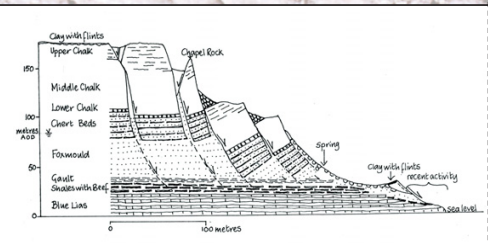




Age and Beauty

The rocks that underlie the reserve get younger as you travel from west to east. A walk from Seaton to Lyme Regis will allow you to discover a 25 million year geological time-line spanning the late Triassic to early Jurassic eras (between 210-185 million years old). The rocks are often obscured by the much younger overlying geology of the Cretaceous era.



The beauty of the site has been created by years of extensive and spectacular landslides. Major events have included the Bindon landslide, which was the first landslide to be described in a scientific manner. This was due to the fortuitous presence in Axminster, of the Revd. William Conybere and the Revd. William Buckland, two famous geologists.

The Undercliff – a maze of rocks, cliffs and landslides

The Axmouth to Lyme Regis Undercliffs NNR represents a very special part of the Sidmouth to Westbay Special Area of Conservation, the East Devon Area of Outstanding Natural Beauty, and the Jurassic Coast World Heritage Site.

An undercliff is the area of land between a sea cliff and an inland cliff. The inland cliff is typically a scar resulting from land that has broken free. The Undercliff is torn into ridges and troughs, shaped by small rock falls and landslides. Landslides usually occur after prolonged wet weather, when rainwater soaks into the permeable Cretaceous rocks. These rocks lie upon impermeable clays from the Triassic and Jurassic eras. The sheer weight of water develops high pressures underground that cause the Cretaceous rocks to break away and slide downhill toward the sea.

The landslides have created an unrivalled wilderness colonised by natural vegetation. The self sown ash and field maple woodland contain large areas of mixed scrub including wayfaring tree and spindle, with dense entanglements of bramble, madder, clematis and everlasting pea.

Wet areas, including ponds and springs, have their own distinctive plants, such as giant horsetail, sedges and common reed. The cliff top grassland contains a wealth of wildlife; Nottingham catchfly and early gentian, are two scarce plant species which thrive here. The reserve is also rich in mammal and insect life.



Spindle

Management

The species rich chalk grassland has to be maintained manually by cutting vegetation and the removal of scrub. Some ponds have been cleared and overhanging trees cut, to maintain high quality open water habitats. Path side coppicing has taken place to allow the path to dry and to permit sea views.

Unfortunately, non-native species have been introduced to the Undercliffs. Holm oak is a highly invasive alien tree which was first planted here in the 19th century. It is an evergreen, which casts dense shade preventing native species of plants from thriving. Holm oak is being controlled as a priority within the native ash and maple woodland. There are other invasive alien species on site such as rhododendron, cherry laurel, and pampas grass which are also being controlled.

Please be responsible when collecting fossils. Only search the loose beach material and do not dig into the cliffs or rocky ledges.

Tourist Information Offices

Seaton (01297) 24774
Lyme Regis (01297) 442138

Visitor Centres

Axmouth Sea Discovery Centre (01297) 21660
Charmouth Heritage Coast Centre (01297) 560772
Lyme Regis Museum (01297) 442138

Public Transport

There is a regular bus service (X53) between Exeter and Weymouth via Seaton, Lyme Regis and Bridport. The X31 and local buses link up to the nearest train station at Axminster.
Traveline (0870) 6082608

A great way to see the whole reserve is from the sea. Boats operate from Beer and Lyme Regis.

Ash woodland / Paul Gienell



The South West Coast Path National Trail

Walking this section of the 630 mile National Trail through the Undercliffs is a truly memorable experience. It takes you into the heart of the landslides, through dense jungle-like woodlands, that offer views of the inland cliffs and the occasional glimpse out to sea.

East Devon District Council Countryside Service is responsible for the management of this section of Coast Path.

SAFETY: Be prepared

The walk from the river Axe to Lyme Regis is about 7 miles and is strenuous. Be prepared for changes in the weather and take the following precautions:

- If you intend to walk through the whole reserve bear in mind that there are no intermediate paths leading to the beach or main road.
- The footpath is often muddy and slippery – stout footwear is essential.
- For your own safety keep to the Coast Path. There are deep fissures hidden by dense vegetation. Keep clear of any built structures.
- Rock falls can happen at any time so please keep away from cliffs.
- Ticks (a small blood-sucking insect) occur here. They can carry Lyme disease, which is a potentially serious condition. To avoid bites wear light coloured clothing and long trousers, tucked into your socks. Check yourself for ticks. If you are bitten and start to feel unwell, seek medical advice.
- In an emergency dial 999 and ask for the Coast Guard.



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For further information please contact:

English Nature
www.english-nature.org.uk

The Site Manager, English Nature, Yarner Wood, Bovey Tracey, Devon, TQ13 9LJ.
Telephone (01626) 832330

Celebrating the 50th anniversary of the National Nature Reserve with:



The World Heritage Team, Dorset County Council, County Hall, Dorchester Dorset DT1 1XJ

www.jurassiccoast.com



Area of Outstanding Natural Beauty
www.eastdevonaonb.org.uk
01395 517557



Front cover photograph: Peter Wakely



Axmouth to Lyme Regis Undercliffs National Nature Reserve

Part of Jurassic Coast: Dorset and East Devon World Heritage Site



working today
for nature tomorrow

Welcome to Axmouth to Lyme Regis Undercliffs National Nature Reserve

This magnificent reserve comprises 304 hectares of landslipped cliffs that form the most wild and unspoilt countryside in southern England. It was declared a National Nature Reserve in 1955. The site is internationally important for the mix of fossils, geological, geomorphological and ecological features it holds.

Haven Cliffs

These impressive red cliffs are composed of late Triassic rocks, 220-210 million years old, formed when the area was a desert. The grey and green layers are the remains of dried up temporary lakes, formed during periods of sea level rise.



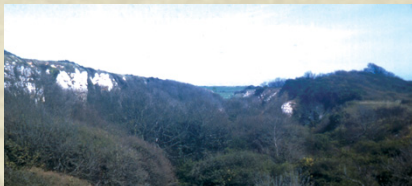
Seaton

The overlying Cretaceous white cliffs were formed in tropical seas 85-95 million years ago. Between these cliffs and the Triassic rocks beneath, past erosion has resulted in the disappearance of 100 million years of rock.

The cliffs contain ecologically important areas of bare ground, interspersed with a mix of flowering plants and scrub, which are home to birds such as the blackcap.

Bindon and Dowlands Cliffs

On Christmas Eve 1839 a massive section of cliff slid seaward, causing a great chasm to form at the back of the landslide. The landslide block, now known as Goat Island, carried with it wheat and turnip fields, which were later harvested during a festival to celebrate the event. This area is now managed for its herb-rich chalk grassland.



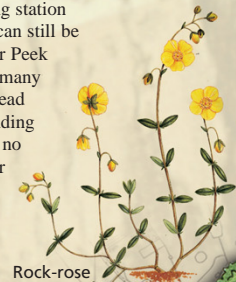
From the 1900s the chasm has been left undisturbed and the vegetation has grown rapidly into wild woodland. The mild temperate climate and decline in human activity, coupled with the reduction in rabbit grazing due to myxomatosis in the 1950's, has encouraged luxuriant vegetation to develop. These habitats support a wide range of song birds, such as marsh tit and bullfinch.

Evidence of past human activity is still evident in the remains of cottages, a sheep wash and estate buildings.

Rousdon Cliffs – the half way point

These cliffs lie in the Rousdon Estate created by Henry William Peek in 1871.

The ruins of a pumping station and engineer's house can still be seen from the path. Mr Peek unfortunately planted many exotic species that spread easily into the surrounding environment. There is no public access inland or to the beach.



Rousdon Cliffs

Charton Bay



Whitlands and Pinhay Cliffs

The Whitlands landslide is huge, over 750 m wide. It was formed by landslips in 1765 and 1840. The ground has slumped seaward like a spilt liquid pudding, cracking its inflexible crust. This has led to fissures forming on the surface that can be easily seen on the trackway.

Names such as Humble, Green and Pinhay Warren bear testament to early agricultural practices in the Undercliffs. Areas were used as warrens, where rabbits were reared for meat.

Lime, beech, sycamore, ash and maple trees dominate the canopy here. Understory species such as hard fern, tutsan and ivy broomrape can also be seen.

Pinhay Cliffs

Pinhay Warren

Whitlands Cliffs

Humble Green

Ware Cliffs

The landslides here are very active and create an ever changing mix of special habitats. These include slumped cliffs, grassland, ponds and wet flushes

Hartstongue fern

Ware Cliffs

Monmouth Beach

Lyme Regis and Monmouth Beach

The cliffs and the shore platform are made of Blue Lias which are repetitive layers of hard limestone and soft clays. Rock falls and mudslides occur frequently, pushing huge boulders into the sea. The area is renowned for its important geology and fossils. These prehistoric remains can easily be seen amongst the beach pebbles and rock platforms. Please leave in-situ fossils for all to enjoy. Collect only from loose beach material.

On the slumped areas you may be lucky enough to see wild flowers such as yellow wort, bird's foot trefoil, rock-rose and even the scarce yellow horned poppy.



Blue Lias cliff / Jim Banks

Yellow horned poppy / Donald Campbell

