



ARTICLE

Elephant Culture Matter for China's Asian Elephants Conservation

Yongjing Tang Zhengling Li Guilian Jiang Ting Lv Lei Zhang Wenlan Zhao Gao-fan Zhu Mingyong Chen*

Yunnan Asian Elephant Field Scientific Observation and Research Station of the Ministry of Education, School of Ecology and Environmental Science, Yunnan University, Kunming, 650500, China

ARTICLE INFO

Article history

Received: 28 June 2020

Accepted: 31 July 2020

Published Online: 19 August 2020

Keywords:

Asian elephant

Elephant cultures

Ethnoecology

Conservation Biology

ABSTRACT

Traditional anthropogenic impacts such as hunting, using as war-elephant, trading of ivory, paying tribute to the imperial court and so on, were once thought to be directly responsible for the rapid decline of Asian elephants in China. But in Yunnan Province, China, a unique human factor such as the traditional elephant culture of local ethnic minorities, is an important factor in the conservation of Asian elephants. In these areas, we investigated by means of village interviews, field surveys and data collection, the results show that the elephant culture of ethnic minorities has a great impact on people's thoughts and behaviors, these traditional culture and belief (that mean taking elephant as the God, holding elephant as a belief, worshipping elephant and praise it) urges people to actively protect elephants and avoid more human-elephant conflicts. To enhance the public awareness of Asian elephant conservation, the Chinese Government or international environmental organizations should give higher attention and support to these elephant cultures.

1. Introduction

Asian elephant (*Elephas maximus* L.) is one of endangered (EN) species listed by the International Union for Conservation of Nature (IUCN) and one of the first class state protected species in China^[1]. Historically, Asian elephants once distributed widely in China^[2]. Due to some reasons, such as hunting, using as war-elephant, trading of ivory, paying tribute to the imperial court^[2,3], natural vegetation being massively occupied by agriculture and so on^[4]. As a result, both population of Asian elephant and their habitats have been reduced drastically, even disappeared regionally in most parts of China^[2].

And now, about 300 individuals of China's Asian elephants merely survive in Xishuangbanna, Pu'er and Lincang in Yunnan Province^[4,5], where are also main living places of two ethnic minorities named Dai and Wa people in China^[6,7]. Co-existing with Asian elephants, Dai and Wa people have been developing characteristic elephant culture (that is, cultural products and customs are made of elephant as a core), they all take elephant as the God, hold elephant as a belief, worship elephant and praise it^[7].

Since 1989, during the 30 years of research on the ecology of Asian elephants, we have been conducting field surveys in these distribution areas of Asian elephants in China - Xishuangbanna, Pu'er and Lincang in Yunnan

*Corresponding Author:

Mingyong Chen,

Yunnan Asian Elephant Field Scientific Observation and Research Station of the Ministry of Education, School of Ecology and Environmental Science, Yunnan University, Kunming, 650500, China;

Email: mychen1108@ynu.edu.cn

Province, China. During our work, we have come into contact with many friends of the local ethnic minorities and naturally come into contact with their rich and unique production, life and culture. We are curious about these splendid minority cultures, especially the myths, legends and stories about the Asian elephant, such as these various Asian elephant sculptures in streets, decorations with elephant elements in the architecture, the solemn riding elephant parade during the festival, the lively elephant foot drum dance. A great deal of information and data on the culture of the Asian elephant has also been collected with consultation. We found that elephant culture has ultimately slowed down the extinction of China's Asian elephants, and it played a vital role in protection of Asian elephants. To promote the development of elephant cultures for conservation of China's Asian elephants in the future, some suggestions have been given in this paper.

2. Methods

2.1 Study Area

The study area is mainly located in Nangunhe National Nature Reserve (with total area 50887 hm²) in Cangyuan County, Lincang, Yunnan Province, and it is a national nature reserve with Asian elephants and their habitats as its main tasks. The surrounding communities of the reserve

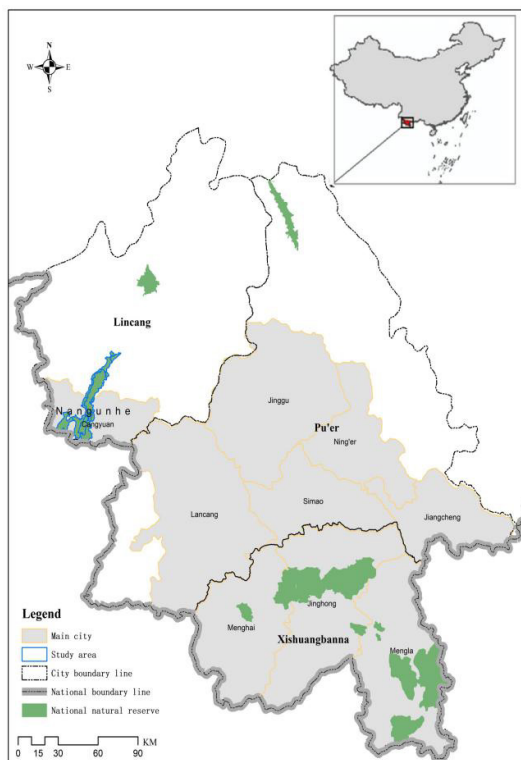


Figure 1. Map of the study area is mainly located in Nangunhe National Nature Reserve (noted as Nangunhe)

involve 9 towns, 40 villages committees, 271 villages, inhabited by 23 ethnic groups, such as Wa, Dai, Lahu, Han, Lisu, Yi, Jingpo, Bai, Blang, Tu and De'ang and so on, with a total population of 265,479. Among them, 179,925 are ethnic minorities, accounting for 67.8% of the total population. Dai is the largest and Wa is second, accounting for 30.4% and 19.2% respectively. In addition to the primitive worship of the ethnic, the community residents also believe in other four religions: Theravāda Buddhism, Christianity, Islam and Taoism, most of them believe in Theravāda Buddhism.

2.2 Methods

How does elephant culture motivate people to be more active in protecting elephants, we conducted interviews with community residents in the designated study area. These people we interviewed were mainly staffs of the local reserve administration and the elderly from ethnic minorities who are familiar with their cultural traditions, and also many young people. These interviews were focused on what elephants meant to them and whether they were willing to actively protect elephants, we finally collected a total of 30 valid questionnaires.

3. Result

Among these 30 people, only one is not an ethnic minority, the others include 27 Wa and 2 Dai. And the results of the survey showed that only one Wa teenagers was not concerned about elephant conservation, and all of the others were willing to protect elephants voluntarily, we also found that attitudes toward elephant conservation had nothing to do with the education of the people we interviewed.



Figure 2. The Wa people pray for the blessing of elephants during the “Elephant Worshipping Festival”

Like the surrounding communities of Nangunhe Reserve, Xishuangbanna and Pu'er, where are also main living places of Dai and Wa people. Almost all these people believe in the Theravāda Buddhism^[8,9]. In one myth of

this religion, the Buddha's mother become pregnant by dreaming of a white elephant, and give birth to him^[7], that means the Buddha is the embodiment of the elephant. So elephant has the same supreme status, right and power as the Buddha, and so the elephant be worshipped, respected and protected by all believers^[7]. A fairy tale of Dai people tells, the earliest female ancestor of them become pregnant by drinking elephant's urine that she had mistaken for water, so all Dai people consider themselves as elephant's descendants^[7]. Another myth in the "Sigangli", the Creation Epic of Wa people, says the earliest ancestors of human live originally in a cave, then they can come out and find an ideal place to live, mainly attributed to the help of an elephant^[6,10]. In all ages, Wa people inherit their own elephant culture by myths and legends of the "Sigangli", cliff paintings of elephant pictures^[10], holding the "Elephant Worshipping Festival" every year^[6], "Elephant Day" (that mean three days a month are belongs to elephants)^[8], etc. Elephant is honored as "Da" (means "grandpa", the term for elders by Wa people) in their own language fully expresses the respect of Wa people for elephant^[8]. Both in the "Water-splashing Festival" (the New Year of Dai people) held annually by Dai people and the "Elephant Worshipping Festival" by Wa, all people should keep solemn silence in respecting elephant ceremony, while enthusiastic when dancing with elephant-foot drum^[6,11]. With the theme of respecting elephant, many works of literature, poems, paintings, dances have been created by artists, and totems of white elephant appear everywhere, especially in temples and other public buildings^[7].

4. Discussion

Human behaviors are strongly guided and regulated by these rich and colorful elephant cultures, thus promote people to protect elephants and their habitats consciously^[6]. For instance, the forest where elephants live in is regarded as "the God's Forest" forbidding to be cut. Hunting elephant is strictly prohibited in any time and anywhere. In order to avoid disturbing elephants, on the "Elephant Day", all villagers are forbidden to enter any mountain, even cultivate in their own farmland. Whether wildlife could chronically survive in a region mainly depends on attitudes and behaviors of the locals who co-existing with them^[12], besides protective efforts of the national and local government. From the ancient times to now, with various positive and significant impacts, elephant culture has played a vital role in protection of Asian elephant. It can protect elephants well, especially in the case of weak protection by local governments, and ultimately slow down the extinction of this endangered species in China.



Figure 3. During the "Elephant Worshipping Festival", people push the white elephant through the streets

Earlier studies have shown that human-elephant conflict results from human's actively harmed elephants^[13], and that these injuries involve a large proportion of non-native minority populations, in addition, in recent years, non-native minorities have been hurt more by elephants. Therefore, it is reasonable to believe that the awareness of elephant protection by minority elephant culture may be one feasible way to solve human-elephant conflicts in the future.

To enhance the public awareness of Asian elephant conservation, the Chinese Government or international environmental organizations should give higher attention and support to the elephant culture. For example, the Chinese Government could make more totems and other cultural products of elephant in Xishuangbanna, Pu'er and Lincang. Especially, organizers of "Water-splashing Festival", "Elephant Worshipping Festival" or "Elephant Day" may add more elements of elephant culture in these annual festivities, as well as increase the number of participant villages and villagers. It is urgent to promote people-to-people exchanges, develop elephant culture and strengthen cooperation among government, NGOs and local people in elephant conservation.

Acknowledgments

This article is funded by The National Natural Science Foundation of China "Influence mechanism and regulation of Land use/cover change (LUCC) on Chinese Asian elephant habitat" (No. 41971239), and "2016 Nangunhe Asian Elephant Save the Conservation Project" (Research Phase II) (NGH-YD-20180301). The advice and revisions by Professor Mingyong Chen have guided this article. We also further acknowledge Deming Chen, Yongxiang Li, Zhisheng Wang, Chunlian Li from Nangunhe National Nature Reserve and countless people who have regularly provided invaluable support and aid during our field expeditions.

References

- [1] Liu P, Wen H, Lin L, et al. Habitat evaluation for Asian elephants (*Elephas maximus*) in Lincang: Conservation planning for an extremely small population of elephants in China[J]. *Biological Conservation*, 2016(198): 113-121.
- [2] Hou Y J, Zhang J. Animal reduction and extinction due to human social needs: a case study of elephants[J]. *Journal of Shaanxi Normal University (Philosophy and Social Sciences Edition)*, 2007, 36(5): 17-21.
- [3] Xu Z F. The effects of paying tribute to the imperial court in the history on rhinoceros' extinction and elephant's endangerment in southern Yunnan[J]. *Biodiversity*, 2000, 8(1): 112-119.
- [4] Chen M Y, Yang S J, Liu L Y, et al. The relationship between elephant and human in China[J]. *Forest Inventory and Planning*, 2006, 31(4): 114-117.
- [5] Zhao Y, Jin K. Distribution, population, habitat status and population management of Asian elephant[J]. *World Forestry Research*, 2008, 31(2): 25-30.
- [6] Zhao L P. The "Elephant Warshipping Festival" of the Wa people along the Nangun River in Cangyuan[J]. *Journal of Lincang Education College*, 2005, 14(3): 84-85.
- [7] Yan F. The ancient civilization of tropical forests - on the elephant culture of Dai people in Yunnan[J]. *Yunnan Social Sciences*, 2007(1): 89-94.
- [8] Lai Q K, Cao G X, Fan Z Q. A study on the current status and promoting approaches social forestry in National Nangun River Nature Reserve and surrounding areas[J]. *Journal of Southwest Forestry College*, 1997, 17(4): 29-39.
- [9] Du Y H, Yin L, Xue D Y. The influence of Dai Theravāda Buddhism culture on biodiversity in Xishuangbanna[J]. *Minzu Tribune*, 2014, 351(7): 64-68.
- [10] Li H M, Yin H Z. Ecological wisdom in the traditional culture of Lincang Wa nationality[J]. *Journal of Pu'er University*, 2016, 32(4): 1-4.
- [11] Feng B Y. The Water Splashing Festival and Elephant-foot Drum dance of Dai nationality[J]. *Journal of Nanjing Arts Institute (Music & Performance)*, 2008, 115(1): 116-121.
- [12] Dickman A J. Complexities of conflict: the importance of considering social factors for effectively resolving human-wildlife conflict[J]. *Animal Conservation*, 2010, 13(5): 458-466.
- [13] Li J W. On the essence and countermeasures of the conflict between human and Asian elephant[J]. *Inquiry into Economic Issues*, 2009(3): 141-145.