

Project Update: December 2015

Brief report on work done and findings between August 1- December 31, 2015

Objective 1: Area Prioritization

The following three locations were surveyed for identifying and documenting threats:

- a. Nelliampathy
- b. Parambikulam Tiger Reserve
- c. Malapuram

Objective 2: Threat identification

The following threats were identified in the surveyed localities;

a. **Anthropogenic activities:**

- i. **Stream pollution:** Karuvarakundu in Malapuram is a heavily populated place bordering the Silent Valley National Park. The seasonal streams draining the area are the major source of water for a lot of people inhabiting the low elevation mountains. The stream water is utilized for household activities as well as by several commercial establishments like restaurants, hotels, rubber- processing units. Waste-water from these sources also drains into these streams from the above-mentioned sources. The hilly areas, which harbor a decent population of purple frog, are also heavily utilized for cocoa and rubber plantation. Hence, extensive use of chemical fertilizers and insecticides is quite common in these places. Nelliampathy in Palghat district has large areas that are utilized for tea plantation.
- ii. **Road-kills:** Locals in Karuvarakundu and Nelliampathy forests did report to have seen Purple frogs being victims of road-kills during this year.

Table 1. A list of threats identified at the surveyed locations

Location	District	Level of protection	Threats
Karuvarakundu	Malapuram, Kerala	Township area, unprotected	Pollution of streams, soil, road kills
Nelliampathy	Palghat, Kerala	Reserve Forest	Pollution of streams, leveling of streams
Parambikulam Tiger Reserve	Palghat, Kerala	Tiger Reserve	No threats found

Objective 3: Community Education

Community Education

- a. **Community education:** Visited two tribal settlement areas each in Nelliampathy and Parambikulam Tiger Reserve. Eight families in Nelliampathy and 15 families in Parambikulam Tiger Reserve were visited and educated about amphibians and the Purple frog. Posters of amphibians were distributed to educate the people.
- b. In Malapuram, I visited two estate owners who together owned around 15 acres of plantation area that also supported a good population of *N. sahyadrensis*. Although the owners were completely unaware of the Purple frog's presence, the workers had encountered the frog while digging pits for plantation work. Some workers expressed their fear and repulsion towards the frog and used to harm upon encountering one. I was able to educate and sensitize the owners and the workers in these two estates towards the Purple frog. At the same time I could fairly convince them to at least reduce to some extent the use of the pesticides and other chemicals in their plantation areas.
- c. **School visit:** Visited two schools during this period in Malapuram district nearby areas of Purple frog populations. Students in the age group of 10-14 were the target audience. Posters were distributed to children and put up on the notice board of the schools. About 120 students were educated on amphibians in these two schools.
- d. **Forest Department Staff education:** At Parambikulam Tiger Reserve and at Nelliampathy Forest, I got opportunity to interact with Forest guards and Range officers. Some of them were aware of the Purple frog having heard about it from locals as well as from other researchers who frequented these areas in search of the frog. I was able to educate them about the life cycle of the Purple frog and also about the threats faced by them. Forest staff was trained to identify the tadpoles of *N. sahyadrensis*. Subsequently we surveyed streams together searching for tadpoles, thus training them to locate areas where breeding populations of Purple frog are present. Their inputs will be vital for mapping the exact distribution areas of the species.