



Abstract

'The Brigg' is a natural rock promontory over 500metres long on which we study how species are adapted to survive the abiotic and biotic stresses at its niche. Students may also investigate the effect of wave power by comparing north and south shores. These studies lend themselves to kite diagrams, statistical analyses, conclusions and evaluations that enable students to understand and practice processing and limitations skills.

Aim

- To investigate the effect of desiccation on the abundance of *Fucus serratus*
- To investigate the effect of wave exposure on the population and morphology of *Patella vulgata*

Learning Objectives:

(The Aims of the day are...)

- To grasp that tides and wave exposure are important forces at work across the intertidal zone of the rocky shore
- To experience the use of an interrupted belt transect to record the percentage cover of algae
- To experience the use of random sampling and the nearest neighbour method to record the morphology of limpets
- To collect robust primary data for the carrying out of statistical tests

Learning Outcomes:

(Following a full day's fieldwork, students will be able...)

- To define the ecological terms used in a rocky shore study
- To recognise the hazards associated with coastal fieldwork and explain how to minimise their likelihood of occurrence
- To identify seaweed species using their diagnostic features
- To evaluate the use of an interrupted belt transect and percentage cover to measure algae abundance
- To evaluate the use of random sampling and Vernier callipers to measure limpet shape
- To interpret the trends in primary data
- Where appropriate, to explain unpredicted trends in the data
- To evaluate the limitations in abiotic equipment and methods used in data collection
- To select, carry out, and justify the use of an appropriate statistical test
- To create kite diagrams of seaweed abundance and explain the distribution of algae in relation to their adaptations to biotic and abiotic stresses
- To conclude the differences in the North and South marine communities, explaining the differences using abiotic and biotic evidence gathered in the field.