

## Case Study: The Pinnacle, Sandy

RIGS leaflet *Lower Greensand: The Pinnacle Recreation Ground*

### **Introduction**

Sandy Pinnacle is a public open area to the west of Sandy. The site has a number of footpaths entering it (including the Greensand Ridge Walk) and remainder of the site is open to the public. There is a magnificent view across the Ivel Valley and a fine exposure of the Lower Greensand, part of the Greensand ridge that sweeps right across Bedfordshire. This area is historically important, as it is adjacent to an Iron Age Hill fort.

### **Geological History**

Sandy Pinnacle is an outcrop of the Lower Greensand, a sedimentary rock deposited about 100 million years ago on the bed of a warm shallow seaway. Some of the sand came from as far away as Yorkshire, carried by rivers. Harder Sandstone rocks have been left standing above the surrounding clay landscape by erosion. During the Ice age a river cut down through the exposed Greensand ridge here and there is also a dry valley where a small river flowed over the permafrost present at that time. The wide flat Ivel valley can be seen from the top of the Pinnacle. This valley was formed during the ice age when the Ivel was swollen to many times its present size by melt waters, this is why the valley is much wider now than the river needs it to be.

### **The Pinnacle Today**

Today the exposed Lower Greensand is rapidly eroding as the sand is washed down the steep slopes; this is accentuated by people straying from the recognised paths. The bare sand and exposed rock faces provide important habitats for solitary bees and wasps and close inspection of any exposed areas will reveal numerous small holes, particularly in the summer. The dry valley is now wooded with numerous large trees and plenty of dead wood for invertebrates to feed on. The flatter open areas have a typical acidic grassland community present because of the soil conditions created by the underlying Lower Greensand.

### **Fieldwork and further study ideas**

- Local geology and the ice age
- Local geology and the Greensand Ridge
- River processes including dry valley
- Wildlife and human uses on the floodplain
- Management of the river and surrounding areas
- Processes of erosion and deposition
- Investigate visitor pressure and management
- Investigate local habitats

