

## Chinese “Yellow Dragon” Natural Reserve

China has one of the most amazing nature reserves in the world. It is the Huanglong nature reserve (Huanglong is translated from Chinese as “yellow dragon”), which is located on the highlands of Sichuan province. The reserve is located at an altitude of 3.5 thousand meters above sea level. Its area is about 21 thousand square meters. From bird's-eye view, Huanglong truly resembles a giant dragon glistening with its scales in the sun. The main pride of the reserve is fancy landforms composed of limestone.

Tens of millions of years of precipitation and water flowing from mountain glaciers, seeping through the earth. Underground streams gradually dissolved layers of calcite rocks. Moreover, when the brook, running under the ground, made its way out, then under the influence of the temperature difference calcite crystallized and settled on any surface, it shells of ancient mollusks, stones or plants. Therefore, nature has created travertine terraces with ponds.

On the territory of the reserve you can find many amazing animals, most of which are listed in the Red Book. For example, pandas and szechuan golden monkeys are found here. However, the main highlight of the Huanglong nature reserve is not the animals that inhabit it, but the so-called travertine landscapes! Water flowing down the slope forms rapids, covered with a lime layer like scales. No less beautiful are the long sedimentary shoals, deposits of calcite in the form of fans filled with thin water jets. At an altitude of 3400 meters above sea level, emerald lakes proudly settled down, cascading down. They form 8 groups of reservoirs, among which there are no pairs of the same.

The shape of the lakes is varied: some look like a water lily, others look like willow leaves. The largest lakes are comparable to an impressively sized swimming pool, while the smallest ones are no larger than a plate or saucer. In the milky-white travertine bowls, water is poured with all the colors of the rainbow, depending on the layer of sediments on the bottom, the algae growing here, the play of light and shade. Flowing from the reservoir into the reservoir, from step to step, the water flow

is divided into dozens of waterfalls. The steep cliffs from which the waterfalls fall down are composed of calcareous rocks of a soft golden hue.

Travertine landscapes were formed as a result of a thousand-year process, when water flowing from numerous glaciers seeped into the ground, eroding it and forming underground streams. These streams, in turn, dissolved limestone that was in the ground. Zhagha Falls, which brings its waters into the gorge from a height of 93 meters, is considered the highest in China.

Reserve Huanglun is a fragile magnificence. In the Huanglong, the Fujian River originates, notable for its direct main course and zigzag tributaries. On both sides of the valley is framed by coniferous forests adjacent to deciduous trees and shrubs.

When water from underground sources again came to the surface, crystallization occurred due to differences in temperature, and the limestone froze again, forming odd reliefs. The result of the long-term process are amazing reservoirs, waterfalls and rapids. All this in the reserve Huanglong abound! Glades covered with green carpet are full of white, blue, red and purple flowers, and the top of the Snowy Peak (5588 meters) is topped with ice caps all year round. If you delve into the park, you can reach the Boiling Pearl Lake, whose waters, heated by hot thermal springs, do not freeze even in winter. The local sources, rich in minerals, have healing properties. Rare animals such as the Yunnan leopard, white-faced deer, bamboo bear and golden snub-nosed monkey inhabit the Huanglong Nature Reserve. There are more than 3,500 lakes in the reserve in total! This is simply an incredible figure, but the vast majority of these reservoirs are about the size of a large puddle and are formed precisely because of the settled limestone. The lakes are shallow, and because of the low shores, the water literally overflows from one reservoir to another. They are so close to each other! Recognized by UNESCO as a world natural heritage, Huanglong is protected by the state. Travertines are very fragile, and any careless step of a person can destroy them. For the convenience of tourists and in order to preserve the unique karst landscape, bridges and gazebos have been built in the reserve. Huanglong is especially beautiful in the fall, when a riot of warm red

and yellow colors is added to the emerald-blue lakes, bordered by golden rapids. In winter, the whole Huanglun is shrouded in snow-white frost, and only the mirror-like surface of the lakes shimmers with turquoise in the middle of the crystal realm.

With the onset of cold weather, the whole Huanglong is covered with milky frost. The reserve turns into a kingdom of snow and ice. Freeze and lakes on the travertine terraces. In winter, water bodies are covered with ice crust, which gives them a turquoise-blue hue. It all looks just incredibly beautiful!

Most of all travertine terraces in the Huanglungou Gorge. A huge 1300-meter travertine threshold was formed here, the width of which in some places exceeds 100 meters.

There are many thresholds of golden, milky-white, gray and green shades! If you look at this miracle of nature from the top of the gorge, then the rapids most of all resemble the scales shining in the sun, the scales of the dragon!

In addition, on the territory of the reserve in the Mouni Gorge there is the largest waterfall in China called Zhaga. The water falls down from a height of 93 meters, and the width of the cascade is almost 40 meters. The Chinese government greatly appreciates the Huanglong Nature Reserve and carefully guards it. The main concern of the authorities is to preserve the nature of the reserve in its original form, and they cope with it just fine. There are a lot of people working here who make sure that tourists who come here in no way violate the fragile ecosystem of the reserve.

Every year, the Chinese government closes access to Huanglong from December to March. Such measures lead to enormous expenses (about 5 million yuan), however, they allow preserving the nature of the reserve intact. However, it help to safe live! Pandas were close to extinction. Chinese nature reserve have brought pandas back from the brink of extinction. In the middle of the 20th century, China's giant pandas were on the brink of extinction. With only a few hundred examples left, it seemed that deforestation and poaching would spell the end of these gentle giants. However, the panda is not the sad story that befalls so many of Earth's species. Instead of going

extinct, a concerted effort from the Chinese government to save the panda has brought the species back from being considered endangered in the early 2000s to being merely “vulnerable” in 2016. Authorities from China’s State Forestry and Grassland Administration currently estimate the wild panda population to be around 1,864 individuals. That’s up from 1,114 wild giant pandas in the 1970s. Officials state that the reason for the boom in panda populations has less to do with captive breeding programs, which have only now begun to bear fruit, and instead are the fault of an increased number of nature reserves in China’s interior forests. China now has 67 protected areas where the penalties for injuring a panda can be quite severe. Giant pandas are notoriously fickle breeders. Females are only receptive 2-3 days per year, and even if they conceive they typically only bear one or two young. Breeding in captivity is extremely difficult for zookeepers as the male bears often don’t seem to know how to copulate with a female. Extreme measures, such as giving male pandas Viagra or providing them with “instructional videos” have met with little success. Artificial insemination is often the route taken by modern zoos. Pandas seem to breed better in wild conditions, where the normally solitary creatures find each other via scent and calling. Currently, 66.8% of China’s wild panda population exist in nature reserves, especially in “yellow dragon” reserve, which represents 53.8% of the total world population. The species is still considered vulnerable, and any disruption to China’s 67 nature reserves would undoubtedly spell doom to the country’s wild population. However, if Chinese natural reserve is able to retain the protected status of these preserves, then the panda population is expected to grow to sustainable levels.