

Project Update: January 2017

From our work on the role of grasshoppers in the evaluation of the impact of human activities on forests of southern Cameroon, It is clear from this first assessment that **(1) (a)** The floristic inventory shows rather that the floristic diversity are different with the level of forests degradation: the plant families most represented in the Bipindi (Bidjoka) forests are Apocynaceae, Euphorbiaceae, Rubiaceae, Annonaceae, Commelinaceae; in Zamakoe forests, Apocynaceae, Sterculiaceae, Leguminosae-Caesalpinioideae, Euphorbiaceae; in Ongot forests alone the family of Apocynaceae are much frequent (**Table 1**). In these sites, the main families of plants represented in open environments are Acanthaceae, Amaranthaceae, Gramineae, Leguminosae-Papilionoideae, Solanaceae, Marantaceae, Melastomataceae, Compositae and Cyperaceae.

Table 1

Families	Number of species
Anacardiaceae	2 species
Annonaceae	2 species
Apocynaceae	12 species
Araceae	1 species
Asclepiadaceae	2 species
Aspleniaceae	3 species
Balsaminaceae	2 species
Basellaceae	1 species
Burseraceae	1 species
Celastraceae	3 species
Combretaceae	2 species
Euphorbiaceae	2 species
Leeaceae	1 species
Piperaceae	1 species
Rubiaceae	2 species
Zingiberaceae	2 species
Total: 16 families	39 species

(1) (b) grasshoppers specific richness appears to be higher in open environments than in forests: Ongot (22 species in open environments, four species in forest); Zamakoe (25 species in open environments, four species in forests) and Bipindi Lolodorf - Bidjoka (14 species in open environments and three species in forests). Grasshopper diversity appears to be increased with the opening of forests, it is lower in Bipindi (low degraded forest area) than in Zamakoe and Ongot (respectively degraded and very degraded areas of forest). The low forest diversity may be an artifact of low abundance of grasshopper species in forests. As there are many more individual grasshoppers in the open land, we probably find more species, including rarer ones. In the forest we only find the most abundant species, the rare are probably not yet seen. Six forest species have been already collected specially *Mazea granulosa*, *Holopercna gerstaeckeri*, *Serpusia succursor*, *Pterotiltus apicalis*, *Gemeneta terrea* and



Figure 1: *Maza granulosa* - Zamakoe forest.

Pteropera teocchii. *Maza granulosa* (**figure 1**) appears to be the most abundant forest species that appears not only in the forests of the three sites, but thus appears to have increased frequency in less degraded forests of bipindi. *Holopercna gerstaeckeri* and *Serpusia succursor* collected in the degraded forests of Ongot

and Zamakoe not yet observed in the forests of Bipindi but earlier in the open areas of this zone. *Pterotiltus apicalis* is currently noted both in Bipindi and Zamakoe. *Gemeneta terrea* and *Pteropera teocchii* (**figure 2**) were only noted respectively in the much degraded forests of Ongot and those little degraded of Bipindi. Species of open environments appears to be more common to the different sites and can be divided in two groups: - **species of forest edges**, *Apoboleus degener*, *Heteracris leani*, *Zonocerus variegatus*, *Chirista compta*, *Taphronota ferruginea*, *Cyphocerastis tristis*, *Cyphocerastis hopei*, *Holopercna gerstaeckeri*, *Serpusia succursor*, *Pterotiltus apicalis*; - **species of open lands or fallows**, *Eucoptacra anguliflava*, *Epistaurus succineus*, *Heteracris leani*, *Zonocerus variegatus*, *Oxycatantops spissus*, *Eyprepocnemis ploran*.



Figure 2: *Pteropera teocchii* - Bipindi forest.

(2) The most frequent marks of human activity in the forests are the tracks systems of forests exploitation, the remains of sawn boards in particular "Bilinga" (Rubiaceae: *Nauclea diderrichii* and *Nauclea glilletii*) (**figure 3**) and "Azobe" (Ochnaceae: *Lophira alata*) more often found, And the remains of trunks of trees felled by illegal loggers, the traces

observed seem more fresh in the forests of Bipindi (more plank freshly sawn) than in Zamakoe and Ongot.



Figure 3: Exploitation of Bilinga - Bipindi (Bidjoka).

(3) Sensitising of local populations in villages against deforestation was the least successful activity of these first months of work because of our difficulty in always gathering enough villagers in the various localities sometimes due to the unavailability of village chiefs, the scarcity of ICGs in Bipindi (Bidjoka) And also the refusal of some people who say they

prefer to do daily activities. Nevertheless, we discussed the effects of bush fires, poaching and deforestation on biodiversity with the populations available each time, and we think that in the future, with more availability of traditional and administrative authorities, we will be able to reach a greater part of the populations in the studied areas.