

7th International Conference on

BIODIVERSITY CONSERVATION AND ECOSYSTEM MANAGEMENT

July 26-27, 2018 Melbourne, Australia

Activity pattern of Asiatic black bear and its hibernation related to the climate change by analyzing the camera trapping dataXuehua Liu¹, Babar Zahoor¹, Wanlong Sun¹, Pengfen Wu¹, Xiaodong Jia¹, Zixin Lv¹, Xiangyu Zhao¹, Xiangbo He², Baishuo He³, Qiong Cai⁴ and Melissa Songer⁵¹Tsinghua University, China²Shaanxi Foping Nature Reserve, China³Shaanxi Changqing Nature Reserve, China⁴Shaanxi Guanyingshan Nature Reserve, China⁵Smithsonian Conservation Biology Institute, USA

Asiatic black bear (*Ursus thibetanus*) is a protected wildlife species with conservation rank of Grade II. Due to its dangerous characteristics, black bear has been hardly researched for its detailed activity pattern. Currently, the quick development of camera tracking technique has made this research gap possible to be filled. In addition, the gradually serious conflicts between human and black bear call for more information on this animal. The hibernation behavior of black bear also can be a good indicator of climate change. This study is aiming at using camera trapping technique to catch the photos of black bear, mining the detailed information from infrared camera photos and analyzing the activity pattern of the animal. The camera trapping has been applied in the southern slopes of the Qinling Mountains for more than 5 years. We obtained total 429 camera photos of black bear from 2013 to 2016 and about 1/3rd of them were used for this study after preprocessing the data set. Our results showed that black bears in the Qinling Mountains: (1) Greatly occur in the daytime, (2) are active in the daytime and (3) are definitely absent from the trapping in January and February, and occasionally appear in November, December and March, which means the black bears' hibernation duration is 5 months from November to March generally, (4) the black bears use the forest habitat in a various way among high and low elevation natural forests, secondary forests and man-made forests. All these results can benefit the conservation of Asiatic black bear.

Biography

Xuehua Liu has her expertise in wildlife conservation and habitat assessment. She has been focusing on the giant panda and its habitat research for a long period. During the recent 10 years, she expanded her interests on other biodiversity species by applying the camera trapping techniques. She used the minded information from the animal pictures recorded by the infrared cameras to analyze the wildlife diversity, animal behaviors and patterns, habitat use and so on.

xuehua-hjx@tsinghua.edu.cn

Notes: