Animals of Ice Age Worcestershire

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Creature Feature!

The last million years in Worcestershire has been marked by an amazing diversity of animals, large and small, as the climate fluctuated between icy landscapes and warmer periods similar to today. As temperatures rose species were able to expand into new areas, before being pushed back further south as the climate turned colder again.

During warm periods, herds of horses, bison and aurochs would have roamed the open grasslands of Britain. Beavers and dolphins swam in our rivers; at the height of the Hoxnian Interglacial (around 400,000 years ago) oak forests were home to deer and macaque monkeys. Lions, bears, wolves and early humans would have hunted large animals like rhinoceros and the straight tusked elephant.

As the climate turned colder, species like mammoth, woolly rhinoceros, reindeer, arctic hare and ptarmigan returned as the cold-averse species migrated southwards back into Europe.

This booklet highlights a few of the most well-known and the most surprising former inhabitants of the area now called Worcestershire. It brings together some of the research carried out for the Lost Landscapes of Worcestershire Project in 2018.

*Kemerton as it would have looked 40,000 years ago, based on bones and environmental remains uncovered in the area. Image created by Steve Rigby.*
Hippopotamus

*Hippopotamus amphibius*

**Where did they live?**
Several species of hippo have ranged across continental Europe in the last two million years. The only species known to have reached Britain was the Common Hippo, the same species that lives today in Africa. Bones have been discovered from numerous sites in Britain as far north as Yorkshire. In this area, hippos have been found in the Vale of Evesham, Bredon Hill, Stourbridge, and Gloucester.

**When did they live?**
Hippos lived in Britain in the Ipswichian interglacial, from 130,000 to 115,000 years ago. Being sub-aquatic animals they require a warm climate and that short period is probably the only time when it was warm enough to support them.

Summer temperatures in this period were similar to today and winter temperatures slightly warmer. The abundance of hippo remains of this date suggests that they were very successful colonisers.

Despite such favourable conditions, we have no clear evidence of humans in Britain at this time. Neanderthals were here before 180,000 years ago, and after 60,000 years ago, but not during the Ipswichian warm period. The reasons for this human absence are hotly debated, and it’s one of the great puzzles of Ice Age archaeology!

**What did they eat?**
Despite spending most of their time in the water, hippos do not graze on aquatic plants. They leave the water at dusk each evening and spend four to five hours grazing on short grasses. They can consume 68 kg (150 lb) of grass each night.
Moose

Alces Alces

The Moose is the largest surviving species of the deer family, distinguished by its large, broad, flat antlers. Today moose live in the temperate to subarctic forests of the northern hemisphere, their range spanning from Norway in northern Europe, across Sweden, Finland, the Baltic states, Russia and into Alaska, Canada and northern USA. During the Ice Age, moose roamed across Britain and much of central Europe. They were hunted by our ancestors and evidence of this survives from archaeological excavations.

How big are they?
An average full grown moose stands at between 1.5 and 2m tall, with the largest males weighing up to 1500lbs (or over 100 stone). Even a small adult must have been quite a challenge for Ice Age hunters.

What do they eat?
Moose are vegetarian. They forage on aquatic plants, shrubs and shoots and bark from trees like willow and birch.

Sketch by Rob Hedge of barbed bone points recovered from a moose skeleton in Lancashire and a Late Glacial hunter drawn by Steve Rigby
European Bison

*Bison bonasus*

Bison is one of the most commonly found species in Ice Age deposits in Worcestershire. One of the few megafauna to survive the end of the Ice Age, the European Bison became extinct in the wild in the early 20th century, but still survives in captivity.

In Worcestershire the earliest remains known of a bison species come from a period around 124,000-119,000 years ago, at Eckington, alongside rich assemblages of molluscan and mammalian remains including hippopotamus, mammoth and giant deer.

Later deposits in Worcestershire contain abundant evidence for the types and variety of animals that were present during the Devensian, a period that lasted from around 70,000 years ago until the end of the last Ice Age. At Cropthorne, bison, auroch, deer, bear and wolf have been found. At Twyning (Gloucs) lenses of peat in gravel contained remains of woolly mammoth, woolly rhinoceros, Irish elk, horse and bison dated to 36,000 years BP. These were underlain by sand deposits contain remains of wolf, reindeer, steppe bison and field vole. Faunal remains recovered from Aston Mill included reindeer, auroch/bison, woolly rhino and woolly mammoth.
Woolly Rhinoceros

*Coelodonta antiquitatis*

The Woolly Rhinoceros is one of the most common species of megafauna found in Ice Age deposits in the West Midlands. Now extinct, they once roamed the Steppe-tundra environments across northern Europe and Asia. Like other cold-adapted species, the rhino’s geographical range expanded and contracted with the alternating cold and warm periods.

The earliest remains known from Britain of a rhinoceros species (we had at least three at various times) are from Pakefield in Suffolk and date from nearly 800,000 years ago. The earliest confirmed Woolly Rhino fossils are from during the Anglian Glaciation (478,000—424,000 years ago) in the south of England. Worcestershire would most likely have been a polar desert during this period and we have no recorded faunal remains here from that time.

In Worcestershire we have the remains of all three known species of rhinoceros from Britain; Woolly Rhinoceros, Narrow Nosed Rhinoceros and Merck’s Rhinoceros. The Woolly Rhino fossils come from Upton Warren (c.80,000 years ago) and Fladbury (57,000 - 29,000 years ago).

**Malvern Rhino**

During the excavation of the railway tunnel through the Malvern Hills in 1850s, deposits near to the eastern entrance of the tunnel — which lies at a height of 130m above sea level — were found to contain 'perfect rhinoceros molars', indicating that a species of rhinoceros must once have browsed the higher slopes of the Malverns. The fossils are lost, but were described by local vicar and antiquarian Rev. W.S. Symonds in 1883.
Reconstruction of a Woolly Rhino produced for the Ice Age exhibition in Worcester Art Gallery and Museum in 2018. © Pighill Reconstruction

Woolly Rhinos had two horns, the anterior being up to 60 cms in length, and a thick woolly coat that allowed them to thrive in cold climates. A combination of cave paintings, fossil evidence, several specimens frozen in the Siberian tundra and a mummified example from a tar pit in Poland have allowed accurate and realistic reconstructions to be produced like the one above, created for the Lost Landscapes project.

We know that our human ancestors lived alongside rhinoceros as we have cave paintings, and examples of Palaeolithic engravings on rhinoceros bone. The Pin Hole Cave Man is a rare example of Ice Age portable art found in Britain. It is a rhinoceros rib incised with a drawing of a man.

Woolly rhino depicted in Chauvet Cave, France.  
Wild Cat

*Felis silvestris silvestris*

**Where do they live?**

Now only found in Northern and Western Scotland and in small isolated pockets on the European mainland, the European Wildcat was once common across Britain. Their typical habitat is the broad-leaved and mixed forests in Western, Southern, Central and Eastern Europe all the way up to the Caucasus Mountains near the Black Sea.

**When did they come to the UK?**

The European wildcat evolved around 2 million years ago in Europe. There is evidence that wildcats have been present in Britain at various points throughout the last 2 million years, and it is likely that they were in Britain whenever the climate allowed, only retreating into mainland Europe when it was too cold or too barren for them and the small mammals and birds that they prey upon.

About 8000 years ago, the wildcats in the UK were isolated from the rest of the primary species as sea levels rose. They survived across Britain well beyond the end of the last Ice Age, finally becoming extinct everywhere but Scotland sometime in the 1800s.

*Distribution of five Felis silvestris sub-species recognised by a 2007 DNA study.*
Our only wildcat?

The Pleistocene (2.6 million years ago until 11,700 years ago) saw a range of feline species inhabiting Britain and Europe. The wildcat is probably the smallest of the cats that inhabited this area at various points in the past, although a fossil of Swamp Cat (*Felis chaus*) was uncovered at Aveley in Essex demonstrating the presence in Britain of at least one more species of small cat.

In terms of larger cats, Britain has been home to two, possibly three, species of Lynx, a sabre-tooth cat (*Homotherium latidens*), cave lion, leopard and puma. A fossil from a cave lion was found in deposits near Bredon Hill in the 1970s.

*European wildcat
*Felis silvestris silvestris
Rob Hedge*

*European Lynx*

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**Where did they live?**

In an area called the 'mammoth steppe', stretching from North America across Northern Asia and Europe. Although they lived during the Ice Age, the image of herds of mammoth trampling through Arctic blizzards is misleading—although very well-adapted to cold (thanks to features such as small ears), they also survived warm 'interstadial’ periods in which the temperature was similar to Britain today.

**How big were they?**

An adult woolly mammoth was about the same size as an African elephant. Males measured 2.7m-3.4m at the shoulder, and weighed up to 6 tonnes. Females measured 2.6m-2.9m at the shoulder, and weighed up to 4 tonnes. A newborn calf weighed about 90kg!

**How long did they live?**

Probably up to about 60 years of age, limited by the longevity of their final set of teeth, which would emerge at about the age of 30. Once this final set wore out, the animal would no longer be able to feed itself.

**What did they eat?**

Grasses, sedges and flowering plants, plus shrubs and trees in warmer climates.

**When did they live?**

Woolly Mammoths were just one of a number of species of mammoth. Their closest living relative is the Asian elephant. The Woolly Mammoth diverged from the Steppe Mammoth, becoming a separate species about 400,000 years ago. Mammoths died out across Europe towards the end of the last Ice Age. The last known from Britain lived about 14,000 years ago. Some isolated populations survived longer. On Wrangel Island in the Arctic circle, a small number survived until about 4000 years ago. They would have been alive at the time Stonehenge was built.
Mammoth tusk, discovered Spring 2016 in Tarmac’s Clifton Quarry, south Worcestershire & recovered by WAAS
Lost Landscapes tells the story of Worcestershire’s Ice Age and the people who made a home in these harsh, dynamic and ever-changing landscapes over the last 500,000 years until the end of the last Ice Age 12,000 years ago. The project seeks to expand our knowledge of the early human history of this part of the world and promote that knowledge to professionals, academics, and the public. It is a partnership project between The Hive, Worcestershire Archive & Archaeology Service and Museums Worcestershire, funded through Heritage Lottery Fund and Arts Council England.

Lost Landscapes

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