Fossil fever

Who would think that Thane's chalk cliffs, as well as being beautiful, could hold the surprising story of our planet's past life?

The cliffs themselves are literally made up of billions of minute fossils; sealed coccoliths, a form of plankton - so tiny that you would get about a hundred thousand on a pinhead. They are larger (more recognizable) fossils abound in Thanet's cliffs and reefs. They give us a rare chance to look back over 80 million years ago when Thane! was covered by a warm tropical sea, teeming with ancient life forms.

Every single fossil is a unique find and, like us, a rare glimpse at a time when the Earth is general, and Thane! in particular, was a very different place from today.

Many fossils are washed out of the chalk naturally - ready to be picked up. This is by far the best and most responsible way to start collecting and helps preserve the chalk from unnecessary damage. If you are fortunate enough to pick up a fossil from the beach - be sure to wash off all the salt otherwise your precious find will eventually break up. What's the best way to do this? Well, just put in your toilet cistern! Every time you flush you're not only saving water but also washing off the salt. However, make sure descaler isn't in there or you will dissolve your fossil!



Ammonite in the cliff on Kingsgate

The **ammonite** is perhaps the most easily recognised fossil. Looking a bit like a coiled rope, these creatures are distantly related to living nautilus of the Indian Ocean. With a squid like head, these animals probably scavenged on the sea floor looking for dead fish, and other casualties. They are often found as farments of chalk with almost fern-like pattern on the surface. These are seasonal growth lines on the shell. The cliffs and reefs of Thanet hold a true giant of an ammonite species often reaching over 15 metres across.



Belemnite

The **belemnite** is a common fossil on our shores and looks a bit like a large brown coloured bullet. In fact, this is the backbone of a squid like animal that functioned in the same way as the modern day cuttlefish bone you often find washed up on the beach. Several different species of fossil belemnite are found in the chalk and probably formed the food source for predatory reptiles like ichthyosaurs and plesiosaurs.

Many of you will have seen odd shaped pieces of cream-coloured shell on the shoreline in some of our bays. These form a part of our beach sand as they slowly break up. Surprisingly these bits come from a very large fossil oyster shell called **inoceramus.** Due to its thin shell very few specimens are found intact and all that is preserved are small fragments. They are easily identified by the edge of the shell having thin vertical lines.

Inococermus



Another common shell fossil is **spondylus.** Looking vaguely like a large cockle, these bivalves were equiped with lonmg spines, on which they supported themselves above the soft chalkty seabed while they filtered the water for food. As with most shell fossils from our chalk, the original shell has been altered and replaced a chalky calcite.

Name that fossil!

Micraster



The **micraster** is a heart shaped fossil urchin distantly related to a modern burrowing sea urchin found around our coast called a sea potato! Like its modern relative, the micraster burrowed into the seabed sediments with its hair like spines in search of any tiny particles of food trapped in the mud. Like a number of the common fossil sea urchins recovered from the chalk, they can often be found as flint fossils.

Echinocorys



Echinocorys is perhaps the most common sea urchin fossil from around our shore. It has a distinctive helmet and, like the micraster was another burrowing urchin that was once covered in a fine layer of spines. It is sometimes preserved as a flint cast. Although a major part of the chalk fossil fauna, complete **fish** fossils are very rare. Should you be lucky enough to find one it is best to report your prized find to an expert or museum. Isolated remains are much more common and can be seen as red or orange, coloured scales and bones. Don't be embarrassed if your potential-fish fossil turns out to be seaweed stuck to the chalk - it's happens to us all.

Spondylus



From an article by Paleoenologist Alasdair Bruce for the Thanet Coast Project

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Thanet Coast Project is a 'not for profit' project & is grateful for your donations & support.

North East Kent Marine Protected Area

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Thanet Coast Project

working with people for coastal wildlife

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Join in the search!

The Thanet Coast holds exciting clues of fossil from a past and an often forgotten world. Help us discover and protect this incredible heritage.

Get involved!

- **Take part in coastal walks or volunteering**
- **Share your finds with the project**
- **Help protect our amazing coastline**



Every fossil tells a story – help us keep it alive!

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