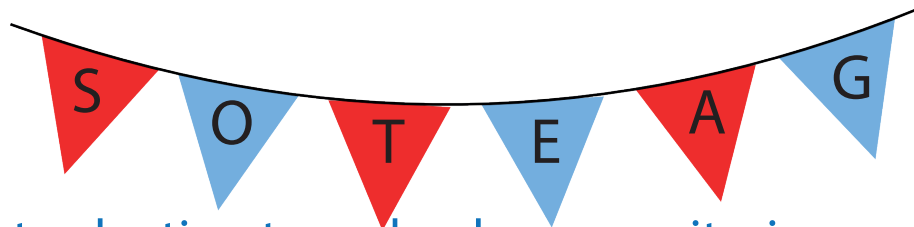
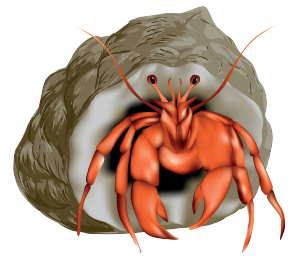




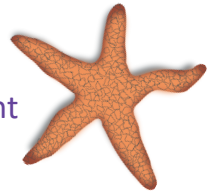
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Rocky shore monitoring



Introduction to rocky shore monitoring

- The rocky shore monitoring programme was set up in 1976.
- The programme was designed to assess changes in the animal and plant populations.
- Survey sites are centred on the Sullom Voe oil terminal and have been surveyed annually.
- It is thought to be the longest running continuous programme of rocky shores surveys anywhere in the world.

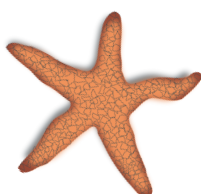


Field Survey

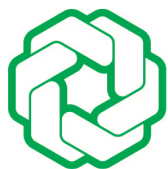
- Fieldwork is carried out in July/August
- All surveys are carried out within 3 hours of low water

Site and station location

- 15 sites are located within, or at the entrance to, Sullom Voe to enable monitoring of the effects of oil terminal activities.
- A further 10 sites are distributed around Yell Sound, Lunn and Vidlin Voe to act as reference sites for the natural changes that occur in rocky shore populations.
- 5 of those reference sites have been within the monitoring programme since 1993, but 5 were added during the 2017 survey.
- A hand-held GPS receiver and site location sheets, containing maps, colour photographs and written notes in laminated plastic, were used to aid relocation.
- A fixed datum (paint mark) marks the top of each transect. A tape may be laid down the shore from the fixed datum marker at the top of the transect, to provide a visible reference.
- The number of stations on a transect varies between sites, from 10 (sites with no lichen zone) to 29 (wave exposed site with extensive lichen zone).
- The sites are distributed at height intervals from supralittoral to extreme low water. The 5 stations currently monitored on each transect were selected to represent the 5 major shore zones of upper shore, upper middle shore, middle shore, lower middle shore and lower shore as defined by their relative height above chart datum and their assemblages of plants and animals.
- Since 1993, precise relocation of the monitored stations is made mainly with annotated close-up photographs; except on gradually sloping boulder / shingle shores where measured distances are used.

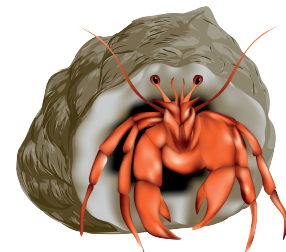


Find out more information about SOTEAG on the SOTEAG website www.soteag.org.uk

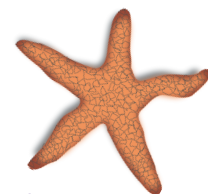


Rocky shore monitoring

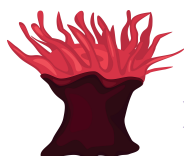
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In situ species recording



- The surveys are carried out by two surveyors, one surveying the animals and the other surveying the algae and lichens.
- The abundance for each species is recorded from a 3m horizontal strip (1.5m each side from the relocated station mark).
- The width of the strip depends on the slope of the substrata, aiming to represent the 10cm height band lying below the relocated station mark.
- On vertical rock surfaces the band is therefore 10cm high; but a broader band, to a maximum of 30cm, is surveyed on gradually sloping areas.
- Categorical abundance scores are assigned from a series of abundance scales. At each station, species of algae, lichen and some colonial animals are each assigned a categorical abundance score based on percentage cover, while species of mobile and other non-colonial animals are each assigned a categorical abundance score based on numbers of individuals per unit area.
- Most species have very patchy distribution across the long narrow (3m x 10cm) strip.
- Survey time at each station depends on species richness and habitat complexity, so the time required to survey a dense algal turf habitat on the low shore takes a lot more time than upper shore bedrock covered in a few encrusting lichens.
- To relocate and survey one site (5 stations) takes approximately 1 hour.



Photography

- Photographs were taken of each transect from different viewpoints and angles.

