



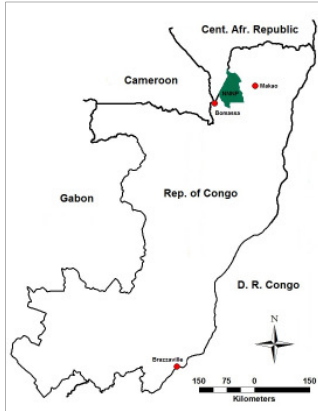
Safeguarding traditional knowledge of wild edible plants and mushrooms in Bayaka communities (Republic of Congo)



Sydney T. Ndolo Ebika^{1,4}; Jérôme Degreef²; David J. Harris³; David Morgan^{4,5}; André De Kesel² & Crickette Sanz^{4,6}

¹Initiative for Mushrooms and Plants of Congo (Brazzaville); ²National Botanic Garden of Belgium (Meise); ³Royal Botanic Garden Edinburgh (Edinburgh); ⁴Wildlife Conservation Society-Congo (Brazzaville); ⁵Lincoln Park Zoo (Chicago); ⁶Washington University (Saint Louis)

Contact: sydneythony@yahoo.fr; B.P. 2300, Brazzaville, Rep. of Congo



Map 1 – Location of the study area in the Republic of Congo.

Non-Timber Forest Products (NTFPs) are understudied in the Republic of Congo (Boa, 2006; Nkeoua & Boundzanga, 1999) and particularly in the forests surrounding the Nouabalé-Ndoki National Park (NNNP), near Bomassa and Makao villages in the northern part of the country.

The vegetation type around these villages is mainly secondary forest while the semi-deciduous forest within the NNNP has never been logged.

A pilot study on wild edible plants and mushrooms was carried out from March 2008 to June 2013 in close collaboration with two Bayaka (or Baka) communities (Ngombe in Bomassa, Mbenzele in Makao). The languages spoken by each of these indigenous groups is Ngombe and Mbenzele, respectively.

Traditional knowledge of natural resources is increasingly threatened by environmental and cultural changes within indigenous societies across the developing world (Shengji, 2003). To safeguard such information of the Bayaka in northern Congo, we have conducted ethnographic surveys to document the local names and uses of plants and mushrooms by local peoples.



Picture 1 – Seasonally flooded clearing ('Yanga' in Mbenzele and Ngombe languages) in the NNNP.

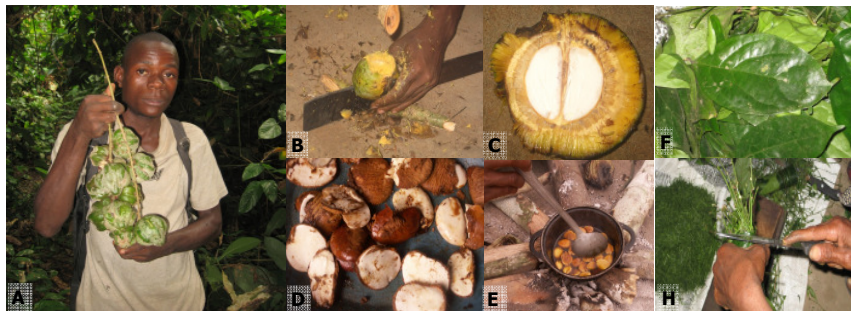
Results - 28 species of edible plants and 29 species of edible mushrooms were identified in this pilot study. Most of their local names were documented.

Scientific names	Mbenzele names	Ngombe names	Edible parts
<i>Pseuderanthemum ludovicianum</i> (Bütt.) Lindau		Makoussa	Leaves
<i>Afrosyrax lepidophyllus</i> Mildbr.	Mongemba	Ngimba	Bark, Roots, Seeds
<i>Anonidium mannii</i> (Oliv.) Engl. & Diels	Mobei	Mobei	Fruits
<i>Belichmidia</i> sp.	Ngala		Seeds
<i>Caloncoba welwitschii</i> (Oliv.) Gilg	Sioke		Aril
<i>Carapa procera</i> DC.	Godjo		Aril
<i>Carpodella alata</i> E.Don		Makoussa, Monono	Leaves, Fruits
<i>Chrysophyllum lacourtiana</i> De Wild.	Bambu	Bambu	Fruits
<i>Chrysophyllum perupichrum</i> Mildbr. ex Hutch. & Dalziel	Mondongue	Koloka	Fruits
<i>Chytranthus macrobotrys</i> (Gilg) Exell & Mendonça	Matokodi	Tokomboli	Seeds
<i>Cola urceolata</i> K.Schum.	Ngei		Aril
<i>Dacryodes adules</i> (S.Don) H.J.Lam	Bosaou		Fruits
<i>Desorrea bilabialis</i> Micheli		Kata, Ngikata	Leaves
<i>Dioscoreophyllum cumminsii</i> (Stapf) Diels	Mola	Ngouli	Tubers
<i>Garcinia kola</i> Heckel	Kousou		Fruits, Seeds
<i>Gnetum africanum</i> Welw.		Kaalé	Leaves
<i>Gnetum buchholzianum</i> Engl.		koiko	Leaves
<i>Grewia pinatifida</i> Mast.	Essiassa		Fruits
<i>Iringia excelsa</i> Mildbr.	Payo	Payo	Cotyledons
<i>Iringia grandifolia</i> (Engl.) Engl.	Mosombo	Solia	Cotyledons
<i>Klaineodora gabonensis</i> Pierre ex Engl.	Bokoko	Bokoko	Cotyledons
<i>Myrsinitis arborea</i> P.Beauv.	Ngata	Ngata	Fruits
<i>Rancunea lauranti</i> (De Wild.) Gilg ex De Wild.	Ingoyio		Fruits
<i>Panda oleosa</i> Pierre	Kana	Kana	Cotyledons
<i>Ricinodendron heudelotii</i> (Baill.) Pierre ex Heckel	Edjôngé, Ekpôg		Seeds
<i>Synsepalum longicaule</i> De Wild.	Mokendjende		Fruits
<i>Synsepalum subcordatum</i> De Wild.	Mokendjende		Fruits
<i>Vitex doniana</i> Sweet		Ndimimon	Fruits
<i>Amanita foesti</i> Beeli		Sokéke	
<i>Armillaria hermi</i> Pegler		Botôtô, Mawououwoulu	
<i>Auricularia cornea</i> Ehrenb.			
<i>Auricularia delicata</i> (Fr.) Heim.	Makodou		
<i>Cantharellus conopsea</i> Beeli	Makoundi ma Bemba	Mbu Bemba	
<i>Cantharellus goossensiae</i> (Beeli) Heim.		Mokili	
<i>Cantharellus rufopunctatus</i> var. <i>rufopunctatus</i> (Beeli) Heim.		Manguoungou	
<i>Cantharellus</i> sp. 1		Ndjoumbouele	
<i>Cantharellus</i> sp. 2	Manguoungou	Monzoumbou, Mazaoua	
<i>Cantharellus</i> sp. 3		Mokili, Nié manguoungou	
<i>Cantharellus</i> sp. 4		Mokili	
<i>Craterellus aureus</i> Berk. & M.A. Curtis	Babika, Belémi ba babika	Bika, Babika, Kaasa	
<i>Echinochaete brachypora</i> (Mont.) Ryv.		Koté lé seko	
<i>Goossensia cibarioides</i> Heim.	Belémi ba babika	Bika, Babika	
<i>Lactarius conopsea</i> Beeli		Mandôngo	
<i>Leptinus brunneofloccosus</i> Pegler		Botôtô, Moyaekajaka	
<i>Leptinus sajoi</i> (Fr.) Fr.		Ngabe aya	
<i>Leptinus squarulosus</i> Mont.	Bomôngô, Miboko		
<i>Macropletiola africana</i> (Heim) Heim.			
<i>Macropletiola dolichaula</i> (Berk. Broome) Pegler & R.W. Rayner			
<i>Marasmius buzungolo</i> Singer	Ndjingo	Mandjôngla ndjôngla, Ndjôngla	
<i>Marasmius staudtii</i> Henn. var. <i>staudtii</i>		Touloubasaté	
<i>Pleurotus tuber-regium</i> (Rumph. ex Fr.) Singer		Koutou	
<i>Russula roseostrata</i> Buyck			
<i>Russula</i> sp. 1	Ewayi	Ewayi	
<i>Russula</i> sp. 2		Nié mandôngo	
<i>Termitomyces microcapus</i> (Berk. & Bc) Heim	Nzokouba	Nzobôkô, Mobôli	
<i>Termitomyces robustus</i> (Beeli) Heim		Motikalike	
<i>Termitomyces striatus</i> (Beeli) Heim		Mossele, Mobôli	

Table 1 - Taxa of edible plants and mushrooms identified near the Bomassa and Makao villages during this pilot study.

Literature cited

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- SHENGJI, P. (2003) The Role of Ethnobotany in the Conservation of Biodiversity. IN LEE, C. & WAUCHOPE, S. (Eds.) *The importance of sacred natural sites for biodiversity conservation*. Kunming and Xishuangbanna Biosphere Reserve, People's Republic of China, UNESCO, Paris.



Picture 2 - Photographs of some edible plant parts. *Chytranthus macrobotrys* fruits shown by Emely (A); *Iringia excelsa*: process of cotyledons extraction (B-D) and frying (E); *Gnetum buchholzianum*: leaves (F) and cutting (H).



Picture 3 - Photographs of some wild edible mushrooms. *Marasmius buzungolo* being packed by Komo (A); *Craterellus aureus* (B); *Pleurotus tuber-regium* (C); *Termitomyces striatus* shown by Moute (D); *Macropletiola dolichaula* (E); *Auricularia cornea* (F).

New records - Two fungal species (*Echinochaete brachypora* and *Marasmius staudtii* var. *staudtii*) are here reported for the first time as consumed in Central Africa.



Picture 4 - Photographs of the two new records of edible mushrooms. *Echinochaete brachypora* (A); *Marasmius staudtii* var. *staudtii* (B).

Conclusions - The NTFPs are an important food resource for Mbenzele and Ngombe communities but also a limited source of income. Plant parts and mushrooms they harvest are sometimes exchanged against other goods or sold in the village to retailers.

Conserving forests and their biodiversity will also preserve forest resources local people rely on and, therefore, their traditional knowledge.

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