

2025

Bat Eco Services Curriculum Vitae



Soprano pipistrelle

Tina Aughney 2016

Dr Tina Aughney
Bat Eco Services

Bat Eco Services, Ulex House, Drumheel, Lisduff, Virginia, Co. Cavan. A82 XW62.

Licensed Bat Specialist: Dr Tina Aughney (tina@batecoservices.com, 086 4049468)

NPWS licence C17/2023 (Licence to handle bats, expires 23rd January 2026);

NPWS licence 27/2023 (Licence to photograph/film bats, expires 31st December 2024) – 2025 renewal application submitted.;

NPWS licence DER/BAT 2022-36 (Survey licence, expires 24th March 2025).

Statement of Authority: Dr Aughney has worked as a Bat Specialist since 2000 and has undertaken extensive survey work for all Irish bat species including large scale development projects, road schemes, residential developments, wind farm developments and smaller projects in relation to building renovation or habitat enhancement. She was a monitoring co-ordinator and trainer for Bat Conservation Ireland for 20 years. She is a co-author of the 2014 publication *Irish Bats in the 21st Century*. This book received the 2015 CIEEM award for Information Sharing. Dr Aughney is a contributing author for the Atlas of Mammals in Ireland 2010-2015.

All analysis and reporting is completed by Dr Tina Aughney. Data collected and surveying is completed with the assistance of a trained field assistant.

Mr. Shaun Boyle (Field Assistant) NPWS licence DER/BAT 2022-37 (Survey licence, expires 24th March 2025).

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1st January 2025

RE: Supporting Document relating to Bat Eco Services Bat Expertise.

To whom it may concern:

This document has been compiled to provide a "CV" detailing the level of bat expertise accumulated relating to bat mitigation measures, particularly bat houses. It was considered that such a document is required to support Derogation Licence Applications and to provide scientific evidence of such bat expertise. This is currently a work in progress and will be populated with additional case studies as time permits.

If you require any further information, please do not hesitate to contact me.

Yours sincerely,
Dr Tina Aughney

1. Advanced Bat Techniques

Dr Aughney is the principal bat specialist for Bat Eco Services and has been a bat specialist since 2000. She has extensive experience of typical bat surveying methods (dusk and dawn surveys, acoustic analysis etc.) but also has expertise in relation to the following advanced bat survey techniques and the array of equipment to undertake such projects:

- Bat handling and biometrics
- Misting netting
- Harp trapping
- Acoustic lures
- Radio telemetry
- Ringing

Dr Aughney is also licenced to handle and trap bats in Ireland and has received numerous project licences that deployed other advanced survey techniques (i.e. licences are project based). As a consequence, she has undertaken projects across Ireland, UK, France, Greece and Poland. She has handled the following European bat species (list according to Dietz & Kiefer, 2014):

Bat Species	Handled	Bat Species	Handled
Lesser horseshoe bat <i>Rhinolophus hipposideros</i>	Yes	Serotine bat <i>Eptesicus serotinus</i>	Yes
Greater horseshoe bat <i>R. ferrumequinum</i>	Yes	Isabelline Serotine bat <i>E. isabellinus</i>	
Mediterranean horseshoe bat <i>R. euryale</i>	Yes	Anatolian Serotine bat <i>E. anatolicus</i>	
Mehely's horseshoe bat <i>R. mehelyi</i>		Northern bat <i>E. nilssonii</i>	
Blasius's horseshoe bat <i>R. blasii</i>		Part-coloured bat <i>Vesperugo murinus</i>	Yes
Daubenton's bat <i>Myotis daubentonii</i>	Yes	Common pipistrelle <i>Pipistrellus pipistrellus</i>	Yes
Pond bat <i>M. dasycneme</i>	Yes	Soprano pipistrelle <i>P. pygmaeus</i>	Yes
Long-fingered bat <i>M. capaccinii</i>	Yes	Hanak's pipistrelle <i>P. hanaki</i>	
Brandt's bat <i>M. brandtii</i>	Yes	Nathusius' pipistrelle <i>P. nathusii</i>	Yes
Whiskered bat <i>M. mystacinus</i>	Yes	Kuhl's pipistrelle <i>P. kuhlii</i>	Yes
Steppe whiskered bat <i>M. aurascens</i>	Yes	Savi's pipistrelle <i>P. savii</i>	Yes
Alcathoe whiskered bat <i>M. alcathoe</i>	Yes	Western Barbastelle bat <i>Barbastella barbastellus</i>	Yes
Geoffroy's bat <i>M. emarginatus</i>	Yes	Brown long-eared bat <i>Plecotus auritus</i>	Yes
Natterer's bat <i>M. nattereri</i>	Yes	Alpine long-eared bat <i>P. macrobullaris</i>	
Iberian Natterer's bat <i>M. escalerae</i>		Sardinian long-eared bat <i>P. sardus</i>	
Bechstein's bat <i>M. bechsteinii</i>	Yes	Grey long-eared bat <i>P. austriacus</i>	Yes
Greater mouse-eared bat <i>M. myotis</i>	Yes	Balkan long-eared bat <i>P. kolombatovici</i>	Yes
Lesser mouse-eared bat <i>M. oxygnathus</i>	Yes	Gaisler's long-eared bat <i>P. gaisleri</i>	
Maghrebian mouse-eared bat <i>M. punicus</i>		Schreiber's bent-winged bat <i>Miniopterus schreibersii</i>	
Noctule bat <i>Nyctalus noctula</i>	Yes	Anatolian bent-winged bat <i>M. pallidus</i>	
Greater Noctule bat <i>N. lasiopterus</i>		European free-tailed bat <i>Tadarida teniotis</i>	Yes
Leisler's bat <i>N. leisleri</i>	Yes		

2. Bat Mitigation Measures

2.1 Alternative Bat Roosts

One of the primary bat mitigation measures in operation is the provision of alternative roosting for bats. This is often in the form of bat boxes, but in recent years, the construction of bat houses or the renovation of existing buildings as bat houses is becoming more frequent.

Bat Eco Services has been involved in the design, supervision and monitoring of an array of bat houses for different Irish bat species. The aim of this section is to provide brief Case Studies of such projects.

2.1.1 Case Study 1 – Garryland Lodge, Garryland Nature Reserve, Co. Galway

Year: 2011

Type of work: Renovation

In brief, this project involved the complete renovation of a derelict gardener's cottage into a 2-room attic space and ground floor Cold Room bat house. The renovation plans were designed by The Vincent Wildlife Trust (VWT) while bat Eco Services undertook the supervision and monitoring of the project on behalf of Galway Co. Co. The monitoring work was published in Aughney *et al.* (2021).

Target bat species: Lesser horseshoe bat



Plate 1a,b: Garryland Lodge (external view) and Lesser horseshoe bats in roof space (internal).

Results:

A total of five bat species have been recorded roosting in the structure through monthly monitoring that was completed by the author from 2011 to 2019: maternity and hibernation roosts for lesser horseshoe bats (SAC standard); maternity roost for soprano pipistrelles; day roosts for brown long-eared bats, Daubenton's bat and Natterer's bat.

The number of lesser horseshoe bats went from 2 individuals from April, 2011 (Aughney *et al.*, 2021) to 304 individuals in July, 2024 (Source: NPWS Lesser horseshoe bat Database). This bat species was recorded roosting all year round from 2013 and is one of the more important lesser horseshoe bat roosts in the Gort area of Co. Galway. This building is listed as a qualifying interest for the Coole-Garryland Complex SAC.

2.1.2 Case Study 2 – Bective Bat House, Bective, Co. Meath

Year: 2021

Type of work: Construction

In brief, this project involved the construction of a new bat house as part of bat mitigation measures for proposed renovation of buildings recorded as bat roosts. The bat house consisted of a loft space designed for roosting requirements of Whiskered bat and brown long-eared bat and a ground floor with trap door access between floors. IFR Woodcrete bat tubes were integrated into the external walls of the bat house. The bat house was designed, supervised and monitored by Bat Eco Services.

Target bat species: Whiskered bat, brown long-eared bat



Plate 2: Bective Bat House (external view) inside deciduous woodland.

Results:

A total of three bat species were recorded roosting in the structure: three whiskered bats (roof space – between slate and felt), six brown long-eared bats (roof space – between slate and felt) and 11 soprano pipistrelles (bat tubes) (22nd August 2023).

2.1.3 Case Study 3 – Oldstreet Bat House, Co. Galway

Year: 2024

Type of work: Construction

In brief, this project involved the construction of new bat house as part of bat mitigation measures for the demolition of a farmhouse recorded as common pipistrelle bat roost. The bat house consists of a loft space and a ground floor with open trap door access between floors. Woodcrete (summer and winter) bat tubes were integrated into the external walls of the bat house.

Target bat species: Common pipistrelles



Plate 3: Oldstreet Bat House (external front view with 1FR bat tubes) with boundary hedge planting.

Results:

By 3rd September 2024, three bat species were recorded roosting in the bat house: common pipistrelle (in loft space – 6 individuals), Leisler's bat (bat tubes – 2 individuals) and soprano pipistrelles (bat tubes – 3 individuals). This was a highly successful occupation of the bat house within 6 months of the completion of the bat house.

2.1.4 Case Study 4 – Waterville Bat Houses, Waterville, Co. Kerry

Year: 2024

Type of work: Renovation x2 buildings

In brief, this project involved the recording of an existing building as bat roost for lesser horseshoe bats by another ecological consultancy. Bat Eco Services were commissioned to assist with bat mitigation measures as a result of this. During the construction of a new holiday home, the building recorded as a bat house was protected but, as a precaution, a 2nd agricultural building was renovation as a New Bat House. Bat Eco Services designed, supervised and monitored the renovation works for the New Bat House.

In December, 2024, renovation works was also undertaken of the Main Bat House. Bat Eco Services designed the new renovation measures, supervised and is currently monitoring this structure along with local NPWS Regional staff.

Target bat species: Lesser horseshoe bats

New Bat House



Plate 3a-d: New Bat House (external view with porch entrance), internal hot boxes in roof space an evidence of lesser horseshoe bat droppings in hotbox.

Main Bat House



Plate 3a-d: Main Bat House (external view of new roof), single lesser horseshoe bat recorded in roof space prior to renovation, new loft access point (predator proof) with internal baffle partition.

Results:

By 3rd September 2024, three bat species were recorded roosting: common pipistrelle (in loft space – 6 individuals), Leisler's bat (bat tubes – 2 individuals) and soprano pipistrelles (bat tubes – 2 individuals). This was a highly successful occupation of the bat house within 6 months of the completion of the bat house.

3. Published Works

3.1 First Author

Aughney, T. and Roche, N. (2012) An All-Ireland Volunteer-based bat monitoring scheme: The process of volunteer recruitment and validation of results. In (eds) Butler F. and Kelleher C. *All Ireland Mammal Symposium 2009*. pp23-30. Irish Naturalists' Journal, Ireland.

Aughney, T., Stephens, R. & Roche, N. (2021) Monthly roost counts of Lesser Horseshoe Bats (*Rhinolophus hipposideros* (Bechstein)) in a purpose-renovated building in Co. Galway. *Irish Naturalists' Journal* 37 (2):137-141.

3.2 Contributing Author

Aughney, T. (2016) Brown long-eared bat (*Plecotus auritus*). Pp 90-91. In Lysaght, L. & Marnell, F. Eds (2016) *Atlas of Mammals in Ireland 2010-2015*, National Biodiversity Data Centre, Waterford.

Aughney, T. (2016) Daubenton's bat (*Myotis daubentonii*). Pp 78-79. In Lysaght, L. & Marnell, F. Eds (2016) *Atlas of Mammals in Ireland 2010-2015*, National Biodiversity Data Centre, Waterford.

Lundy, M.G., **Aughney, T.**, Montgomery, W.I., and Roche, N. (2011). *Landscape conservation for Irish bats & species specific roosting characteristics*. Bat Conservation Ireland.

Mathews, F., Roche N., **Aughney T.**, Jones, N., Day, J., Baker, J., Langton, S. (2015). Barriers and benefits: implications of artificial night-lighting for the distribution of common bats in Britain and Ireland. *Philosophical Transactions of the Royal Society, B*. **370**: 20140124.

McGowan, N.E., Roche, N., **Aughney, T.**, Flanagan, J., Nolan, P., Marnell, F. & Reid, N. (2021) Testing consistency of modelled predictions of the impact of climate change on bats. *Climate Change Ecology*, 2: <https://doi.org/10.1016/j.ecochg.2021.100011>.

Roche, N., S. Langton, T. **Aughney**, J. M. Russ, F. Marnell, D. Lynn, and C. Catto (2011). A car-based monitoring method reveals new information on bat populations and distributions in Ireland. *Animal Conservation*, 14: 642–651.

Roche, N., **Aughney, T.**, Marnell, F. & Lundy, M. (2014). *Irish Bats in the 21st Century*. Bat Conservation Ireland, Cavan, Ireland.

Roche N., **Aughney T.**, Kingston, N., Lynn D. and Marnell F. (2015). Records for Nathusius' Pipistrelle (*Pipistrellus nathusii*) in Ireland from a car-based bat monitoring scheme. *Irish Naturalists' Journal* **34**(2): 83-88.

Roche, N.; Longton, S., **Aughney, T.**, Lynn, D. & Marnell, F. (2019) Elucidating the consequences of a warming climate for common bat species in north-western Europe. *Acta Chiropterologica*, 21 (2): 359-373.

3.3 NPWS Wildlife Manual

Roche N., Langton S. and Aughney T. (2009). The Car-Based Bat Monitoring Scheme for Ireland: Synthesis Report 2003-2008. *Irish Wildlife Manuals*, 39, National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government. Dublin, Ireland.

Aughney, T., Langton, S. and Roche, N. (2011) Brown Long-eared Bat Roost Monitoring for the Republic of Ireland: Synthesis Report 2007-2010. *Irish Wildlife Manuals* No. 56. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government. Dublin, Ireland.

Aughney, T., Langton, S. and Roche, N. (2012) All Ireland Daubenton's Bat Waterway Monitoring Scheme: Synthesis Report for 2006-2011. *Irish Wildlife Manuals* No. 61. National Parks and Wildlife Service, Department of the Art, Heritage and Gealtacht.

Roche N., Langton S. and Aughney T. (2012). The Car-Based Bat Monitoring Scheme for Ireland: Synthesis Report 2003-2011. *Irish Wildlife Manuals*, 60, National Parks and Wildlife Service, Department of the Arts, Heritage and Gealtacht. Dublin, Ireland.

Roche, N., Aughney, T. & Langton, S. (2015). *Lesser Horseshoe Bat: population trends and status of its roosting resource* (No. 85). , *Irish Wildlife Manuals*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Aughney, T., N. Roche, and S. Langton (2018). The Irish bat monitoring programme 2015–2017. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Dublin, Ireland. *Irish Wildlife Manuals*, 103: 1–134.

Aughney, T., Roche, N. and Langton, S. (2022) Irish Bat Monitoring Programme 2018-2021. *Irish Wildlife Manuals*, No. 137. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland

