

Headlines Himalaya

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Editorial Team: Rajesh Timalcina and Deepa Dangol

For the 645th – 646th issues of Headlines Himalaya, we reviewed journal articles from four sources and selected six researches from five countries. We selected one research from Nepal and five researches from other Himalayan countries (India, China, Bhutan, and Pakistan).

Headlines Himalaya, a weekly research-based information fact file, is an attempt to keep our global readers abreast with the happenings in the Himalaya. Please share it with your colleagues and friends. Also, subscription is free. Enjoy!

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Nepal-Himalaya

UNDERSTANDING SHORT-TERM HOUSEHOLD RECOVERIES FROM THE 2015 NEPAL EARTHQUAKES: LESSONS LEARNED AND RECOMMENDATIONS

Jeremy Spoon, Drew Gerkey, Ram B. Chhetri, Alisa Rai, Umesh Basnet, Chelsea E. Hunter

Progress in Disaster Science 10: 100169

We assess tangible and intangible disaster recovery dynamics following the 2015 Nepal earthquakes and aftershocks in order to understand household adaptive capacity and transformation. We randomly selected 400 households in four communities across two highly impacted districts for surveys and interviews at 9 months and 1.5 years afterwards and returned at 2.5 years to share and discuss results. We found that household recoveries were heterogeneous, context specific, and changing. Tangible hazard exposure, livelihood disruption, and

displacement and intangible place attachment and mental well-being influenced recoveries. We also illustrate challenges related to government programs, housing designs and codes, and outside aid.

Further reading: <https://doi.org/10.1016/j.pdisas.2021.100169>

India-Himalaya

CONSERVATION POLICIES, ECO-TOURISM, AND END OF PASTORALISM IN INDIAN HIMALAYA?

Rashmi Singh, Rishi Kumar Sharma, Tsering Uden Bhutia, Kinzong Bhutia, and Suresh Babu

Frontiers in Sustainable Food System 5: 613998

State-led policies of pastoralist removal from protected areas, following the fortress model of biodiversity conservation, have been a common practice across parts of Asia and Africa. In the Himalayan region of South Asia, restrictive access and removal of pastoralist communities from protected areas have been compensated by the state through “eco”-tourism. In this paper, we critique the current conservation model adopted in the Indian Himalaya, which focuses on a conservation-pastoral eviction-ecotourism coupling. With a focus on pastoralists and pastoral practices, we argue that this model is neither an inclusive engine of development, nor does it always help conservation. Instead, it recreates a landscape favoring the state's interests, produces exclusions, and may also negatively affect both society and ecology. We build on the case of Khangchendzonga National Park (KNP) situated in Sikkim, Eastern Himalaya. We used mixed methods and conducted 48 semi-structured interviews, 10 key informant interviews, and two focused group discussion in the four village clusters situated in the vicinity of KNP, West Sikkim. The grazing ban policy and concomitant promotion of tourism caused the end of pastoralism in KNP. It transformed a pastoral cultural landscape into a tourist spot with a transition in livestock from the traditional herds of yak and sheep to the pack animals and non-native hybrid cattle. Locally perceived social impacts of the grazing ban include loss of pastoral culture, economic loss, and the exclusion of the pastoral community from the park. As per the respondents, perceived ecological effects include a decline in vegetation diversity in the high-altitude summer pastures, altered vegetation composition in the winter due to plantation of non-native tree species, and increased incidents of human-wildlife conflict. Rangelands of the Himalaya transcend political boundaries across countries. The conservation model in Himalaya should henceforth be done with a trans-boundary level planning involving the prime users of high-altitude rangelands, i.e., the pastoralists. The lessons from this study can help design effective future policy interventions in landscapes critical for both pastoralist cultures and wildlife conservation.

Further reading: <https://doi.org/10.3389/fsufs.2021.613998>

China Himalaya

SUSTAINABLE WILDLIFE PROTECTION ON THE QINGZANG PLATEAU

Yangjian Zhang, Ran Zhao, Yaojie Liu, Ke Huang, and Juntao Zhu

Geography and Sustainability 2: 40-47

Besides its ecological services to China and even Asia, the Qingzang Plateau (QP) hosts a rich variety of wildlife species. During the last century, wildlife population decreased quickly on the QP, driven by human interventions. Recently, wildlife has witnessed rapid recovery mainly propelled by a series of wildlife conservation policies.

However, some cautions merit attentions to sustain wildlife restoration and conservation on the QP. This paper casted an overview of environmental and social-economic changes on the QP affecting wildlife subsistence. Results show that QP has been warming, which can benefit wildlife recovery by easing extreme low temperature stresses. The fast growing social economy across the QP lays a solid economic foundation for investing on wildlife protection. Measures such as establishing conservation areas, constructing wildlife pathway corridors, and encouraging herdsman moving out from wildlife rich regions, have boosted wildlife recovery. However, wildlife recovery is constrained by the limited carrying capacity of the ecosystem, left by domestic livestock. Additionally, fences intended to delineate conservation areas or to separate each type of grassland use, have brought about profound side effects on wildlife through fragmentation of their habitats. It is recommended to set up the fence in a more ecological way, which can be achieved by bypassing the wildlife frequent pathway and using materials devoid of steel barb. Only considering both opportunities and problems simultaneously, can the wildlife protection on the QP be sustained.

Further reading: <https://doi.org/10.1016/j.geosus.2021.02.005>

GENETIC EVOLUTION AND IMPLICATIONS OF THE MITOCHONDRIAL GENOMES OF TWO NEWLY IDENTIFIED *TAENIA* SPP. IN RODENTS FROM QINGHAI-TIBET PLATEAU

Yao-Dong Wu, Li Li, Yan-Lei Fan, Xing-Wei Ni, John Asekhaen Ohiolei, Wen-Hui Li, Jian-Qiu Li, Nian-Zhang Zhang, Bao-Quan Fu, Hong-Bin Yan, and Wan-Zhong Jia

Frontiers in Microbiology 12: 647119.

The larva of Taeniidae species can infect a wide range of mammals, causing major public health and food safety hazards worldwide. The Qinghai-Tibet Plateau (QTP), a biodiversity hotspot, is home to many species of rodents, which act as the critical intermediate hosts of many Taeniidae species. In this study, we identified two new larvae of *Taenia* spp., named *T. caixuepengi* and *T. tianguangfui*, collected from the plateau pika (*Ochotona curzoniae*) and the Qinghai vole (*Neodon fuscus*), respectively, in QTP, and their mitochondrial genomes were sequenced and annotated. Phylogenetic trees based on the mitochondrial genome showed that *T. caixuepengi* has the closest genetic relationship with *T. pisiformis*, while *T. tianguangfui* was contained in a monophyletic group with *T. crassiceps*, *T. twitchelli*, and *T. martis*. Biogeographic scenarios analysis based on split time speculated that the speciation of *T. caixuepengi* (~5.49 Mya) is due to host switching caused by the evolution of its intermediate host. Although the reason for *T. tianguangfui* (~13.11 Mya) speciation is not clear, the analysis suggests that it should be infective to a variety of other rodents following the evolutionary divergence time of its intermediate host and the range of intermediate hosts of its genetically close species. This study confirms the species diversity of *Taeniidae* in the QTP, and speculates that the uplift of the QTP has not only a profound impact on the biodiversity of plants and animals, but also that of parasites.

Further reading: [10.3389/fmicb.2021.647119](https://doi.org/10.3389/fmicb.2021.647119)

Bhutan-Himalaya

SETTING THE MOUNTAIN ABLAZE? THE ROYAL HIGHLAND FESTIVAL IN BHUTAN FROM THE SEMI-NOMADS' PERSPECTIVE

Jigme Wangdi, Tashi Dorji, and Kesang Wangchuk

Pastoralism 11: 6

A study was conducted to assess the effects of the Royal Highland Festival (RHF) from the perspective of yak herders in Laya, Bhutan. Sixty-six respondents were randomly selected from amongst the domicile herders who were regular visitors to the festival. A survey was carried out through a questionnaire with mixed questions. Herders' opinions suggest good progress of RHF as reflected by improved community vitality and networking with stakeholders. Tourists, both international and domestic, were the major contributors to the income of yak herders during the festival. Livestock products were the biggest income earner, followed by homestays. Herders were encouraged to produce more quantities of livestock products and desired to diversify yak products. Animal shows were adequate and encouraged breed improvement. The grazing resources and the environment were unharmed by the presence of animals in the festival. However, yak herders expressed concerns over the lack of skills and knowledge for yak product diversification and management of festival waste. Herders felt the need to shift the festival venue to benefit highlanders in other areas of Bhutan. The study recommends authorities to consider imparting skills to Laya communities on developing diverse and value-added yak products. Homestay owners require more capacity to manage and maintain farmhouses with proper sanitation. Effective management of festival wastes calls for a farsighted plan. Finally, to inculcate a sense of pride and ownership, the communities of Laya must be empowered to self-organize the festival, while government authorities should consider shifting the festival venue to other highland areas.

Further reading: <https://doi.org/10.1186/s13570-021-00196-3>

Pakistan- Himalaya

POPULATION STATUS AND ROOST SITE SELECTION OF ENDANGERED EGYPTIAN VULTURES (*NEOPHRON PERCNOPTERUS*) IN POONCH RIVER MAHASHEER NATIONAL PARK, AZAD JAMMU AND KASHMIR, PAKISTAN

Shakeel Ahmad, Fathul Bari, Muhammad Kabir, Muzaffar Ali Baig, Tanveer Khan, Romaan Hayat Khattak, and Ejaz Ur Rehman

Journal of Raptor Research 55: 99–105

The Egyptian Vulture (*Neophron percnopterus*; Accipitridae) is a medium-sized scavenger distributed throughout most of the Indo-Pak subcontinent. Although the species has been listed as endangered on the IUCN Red List since 2007 due to rapid population decline, scientific data about the species' population trends and ecology in Pakistan are sparse. The present study was conducted in and around Poonch River Mahasheer National Park (PRMNP) in the northeastern part of Pakistan, covering an area of approximately 146 km². To monitor populations, we used the line transect method to survey 11 sites once per year from May 2013 to May 2019. Based on monitoring data at all 11 sites, the total number of vultures observed averaged 84 birds annually (n = 7 yr, range = 64–131), with the greatest number observed in 2019. Congregation sites of the vultures were closer to settlements (mean = 239 m) and rivers (mean = 1119 m) than to dump sites (mean = 2975 m), though some roost sites were very near (<200 m) dump sites and roads. Roost sites included large pine (*Pinus roxburghii*) trees, electric pylons, rocks, and cliffs. To better understand population status and dynamics, we recommend studies extending across a larger area and including surveys of the nesting population.

Further reading: <https://doi.org/10.3356/0892-1016-55.1.99>