

Wildlife returns to Qilian Mountains

Amid conservation efforts, rare species are thriving in nature reserve despite conflict with human population

Editor's note: As protection of the planet's flora, fauna and resources becomes increasingly important, China Daily is publishing a series of stories to illustrate the country's commitment to safeguarding the natural world.

By **XU NUO** and **MA JINGNA**
in Zhangye, Gansu

The Qilian Mountains in Northwest China have come nearly full circle from four decades ago, when the flora and fauna were threatened by deforestation, grazing, and poaching.

The 1,000-kilometer mountain range separating Qinghai and Gansu provinces is today hailed as an oasis surrounded by desert. The towering peaks of the Qilian Mountains capture warm, moist air from the southeast, creating abundant precipitation. This climate and the various ecological environments in the area have fostered diverse habitats for numerous wildlife species, including snow leopards, wild yaks, and black-necked cranes.

Starting in the 1980s, a time when the health and biodiversity of the mountains were threatened by human activity, ecological protection work has been carried out.

Over the past decade, in particular, the region has undergone the strictest environmental rectification in its history — human activity in core protected areas has been eliminated, allowing the natural environment to recover effectively.

However, as these rare species return to the public's view, new issues have emerged concerning the relationship between humans and nature, as well as with animals.

"We came across two snow leopards during a patrol," recalled Lang Wenrui, deputy director of the Sunan branch of the Zhangye ecology and environment bureau, which administers part of the mountain range. "They were drinking by a water source, only 5 or 6 meters away from us. It seems they are not afraid of people, as they didn't hide upon seeing us."

In the video he recorded, a large snow leopard and a small one move gracefully through the rocky, overgrown precipices, occa-

sionally pausing to survey their surroundings. Their grayish-white fur, adorned with black spots, blends seamlessly with the rocky landscape, making them difficult to spot. Their limbs are powerful, with muscles flexing as they move, hinting at their leaping abilities.

Lang, a photography enthusiast of Tibetan ethnicity, spends most of his year patrolling the Qilian Mountains.

"I've been searching for snow leopards for 15 years during patrols," he said. "In the first 10 years, I didn't see a single one, but in the past five years, I've encountered over a dozen."

The snow leopard population in the Qilian Mountains has been rapidly recovering, an epitome of the results of continuous conservation efforts.

"Sightings of snow leopards in the wild are more frequent, and the range within which these leopards make their presence known is steadily expanding," said Pei Wen, director of the management center of Gansu's Qilian Mountain National Nature Reserve.

The number of snow leopards in Gansu's Qilian Mountain and Yanchiwan national nature reserves has reached approximately 700, according to Ma Duifang, head of the wildlife management department at the Zhangye branch of the Gansu Qilian Mountain National Park Administration.

The snow leopard expert has a reserved character, yet becomes animated and confident when discussing the large mammals.

"Snow leopards are ambush predators with short, sturdy legs and long, thick tails. They aren't fast runners and are not good at chasing prey over long distances, but they excel at climbing, moving across cliffs as if on flat ground," Ma said.

Restoring the snow leopard population is crucial, he said.

"Snow leopards are a flagship and umbrella species in the Qilian Mountains, sitting at the top of the ecosystem's food chain. They are closely linked to many other wildlife species in the region," he said. "For example, the bearded vulture, which is not a strong hunter, relies on the carcasses of prey caught by snow leopards as a vital food

source. Meanwhile, the populations of blue sheep, red deer, and musk deer — primary prey for snow leopards — are kept in check by their predation."

Ma said snow leopards are like "the barometer of the alpine ecosystem."

Conservation efforts have played a key role in the resurgence of the species' populations.

"The locals in the pastoral region of the Qilian Mountains had a tradition of hunting," Ma said. "However, following the enactment of China's Wildlife Protection Law and the establishment of the Gansu Qilian Mountain National Nature Reserve in 1988, efforts to combat hunting and poaching wildlife were intensified. By the 21st century, this tradition had been completely reversed."

Nevertheless, the path to safeguarding the ecosystem and biodiversity has been fraught with new challenges and persistent obstacles. In 2015, the former ministry of environmental protection flagged four major issues during a disciplinary meeting with the Zhangye city government and the Gansu Qilian Mountain National Nature Reserve: excessive mining, an abundance of hydropower facilities, unauthorized tourism, and overgrazing.

In 2017, a central inspection team was dispatched to Gansu to investigate the problems, prompting the government to pledge a comprehensive restoration of the Qilian Mountains' environment.

"A prime example of our rectification efforts is the closure of all 144 mining areas in the Qilian Mountains," said Guo Shengxiang, deputy director of the Qilian Mountain National Nature Reserve's management center.

In 2017, the Qilian Mountains were designated as a pilot national park, covering 50,200 square kilometers. The region was divided into core protection and general control zones, and residents in the core protection zone were encouraged to participate in ecological migration.

The government provided the migrants homes and subsidies to offset grazing bans, and offered them positions as forest rangers or alternative livelihood training.

"In the Gansu section of Qilian Mountain National Park, we've



Rangers and forest police patrol Qilian Mountain National Nature Reserve in Zhangye, Gansu province, in January 2023.

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employed 2,425 forest rangers, most of whom are local migrants," Guo said.

Ma Jiancheng, head of the Xiangyangtai resource management center of Sidalong station, which is part of the Qilian Mountain reserve, has been working as a forest ranger for 26 years. Each month, he and his colleagues spend at least 20 days patrolling deep in the mountains at altitudes above 3,000 meters. During the patrols, they are tasked with preventing illegal logging, poaching, unauthorized fires, and damage to forests and grasslands, while also documenting wildlife sightings.

Now, their work is empowered by technology, as each ranger is equipped with a program on their phone to record their patrol routes. If they spot wildlife or signs of human activity, they immediately take photos and upload them to the program.

Data from the Qilian Mountain reserve's management center shows that the reserve is now home to 360 species of wildlife, including 24 species under national first-class protection.

Simultaneously, the mindset of local herders has changed.

"After transitioning from herders to ecological rangers, their awareness of ecological protection has significantly increased, turning them from environmental disrupters into protectors," Ma Jiancheng said.

Zhao Chuanyan, a professor at Lanzhou University, has been conducting ecological monitoring at the Sidalong station for over 20 years. She and her team have conducted a longitudinal study on the ecological function of the mountains.

While the resurgence in animal populations is a positive indicator of ecological health, new challenges arise that test the delicate balance between humans and wildlife.

"Did I hear right that a brown bear smashed the door of your observation station?" Ma Duifang asked Zhao when they met at the Xiangyangtai center in Sidalong.

For Zhao and her team, encounters with wildlife have become a routine occurrence, with bears and other animals frequently visiting their observation station.

The bear paw prints on the doors of Zhao's observation station were as long as an adult man's shoe.

"This particular bear shattered the glass on the window, injured its paws, and left a trail of blood on the floor as it turned the place upside down," she said.

As wildlife populations grow and their range expands, encounters and conflicts are becoming more frequent outside core areas where boundaries between humans and wildlife are clearly defined.

Guo, from the reserve's management center, said that as the numbers of wild animals skyrocket, they devour crops, and brown bears and wolves often prey on livestock.

Although wildlife are the original inhabitants of the Qilian Mountains, ensuring the safety of herders, rangers and researchers when they encounter these animals remains a pressing issue.

"Last year, some of our field researchers were chased for over 2 kilometers by a pack of dholes (wild dogs). Both dholes and brown bears are known to attack humans on sight," said another official from the reserve's management center.

The relationship between humans and animals remains a complex and ongoing conversation.

"Every species exists for a reason and has its place in the ecosystem," Ma said. "We can't simply judge a species based on its impact on human society. Often, it's the numbers, distribution, or structure of a species that pose challenges, not the species itself."

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