Beijing Donglingshan Forest: From the Birthplace of a Civilization to a Living Example of Ecological Civilization

Standing on the summit of Donglingshan, the highest peak near Beijing, one can look north toward Zhuolu County in Hebei Province.

For many Chinese people, this landscape represents far more than a mountain range. According to one of China's most enduring founding stories, it was here that the legendary Yellow Emperor and Flame Emperor joined forces against the warrior leader Chiyou in the Battle of Zhuolu thousands of years ago. The story symbolizes the transition from conflict among tribes to the formation of a shared civilization.

Whether viewed as history, mythology, or a blend of both, the narrative remains deeply woven into Chinese cultural identity. Even today, many Chinese people refer to themselves as descendants of the Yellow and Flame Emperors.

This landscape has witnessed not only the emergence of a civilization, but also a long and evolving relationship between people and nature.

A Forest Classroom for Generations of Scientists

For Chinese ecologists, Donglingshan is often described as a university without walls.

Located less than two hours from downtown Beijing, it is surrounded by many of China's leading research institutions and universities, including the Chinese Academy of Sciences, Peking University, and Beijing Normal University.

For decades, generations of students and researchers have come here to learn field ecology, conduct biodiversity surveys, and study forest dynamics. Numerous master's theses and doctoral dissertations have been built upon research carried out in these mountains.

Each spring and early summer, wildflowers blanket the slopes. Students arrive carrying backpacks and field notebooks, learning how to identify plants, measure trees, and understand ecological processes. For many, Donglingshan provides their first opportunity to truly experience a forest ecosystem firsthand.

Here We Could Not Find Old-Growth Forests

Most of the forests here are secondary forests rather than old-growth stands.

For centuries, northern China's mountain landscapes were shaped by war, fuelwood collection, logging, land clearing, and livestock grazing. Trees were cut, hillsides cultivated, and cows, horses, and goats roamed freely through the forests. Young seedlings often disappeared before they had a chance to mature.

When our research team began planning a 20-hectare forest dynamics plot in 2009, we hoped to find a relatively undisturbed mature forest, following international standards of ForestGEO used throughout the global network.

After extensive surveys, however, we faced an unexpected reality: truly old-growth forests were almost impossible to find.

Eventually, we selected the best-preserved secondary forest available.

Field research brought its own challenges. Experimental seedlings were frequently eaten by grazing animals, and research infrastructure occasionally suffered damage from wandering goats.

When Richard Condit, one of the founders of the ForestGEO network, visited Donglingshan and learned about our plans, he jokingly remarked, “Maybe every time you go up the mountain to measure trees, you can bring a goat back down with you.”

The joke captured a deeper truth: the history of this forest cannot be separated from the people and animals who have lived alongside it.

From Degradation to Recovery

The transformation of Donglingshan reflects broader ecological changes across northern China.

In the early decades after the founding of the People's Republic of China, forest resources around Beijing were severely depleted. Over the following decades, large-scale reforestation programs, natural forest protection initiatives, ecological restoration projects, and grazing restrictions gradually reshaped the landscape.

A particularly important milestone came in 2019, when stronger forest protection and grazing-control measures were implemented in the region.

Today, hillsides that were once heavily used are recovering. Forest cover has expanded, wildlife has become more abundant, and natural regeneration is increasingly visible.

The changes are evident within our 20-hectare long-term forest monitoring plot. Seedlings are establishing successfully, species diversity is increasing, and the forest is gradually regaining its capacity for self-renewal.

A Forest That Brings People Together

Donglingshan is not only a place for ecological research. It is also a place where people from very different backgrounds meet.

For example, in 2023, the Yale Beijing Alumni Association, the Dandelion School, and the Institute of Botany of the Chinese Academy of Sciences jointly organized a biodiversity education and exchange program within the Donglingshan plot. Students, scientists, educators, and community members explored the forest together, learning about biodiversity while sharing perspectives and experiences. See this blog.

For many participants, it was their first visit to a long-term forest research site. For others, it was an opportunity to see how ecological science can serve as a bridge between communities. So, biodiversity is not only about protecting species of plants and animals; it is also about fostering human connections.

Conversations Beyond the Data

In 2026, our 20-hectare forest dynamics plot underwent its fourth full census. Community members from nearby villages in Beijing's Qingshui Town and neighboring Zhuolu County of Hebei joined scientists, university students, nature enthusiasts, and volunteers in the field.

Together, they measured trees, recorded data, shared lunch meals, and exchanged stories.

Many local residents begin their day before dawn, tending crops and livestock before arriving at the forest plot to participate in research activities at 8am.

What often surprises first-time visitors is the breadth of their interests and concerns.

They speak not only about harvests, family life, and village development, but also about ecological protection, national development, international affairs, and hopes for peace in an increasingly uncertain world.

These conversations challenge common stereotypes about rural communities.

At the same time, local residents are often intrigued by young volunteers who travel long distances and devote their time without compensation to biodiversity monitoring and conservation.

The result is a mutual learning process.

Young people gain a deeper understanding of rural life and community values. Older residents gain new perspectives on the motivations and aspirations of the next generation.

These exchanges will never appear in a scientific dataset. Yet they may be among the most important outcomes of all.

Ecological Civilization in Practice

Thousands of years ago, people came to these mountains seeking land and security for survival.

Today, people continue to gather here for a different, though related, purpose: to explore how humans and nature can thrive together in a rapidly changing world.

Donglingshan tells a story larger than a single forest.

It is a story of ecological recovery, scientific inquiry, community participation, and cultural exchange.

It is also a reminder that sustainability is not only about restoring ecosystems. It is about building understanding between generations, between communities, and between different cultures.