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 an 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 house 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 noninvasive 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:

Daniel Blake (AtkinsRéalis Dublin) has a degree in Wildlife Biology and has been working in the environmental consultancy sector for the past 7 years. He has worked in both large scale government infrastructure projects as well as domestic projects across the UK and Ireland conducting both environmental and ecological roles. Primarily conducting protected species surveys such as bats, badgers, birds, reptiles, small mammals and amphibians as well as invasive species surveys. He has also earned a Natural England licence for the survey of Great crested newt. He has been involved in habitat surveying and assisted in the writing of Appropriate Assessments, Preliminary ecological appraisals and protected species reports. Throughout his career he has acted as an ECoW for numerous sites to ensure environmental laws and practices are met. He has been involved in water and soil sampling surveys, levelling surveys and creation of hibernaculum. Daniel undertook field surveys and for the proposed development assisted with the collation of background information to inform this report.

Daniel Blake has been conducting and leading a variety of bat works for over 7 years from initial assessment of sites to surveying and monitoring for a variety of small and large-scale projects across the UK and Ireland. These projects ranged from small scale home assessments for individuals to large scale projects such as HS2 and network rail. Daniel has experience in assessing building, bridges, trees and other structures for bat suitability and suggesting, planning, leading and conducting emergence and activity surveys. On completion of these works he is experienced in assessing and reporting bat data.

Daniel Blake has worked for a number of companies and as a subcontractor in numerous companies and regions across the UK and Ireland surveying and advising on bats over the past 7 years.

Key Experiences

- Building/Tree/Bridge inspection for roost potential
- Bat Emergence & Re-Entry Surveys
- Bat Activity Survey
- Bat data Analysis
- Bat Static detectors
- Badger surveys
- Barn Owl survey
- Camera Trapping
- Ecological Clerk of Works
- Great crested Newt Surveys (Natural England Licence)
- Habitat Surveys
- Nesting bird checks
- Otter Surveys
- Q values data collection
- Reptile Surveys
- Small mammal surveys
- YSI Water Sampling
- Appropriate Assessment
- Natura Impact Statements
- Biodiversity Chapters of Environmental Impact Assessment Reports
- Biodiversity Chapters of Planning and Environmental Consideration Reports
- Multi-Criteria Analysis

Selection of bat related projects I have worked on include the following;

Eirgrid; In my current role I work on numerous projects for Eirgrid assessing there lines. This includes assessing nearby trees and structures for roost potential, habitat suitability for foraging bats and suitability for commuting bats. These projects include;

- CP0866 Great Island to Kellis 220kV Line Refurbishment Project
- CP1167 Drybridge to Platin 110kV OHL Uprate Project
- CP1403 Rinawade to Dunfirth 110kV Uprate Project
- CP1428 Cashla to Dalton 110kV Uprate Project
- CP1429 Castle Bar to Dalton 110kV Uprate Project

Boyne Greenway; Ecological baseline surveys of works locations and access routes such as habitat assessment, mammal surveys and ground roost assessment of both trees and structures for bats. Appropriate Assessment Screening and Natura Impact Statement.

Blackrock Dart Park Active Travel Scheme; Bat activity survey and analyse of the data produced.

Bray River Quarter; Appropriate Assessment Screening, EIAR Biodiversity Chapter, Ecological baseline surveys (habitats, terrestrial mammals, invasive species). Ecological Impact Assessment. Ecological input to design and mitigation. Surveys of works locations including bats, badgers, otters, habitats, and invasive species. Extensive bat surveys were undertaken assessing numerous trees for roost potential, emergence surveys and activity surveys. I then produced the bat report for the sight highlighting the results of the survey and mitigation measures.

Dublin Airport Authority Projects; This consisted of two separate projects assessing buildings for bat assessment and then conducting emergence surveys. I then acted as ECoW for the demolition of one of these buildings. We will be conducting further bat surveys for DAA in the upcoming survey season.

N55 Ballykeeran Bypass Project; Leading a field survey of the rivers, ditches and drains present in the area to determine their suitability and effect on otters. The secondary goal of this survey was to assess the habitats present within the scheme and identify ecological features and field signs with an emphasis on badger setts and trees with bat roost potential.

Sutton to Malahide Cycle Scheme; Conducting habitat surveys across the scheme while also assessing features or field signs of protected or invasive species. Appropriate Assessment Screening and Natura Impact Statement, Planning and Environmental Considerations Report – Biodiversity Chapter, ecological baseline surveys of works locations and access routes, ecological impacts assessments, ecological input to habitat protection and mitigation measures. As part of this project I have conducted bat activity surveys for the past three years.

Thomson, HS2; At the start of this position I surveyed large areas across the midlands for signs of bat roost potential in trees, recording the data to the HS2 specifications and then marking the tree. This included assessing various features of the tree for bat roost potential, identifying the species and if it was safe for a climbing survey. After the initial BT1 stage I began leading teams for BT3 or emergence surveys performing a dusk dawn survey every day. Before we perform the survey we would scope the tree to ensure no changes had occurred since it was last surveyed. Primarily these surveys were conducted on trees but occasional buildings were also surveyed. After the surveys I analyse the data to determine the species and its activity.