

Rediscovery of Bouvier's Red Colobus in the Southern Republic of Congo

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Abstract: In 2016, we carried out a wildlife survey in the Lefini Reserve and the Lesio-Louna Reserve in the south of the Republic of Congo. The aim was to identify the relative abundance and distribution of large mammals, and the trends since the previous survey in 2009. The last time that Bouvier's red colobus *Piliocolobus bouvieri* had been recorded in the area was in the early 1970s. All subsequent surveys had failed to find it, and the species was considered to have been locally extirpated. During the 2016 survey, whilst travelling along a river in the most remote area of the Lesio-Louna Reserve, we saw a group of them in a riparian forest. Hunting is by far the principal threat to these monkeys, and their persistence in this area of Congo is likely due to the combination of active protection of the Lesio-Louna Reserve and the inaccessibility of the area where they were found. Access is only possible on foot or along the rivers; the nearest roads and villages lie 45 km to the east and 65 km away to the south, and the main navigable rivers are patrolled by reserve staff. Maintenance of protection of the reserve is key to the continued survival of the species.

Key words: Africa, Bouvier's red colobus, biogeography, Congo, distribution, primate conservation, *Piliocolobus bouvieri*, rediscovery, hunting

The Endangered Bouvier's red colobus *Piliocolobus bouvieri* is endemic to the Republic of Congo (Maisels and Devreese 2019), and is still present in the north of the country (Devreese 2015). In the middle of the 20th century, a population was also known to occur much further south in Congo, in "N'Gabe, in the extreme East of the Pool region" (Malbrant and Maclatchy 1949). N'Gabe is about 100 km north of Brazzaville, close to the Congo River, and 20 km south of the confluence of the Lefini River and the Congo River. In the early 1970s, François Petter and Francis Vincent saw red colobus monkeys about 100 km north of Brazzaville, near the confluence of the Lefini River and the Louna River, close to the village of Inoni, and reported their sighting to Colin Groves (Groves 2007). Inoni village is located 40 km west of N'Gabe, 10 km east of the Louna River and 10 km south of the Lefini River, and lies on the main national road (N2), which links Brazzaville with the north of the country (Fig. 1). A large 6,500 km² area to the west of this main road is now two contiguous protected areas, consisting of the Lefini Reserve

to the north and the Lesio-Louna Reserve to the south. These reserves are embedded in a huge savannah landscape known as the Bateke Plateau, which spans eastern Gabon, the center of the Republic of Congo, and a small area in western DRC. The main rivers of this landscape run through corridors of gallery forests of varying width, which support a forest fauna typical of the region.

After the 1970s, red colobus monkeys were not recorded in the Lesio-Louna and Lefini reserves, despite several wildlife surveys. The initial survey simply described the relative abundance and distribution of the reserves' fauna; subsequent surveys aimed to monitor wildlife and human impact for adaptive conservation management (Downer 1998; Ikoli *et al.* 1998; Mathot *et al.* 2006; Nganga *et al.* 2006). All surveys except that of Downer used reconnaissance walks (recces) which are predefined straight lines covering the area of interest, along which all large mammal sign and sightings are recorded and georeferenced (Hall *et al.* 1998; Walsh *et al.* 2001). Downer used a modified line-transect field method but

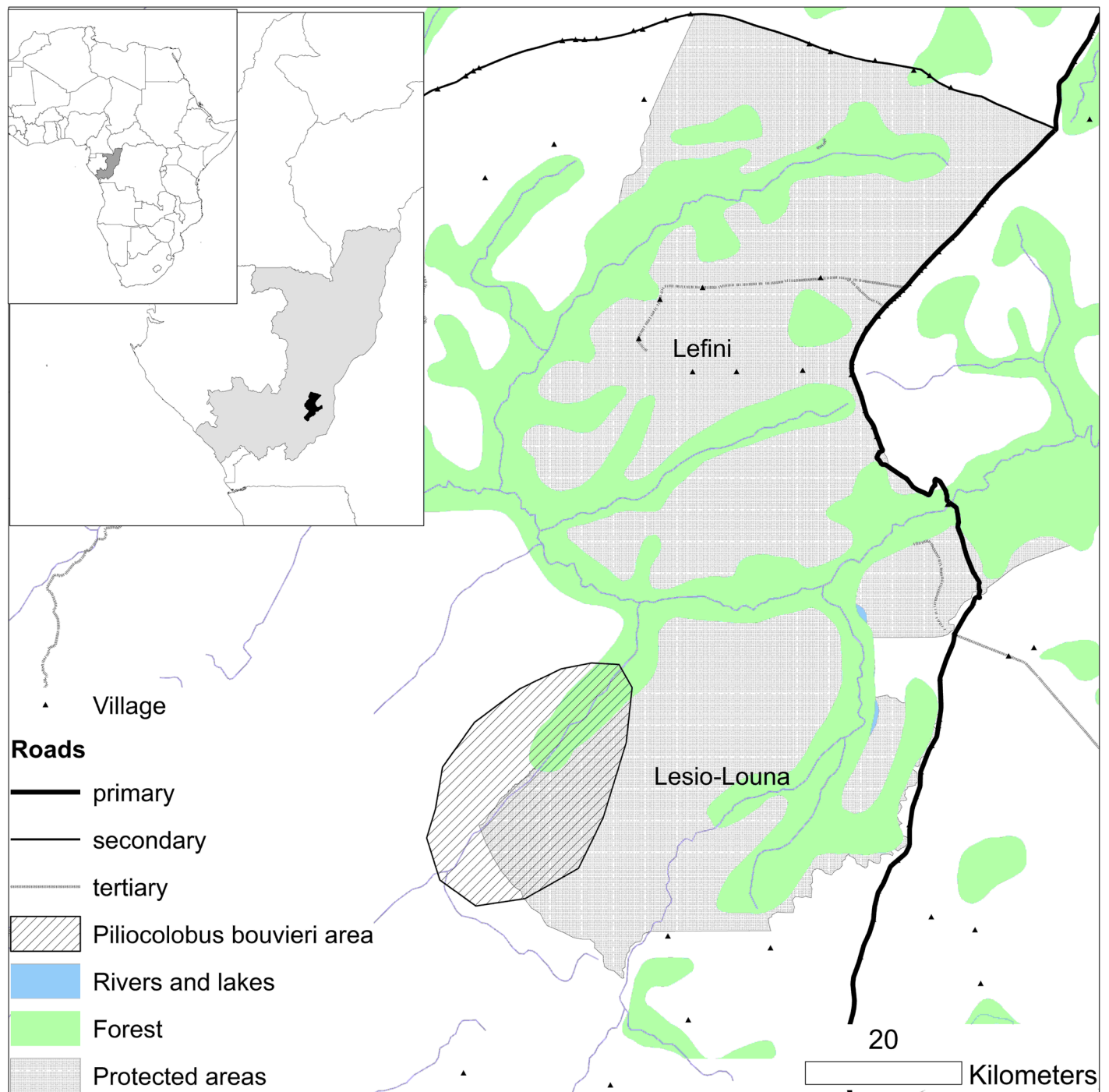


Figure 1. Location of the area where Bouvier's red colobus were seen at the eastern edge of the Lesio-Loua Reserve, and the location of the reserve in the Republic of Congo (inset). Roads, villages, and watercourses are also shown.

did not report how densities were calculated. Even his early study (1998) suggested primates were already very rare, and that hunting pressure was high in the area.

The most recent wildlife survey of the Lefini-Lesio-Loua site was carried out in October and November 2016 (Inkamba Nkulu *et al.* 2017) and used recces. Effort was 320 km of foot survey along 24 equally spaced lines arranged perpendicular to the watercourses, covering all of the forest

area of the Lefini Reserve and the entirety of the Lesio-Loua Reserve. No colobus were recorded on these lines despite the considerable distance walked. However, whilst travelling by boat down the River Loubilika in the extreme east of the Lesio-Loua Reserve, on the way to the start to one of the survey lines, a small group of red colobus was seen in the riverside vegetation. Two of the team members (C.N. and P.M.) were familiar with red colobus monkeys; indeed,

the team leader (C.N.) has had many years of wildlife survey experience and has recorded both *P. oustaleti* and *P. bouvieri* on previous surveys in northern Congo.

Local guides on the 2016 survey said that they know of this red colobus population but also that they knew they were in danger from hunting. The area where they were seen (3.2308°S, 15.1357°E) is the most remote part of the Lesio-Louna Reserve; the nearest roads and villages lie 45 km to the east and 65 km away to the south.

Access by hunters to the area where the monkeys were seen would have to be either on foot from these villages or along the river itself. The Bateke Plateau is heavily hunted, and all previous surveys indicated that the monkeys seen were very wary and at very low density. The first survey in the Lefini-Lesio-Louna area since the 1970s specifically asked hunters about red colobus (Downer 1998). The species was not recorded during that survey, and hunters did not recognize the description of the animal. Downer wrote that "The survey provided no evidence of the existence of *Piliocolobus pennantii bouvieri*, thought to persist in the Lefini region. The survey team also asked hunters encountered during the study if such a primate was known to them. A drawing of the animal by [Jonathan] Kingdon was used as a reference; no-one reported ever seeing a primate resembling the drawing." (p.41). However, Downer's expedition did not cover the more remote southeastern part of the Lesio-Louna Reserve, which is where the 2016 observation was made. The riverside habitat in this region is inundated gallery forest, tightly intertwined by spiny rattans that make passage by humans extremely difficult. This helps forest animals to escape, to some extent, the hunting pressure in the region. Further surveys along the rivers of the reserves should be carried out, preferably from non-motorised canoes floating downstream, to maximize the probability of observers detecting the animals before they flee.

This exciting new discovery suggests that other rare wildlife species may still be present in southern Congo. Future surveys should identify all the taxa known to occur in a given area in the past, and fieldworkers alerted to the possibility of their presence. Similar discoveries or rediscoveries in the Bateke Plateau in the recent past have included a lion (Barnett *et al.* 2018) and spotted hyenas (Bout *et al.* 2010) in Gabon, De Brazza's monkey in both Gabon and Congo (Maisels *et al.* 2007), and Brazza's Martin in Congo (King 2008). Finally, it is clear that maintaining the existing protection of the Lesio-Louna Reserve is key to protecting this, presumably now isolated, population of Bouvier's red colobus from the evidently widespread and severe hunting in the region.

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Ethical standards

The research did not involve experimentation with animals or human subjects. A full report was submitted in French to the Ministry on completion of the survey, a validation workshop held to examine the results, and the final report was then approved.

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