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### Get ready for a great adventure 125 million years back in time

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# FOSSI Hunting ON THE ISLE OF WIGHT

The Isle of Wight, also dubbed "Dinosaur Island" amongst fervent fossil hunters, has the most significant wealth of dinosaur remains in the UK. When walking along the island's beaches, you'll often find locals and visitors searching for fossils underneath the chalk cliffs. As well as over 20 species of dinosaur, there is a wealth of crocodile, turtle, fish, reptile, mammal and pterosaur remains just waiting to be discovered.

This guide will prepare you for a great adventure 125 million years back in time, when the island was part of a large, subtropical river valley complex situated at the latitude of North Africa. During this time, ponds, rivers and swamps formed the home of millions of prehistoric creatures that roamed the leafy lands...

Grab your fossil hunting kit and get ready to dive into the captivating prehistory of the Isle of Wight.



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#### Preparation

Recommended Re Fossil Hunting Kit The Best Locati Hamstead ..... Yarmouth..... Compton Bay..... Brighstone Bay ..... Whitecliff Bay......9

Dinosaur Bones
Fish and Shellfish
Crocodiles
Turtles
Reptiles
Pterosaurs
Mammals

#### **Guided Fossil Walks**

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Mantellisaurus atherfieldensis

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# Preparation

Even before embarking on your fossil hunting trip to the Isle of Wight, you can immerse yourself into the palaeontology of the region with the help of our recommended reading list. These books and literature can provide you with extensive information about the Island's dinosaurs, pterosaurs and other fascinating fossils.

When getting ready to set out, make sure to pack the appropriate equipment to investigate the fossils you might find

DINOSAURS OF THE ISLE OF WIGHT

- and stay safe in the process. Our recommended fossil hunting kit includes all the items you might need to find, investigate and collect remnants of hundreds of millennia ago.



#### **Recommended Reading**

#### Dinosaurs of the Isle of Wight by

David M. Martill and Darren Naish (2001). This comprehensive guide describes all of the major groups of dinosaurs found on the Isle of Wight, including illustrations and

descriptions of every single species.

Geologists' Association Guides: The Isle of Wight by Allan Insole, Brian Daley and Andy Gale (1998). This book features walking guides which focus on the Island's geology.

#### Fossil Hunting on Dinosaur Island by

Martin Simpson (1998). A useful guide by the Isle of Wight's very own 'Fossil Man', Martin Simpson.

**British Mesozoic Fossils** by the *Natural History Museum* (1983). Includes extensive illustrations

for identifying fossils. **British Caenozoic Fossils** by the *Natural History Museum* (2001). Includes extensive illustrations for identifying fossils. **The Shaping of the Isle of Wight With an Excursion Guide** by *Eric Bird* (1997).

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When getting ready to set out, make sure to pack the appropriate equipment to investigate the fossils you might find – and stay safe in the process.

# Fossil Hunting Kit

#### Compass

Quality, hard wearing compass in a day glow design to prevent it (and you) getting lost.

#### **First Aid Kit**

A handy first aid kit in a tough, waterproof bag that can be worn on your belt or clipped to your pack.



WATERPROOF FIRST AID KIT

• Magnifying glass ● Compass ● Head torch

• Geological hammer, picks and chisels • Trowel & spade • Storage container/specimen bags ● Note pad ● Drysack ● Water bottle ● Toothbrush ● Camera ● First aid kit ● Survival bag • Fossil Hunting Guide

#### Drysack

Protect your gear and keep it organised with fully waterproof, colour-coded dry bags for inside your pack.



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Water Bottle Stay hydrated when you're on the go.

Guide to Fossil Hunting on the Isle of Wight

## What to Wear

#### **High Vis Jacket**

A durable, highly reflective 3M Scotchlite vest that will keep others well aware of your presence.



• High vis jacket • Safety glasses • Windproof jacket • Walking boots • Walking trousers • Fleece

comfortable walking trousers.

#### Windproof Jacket

A lightweight, minimalist jacket that'll keep you warm when the temperature drops.

#### **Walking Boots**

Lightweight, comfortable and waterproof, everything you want from a walking boot.

### The Best Locations for Fossil Hunting

The Isle of Wight has some of the best beaches for fossil hunting in the UK, boasting a remarkable diversity of specimens spanning the whole of the Cretaceous period. Multiple layers of fossil-bearing beds from the Vectis and Wealden eras are exposed on the southern

half of the Island, while the north features Eocene beds and Oligocene deposits of amongst others mammals and crocodiles.

If you're going fossil hunting on the Isle of Wight, we strongly recommend visiting the following sites.

#### HAMSTEAD

One of the best locations for finding fossils, Hamstead has a high density of perfectly preserved petrified remains. Crocodile and turtle plates and crocodile teeth are most commonly found along this stretch of coast, and freshwater molluscs are often found within the Hamstead Member. Using a sieve, you can extract fossil seeds from the Bouldnor Formation between Yarmouth and Hamstead.

#### YARMOUTH

YARMOUTH

COMPTON

The coastline of Yarmouth, located at the mouth of the small Western Yar river in the west of the Island, are scattered with fossils of mammals, crocodiles, turtles, crustaceans and fish. Molluscs, plants and seeds are sometimes found simply lying on the foreshore, so keep your eyes peeled!

TIP: explore Yarmouth and its castle before or after your fossil hunt.

The Barnes High sauropod

HAMSTEAD

BRIGHSTONE

#### **COMPTON BAY**

The entire stretch of coast along Compton Whitecliff Bay is a unique fossil beach Bay offers opportunities to find the on the Isle of Wight, as it allows visitors footprints, bones and even teeth of the to scour through various Eocene beds dinosaurs that once roamed these very of soft sands and clays, separated by grounds. Walk the Isle of Wight Coastal an unconformity from the underlying Cretaceous Chalk Formation. Due to Path along the cliff or follow the foreshore when the tide is low to find the fossils the geological folding that occurred that the Island is most famous for. during the Alpine orogeny, the strata in the main section of Whitecliff Bay WARNING: at high tide, the sea covers the are vertical, with the north featuring sandy beach almost completely, so make sure to keep an eye on the tide table. younger rocks.

#### **BRIGHSTONE BAY**

Brighstone Bay made its fame when a partial sauropod skeleton was found by a team from Portsmouth University. Lots of fossils can be found here WHITECLIFF - especially reptile and dinosaur remains. When walking along the

foreshore you might stumble upon some, but the best opportunities arise when erosion and cliff falls lay bare new layers of bed. We also recommend visiting the plant debris bed east of Grange Chine, whose hard surface is full of plant remains, teeth and bones.

#### WHITECLIFF BAY

BAY

# Types of Fossils to Find on the Isle of Wight

The Isle of Wight plays host to many different types of fossils spanning the whole of the Cretaceous period. As you scour the cliffs, clays and sands, you can expect to find traces of the following:

#### **DINOSAUR BONES**

There are several species of dinosaur for which virtually intact skeletons have been found on the Island. Under the Ornithischia order – consisting of herbivorous dinosaurs with a pelvic structure similar to that of birds – these fall either under the suborder Ornithopoda ("bird-footed", bipedal herbivores) or the suborder Thyreophora ("shield-bearers", armoured herbivorous dinosaurs). Under the Saurischia order – consisting of "reptile-hipped" dinosaurs – these dinosaurs fall under the suborders of Sauropodomorpha ("sauropodlike", giant long-necked herbivores) or Theropoda ("beast foot", bipedal carnivores).

On top of these more intact skeletons, bones of many more dinosaur species have been found on the Island; do get in touch with the museum if you believe to have found a noteworthy item. Compton Bay and Brighstone Bay generally offer the best chances of finding dinosaur remains.

#### FISH AND SHELLFISH

From the prehistoric times in which the grounds of the Isle of Wight were covered in swamps, ponds and rivers, a wealth of sea animal fossils remain. As you roam locations such as the Lobster Beds, the

Crioceras Beds and the Perna Bed, you will find the petrified remains of underwater creatures such as oysters, fish, lobsters, ammonites, brachiopods, bivalves, sponges and crustaceans.

#### CROCODILES

The early Oligocene beds at Hamstead and Yarmouth are known for yielding crocodile remains including teeth, jaws, vertebrae and skulls. In 2014, a new species of tiny crocodile was discovered when two different families who found part of a tiny skull and a snout, respectively. After reporting their finds to the Dinosaur Isle museum, scientific study showed the skull represented a formerly unknown species.

#### TURTLES

Bouldnor and Hamstead are excellent locations for finding relatively large turtle shell fragments of both the Trionyx and Emys species. A recent fossil discovery even uncovered a turtle the size of a small car, which is believed to have feasted on animals including crocodiles!

#### REPTILES

Various types of reptile remains can be uncovered amongst the fossil beds of Brighstone Bay, as well as in locations such as Yaverland, Sheperds Chine, Whale Chine and Brook Bay. In 2016, experts from the Dinosaur Isle museum identified the bone belonging to a Plesiosaur, a large predatory reptile that swam the seas in the Jurassic period, over 150 million years ago. The bone belonged to a juvenile reptile of only four metres long, but experts estimate that a fully-grown specimen would have grown to up to 10 metres in length.

#### PTEROSAURS

Pterosaurs are small,

flying reptiles that existed during most of the Mesozoic: from the late Triassic to the end of the Cretaceous period (228 to 66 million years ago). Remains of these flying vertebrates have been NY found on various occasions: in 2008. a five-year-old girl called Daisy Morris uncovered a fossil which Palaeontologists from the University of Southampton later identified as belonging to a 115-millionyears-old pterosaur, and in 2015, fossil enthusiast Will Thurbin found the world's oldest example of a coloborhynchus - a type of pterosaur not previously found on the Island.

#### MAMMALS

Mammal fossils of Entelodon (pig-like animals), Bothriodon and Brachyodus (grazers), and Caenotherium (small and deer-like mammals) who lived 65 million to 2.58 million years ago are occasionally found around the foreshore in the middle of Hamstead and Yarmouth.

#### "Do get in touch with the museum if you believe to have found a noteworthy item."

Baryonyx walkeri

Hypsilophodon foxii

Neovenator salerii

# Guided Fossil Walks

If you are new to fossil hunting or would like some expert guidance in identifying fossils and dinosaur pebbles, a guided walk would be an excellent place to start. Suited to groups, school classes, families and tourists, these walks will guide you to the best places to find new fossils, and teach you how to identify them yourself.

There are three well-respected operators on the Isle of Wight that can get your fossil hunting trip off to a great start:

#### **DINOSAUR ISLE**

The Island's purpose-built dinosaur museum organises guided walks with fossil hunting experts. Prices range from £5 for adults to £4 for pensioners and children up to 15 years old. Families of two adults and two children pay £16.50, and two adults with three children pay £19.50.

Dinosaur Isle, Culver Parade,

Sandown PO36 8QA

Tel: 01983 404344

Bookings: <u>http://www.dinosaurisle.com/</u> events.aspx

#### **DINOSAUR EXPEDITIONS**

Dinosaur Expeditions is a Community Interest Company created by local fossil enthusiasts. Their guided fossil trips range from £5.50 for adults to £3 for seniors and children up to 17 years old. Family tickets for two adults and two children go for £14.00 and a "grandparents' ticket" for two seniors and two children only costs £9.00. **Dinosaur Expeditions, Military Rd,** 

Brighstone, Isle of Wight PO30 4PG Tel: 01983 740844

Bookings: info@dinosaurexpeditions.co.uk

#### MARTIN SIMPSON ('THE FOSSIL MAN')

Martin Simpson is a bit of a celebrity on the Isle of Wight. Having published several papers and books and having been involved in various important excavations, he now runs the fossil and gem shop at Gem Cottage in Godhsill and organises popular fossil hunting trips on the Island.

Prices for his guided walks range from £4 for adults to £3 for children and seniors. A family ticket for two adults and two children costs £12, and two adults with three children pay a discounted price of £14.

The Fossil Man

Tel: 01983 740493 or 07 880 986 637 Bookings: jenny.hawthorn@live.co.uk

Valdosaurus canaliculatus

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"...a guided walk would be an excellent place to start..."

# Legalities

When fossil hunting on the Isle of Wight, you have to comply with certain legalities that aim to protect both yourself and the environment. Before embarking on a fossil hunting trip, you need to be aware of the rules and regulations.

#### **DIGGING UP FOSSILS**

On the Isle of Wight, any land above the high-water mark is owned by a landowner (usually the National Trust). It is illegal to dig fossils out of the cliffs without the landowner's permission. The whole of the southwest coast is designated SSSI (Sites of Special Scientific Interest) and you could get arrested for going up the cliffs carrying a shovel.

TIP: some guided walks have arrangements with the landowners, allowing them more privileges to dig up fossils.

Chipping away at the bottom of cliffs can put both yourself and others at risk - parts of the cliff could start

crumbling and fall and you could be apprehended. Do not take risks: stay away from the bottom of cliffs and always be aware of the tides.

#### **PICKING UP FOSSILS**

Picking up fossils from the beach is an accepted practice, as long as they are small and easy to move. Where larger fossils are concerned, it shouldn't be moved from its location – it might simply be too large to move, or get destroyed in the attempt. You are encouraged to report important finds to Dinosaur Isle, the Island's fossil museum.

# How to Get to the Isle of Wight

Are you ready to embark on an adventure 125 million years back in time? The UK's very own Dinosaur Isle is within easy reach for anyone in the UK! Whether you're travelling by public transport or by car, Red Funnel's Isle of Wight ferry service can transport you across the Solent in under an hour.

#### **TRAVELLING BY PUBLIC** TRANSPORT

Trains come in to Southampton Central from all across the country, and from there, the Isle of Wight is easily reached by ferry. A 20-minute walk or a 12-minute bus ride will take you from Southampton Central to the ferry terminal, from which you can catch a ferry to East Cowes (55-60 mins) or a fast ferry to West Cowes (23-25 mins). On arrival, there are connecting bus services to all parts of the island.

**TRAVELLING BY CAR** If you're driving, simply park your car on the Southampton vehicle ferry and you'll be shipped to the Isle of Wight in under an hour. Vehicle ferries from Southampton to East Cowes depart hourly during the day. The crossing takes 55-60 mins, pre-booking is recommended and car fares include up to 7 people. For more information or to book, visit redfunnel.co.uk.

#### Sources

https://www.redfunnel.co.uk/en/isle-of-wight-guide/activities/beginners-guide-to-fossil-hunting/ https://www.redfunnel.co.uk/en/isle-of-wight-guide/my-isle-of-wight/featured-articles/guide-to-our-best-fossil-hunting-locations/ http://www.discoveringfossils.co.uk/bouldnor-isle-of-wight/ https://ukfossils.co.uk/tag/isle-of-wight/ https://www.thebeachguide.co.uk/south-west-england/isle-of-wight/compton-bay-weather.htm https://www.southampton.ac.uk/news/2013/03/pterosaur-from-the-isle-of-wight.page https://www.southampton.ac.uk/news/2013/03/pterosaur-from-the-isle-of-wight.page http://www.itv.com/news/meridian/2015-07-08/worlds-oldest-flying-dinosaur-fossil-found-on-isle-of-wight/ https://en.wikipedia.org/wiki/Dinosaurs\_of\_the\_Isle\_of\_Wight http://www.dinosaurisle.com/events.aspx http://www.dinosaurexpeditions.co.uk/fossil-trips/ http://www.island-gems.co.uk/fossil\_man.html https://www.flickr.com/photos/visitisleofwight/

Iguanodon bernissartensis

Have

a great stay!



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