Food forestry: Wild edible plants and edible insects

Jean DB

Despite the region's high endowment with natural resources, 90% of the 60 million Congolese inhabitants are poor, whereas the majority of them live in rural areas. 70% of DRC's inhabitants depend on the forest for their daily livelihoods. Valorizing wild edible plants (WEP) and non-timber forest products (NTFP) in general, which constitute a particular niche of the poorest will thus contribute to poverty alleviation and increased nutrition security in a DRC context. Although the potential of NTFPs to contribute to poverty alleviation is recognized in the country's Poverty Reduction Strategy Papers (DSCRP 2006, 2011), both documents deplore the huge gap of knowledge in this sector. Despite their enormous intrinsic biodiversity, the Congolese forests are the least documented in Africa not only in terms of their potential for industrial timber exploitation but also in terms of socio-economic and cultural value to the local populations (firewood, medicine, shelter, tools, game, caterpillars, mushrooms, honey, WEPs, dyes, cultural and spiritual values etc). In order to underpin political decisions and to find innovative ways for managing DRC's precious natural resources, there is an urgent need to revitalize forestry and agricultural research in the country. The AWDF want to ensure the development of forestry within central Africa in a manner and to a scale that maximizes its contribution to national socio-economic well-being on a sustainable basis that is compatible with the protection of the environment. And this by introducing FOOD FORESTRY which consists of reforestation projects with *Treculia africana* tree species, wild edible plants and plants that houses edible insects.

Biography

Jean DB is the Horticulturist and Park Ranger from the D R Congo in Africa and born in Belgium. He is the original Founder and Chief Warden of the African Wildlife Defense Force. He was born in Arlon where his father was quartered in the Belgian army. Although born in the French-speaking region of Belgium he is Flemish. He is three-quarters European and one quarter African by ancestry from my native Belgium father and my half-blood Congo/Belgian mother.

The validity of Gammarus and Asellus ratio as an index of organic pollution

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Macro invertebrates have been used to monitor organic pollution in rivers and streams. Several biotic indices based on macro invertebrates have been developed over the years, including the Biological Monitoring Working Party (BMWP). A new biotic index, the Gammarus: Asellus ratio has been recently proposed as an index of organic pollution. This study tested the validity of the Gammarus: Asellus ratio as an index of organic pollution, by examining the relationship between the Gammarus: Asellus ratio and physical, chemical parameters, and other biotic indices such as BMWP and, Average Score Per Taxon (ASPT) from lakes and streams at Markeaton Park, Allestree Park and Kedleston Hall, Derbyshire. Macro invertebrates were sampled using the standard five minute kick sampling techniques physical and chemical environmental variables were obtained based on standard sampling techniques. Eighteen sites were sampled, six sites from Markeaton Park (three sites across the stream and three sites across the lake). Six sites each were also sampled from Allestree Park and Kedleston Hall lakes. The Gammarus: Asellus ratio showed an opposite significant positive correlation with parameters indicative of organic pollution, such as the level of nitrates, phosphates, and calcium and also revealed a negative significant correlation with other biotic indices (BMWP/ASPT). The BMWP score correlated positively significantly with some water quality parameters such as dissolved oxygen and flow rate, but revealed no correlations with other chemical environmental variables. The BMWP score was significantly higher in the stream than the lake in Markeaton Park, also The ASPT scores appear to be significantly higher in the upper Lakes than the middle and lower lakes.