




Preface: Beetle diversity of Nanling Priority Area for Biodiversity Conservation: papers celebrating the 10th anniversary of the Coleopterology Committee, Entomological Society of China

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The Nanling Mountains, stretching between the Qinghai-Xizang (Tibet) Plateau and Yunnan-Guizhou Plateau to the west and the Wuyi Mountain area to the east, are the largest horizontal tectonic mountain belt in southern China, spanning five provinces: Guangdong, Guangxi, Hunan, Jiangxi, and Fujian. This range separates the southern and central subtropics, divides the Pearl River Basin and the Yangtze River Basin, and serves as a critical ecological buffer for southeastern China. At the same latitude, the Nanling Mountains stand out for their primary forests, making the region one of the nation's biodiversity hotspots. The area's ancient geological origin, complex topography, and exceptional hydrothermal conditions have nurtured a diverse array of ecosystems. Typically, the mountains are covered by subtropical evergreen broad-leaved forests. At elevations around 1,000 meters, tree height is limited to 8–10 meters, resulting in distinct lower montane forests. The unique biodiversity and cultural heritage of the Nanling Mountains have led to its designation as a national priority area for biodiversity conservation.

Priority areas for biodiversity conservation are essential for conducting baseline biodiversity surveys, which focus on understanding the region's species, their distribution, habitat conditions, and the threats they face. These efforts are supported by regional biodiversity monitoring and assessments aimed at developing management systems to track the dynamics of Invasive Alien Species (IAS). Such systems are crucial for predicting trends in biodiversity change under different conditions and providing forecasts and early warnings. Strengthening monitoring and early warning systems for harmful pathogenic microorganisms and animal diseases is vital for comprehending the principles of biodiversity and identifying threats. This understanding provides a scientific foundation for making informed conservation and management decisions. Moreover, applied research on the conservation and sustainable utilization of various germplasm resources, along with comprehensive technologies for prevention and treatment, is necessary to establish a technical system for resource management. Additionally, exploring mechanisms for regional ecological and biodiversity compensation can further national efforts to build an ecological civilization that benefits both the country and its people. These initiatives collectively contribute to a robust framework for conserving biodiversity while promoting sustainable development.

The Nanling Mountains are recognized as one of the richest regions in China for insect diversity, characterized by a high degree of endemism. This diversity is attributed to the complex geographical environment, which results in small, distinctive biotic zones. These zones exhibit varying species diversity and zonation patterns across different altitudes and vegetation conditions, contributing to the complexity and richness of the insect fauna in Nanling. Supported by funding from the Guangdong Academy of Sciences and the Forestry Administration of Guangdong Province, extensive surveys have been conducted to explore this diversity. Taxonomists specializing in various insect groups have actively participated in fieldwork and species identification efforts. These surveys have led to the discovery of numerous new species and previously unrecorded genera, both for the region and for China as a whole. In recognition of these findings, the Coleopterology Committee of the Entomological Society of China has organized a special issue in *Zootaxa* to highlight the new discoveries related to beetle diversity in Nanling. I hope this issue will inspire further research interest in the insect fauna of the Nanling Mountains as well as the surrounding regions, emphasizing their significance as a biodiversity hotspot.