

# Pottos and Angwantibos Traded for Bushmeat

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Svensson and Friant (2014) provided some of the first quantified evidence of the trade in nocturnal lorises in Africa, including an overview of pottos (*Perodicticus* spp.) and angwantibos (*Arctocebus* spp.) in the bushmeat trade (Figure B29.2.1). Relatively little is known about the relationships between wildlife economies and these nocturnal primates (Svensson et al., 2016). Studies on the vulnerability of non-human primates to hunting pressure in Afrotropical forests are primarily specific to the effects of shotgun hunting on diurnal primate communities. These studies mostly focus on large conspicuous species known to be common targets of African hunters, for example guenons (*Cercopithecus* spp.; Covey and McGraw, 2014; Cronin et al., 2016; Linder and Oates, 2011; Remis and Robinson, 2012), colobus monkeys (*Colobus satanas*; Kümpel et al., 2008 and *Procolobus pennantii*; Cronin et al., 2016) and mangabeys (*Lophocebus albigena*; Remis and Robinson, 2012). Despite the lack of research situating smaller, more inconspicuous lorises as a focus in bushmeat studies, pottos and angwantibos are noted as trade items by researchers and have been reported in larger studies across their range (Table 1).



**Figure 1.** Smoked potto carcass in Nigeria (photograph by S. Friant) and angwantibo hunted in the Republic of Congo (photograph by J. Dewilde).

Given their relatively small body mass and, subsequently, inappreciable economic value, lorises are often consumed within villages; trade tends to be confined to rural markets and/or roadsides (Hofner et al., 2018; Svensson and Friant, 2014). Consequently, reports of these species in large-scale surveys targeting urban markets, a common cost-effective tool used to quantify the bushmeat trade (Fa et al.,

2006; Kümpel et al., 2008; Taylor et al., 2015), may represent an underestimation of total regional loroid offtake levels. For example, Svensson and Friant (2014) reported that 150 of 327 male respondents in hunting communities situated within and around the Oban Division of Cross River National Park, south-east Nigeria, stated that they eat loroid species at least once per month, and a further 98 respondents reported to consuming them on a weekly basis. These offtake estimates are markedly higher than the projection of 427 annual potto carcass volume by Fa et al. (2006) across the entire Cross–Sanaga Rivers region. Such a difference is likely attributable to the low quantity of loroid carcasses in urban bushmeat markets where these surveys take place and/or rapidly decreasing ape and monkey populations subjecting smaller non-preferred species to increasing pressures of bushmeat hunting (Svensson and Friant, 2014). An ethnographic study by Hofner and colleagues (2018) in a small enclaved village in the north-eastern borders of Korup National Park, Ikenge-Bakoko (5°16'N 9°06'E) south-east Cameroon, further demonstrates the disparity of local and regional market studies. Korup is home to two loroid species, Milne-Edwards' potto (*Perodictus edwardsi*) and the golden angwantibo (*Arctocebus aureus*), as well as eight diurnal primate species. Using anthropological methods of semi-structured interviews and participant observation, participants were engaged in conversations about hunting practice, the wildlife economy and conservation.

**Table 1.** Hunting and trade of pottos and angwantibos throughout their range

Countries	Bushmeat and Hunting	Source
Cameroon	P, A	Fa et al. (2006)**; Willcox & Nambu (2007)*; Abugiche, 2008*; Whytock et al. (2014)
CAR	P,A	T. Fuh pers. comm
Republic of Congo	P,A	Mbete et al. (2011)**
DRC	P	Carpaneto & Germi (1989)
Equatorial Guinea	P, A	Juste et al. (1995); Fa & García (2001); Keylock (2002)**
Gabon	P	Steel (1994)
Ghana	P	Hofmann et al. (1999)
Ivory Coast	P	Hofmann et al. (1999)
Liberia	P	Greengrass (2011); Bene et al. (2013)
Nigeria	P, A	Jewell & Oates (1969)*; Anadu et al. (1988); Fa et al. (2006)**; Akani et al. (2015)
Uganda	P	Olupot et al. (2009)

A = angwantibo; P = potto; \*References mentioning only angwantibo; \*\*reference mentioning both species

As part of the study, men were asked to participate in an offtake survey, and recall all primate species they had killed in the month of June 2016, and 16 of the 123 (13 per cent) primate carcasses reported in June 2016 were pottos or angwantibos. In and around Korup National Park, loroids are often only targeted because of their *perceived* crop foraging behaviour (namely of cocoa (*Theobroma cacao*)),

tied to their visibility in disturbed habitats surrounding artisanal farms (Hofner, pers. obs.). Actual damage done to crops by these species has yet to be studied in this area and deserves attention. A more common response of Ikenge men regarding why these species are killed was that pottos (and/or angwantibos) are usually shot accidentally by hunters searching for larger game at night or are caught opportunistically. In general, respondents described lorisids as easy to catch and kill in snares, with poison or in box traps, and explained that the meat is exclusively kept and eaten by families within the village, as the carcasses are too small to have a significant market value.

Culturally specific valuations of species, beyond economic returns, are also of critical importance when combating conservation issues of bushmeat and trade (van Vliet and Mbazza, 2011). For example, in Ikenge, lorisid species are perceived as possessing healing properties within their flesh and bones, relevant to infant health, childbirth and strength. Potto hair is also used as a topical treatment for burn wounds (Hofner, 2016). With no medical facility, and reachable only by footpath, traditional practices involving local flora and fauna are central to treating illness and injury in this rural community, potentially exacerbating offtake levels (Hofner, pers. obs.). This role of lorisid species is reflected in the Central African Republic, Republic of Congo and quite possibly other nations across the range of African lorisids that have not yet been studied in ethnoprimateological or anthropological capacities (Svensson and Friant, 2014).

The anthropological design of this study allowed respondents to speak freely and led to clarifications on the relationship between humans and bushmeat by highlighting an inconsistency between local linguistic variations between hunters and trappers (Hofner et al., 2018). Ikenge men identify themselves as hunters only if they own and regularly use a gun, while men who set traps or catch wildlife in other ways do not self-identify as hunters. It is conservationists who impose these terms on local people, with consequences to conservation research including offtake surveys of 'hunters'. Previous studies of 'hunters' in Korup, for example, may only target men who kill wildlife with a shotgun, thereby biasing results and hindering our understanding of offtake levels of those species killed in other ways, such as pottos and angwantibos (Hofner et al., 2018). In future studies, researchers and conservationists alike must take care to include lorisid species in both large-scale bushmeat surveys and locally situated studies of bushmeat offtake and human-wildlife interactions to adequately address potentially concealed threats that wildlife economies pose on these species throughout Africa. As larger game becomes increasingly rare, or locally extinct in Afrotropical forests, smaller species may very likely be subjected to increasing pressure (Anadu et al., 1988; Hofner et al., 2018; Svensson and Friant, 2014). Gaining a nuanced understanding of the relationships between human communities, wildlife economies, subsistence and non-human primate species therefore becomes imperative to mitigating the impacts of bushmeat extraction.

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