

**A bat assessment of the site at Airton Rd, Tallaght, D24 WR61
For Greenleaf Homes Ltd**



**By Donna Mullen M.P.P.M
Brian Keeley BSc (hons) zool
Maio, Tierworker, Kells Co Meath**

www.wildlifesurveys.net

Summary

Bats were not found roosting in the buildings or trees on this occasion. However, the wooden timber at the rear of the factory has high potential for bat usage, with bats seen in this area at emergence time. This wood panelling should be removed by hand prior to demolition of the building and this should be supervised by an ecologist. There will be a mild long-term effect of loss of feeding to individual bats.

Bat species found feeding and commuting on the site

Common pipistrelle - *Pipistrellus pipistrellus*

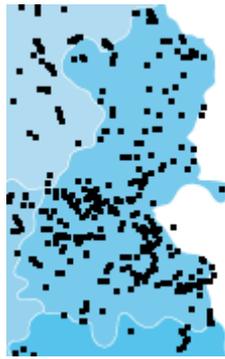
Soprano pipistrelle – *Pipistrellus pygmaeus*

Leisler's bat – *Nyctalus Leisleri*

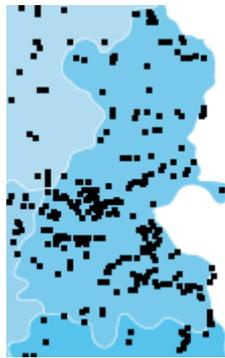
Recommendations

- (1) The wooden panels at the rear of the building should be removed by hand prior to any demolition of the building. This should be supervised by an ecologist.
- (2) Two 2F and Two 1FF Schwegler bat boxes with built-in timber panel bat boxes should be put in place. These should be placed on trees or posts, at least 3m high, with a clear drop below (as bats need to drop to start their flight). They should be placed away from lighting. These can be purchased from www.nhbs.com
- (3) Bats may suffer loss of feeding. Native species should be used when planting trees or shrubs.
- (4) If bats are discovered at any stage of the development, building work must cease and myself and the wildlife ranger must be contacted.
- (5) If the building is not demolished within 12 months, it should be resurveyed for bats prior to demolition.

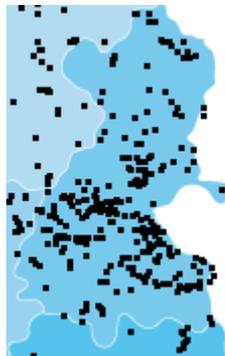
Desktop Survey



Distribution of common pipistrelle in Dublin



Distribution of soprano pipistrelle in Dublin



Distribution of Leislers bat in Dublin

Thanks to Bat Conservation Ireland for their data. All data from this report will be placed on their database.

Habitat; Semi- mature trees, buildings.

Description of project

The development as described in the planning report.

Temperature 13 - 9C

Date 14 May 2019

Methodology

Bat Survey - Equipment

Exide Lamp

Petzl Tikka Head torch

Two EM3 time expansion detectors and kaleidoscope sound analysis software with GPS – handheld

One SM2 detector placed overnight in the south western part of the building by the wooden panelling.

Survey and recommendations;

The survey commenced at 20.15 when the inside of the building was checked for bats. Much of this building is in poor repair and is unsuitable for bats. However, at the rear of the building is some timber panelling with cracks and crevices. This is suitable for bat usage.

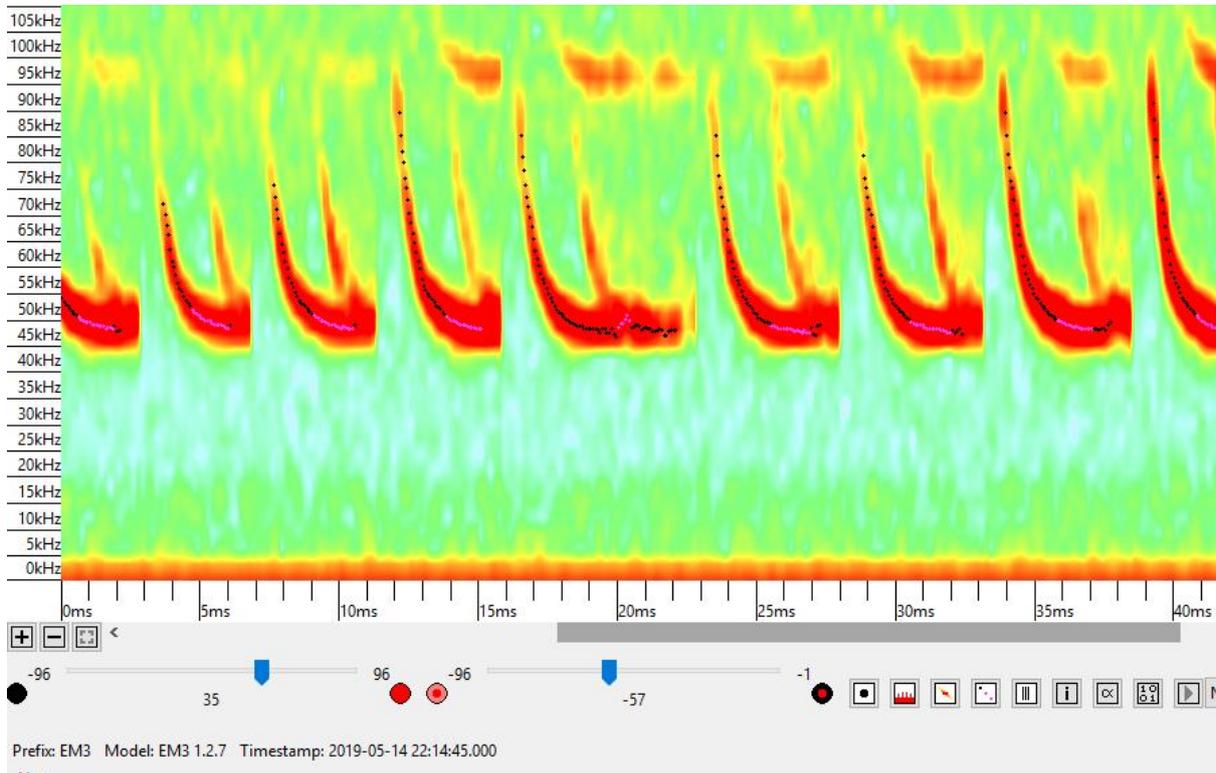


This timber panelling is suitable for bat usage and there was a lot of bat activity around it during the night.



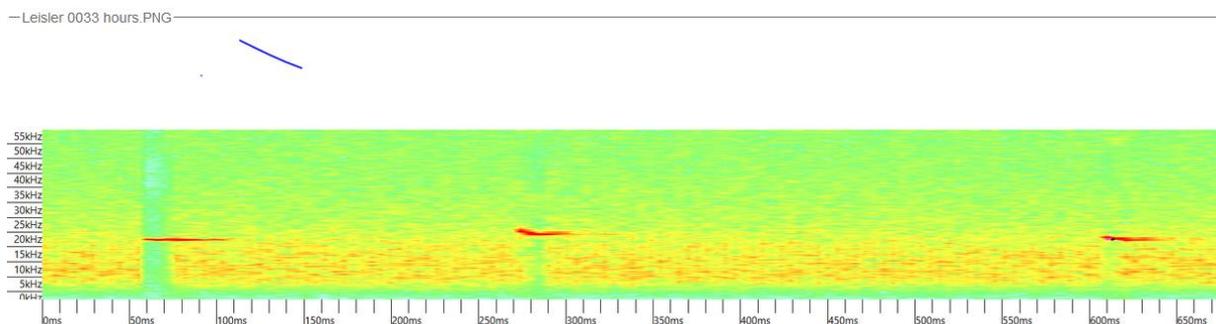
Most of the internal parts of the factory building are unsuitable for bat usage.

A common pipistrelle was recorded coming from the direction of the Institute of Technology at 21.38. A common pipistrelle was seen feeding around the area with the wooden panelling and at 21.40. A second common pipistrelle was seen at the front of the site, feeding along the grass and scrub. This bat continued to feed for half an hour.



Common pipistrelle at 22.14 at feeding along the grassy verge at the front of the building.

At 23.06 a Leisler's bat was recorded at the timber panelling. It fed here for 20 minutes

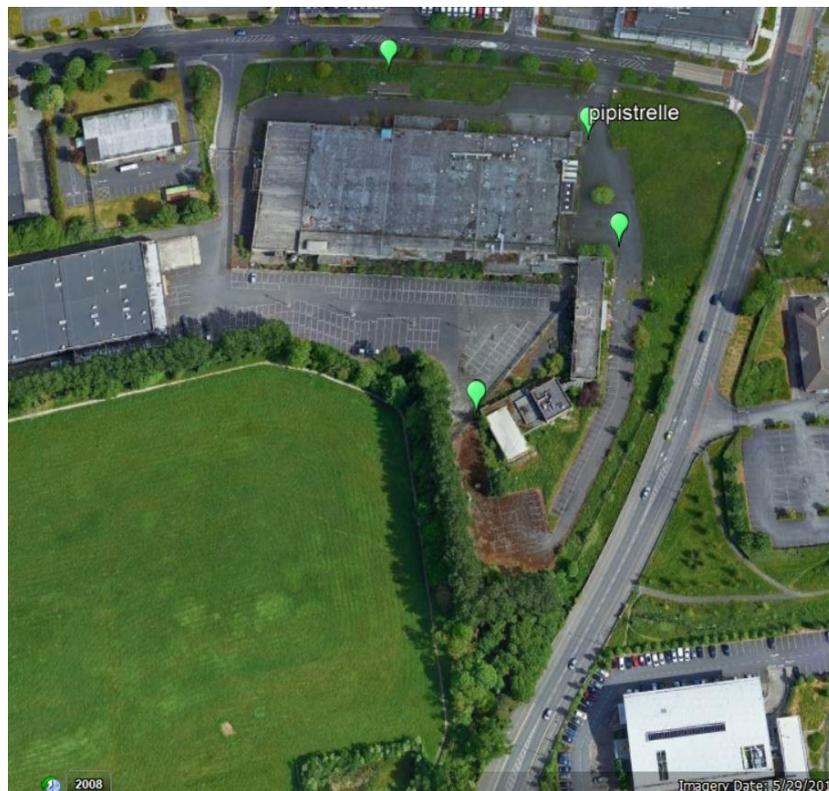


Leisler's bat at the rear of the site.

At 23.20 a soprano pipistrelle was recorded in the south western part of the site. Common pipistrelles were recorded by the timbers at 2.30, and a Leisler's bat was recorded here at 3.43.



Bats were feeding around this building throughout the night



Pipistrelle feeding activity on the site

All bat activity on site had stopped by 4.30.

Recommendations

- (1) The wooden panels at the rear of the building should be removed by hand prior to any demolition of the building. This should be supervised by an ecologist.
- (2) Two 2F and Two 1FF Schwegler bat boxes with built-in timber panel bat boxes should be put in place. These should be placed on trees or posts, at least 3m high, with a clear drop below (as bats need to drop to start their flight). They should be placed in a dark area of the development. These can be purchased from www.nhbs.com
- (3) Bats may suffer loss of feeding. Native species should be used when planting trees or shrubs.
- (4) If bats are discovered at any stage of the development, building work must cease and myself and the wildlife ranger must be contacted.
- (5) If the building is not demolished within 12 months, it should be resurveyed for bats prior to demolition.

Bat Biology

Female bats gather in groups known as maternity roosts in summer to have their young. They generally have one baby each year, so are slow to reproduce, and disturbance of a maternity roost can be catastrophic.

In winter bats move to old stonework, trees and caves to hibernate. They are especially vulnerable here as they are slow to awaken, and if tree felling is carried out, they can easily be killed.

Legislation

Bats are protected under the 1996 Wildlife Act, the 2000 Wildlife (Amendment) Act, Stat Ist 94 of 1997, Stat Ist 378 of 2005, The Habitats Directive, The Bonn and Bern Convention, and the Euro bats agreement.

The European Community (Natural Habitats) Regulations S.I. No 94 of 1997 states:

23(1) The minister shall take the requisite measures to establish a system of strict protection for the fauna consisting of the animal species set out in Part 1 of the First Schedule prohibiting –

a) All forms of deliberate capture or killing of specimens of those species in the wild.

1. The deterioration or destruction of breeding sites or resting places of those species.

The EU Habitats Directive

Article 12(1) of the ‘Council Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora (Habitats Directive) states:

“Member States shall take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV(a) and their natural range, prohibiting:

a) all forms of deliberate capture or killing of specimens of these species in the wild;

b) deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration;

c) deliberate destruction or taking of eggs from the wild;

d. deterioration or destruction of breeding sites or resting places.”

The EU Habitats Directive (92/43/EEC) lists all Irish bat species in Annex IV and one Irish species, the lesser horseshoe bat (*Rhinolophus hipposideros*), in Annex II. Annex II includes animal and plant species of community interest whose conservation requires the designation of Special Areas of Conservation (SACs) because they are endangered, rare, vulnerable or endemic. Annex IV includes various species that require strict protection. Article 11 of the Habitats Directive requires member states to monitor all species listed in the Habitats Directive and Article 17 requires States to report to the EU on the findings of monitoring schemes.

The Bern and Bonn Conventions

Ireland is also a signatory to a number of conservation agreements pertaining to bats such as the Bern and Bonn Conventions. The European Bats Agreement (EUROBATS) is an agreement under the Bonn Convention. Ireland and the UK are two of the 31 signatories. The Agreement has an Action Plan with priorities for

implementation. Devising strategies for monitoring of populations of selected bat species in Europe is among the resolutions of EUROBATS.

1.3.1 The Berne Convention

Article 6 of the “Convention on the Conservation of European Wildlife and Natural Habitats’ (Berne Convention) reads:

“Each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the special protection of the wild fauna species specified in Appendix II. The following will in particular be prohibited for these species:

- a) all forms of deliberate capture and keeping and deliberate killing;
- b) the deliberate damage to or destruction of breeding or resting sites;
- c) the deliberate disturbance of wild fauna, particularly during the period of breeding, rearing and hibernation, insofar as disturbance would be significant in relation to the objectives of this Convention; ...

Appendix II lists strictly protected fauna species and this list includes “Microchiroptera, all species except *Pipistrellus pipistrelles*”.

The EUROBATS Agreement

The ‘Agreement on the Conservation of Populations of European Bats’ (EUROBATS) was negotiated under the ‘Convention for the Conservation of Migratory Wild Species’ (Bonn Convention) and came into force in January 1994. The legal protection of bats and their habitats are given in Article III as fundamental obligations:

- “1. Each Party shall prohibit the deliberate capture, keeping or killing of bats except under permit from its competent authority
2. Each Party shall identify those sites within its own area of jurisdiction which are important for the conservation status, including for the shelter and protection, of bats. It shall, taking into account as necessary economic and social considerations, protect such sites from damage or disturbance. In addition, each Party shall endeavour to identify and protect important feeding areas for bats from damage or disturbance.”

The Agreement covers all European bat species.

Contact Details:

The phone number for Bat Conservation Ireland is 086 4049468. Their website is www.batconservationireland.org. I can be contacted at 087 7454233. My email is donnamullen@wildlifesurveys.net and web site is www.wildlifesurveys.net

Appendix 1

SM2 Recordings at the rear of the site by the timber panelling

	FOLDER	IN FILE	OUT FILE	AUTO ID	PULSES	MATCHING	MARGIN	MANUAL ID
10		6747000_20190515_011000.wac	6747000_0_20190515_011500_000	NoID	1	0	0.000000	NYLE
11		6747000_20190515_011000.wac	6747000_0_20190515_011130_000	NoID	1	0	0.000000	NYLE
12		6747000_20190515_003900.wac	6747000_0_20190515_010330_000	PIPI	7	5	0.177878	PIPI
13		6747000_20190515_002643.wac	6747000_0_20190515_003313_000	NoID	3	0	0.000000	NYLE
14		6747000_20190515_002643.wac	6747000_0_20190515_003213_000	NoID	1	0	0.000000	NYLE
15		6747000_20190515_002643.wac	6747000_0_20190515_002843_000	PIPY	11	7	0.107183	NYLE
16		6747000_20190515_002643.wac	6747000_0_20190515_002713_000	PIPY	4	3	0.122328	NYLE
17		6747000_20190515_002643.wac	6747000_0_20190515_003343_000	NYLE	4	4	0.209459	NYLE
18		6747000_20190514_234000.wac	6747000_0_20190514_234130_000	NYLE	6	6	0.446919	NYLE
19		6747000_20190514_234000.wac	6747000_0_20190515_000430_000	NYLE	2	2	0.213403	NYLE
20		6747000_20190514_234000.wac	6747000_0_20190515_000600_000	NoID	2	0	0.000000	PIPY
21		6747000_20190514_234000.wac	6747000_0_20190515_001500_000	NoID	1	0	0.000000	NYLE
22		6747000_20190514_234000.wac	6747000_0_20190515_001600_000	PIPI	5	3	0.164223	PIP
23		6747000_20190514_234000.wac	6747000_0_20190515_001700_000	NoID	1	0	0.000000	NYLE
24		6747000_20190514_234000.wac	6747000_0_20190515_001930_000	NYLE	3	3	0.521708	NYLE
25		6747000_20190514_234000.wac	6747000_0_20190515_002200_000	PIPI	12	12	0.349485	PIPI
26		6747000_20190514_234000.wac	6747000_0_20190515_002330_000	NoID	1	0	0.000000	NYLE
27		6747000_20190514_234000.wac	6747000_0_20190515_002400_000	PIPI	13	12	0.296938	PIPI
28		6747000_20190514_231000.wac	6747000_0_20190514_231330_000	PIPY	10	10	0.296612	PIPY
29		6747000_20190514_231000.wac	6747000_0_20190514_231200_000	NoID	0	0	0.000000	NYLE
30		6747000_20190514_231000.wac	6747000_0_20190514_231000_000	NYLE	2	2	0.474982	NYLE
31		6747000_20190514_231000.wac	6747000_0_20190514_232030_000	PIPY	9	6	0.105227	PIPY
32		6747000_20190514_223100.wac	6747000_0_20190514_230600_000	NYLE	10	8	0.172698	NYLE
33		6747000_20190514_223100.wac	6747000_0_20190514_225900_000	PIPY	2	2	0.209390	NYLE
34		6747000_20190514_223100.wac	6747000_0_20190514_223930_000	NYLE	3	2	0.066657	NYLE
35		6747000_20190514_223100.wac	6747000_0_20190514_223900_000	PIPY	13	7	0.039868	NYLE
36		6747000_20190514_223100.wac	6747000_0_20190514_223730_000	NYLE	3	3	0.180110	NYLE
37		6747000_20190514_214641.wac	6747000_0_20190514_214941_000	NoID	2	0	0.000000	Noise
38		6747000_20190514_214641.wac	6747000_0_20190514_214641_000	MYBR	2	2	0.208853	Noise
39		6747000_20190514_214641.wac	6747000_0_20190514_220411_000	PIPY	4	2	0.082198	PIP
40		6747000_20190514_210000.wac	6747000_0_20190514_213200_000	MYBR	6	6	0.203613	Noise
41		6747000_20190514_210000.wac	6747000_0_20190514_213100_000	MYBR	5	5	0.205038	Noise
42		6747000_20190514_210000.wac	6747000_0_20190514_211400_000	NoID	1	0	0.000000	Noise
43		6747000_20190514_210000.wac	6747000_0_20190514_211330_000	NoID	2	0	0.000000	Noise

Appendix II

EM3 recordings - handheld

airton em3.jpg

12		__20190514_213948.wav	_0_20190514_213948_000	PIPI	49	37	0.408115	PIPI
13		__20190514_213745.wav	_0_20190514_213745_000	PIPI	31	16	0.107718	PIPI
14		__20190514_213441.wav	_0_20190514_213441_000	PIPI	4	4	0.370286	PIPI

Appendix III

EM3 recordings handheld

RESULTS

File Help

	FOLDER	IN FILE	OUT FILE	AUTO ID	PULSES	MATCHING	MARGIN	MANUAL ID
1		EM3__20190514_221445.wav	EM3__0_20190514_221445_000	PIPI	23	11	0.171917	PIPI
2		EM3__20190514_221545.wav	EM3__0_20190514_221545_000	PIPI	8	7	0.344562	PIPI
3		EM3__20190514_221615.wav	EM3__0_20190514_221615_000	PIPI	25	24	0.508259	PIPI
4		EM3__20190514_221645.wav	EM3__0_20190514_221645_000	PIPI	20	20	0.639802	PIPI
5		EM3__20190514_221715.wav	EM3__0_20190514_221715_000	PIPI	36	31	0.439393	PIPI
6		EM3__20190514_222517.wav	EM3__0_20190514_222517_000	NYNO	2	2	0.555848	Noise
7		EM3__20190514_222618.wav	EM3__0_20190514_222618_000	MYBE	4	3	0.169013	Noise
8		EM3__20190514_222818.wav	leislars	MYBE	2	2	0.303500	Noise
9		EM3__20190514_222918.wav	EM3__0_20190514_222918_000	MYBE	3	2	0.162147	leislars