



Research Information Note

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The impact of ‘rock-fall’ mesh / netting on scientifically and educationally important geological exposures: a case study

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Introduction

There are many threats to the conservation of scientifically and educationally important geological exposures. The nature of these threats, the impacts they may have and the management strategies that can be used to deflect or mitigate against them are generally well understood. Occasionally, however, a new threat comes to light and its impact needs to be assessed and understood. The application of ‘rock-fall’ mesh / netting (henceforth referred to as ‘mesh’) onto scientifically and educationally important geological exposures, usually as part of an engineering scheme aiming to achieve face / slope stability, is one such new and growing threat. The impact of this operation needs to be better understood and ways of assessing and demonstrating it need to be developed.

What was done

In 2004, proposals to apply ‘mesh’ to scientifically and educationally important geological exposures at Black Rock, Brighton, both a Site of Special Scientific Interest (SSSI) and a Regionally Important Geological / geomorphological Site (RIGS) were heard at a public planning inquiry. In preparation for this inquiry, considerable analysis and thought went into considering how best to assess and demonstrate the impacts of ‘mesh’ on the important geological exposures at Black Rock. The inquiry provided a forum for rigorous examination of the evidence both for and against there being an impact from ‘mesh’, and the findings of the inquiry and the planning decision letter issued by the First Secretary of State provided further analysis and opinion on the subject. This report uses the Black Rock case study, including the public inquiry and subsequent findings, to consider the impacts of ‘mesh’ on geologically important exposures. It goes on to provide a checklist which may be used in assessing the impacts of ‘mesh’ on geological exposures of scientific and educational value in cases which may arise in the future.

Results and conclusions

The preparation for the public inquiry, the inquiry itself, the findings of the inquiry, and the subsequent planning decision described, and accepted, the impacts that ‘mesh’ would have on the scientifically and educationally important geological exposures at Black Rock. These impacts include a reduction of visibility of the exposure, especially from oblique angles, the trapping of debris and increased vegetation growth behind the ‘mesh’ and the restriction of the ability to accurately sample from the geological exposure. Mitigation measures such as removable sections of ‘mesh’ were considered but are not yet developed to a point where they could be considered as a viable option. A checklist for use in assessing a scheme involving the application of ‘mesh’ onto a geologically important rock face has been produced based on the experience and findings of this case study.

English Nature’s viewpoint

English Nature has a key role to play in conserving geologically important exposures and in assessing, managing and mitigating against threats likely to impact on such exposures. The application of ‘mesh’ on to scientifically and educationally important geological exposures is undoubtedly a growing threat that needs to be better understood and managed. This report provides the first published attempt at capturing current thinking on how to assess and demonstrate the impacts of ‘mesh’ on geologically important features and provides guidance that should be applicable in assessing similar cases in the future. Whilst this case study provides a sound basis from which to assess and demonstrate the impacts of ‘mesh’, it reflects only one case study. Similar proposals on less visibly significant homogeneous geology, for example, may lead to different conclusions being reached, thus highlighting the need for each case to be assessed on its own merit.

Selected references

PROSSER, C., MURPHY, M., & LARWOOD, J. 2006. *Geological conservation: a guide to good practice*. English Nature.

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