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CAVE-DWELLING ARTHROPOD VECTORS AND PUBLIC HEALTH RISKS IN AFRICA

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Man's ecological mark on natural forest environments of Central Africa has been increasing in recent decades, and only few natural areas remain non-exploited yet. Thus, even supposedly hostile environments such as caves meet the primary needs (hunting, fishing, shamanic practices) or economical needs (mining and ecotourism) of surrounding populations. This anthropization is likely to increase the exposure of human populations to multiple infectious agents carried by cave fauna.

The presence of wild or domestic animals in the surroundings of caves also increases that risk. Among these infectious agents, some can be transmitted by direct contact with animal reservoirs, whereas others may require the involvement of blood-sucking insects. Anthropization of caves guided by those primary and economical needs makes people inevitably exposed to these biting insects which can act as vectors of potential emerging pathogens. The role of these insects in the epidemiology of many pathogens is well-known in Africa, particularly in epigamic environments, but remains largely under-investigated in caves.

Then we proposed to address this issue. First, we explored the diversity of blood-sucking Dipteral in six caves in Gabon, Central Africa and we studied the temporal dynamics of the assemblage of species. Secondly, we undertook a molecular screening of haemosporidia, bacteria and viruses using nested PCR and high-throughput sequencing.

The work carried out enabled us to create a taxonomic inventory of the Dipteral fauna of the investigated caves. Our study revealed a significant diversity of the blood-sucking Dipteral fauna, accounting for more than 60 percent of blood-sucking Dipteral species currently known in Gabon, in all types of areas. Our data showed that the composition of Dipteral communities was different from one cave to another, and that Dipteral assemblages varied over time according to micro-climate fluctuations within caves. The screening of infectious agents in the collected Dipteral helped 1) to explore the parasitic, viral and bacterial diversity they host, and 2) to assess their involvement in transmission. Finally, this study contributed to have insights of potential risk associated to cave anthropization and human needs.

MENTAL HEALTH AND ITS LINKAGES WITH HOUSEHOLD ECONOMIC STATUS - ANANALYSIS AMONG INDIAN ELDERLY

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The linkages between economic progress and happiness have always been debated. This relationship is all the more contested in the case of elderly. It is often argued in the case of India that well being of elderly critically depends upon the care provided by the children than any other forms of care either from institutions or from other members. However, the well being and happiness of elderly in relation to the economic standard of living has not been systematically examined particularly in the context of India. Undoubtedly, the health status of the elderly has strong bearing on their economic well being. This is true not only with regard to the physical health measured in terms of morbidity but even self rated health measured in terms of graded opinion on their health status. But how far this is true with respect to mental happiness of the elderly remain unknown. This is mainly because the data on mental health or happiness are rarely collected and as such its linkages with various other important socio-economic dimensions are still not clear. This paper therefore tries to understand the levels of metal health status of the Indian elderly and its major socio economic determinants. This paper further investigates the impacts of household economic status on the mental health of the elderly by considering several intervening forces behind this relationship. This paper draws from the data gathered from over 9852 elderly in seven states in India under the UNFPA study on "Building Knowledge Base on Ageing in India". The study brings out the myths of many commonly believed notions on the economic wellbeing of elderly and its linkages with mental health status. The paper identifies a positive linkage between the household economic status and better mental health outcomes.