

MANAGING STUDLAND BEACH – A THREATENED ECOSYSTEM

by Garrett Nagle

SAND DUNES can be found in many different parts of coastal UK. For example, in southern England there are 22 separate sand dune areas (Figure 1).

Studland Beach

Studland Beach is still wild and largely unspoilt. It is fronted by the broad sandy beaches of Shell Bay and Studland Bay, behind which are a succession of sand dune ridges and slacks leading to heathland, woodland, marsh and a large freshwater lake, The Little Sea (Figure 2). Because of the rich and varied plant and animal life, the area was declared a National Nature Reserve in 1962.

The National Trust tries to run Studland Beach as a family beach, and the number of visitors is controlled by access charges, and by the number of car parking spaces available. Since the National Trust became responsible it has increased the capacity for car parking by the provision of an overflow car park which can take a maximum of 500 cars. There is also a daily litter collection. The Visitor Centre was built in 1990 at the Knoll Car Park, which includes a shop, café and information point. There are 311 beach huts situated along the front of the beach. Most of these are privately owned, but the Trust manages 38 for weekly and seasonal lets.

There are conflicts between naturists and walkers along the coastal path, between power boat enthusiasts and owners of sailing boats, between board sailers, swimmers and sunbathers, and between dog walkers and visitors.

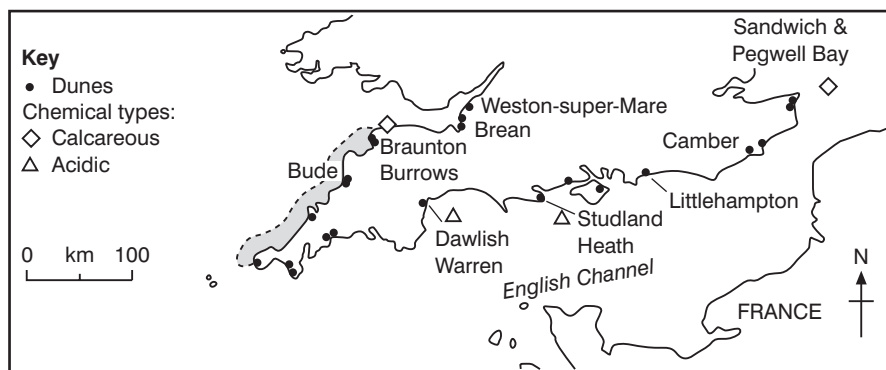


Figure 1: Sand dune areas in southern England

There are a number of specific problems for the staff to deal with on the beach:

- 1 There are four **car parks** in Studland plus two overflow parks. The capacity on a busy day, with cars moving in and out, is 3,500 cars. There is also roadside parking along Ferry Road for approximately 1,000 cars, and 300 around the village on verges, etc. During the season (Easter to the end of September), the total number of cars in the National Trust car parks is between 140,000 and 200,000 (Figure 3). On a busy day there are about 25,000 people on the beach and up to 1,000 cars parked on the Ferry Road. As many as 300 cars are parked illegally on yellow lines in the village.
- 2 **Visitors** are in excess of 1 million a year (Figures 4 and 5). These are concentrated in time. Most arrive in July and August. Estimated numbers of visitors on the beach on a busy day are 20,000–25,000, with approximately 8,000 coming by foot across on the Bournemouth/Studland chain ferry. About 95% of all the visitors come just for the beach, and only 5% venture into the Nature Reserve, which comprises the sand dunes, heathland, woodland and The Little Sea (lake).
- 3 About 12–13 tonnes of **litter** are dumped each week on the beach by the huge influx of visitors. To cope with the problem, the National Trust puts out approximately 200 litter bins during the summer months.
- 4 **Lost children** – often up to 30 a day – have to be reunited with their parents. (Once on the beach, the beach and dunes look very similar, so it is very easy to get lost.)
- 5 **Dealing with conflicts of interest** – there is a designated area for nude sunbathers (called *naturists*). People using the coastal path for walking feel offended by these naturists. A new footpath has been created, called Heather Walk, which runs behind the naturist area in the dunes, and allows the general public to walk the full length of the beach without encountering naturists.
- 6 There is some wear and tear on the **footpaths** on the Nature Reserve, but this is being monitored, and walkways have been put down in the most worn sections.

In 2000 the National Trust announced that it was to adopt a land-use zoning plan to provide two safety areas for swimmers, and that these would be kept clear of boats and other watercraft. This followed lengthy consultations with local residents and visitors about safety on the beaches.

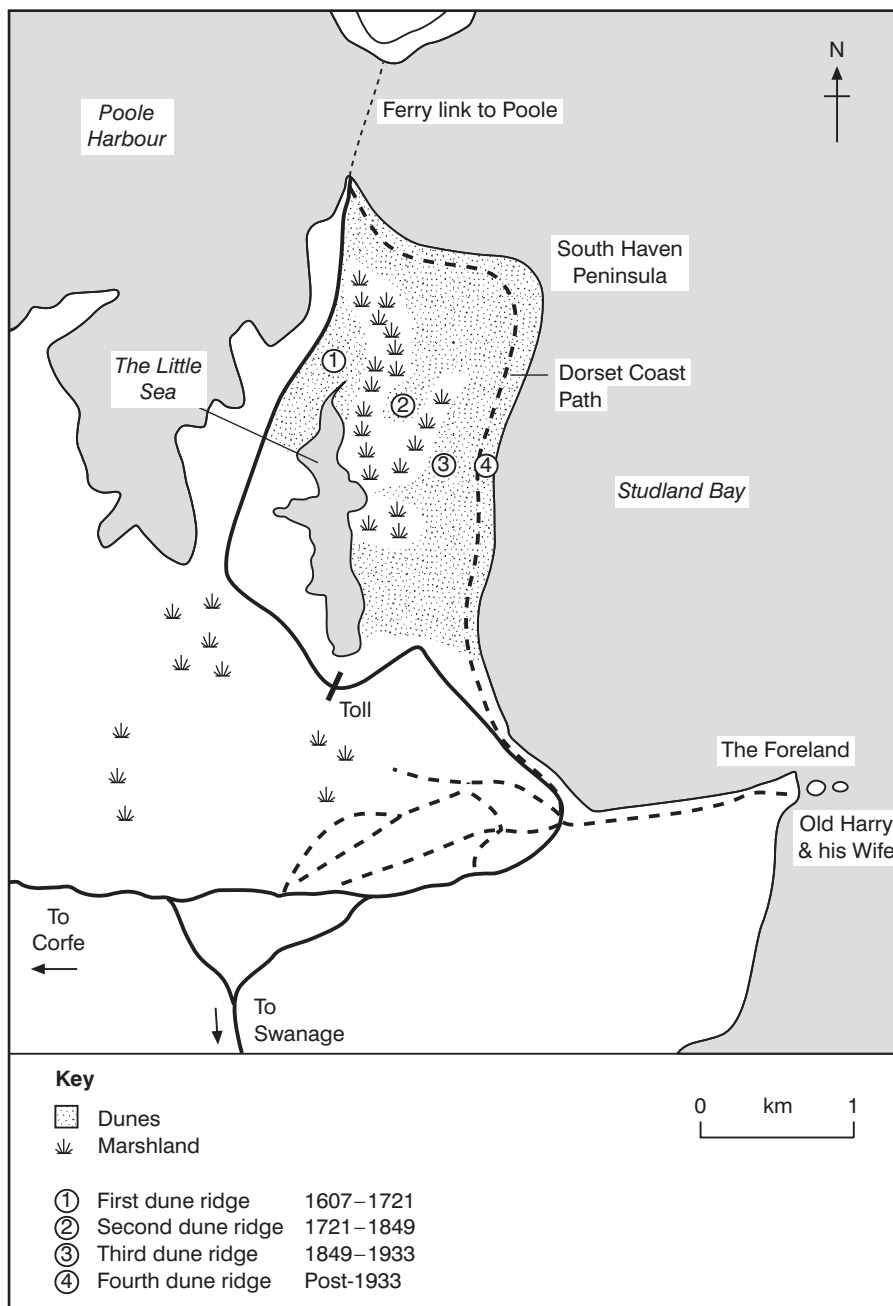


Figure 2: Studland Heath and The Little Sea

Visitor numbers:	Over 1 million a year
Parking spaces:	<ul style="list-style-type: none"> • About 3,500 in the National Trust car parks • 1,000 on the verges of Ferry Road • 300 on the verges around the village
Total number of cars per year in the National Trust car parks:	135,000–210,000
Foot passengers during the high season on the ferry:	8,000
Estimated number of visitors to the beach on a busy day:	20,000–25,000

Figure 4: Visitors to Studland Beach

Consultations continue regarding the future of the whole Studland peninsula. Achieving a balance for the various interest groups –

naturalists, naturalists, water sports' fanatics, dog walkers and families – is proving difficult. The sheer number of visitors creates

1992	138,430
1993	142,643
1994	158,949
1995	178,228
1996	150,880

Figure 3: Number of cars using the car parks

Up to June	49,668 (33%)
July and August	87,699 (58%)
September	13,513 (9%)

Figure 5: The spread of visitors over 1996

problems, eg traffic congestion, litter, and soil erosion.

Up to 5,000 cars a day turn up during the peak months, and there are as many people again on the police-patrolled naturist beach (Britain's largest).

At a conference in February 2000, the National Trust brought together local residents, visitors and other interest groups in order to tackle some of the problems that Studland faces. Over 60 representatives from local government, local businesses, clubs and charities attended and made suggestions to the Trust. Various opinions were voiced, including those quoted in Figure 6.

Studland lost 190 car parking spaces in 1999 due to erosion. Some of the erosion may be due to global warming – rising sea-levels and increased storminess on the south coast of England have certainly taken their toll. However, there is another cause. The removal of seaweed from a beach (because it smells, attracts flies, and is not very nice to walk on) may be popular with tourists, but it leads to increased soil erosion. The seaweed absorbs some of the sea's energy, and reduces its erosional strength. Without the seaweed the same wave (or storm) is able to do much greater damage. Rates of erosion at Studland Beach have been as high as 2 m in 2 years,

making it amongst the most rapidly eroding coastlines in Britain.

Fire is also a major threat. In 1997 a fire broke out as a result of some campers illegally camping in the dunes. The fire burnt a large part of the dune system on the southern part of the

peninsula. Although the vegetation is regenerating – one of the first species to show signs of recolonising the area is gorse – it is believed that it could take between 40 and 50 years for the natural vegetation to fully recover. The fire only burnt for about 30 minutes!

Studland has a major impact on the local economy. Up to £9 million is generated by tourism and leisure at Studland each year, and over 130 jobs have been created.

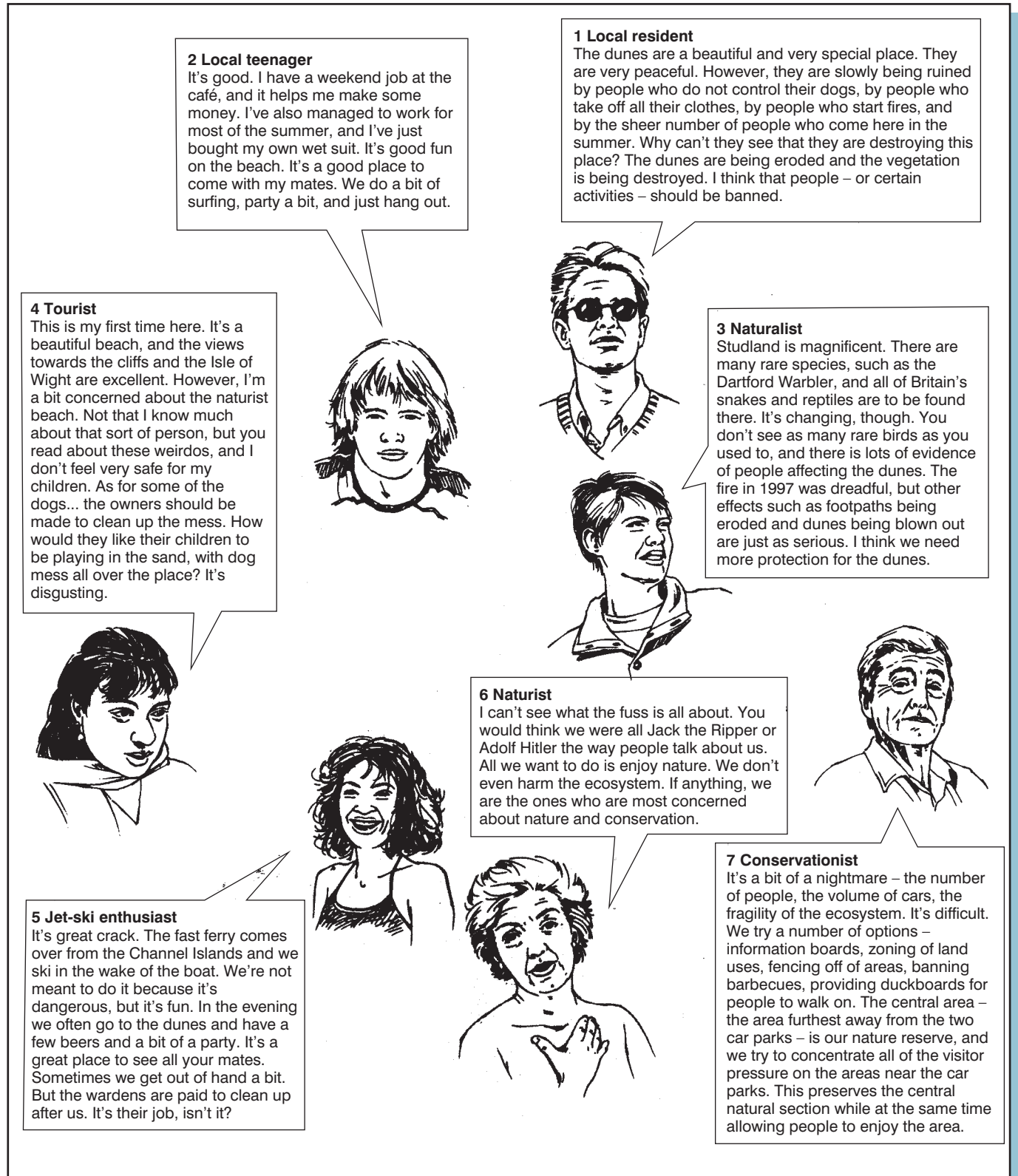


Figure 7: Some views on Studland

Activities

- 1 Choose a suitable method to show the data in Figure 3. Describe the results you have shown.
- 2 What are the implications of the concentration of visitors in July and August for managing the beach at Studland?
- 3 Make a table (with three columns in it) to show the advantages, disadvantages and potential conflicts as a result of tourism at Studland. Label the first column 'Advantages', the second 'Disadvantages' and the third 'Conflicts'. Fill out the table as best you can.
- 4 Briefly explain **three** problems that result from human activities on Studland Beach, and describe two methods of tackling each of these problems.
- 5 Outline the role of the National Trust in protecting the landscape of Studland.
- 6 Use Figure 7 to design a land-use zoning system for Studland Beach. You should provide locations for family bathing, walkers, naturists, conservation, and water sports. Label your map with reasons for putting each type of activity in that area.
- 7 What do you think is the best way to manage Studland? Justify your answer.
- 8 Study Figure 6. Working in pairs, try to make a list of all the advantages and disadvantages brought by tourism/public use in terms of impact on the ecosystem.

Decision-making exercise

- 9 Your teacher will divide you into 7 groups, each group taking on one of the roles set out in Figure 6. For the role you are allocated, expand your point of view. Prepare a 2-minute presentation to make your points.
- 10 Imagine that you represent the National Trust. Design a 10-point Managerial Plan which tries to come up with 10 solutions to the human/ecosystem conflict at Studland.

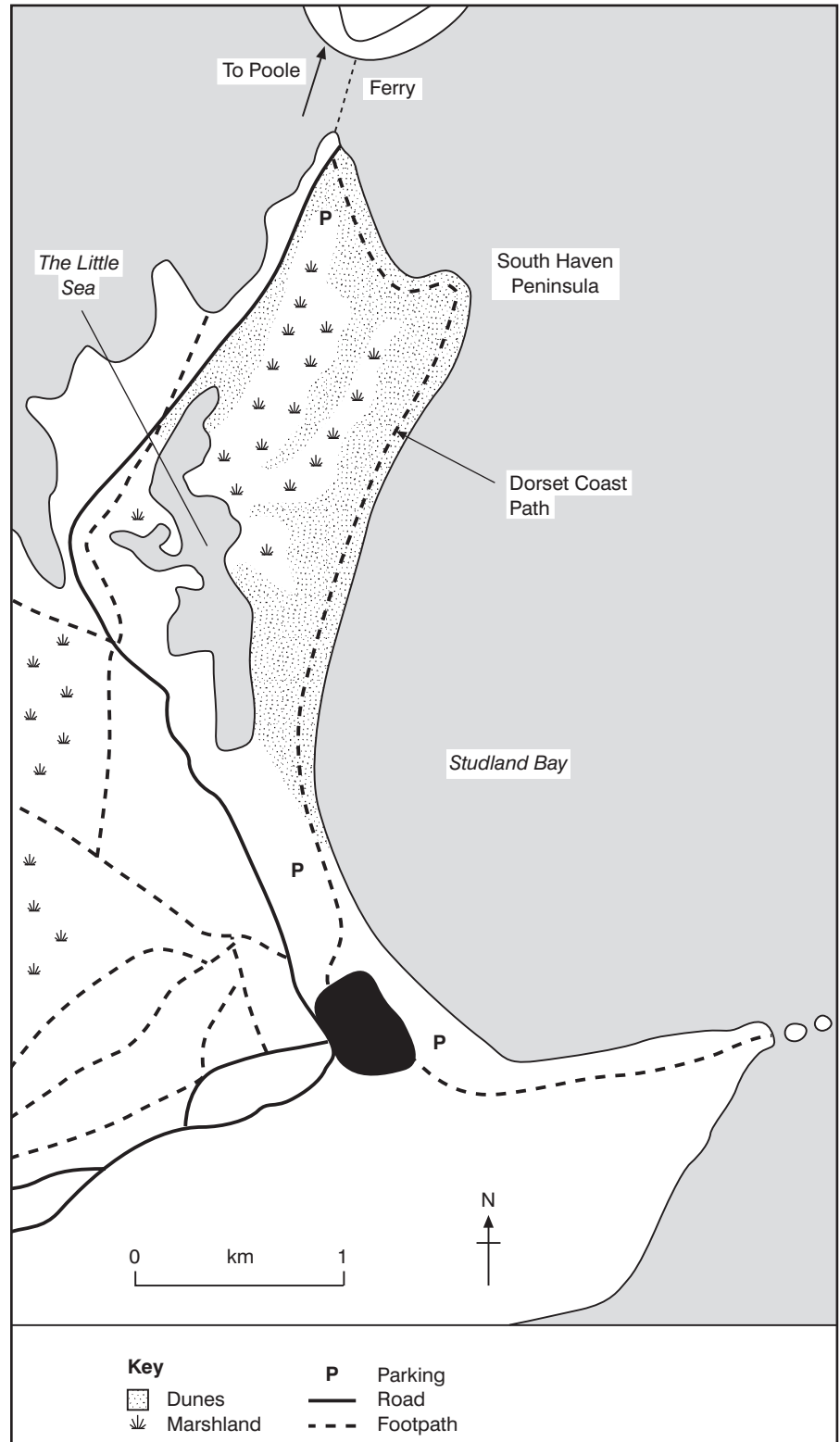


Figure 7: Studland Heath