

Survey-related Use of Hand-Held Endoscope for Bat Detection

Applicant: Katy Steele, Bat Ecologist & Ecological Surveyor

Context: Regulation 54 – European Communities (Birds and Natural Habitats) Regulations 2011

Purpose: Survey-only, non-invasive use of a hand-held endoscope to improve the accuracy of bat roost detection within buildings and structures.

1. Introduction

This Supporting Information accompanies an application for a Regulation 54 derogation to permit the survey-related use of a hand-held endoscope during professional bat surveys. The derogation is sought to allow targeted visual inspection of concealed voids, cavities and structural features that cannot be reliably assessed through direct line-of-sight inspection alone.

The proposed activity is conservation-led and designed to minimise disturbance to bats by reducing uncertainty and avoiding the need for more invasive inspection techniques, such as dismantling fabric or opening up structures. The derogation is sought on an Ireland-wide basis, reflecting the applicant's professional bat survey work across multiple counties and site types.

The activity does not involve capture, handling, exclusion of bats, or damage to breeding or resting sites.

2. Objective of the Proposed Activity

The objective of the proposed activity is to improve the accuracy and reliability of bat surveys undertaken in buildings and structures. The use of an endoscope allows confirmation of bat presence or likely absence within concealed features, including roof voids, wall cavities, crevices and recesses, where access is otherwise restricted.

Accurate identification of bat roost use is essential to ensure compliance with Irish and European wildlife legislation and to inform appropriate avoidance, mitigation and conservation measures in advance of works. By reducing uncertainty at survey stage, the proposed method helps prevent inadvertent disturbance to bats and their roosts at later stages of projects.

3. Name, Qualifications and Relevant Experience of Applicant

Katy Steele is a professional Bat Ecologist and Ecological Surveyor based in County Kerry, working across domestic, commercial, heritage and infrastructure projects.

She holds a QQI Level 5 Major Award in Ecology and Practical Fieldwork (Distinction) and has undertaken specialist bat ecology training through Aardwolf Wildlife Surveys under the instruction of Conor Kelleher, including modules on surveying bats in buildings and infrastructure, bat detector use and acoustic identification, bat species and droppings identification, lesser horseshoe bat ecology, and practical bat handling.

Katy Steele undertakes ongoing continuing professional development through Bat Conservation Ireland and the Bat Conservation Trust and attended the National Bat Conference (Durham, 2025), including workshops on roost mitigation, survey design and acoustic analysis.

She is the holder of a current NPWS bat handling licence under the Wildlife Acts (Sections 23 & 34) and has experience contributing to and supporting Regulation 54 derogation applications, with licence returns submitted where required. Her professional experience includes bat surveys of occupied and vacant buildings, derelict structures, historic and protected monuments, and complex roof spaces.

In addition to consultancy work, she volunteers as a bat surveyor with the Vincent Wildlife Trust, contributing to bat counts, roost monitoring and roost enhancement initiatives, and is actively involved in bat rehabilitation and conservation education.

4. Description of the Proposed Activity and Methodology

The proposed activity involves the survey-only use of a hand-held endoscope for visual inspection of concealed structural features during bat surveys.

The endoscope will be used solely to determine the presence or likely absence of bats within features that cannot be safely or effectively inspected by direct visual means. The device will not be inserted into tight crevices that are occupied by bats and will not be used to manipulate, probe or alter any structural features. No contact with bats will occur.

The endoscope incorporates a low-intensity integrated light source. Use of the light will be brief and targeted to the feature being inspected. Where appropriate, additional

measures such as light diffusion or filtering may be applied to further reduce disturbance. The device will be withdrawn immediately if a bat is observed.

All inspections will be carried out by a suitably qualified and licensed bat ecologist, applying professional judgement at all times to minimise disturbance, particularly during sensitive periods.

5. Evidence Supporting the Derogation Tests

Test 1 – Reason for the Derogation

The proposed activity constitutes professional survey work undertaken to inform bat conservation, environmental protection and legal compliance. Accurate bat surveys are essential to ensure that appropriate avoidance and mitigation measures are identified and that bats and their roosts are protected during works to buildings and structures.

The use of a hand-held endoscope allows targeted inspection while avoiding more invasive techniques, thereby reducing the risk of disturbance to bats.

Test 2 – Absence of Satisfactory Alternative Solutions

A do-nothing approach would result in uncertainty regarding bat roost presence and could increase the risk of inadvertent disturbance at later stages. External inspection alone cannot reliably confirm the presence or absence of internal roosts. Opening up or dismantling structures would be more invasive and present a greater risk of disturbance.

The proposed use of an endoscope represents the least invasive and most proportionate method available to achieve the survey objectives.

Test 3 – Impact on Conservation Status

The proposed activity is temporary, localised and of short duration. It will not result in injury, mortality, exclusion of bats, or damage to breeding or resting sites. Given the low-intensity nature of the activity and the safeguards applied, the proposed derogation will not adversely affect bat populations at the local, regional or national level and will not be detrimental to the maintenance of favourable conservation status.

6. Monitoring, Reporting and Compliance

Survey findings will be documented through field notes and photographic records where appropriate. Records will be retained in accordance with professional practice. NPWS licence returns will be completed where required.

If bats are encountered during surveys, the activity will cease immediately and appropriate advice will be sought. All works will be undertaken in accordance with current best-practice guidance and wildlife legislation.

7. Conclusion

The survey-related use of a hand-held endoscope represents a best-practice, conservation-led approach to bat detection. It improves survey accuracy, reduces uncertainty, avoids unnecessary disturbance, and supports informed decision-making for the protection of bats and their roosts.

This Supporting Information is submitted in support of the Regulation 54 derogation application for 2026.