

Project Update : May 2017

Introduction : Our project aim is to better understand the impact of human activities and forest degradation on the grasshopper fauna of the south Cameroon plateau. We focus on three villages with different levels of human impact: Bipindi, Ongot and Zamakoe. A first activity report was released in January 2016 with data refer to our specifics objectives, floristic inventory, grasshoppers sampling, evaluation of human damages on forests and sensitisation of people against deforestation. We present here a new update of our activities.

Floristic inventory (1) : After 9 months of field work, we note that the floristic inventory does not vary significantly in ours sites; the forest vegetation is always richer in Bipindi with the abundance of Apocynaceae, Euphorbiaceae, Rubiaceae, Annonaceae; Zamakoe has an abundance of Apocynaceae, Sterculiaceae, Leguminosae-Caesalpinioideae, Euphorbiaceae; Apocynaceae are very common in Ongot. Fallow vegetation is more similar, dominated by Acanthaceae, Amaranthaceae, Gramineae, Solanaceae, Marantaceae, Cyperaceae.



Figure 1 : *Serpusia succursor* from Bipindi Lolodorf

Holopercna gerstaeckeri (1,53%); *Pteropera balachowsky* (1,39%). *Pteropera teocchii*, *Pterotiltus apicalis*, *Taphronota ferruginea*, *Digentia fasciata* have a low abundances. Among the species of fallow *Zonocerus variegatus* (14,35%) (Figure 2), *Catantops stramineus* (10,55%), *Chirista compta* (7,24%), *Eyprepocnemis plorans* (7,55%), *Odontomelus kamerunensis* (6,26%), *Eucoptacra anguliflava* (4,45%), *Atractomorpha acutipennis* (4,02%) and *Anacatantops notatus* (4,86%) are more abundant.



Figure 2 : *Zonocerus variegatus* from Zamakoe

Diversity of grasshoppers in the sites (2) :

Forty-two species of grasshoppers were collected in the three sites. Four typical forest species, eight species of forest edges and 30 species of fallows. Among the typically forest species, *Mazea granulosa* (9,99%) is the most abundant, followed by *Parapetasia femorata* (0,11%), *Gemeneta terrea* (0,08%) and *Apoboleus degener* (0,05%). Among the species of forest edges *Serpusia succursor* (5,82%) (Figure 1) is the most abundant, followed by *Cyphocerastis tristis* (1,53%),

Between the different forests, the low degraded forest of Bipindi present seven species, followed by the degraded forests of Zamakoe and Ongot with respectively nine and eight species. Abundance of *Mazea granulosa* decrease with the degradation of forest. This species is more abundant in Bipindi forest (44,08%) follow by Zamakoe forest (44,86%) and Ongot

forest (25,59%) (Figure 3). The common species to the three sites are *Holopercna gerstaeckeri*, *Mazea granulosa*,

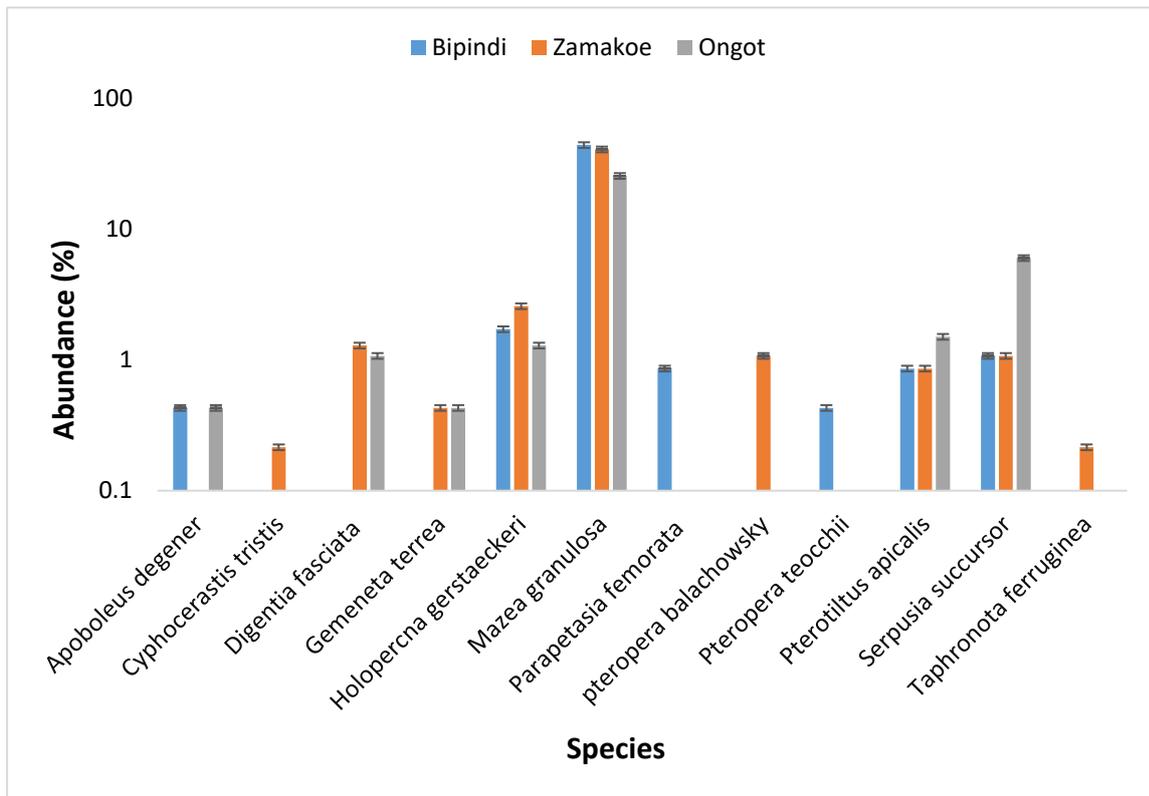


Figure 3 : Grasshoppers abundance among the different forest studied

Pterotiltus apicalis and *Serpusia succursor*. *Digentia fasciata* and *Gemeneta terrea* are common to Zamakoe and Ongot forests. *Apoboleus degener* is been collected in Bipindi and Ongot Forests. *Parapetasia femorata* and *Pteropera teocchii* are been collected only in Bipindi forest. *Pteropera balachowsky* and *Taphronota ferruginea* only in Zamakoe forest.



Figure 4 : Forest degradation by the farmers in Ongot

Human activities in forests (3) and sensitising of peoples (4) :

(3) The main marks of human activities in the forests remain the traces of exploitation of the planks of the protected trees in particular the Rubiaceae, *Nauclea diderrichii* and *Nauclea glilletii* and the Ochnaceae, *Lophira alata* more frequent in Bipindi. The marks of poachers' activities and remains of protected animals are rarer, only the remains of hunters' ammunition are frequent in forests. However, with the arrival of seeding seasons, degradation of forests by farmers (clearing or burning) is more

frequent in Ongot (Figures 4) and Zamakoe. (4) Sensitisation of the population against deforestation has been clearly successful during these last months of work compared to the first 5 months of work this with the help and availability of village chiefs. We have sensitised a greater part of the villagers on the conservation of biodiversity (Figure 5).

Conclusion : In the coming months we will continue with our field activities until August 2017 before presenting our results to national biodiversity conservation institutions in order to finalize this first work. Our perspectives after this first work will be to : (a) verify the conservation status of *Gemeneta opilionoides* an endemic grasshopper of the forests of Central Africa which is increasingly rare due to deforestation and which we have not found again since nearly 3 years of work in the forests ; and (b) Check with the results of this first project the state of stability of the forest reserves of Cameroon.



Figure 5 : Sensitisation of the Pygmée'people in the forest of Bipindi – Bidjoka