



Objects from Doncaster Museum
and Art Gallery's Natural
Sciences collection

Natural Sciences

The Natural Science collections are real specimens, not only from Doncaster but from around the world. These are the preserved evidence of life. Museum displays provide a window into the natural world, backed up by high quality research.

The Natural Science section is the largest among the museum collections with an estimated 380,000 specimens. It can be split into three main areas, Vertebrates (animals with a backbone), invertebrates (no backbone) and plants.

The Vertebrates

There are 12500 specimens in this area of the collection, half of which are birds eggs. Items have entered the museum from past collectors, country house contents, other museums and modern casualties (usually roadkill). There are several extinct or near extinct species.

Mammals

The mammal collection is composed of stuffed specimens, study skins and skulls from around the world. Of special note is the large study collection of house mice from Yorkshire coal mines. Taxidermy highlights include a unique Quagga foal from 1830, a tiger cub and a puma, as well as specimens from Doncaster zoo.

Birds and bird eggs

The birds are also mainly stuffed specimens and study skins, especially from Britain, Africa and Canada. There is some rare or spectacular taxidermy, including a very old specimen by William Bielby of Doncaster, dating back to the 1790s. The birds eggs are all blown eggshells, many of them local, dating back to 1858.

Reptiles, amphibians and fish

From crocodiles to pickled newts, there is a range of specimens, both stuffed and preserved in spirit, including snakes from Doncaster zoo. Well known are the two large Sturgeons from Yorkshire.

The invertebrates (having no backbone)

There are around 360,000 specimens in this area of the collection. Several are major reference collections that are studied by scholars from around the world.

Molluscs

There are an estimated 200,000 shells from all parts of the world. The core is the huge Morehouse collection of British and world species.

Beetles

The museum has beetles galore, including an internationally important collection of longhorn beetles. There is a total of 75000 specimens, including the Gilmour collection of 50,000 longhorns. The collections also contain fossil specimens from peat and archaeological deposits.

Butterflies and moths

These are truly beautiful insects from around the world. The 50,000 specimens include several large collections of British species, by well-known Yorkshire collectors like George Hyde.

Flies

There is a total of 25000 specimens which form a major British collection, the majority by Peter Skidmore, formerly of the museum.

The plants

The plants are stored dried in a herbarium. They are a major resource of local specimens including some important and rare British species. The museum collections contain around 6000 packets and sheets. This collection shows how our flowering plants are changing. There are important local specimens, particularly the Payne collection of British plants, dating back to the 1830s, and the local herbarium of H H Corbett, the museum's first curator.

Herbarium sheet

Where it all began

On 5 January 1921, the death occurred of Dr Herbert Henry Corbett. He had just taken up the Presidency of the Yorkshire Naturalists' Union, and was 65 years old. "*His tall, spare, active figure and genial personality will be greatly missed*".

Dr Corbett was born near Manchester, and became a surgeon, coming to Doncaster in 1888. At that time he was a lepidopterist, a person who studies butterflies and moths. But once in Doncaster, Dr Corbett developed a wider interest in insects, and also in birds, plants, geology and archaeology. As a naturalist, Dr Corbett was keen on the Doncaster Scientific Society, and became its President. His good influence increased membership and resulted in closer study of the local flora and fauna.

Dr Corbett's persistence, as a member of the Doncaster Scientific Society, led to a public museum being opened in Doncaster. Dr Corbett's collections were donated to the museum, but with one exception little survives. There are still a few moths, beetles and fossils. The exception is his herbarium, or collection of pressed plants. There are many sheets of these plants in the museum. But the herbarium has added interest. In the museum's oldest stock book, the very first item ("*No. 1*") is listed as the "*Local Herbarium*" of Dr Corbett. This is where it all began a century ago.

One of the pressed plants is shown here. It is Stinking Hellebore. Labelled "*Warmsworth Cliffs*", it was collected in May 1899. Hellebores are popular in gardens. They are often called 'Christmas roses', because they may flower early in the year. The Stinking Hellebore is poisonous, and is also known as 'stinky flower' and 'dungwort'. This Warmsworth specimen was perhaps a garden escape. But it didn't escape Dr Corbett, or the museum.

DONMG 1x.8

Donated by Dr H.H. Corbett



Cabinet drawer of molluscs

The tip of the shellberg

Snails are one type of mollusc, and most molluscs have shells. The Morehouse collection of shells is impressive. It is worldwide in scope, and took half a century to amass. So the collection grew to 170 cabinet drawers and some boxes.

Elsie May Morehouse was born in 1884, and lived most of her life in Doncaster. Her interest in conchology - the study of molluscs - began in the 1920s, and she became known as a good general conchologist.

A specimen is only useful if it has been properly identified, and you know where and when it was collected. Mrs Morehouse's shells are identified, stored properly, and have data about themselves. They were therefore obtained on scientific principles, and so are useful for research. This is the first use of a collection.

Another use is its historical interest. The collection represents the lifework of Mrs Morehouse, as a notable Yorkshire conchologist from the twentieth century. But shells and their labels from many other experts are included. Alongside, there are linked publications, papers and letters.

There is also a social history side to collections. It is human nature to collect. What type of people collected shells? How did they start? Did they do research and publish it, or just enjoy fieldwork? Or both? So it is possible to obtain an insight into collectors and their times, from specimens, data labels and documents. Like studying a whole population, not just a king or queen.

Yet a collection offers more than science and history. Specimens may inspire artists and illustrators, or fire a museum display, or help teach about biodiversity. Drawers of specimens like this can also evoke something else. Something elusive that, fleetingly, provokes a closer look. Curiosity.



DONMG 1974.269

Donated by Kathleen M. Morehouse

Sea Lamprey

'Tapping the Admiral'

It's not all pretty butterflies and wide-eyed Dormice. Some museum specimens look, well, a bit ugly. This often applies to things stored in spirit. They look *really* dead, and we don't pretend they are alive. So why have them? Enter Lord Horatio Nelson.

Everyone knows Nelson's ships defeated the Franco-Spanish fleet at the Battle of Trafalgar. And that Nelson was killed. But not everyone knows what happened next. Not for Nelson a burial at sea, but a state funeral in London. Yet this was 1805, and there was a long journey home. He was therefore pickled in a barrel of brandy for the voyage. Imagine if he had been preserved properly and still be available today. How much more we could learn about him and the human body, compared with just his bones in St Paul's.

It's the same with museum collections. If an entire specimen was pickled or frozen, it might not look much, but it can provide masses more information. Identity, evolution, structure, biology, biochemistry...and much more. Even undiscovered sources of information are possible. An unpredictable usefulness. Who would have thought that specimens could be used to monitor pesticides or chemical pollution? So bodies are not just for display. They are useful tools and proof, and so can form study collections for researchers.

This impressive pickled specimen is a Sea Lamprey. These are primitive fish, and might look like eels, but aren't. They lack jaws, and breathe through seven pores behind each eye. Sea Lampreys have a round, suckered mouth full of teeth. They attach themselves to other fish, and break through the living skin to gorge on flesh and blood.

It was said that some of the brandy in Nelson's barrel disappeared during the voyage. The sailors of *Victory* had 'tapped the Admiral'. We have to top-up, not tap, the Sea Lamprey, with something not even Nelson's crew would have touched.

DONMG 1963.663



Atlantic Sturgeon

A mystery that runs deep

Sturgeons are potentially huge, prehistoric-looking fish. Their eggs are sold as caviar. Only one species occurs in Europe, the Common Sturgeon. It formerly lived along the entire coastline, and entered many major rivers to reproduce. The juveniles head out to sea, but eventually return as adults to spawn. Or at least they did. Despite its name, the Common Sturgeon is now virtually extinct.

In Yorkshire, adult Common Sturgeons moved inshore early in the year. They entered the Humber's tidal rivers in late spring and early summer. Some were captured in June in the salmon-nets of the Ouse and Trent. Others were harpooned, stabbed or shot wherever they reached weirs or locks. However, very few were captured after the 1930s. They were gone. But Common Sturgeons were royal fish and the stuff of fisherman's tales, so some were preserved.

Two of them are now kept at Doncaster Museum. Both of these have had their DNA tested. And the results are unexpected. One of them swam up the River Wharfe, and is a Common Sturgeon. But the other, from the River Don, is a different kind of sturgeon: an Atlantic Sturgeon from North America. How come?

DNA research now proves that TWO sturgeons, not just one, have lived in Europe. Atlantic Sturgeons migrated to Europe's Baltic Sea 1300 years ago, and replaced the Common Sturgeons there. But the Americans were clearly not just confined to the Baltic. The one in the Don proves that.

It was seen at Barnby Dun on 4 July 1860. Independence Day. William Taylor, landlord of the Star Inn, attacked it with a pitchfork. The wounded fish escaped at speed, with Mr Taylor hanging on, though not for long. Still, Mr Taylor got his prize in the end. The corpse was found later, and once stuffed, it became the star attraction at the Star Inn. Years later, the exhibit was acquired for Claybourn's fish shop in St Sepulchre Gate. But eventually it came to the museum, where it has been on display ever since. Hardly surprising: Barnby Dun, nine feet long, twenty stones. Some fish!

DONMG ZZ1342



Black-headed Gull

Gazing into the eighteenth century

Even gazing into a glass eye can make you think. It can't see anything, but it has reflected a lot of changes. Twenty-two decades of them.

There is no taxidermy in Britain older than 1702. Virtually all of it dates from the late eighteenth century onwards, and especially from the 1870s-1920s. A remarkable survivor is this Black-headed Gull, preserved in the 1790s by a Doncaster taxidermist. It is the earliest example of Yorkshire taxidermy. It must also be the oldest Black-headed Gull in the world.

The taxidermist was William Beilby, who worked in Frenchgate in the 1780s-90s. He also had a private museum there, admittance 1/-, working people and servants 6d (5p, 2½p). His museum held mammals, birds, reptiles, insects, shells, corals, coins and antiquities from all over the world. Some had been brought back from Australia on board Captain Cook's ships. Not so the Black-headed Gull. It is in summer plumage, and was perhaps nesting no further away than Potteric Carr! They are common local birds, even today. The gull in its glass-fronted box was donated to Doncaster Museum in 1939.

But look at the back of the box and there is a surprise. It is a dingy and fragile handbill. A window into Doncaster's past. It announces "*BEILBY'S MUSEUM, NEAR THE POST-OFFICE, DONCASTER, NOW OPEN FOR PUBLIC INSPECTION*". The content of the museum is revealed in some detail. It all "*affords the most rational Knowledge, and an inexhaustible Fund of Amusement*". William Beilby boasted that his museum was "*the Produce of many Years unremitting Research*".

In this centenary year of the Doncaster Museum Service, it is worth remembering that there was a museum in the town over 200 years ago. But you had to pay then. It's free now.

DONMG 1939.38

Donated by Mr F. Addey



Tiger cub

More than one way to skin a cat

“Tiger, Tiger, burning bright”...the ultimate big cat, man-eater, hunted, in conflict with the teeming modern world. Images swirl around this charismatic predator, which most of us will only ever see in captivity or in a museum.

In its short life, this Tiger cub was raised – and died – in a zoo, but now captivates visitors to Doncaster Museum. The cub’s ancestors were probably brought from India, and Tigers can do well in confinement. Though not this one. Measuring only 53cm, it has become a fine example of the modern taxidermist’s craft.

The stuffed cub is by the former Rotherham taxidermist Graham Teasdale. He trained at Doncaster Museum in the early 1970s, and later had his own studio at Greasbrough. Although Graham’s work has worldwide appeal, the local museums in Doncaster and Rotherham quickly appreciated the skill in their midst, and so have good collections of his output.

There are many constraints on the modern taxidermist, so that specimens are only obtained and sold legally. Nothing is killed specially. So zoo animals can have a use even after they die.

Taxidermy still has an image problem. It is popularly linked with the Victorians, when there were few constraints on killing. Some old taxidermy now seems macabre, mocking or in bad taste. Poor taxidermy, especially from the past, is still with us. Some is so bad it has become the butt of jokes. But there is another side. The tiger cub proves it. Some taxidermy is so good it positively purrs!

DONMG ZZ1289



Sunbitterns

Taxidermy at its best

How many people living in Doncaster have seen a wild Sunbittern? I know four, and there might be one or two more. Sunbitterns are found in Central and South America, haunting humid tropical and subtropical forests.

Sunbitterns live near water, feeding on insects, small fish and frogs. These are caught with a lightning quick strike. The birds fly silently with quick flicks and long glides on their broad wings. Otherwise, Sunbitterns are careful and deliberate movers. They are cryptic birds, masters of 'melting' into the background. Yet they have a startling trick. If approached by a predator, they flash open their wing 'eyes'. This unnerves the intruder and seemingly reverses the threat.

One of these two Sunbitterns is confronting an unseen foe. Nothing is known of their precise origins or time. The taxidermists were Rowland Ward Ltd, based at 'The Jungle', Piccadilly, in London. This was the largest taxidermy firm in Europe, with a worldwide reputation. Its workshops closed in the 1970s, but the acclaim lives on. Rowland Ward Ltd tackled everything, from Harvest Mice to elephants, including masses of superb birds. They are all highly collectable.

These Sunbitterns are likely to date from the 1920s-30s. They form a truly elegant example of the taxidermist's craft. The simplicity of the glass case allows little to detract from the skilful preservation within. The birds are presumably a pair, though rarely are two Sunbitterns seen together in the wild. Only in an artificial setting like this. But where else could you come face to face with a threatening Sunbittern?

DONMG ZZ251



Black-headed Gull's egg Specimen or object?

This gull egg isn't much to look at, and it's cracked. It was collected sometime in the nineteenth century, probably in Shetland. With such vague data, the egg is of little scientific value. It doesn't really appeal much either. But on the side of the egg is some handwriting. This human addition changes everything. It is no longer a poor specimen, but a social history object of great interest.

It is a blown eggshell sold to a collector, who would have had to pay sixpence (2½p). The writing states what kind of gull it was, and gives the name of the person who found it, Robert Dunn of Shetland. This allows us to peer into the past, for Robert Dunn was a taxidermist and natural history dealer. His trade included eggs.

Robert was born in Liverpool in 1789. He moved to Hull, where he started his business. From 1831, Robert made long collecting trips to Shetland and Orkney, off the north coast of Scotland. He kept notes, and in 1837 wrote a book about the birds of these islands. In it, he vividly described his adventures, but was criticised for being a ruthless collector, interested only in sale and profit. But Robert was only a man of his time, trying to avoid being poor as best he could.

Robert settled in Shetland in 1842, later moving to Orkney. He continued to hunt for rare eggs and birds to sell. So did his son Joseph until he was drowned at the age of 45. Robert never wrote another book. Nor did he fulfil his dream to find the rarest of the rare, the Great Auk, a kind of giant flightless Puffin. He was too late. It was already extinct, and would never make him rich.

Like Robert's book, and the Great Auk, the ink on the gull egg connects with a time utterly gone. It connects with one life, lived in the North long ago. The cracked egg hatches a human story, and so it begins to live again. But in a different way.

DONMG 1963.658.73



Hybrid Quagga foal You'll never see another one

We have Hugh Reid to thank for this. Hugh who? He was a Scot, born in 1783, who set up a lace business in Doncaster, but was bankrupt by 1815. So he started again, this time as a taxidermist and naturalist. He was so successful that he became well known far beyond Doncaster. Yet, despite his popularity, very few Reid specimens are known today. Only one is a mammal. A hybrid Quagga foal.

A Quagga was a type of zebra. It was not striped black and white, but was brown with fewer stripes. Quaggas used to live in southern Africa, but were exterminated by European settlers, and perhaps also by drought. The last one died in a Dutch zoo in 1883. There were some in England once, including Owston Park near Doncaster.

Philip Davies Cooke inherited the family estate at Owston in 1821. He was interested in zoology, and added some foreign mammals to the park there, including zebras.

Cue the foal. It was born at Owston on 1 April 1830, but lived for only three weeks. Its mother was a Quagga and father a Donkey (or as the old label states, "*The Father an Ass*"). So it is a hybrid: not a Quagga or a Donkey, but a bit of both. With a Donkey father, the foal has almost no stripes at all. Philip Davies Cooke clearly prized his new foal, and wanted to preserve it. So he had it stuffed, by the best taxidermist in the region. This was Hugh Reid. He did such a good job, the foal has survived well for almost two centuries. The Davies-Cooke family donated it to Doncaster Museum Service in 1926.

Of the 23 preserved Quagga skins in the world, the Doncaster foal is the only hybrid one. It is scientifically important, and was documented in the *Annals of the South African Museum* by a world expert on Quaggas. The foal is unique, and specimens don't come rarer than that.

DONMG 1926.108



Cabinet drawer of longhorn beetles “Is she my type?”

The Gilmour collection of longhorn beetles is a specialist one. It was assembled by E.F. Gilmour as a tool for his research, to help understand and document these beetles. He was once the Director of Doncaster Museum. As an entomologist, he studied insects, especially longhorns, and his collection of these is one of the finest. It is worldwide, and contains 52,000 specimens. Some are now extinct, often because tropical habitat is being destroyed.

Longhorns occur throughout the world, and get that name from the very long feelers on their heads. There are thousands of different kinds, or species, whose grubs bore into dead and living wood. They can thus cause damage and be a serious pest. So longhorns have an economic as well as a scientific interest.

Specimens within a species vary a bit (or even a lot), so the more specimens there are to examine, the better the description is. This and the name are then published. In this way, they become available to anyone who needs to use them. The specialist's description is based on the beetles available to him, or selected by him. These are labelled as TYPE specimens. They are the ones that provide the EVIDENCE for what he claims in print. The types can be checked by other specialists, who may not necessarily agree. They can then publish their own opinions. So these specimens have to be kept permanently, properly, in a collection.

Types are the most important specimens of all. They are the standard for a described species. They are the proof. The Gilmour longhorns include many types, and these make the collection important throughout the world.

All named species of plants and animals have type specimens - except one. There isn't a type specimen of a human being. Any suggestions?

DONMG ZZ11251-11285

