

## Project Update: September 2020

### Ecological assessment (species inventory)

Considering the rugged terrain with steep slopes and vast elevation range of the study area, specimens were surveyed by following time constrained visual encounter surveys. For this we conducted third phase of field survey from June-September 2020 covering all potential areas under Trashigang Forest Division. Locality data along with habitat parameters were collected for all individual specimens encountered, live or dead. Wherever possible, the digital photographs were taken for specimens using Nikon COOLPIX P900 (83x optical zoom) digital camera, elevation and geo-spatial location of each individual sighted has been recorded with help of GPS (Global Positioning System) Garmin e Trex. Identification of species was done using standard field guides books.

A total of 15 species of snakes belonging to three families and 14 genera were recorded in different habitats and around the human habitations of Trashigang Forest Division. Recorded families were Colubridae, Elapidae, and Viperidae.

Of the total observed species, nine were identified as venomous species (medically significant species). These include four species of elapid viz., king cobra *Ophiophagus hannah* (Cantor, 1836), monocled cobra *Naja kaouthia* (Lesson, 1831), MacClelland's coral snake *Sinomicrurus macclellandi* (Reinhardt 1844), and greater black krait *Bungarus niger* (Wall, 1908), four species of viperid viz., Jorden's pit viper *Protobothrops jordeni* (Günther, 1875), Kaulbacki's pit viper *Protobothrops kaulbacki* (Smith, 1940), mountain pit viper *Ovophis monticola* (Günther, 1864), and white lipped pit viper *Trimeresurus albolabris* (Gray, 1842), and one species of colubrid viz., red-necked keelback *Rhabdophis subminiatus* (Schlegel, 1837). The checklist of species encountered is provided below.

**Table 1: Checklist snakes recorded during field survey (June 2020-October 2020)**

SL.No	Scientific name	Common name	Venom profile	IUCN status
1	<i>Ptyas mucosa</i>	Indian Rat snake	Non-venomous	NE
2	<i>Protobothrops kaulacki</i> *	Kaulbaki pit viper	Medicinally significant	DD
3	<i>Ophiophagus Hannah</i> *	King Cobra	Medicinally significant	VU
4	<i>Sinomicrurus macclellandi</i> *	Coral snake	Medicinally significant	NE
5	<i>Orthriophis cantoris</i>	Eastern Snake	Non-venomous	NE
6	<i>Naja kaouthia</i> *	Monocled Cobra	Medicinally significant	LC
7	<i>Ahaetulla prasina</i>	Short nosed vine snake	Mildly venomous	LC
8	<i>Pseudoxenodon macrops</i>	False cobra	Mildly venomous	LC
9	<i>Ovophis monticola</i> *	Montane pit viper	Medicinally significant	LC

10	<i>Protobothrops jerdonii</i> *	Jerdon's pit viper	Medicinally significant	LC
11	<i>Trachischium fuscum</i>	Worm eating sake	Non-venomous	NE
12	<i>Boiga multifasciata</i> ,	Many banded cat snake		NE
13	<i>Trimeresurus albolabris</i> *	White lipped pit viper	Medicinally significant	LC
14	<i>Bungarus niger</i> *	Greater black krait	Medicinally significant	NE
15	<i>Rhadobphis subminiatus</i> *	Red-necked keelback	Medicinally significant	LC

LC=Least concern, NE= Not evaluated, DD= Data deficient, VU=Vulnerable, (\* Medically significant species)

**Photos of some of the medically significant species found during field inventory**



Image 1: Jordan's Pit Viper



Image 2: Kaulbacki Pit Viper



Image 3: Greater black Krait



Image 4: Coral Snake



Image 5: King cobra



Image 6: White Lipped Pit Viper