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| **Title:** | **Case Study: Sea Fisheries and European Marine Site, Flamborough** |
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| **Summary:** | The Case Study describes work commissioned by the North Eastern Sea Fisheries (NESFC) to provide an ecological assessment (including habitat mapping) of the 3 established prohibited trawling areas within its jurisdiction and mapping of principle benthic habitats within the Flamborough Head SAC. A range of techniques were employed. The resulting information will enable comparison of structures within and outside the prohibited areas and to inform management of the SAC. |
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# 1. Introduction

The North Eastern Sea Fisheries (NESFC) commissioned a comprehensive ecological assessment of the three established prohibited trawling areas within its jurisdiction, off Whitby, Filey and the Holderness coast. They are also involved in work based on mapping of principle benthic habitats within the Flamborough Head SAC (Figure 6). With this information it will be possible to compare and contrast structures occurring both within and outside the prohibited areas and to inform management of the SAC.

This work is on going with a final report on the ecological assessment due at the end of January 2007.

# 2. Aims and objectives

The three core objectives of habitat mapping in the ecological assessment study were to:

- Map principle seabed habitats in each area
- Compare & contrast seabed communities
- Compare & contrast mobile fish assemblages

The aim of using habitat maps and data on location of fishing in the SAC is to inform both management of this activity and management of the site.

# 3. Technical outline

The main survey techniques used to collect data were:

- single/multi beam AGDS
- limited side scan sonar
- Video characterisation/ quantitative sampling
- Fish video survey

The outputs are being incorporated into a GIS.

Within the SAC key habitat maps were derived using multi beam AGDS, sidescan sonar, visual diver surveys, video characterisation and quantitative sampling. Data on location of fishing activity was obtained from visual sightings of fishing vessels recorded on paper logs during routine offshore fisheries patrols undertaken between 1996 and 2006.

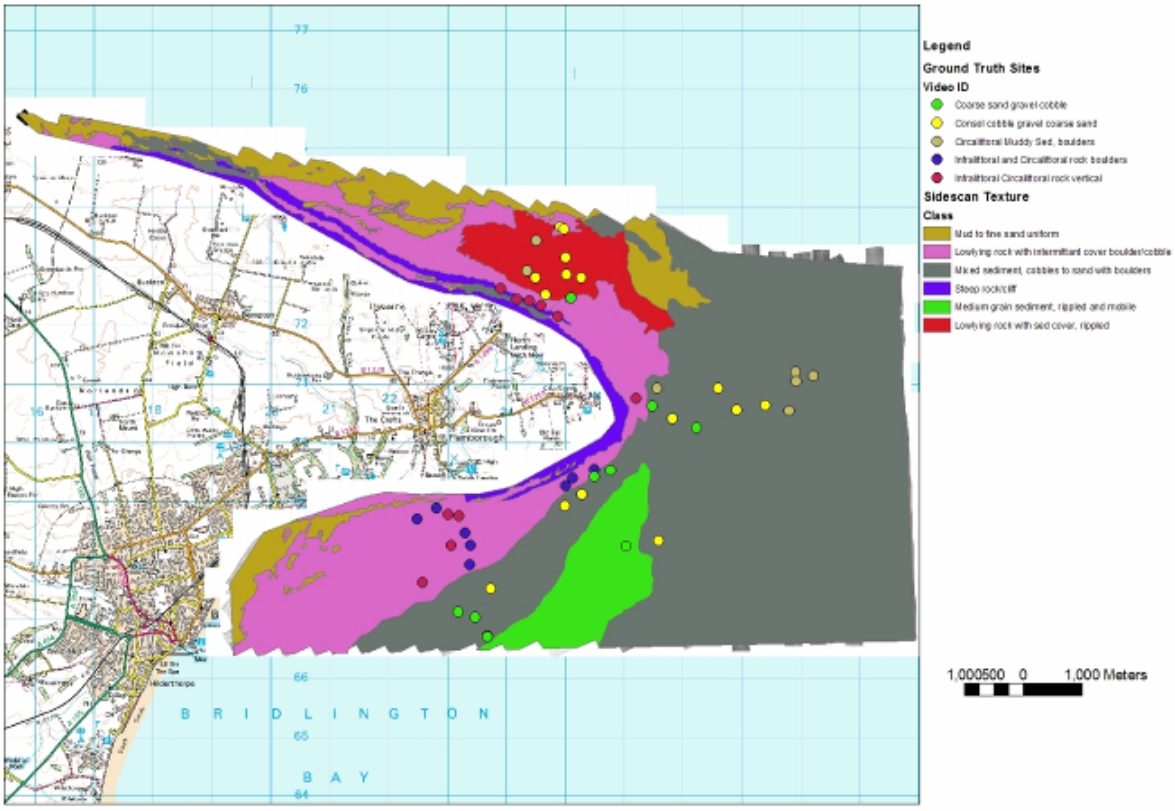


**Figure 1**. Seabed habitat mapping around Flamborough Head

## 4. Main application/use

The principle uses of the seabed mapping in this example, using the categories in Gubbay *at al* 2006 (Figure 3), are policy, planning, monitoring, audit and review.

The resulting habitat maps will be used in conjunction with digitised information on fishing activities to further advise the North Eastern Sea Fisheries Committee on the future management of fishing activities within the SAC site. The seabed habitat mapping work at Flamborough and at the three no-trawl zones will significantly add to both the Committee's ability to better manage fishing activities within its jurisdiction and to the digitised pool of national knowledge.

## 5. Conclusions

Seabed mapping work of the type described in this presentation will continue at Flamborough and eventually will be rolled out to cover the entire District. The data, used in conjunction with digitised fishing activity records, will improve the ability of the NESFC to undertake both fisheries and environmental management. At the same time it will add to the national pool of digitised knowledge.

## 6. Further information

Further information is available from North Eastern Sea Fisheries Committee:-

Website : www.neseafish.gov.uk

## 7. Acknowledgements

Thanks to David McCandless (North Eastern Sea Fisheries Committee) who gave the presentation on which the above is based and who reviewed the text in the MESH UK Workshop report.