

Project Update: May 2020

Activity 1: Education outreach rural communities- Education is the most cost-effective approach to biodiversity conservation. We cannot protect what we do not know about. The best way to achieve conservation goal would be to make people aware of the issues surrounding biodiversity, inculcate the sense of appreciation to nature, and understand the importance of conservation.



Figure 1: Education awareness program on Snakes Conservation at Yangnyer village, Trashigang.

As a part of conservation programme, conservation educational programmes have been organised to educate local people within target locations, which include three remote villages, Yangnyer, Kanglung, and Udzorong. The conservation message on importance of serpentine fauna and other local biodiversity will be disseminated through visual presentations, poster display and informal discussions. During the meeting or awareness programme on people's perception, cultural believes, importance of snakes in agro-ecology and existing local knowledge of different ethnic groups were discussed. Approximately 300 participants including survey team members participated in this education awareness programme. We also specifically made aware of importance of conservation of king cobra (*Ophiophagus hannah*) and other medically significant species snakes in their locality.

In addition, snake envenomation, snake bites as medical emergency, first aid on snake bites, and treatment of snake bites. We also discussed about venom about how to avoid snake bites.



Figure 2: Education awareness program on Snake Conservation at Kanglung village, Trashigang.



Figure 3: Education awareness program on Snake Conservation at Udzorong village, Trashigang.

Activity 2: Ecological assessment (species inventory)

Since the primary goal of this proposed conservation approach is in-situ conservation of species, collection of ecological data associated with species of concern is considered imperative. Unless we have comprehensive information on target species, our objective of establishing baseline information of concern species cannot be achieved. The ecological information such as species richness, abundance, geo-spatial distribution and conservation threats is paramount aspect of species conservation in their natural habitats. Therefore, our first priority is to explore the ground reality through species inventory and associated environmental parameters so that we have primary data to feed current conservation initiative as well as for future monitoring of the target species. For the above we have visited some of the potential habitats of study area to inventory the snakes. During our survey period we encountered 80 individuals, of whom 28 were medically significant species belonging to seven genera and eight species and the rest were either mildly venomous or non-venomous. A checklist of snakes recorded from January 2020-February to May 2020.



Figure 4: Field activity.

Table 1: Checklist snakes recorded during field survey (January 2020-May 2020)

SL. No	Scientific name	Common name	Venom profile	Individuals
1	<i>Ophiophagus hannah</i>	King Cobra	Medicinally significant	7
2	<i>Sinomicrurus macclellandi</i>	Coral snake	Medicinally significant	2
3	<i>Ptyas nigromarginata</i>	Green rat snake	Mildly venomous	5
4	<i>Orthriophis cantoris</i>	Eastern Snake	Non-venomous	6
5	<i>Naja kaouthia</i>	Monocled Cobra	Medicinally significant	10
6	<i>Ahaetulla prasina</i>	Short nosed vine snake	Mildly venomous	4
7	<i>Oligodon albocinctus</i>	White barred Kukri snake	Non-venomous	4
8	<i>Pseudoxenodon macrops</i>	False cobra	Mildly venomous	7

9	<i>Oreocryptophis porphyraceus</i>	Black banded trinket	Non-venomous	2
10	<i>Sibynophis collaris</i>	Collared Snake	Non-venomous	6
11	<i>Ovophis monticola</i>	Montane pit viper	Medicinally significant	3
12	<i>Coelognathus radiatus</i>	Copper headed trinket	Non-venomous	8
13	<i>Indo chinaese rat snake</i>	Chinese rat snake	Non-venomous	3
14	<i>Protobothrops jerdonii</i>	Jerdon's pit viper	Medicinally significant	2
15	<i>Trachischium tenuiceps</i>	Worm eating sake	Non-venomous	5
16	<i>Trimeresurus popeiorum</i>	Pope viper	Medicinally significant	1
17	<i>Boiga ochracea</i>	Tawny cat snake	Mildly venomous	2
18	<i>Trimerisurus albolabris</i>	White lipped pit viper	Medicinally significant	1
19	<i>Bungarus niger</i>	Greater black krait	Medicinally significant	2
	Total			80

Some of the medically significant species found during field inventory



Photo: Nguyen Wangchuk



Photo: Sonam Dorji

Left: Jordan's Pit Viper (*Protobothrops jerdoni*). Right: Mountain Pit Viper (*Ovophis monticola*).



Photo: B. K Koirala



Photo: B. K Koirala

Left: King Cobra (*Ophiophagus hannah*). Right: Monocled Cobra (*Naja kaouthia*). © B K Koirala.

Activity 3: Snake rescue

As a part of our project activities, we also rescued two king cobras and four Monocled Cobras from human residents and snakes are safely released to their natural habitats within their territories.



Left: King cobra found inside house. Right: Same cobra rescued & released to wild.