

Conserving Vultures in the Nepal Himalayas



Field biologist pointing the Vulture soaring above the Nilgiri Himalaya. Photo: Munir Virani

Report

Submitted by

Dikpal Krishna Karmacharya

Project Director, Global Primate Network (GPN)-Nepal

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Teaching assistant, Department of Zoology, Bhaktapur Multiple Campus, Tribhuvan University

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Eyes in the sky

The ecological surveys were made from the trails on the peaks of mountains for wider visualization of both the sides, as bird's-eye view. 4K UHD camera of Conservation Drone was employed for the portraits of species and habitat during surveys without operating the aircraft. Operating Unmanned Air Vehicles (UAV) was open before the 2015's mega-earthquake in Nepal, but Nepal government cracked down their uses from the post-earthquake due to uncontrolled influx through international media and humanitarian teams. Long term monitoring of vultures in the Himalayas has been progressing, since 2013 by local team and experts but was stopped in 2015 due to quake.

Some snaps of survey trails on the Himalayas



Monitoring of species

During the field season May-June, 2016, we recorded following ornithological information from Annapurna region using 'G-bird' mobile apps:

- 144 species of birds
- 15 species of raptors
- 5 species of vulture
- 890 sightings of 3390 individual birds
- Max. sightings: Himalayan Vulture 87 times, Large-billed Crow 46 times
- Max. counts: Eurasian Tree Sparrow, Himalayan Swiftlet and Large-billed Crow 726, 405 and 334 individuals respectively.



Five different species of vultures recorded during the survey period.

Ecological monitoring:

We used EL-USB-2-LCD, Climatic data logger to monitor ecological data during the May -June survey periods and compiled agro-climatological, satellite modeled, solar and meteorological data for same date from 1983 to till date through near real-time from National Aeronautics and Space Administration (NASA) for the analysis of changing climate in the Himalayas.

We compiled following satellite modeled climatological data from nasa.gov:

- SRAD: Daily Insolation Incident On A Horizontal Surface (MJ/m²/day),
- TMAX: Maximum Air Temperature At 2 m Above The Surface Of The Earth (degrees C)
- TMIN Minimum Air Temperature At 2 m Above The Surface Of The Earth (degrees C),
- RAIN: Average Precipitation (mm/day),
- WIND: Wind Speed At 10 m Above The Surface Of The Earth (m/s)
- TDEW: Dew/Frost Point Temperature At 2 m (degrees C),
- T2M: Average Air Temperature At 2 m Above The Surface Of The Earth (degrees C),
- RH2M: Relative Humidity At 2 m (%),

The maximum and average temperature of the Annapurna region have been rising since 2002 while minimum temperature has been rising since 2007. Average daily solar radiation, total dew point temperature and rainfall have been sinking down leaving the wind speed still in steady state condition



Figure 1. EL-USB-2-LCD, Climatic data logger

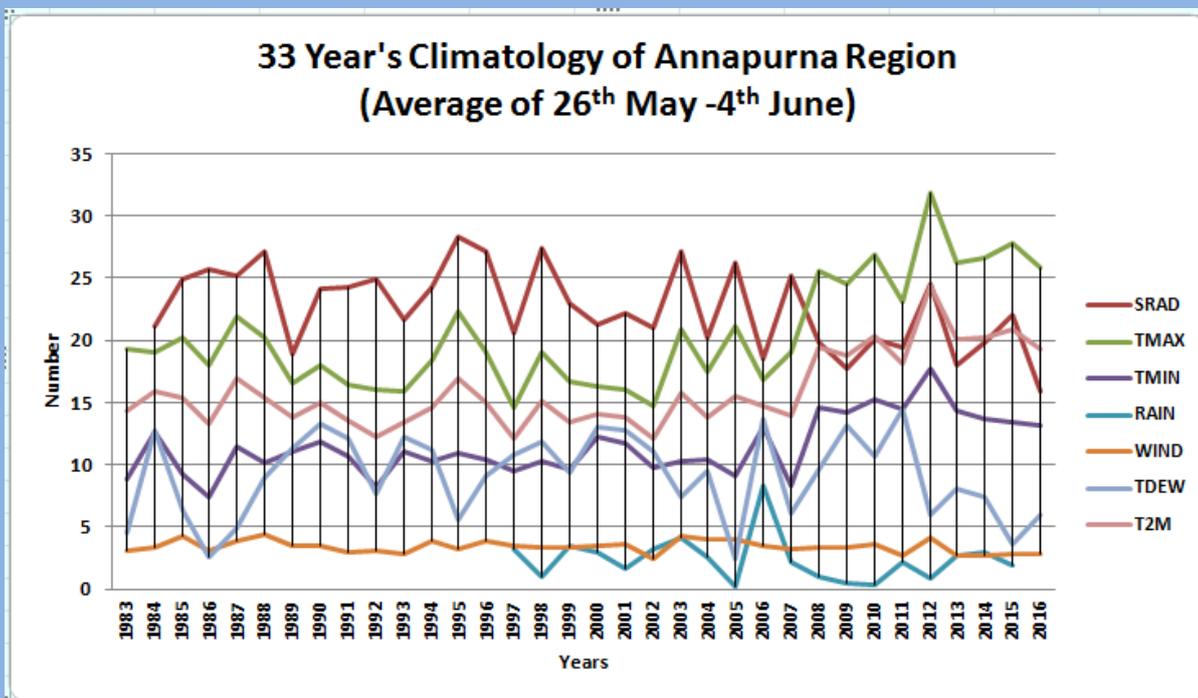


Figure 2. Climatology of Annapurna region (Average of 26th May to 4th June). Data source: nasa.gov

Monitoring of livestock carcasses, NSAIDs and, dead vultures

During the field season following livestock carcasses were recorded, which were exposed to feed vultures:

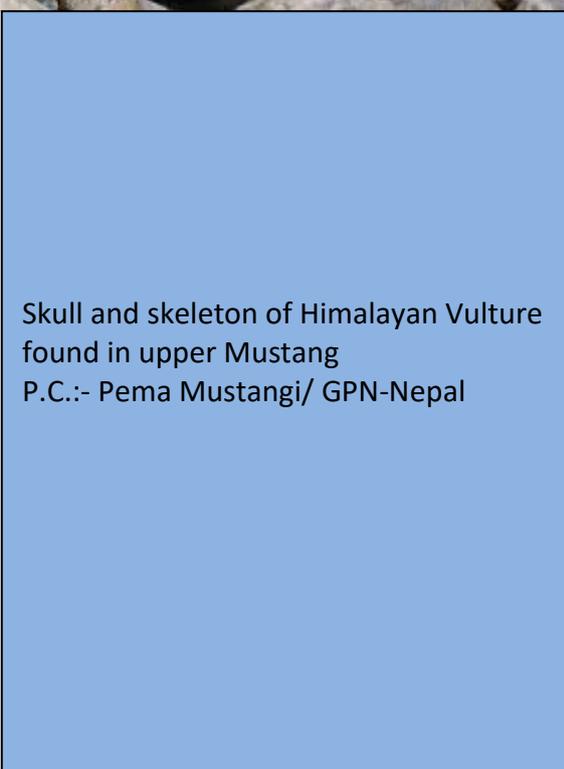
- One yak carcass in Manang
- One yak carcass in Kalopani
- One ox carcass in Jomsom

During the field season, no any NSAIDs diclofenac was recorded from four agrovets of Mustang. Similarly, no any dead vulture was recorded, but our field biologist Pema Mustangi has recorded a Skeleton of Himalayan Vulture (HV) in Upper Mustang.



Himalayan Vulture Feeding on Yak Carcass at Manang.

P.C.:- Tashi R. Ghale/ GPN-Nepal

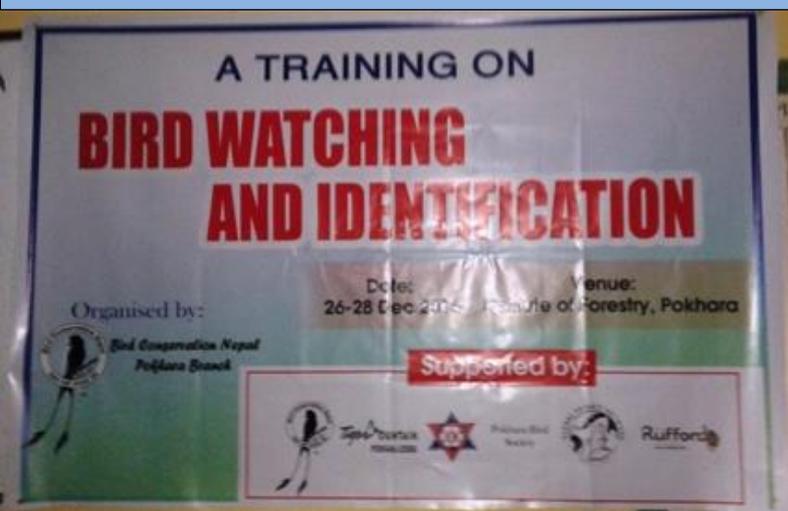


Skull and skeleton of Himalayan Vulture found in upper Mustang

P.C.:- Pema Mustangi/ GPN-Nepal

Capacity building training and workshops

Our project organized and supported for the following capacity building training and workshop programmes to uplift the skills of future conservation leaders:



Support to Bird Conservation Nepal (BCN)-Pokhara Branch of Institute of Forestry (IOF), Pokhara to organize a Three-days “Bird Watching and Identification Training” from 26th-28th December, 2015.



Training on ‘Application of Camera traps, Data loggers, Silva compass, GPS receiver, Range finder, Spotting scope and Conservation drone’ on 16th February, 2016 at Department of Zoology, Institute of Science and Technology, Bhaktapur Multiple Campus.



Support to ‘Grant Writing Development for Youth’ from 3rd -5th August, 2016 organized by PROLIANOVA, Natural History Museum, Tribhuvan University (TU). Programme was also supported by USAID-Funded Asia Farmer to Farmer (F2F) programme, Winrock International, IOST, TU.



Training on 'Application of modern technologies: Mobile apps, Data loggers and Conservation Drone in wildlife research, monitoring and conservation' on 14th August, 2016, at Central Department of Zoology, TU.



Training on 'Application of modern technologies: Mobile apps, Data loggers and Conservation Drone in wildlife research, monitoring and conservation' on 4th September, 2016 at Basu College.



Field based training on 'Application of Camera traps, Data loggers, Silva compass, GPS receiver, Range finder, Spotting scope and Conservation drone' on 13th December, 2016 at Coronation garden, Kirtipur.

Mentorship

We have gathered 45 scattered hidden treasures and sundry enthusiasts as mentees to prepare the backup for future conservation. We supported them for following programmes to enhance their real field based knowledge on wildlife research, monitoring and conservation managements:



Ms Genuine Prajapati and Ms Bijaya Manunkarmi were selected for '15th Annual Field Course in Conservation Biology and Global Health' organized by Nepal Biodiversity Research Society (NEBORS) and University of Washington, USA from 1st -5th February, 2016 held at Department of National Park and Wildlife Conservation (DNPWC), Babarmahal.

All of mentees were taken to participate on 'National Wildlife Week' organized by DNPWC and Bird Conservation Nepal (BCN) on 16th April, 2016 held at 'Shivapuri Nagarjun National Park'.

All of mentees were engaged for 'Visit to Natural History Museum' Swayambhu on 27th July, 2016.



28 mentees were engaged for 'Visit to Central library and laboratories of Central Departments of TU' on 28th August, 2016.

MS Rojeena Basi was selected for three months internship opportunity at Natural History Museum, IOST, TU from August to November 2016.

Ms Basi was also selected for the '19 days Wildlife Research Techniques Training 2016' organized by Friends of Nature from 10th -28th December, 2016, held at Kathmandu and Kapilbastu.

Ms Genuine Prajapati and Ms Rojeena Basi were selected for '10-days Geographic Information System (GIS) and Remote Sensing (RS) training' organized by Resources Himalayan Foundation/ Environmental Graduates in Himalaya from 10th -19th August, 2016 held at Conservation chautari.



Mentees at Owl festival, Kapilbastu from 3rd -4th February, 2017.



22 mentees participated on 'Two-days Leadership Development Training' from 30th - 31st December, 2016, organized by Basu College and technically supported by National Youth Federation Nepal.



Mentors and mentees at Bardia National Park on 5th February, 2017.

Conservation awareness and education



One-day school education programme on 'Save the Vulture, Save Wildlife, Save Nature for Human welfare' was organized at Janahit Higher Secondary School, Jomsom, Mustang on 30th May, 2016.



Celebrating 'International Vulture Awareness Day' on 4th September, 2016 at Basu Higher Secondary School and College



Key rings containing vulture conservation messages

Practicing Conservation Library in Nepal Himalayas

Various conservation resource materials published by DNPWC, BCN, Natural History Museum (NHM), Himalayan Nature, Global Primate Network (GPN)-Nepal, Biodiversity Conservation Society (BIOS) and Annapurna Conservation Area Project (ACAP) were collected. All the collected resource materials were attached, displayed and handed over to the local schools, clubs, community groups, public libraries, information centers, seminar halls, hotels, restaurants, guest houses, tea-shops, tourist check posts, non-governmental, governmental and community based offices to flood up the conservation messages in mass for long run.

Some Snaps of Practicing Conservation Library in Nepal Himalayas



@ Amaltari Home Stay Information Center



@ Information Center, Muktinath, Mustang



@ Hotel Grand Sambala, Ranipauwa, Mustang



@ Hotel Snow Leopard, Marpha,



@ Hotel Dhaulagiri Ice-Fall, Larjung, Mustang



@ Ghasa Check post, Mustang

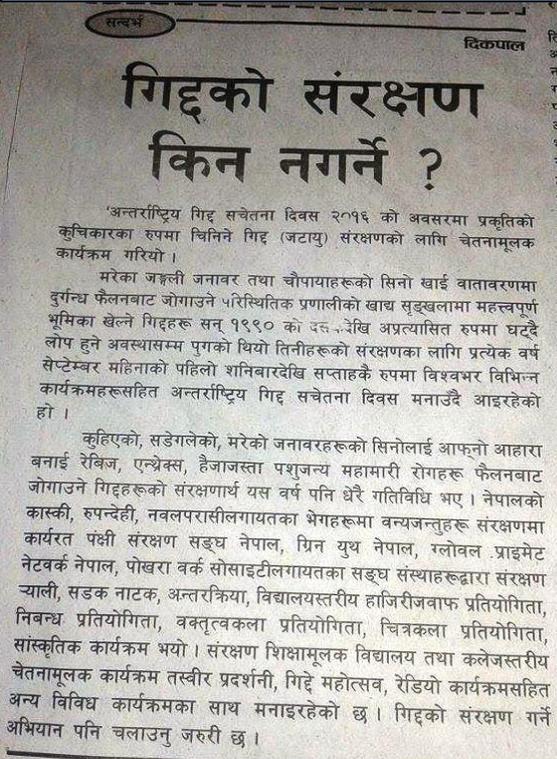


@ Hotel Eagle Nest, Ghasa.

@ Tatopani



Some Media Highlights



6th Sept 2016_Majdoor, Workers Daily, pp3



7th Sept 2016_Majdoor, Workers Daily, pp2



Presenting vulture poster at NAST conference. Here is the link of the event prepared by NAST for Television Program (including me, my poster and interview at 21:08 on timeline) which was broadcasted on Nepal Television on 2nd April 2016. https://www.youtube.com/watch?v=cESa_uXXkpTc

<http://www.vultureday.org/2016/Organisation.php?code=2083>

<http://www.vultureday.org/2016/Organisation.php?code=2084>

<http://www.vultureday.org/2016/Organisation.php?code=2148>

Daily papers:

<http://www.sambadmedia.com/?p=158>

<https://thehimalayantimes.com/nepal/vulture-census-begins-annapurna/>

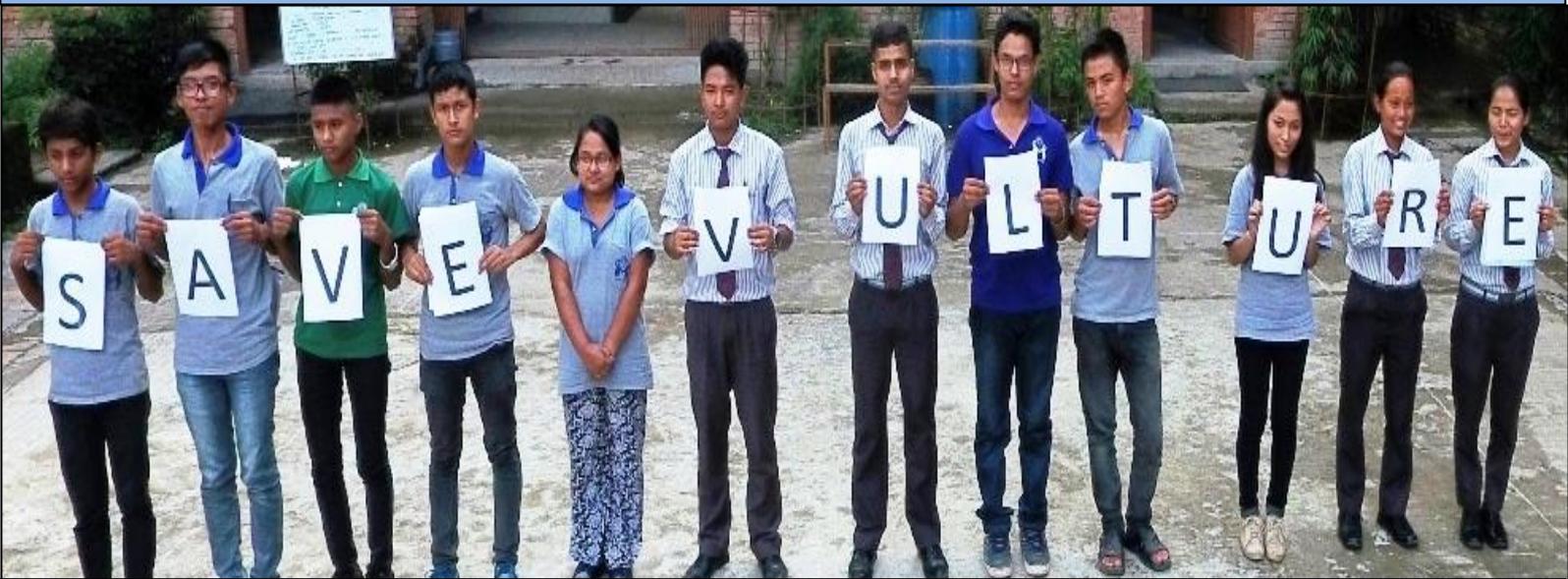
<http://www.annapurnapost.com/annanote/news/2663>

<http://kathmandupost.ekantipur.com/news/2016-12-23/vulture-count-starts-in-acap-vicinity.html>

<http://reviewnepal.com/variety/vulture-census-begins-in-acap-vicinity.html>

Field story from Munir Virani, Director, The Peregrine Fund, Africa Programme

<https://assets.peregrinefund.org/docs/pdf/research-library/2014/2014-Virani-zen.pdf>



Students with 'SAVE VULTURE' slogan.



Save Vulture, Save Nature for Human welfare