

## Project Updates: July 2018

We conducted surveys to identify potential safe dumping sites in Haridwar and Dehradun districts with the help of the skinner community. After discussion with skimmers in the respective area, discussion meetings were held with district administration in both the districts to initiate shifting of unsafe dumping sites to a safer location. In both the districts, the respective authorities have directed dead animal contractors and skimmers through a written letter that they must dump the dead animal carcasses at least 0.5-1.0 km away from the power transmission lines. Five unsafe sites in Dehradun (two newly identified) and two unsafe sites in Haridwar were shifted to safer locations. As a result, the electrocution mortality of vultures including other raptors in unsafe carcass dumping sites was reduced up to 85-90 percent of last years. A total of seven Himalayan vultures (49 in the year 2017) and four steppe eagles (21 in the year 2017) were found dead due to electrocution in four unsafe dumping sites (two unsafe sites were newly recorded under the present study) of Dehradun. The mortality of these raptors (three Himalayan vultures and three steppe eagles) in Dehradun district was observed to be associated with dumping of slaughter house waste in the already shifted unsafe livestock carcass dumping sites. The mortality due to electrocution in Haridwar district was not recorded (two Himalayan vultures in 2017) during the present study. Other than electrocution mortality, three Himalayan vultures and two steppe eagles were also recorded dead (uncertain causes) in safe carcass dumping sites of Doon valley, which indicates toward the poisoning due to harmful veterinary drugs which are currently in use in the state.

The past studies by the team has not recorded *Gyps indicus* from the study area, however, the present study reported *Gyps indicus* from a carcass dumping site in Dehradun. The species was reported earlier from Uttarakhand by some researchers; however, the checklist of birds of Uttarakhand has not included it in the list. Thus, present study confirmed that the Uttarakhand state also supports all the nine vulture species found in India. During the survey period all species of vultures were recorded from the different livestock carcass dumping sites except the critically endangered slender-billed vulture. Moreover, one of the telemetry tagged captive vulture (*Gyps bengalensis*) which was released from Nepal has arrived in various carcass dumping sites of Haridwar and Dehradun district including the newly shifted safe sites.

The team members have rescued two injured Himalayan vultures (one from a poultry farm and one from a safe dumping site in Dehradun) and handed over to Dehradun Zoo during the present study.

The surveys to understand the status of harmful veterinary drugs and their use in veterinary treatment were conducted in about 80 pharmacies of Dehradun, Haridwar and Nainital districts. Large vial of harmful diclofenac were not seen in use, however, harmful drugs like ketoprofen, nimesulide, flunixin and aceclofenac were present and marketing by the maximum pharmacies including government veterinary hospitals. The safe veterinary drug (Meloxicam) was also available with most of the surveyed pharmacies and the government hospitals.

Three awareness programmes on vulture conservation were held with community (villagers or farmers) and school children in collaboration with forest department and

Biodiversity Management Committee in Dehradun district while one programme was held with skinner community in Haridwar district.

The observations under the present study were shared with the office of the Chief Wildlife Warden, State Biodiversity Board and other responsible agencies. The results of the study have also been shared with the Minister of State, Animal Husbandry, Uttarakhand during two discussion meetings in Dehradun and she assured to initiate action on removal of harmful drugs (for vultures) in veterinary use at least in government hospital at the first phase and throughout the state in next phase.



Figure 1: Steppe Eagle, Egyptian vulture and Crows feeding on a carcass in Doon valley



Figure 2: Electrocuted dead Himalayan vulture (*Gyps himalayensis*) near a carcass dumping site in Doon valley



Figure 3: *Gyps indicus* over a carcass dumping site in Doon valley



Figure 4: Discussion meeting with district administration at Haridwar



Figure 5: Awareness programme at Kunja Grant village in Dehradun



Figure 6: Awareness programme with Skinners in Haridwar



Figure 7: Awareness and Outreach Activities on Vulture Conservation with students of Dehradun Hills Academy