

BABOONS AND HUMANS IN HOGSBACK SITUATION ANALYSIS

FIRST UPDATE: MARCH 2021

1 PURPOSE OF THIS SITUATION ANALYSIS

This situation analysis is a working document. Presented here is a short, simple summary of our understanding of the Hogsback village baboons and the human-baboon conflict situation in Hogsback as at the end of 2020 and updated in February and March 2021. It is not a final document and will continue to be updated as needed.

It has been written by a small group of Hogsback residents (AKA 'Hogsback Village Baboon Core Group') who have spent a few months gathering information online and through discussions with both residents and scientists (Professor J. Masters, Dr F. Génin and Ms M. Bobbio). This document was prepared to assist in engaging with the Hogsback community, noting that Treves, A, et al. 2006, found that engaging with affected communities produced the most effective results regarding mitigating human/wildlife conflict. We have also drawn information from conversations and correspondence in local Hogsback communications groups, such as:

- Wildlife Hogsback WhatsApp group,
- Hogsback Baboon Dilemma WhatsApp group, and
- The Hogsback Times

We hope that everyone will find this document an objective and useful starting point in finding a workable way forward.

Please share and discuss this widely. We welcome all constructive ideas and comments. See our contact details at the end.

2 WHO ARE WE?

The Hogsback 'Baboon Core Group' is an interest group of volunteer permanent residents, who wish to identify concrete action plans that can be utilised to help address the Hogsback human/baboon issues. Our team consists of (in alphabetical order, by surname): Carol Collins, Michelle Griffith, Carl Hansmann, Wayne Kent, Vincent Shaw, Fiona Wallace and Felicity Wood. We are not a closed group, and anyone who wants to give useful input would be welcome to join – to this end, we will continue to gather information from other stakeholder groups, and to document and share these viewpoints. We also aim to try to build bridges between community groupings. We aim to be transparent and to share what we do.

A desktop review of recorded methods to tackle crop/garden raiding by baboons and monkeys was completed on our behalf by Clare Padfield (Padfield, C. 2020). An open WhatsApp group ('Hogsback Baboon Dilemma') is run by Chris Breedt. All Hogsback residents may join this open forum.

We have collected all the online research documentation we have consulted so far in a Google folder that can be viewed here:

<https://drive.google.com/drive/folders/1vNkBoDFK65wLWLFxOYn0gIxYXJojefa4>

3 ACKNOWLEDGEMENTS¹

Academic research into Hogsback's baboons has been ongoing for at least 14 years, often under difficult and hostile conditions.

In 2007 Prof Judith Masters was requested by the then University of Fort Hare (UFH) Dean of the Faculty of Science and Agriculture to establish a research group dedicated to primatology, as nothing similar was in existence in South Africa. One of her tasks in the first few years was to rewrite the Zoology undergraduate curriculum and include a module on primatology.

Prof Masters created (with Dr Fabien Génin and their international counterparts) the APIES (African Primate Initiative for Ecology and Speciation) programme, an inter-university research programme collaborating with the Universities of Turin, Palermo, Brest, Dijon, UFH and Nelson Mandela University, NMU). The National Research Fund (NRF) provided bursaries for students supervised by these universities.

The first post-doctoral project was taken up by Dr Laura Bidner in 2010. Dr Bidner spent two years establishing the sizes and ranges of Hogsback's baboon troops by habituating and following the two troops that she named Evie and Nola. In 2015, Gregorio Guzzo and Matteo Baldi collected three months of field data on Hogsback's primates (mainly samangos) for their MSc degrees from the University of Turin. Marianna Cravero and Selena Esposito (University of Turin) took over from Dr Bidner under the supervision of Dr Génin and Prof Masters. Their research provided the major baseline information for Hogsback's baboon troops. Lwandiso Pamla conducted interviews of Hogsback inhabitants for his Honours degree (UFH) on the perceptions of samangos and baboons. He was trained by Cravero and Esposito in primate field work and followed and recorded the animals for his MSc (2013-2016). In 2018, Maria Bobbio and Guzzo were funded by NMU to complete their doctoral studies on Hogsback primates. Bobbio was involved in field research into Hogsback samangos in support of Guzzo's Masters project during 2017–2018. Bobbio is currently completing her doctorate under the supervision of Prof Graham Kerley (NMU) and co-supervision of Prof Eileen Campbell (NMU). Another project conducted by Dianah Manhanga centred on the conflict between Hogsback residents and the baboons.

Dr Fabien Génin, one of the founding members of APIES, worked as a senior lecturer at Fort Hare University for seven years and is now affiliated to NMU. His work on baboons first consisted of the completion of a ten year-project on the Hogsback baboon demographics and ranging behaviour. His main research interest today is animal vocalisations and natural soundscapes and, in particular, their applications to conservation and speciation study. His major investment in the current baboon project started with the first Covid-19 lockdown in 2020. He is also conducting another project on the samangos.

The Baboon Core Group is indebted to these scientists for their published research and thanks Prof Masters, Dr Génin and Ms Bobbio for their personal communications in 2020 and 2021.

¹ The content of this section is based on information provided by Prof Masters via email, Dr Génin via his response to the January 2021 version of this document and Ms Bobbio via email.

In addition, we are extremely grateful to the Hogsback community for sharing their personal experiences and providing valuable information and suggestions to assist us in investigating possible solutions to the human-baboon “conflict” on the mountain.

4 ACTIVITIES COMPLETED BY THE BABOON CORE GROUP SINCE NOVEMBER 2020

We have focussed our efforts so far on the following areas:

- Gathering information on Chacma Baboons and the Hogsback troops.
- Gathering information on documented ways to reduce human-baboon conflict.
- Documenting actual human-baboon interactions in Hogsback to understand the extent of the problem.
- Ongoing conversations with Hogsback community members to hear opinions, experiences, perceptions and suggestions, encouraging positive engagement across differing views.
- Providing regular communications through various channels to community members to create awareness about preventive actions.
- Designing a community-wide survey to be distributed during March 2021.

4.1 SUMMARY OF ACTIVITIES COMPLETED

4.1.1 Chacma Baboons

The Hogsback baboons are Chacma Baboons (*Papio ursinus*). There is an abundance of information available on baboon taxonomy and the characteristics, ecology and behaviour of Chacma Baboons. The following summary information is condensed from Pahad, G. 2010, Seiphethlho, N. 2014, Stuart, C. & Stuart, T. 2001, Sithaldeen, R. 2019, and https://en.wikipedia.org/wiki/Chacma_baboon.

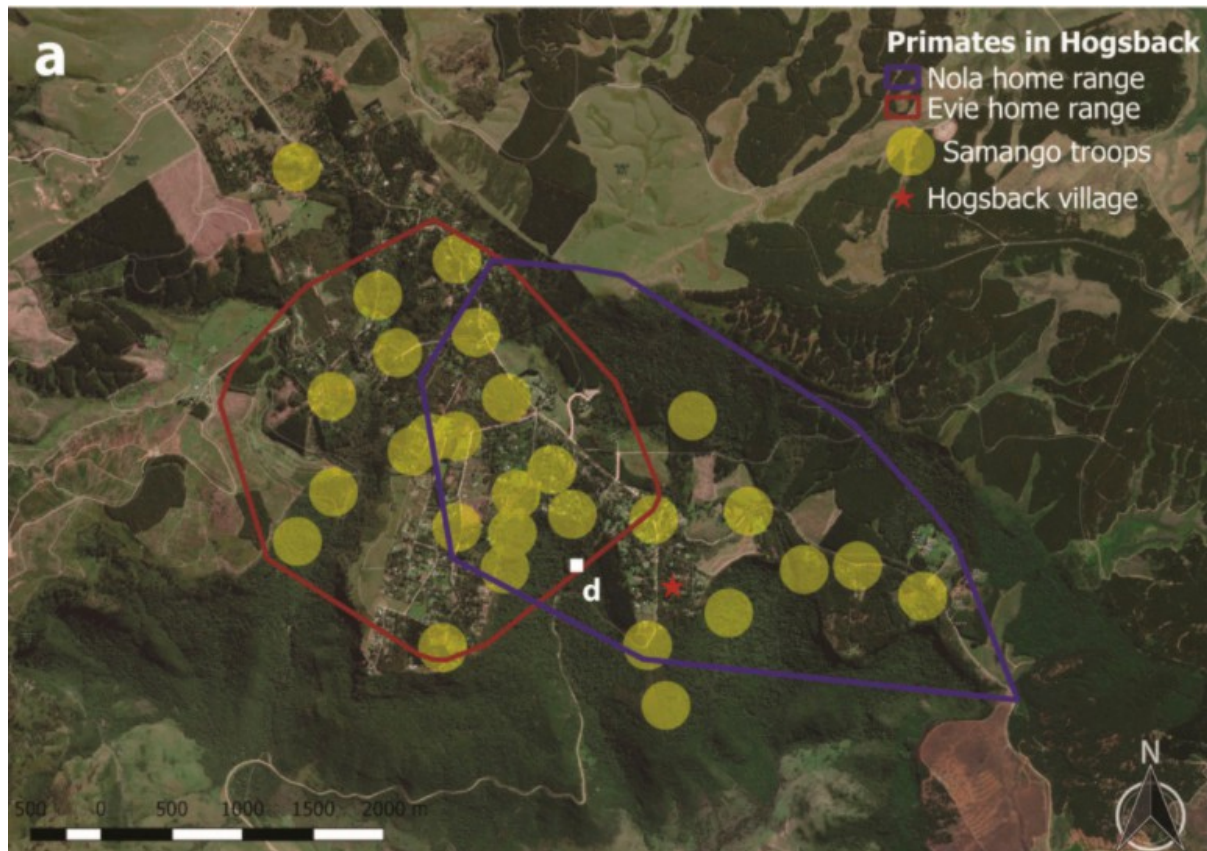
Chacma baboons inhabit a wide range of habitats and are common in woodland, savanna, steppes and sub-desert, montane regions of the Drakensberg, Cape Fynbos and Succulent Karoo. They normally occur in areas with adequate food and water supply and suitable night resting places such trees or high, rocky outcrops. They are generalist opportunistic omnivores. This means that they eat a wide variety of food and will learn to eat different food if it is available. They find food by foraging – moving from place to place searching for things to eat. They live in social groups of different sizes, called troops, each with its own area or home range.

There is also an abundance of online information available on human-wildlife interactions, conflicts and measures to mitigate these. General causes and factors were summarised on our behalf by Clare Padfield (available in Google Drive folder). Fehlmann et al, 2016 provide the following introductory sentence in their paper: “A range of species exploit anthropogenic food resources in behaviour known as ‘raiding’. Such behavioural flexibility is considered a central component of a species’ ability to cope with human induced environmental changes”.

4.1.2 Hogsback Village Baboons

The Hogsback village baboon troop names and general movements provided in the January 2021 document was documented from information gathered from the Wildlife Hogsback WhatsApp group (2019–2020), Baboon Dilemma WhatsApp group (2020), Pamla, L. 2016 and the observations of residents. The map below, drawn by Bobbio and Guzzo, provides a more recent indication of the distribution of the primate troops in Hogsback (Linol B. et al, 2020). Earlier maps showing the home ranges of the two troops can also be found in the dissertations of Cravero, M. 2013/2014 and Pamla,

L. 2016. As mapping is, by its nature, an ongoing activity, we will update this document as and when we have access to published maps.



Baboon and samango troops living in Hogsback: Distribution map; each yellow circle represents a samango troop core area; red and blue polygons represent the maximum home range extension for the two baboon troops studied over 10 years. (Linol B. et al, 2020)

An **updated account of the Hogsback Troops** was provided mainly by Dr Génin (Génin, F. 2021), and is summarised below, including some information from Pamla, L. 2016.

There are currently three troops of Chacma Baboons using the village as a major part of their home ranges (Génin, F. personal communication and Hogsback Baboon Dilemma Group). They forage and sleep in and around the village. Until mid-October 2020 there were two troops (Pamla, L. 2016; M. Bobbio, 2019–2020)².

A splinter group of the Evie troop (troop descriptions below) has formed a third troop (Hogsback Baboon Dilemma group, November 2020; Génin, F. 2021).

The Nola troop occupies the lower part of Hogsback. Pamla, L. 2016 reported that he counted 38 individuals in the troop in 2016 and that the troop size has averaged 38 individuals since 2012. Dr Génin (Génin, F. 2021) reported that the troop ranges as far as the Big Tree and Kettle Spout. Bobbio reports that the Nola troop has reached Tor Doone at times.

² Unless otherwise stated, reports attributed to Ms Bobbio are derived from the Hogsback Wildlife WhatsApp group and/or direct communications with the Baboon Core Group and are personal observations relative to her fieldwork 2019–2021.

The Evie troop, (now the Scarface troop, Génin, F. 2021) occupies the middle areas of Hogsback, possibly as far as Little Timbers and Dunaverty (Hogsback Baboon Dilemma Group) and Tor Doone.

Dr Génin (2021) reported that the 'New Evie Troop' is still called the Evie troop because it was named after Evie and was recently joined by a new male. It comprises 59 individuals including 22 adult females and two adult males (count 18 January 2021). This troop ranges as far as Plaatjeskraal and Never Daunted.

According to Bobbio, "the overall baboons number constantly fluctuates, even during the same year". This is a result of a number of factors: new males joining a troop, males leaving a troop, newborns, human-related deaths (poisoning, dog attacks, snares, firearms), natural deaths, and so on.

4.1.3 Previous Hogsback actions

There have been various interactions with the Hogsback community to inform them about the baboons in Hogsback in attempts to educate the community about baboon behaviour and how to avoid conflict.

2010. A meeting of the Primate Ecology and Genetics Group (PEGG) (PEGG is led by Prof. Masters and Prof. Trudy Turner from the University of Wisconsin-Milwaukee, USA). A discussion on human-baboon conflict mitigation, [which] welcomed all the Hogsback residents was organised at the end of the meeting.³

2011/12. Production of a pamphlet, by Kirsten Wimberger, providing general information about baboons for visitors and the Hogsback community.⁴

2012. Meeting with Department of Environment Affairs and Tourism (DEAT). (Minutes located in the Google Drive)

2012 and 2015. Lwandiso Pamla (UFH) and Dianah Manhanga (University of Fort Hare students supervised by Prof Masters and Dr Génin) conducted interviews of Hogsback inhabitants to gain insight into the perceptions of residents regarding the conflict between the Hogsback residents and the baboons.

2019 Maria Bobbio gave two talks on her work on the role of baboon in seed dispersal and forest regeneration, the first at a Probus meeting and the second at the Winter Festival in July. (Bobbio, 2021)

2020. Correspondence with Department of Economic Development, Environmental Affairs and Tourism, June 2020. The correspondence was initiated by a letter from the Community Police Forum, in response to complaints from some Hogsback residents regarding the "raiding of baboons". The responding letter from DEAT is located in the Google Drive.

2020 (31 November). The Hogsback Hallowe'en Baboon Festival, hosted by Professor Masters and Dr Génin was held at the Edge Mountain Resort, Hogsback. "The purpose of this festival was for local biologists to share information on the wonderful wildlife of

³ We were not able to access the meeting notes.

⁴ We have not been able to confirm the exact date of production and distribution of this pamphlet.

Hogsback.”(<https://www.facebook.com/events/the-edge-mountain-retreat/hogsback-halloween-baboonfestival/695318471399569/>).(Génin, F. 2021).

Kirsten Wimberger invited Prof, Shirley Strum, a famous baboon specialist (working on yellow baboons in Kenya) to give a talk in Hogsback.⁵

4.1.4 Changes in Hogsback

It is well documented that ecosystems and habitats are fast becoming human dominated (Strum, S. 2010, Pamla, L. 2016, Fehlmann, G. et al, 2017, and Padfield, C., 2020). This increases the probability of human-wildlife interactions and conflict over space and resources. The following changes in the Hogsback village may be contributing to the increased encounters between the residents and baboons.

- The number of properties has increased over the past few decades, with some of the larger properties being subdivided. Consequently, the human population has grown. The census of 2011 counted 1 029 residents in total. During peak tourist seasons, Hogsback can accommodate nearly 1 000 visitors, potentially at least doubling the human population (www.hogsback.info).
- Many undeveloped or fallow properties with previously open spaces have been extensively developed and are now inhabited (whether permanently or periodically) by people and dogs. The combination of these factors has restricted the movements of the Hogsback baboon troops.
- The erection of fences (electric, razor and other) has, in some instances, also prevented animals, including baboons, from following their “traditional ranges and foraging routes” (Pamla, L. 2016) and from using corridors to reach their preferred foraging areas (Génin, F. 2021).
- Commercial pine plantations have replaced much of the grassland, previously inhabited by baboons (Linol, B et al. 2020, Wimberger, K. 2011/2012?).
- More property owners are growing food. Many of these food growing areas are not caged and are easily accessible to primates.
- It is worth noting that not all new residents were informed of the baboon situation prior to purchasing property while some were told baboons had entered the village five years ago only because of the drought.
- It appears that the first reported incidents of conflict between Hogsback residents and baboons occurred around 2007 (Hogsback residents, personal communication).

4.1.5 Recent encounters with baboons (from November 2020)⁶

Reports from Hogsback residents we have documented relate to:

- ‘Raiding’ of vegetable gardens and fruit trees.
- Damage to buildings and structures.

⁵ We have not yet had confirmation of the date of this talk.

⁶ Please note that this section refers only to the period from November 2020 (when our group met for the first time) to date. We are aware of other incidents prior to this time but have elected not to include them for now.

- Intimidatory and/or violent encounters between humans/dogs and baboons⁷.

4.1.6 Variety of community responses to managing the human/baboon conflict

Listed below is the wide variety of responses to managing the encounters between baboons and people we collected from residents, researchers, scientific literature and other South African communities. This is not necessarily an exhaustive list. Not all of these are applicable to Hogsback nor necessarily desirable or even effective. We present them all here in order to document them. Some of them have been used by Hogsback residents in the past and/or are currently in use. The common denominator running through the first five sets of bullets is that the baboons “must be made to feel unwelcome”.

- Send them away to their ‘natural environment’ around Hogsback.
- Send them to the indigenous forests.

- Cull them to an environmentally acceptable number.
- Trap and kill them.
- Shoot to kill.
- Hunt with dog packs.

- Fire paintball guns.
- Use catapults.
- Use dogs to scare them away.

- Set off firecrackers.
- Crack whips.
- Shout and wave arms.
- Shoot firearms to scare not kill them.
- Play sounds of predators.
- Install an ultrasonic sound deterrent.

- Use leopard/lion scat.
- Use water guns/hoses.
- Install electric fences.
- Build cages over vegetable gardens and fruit trees.

- Create ‘ecological corridors’ to allow the safe passage of baboons through specific areas (Génin, F. 2021).
- Create a safe ‘urban edge’ around the village for the baboons.
- Employ trained ‘baboon minders’ to actively guide baboons off properties and into the corridors or edge.

⁷ One eyewitness report (Baboon Dilemma Group, November 2020) was of a confrontation between two dogs and a single baboon leading to injuries to all three animals. The events leading up to this incident are unknown. Dr Génin has stated that the dogs’ injuries (photographed) could not have been caused by the baboon (Génin, December 2020). The Baboon Core Group is aware of the violent deaths of at least two other baboons since November 2020, one an adult male (WhatsApp group) and a baby baboon by a dog (March 2021).

4.1.7 Misperceptions regarding the Hogsback baboons

The Core Group also documented a wide variety of community perceptions of our baboons, several of which are not supported by our findings:

- Populations have exploded: Over 100 in a troop; Over 300.
- Baboons are vermin and need to be culled.
- Baboons are dangerous.
- They are invaders from the Savanna.
- They need to be permanently removed from the village.
- The population each year is increasing.

4.1.8 Approaches not recommended

In order to provide clarity and transparency around alternative approaches that have been raised by community members, we list these below. Aside from ethical objections, we provide some further responses to show why we do not recommend them.

- **Trapping and killing baboons** is a costly and time-consuming exercise as baboons are intelligent and adaptive. If one is trapped, the rest learn to avoid the traps.
- Baboons entering the traps may not be the most ideal individuals to remove, particularly if it is one of the adult males. The removal of an adult male results in a vacuum filled by migrant adult males, sometimes heightening aggression. The new adult male usually kills all the young babies so that new offspring carry his genes.
- **Culling** is not advised as a long-term sustainable solution, since research has shown that troop numbers recover quickly if the energy-rich abundant food source is still available.
- The space is quickly filled by baboons from the surrounding areas if the whole troop is culled. Bobbio reports that there are at least five other troops in areas around Hogsback. A new troop moving into Hogsback may create further aggression between the troops and may 'raid' more or different gardens.
- The troop scatters and hides if one is shot, so it is expensive to cull more than a few at a time.
- Culling disturbs the social structure of the troop, particularly if adults are killed.
- Trapping, killing and culling baboons heightens fear and aggression, creating further problems and exacerbating existing ones.

5 CONCLUSIONS

One community member summarised the issues as follows:

1. *We have two problems not just one: baboons and our human responses to them.*
2. *We do not have consensus in the community.*
3. *We lack a workable strategy to implement.*

A combination of factors has most likely led to the frequent presence of baboons in the Hogsback village, increasing the conflict between some residents and the baboons. These factors (Pamla, L. 2013, unpublished data, Pamla, L. 2016, Génin, F. 2021 and personal communication) include, but are not limited to the following:

- A decrease in the baboons' natural habitat (thus food source) has forced them to seek other sources of food.

- The concentrated rich food sources found in the Hogsback Village in the form of fruit trees, vegetable gardens and other concentrated areas of mainly exotic plant seeds and fruit (e.g. Black Wattle seeds, acorns, Bird Cherry, etc) have probably encouraged them to spend more time in these areas.
- The increase in property numbers and developments on properties, fencing, removal of indigenous vegetation and repurposing of fallow land have further reduced natural areas where baboons can forage freely.

None of the deterrents currently used by individuals has been co-ordinated at a community level. One of the greatest challenges and areas of community conflict is that stressed baboons are chased off one property onto a neighbouring one.

For the human/baboon conflict to be reduced and to be successfully and sustainably managed, the ideal would be for our community to reach agreement on a set of solutions to be adopted. To achieve this, consensus and compromise will be necessary.

It seems clear that **a range of approaches – within a co-ordinated, planned strategy** – is required for Hogsback. We list some that may fulfil that requirement:

- Create **ecological ‘corridors’**/spaces within the village in which baboons can move and forage.
- Through a co-ordinated effort, purposefully, passively and directionally herd baboons into these **areas**. Trained baboon herders would need to be employed by the community to move baboons to these areas. Alternatively, community volunteers could be trained to do the same.
- Cover vegetable gardens and fruit trees (**cost-effective** methods for caging these areas are currently being explored.) Although areas outside of urban Hogsback are not within our control, as a community we could motivate for portions of the baboons’ historical habitat to be restored.
- A dedicated **online community baboon-monitoring group** could record movement, behaviour, numbers and activity of troops so that they can be easily located and re-directed.⁸

6 WAY FORWARD

As a self-formed group of interested community members, we carry neither the authority nor the mandate of the community to implement any strategic plan to manage the human-baboon relationships in Hogsback. However, we are committed to working with our community to find solutions.

We are certain that the only sustainable way forward lies in the ability of the Hogsback community to reach agreement through **consensus, compromise and commitment**. A strategic balance between short-, medium- and long-term approaches must be found.

⁸ The Hogsback Wildlife WhatsApp group served this purpose to start with (Bobbio) and could do so again.

7 WHAT CAN YOU DO?

- Read this document thoroughly and respond with your practical suggestions on how to improve it or fill any obvious gaps.
- Share this with other members of the community.
- Communicate your ideas with any member of our team.
- Join the Hogsback Baboon Dilemma WhatsApp group and share your practical ideas there.
- Join our team.
- Commit to the creation of a community-based plan of action.
- Become part of the solution.
- Complete the upcoming community survey.

8 CONTACT DETAILS

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9 REFERENCES

All referenced papers and other relevant documents used to compile this summary can be found in our Google Drive:

<https://drive.google.com/drive/folders/1vNkBoDFK65wLWlfx0Yn0gIxYXJoje4?usp=sharing>

Bobbio, M. 2021. Comments on “Hogsback Baboon Situation Analysis”. 17 March 2021. Google Drive.

Cravero, M. 2013/2014. Ecologia spaziale di babuini in ambiente antropizzato. Università degli studi di Torino.

DEADEA. 2020. Email communications between Hannan R, Dick J, Moody T and Hogsback CPF (M Mullins). Google Drive

Fehlmann, G., O’Riain, M. J, Kerr-Smith, C., Hales, S., Luckman, A., Shepard, E.L.C., and King, A.J, 2017. Extreme behavioural shifts by baboons exploiting risky, resource-rich, human-modified environments. Scientific reports | 7: 15057 | DOI:10.1038/s41598-017-14871-2 (accessible via www.nature.com/scientificreports)

Génin, F. 2021. A scientific review of the “pamphlet” posted by the “Hogsback Village Baboon Core Group” (February 2021). Shared on the Hogsback Baboon Dilemma WhatsApp Group (<https://chat.whatsapp.com/KwS27Hse9OhGMUKQk7KG7w>)

Hogsback Baboon Dilemma WhatsApp group. Created 9 November 2020.

Hogsback Community Meeting with DEAT. Meeting Notes. 7 November 2012. Google Drive.

Hogsback Demographic Statistics. South African Census, 2011 in <https://census2011.adrianfrith.com/place/276016>

Hogsback Times. HogsbackTimes@groups.io

Linol, B., Miller, W., Rensburg, C., Schoeman, R., Bezuidenhout, L., Génin, F., Morkel, B., Dhliwayo, N., Jeppesen, K., Dlakavu, S., Poto, O., Mahed, G., Gariremo, N., Berkland, J., Claassen, D., Sebake, T., Kunjwa, T., Guzzo, G., Bobbio, M., Pellen, R., Mngcele, L., Makuzeni, M., Winkler, K., Tembe, T., Musa, S., Valashiya, K., Nengovhela, V., Sonn, V., Stroebel, D., Kom, N., Mambalu, P., Dhansay, T., Muedi, T and Ntholi, T. 2020. Earth Stewardship Science—Transdisciplinary Contributions to Quantifying Natural and Cultural Heritage of Southernmost Africa. *Remote Sens.* 2020, 12, 420; doi:10.3390/rs12030420 www.mdpi.com/journal/remotesensing

Padfield, C. 2020. Review of methods to tackle crop/garden raiding by baboons and monkeys. Google Drive.

Pahad, G. 2010. Social Behaviour and Crop Raiding in Chacma Baboons of the Suikerbosrand Nature Reserve. A Dissertation submitted to the Faculty of Science, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Master of Science. University of the Witwatersrand.

Pamla, L. 2013. Mitigation of conflict between humans and non-human primates [samango monkeys (*Cercopithecus albogularis*) and baboons (*Papio ursinus*)] in Hogsback. Unpublished data, Honours research, University of Fort Hare. <https://www.ufh.ac.za/centres/apies/content/lwandiso-pamla>

Pamla, L. 2016. The importance of habitat use in the foraging behaviour of village chacma baboons (*Papio ursinus*, Cercopithecidae: Primates) in Hogsback, Eastern Cape. A dissertation submitted to the Department of Zoology and Entomology in fulfilment of the requirements for the degree of Master of Science in Zoology. University of Fort Hare. http://vital.seals.ac.za:8080/vital/access/manager/Repository/vital:31494?site_name=GlobalView

Seiphethlo, N. 2014. Chacma Baboon. <https://www.sanbi.org/animal-of-the-week/chacma-baboon/>

Stuart, C. & Stuart, T. 2001. *Field guide to mammals of southern Africa*. Struik. South Africa.

Sithaldeen, R. 2019. *Papio ursinus* (errata version published in 2020). *The IUCN Red List of Threatened Species* 2019: e.T16022A168568698. <https://dx.doi.org/10.2305/IUCN.UK.2019-3.RLTS.T16022A168568698.en>.

Treves, A; Wallace, R.B.; Naughton-Treves, L. and Morales, A. 2006. Human Dimensions of Wildlife, Vol. 11, No. 6, November 2006: pp. 1–28 Human Dimensions of Wildlife Peer-Reviewed Articles.

Wildlife Hogsback WhatsApp Group. Created 3 March 2019.

Wimberger, K. 2011/12?. Baboon and Human Conflict in Hogsback. Pamphlet. Google Drive.