Report for bat roost derogation

Explanation as to why the derogation sought is the only available option for works and no suitable alternative exists as per Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations.

As a professional ecologist conducting bat surveys, I occasionally need to enter potential roost sites to accurately assess bat presence, numbers, and species. Alternatives to entering the roost include carrying out emergence/re-entry surveys, using passive acoustic monitoring (i.e. automated detectors) and surveys using thermal imaging equipment. While these non-invasive methods (emergence surveys, acoustic monitoring, and thermal imaging) are always my first approach, these techniques have limitations:

1. Some bat species are difficult to detect through emergence surveys alone due to cryptic behaviour or multiple exit points
2. Acoustic monitoring cannot reliably distinguish between transient activity and established roosts
3. Thermal imaging often cannot penetrate deep roosting cavities or detect torpid bats

In specific cases where these non-invasive methods yield inconclusive results but roost presence is suspected, direct inspection becomes necessary to provide accurate data for conservation management and planning decisions. I will only enter roosts in limited instances when no viable alternative exists to obtain the required information, and will follow strict protocols to minimize disturbance.

An assessment of alternative solutions was conducted, and none were found viable in this specific context:

1. **Do-nothing scenario**: The 'do-nothing scenario' would mean proceeding without a license to enter bat roosting spaces, restricting me to exclusively non-invasive survey methods. This limitation presents significant drawbacks as non-invasive surveys alone often yield incomplete or potentially inaccurate data regarding species identification and population numbers, which could lead to inadequate assessment and inappropriate mitigation measures. Such outcomes would potentially harm the protected bat species rather than protect them. Without the ability to conduct internal roost surveys, project may be denied planning permission and hence not be completed. Furthermore, failing to conduct comprehensive bat surveys on structures or sites that later prove to harbour bats can result in serious consequences including project delays, substantial additional costs, and in some cases, complete work stoppage. The requested derogation represents the only approach that ensures both accurate ecological assessment and appropriate species protection.

2. **Seasonal Restriction of Surveys:** Limiting inspections to specific times of year was considered as an alternative to minimize disturbance. However, this

approach proves impractical since bats may occupy structures throughout the year, making potential disturbance unavoidable regardless of timing. While certain periods in the bat life cycle are particularly sensitive (such as maternity roosting and hibernation), the reality is that surveys must sometimes occur during these periods to gather essential data. Under the proposed derogation, I would follow strict protocols to minimize disturbance during all inspections, promptly withdrawing once sufficient information has been collected about a previously unidentified roost. This approach balances the necessity of data collection with appropriate respect for bat welfare, unlike a timing-restricted alternative which would create significant data gaps.

3. **Derogation granted:** If this derogation is granted it would enable me to carry out more comprehensive surveys in scenarios where non-invasive surveys fail to accurately identify or quantify existing bat roosts, and hence will provide more accurate data and a superior conservation outcome than the 'do-nothing scenario' or seasonal survey restriction.

Evidence that actions permitted by a derogation will not be detrimental to the maintenance of the populations of the species to which the Habitats Directive relates at a favourable conservation status in their natural range as is required under Section 54(2) of the European Communities (Birds and Natural Habitats) Regulations:

The proposed surveys will follow strict protocols designed to minimize impacts on bat populations:

1. Timing: Surveys will avoid sensitive periods such as maternity season and hibernation where possible. When timing conflicts are unavoidable, visits will be brief and conducted with minimal disturbance techniques.
2. Duration and frequency: Roost inspections will be limited to the minimum time necessary (typically under 10 minutes) and frequency (maximum one visit per season) to collect required data.
3. Population monitoring: I will maintain records of all roost visits and observations to contribute to long-term population monitoring, enabling detection of any potential negative trends.

Details of any mitigation measures planned for the species affected by the derogation at the location, along with evidence that such mitigation has been successful elsewhere:

I will implement comprehensive mitigation measures during all surveys:

1. Pre-entry assessment: Before entering any roost, I will conduct preliminary non-invasive surveys to determine the likely presence, numbers, and species of bats to minimize the need for direct disturbance.
2. Entry protocols: When roost entry is necessary, I will:

    - Use red-filtered light sources only
    - Keep noise and movements to an absolute minimum
    - Limit time spent in the roost to essential data collection only
    - Avoid handling bats unless specifically permitted for research purposes
    - Work in the smallest possible team (typically 1-2 persons)
3. Hygiene protocols: I will implement strict biosecurity measures including disinfection of equipment between sites to prevent disease transmission (particularly white-nose syndrome).
4. Documentation: Detailed records will be maintained of all survey activities, findings, and any observed responses by bats to human presence, allowing for adaptive improvements to techniques.

As much information as possible to allow a decision to be made on this application:
I will include some details on my competency as an ecologist:

I am a professional ecologist, operating on a range of projects across Ireland. I have a PhD in ornithology with extensive experience in a variety of ecological assessments, specialising in bird, bat and habitat surveys and assessments. I have experience undertaking fieldwork and technical assessments for developments such as largescale windfarms, solar farms, recreation facilities, greenways, residential and parks projects. My clients range from government agencies such as Failte Ireland and Local Authorities to private sector clients focused on renewable developments. I have worked on a variety of ornithological research and conservation projects which allowed me to develop strong fieldcraft and species ID skills. I am a skilled botanist and competent in most general ecological walkover survey skills. I am familiar with the key legislations and directives in Ireland such as the Habitats and Birds Directives, Irish Wildlife Act, Floral Protection Order, Schedule III invasive species etc.

Bat specific experience:
I have assisted Dr. Andrew Torsney during several bat roost surveys, as part of a training program, while working as a freelance subconsultant for Naturebound Consulting since 2023. In addition to training under Dr. Torsney, I have completed Bat Conservation Ireland's online training course (Introduction to Bats and Using Detectors). I have carried out a variety of preliminary roost assessments, activity surveys and dusk emergence surveys independently, while working as a freelance ecologist since 2024. I have extensive experience carrying out bat call identification analysis using Kaleidoscope software. I am up to date on relevant guidelines and best practices, including Marnell et al. (2022) and Collins (2023).

Bat related projects I have worked on include the following:

- **Coachmans Inn, Cloghran, Dublin (August, 2023) –** External roost survey (preliminary roost assessment- PRA) of a large building in Dublin while receiving training from Dr. Andrew Torsney. Following the PRA we conducted a dusk emergence survey.

- **Church Lane warehouse, Santry, Dublin (September, 2023)-** External PRA survey of a warehouse in Dublin while receiving training from Dr. Andrew Torsney. Following the PRA we conducted a dusk emergence survey. This was followed up with an activity survey following a request for further information in June, 2024.
- **Dublin Zoo (August-September, 2024)-** External PRA and a series of emergence surveys conducted on a building complex to be developed, under the supervision of Dr. Andrew Torsney.
- **Cappakeel, Co. Laois (August, 2024)-** A bat activity walkover survey and PRA of hedgerows on an agricultural site seeking to develop renewable energy infrastructure, undertaken independently.
- **Coolnagun, Co. Westmeath (October, 2024)-** Preliminary PRA undertaken of houses, trees and other structures in the zone of influence of a large renewable infrastructure project, undertaken independently.
- **Derryfada, Co. Galway (November, 2024)-** Preliminary PRA undertaken of houses, trees and other structures in the zone of influence of a large renewable infrastructure project, undertaken independently.
- **Drybridge, Co. Louth (Feb-March 2025)-** Installation of static bat detectors on an agricultural site seeking to develop renewable energy infrastructure, undertaken independently.
- **Scoil Mhuire, Glenmore Court, Co. Dublin (April, 2025)-** PRA and bat habitat suitability assessment undertaken as part of a preliminary ecological appraisal at the site of a school in Dublin, undertaken independently.
- **Keenogbane, Co. Monaghan (April, 2025)-** PRA and bat habitat suitability assessment, dusk emergence survey and activity survey for a planning application on a derelict house in Co. Monaghan.