



# Who is Mingyu Liu

Ph.D. candidate of Conservation Biology Laboratory, Biology Department, Peking University  
Counselor of Shanshui Conservation Center  
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## Species and topics of interest

Recent research species: snow leopard,  
Tibetan fox, wolf, dog

Favorite species: cheetah

Interest topics: conservation biology, animal welfare, wildlife trade, human-carnivore conflict, conservation genetics, global warming

## Experience

### Education

Peking University, PhD candidate in Zoology, since 2014.09

China Agricultural University, B.S. in Biological Science of Honors Program, 2010.09—2014.08

### Research experience

Snow leopard program in Sanjiangyuan, Qinghai Province, China, since 2014.06

Laboratory of conservation biology, Peking University, since 2013.09

Internship in Key Laboratory of Animal Ecology and Conservation Biology, Institute of Zoology, Chinese Academy of Sciences, 2011.09—2013.09

### Work experience

Counselor of Shanshui Conservation Center, researcher of snow leopard program, since 2016.01

### Research Experience

Grassland program in Sanjiangyuan, Qinghai Province, China, since 2014.07

Snow leopard program in Sanjiangyuan, Qinghai Province, China, since 2014.06

Laboratory of conservation biology, Peking University, since 2013.09

Morphology analysis of carnivore's feces

Internship in Key Laboratory of Animal Ecology and Conservation Biology, Institute of Zoology, Chinese Academy of Sciences, 2011.09—2013.09

Acquire DNA by using noninvasive sampling from panda fecal samples

Use microsatellite markers to analysis individual traits

Panda genealogy establishment

### Field Experience

7th Advanced Fieldcourse in Ecology and Conservation, Xishuangbanna Tropical Botanical

Garden, Chinese Academy of Science, Yunnan Province, China, 2015.10—11

Snow leopard field investigation with Dr. George Schaller in Qilian mountain, Qinghai Province, 2014.06—07

Amur Leopard volunteer, WWF, Wangqing, Jilin Province, China, 2013.01

International volunteer program of wildlife conservation, Mara Conservation Fund, Kenya, 2012.07—08



## Recent work: Interaction between free-ranging dogs and local carnivores in Sanjiangyuan Nature Reserve

### Background

Tibetan Buddhist Monasteries have a positive role for snow leopard conservation. However, as the religion aims to be kind to all creatures, local monks also provide refuges for abandoned and feral dogs. As a result, there are many free-ranging dogs around monasteries share the same habitat with snow leopard which is a flagship species that helps maintain the health of whole local ecosystem. Due to high reproductive ability and adaptability, free-ranging dogs, which already be seen chasing local wildlife, are potential predators, prey, and competitors, and has potentially negative consequences for native species. My study aims to assess the threat and competition from free-ranging dogs to local carnivores especially snow leopard and find a way to solve this problem.

### Research content

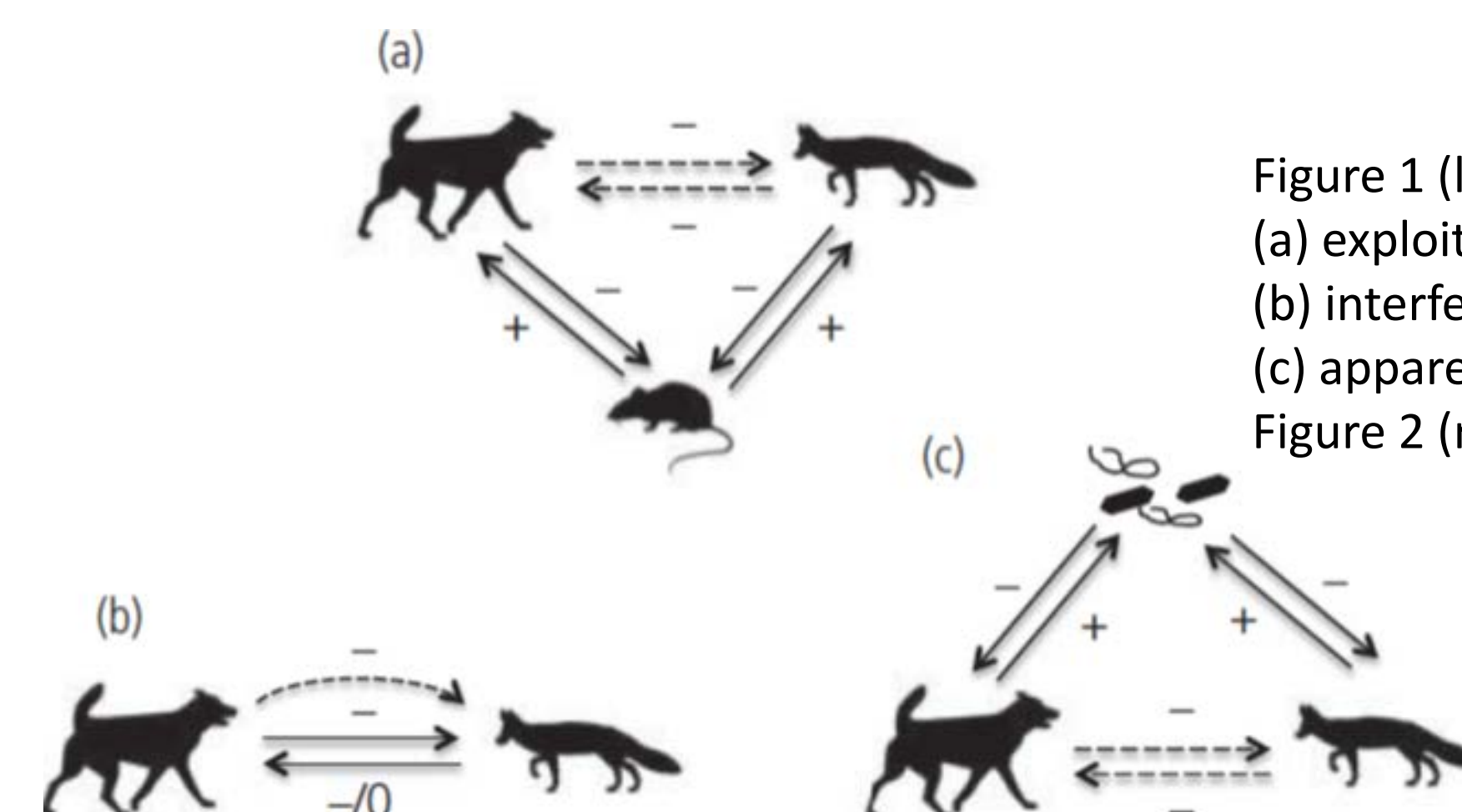
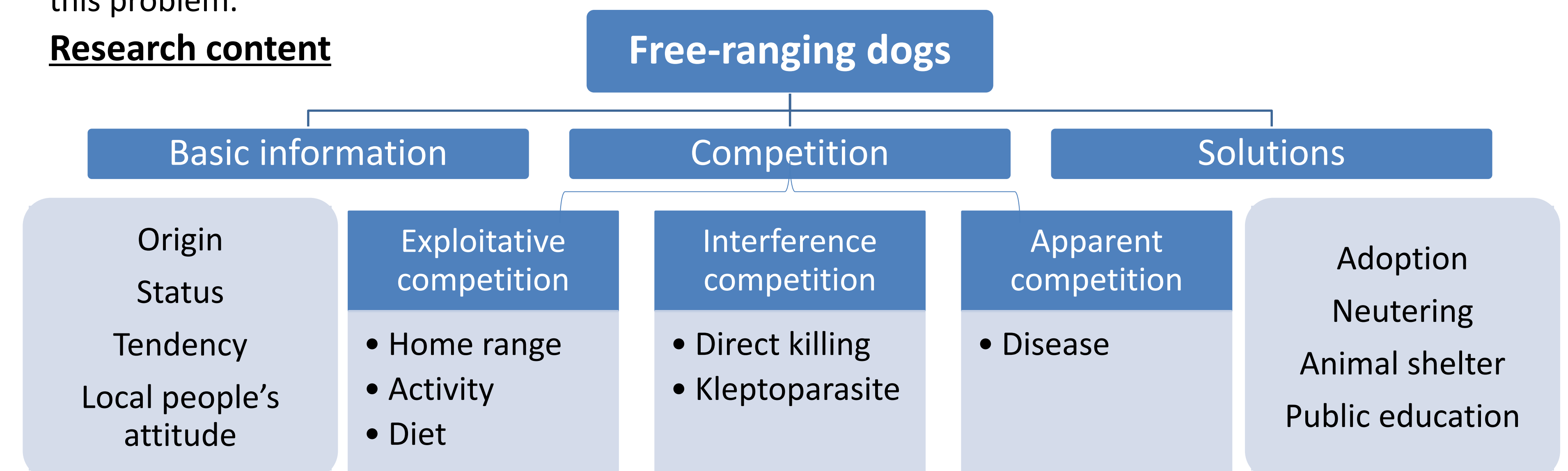


Figure 1 (left). Three ways of competition:  
(a) exploitative competition,  
(b) interference competition,  
(c) apparent competition.  
Figure 2 (right). Free-ranging dogs and bears.



### Overall goal

Reduce competition between free-ranging dogs and local carnivores, and contribute to biodiversity conservation in the Sanjiangyuan Region, find ways to reduce the impact of feral dogs on native carnivores (i.e. parasite control, spaying or neutering, vaccinations, changes in feral dog feeding, etc.).

### Geographic areas of work

My study area is in Zaduo County (30°08'–34°15'N, 93°38'–96°12'E), Yushu prefecture, Qinghai Province, China, within the Sanjiangyuan Nature Reserve. This area is rugged with average elevation of 4200 m, annual average temperature of 2°C, and average annual precipitation 532.2 mm. Main habitat includes alpine grassland, wetland and shrubland.