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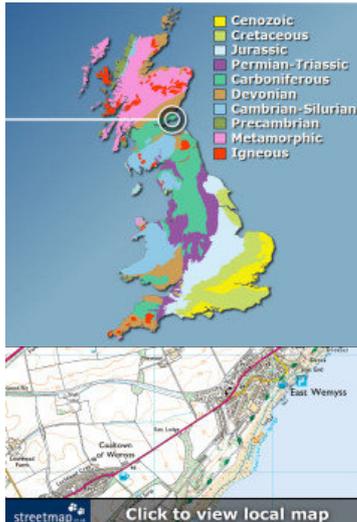
Written and designed by Roy Shepherd ©2011. Special thanks to my wife Lucinda Shepherd, friend Robert Randell and various experts for their support.

Contact details



East Wemyss (Fife)

Location maps



Location summary

Geological period

Carboniferous (Mid-Mississippian epoch)

Approximate age

335 million years

Fossil diversity

Tree/plant remains...

Supply of fresh material

Limited

Dangers to consider

Rising tide, shark objects... [read more](#)

Equipment needed

Hammer, chisel, eye protection...

Protection status

This location is designated a [SSSI](#)

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How might the East Wemyss area have looked 335 million years ago?



Introduction

East Wemyss would win few awards for its attractiveness, the foreshore is littered with bricks, machinery and construction waste from the neighbouring area. Despite having little in the way of natural beauty, the foreshore boulders provide an opportunity to observe a number of carboniferous fossils, in particular sections of *Stigmaria* (*Lepidodendron* tree roots).

Parking is available along the neighbouring coast road, and access to the foreshore can be made over the rocky sea defence or through the small boat yard (with permission). For the reasons described, East Wemyss is best suited for individual fossil collectors rather than families.

The geology of East Wemyss

The rocks exposed at East Wemyss are not in situ, they are in fact spoil heaps - manmade accumulations of dumped rock and rubbish from the surrounding area, probably from the construction of roads and housing in the last century. During our recent visit we noted a number of pieces of pottery and machinery lodged within the many different layers; this is perhaps more of an archaeological site than palaeontological!



Left: The remains of a building, buried beneath several metres of spoil but exposed more recently by the erosive forces of the sea. **Right:** More eroded spoils.

The rocks that make up the spoils were formed within an expansive delta system during the Carboniferous period (Visean stage), approximately 335 million years ago. Much of the rock exposed today was formed by sediment (sands and silts), carried and deposited by rivers across the region. This period represents a great change in the earth's history, with land plants evolving into large trees and ferns, and amphibians, reptiles and giant flying insects inhabiting the humid forests.

The photos above illustrate the nature of the foreshore and reveal the rocks and rubbish deposited on many different occasions. The right-hand picture shows a pile of orange bricks overlying a tightly packed layer of rounded pebbles.

For more information about the features and processes controlling coastal fossil collecting locations [click here](#).

Where to look for fossils?

Due to the chaotic and unpredictable nature of the exposures, there's no single place where fossils can be observed in situ, fossil hunting should be directed towards the boulders beneath the low-cliff. The accumulation of boulders on the foreshore is the result of frequent cliff falls, caused by the erosive forces of the sea, pounding the fragile spoils.



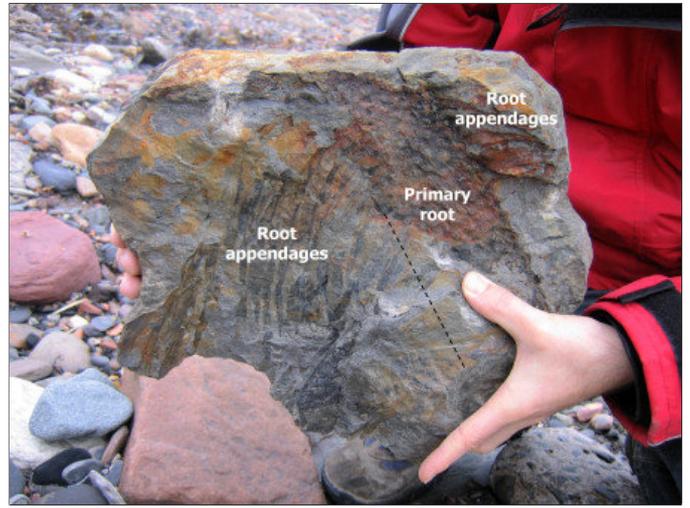
Left: A foreshore boulder containing two pieces of plant material visible on the outer surface. **Right:** A fragment of *Lepidodendron* tree root (*Stigmaria*).

Close examination of the foreshore boulders will reveal fragments of plant material, although good specimens are less uncommon. A heavy duty hammer and chisel are needed to split prospective boulders, some of which contain well preserved pieces of *Lepidodendron* roots - *Stigmaria*.

As with all coastal locations, a fossil hunting trip is best timed to coincide with a falling or low-tide. For a relatively low one-off cost we recommend the use of Neptune Tides software, which provides future tidal information around the UK. To download a free trial [click here](#). Alternatively a free short range forecast covering the next 7 days is available on the BBC website [click here](#).

What fossils might you find?

The most common fossils at East Wemyss are fragments of tree trunk and roots belonging to *Lepidodendron*. The bark is identifiable by its characteristic diamond-shaped leaf cushions, whereas the roots (known commonly as *Stigmaria*) are covered by a series of small pits (see photo below-right), from which smaller root appendages grew. Some *Lepidodendron* species could grow up to 40 metres; the roots spread horizontally, indicating humid environments.



Left: Roy holds a split boulder containing a well preserved *Lepidodendron* root (*Stigmaria*) complete with smaller root appendages. **Right:** Close-up.



Left: Unidentified plant root. **Right:** A small section of tree leaf cushions (*Lepidodendron*).



Left: A fragment of plant stem. **Right:** Another fragment of plant stem.



Left: A small impression of a plant stem. **Right:** A split boulder containing a *Lepidodendron* root (*Stigmaria*) and scattered root appendages.

Tools & equipment

It's a good idea to spend some time considering the tools and equipment you're likely to require while fossil hunting at East Wemyss. Preparation in advance will help ensure your visit is productive and safe. Below are some of the items you should consider carrying with you. You can purchase a selection of geological tools and equipment online from [UKGE](#).

Hammer: A strong hammer will be required to split prospective rocks. The hammer should be as heavy as can be easily managed without causing strain to the user. For individuals with less physical strength and children (in particular) we recommend a head weight no more than 500g.

Chisel: A chisel is required in conjunction with a hammer for removing fossils from the rock. In most instances a large chisel should be used for completing the bulk of the work, while a smaller, more precise chisel should be used for finer work. A chisel founded from cold steel is recommended as this metal is especially engineered for hard materials.

Safety glasses: While hammering rocks there's a risk of injury from rock splinters unless the necessary eye protection is worn. Safety glasses ensure any splinters are deflected away from the eyes. Eye protection should also be worn by spectators as splinters can travel several metres from their origin.

Strong bag: When considering the type of bag to use it's worth setting aside one that will only be used for fossil hunting, rocks are usually dusty or muddy and will make a mess of anything they come in contact with. The bag will also need to carry a range of accessories which need to be easily accessible. Among the features recommended include: brightly coloured, a strong holder construction, back support, strong straps, plenty of easily accessible pockets and a rain cover.

Walking boots: A good pair of walking boots will protect you from ankle sprains, provide more grip on slippery surfaces and keep you dry in wet conditions. During your fossil hunt you're likely to encounter a variety of terrains so footwear needs to be designed for a range of conditions.

For more information and examples of tools and equipment recommended for fossil hunting [click here](#) or shop online at [UKGE](#).

Protecting your finds

It's important to spend some time considering the best way to protect your finds onsite, in transit, on display and in storage. Prior to your visit, consider the equipment and accessories you're likely to need, as these will differ depending on the type of rock, terrain and prevailing weather conditions.

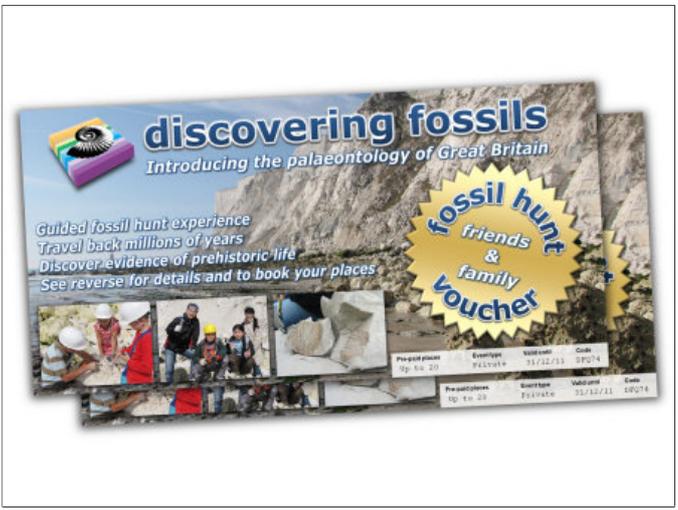


Left: Fossil wrapped in foam, ready for transport. **Right:** A small compartment box containing cotton wool is ideal for separating delicate specimens.

When you discover a fossil, examine the surrounding matrix (rock) and consider how best to remove the specimen without breaking it; patience and consideration are key. The aim of extraction is to remove the specimen with some of the matrix attached, as this will provide added protection during transit and future handling; sometimes breaks are unavoidable, but with care you should be able to extract most specimens intact. In the event of breakage, carefully gather all the pieces together, as in most cases repairs can be made at a later time.

For more information about collecting fossils please refer to the following online guides: [Fossil Hunting](#) and [Conserving Prehistoric Evidence](#).

Join us on a fossil hunt



Left: A birthday party with a twist - fossil hunting at Peacehaven. **Right:** Send someone special a Fossil Hunt Experience Gift Voucher

Discovering Fossils guided fossil hunts reveal evidence of life that existed millions of years ago. Whether it's your first time fossil hunting or you're looking to expand your subject knowledge, our fossil hunts provide an enjoyable and educational experience for all. To find out more [CLICK HERE](#)



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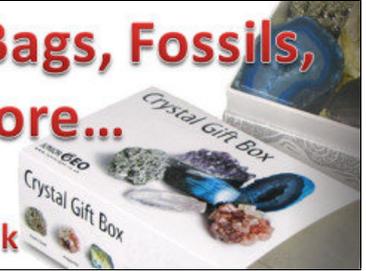


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A photograph of a 'Fossil Fun for Kids' event. A man in a blue shirt is interacting with a group of children at a table. In the background, there is a blue tent with the event name.

ARTIST PHIL ANSLOW

A photograph of a colorful fossil art piece, a trilobite fossil with vibrant colors.

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References: The Geology of Britain, P.Toghill; British Regional Geology, The Midland Valley; en.wikipedia.org; www.uni-muenster.de; A Dynamic Stratigraphy of the British Isles, R.Anderton and co.

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Safety notice: Fossil hunting can at times pose a risk to personal safety, in particular within environments close to the coast, cliffs or in quarries and when using the tools and equipment illustrated. Discovering Fossils provides a free resource to inform you about this fascinating subject and does not accept any liability for decisions made using this information. We recommend all individuals abide by the fossil hunting guidelines available by clicking on the icon at the top of the page.

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