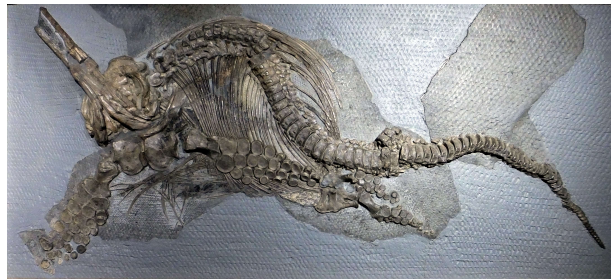


# BRIDGWATER TOWN COUNCIL BLAKE MUSEUM



## THE FOSSIL ICHTHYOSAUR



*The fossil Ichthyosaur*

This is the oldest item in the Museum's collection, not only in terms of the object's age, but also because it was one of the very first objects recorded in the Museum's entry books. The very first was a photograph of an Ichthyosaur.

It was purchased in 1925 for £2 12 6 from Mr Clement Trenchard (1886-1954) who was then headmaster of Dr Morgan's School, Bridgwater, and was a member of the advisory committee setting the Museum up.

He was born in Taunton, and was a cousin of Lord Trenchard, known as the 'Father of the RAF, and later Commissioner of the Metropolitan police. His mother had links to the Alford family.

He was an Oxford MA, and after service in WW1, where he was wounded on the Somme, was appointed headmaster in 1922 of Dr Morgan's School. He was an expert on arms and armour, and was author of *The Siege of Bridgwater*, (1929).

He was called up to the RAF in WW2, and later commanded the Bridgwater Air Training Squadron. He left Bridgwater in 1946 and for two years taught in Birmingham. He died at Weston-super-Mare in 1954.



*An Ichthyosaur and a Plesiosaur as the Victorians imagined them.*

How Trenchard came by the fossil is not known. The Museum's records show that it had originally been framed, and in 1990 still had a hand-written label (now lost) indicating that it originated in Street. Street is a world famous locality for Lias fossils, and in the first half of the nineteenth century numerous examples were taken from the limestone quarries there and are to be found today in museums throughout the country and abroad.

In the nineteenth century, Bridgwater had two prominent members of the Geological Society, Robert Anstice, (1757-1845), and William Baker, (1787-1853). A number of fossils from Anstice's collection were purchased after his death in 1845 for

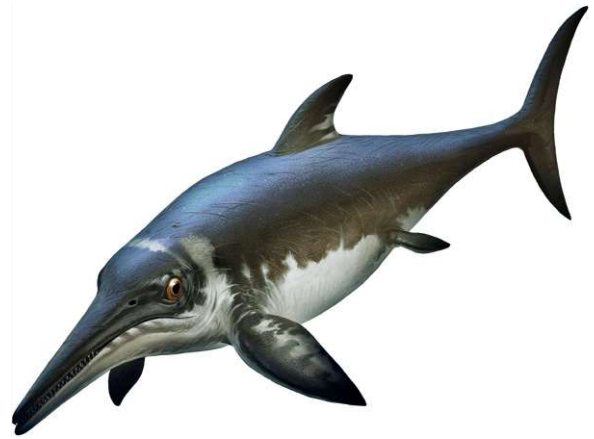
the museum of the Bridgwater Literary and Scientific Society, and William Baker had an extensive private Museum in his house in St Mary Street, mainly of natural history specimens, but also geological specimens and notes. Anstice's fossils were dispersed when the Bridgwater Literary and Scientific Society's museum was closed later in the nineteenth century, and Baker willed his collection to his widow, but it is not known what became of it. Further, Thomas Clark, (1792-1864) the Bridgwater botanist, was a member of the Clark family of Street, and had with Anstice and the Oxford geologist, William Buckland, (1783-1856) a hand in the preservation in 1823 of the fossil skull of a Plesiosaur found at Street. <1>.

More research is needed to discover what became of Anstice's fossils. They were on display in the Bridgwater Literary and Scientific Society's museum first in premises in George Street, then at the Town Hall <2>

There is no evidence the Fossil was ever in Bridgwater before the Museum acquired it. Nor is there is no evidence that Trenchard had an interest in geology. The best guess is that he came upon the fossil and acquired it for the Blake Museum. Or maybe it was a little-used teaching aid at Dr Morgan's School. An examination shows that the fossil is not complete, in that a number of the vertebrae are missing. The bones have been prepared to give a ventral view of the skull and a lateral view of the vertebral column and ribs. <Ref 3>

The geologist Thomas Hawkins, FGS, (1810-1899) was active in the Street area, and modern research shows that he produced mounted specimens made from fragments found in the quarries. <Ref 4>

**Ichthyosaurs** (Greek for "fish lizard" – *ιχθυς* or *ichthys* meaning "fish" and *σαυρος* or *sauros* meaning "lizard") are large marine reptiles.



*An artist's impression of an Ichthyosaur*

Ichthyosaurs thrived during much of the Mesozoic era. Based on fossil evidence, they first appeared around 250 million years ago) and at least one species survived until about 90 million years ago, into the Late Cretaceous. During the early Triassic period, ichthyosaurs evolved from a group of unidentified land reptiles that returned to the sea, in a development parallel to that of the ancestors of modern-day dolphins and whales, which they gradually came to resemble in a case of convergent evolution. They were particularly abundant in the later Triassic and early Jurassic periods, until they were replaced as the top aquatic predators by another marine reptilian group, the Plesiosauria, in the later Jurassic and Cretaceous periods. In the Late Cretaceous, ichthyosaurs became extinct for unknown reasons.

Science became aware of the existence of ichthyosaurs during the early nineteenth century, England. In 1834, the order Ichthyosauria was named. Later that century, many excellently preserved ichthyosaur fossils were discovered in Germany, including soft-tissue remains. Since the late twentieth century, there has been a revived interest in the group, leading to an increased number of named ichthyosaurs from all continents, with over fifty valid genera being now known.

The fossil dates from the Lower Jurassic period (213 million years ago) and would

have been found in lias beds in quarries in the neighbourhood of Street. It is the long-snouted variety (*Leptoptergius tenuirostris*). Ichthyosaur species varied from one to over sixteen metres in length. Ichthyosaurs resembled both modern fish and dolphins. Their limbs had been fully transformed into flippers, which sometimes contained a very large number of digits and phalanges. At least some species possessed a dorsal fin. Their heads were pointed, and the jaws often were equipped with conical teeth to catch smaller prey. Some species had larger, bladed teeth to attack large animals. The eyes were very large, probably for deep diving. The neck was short, and later species had a rather stiff trunk. These also had a more vertical tail fin, used for a powerful propulsive stroke. The vertebral column, made of simplified disc-like vertebrae, continued into the lower lobe of the tail fin. Ichthyosaurs were air-breathing, bore live young, and were probably warm-blooded.

When the Museum was returned to the Town Council, from Sedgemoor District Council, in 2009, the fossil was displayed flat in a case, but in 2012 it was restored by a conservator, and displayed vertically on a wall in a specially designed frame.

Nearby are cases with a general Collection of fossils. There were presented to the Museum in 1994 but do not appear to have local significance.

### References

- 1) A. P. Woolrich, Bridgwater Scientists  
<http://www.bridgwaterheritage.org.uk/bridgwaterscientists.org.uk/index.htm>
- 2) A. P, Woolrich, Bridgwater libraries.  
<http://www.bridgwaterheritage.org.uk/bridgwaterscientists.org.uk/libraries/>
- 3) C McGowan, 'Problematic Ichthyosaurs from Southwest England, a problem of authenticity', *Journal of Vertebrate Paleontology*, Vol 10. No 1 (Mar.29, 1990), pp. 72-99

4) Ibid, p 74

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Blake Museum is run by Bridgwater Town Council and managed by volunteers from The Friends of Blake Museum (Registered Charity 1099815)

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