

Progress Report

(March –June 2017)

By Vivek Sarkar



I just finished my pre monsoon field work (March –June) and it has been a very productive season. So far 18 cicadas have been reported from Meghalaya (State Fauna Series, ZSI). In last four months I was fortunate enough to get 41 species of cicadas from the state. Out of this 41 species, 35 of them are new report for the state, 7 of the species are new report for India (or the region) which also includes three new generic report for the country. There are also 5 species which are tentatively new to science. Out of this 41 species, call has been recorded for 40 of them. This list also contents lots of lesser known species such as *Mogannia obliqua* (type locality was unknown and males has never been recorded or seen till now), *Pauropsalta exaequata* (the smallest cicada of Indian subcontinent without any information till now), *Platypleura assamensis* (no available information on this cicada till now) and many more. During this project species distribution, natural history and phenology was well documented for this 41 species of cicadas throughout the study area.



I am based in Cherrapunjee and every month I go to Jaintia and Garo hills and collect population data of not only the cicadas but also its predators such as robber flies, odonates, bird community, amphibians, reptiles and mammals.

- In order to do this, I have recorded 61 odonates including groups like *Philoganga* which is poorly known.



- I also got 32 anurans from my study area. I have recorded their natural history along with calls (call recorded for 22 of them) which also include the call of critically endangered Shillong Bush Frog, Garo Bush Frog, Treehole Frog and many more interesting frogs for the first time.



Shillong Bush Frog

- Despite searching *Ichthyophis garoensis* I could not manage to see or study the species. Instead I got an unknown *Ichthyophis* from Khasi hills region and got an opportunity to study its behaviour and biology. Also recorded enormous road kill incidents of this species.
- I was fortunate enough with the snakes, end up recording 19 species including Russel's Pit Viper (or may be Siamese Russell's viper?) for the first time in the region (?).



Assam Snail Eater

- I have recorded 6 known geckos along with multiple new species of bent toed geckos from Garo hills, along with 7 other diurnal lizards, 1 Draco and multiple skinks. Notable rediscovery was the grass skink which was last reported from Goalpara in 1839 and nothing was known about it till now.



Bent-toed Gecko

- Recorded more than 30 spiders (yet to be identified).

- Out of interest I have documented the ichthiofauna of Cherrapunjee plateau and about to do the same for Garo and Jaintia hills. The fishes are yet to be identified (Based on the Images).



Giant Zebra Fish

- In other insect groups, got a proper natural history study done on *Pseudophyllus titan* in Garo hills. Also got a new species of Leaf Mimicking Katydid in Balpakhrum NP which has to be described by the taxa expert. Recorded 4 species of Megaloptera including a new species that is yet to be described.



Leaf –Mimicking Katydid

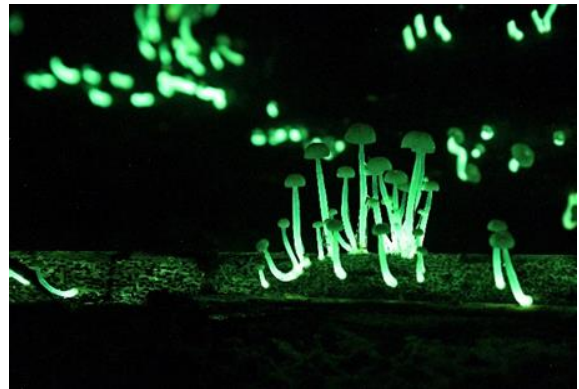
- In plants, a *Porpax* sp. (Orchid) has been recorded in Balpakhrum which was not reported from Garo hills earlier.



- Apart from all these documentations, explored and documented a lot in Songsarik folklores of Garos. So far 11 cicadas have species specific Garo names and 6 cicadas have species specific Khasi names (Bhoi Clan) and they have been documented along with the related folklores. I am also covering the Songsarik rituals along with the localities that have great significance in Songsarik folklores and beliefs which will be helpful later, once we start preparing the nomination dossier.



- Also covered the glowing forest floor of Balpakhrum NP, which turned out to be an unknown species of luminescent mushroom. This is an ongoing study and will be updating you about all the recent findings.



During my field trip in South Garo hills, I have come across many interesting flora and fauna. I have come across two very illusive, rather enigmatic species of squirrels in Balpakhrum NP. I was after them from March till now and was fortunate enough to photograph at least one of them in my last field trip.

- The first squirrel (that I could photograph) is a small squirrel that prefers bamboo grove. Very similar to Hoary Bellied Squirrel (*Callosciurus pygerythrus*) but the body and tail is narrower and slenderer with less bushy tail. The coat

varies from yellowish brown to tawny brown. Belly and throat, in all individuals, are milky white and have pale marking below and above the eyes. Very shy and weary. Rarely comes out in open or at the edge of the bamboo grove. Individuals take shelter at night in temporary nests in the base of every Bamboo clamp. These temporary nests are made up of bamboo leaf and other soft plant materials. The individuals do not stay in one nest for long. The alarm call is bird like shrill repetitive notes (Recorded), different than hoary bellied squirrel. I made an illustration previously, even before getting an image.



The illustration and the images that I got in my last field trip.

The second squirrel is predominately crepuscular in nature but also spotted in the day time of a dull cloudy day. Prefers thick undergrowth of the forest in hill

slopes. Mostly ground dwelling. Very shy. First spotted in April and mistaken it as a young Tree Shrew with mutilated tail. First clear sighting in the month of June where we flashed it out by mistake from its resting place. The body is hairy with tawny coat and lemon yellow underbelly. Tail short and bushy with black bushy tip. At night, rest inside thick leaf litter, covered with thick undergrowth. While chasing, it prefers to run on the ground and occasionally climbed the small bushes but never saw it on a tree. I am yet to get the photos of this squirrel and this illustration is the best description that I can give as of now.



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Epilogue: The monsoon field season will start from 15th July to 28th September. Most of the work till now was done alone. From this month on I have a student who will be doing an internship with me for 6 months. Hopefully there will be many additions to these existing lists.

