

Progress Report II

Market survey and population characteristics of three species of pangolins (*Pholidota*) in the Republic of the Congo

Date: 20.1.-9.3. 2019

Place: villages and markets in the immediate proximity of the Odzala-Kokoua National Park

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In the cooperation with the Odzala-Kokoua National Park in the Republic of the Congo, I have realized the second data collection focused on three species of pangolins (*Phataginus tricuspis*, *Phataginus tetradactyla*, *Smutsia gigantea*) that will be used for the setting up of the master's thesis at the Faculty of Tropical AgriSciences in the Czech Republic. Together with my fieldwork assistant, a forestry student Vitel Loubassou, we have visited 40 villages situated in the eastern and northern periphery of the park and 6 towns with markets offering bushmeat; in total 13 different bushmeat markets have been approached (six markets in Brazzaville, one market in Etoumbi, two markets in Makoua, two markets in Ouessou, one market in Sembé and one market in Souanké). We carried out 50 questionnaires with the local bushmeat or medicine sellers in these markets (12x Brazzaville, 6x Etoumbi, 6x Makoua, 16x Ouessou, 6x Sembé, 4x Souanké) based on the availability of the people to participate in the research. In most of the cases, we had to provide to the sellers a bottle of juice to convince them to share the information with us. During the sampling of the villages and markets, we have directly monitored 9 hunted white-bellied pangolins (*Phataginus tricuspis*) and obtained their tissue samples. Almost exclusively all pangolins have been observed in the Ouessou's bushmeat markets (8 pangolins) and one pangolin was monitored in Sangha village in the northern periphery of the park. Moreover, we have collected pangolin scales from 42 individuals (35x *Phataginus tricuspis*, 4x *Phataginus tetradactyla*, 3x *Smutsia gigantea*) from the people encountered in these places. Unfortunately, we have not gotten the CITES export permission so far to transport the samples to the genetics laboratory in the Czech Republic. On the grounds of it, the samples will be sent later in the upcoming months when all permissions will be provided to us. Besides that, we could not visit the villages located in the western periphery of the park as it was during the last year due to the unpredictable problematic current situation in the Odzala-Kokoua National Park.

In comparison to the previous questionnaires realized in the villages, we had to face many obstacles in terms of gaining the information in the markets. People that are selling bushmeat are hardly approachable, reserved concerning the sharing of their knowledge and the majority of them do not want to spend their time by answering questions without any visible benefit. Additionally, it also was more time-consuming to process the questionnaires

with bushmeat sellers compared to village dwellers. Almost all respondents mentioned that hunters supply the markets by pangolins rarely and that is why they sell pangolins only occasionally. Pangolin meat is frequently offered to customers fresh, alternatively already smoked. Three respondents also noted that they have already sold a living pangolin to Chinese. The majority of the sellers sell mostly small species of pangolins (*Phataginus tricuspis*, *Phataginus tetradactyla*) whose price ranges between 1,000 and 15,000 CFA based on the location of the given market. The price of the giant pangolin (*Smutsia gigantea*) ranges between 15,000 and 100,000 CFA, sometimes cut into slices and then the piece offered for 500 CFA. Most of them were selling pangolins to local people, rarely some of the bushmeat sellers had also experiences with providing pangolins to Chinese. All respondents were well-informed about the protected status of pangolins with only one exception, and that it is illegal to sell them. However, the majority of the sellers prefer to sell other animals (antelopes, monkeys) than pangolins because they are scared of having problems with eco-guards and it is less profitable in comparison to other bushmeat for them; only Chinese sometimes come to ask for pangolins to the markets. Nevertheless, specifically in the Ouesso's markets where pangolins are almost daily recorded, we have monitored that the forestry eco-guards are easily bribed by bushmeat sellers so illegal distributing of pangolins to the local markets continues.

To summarize our activities in the villages, except direct monitoring of pangolins and collecting of samples, we were trying to get information about illegal traffic activities with pangolin scales in the study area. Particularly in the northern periphery of the park, Cameroonians are significantly recognized to demand for the pangolin scales even directly in the villages. Villages with a higher population size are targeted. On the other hand, concerning asking for pangolins or their scales in the markets, the Chinese were mostly detected. In addition, we were trying to promote the conservation of pangolins in each visited place by spreading leaflets with basic information, pangolin stickers and projecting several educative short movies about pangolins. The film screening is an essential tool in wildlife conservation, as it is the efficient way of communication with local communities to show them well the core of the given issues, and the importance of such activities cannot be underestimated. People were always positively responding to our projecting followed up with educational talks which supposed to encourage local communities in the understanding of pangolins and their importance for the ecosystem. More interactive activities should be included in such educational sessions in the future with the usage of local ethnic languages as it is sometimes a significant communication barrier. To make noticeable progress, it is necessary to continue with the educational meetings and to make it be of the ordinary character.



Figure 1: Scales of the white-bellied pangolin (*Phataginus tricuspis*) observed at the traditional medicine shop of the main market in Brazzaville (22.1.)



Figure 2: A female of the white-bellied pangolin (*Phataginus tricuspis*) offered at the bushmeat market in Ouesso (3.2.)



Figure 3: Taking measurements of the white-bellied pangolin (*Phataginus tricuspis*) at the port market in Ouesso (4.2.)



Figure 6: Increasing awareness about pangolins in Mileleké (20.2.)



Figure 5: A male of the white-bellied pangolin (*Phataginus tricuspis*) offered at the bushmeat market in Ouesso (18.2.)





Figure 7: Increasing awareness about pangolins in Louame (21.2.)



Figure 8: Scales of the white-bellied pangolin (*Phataginus tricuspis*) in Moukouandgonda Payo (22.2.)



Figure 9: Increasing awareness about pangolins in Kokoua (26.2.)



Figure 10: Projecting videos about pangolins in Goa (26.2.)



Figure 11: Increasing awareness about pangolins in Demeyongo (28.2.)



Figure 12: Projecting videos about pangolins in Bessie (28.2.)



Figure 13: Increasing awareness about pangolins in Zoulaboth (2.3.)



Figure 14: Taking measurements of the white-bellied pangolin (*Phataginus tricuspis*) at the bushmeat market in Ouesso (5.3.)



Figure 15: Scales of the three species of pangolins (*Phataginus tricuspis*, *Phataginus tetradactyla*, *Smutsia gigantea*) in the Republic of the Congo (8.3.)



Figure 16: Research team in the end of the fieldwork in Brazzaville (8.3.)