Project Update: August 2017

Progress To-date:

The project field sites are in Tamil Nadu and Kerala states in India. The official research permit to carry out field work in the Anamalai Tiger Reserve (ATR) in Tamil Nadu was secured from the State forest Department of Tamil Nadu in January 2017. The permissions from the Kerala State Forest Department for the Parambikulam Tiger Reserve and Vazhachal Reserved Forest have just been provided earlier this week. I have started field work in Tamil Nadu part of the study area since January 2017 (with the initial financial support from Nature Conservation Foundation, Mysore), and collected data monthly both within ATR and the plantations. An account of major field activities is as follows:

Objective 1: To estimate population of hornbills in contiguous forests and plantation landscape in the Anamalai hills

I have marked 11 transects of 2 km each in the state of Tamil Nadu and started collecting data on hornbill sightings and calls along these transects. Up to July 2017, 142 km of line transect survey has been completed in the Anamalai Tiger Reserve and Valparai Plateau. In all, 53 great hornbill detections and 186 Malabar grey h ornbill detections were recorded from January to July 2017. The preliminary data analysis suggests that great hornbill density is higher in the protected area (3.4 individuals per km²) than in the plantation landscape (1 individual per km²). Similarly, Malabar grey hornbill density seems to be higher in the protected area (16.5 individuals per km²) than in the plantation landscape (7.4 individuals per km²).

Objective 2: To document active hornbill nests and monitor the nesting success of hornbills in contiguous forests and plantation landscape in the Anamalai hills

With the help of local tribal assistants and forest watchers, I have mapped 29 hornbill nests in the Anamalai Tiger Reserve and five nests in the plantation landscape of Valparai. Most of these nests were identified from the previous studies. Out of 34 identified nests, 12 are great hornbill and 22 are Malabar grey hornbill. All known nests from previous studies will be mapped and monitored during the next breeding season to document nest tree use and where possible nesting success. Attempts will be made to discover new nests.

Objective 3: To map *Ficus* trees, an important hornbill food tree and also potential nest trees in the plantation landscape I have mapped *Ficus* trees along the 11 line transects. I sampled an area of 48 ha and have mapped 145 trees. These trees are being monitored monthly to record their fruiting phenology. The density of *Ficus* trees in the protected area is 2 trees per ha and 5 trees per ha in the plantations.

Objective 4: To partner with plantation companies and state forest departments to conserve hornbill food resources and nesting trees and develop monitoring and management protocols

I have secured permissions from the plantation companies to conduct field surveys in the privately owned lands. I have indicated the project outline and potential outcomes to the managers. Forest department staff have been helpful in locating few hornbill nests in the Anamalai Tiger Reserve, Tamil Nadu.