



World's Last Group of Cao Vit Gibbon and Their Last Home

With a known population of only 110 individuals, the cao vit gibbon, also named eastern black crested gibbon, is one of the rarest ape species in the world, second only to its closest relative the Hainan gibbon. They were once considered distinct in the 1960s, but were rediscovered along the northern border of Vietnam in 2002. According to an updated survey conducted by the research team of Fauna and Flora International's Vietnam primate program, 129 cao vit gibbon individuals have been recorded from one patch of karst forest on the China-Vietnam border and indicate a 17% increase in population since the censuses of 2007.

Typically, an adult male cao vit gibbon has all black body with a crest on the head, while a female vary in color from yellow to beige with a black patch on the chest and on the top of the head as well as a large black triangle on her nape and back. Infants are born black and females only get their light color when they reach maturity.

In general, the top reason for cao vit gibbon population decrease is the loss of habitats. Characterized by water shortage and exceptionally thin soil layer, the habitats of cao vit gibbons, the karst forests, are quite vulnerable and fragile. With the intervention of human activities such as wood collection and livestock grazing, the recovery of destroyed forest environments has been extremely difficult.

Besides habitat withdrawal, some special behaviors of the cao vit gibbons also limit their population propagation. For instance, mature females may give birth to just one infant every two to four years. Meanwhile, cao vit gibbons are canopy dwellers with strong bonds to their territory and tend to avoid lower forest stratum. For example, according to a recent joint study led by Prof. ZHU Jianguo from the CAS Kunming Institute of Zoology and Dr. FAN Pengfei from Dali University, during a 2,096-hour observation of the behaviors of three cao vit gibbon groups, researchers only witnessed one juvenile male walking on a stone for few seconds. To date, no study has reported the ability of gibbons to disperse across rivers or roads, suggesting that the population of cao vit gibbon cannot naturally disperse out of their territory even if it is under threat.



An adult male of Cao Vit Gibbon. (Photo by ZHAO Chao)

To protect the remaining population and their karst forest habitats, the Cao Vit Gibbon Conservation Area in Vietnam and Bangliang Gibbon Nature Reserve in China were established in 2007 and 2009, respectively. Meanwhile, a wide range of activities have been implemented, like enhancing forest protection, community outreach, local livelihood development, environmental education, habitat restoration and ecological research.

The joint research used high-resolution satellite images to evaluate habitat quality and predict the gibbons' potential habitats in the area immediately surrounding their last population. They also applied Vortex to simulating population responses against changes in the habitat's carrying capacity. The results indicated that the gibbon population was approaching the carrying capacity of their current habitat, and that carrying capacity had a significant impact on population changes. And two potential habitats are located in a forest connected to the current habitat by a very narrow forest corridor, situated above an underground river.

Their research offered not only important insights into preserving the current gibbon population, but also suggestions for habitat protection and restoration at the species last home for local governments in Vietnam and China.



A female Cao Vit Gibbon with her baby. (Photo by ZHAO Chao)

Researchers in a habitat survey. (Photo by Prof. ZHU Jianguo)

