

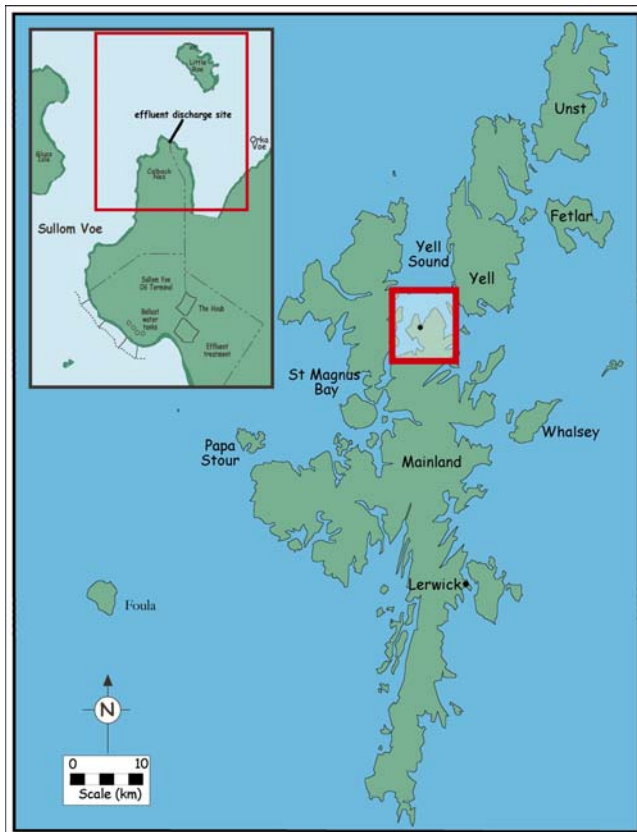


CASE STUDY: SULLOM VOE LONG-TERM MONITORING STUDY

In 2000, Sullom Voe in the Shetland Isles was proposed by Scottish Natural Heritage as a candidate Special Area of Conservation (cSAC) under the European Habitats Directive (92/43/EEC). It now is a cSAC in the category 'large shallow inlets and bays' which is regarded as important because of its physical and biological features and high biodiversity. Sullom Voe is however also home to BP's Sullom Voe terminal; one of the largest oil and gas storage and distribution centres in Europe.

SULLOM VOE MONITORING

Since 1978, BP has conducted an environmental sampling programme of the seabed community at eleven sites in the outer part of Sullom Voe. This macrobenthos component of the sampling programme was designed to monitor the benthic community structure, and complements the statutory monitoring carried out by the Shetland Oil Terminal Environmental Advisory Group (SOTEAG).



25 YEARS OF SURVEY

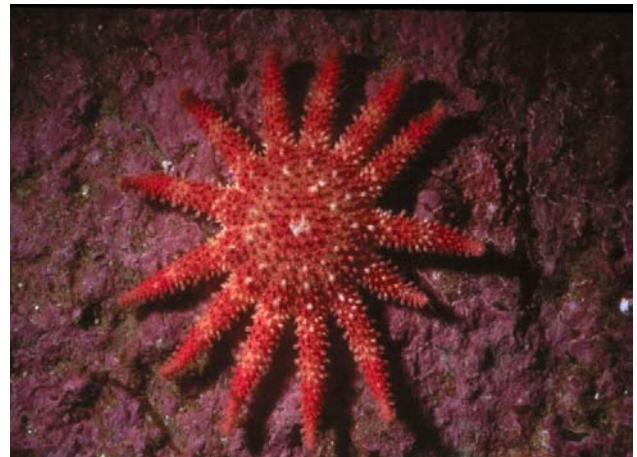
ERT has been the main contractor carrying out BP's monitoring for the last 25 years (originally as the Institute of Offshore Engineering (IOE which latterly became ERT (Scotland) Ltd). As a result, the methods used for sampling and laboratory processing have remained largely consistent over the 25 years of the Sullom Voe survey programme.

SURVEY FINDINGS

The findings of the BP surveys on these eleven sites, that lie largely in the outer part of Sullom Voe in waters characterised by particularly high macrofaunal biodiversity, have until now remained in unpublished BP reports. In comparison, the SOTEAG data has been used to report on the long-term effects on the macrobenthos at the head and mouth of Sullom Voe and around the loading jetties of the terminal.

LONG-TERM MACROBENTHOS STUDY

ERT in association with Dr Paul Kingston and Dr Hamish Mair of Heriot-Watt University, have carried out an analysis of the unpublished BP data-set. The primary intention of the study is to document the naturally occurring fluctuations in community composition and structure that have occurred over 25 years.



BENEFITS OF THIS STUDY

Understanding of such natural fluctuations is essential in the proper interpretation of monitoring data, so that pollution-induced changes can be separated from naturally occurring fluctuations. Data collected over such a long time-period will also indicate any longer-term changes and trends in the data, possibly resulting from external processes. The results of this study were presented during a conference in Nova Scotia in May 2003.