

## Ecology and Conservation of Burmese Python in Bangladesh

## **Interim Report for Rufford Small Grants**

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Prepared and Submitted by

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## **Interim Report**

The Burmese python (*Python bivittatus*) is an iconic snake species that is best known through the pet trade and as an invasive species in Florida. Burmese pythons populations are declining across Asia, yet very little is known regarding their biology and natural history. The overall goal of this project is to increase our knowledge of python ecology and use that knowledge to prioritize areas for protection. With Support from The Orianne Society, the Bangladesh Python Project was established in 2011 with a mission to conduct research and promote conservation of reptiles in Bangladesh, using the Burmese python (*Python bivittatus*) as the flagship species.

The project was initiated in collaboration with CARINAM, Bangladesh and the Forest Department of Bangladesh. Bangladesh Python Project is now registered as a new organization Creative Conservation Alliance. In July of 2013, we implanted a transmitter in a female Burmese python, in Lawachara National Park, for the first time. Since then, we have radio tracked EIGHT adult Burmese pythons; Transmitters from FOUR of the pythons were surgically removed this year and were released back in the wild. Transmitter implantation surgeries were conducted using local anesthesia. Radio tracking was primarily done by our trained local parabiologists. Using parabiologists to collect scientific data has proven to be one of the most cost effectivetools for conducting research and conservation work; however, we are faced with a few limitations e.g. the inability of the parabiologists to collect more detailed observations. The pythons all exhibited homing behaviors. The individuals we found in villages had to be relocated in the forest, and soon after they traveled back to the original site of capture. We have recorded 19 incidents of human-python conflict in the area during our study period. Livestock depredation, primarily domestic ducks, by Burmese python appears to be an increasingly burning

2

issue in the villages around the protect areas in northeastern Bangladesh; four adult pythons were reported to be killed by the villagers in villages adjacent to our study sites. We have conducted multiple questionnaire surveys to assess the perception of the local people towards pythons. Seven undergraduate students from Bangladeshi universities have completed their internship with our project. We have trained at least three local residents as parabiologists and provided them with employment opportunities. These parabiologists were responsible for collecting field data and for acting as local ambassadors for wildlife conservation in the area. The complex bureaucracy within the government and the lack of genuine interest to conserve snakes is probably one of the biggest obstacles we have faced during the course of the study.

Future plans for the project includes continuation of the study using parabiologists and awareness programs. After the data is analyzed we will be working closely with the Forest Department of Bangladesh to provide a practical management plan for pythons in Bangladesh, which includes recommending the government to provide compensation scheme for the humanpython conflict victim to help bring positive change towards people's perception of pythons. We will be preparing manuscripts to publish in international peer-reviewed journals.

ID	Frequen cy (MHz)	Sex	SVL (cm)	Tail (cm)	Mas s (kg)	HL (cm)	HW (cm)	Mid-body Girth (cm)	Transmitter Implanted	Notes
Asha	144. 339	F	238.3	33.02	9.9	8.4	5.4	30.7	7/14/2013	Transmitter removed
Bonnie	144.638	м	238.8	38.1	9.5	8.8	5.3	27.94	10/12/2013	Tracking
Chaity	144.419	F	292.1	39.4	13.0 1	10	5.8	33.02	10/12/2013	Tracking
Dean	144.200	М	173	30.5	3.5	6.9	3.9	21.8	8/2/2014	Transmitter expulsion
Eva	144.259	F	255	32	4.72	7.25	4.3	22.86	3/7/2015	Tracking
Feeroz	144.659	М	218	35	7.55	8.1	4.6	28	3/10/2015	Tracking
Golapi	144. 638	F	294	36.8	12.3 8	10.4	6.7		6/23/2015	Tracking

Table 1: The biometric data of the seven pythons we have radio tracked



Figure 1: Satellite image showing the locations where the pythons were initially captured.





Figure 3. Team Python during informal outreach with the local communities to build rapport and promote conservation of pythons and its habitat.



Figure 4: Python surgery team.



Figure 5: Surgically removing the transmitter from the body cavity of our first python of our study.



Figure 6: Our parabiologists- Kanai,, Sopon a Chanchal- collecting data in the field.



Figure 7: Our International Volunteers during summer workship.



Figure 8: Telemetered pythons in-situ.



Figure 9: X-Ray image of one of our python showing the transmitter and its prey item (bird).



Figure 10: A Seminar on Conservation and Management of Burmese Pythons organized by Bangladesh Python Project