Project Update: July 2017

To date, 24 visits (four visits per month) have been carried out to the study sites from January 2017. This has permitted us to obtain preliminary data on diversity and distribution of the millipedes along an altitudinal gradient on two mounts in the central region of Cameroon. Millipedes were collected at three elevations (400, 800 and 1120 m) using litter sifting, pitfall and hand collecting. Overall, 56 species or subspecies in 34 genera and 12 families were recorded. Diversity and occurrence have decreased from the mountain top to the foot. Indeed, 39 species and 218 occurrences were recorded at 1120 m asl, (fig.1) while 33 (111 occurrences) and 13 species (49 occurrences) were recorded at 800 and 400 m asl respectively.

Fig 1. *Coromus* sp. (found only at the 1120 m a.s.l)

At upper elevation, the most abundant species were *Aporodesmus gabonicus* (12.84%), *Amblybolus laevicolis* (12.39%), *Kartinicus colonus colonus* (11.47%), *Thrinciulus laevicolis* (7.34%) and *Coenobrothrus bipartitus* (5.96%). At mid-elevation, *Kartinicus colonus colonus* (31.53%), *Amblybolus laevicolis* (13.51%), *Aporodesmus gabonicus* (8.11%), *Coenobrothrus detuncatus* (5.41%) and *Aporodesmus ordinatus* (4.50%) were abundant. At low elevation, the following species were abundant: *Kartinicus colonus colonus* (38.78%), *Thrinciulus laevicolis* (14.29%) *Coenobrothrus detuncatus* (10.20%), *Aporodesmus gabonicus* (8.16%) and *Diaphorodesmus dorsicornis* (6.12%). Apart from *A. gabonicus* and *C. bipartitus* in which occurrence has decreased significantly from upper to low elevations, occurrence of *Kartinicus colonus colonus, Thrinciulus laevicolis* and *Amblybolus laevicolis* increased inversely from upper to low elevation.

Elevation and vegetation types had effect on species richness and composition. At the two upper elevation (800 and 1120 m), we recorded about 80% of species richness and more than 70 % of occurrences, while least than 30% of species were recorded at the low elevation. Compared to the upper elevation characterised by natural or nearly natural montane forest, the lower elevation showed signs of habitat disturbance. Indeed, this elevation at different sites surveyed is threatened by urbanization (Fig 2.). The progressive destruction of natural forests and its replacement with agricultural fields or human constructions was matched by considerable shifts in millipede assemblages.

Fig 2. Threat of urbanization on mount Elounden