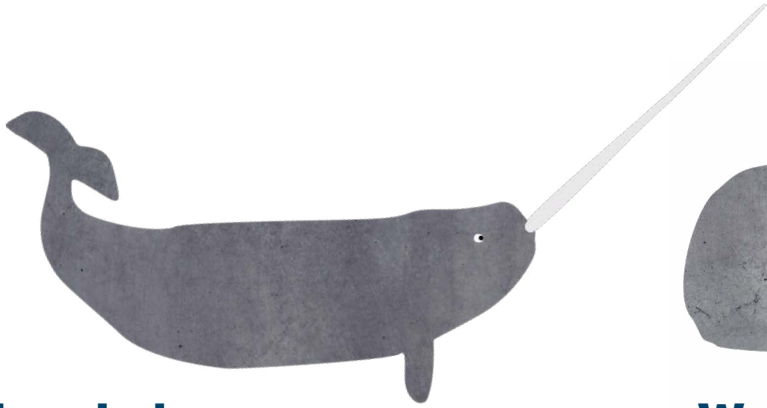


These notes are designed to support teachers whose classes follow the self-guided Ivory Trail around the Pitt Rivers Museum. It gives more information about animals with ivory tusks, population numbers, threats to these animals, and how these animals are now being protected.



Narwhal

Population: >120,0000 mature individuals.

Status: Near Threatened (IUCN – International Union for Conservation of Nature).

Threats: Hunting, climate change and industrial activity.

Protection: In the US narwhals are protected under the Marine Mammal Protection Act. It's illegal to import them, or their parts, without a permit. Inuit communities in the Arctic regions of Canada and Greenland are allowed to hunt a certain amount of narwhals each year.

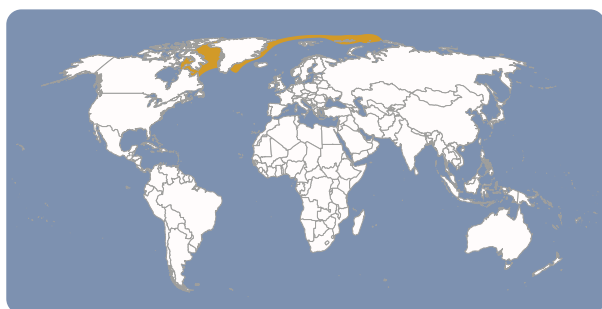
Use of narwhals: The skin, meat, organs and blubber are used for oil and dog food whilst tusks are sold to tourists. In the past Inuit communities used tusks to make hunting weapons and tools.

Fun fact: Scientists have discovered that narwhals use their tusk as a sensory organ (much like your nose!). The tusk can sense how salty the water is and how warm or cold it is. The narwhal tusk is the only mammalian tooth that has the ability to constantly sense their environment.

Further information:

<https://arcticwwf.org/species/narwhal/>

(or click [here](#)).



Walrus

Population: Atlantic likely 25,000+, Pacific ~200,000 & Laptev Sea ~5,000

Status: Vulnerable (IUCN).

Threats: Climate change, industrial activity and unsustainable hunting.

Protection: In the US the walrus became a federally protected species with the 1972 Marine Mammal Protection Act. Inuit communities in the Arctic regions of Canada, Alaska and Greenland are allowed to hunt a certain amount of walruses each year.

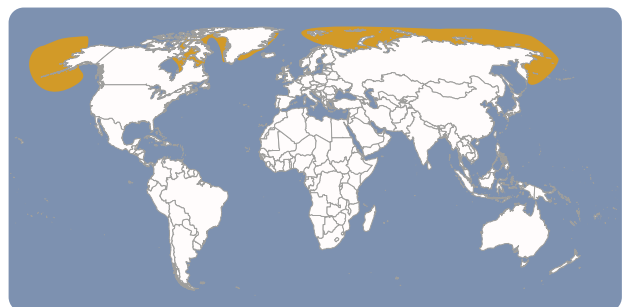
Use of walruses: Food, leather and tusks. In the past Inuit communities used walrus ivory for making hunting weapons, tools, handles, toys, games and display ornaments.

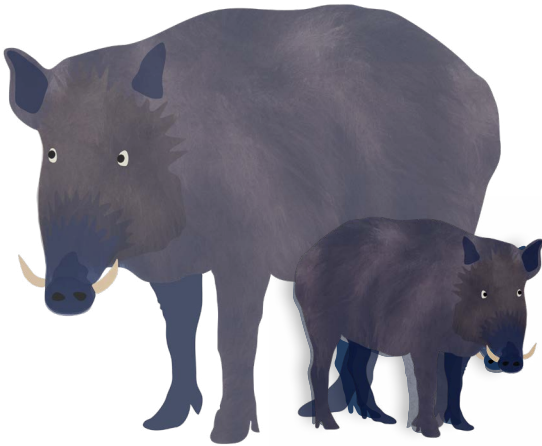
Fun fact: Walruses use their tusks for keeping breathing holes in the ice open, for fighting and for helping them get out of the water onto an ice floe.

Further information:

<https://arcticwwf.org/species/walrus/>

(or click [here](#)).





Wild Boar

Population: Abundant.

Status: Least Concern (IUCN).

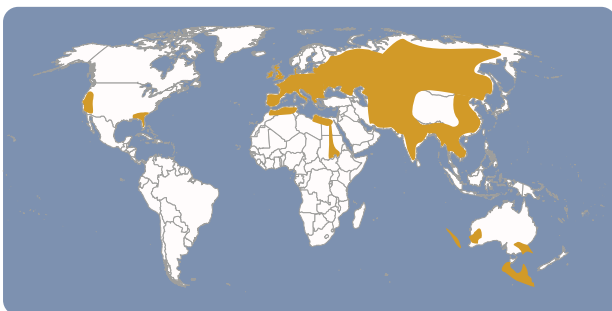
Threats: Habitat destruction, large scale hunting, sport, seen as pests by humans, disease.

Protection: Wild boar have no specific legal protection but are covered by more general legislation protecting mammals in the wild.

Use of boars: Food, blood sport of boar baiting, tusks for decoration. In the past, hairs from the animal's neck were used in toothbrush production.

Fun fact: Wild boar have an excellent sense of smell and use their long snouts to dig out roots and bulbs to eat.

Further information: <https://animalia.bio/wild-boar> (or click [here](#)).



Hippo

Population: 115,000 – 150,000

Status: Vulnerable.

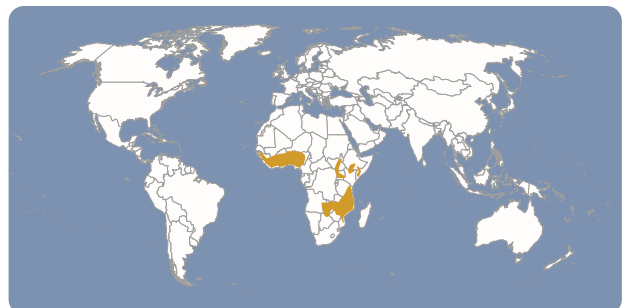
Threats: Habitat destruction, hunting, poaching, shot to minimise human-wildlife conflict.

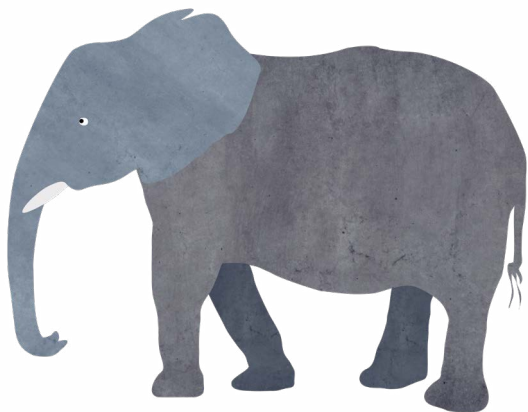
Protection: Pygmy hippos have full legal protection in all the countries where they live. Common hippos may be hunted in 7 African countries. Conservation groups work hard to engage local communities to protect agriculture and farmland from grazing hippos by building enclosures, fences and ditches, which minimise human-wildlife conflict.

Use of hippos: Food, fat and teeth seen as valuable. Ivory can be carved into decorative and status items.

Fun fact: Hippos do not have sweat glands – they rely on water and mud to keep cool.

Further information: <https://www.awf.org/wildlife-conservation/hippopotamus> (or click [here](#)).





Elephants

Population: African savannah elephant – approx.: 400,000; African forest elephant – less than 100,000; Asian elephants – 40-50,000

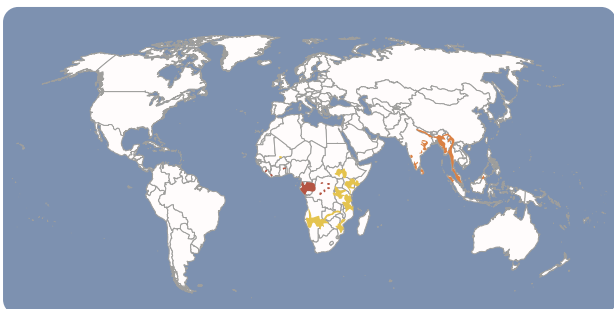
Status: African savannah elephant and Asian elephant: Endangered; African forest elephant – Critically Endangered

Threats: Illegal poaching and ivory trade, habitat loss, human-wildlife conflict

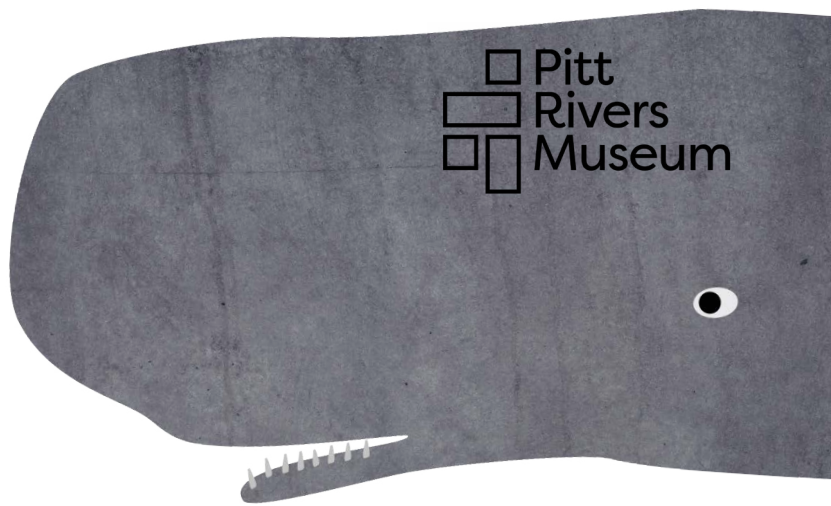
Protection: Since 1990 there has been a ban on the international trade of elephant ivory. It is legal to hunt elephants in some African countries : South Africa, Botswana, Zambia, Mozambique and Tanzania. Typically less than 400 are allowed to be hunted and this depends on whether the numbers of the populations are rising. Because of their status under CITES (Convention on International Trade in Endangered Species) and the ESA (Endangered Species Act of 1976), commercial trade in Asian elephants and their parts and products is prohibited.

Use of elephants: Ivory tusks for trade; meat. In some communities every part of an elephant was used from toe-nails for pendants to skin for baskets. In the past ivory was used like a form of plastic, and was made into billiard balls, piano keys, cutlery handles and many more decorative items.

Fun fact: Elephants can get sunburnt so they toss sand over their bodies to protect themselves. They also cast a shadow over their offspring by standing next to them.



■ African Plains elephant
 ■ Asian elephant
■ African Forest elephant



Sperm whale

Population: perhaps 300,000 (estimated to be 1.1 million prior to commercial whaling from 1800s to 1987)

Status: Vulnerable (IUCN)

Threats: Vessel strikes, entanglement in fishing gear, ocean noise, marine debris, climate change, oil spills and contaminants

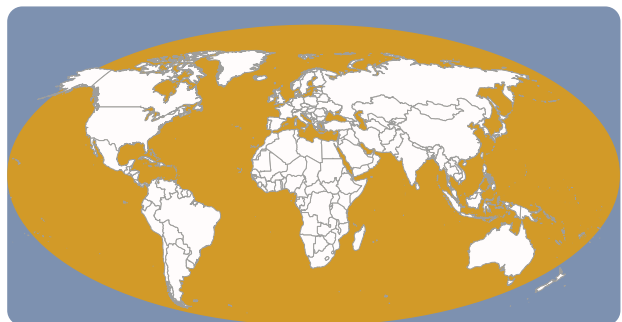
Protection: Sperm whales are safeguarded in US waters by the Marine Mammal Protection Act and worldwide by international whaling agreements. There is still some commercial whaling by Iceland, Norway and Japan.

Use of sperm whales: Meat; oil, blubber and cartilage used in pharmaceuticals and health supplements. In the past spermaceti was used in oil lamps, lubricants and candles, and teeth were used for decorative items.

Fun fact: Sperm whales are named after the waxy material – spermaceti – found in their heads. The spermaceti is an oil sac which helps the whale direct sound.

Further information:

<https://www.fisheries.noaa.gov/species/sperm-whale> (or click [here](#)).





Mammoths

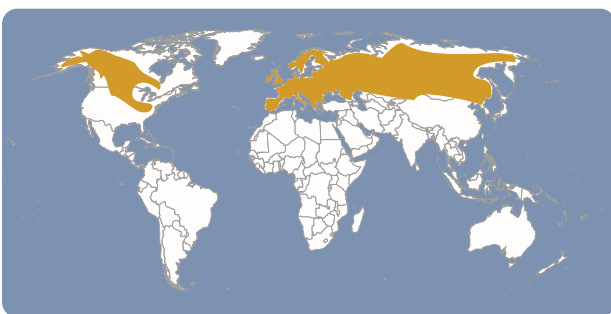
Habitat: Northern Asia, many parts of Europe, and the northern part of North America during the last Ice Age around 10,500 years ago.

Status: Extinct – likely caused by climate change and over-hunting by humans

Use of mammoths: tusks now appearing in the Arctic as permafrost melts. Carved and sold commercially as it is legal to use and trade mammoth ivory but not elephant ivory. One of the oldest known musical instruments (42,000 years!) is made from mammoth tusk.

Fun fact: You can work out a woolly mammoth's age by counting the rings of a tusk, just like you can find out a tree's age by counting the number of rings

Further information: <https://www.bbc.co.uk/programmes/articles/1XkbKQwt49MpxWpsJ2zpfQk/13-mammoth-facts-about-mammoths> (or click [here](#)).



Possible Classroom Activities

- 1 Research the properties of ivory, and compare it with other hard materials such as bone, wood and metal **(Science – Materials)**
- 2 Give groups a different animal with ivory tusks or teeth to research, and present their findings to the rest of the class. Do a balloon debate to see which animal would get to be saved! **(English)**
- 3 Have a debate on an ivory-related question, such as: *Should all objects made from ivory be destroyed?* You could be more specific and research the growth in the legal trade of mammoth ivory – does this help solve the problem of killing animals for their tusks or fuel the ivory trade further? **(English)**
- 4 Imagine you are one of the ivory objects in the Museum. Tell your story in a creative way, using words, art or drama. **(English)**
- 5 One of the reasons many of these mammals are endangered is due to human activities. This is not just poaching, but also humans expanding populations and farming moving into lands that these mammals used to inhabit. This causes human-animal conflict. How do we protect species, but also protect humans and allow them to live and farm on their land?
Watch these videos to see how ecologists are using bee fences and chilli fences to keep elephants from raiding crops in East Africa: <https://elephantsandbees.com/elephant-behaviour-elephants-bees-media-library/> (or click [here](#)).

(If the links in this document don't work when clicked, try copying the url text into a browser. If this still doesn't work, it may be that the content has been removed as these are resources external to the museum - but you might be able to find similar resources searching online.)

