

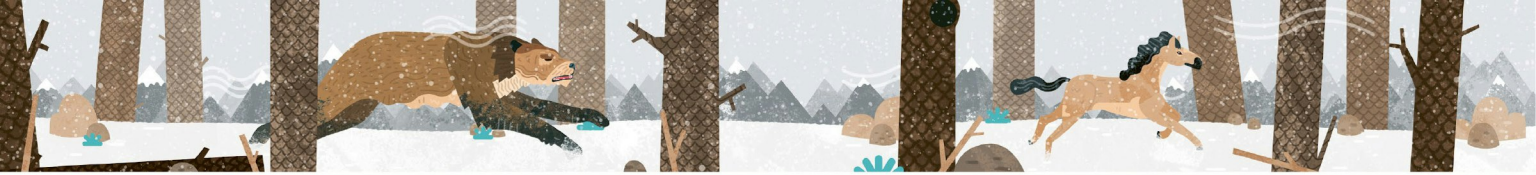
Jack Tite

MEGA MELTDOWN



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MEET THE COLOSSAL ANIMALS OF THE ICE AGE

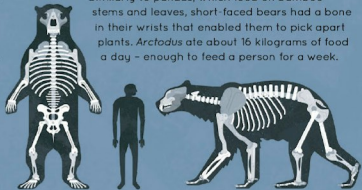


SHORT-FACED BEAR

The short-faced bear (scientific name *Arctodus*) is the largest bear ever to have existed. At 3.6 metres tall, it stood at double the height of an adult person and weighed as much as a small car. These bears were not only huge, they were also fast. Short-faced bears were capable of running as fast as a horse, reaching incredible speeds of up to 60 kilometres per hour.

Like many modern bears, these Ice Age giants were omnivores, meaning they ate both animals and plants, though meat made up the biggest part of their diet.

Similarly to pandas, which feed on bamboo stems and leaves, short-faced bears had a bone in their wrists that enabled them to pick apart plants. *Arctodus* ate about 16 kilograms of food a day – enough to feed a person for a week.



Bone-Crushing Bite

The skull of *Arctodus* had a short snout in comparison to other bears. A shorter snout means more power, so we know this bear was capable of crushing bone with its jaws to get to the marrow inside. This tells scientists that *Arctodus* often scavenged for food.

Next of Kin

The short-faced bear became extinct 10,000 years ago. This may have been because other predators ate their food source, along with humans hunting them for fur and meat. The closest living relative and last of the *Arctodus* group is the spectacled bear, which lives in South America.

Bulky Bear

With long limbs, this bear was well equipped to run at speed to hunt. But its massive bulk would have been a burden when changing direction during a chase. The bear was too large to turn quickly, so agile prey could escape. When scavenging for food, it used its intimidating size to scare other predators away.



GIANT ELK

There are at least seven different species of huge Ice Age herbivores known as giant deer or giant elk, scientific name *Megaloceros*. The largest and most magnificent was *Megaloceros giganteus*. It stood 2.1 metres tall at the shoulder, and crowning the male's head was a pair of gigantic antlers with a span equal to the height of two adult people! A giant elk's antlers alone weighed 45 kilograms, which were supported by its strong neck. Like deer today, male giant elk shed their antlers each spring to regrow them for autumn, when they would clash in brutal battles to win over females.

Deer Distribution

Contrary to its name, *Megaloceros* was not an elk. It was a close relation of today's red deer, but with a thickset, moose-like body. Many well-preserved fossils have been found in bogs in Ireland, but we know giant elk lived all over Europe and parts of Asia. Irish mythology from the twelfth century mentions this huge deer, calling it *Fiadh Mór*, or the 'great deer', with antlers taller than a man.



Long-Distance Deer

The giant elk had two things in its favour to escape predators – speed and stamina. Scientists say these moose-like animals could run great distances, wearing out predators brave enough to chase them. As they were social herbivores, travelling and grazing in herds like modern-day deer, giant elk probably chased off prowling hunters in groups to protect their vulnerable fawns.

Ancient Evidence

Ancient cave paintings of giant elk have been discovered all across Europe, which tell us how important these animals were to people as a source of food. Our Ice Age human cousins would have hunted tactically to take down these dangerous deer, driving them into dense forests where their antlers were too wide to fit between the trees, which made them easier to catch. Nobody really knows what led to the giant elk's extinction, but it survived in Siberia until less than 9,000 years ago.



Behemoth Bears

Ursus spelaeus was a species of cave bear that lived across much of Europe and west Asia during the Ice Age. The fearsome males stood up to 3 metres tall and weighed half a tonne, although females were much smaller, weighing half that. Cave bears mainly fed on plants, seeds, berries and honey, but they occasionally hunted small mammals and scavenged other cave bears that had died.

Seeking Shelter

After a day spent foraging for fruit and raiding insect nests, these solitary bears returned to caves for cover. When the brutal Ice Age winter approached, they would venture deeper into cave tunnels to take shelter and hibernate, like some modern-day bears. This deep sleep helped cave bears to conserve energy and survive while food was scarce, but even hidden away deep in a tunnel they were not completely safe. There was one menacing predator that skulked in deep, dark caves, hunting these sleeping giants . . .



Carnivorous Cave Cats

Cave lions, scientifically known as *Panthera leo spelaea*, were 25 per cent bigger than lions today. Prehistoric cave art tells us that cave lions had neck manes and faint stripes, and that they hunted in prides, taking down horses, deer, bison and other large herbivores. In 2015, in northeastern Russia, scientists discovered a pair of preserved cave lion cubs who died at least 25,000 years ago, with inner organs, ears, fur and whiskers intact.

Sneaky Predators

The cave lion is so-called because many of its remains have been found in caves across Eurasia, but it actually lived in forests and grasslands. These predators preyed upon hibernating cave bear cubs, stealing them away whilst the adult slept. This might sound like an easy meal, but by the number of lion bones found in caves we can guess that it didn't always end well for these big cats!



MOA

According to Māori legend, enormous flightless birds once roamed the forests of New Zealand. These birds were the moa. There were 10 or more species, and their preserved feathers show they varied in colour. The females of the biggest species stood at 3.6 metres tall and weighed the same as two ostriches! Moa had long necks and, like ostriches, would have held their heads close to the ground to search for low-growing greens. These big birds kept a lookout too, craning their neck to scan for their only predator (before humans arrived) - Haast's eagles.



Egg-Cellent Parents

Female moa were much bigger than the males and more than twice as heavy. Scientists think that after a female laid her eggs, the male took care of them while she went to forage. This is because eggshell fossils show the shells were too thin to have taken the female's weight. While foraging, moa ate twigs, berries, leaves and occasionally sharp rocks and gemstones. These stones are called gastroliths, and they stay in a part of the gut called a gizzard and help to crush food into a pulp. This is common in birds, because they don't have teeth to grind up food.

A Special Find

In 1986, scientists were exploring the gloomy caves of New Zealand's South Island when they stumbled on a remarkable find - a 3,000-year-old upland moa foot with scales, claws and flesh still preserved!



No Meal Too Big

Haast's eagle, or *Harpagornis moorei*, was the largest eagle ever to have lived. It weighed up to 15 kilograms, nearly twice as much as the heaviest eagles alive today, such as Steller's sea eagle. Haast's eagles were the top predators of New Zealand at the time, with bone-puncturing talons the size of tigers' claws, short wings for navigating through the dense forests and a broad beak. This daring carnivorous raptor hunted the mighty moa, despite it being ten times the eagle's own size.



Deadly Diver

It's thought these terrifying birds of prey could have swooped down at up to 80 kilometres per hour, striking moa to the ground. Scientists have found lots of moa skeletons with holes that are an exact match to the talons of Haast's eagles.

Two Birds with One Stone

Humans first arrived in New Zealand in the thirteenth century. They hunted moa for food, destroyed their habitat and introduced animals that preyed on moa eggs. By the end of the same century, moa had all vanished, and with no prey to eat, Haast's eagles met the same fate soon after.