

# Gallery of comparative anatomy

This gallery is laid out as a library of objects encompassing virtually all contemporary vertebrates.

## WHAT IS COMPARATIVE ANATOMY?

Anatomy is the study of the form and structure of animal organs.

Comparative anatomy is the study of the differences and similarities allowing us to distinguish and classify species or larger groups (orders, families, etc). A descriptive science of the 18<sup>th</sup> century, it resulted in the observation and collection of a large number of specimens. At its peak in the 19<sup>th</sup> century, it permitted Georges Cuvier to define the types of systems corresponding to major zoological groups.

It continued to evolve in the 20<sup>th</sup> century with the improvement of study techniques.

## INTRODUCTION TO THE GALLERY

The approximately 1,000 mounted skeletons currently on display were gathered from the travels of 18<sup>th</sup>-and 19<sup>th</sup>-century naturalists, the Menagerie of the Jardin des Plantes, and the former Cuvier Gallery.

The objects in this collection are of both historical and scientific interest.

The squelettens on display are fragile. Please don't touch.



## TO BE DISCOVERED

### Types of specimens (1<sup>st</sup> description)

- Southern whale (Desmoulins, 1822)
- Humpback whale (Cuvier, 1823)
- Arnoux's beaked whale (Duvernoy, 1851)
- Long-beaked echidna (Gervais, 1877)

### Objects with historical significance

- Rhinoceros from the Menagerie at Versailles
- Stathouder orang-utan from Holland
- Stathouder giraffe from Holland
- Father David's deer
- Ibis of Geoffroy Saint-Hilaire

### Species recently rendered extinct by Man

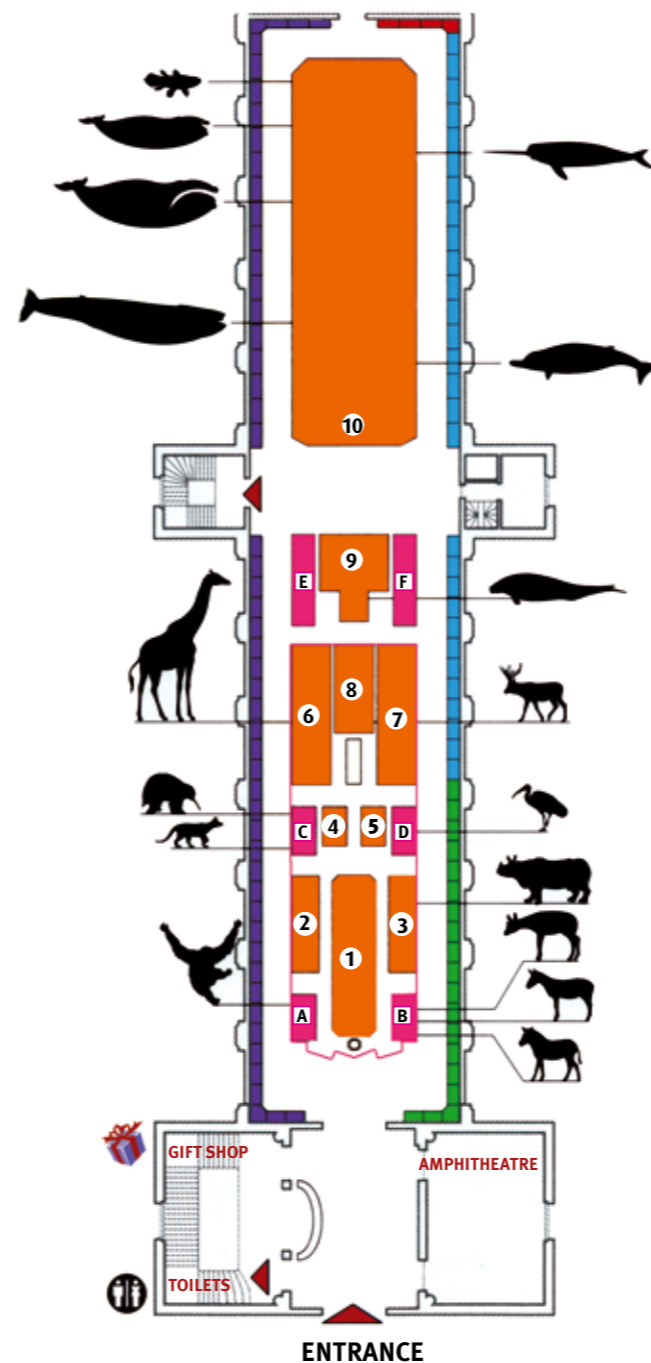
- Steller's sea cow, extinct since around 1768
- Quagga, extinct since around 1883
- Syrian wild ass, extinct since the end of the 19<sup>th</sup> century
- Marsupial wolf or Thylacine, believed extinct since 1961

### Skeletons of rare animals

- Okapi
- Narwhal, or "sea unicorn"
- Coelacanth

### The largest skeleton in the gallery

- Common or Rorqual whale



## ASIDE DISPLAY CASES

New display cases dedicated to the 'alphabet of the skeleton' and to movement; these provide reading keys for the gallery

Comparative anatomy of organs responsible for main bodily functions of the organism (respiration, circulation, etc)

Embryos and developmental anomalies

Skeletons displayed in linear order from fish to man, showing the similarities between groups

Various skeletons in groups and in the central display cases show the diversity of adaptation to environmental conditions

## CENTRAL GROUPING

- 1 Panther - lion - jaguar - wolf, hyena - bear - sea lion - walrus...
- 2 rhinoceros - tapir
- 3 rhinoceros - horse - hemione
- 4 5 hippopotamus
- 6 giraffe - dromedary - camel buffalo - antelope - yak
- 7 giraffe - bull - buffalo - bison - elk
- 8 mountain sheep - reindeer - antelope - deer
- 9 elephant - manatee - dugong - sea cow
- 10 whale - sperm whale - orca porpoise - beluga whale - dolphin

## CENTRAL WINDOW

- A Various large monkeys
- B Rare or extinct animals
- C Marsupials
- D Skeletons of mummified animals
- E Birds
- F Reptiles

## HISTORY OF THE BUILDING

The building was designed by the architect Ferdinand Dutert and opened to the public in 1898 in preparation for the 1900 World's Fair.

The architecture of the galleries reflects the spirit of the era: Beams and metallic consoles combined with stone.

Dutert, calling upon various artists to create a decoration scheme inspired by nature, was a forerunner of Art Nouveau.

Anatomical collections and fossils were displayed here to symbolize the diversity of nature.

To mark the centenary of the building, a renovation of the galleries was launched.

The goal is to emphasize the beauty of these historic places and to display our collections while preserving the spirit of late 19<sup>th</sup>-century museum concepts.

## PRACTICAL INFORMATION

The entry hall opens on the Gallery of Comparative Anatomy. The great staircase leads to the Gallery of Paleontology.

### OPENING HOURS

Daily from 10:00 to 17:00  
 Except Tuesdays and May 1  
 Saturdays, Sundays and bank holiday from April through the end of September from 10:00 to 18:00  
 Last admission: 45min. before closing

### PRICES

Full price: 8 €  
 Reduced price: 6 €

Gift shop: 01 40 79 37 70  
 Group reservations: 01 40 79 36 00  
 Information: 01 40 79 56 01

[www.mnhn.fr](http://www.mnhn.fr)



# Gallery of Paleontology

In this gallery, the fossils trace more than 600 million years history of life.

## WHAT IS PALEONTOLOGY?

Paleontology is the science that studies the history and evolution of life on Earth during more than 3 billion years. It is based on the study of fossils. The term 'fossil' refers to any trace of animal or plant life (bones, teeth, shells, imprints of leaves, clutches of eggs, animal tracks, etc.) preserved in sedimentary rocks.

Paleontology of vertebrates was developed at the beginning of the 19<sup>th</sup> century by **Georges Cuvier**, who studied fossils in gypsum quarries in Montmartre and compared them with the bones of existing animals. In the middle of the 19<sup>th</sup> century, **Alcide d'Orbigny**, the first official chair of paleontology, assembled a rich collection of 10,000 invertebrate fossils.

Later, **Albert Gaudry** succeeded in endowing the museum with a true Gallery of Paleontology.

## INTRODUCTION TO THE GALLERY

Our collections come from all over the globe and are presented on two levels:

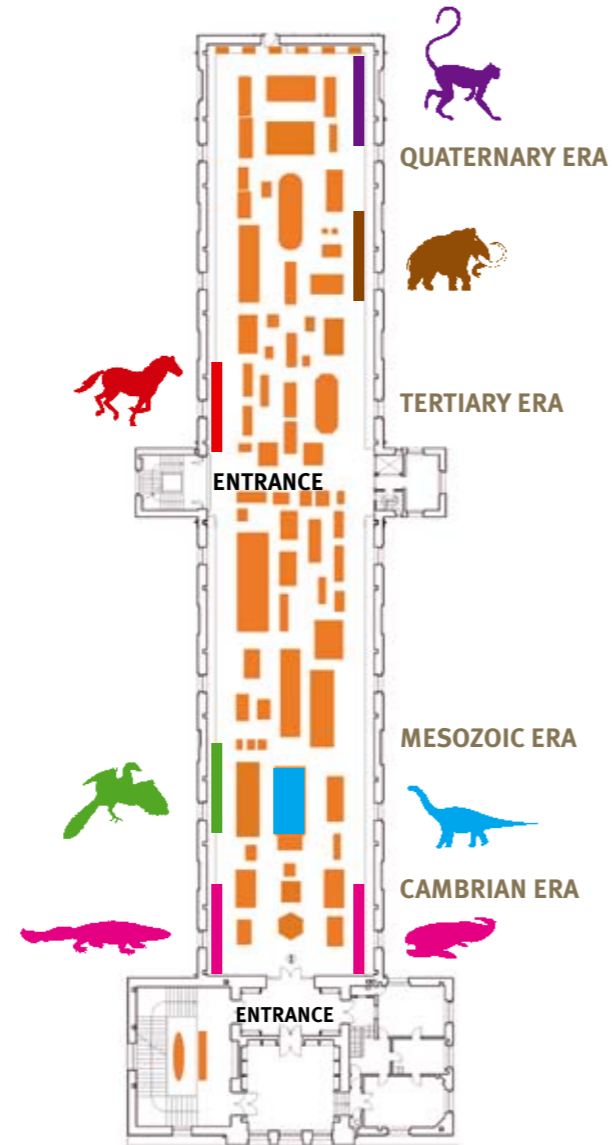
- On the 1<sup>st</sup> floor, the objects show the main line of evolution according to Gaudry.
- On the 2<sup>nd</sup> floor, invertebrates are displayed by zoological group.

The squelettens and molding on display are fragile. Please don't touch.

1<sup>ST</sup> FLOOR – MAIN ROOM

## VERTEBRATE FOSSILS

In the center, large skeletons provide an arresting image of vanished life, with the oldest specimens at the entrance and those of the first humans at the rear.



## TO BE DISCOVERED IN SIDE WINDOWS

### From dinosaurs to birds

- *Allosaurus*, a large carnivorous dinosaur
- *Compsognatus*, a small carnivorous dinosaur
- *Archeopteryx*, the first bird, 150 million years ago
- *Dodo*, a bird extinct since the 18<sup>th</sup> century



### Evolution of equines, the horse and its cousins

- *Hipparion*, 10 million years ago, three-toed
- *Hémione*, 50,000 years ago, single-toed



### Proboscidea, origin and evolution of elephants

- *Archaeobelodon*, four-horned mastodon
- *Mammuthus meridionalis*, the largest of the Proboscidea
- *Mammuthus primigenius*, Siberian ice



### From the origin of primates to the emergence of Man

- *Adapis*, an unlucky forerunner
- *Proconsul*, a key discovery
- *Lucy*, a possible ancestor

## NOTEWORTHY FOSSILS IN THE CENTRAL GROUP

### CAMBRIAN ERA (600 to 245 million years ago)

- *Dunkleosteus*, enormous armored fish
- *Eryops*, one of the first amphibians
- *Pareiasaurus*, large primitive reptile
- *Lystrosaurus*, reptile that was the forerunner of mammals

### MESOZOIC ERA (245 to 65 million years ago)

- *Diplodocus*, herbivorous dinosaur of great length
- *Tyrannosaurus*, terrible carnivorous dinosaur
- *Iguanodon*, the famous dinosaur of Belgium
- *Triceratops*, collared dinosaur
- *Sarcosuchus*, giant crocodile
- *Mosasaurus*, the famous lizard of the Western Interior sea
- *Plesiosaure*, large marine reptile
- *Ichtyosaure*, shark-like marine reptile

### TERTIARY ERA and QUATERNARY ERA (65 million years ago to today)

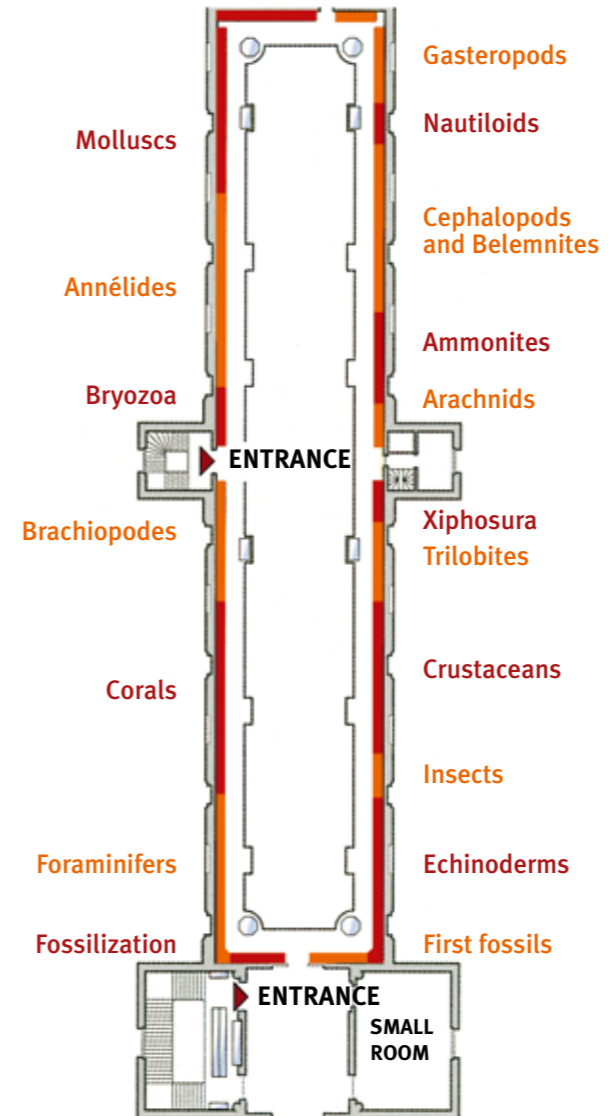
- *Megatherium*, enormous, slow-moving South American creature
- *Glyptodon*, surprising South American mammal
- *Megaceros*, enormous forest deer
- *Smilodon*, saber-toothed cat
- *Carnivores* from the caveman era
- *Aepyornis*, the largest of the birds

2<sup>ND</sup> FLOOR

## INVERTEBRATE FOSSILS

**Small room:** invertebrate fossils of Orbigny's collection.

**Balcony:** wide panorama of invertebrates, from unicellular micro-fossils to Echinoderms.



# Map Gallery of Comparative Anatomy and Paleontology

