

## STEPPE JUNIOR

The steppe is an environment formed by vast temperate grassland plains with hot, dry summers and cold, wet winters. The steppe of the Northern Hemisphere can be found between the latitudes 30° and 50°. In the Southern Hemisphere this biome is less widespread and can be found mainly in South America. The steppe climate has scarce rainfall with very hot summers and freezing cold winters. In the east, annual precipitation does not exceed 60 mm of rain, while in the western steppe it can reach 400 mm. In the eastern Asian steppe, the average temperature ranges from 25°C in summer to -15 °C in winter, while in the west it ranges from 20°C in summer to 0°C in winter.

The lack of trees is partly due to the large herbivores that eat grass and, in some cases, to the continuous felling of trees by humans. The vegetation of the steppe is prevalently herbaceous, but the western steppe, that is more humid, is particularly rich in species. In moist zones where the snow has melted, small trees and shrubs grow, particularly poplars and aspens, which in some cases form small woods. In contrast, the vegetation of the oriental steppe is poorer and without trees.

The vegetation everywhere is dominated by Gramineans, grass that in some cases can be up to 2 metres high, like the extensive “sea of grass” in China. Different species of Leguminosae and Compositae are also present.

The extensive grasslands of the steppe are the kingdom of large herbivores that often migrate in search of new grazing land. Since the steppe has no hiding places and the animals have to move continuously, the majority of herbivores have become very large, are very fast at running and have sensory organs capable of perceiving even very distant signals.

Typical herbivores in the steppe are: the European and North American bison, the horse that originated in the Asian steppe, the pronghorn that lives in the grasslands of North America, and the guanaco, a relative of the camel that lives in the Argentine steppe. In South America there are different species of rodents: guinea pigs, now appreciated as pets, viscachas and tuco-tucos that are similar to big hamsters. Native to the North American steppe are prairie dogs, rodents organised in complex communities that live in real towns built underground. Prairie dogs communicate with others of their kind with gestures and sounds. Some individuals guard the entrance of the burrows, while others take care of the young ones like in a kindergarten. At the slightest hint of danger, the guards send out warning calls and all the members of the town dive into their burrows. Prairie dogs trim the grass around their colonies to prevent predators from getting close without being seen.

Native to the Asian steppe is the yak, the mouflon and the wild ass. Many insects thrive hidden in the grass, especially grasshoppers, beetles and butterflies that play an important role in pollination. There are also numerous reptiles, such as the North American rattlesnake.

The great quantity of herbivores and of small animals attracts different species of predators. The wolf in Europe and Asia and the coyote in North America prey upon large-sized animals while foxes, weasels, badgers, stoats and polecats catch smaller prey. Even birds of prey can be found in the grasslands: their excellent eyesight allows them to see their prey even at a great distance in these open spaces without hiding places.