

Project Update: August 2014

There was an electricity cut in Palyul Township for almost 1 month due to various odd reasons. The last one was because the flood rushed down two electricity poles. Finally we have got the electricity grid back into its normal function 2 days ago and I am able to make this update to you. Now we have almost finished the field work part since it is already the end of the breeding season. Despite some difficulties like heavy rain, flood, road construction etc., we are happy to say that the planned project activities in the field have been successfully carried out.



Figure 1 - Bird sampling and vegetation structure measuring. Photo by Shen Hong.

1. Bird survey in different land-use types. We have carried out bird richness counting of 140 sample points for three rounds throughout the breeding season from middle of May to middle of August. We have covered both winter and summer pastures and pastures bearing a gradient of livestock grazing intensities. At a later stage, we will analyse in which condition the highest bird diversity is maintained. We are also able to map the key habitats for some rare or endemic birds, e.g. Tibetan bunting, Prevalski's finch, Himalayan griffon, bearded vulture, etc. At the later stage, we will also be able to identify suitable habitats for the concerned species at the regional scale.

2. We have measured vegetation structure and counted pika burrow numbers and active burrow numbers in a 10m *2 m transect for all the 140 bird sampling points. From the first observations there is a high correlation between pika burrow numbers with white-rumped snowfinch, rufous-necked snowfinch and Hume's groundpecker.

3. We have conducted interviews of nomads of different genders and ages of the targeted village, i.e. Longker village. The interview basically covered three questions: the tradition of land-use and grazing practices, the interviewee's favourite birds, and the interviewee's zoning preference of their community protected area. We have recorded all the interviews and will transcribe the conversation after the field work. Some interesting findings include:



Figure 2 - Land-use history mapping with nomads from the Longker Village. Photo by Si Xu.

- The most significant human disturbance to bird habitat was pika poisoning in the 1970s and 1980s when certain toxic chemical was applied which caused thousands of death of raptors. The legacy effect of the large scale poisoning is still impacting the ecosystem of the study area.
- Shrub clearance by fire and firewood collection of shrub on sunny slopes were the main issue for local protective passerines. However, now the threats have been

alleviated since shrub land firing is strictly controlled by the forestry department and fire-wood collection has been regulated mainly on shady slopes.

- A new emerging issue is mass tourism. Now the Prefectural government has a grand planning of tourism development of the Nyanpo Yutse region. This year, a 15 km cement road is under construction leading to the summer pasture. The landscape of this glacier relic provides an ideal habitat for Prevalski's finch and white-tailed ruby throat and some other birds. The road and parking lot construction has fragmented the landscape. And from next year on more and more tourists are expected to arrive for hiking and camping with their own cars. We will make further conservation advices regarding environment education to tourists in our conservation plan.
- Through our interviews, it is more or less surprising to find that local people know little about their endemic species. They can name only very common birds or big waders to protect, e.g. common raven, black-necked crane. When showing them pictures of local birds, none of them could recognize Prevalski's finch and white-tailed ruby throat even though they are common on their own pastures. We would suggest a small ground campaign for the villagers and we will elaborate more in our conservation plan.

4. With the support from the graduate school of the University of Freiburg, a colleague of mine came to the field to help me with habitat mapping for 3 weeks from June 20th 2014. We used three ebees (drones) to fly over all the bird sampling plots, and we have taken high resolution pictures for all the habitats. The maps have been used right after the flights for locals to map their land-use history and key area of conservation priority. We will also use the maps to analyse bird habitat quality and landscape heterogeneity. All data have been shared to our local partner Nyanpo Yutse Environmental Association and Longker Village for their conservation and development planning in the future.

That's all for the updates for field work now and I will brief you later when we have come up with further data analysing results.



Figure 3 - Habitat mapping by remotely controlled flights.
Photo by Golok Zhujia.



Figure 4 - Tibetan bunting habitat distribution interview
Photo by Si, Xu.