

Report:

Title: Red Sandstone Cliffs



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Introduction:

Miss Waiblinger, our teacher, gave us various topics to choose from, and we immediately knew what our choice was. We had never heard of the Red Sandstone Cliffs before, so we were curious to find out more about them. We thought working with the Cliffs would be a nice experience, because they are next to the beach. To start our project we wanted to see what the Cliffs looked like, how they were built and if they were accessible from everywhere. We also wanted to find out about their history, geology and what role they played in the conflict between human settlements and natural environment with its animals and plants. So, our main question was: Who is responsible for the protection of the cliffs as habitat for animals and plants? Our target was to get as much information as possible during our language stay in Bournemouth.

We formulated specific research questions regarding the Red Sandstone Cliffs which we got answers for from our two interview partners, Brian Heppenstall and Tom Bennett.

Specific questions about:

- Geology
- Construction
- Conflicts between human building constructions and the animals and plants
- Dangers (landslide)
- Protection
- Habitat for animals and plants

Methods:

Firstly, we searched the internet for information about the Red Sandstone Cliffs. As a next step, we looked for experts in Bournemouth to arrange an interview with. We wrote some emails to people who might have been able to specifically help us. Before we sent off our mails we always asked Miss Waiblinger to proof read the text first. After we got confirmation of our arrangement, on the 23 of September we travelled to Hengistbury Head to our meeting.

There we had an interview with Brian Heppenstall. The same evening we published the interview with him on the *Horse*.

Unfortunately, Brian Heppenstall could not answer all of our questions. Our next step was therefore to contact Tom Bennett, another expert in the field. Tom Bennett answered us, so we arranged a meeting. Tom is Senior Ranger for North Bournemouth Countryside.

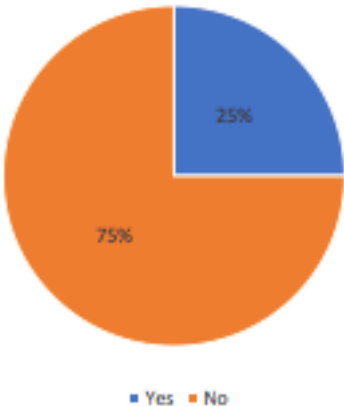
The next step was going to the Bournemouth Pier on the 25 September and interviewing passers-by in front of the Pier as part of our survey. We had chosen this date because the weather forecast for that day was excellent and we therefore hoped there would be a lot of people at the beach to answer our questions. As it turned out, we got 20 replies.

All we needed for material to take along with us was a pen and a notepad. We recorded how many positive and negative answers we received and to do that we used an Excel sheet that we had created in advance. For the data analysis we used a circle graph on Excel. Vanesa took her camera along and was ready in case somebody wanted to take pictures with us.

We did the survey and in the end we turned the answers into percentages and published our data analysis on the *Horse*.

In the first graph you can see that most of the people weren't there to sightsee. They wanted to take a walk and to be in nature.

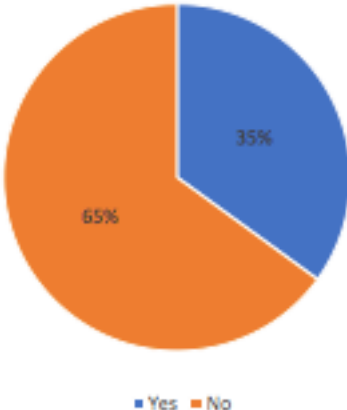
Are you for a sightseeing reason here?



1

What the second graph shows is that 65% of the respondents do not think the cliffs will ever crumble. The other 35% think they will.

Do you think the Cliffs might crumble some day?



2

In the third graph nearly half the people asked think that there is a danger of washouts.

Is there a danger of washouts?



3

In the fourth graph you can see that 90% of the people asked don't help to protect the environment. The remaining 10% do.

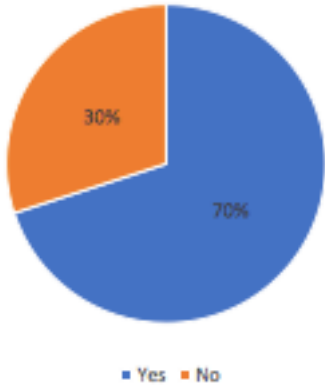
Do you help to protect the environment here?



4

In the fifth graph 70% think that there is a conflict between human constructions building and the animals and plants.

Do you think that there is a conflict between human constructions building and the animals and plants?



5

Our next step:

On Sunday, the 30 of September we returned to Hengistbury Head Visitor Center. Virginia's host mother had driven us there. We were lucky to be able to meet with Tom Bennett and ask him the questions our previous interview partner Brian Heppenstall had not been able to answer. We went on the clifftop to take pictures. We also read a lot of information in the museum of Hengistbury Head Visitor Center.

Later, we went to Virginia's host mother's sister Melissa, who's husband Andrew Duits could also give us some useful information. as he had worked at Hengistbury Head Visitor Center for a long time.



The last step was to prepare our presentation for the coming Tuesday and to learn our presentation by heart.

Results:

In our opinion it was a great experience to go to Red Sandstone Cliffs and have a look at the amazing wildlife, geological features and the rare animal species with their unusual names.

We were very happy to talk to both our interview partners, who were both very keen to do their job and help us with our project, which we very much appreciated. We acquired a lot of information from them and could learn a lot from our talks. We were surprised to see that so many people took their dogs for a walk by the Red Sandstone Cliffs. At the same time we were slightly disappointed by the fact that so many of the people we tried to talk to were not at all interested in our survey. They even walked past us or ignored us. But we can say that most of the people we encountered were friendly.

What we found out through our interview was that Bournemouth Borough Council own, manage and maintain the site. Brian Heppenstall and Tom Bennett from Hengistbury Head Visitor Center enjoyed and appreciated our visit and our interviews.

Construction:



The cliffs are a sandstone headland. They're made of sand and gravels deposited by melt-water rivers that flowed from the edge of ice sheets. Layers of sands, gravels and clays that make up Hengistbury Head were formed around 65 million years ago beneath a warm tropical sea.

Erosion of the sandstone over thousands of years has created the cliffs we have today.

Erosion has been a continuous factor at Hengistbury Head since the sea finally reached its base a few thousand years ago. However, Hengistbury Head was provided with a natural defence in the form of heavy Ironstone Doggers that fell from crumbling cliffs to the beach below and built protective barriers, both on the beach and off shore. Consequently, erosion at Hengistbury Head was a slow if not stationary process. The area had been stable for around 2000 years.

Bournemouth cliffs have been stabilised by the construction of a concrete promenade with long groynes. The consequent containment of loss of material from Bournemouth cliffs had essentially increased the erosion at Hengistbury Head as the arrival of material from the South-west had decreased. The building of groynes at Hengistbury has helped to contain this loss.

The shore is the point at which the land meets the sea, and shores consist of mud, rocks, pebbles, shingle and sand. Sand is formed by the gradual erosion of rocks and shells constantly battered by the sea. Eventually, fragments are broken down into small enough particles that they can be suspended in the water and carried by a process called longshore drift, finally being deposited further along the coast. The changing tide creates a variety of different habitats on sandy shores.

Flora:



The cliffs support over 300 plant species making them one of the richer sites in the country. There are rare species, some with unusual names such as mossy stonecrop. Unfortunately, over large areas of the cliffs, the natural plant communities are being damaged.

The Animals

Osprey:



Look for them fishing in Christchurch Harbour in March, April and September as they fly between their wintering sites in Africa and summer breeding grounds in Scotland and Scandinavia.

Hummingbird Hawkmoth:



Looking like tiny hummingbirds, these insects fly here from the Mediterranean and northern Africa, between April and December.

Red Admiral:



These large butterflies arrive from Europe and north Africa in May and June. Some survive the winter here, but most will have crossed the English Channel.

Sand Martin:



One of the first birds to arrive in spring from West Africa. They build nest burrows in the sand at the top of the cliffs.

Cuckoo:



Arriving here in April, the females lay eggs in the nests of reed warblers and other host birds. In August the young cuckoos fly to Africa without any help from the adult birds.

Chiffchaff:



A summer visitor to Britain, although some birds stay in southern Britain all winter. Listen for their repetitive „chiff-chaff“ song.

Dunlin:



Flocks of these small waders visit Christchurch Harbour in spring and autumn to feed during their migration between wintering sites in West Africa and summer breeding grounds in Iceland and Greenland.

Swift:



Arriving here in late spring to breed, these birds fly almost continuously, landing only to nest. They return to South Africa soon after the young birds leave the nest, disappearing almost overnight.

Sedge Warbler:



These birds cross the Sahara Desert to breeding grounds in Europe and Britain. A few pairs nest in the reedbeds surrounding Christchurch Harbour.

Picture sources: see at the end of the report.

Landslide



A funicular railway and toilets have been damaged in April 2016 after a huge landslide saw tonnes of debris crash down on a coastal resort. The funicular railway and the toilets were battered by stones, rocks and other debris as the pathway at the top of the 30 Meters verge gave way. It is believed heavy rainfall on the east Dorset coastline, coupled with a dip in temperature over the weekend, could have triggered the landslide. No-one was injured but the area has been cordoned off by the council amid concerns of further movement.

Again and again various accidents happen on the cliffs because most of the people think that it isn't dangerous there, but it is. My host father also told me many stories about people who just wanted to take a walk there and fell.

Hengistbury Head: What is so special about the name?

No one really knows why the place was named Hengistbury Head. The Victorians had a passion for naming things, sometimes without reason, and maybe they chose to name it after a Saxon King – Hengist – who along with another, Horsa attempted an invasion of the British Isles, although it is probable they landed hundreds of miles from Kent.

The area has a rich history with many different aspects including, trade, archaeology, geology and the wildlife interest.

Why do people come to visit the cliffs? Do they live there and work here?

It's a Nature Reserve and attracts lots of visitors, mainly tourists who come to look at the geology, natural history and views. The local visitors are mainly dog walkers and nature enthusiasts who come to exercise their dogs and enjoy looking at wildlife. Dog walking makes up for 25% of the visits. It's also a beautiful area with a beach, views and facilities such as a land train and Café.

Is its nature protected?

Yes - The Nature Reserve has many designations to help protect it from development and to preserve the wildlife and geological interest on the site. It is a (SSSI) site of special scientific interest and is protected under the wildlife and countryside act 1984.

Declared a Local Nature Reserve in 1990, the head and its surroundings form part of the Christchurch Harbour Site of Special Scientific. It is also a Special Area of Conversation, Special Protection Area, an environmentally Sensitive Area and a Site of Nature Conversation Interest.

What is the weather like there during the four seasons?

The weather is very changeable here at Hengistbury Head, we have had a very hot summer and that has attracted many visitors out on our Public Spaces, Parks and Nature Reserves in Bournemouth. In winter the site is very exposed to the elements as it sticks out into the sea and forms a headland.

Conflict between human constructions building and the animals/plants?

Luckily the designations previously mentioned protect the site from any addition building. Any small developments have to pass through a planning process to prove that they will not impact on the wildlife or archaeology. But we do suffer from some conflicts between wildlife and lots of public/human pressures including dogs and people.

Are the cliffs protected by law?

Yes – as part of a Site of Special Scientific Interest (SSSI) and Scheduled Ancient Monument.

How is nature protected here?

We have a Ranger team carrying out the practical management of the Nature Reserve and the designations to protect the site.

What kind of habitat for animals and plants is present here?

We have a range of different habitats including grassland, heathland, woodland, wetland, reedbeds, rivers, ponds, cliffs and beach areas.

Might the cliffs crumble some day?

Yes, they're at continued risk of erosion from the sea.

In our opinion it was a great experience to go to the Red Sandstone Cliffs and have a look at the wildlife. We were very happy to talk to both interview partners. Brian Heppenstall and Tom Bennett. We got a lot of information and also learned a lot from them. What us really surprised was that so many people go walking with their dogs at the Cliffs. On the other hand it was disappointing that there were people who didn't want to answer our questions for the survey.

Discussion:

We had a lot of fun writing and doing research for this project. We learned a lot about history, geology, the conflict between human constructions and the animals and

plants, geological features, rare animal species, protection, danger, nature and the wildlife. During our language exchange we learned a lot and could practice our English skills. It was a great experience for us. We did not know that so many people spend their free time working for the maintenance of the Red Sandstone Cliffs. This really made us think.

We expected a nice landscape at the Red Sandstone Cliffs, and it turned out to be exactly that. We hoped for the Cliffs not to be as we imagined them to. They were even better when we first saw them. We were quite impressed. We thought that the Cliffs were cordoned off, but they weren't cordoned off anywhere. We've also learned that the cliffs aren't accessible from everywhere. Some areas are not walk-through, because of the exceptional animals and plants species. We also learned that birds used to brew their nests on the clifftops, but that they have been chased away by the dogs so they nowadays no longer nest on the Cliffs.

In our opinion the way by train to the Hengistbury Head Visitor Center took too long, about 1.5 h. By car it just takes 24 minutes. Our idea would be to hire a bus which drives near the Red Sandstone Cliffs.

References:

Sources:

- <https://www.bournemouth.gov.uk/Parks/FindParksGardens/Clifftop.aspx>
- <https://www.southampton.ac.uk/~imw/Bournemouth-Geology.htm>
- <https://www.thebeachguide.co.uk/south-west-england/dorset/east-cliff-bournemouth.htm>
- <https://suncliff.oceana-collection.com/en/hotel.html>
- <https://www.visit-dorset.com/things-to-do/attractions/beaches>

People

- Brian Heppenstall
- Tom Bennett
- Andrew Duits
- Passengers

Others

- Museum
- Local information board