

Geoheritage Classification in Fugong County, Yunnan Province



HUANG Yonggao*, HUANG Baixin and ZHANG Tong

Sichuan Geological Survey, Evaluation and Utilization of Strategic Rare Metals and Rare Earth Resource Key Laboratory of Sichuan Province, Chengdu 610081, Sichuan, China

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Abstracts: During the long history of the Earth's geological evolution, Fugong County, Yunnan Province, has formed various, precious and non-renewable geoheritage. There are 164 geoheritages in Fugong county, which can be divided into basic geology, geomorphologic landscape and geological disaster according to the specification for geoheritage investigation (DZ/T 0303-2017). It is mainly composed of geomorphologic landscape, which including four types: rock and earth mass, water body, glacial and tectonic landform. Basic geology includes two subclass: metamorphic rock section and mining site. The metamorphic rock section includes the Gaoligongshan Group, whose lithology is characterized by granulite, gneiss, hornblende schist and a small amount of marble, and the Chongshan Group, which characterized by schist, granulite, marble and a few gneiss and hornblende schist. Mining minerals include marble and tourmaline. Marble occurred in the Dazhaimen Formation and Gaoligongshan Group. Tourmaline is divided into four types according to color, which is produced in the pegmatite dykes. The geomorphologic landscape includes eight sub-types, including carbonate landform, intrusive landform, metamorphic landform, river, lake, waterfall, fossil glacier relic and canyon. Carbonate landform is dominated by karst geology and developed in the Dazhaimen Formation. Stone moon mountain, for example, like a round of bright moon hanging in the mountains, Laomudengbysmalith group, which is shaped like the Chinese character 'Shan' (means mount). Yangjiaopeak, which is spreading in a well-proportioned way. The intrusive landform, which is dominated by granite forest landscape, is mainly distributed in the Gaoligong and Biluo Snow Mountains, such as the Stone Sun that piercing through the sky, while the metamorphic landform is mainly distributed in the metamorphic belt of the Gaoligong and Chongshan Mountains, whose lithology is metamorphic rocks of the Paleoproterozoichigh-green schist facies. Crown mountain, known as 'General Claire Chennault', is the representative landscape. In terms of river, Nujiang River runs through the county from north to south, with a domestic process of 129 km. In addition to the main stream of Nujiang River, there are more than 160 rivers such as Muguja, Shidi, Yamu, Lishadi, Mukeji,

and Mujiatia. These rivers often form some spectacular scenery when passing through alpine and gorge region, such as Xiushui bay, Munima, and so on. The lake is dominated by the alpineice-scourlake, with vertical zoning climatic and lakes in groups, represented by EnreYibi Lake, GandiYibi Lake and Qilian Lake. The landscape pattern of high mountains, deep valleys and crisscrossed cliffs in Fugong County hadpregnated with many waterfall landscapes, including more than 40 geoheritageof waterfalls, represented by Lawuyan and Yaping Waterfall. The fossil glacier relic are mainly distributed in Gaoligong and BiluoSnow Mountains, where there are rochemoutonnee, glacial boulder, 'U'-shaped valleys, ice-scour depressions, glacial crevice, cirques, horn peaks and moraines. Among the three grand canyons in Nujiang River, Lancang River and Dulong River, the Nujiang Rivergrand canyon is the most spectacular, who has the characteristics of deep, steep, high and straight, magnificent, and turbulent. In the open section of the canyon, the flow rate of the river had slow down, winding and zigzagging. The scenery on both sides of this canyon is elegant and graceful, which is in striking contrast with the alpine canyon landscape. The geoheritageof geological disaster is mainly collapse, represented by the 'flying rock' near the Fugongnational middle school, followed by landslide and debris flow.

Key words: geoheritage, feature, type, Fugong

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About the first author



HUANG Yonggao, male, born in 1987 in Xiantao City, Hubei Province; master; graduated from Guilin University of Technology; assistant director and engineer of Sichuan Geological Survey. His main research directions are investigation and research of basic geology. Email: hyonggao@126. com; phone: 028-83184441, 15902879525.

* Corresponding author. E-mail: hyonggao@126.com