

Animals of America

(A few Anecdotes)

Chilean Flamingo 🔌

(Phoenicopterus chilensis) - 120 cm

Chilean flamingos are found worldwide, not just in Chile! These diurnal creatures spend around 30% of their day preening their feathers—a vital activity for keeping themselves waterproof and in flying condition. They often stand on one leg to conserve body heat!

Grizzly Bear (Ursus arctos horribilis) - 200 cm

Naturalist George Ord gave the grizzly its scientific name, Ursus horribilis ("horrible bear"), referencing its ferocity. Although classified as a carnivore, the grizzly's diet includes mammals and fish (especially salmon), as well as insects such as ants, bees, and ladybugs. In reality, it is omnivorous, with vegetation making up 80–90% of its diet.





Timber Rattlesnake 🔾

(Crotalus horridus) - 100 cm

Like all rattlesnakes, the timber rattlesnake is venomous and has heatsensitive pits that allow it to detect warm-blooded prey both day and night. To ward off predators, it vibrates its rattle (the segments of its tail made of keratin) to create a warning sound.

Titan Beetle

(Titanus giganteus) - 15 cm

The titan beetle is the largest insect in the world, with a record length of 16.7 cm! Like many beetles, it doesn't live long as an adult, since it doesn't eat, relying on the reserves accumulated during its larval stage. Its powerful mandibles are said to be able to snap a pencil in half!





Animals of Africa

(A few Anecdotes)



African Fish Eagle

(Icthyophaga vocifer) - 75 cm

The national animal of Zambia, the African fish eagle sometimes engages in kleptoparasitism, stealing prey from other species! Its two distinct calls ("quock" and "kleeuw-kleeuw") are so iconic they are often called "the voice of Africa."

Common Hippopotamus

(Hippopotamus amphibius) - 400 cm

Although they spend most of their lives in the water, hippos cannot swim! The primary reason they stay submerged is to protect their sensitive skin from the sun. When you spot them in the water, they're actually balancing on their toes, which is impressive since they can weigh up to 3,200 kg!





Leopard Tortoise

(Stigmochelys pardalis) - 40 cm

With a lifespan exceeding 50 years, the leopard tortoise gets its name from the spots on its shell, which provide camouflage. Although it is primarily terrestrial, it occasionally takes a dip in shallow waters.

Melon Ladybird

(Henosepilachna elaterii) - 0.8 cm

This ladybird doesn't feast on aphids like its relatives but rather feeds on the leaves of cucurbits (e.g. melons, watermelons, squash), particularly *Ecballium elaterium*—a wild cucumber whose fruits explode to disperse seeds.

Animals of Asia (A few Anecdotes)

Giant Ibis

(Pseudibis gigantea) - 100 cm

Discovered along the Mekong River in 1876, the giant ibis is now the national bird of Cambodia. It has nostrils at the base of its long, downward-curved beak, which allows it to breathe while probing the mud for food.

(Ailurus fulgens) - 57 cm

Red pandas are more closely related to raccoons and weasels than to giant pandas. They can sleep up to 17 hours a day! The white markings on their faces are almost luminescent, which help lost cubs find their mother at night. The reddish "tear tracks" around their eyes protect them from the sun.

Crocodile Monitor

(Varanus salvadorii) - 300 cm

The crocodile monitor is the largest monitor species in the world, living in the forests of New Guinea, with some individuals exceeding 4 meters in length.

Asian Giant Hornet

(Vespa mandarinia) - 5 cm Measuring 5 cm for workers and 6 cm for the queen, this is the largest hornet in the world. A single worker hornet weighs about 1.6 grams, the equivalent of 15 bees, which are its primary prey during group hunts.



Animals of Oceania



South Island Takahē 🧹

(Porphyrio hochstetteri) - 45 cm

The South Island takahē was presumed extinct since 1898, but in 1947, a naturalist rediscovered it in the southwestern part of New Zealand. This discovery led to the creation of a nature reserve to protect the species, especially since it cannot fly!

Tasmanian Devil

(Sarcophilus harrisii) - 65 cm

With the most powerful bite relative to its size among mammals, Tasmanian devils are known to bite through metal and break into livestock cages. Their strong jaws allow them to eat their prey entirely. They are also excellent swimmers and can run at 24 km/h for up to an hour!





Frill-necked Lizard

(Chlamydosaurus kingii) - 90 cm

The Australian dragon, named for its dramatic display when threatened, opens its frill like an umbrella around its head. It has a curious way of fleeing predators—it runs on its hind legs at speeds exceeding 20 km/h!

Coconut Crab (Birgus latro) - 40 cm

Although the coconut crab is a crustacean, it actually belongs to the hermit crab family (Paguridae), instead of the true crabs (Brachyura). The name *latro* means "thief," referring to these crabs notorious reputation for sneaking into homes to steal food.

After On the Origin of Species

The publication of *On the Origin of Species* caused a true upheaval in both the scientific and religious worlds. The idea of natural selection as the driving force behind the evolution of species was met with both enthusiasm and controversy. Darwin, who was in fragile health, was not a man of confrontation, and he often left it to his friends, especially Thomas Huxley (nicknamed "Darwin's bulldog"), to defend his ideas in public debates.

 a. Charles Darwin, portrait by Herbert Rose Barraud, 1881.
b. Caricature of Darwin in a satirical Parisian magazine, 1878.
c. Caricature of Darwin, satirical magazine The Hornet, 1871.



Scientific Work After 1859

Although On the Origin of Species is his most famous work, Darwin continued to publish major research after 1859. His later works were primarily in-depth studies of specific aspects of biology and evolution:



Figure 15 in The Expression of the Emotions in Man and Animals.

- In 1862, he published *On the Various Contrivances by which British and Foreign Orchids are Fertilised by Insects*, where he demonstrated the subtleties of coevolution between flowers and their pollinators.
- In 1868, he wrote *The Variation of Animals and Plants Under Domestication*, in which he developed the notion of "pangenesis," his theory of hereditary mechanisms, well before the discovery of Mendelian genetics.



Figure 18 in The Expression of the Emotions in Man and Animals.

- In 1871, Darwin directly tackled the question of human evolution in *The Descent of Man, and Selection in Relation to Sex*, a work in which he explored the origin of humans and the sexual aspects of natural selection. This was a particularly controversial topic at the time, as it implied that humans shared common ancestors with other primates.
- In 1872, he published *The Expression of the Emotions in Man and Animals*, where he analyzed how human and animal emotions can be compared, thus contributing to comparative psychology.

The Final Years of Darwin

During the 1870s, despite his deteriorating health, Darwin continued to work with impressive rigour. He became passionate about botanical studies, particularly on climbing and carnivorous plants, and published a series of works on this subject. In 1880, he published *The Power of Movement in Plants*, in which he showed that plants have sensitivity and react to their environment in a far more complex manner than was thought at the time.

Towards the end of his life, Darwin gradually withdrew from public life. He lived mainly at Down House, in Kent, with his family, while continuing his research and writing. His fragile health forced him to limit his travels, but he continued to maintain an active correspondence with scientists around the world.



Darwin's Photographic Portraits by Julia Margaret Cameron (1815-1879) in 1868.

Charles Darwin died on April 19, 1882. Despite his wish for a modest burial, he was buried with honours at Westminster Abbey, near Sir Isaac Newton, a testament to the immense contribution he made to science. His theory of evolution remains, even today, one of the cornerstones of modern biology.



Credits

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