to bats and has been assessed of negligible potential for roosting bats. The adjacent Ashtown train station is causing considerable light pollution onto the Royal Canal and is highly likely to be interfering with bats using the canal as a linear feature for commuting and foraging.

7. EVALUATION AND IMPACT ASSESSMENT

The results of the surveys undertaken confirm three species of bats have been found to use the site for foraging and commuting purposes; soprano pipistrelle, common pipistrelle and Leisler's bat. The bat species that were recorded were foraging/ commuting in the environs of the park; the greatest concentration of bat activity coming from the middle and western areas of the park. The bat species recorded are of 'Least Concern' (Marnell *et al.*, 2022) and are of 'Favourable' conservation status (NPWS, 2019). It should be noted that these detections are bat passes and are indicative of levels of activity, rather than an actual count of bats.

It is important that bat friendly lighting design is incorporated into the design of the development to avoid cumulative lighting impacts to bat species. The design should be drawn up in consultation with an ecologist to ensure that the lighting on the site is minimised and any new habitat features associated with the landscape plan and the surrounding habitats are not impacted by light overspill.

8 Conclusion

The site is evaluated as low local importance for bat species. Bat activity detected on site was considered to be low to moderate. The treelines and the building on site are assessed to have negligible potential for roosting bats.

Based on the results of the present survey and provided bat friendly lighting is used, the proposed development of this site is not anticipated to have a significant negative impact on bat species.

9 References

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