



– Semi-Annual Conservation Update –
Kordofan Giraffe (*Giraffa camelopardalis antiquorum*)
Garamba National Park, Democratic Republic of Congo
January - June 2019

Summary

1. The annual giraffe population assessment for Garamba National Park was published in April 2019. The giraffe database and identification table has since been updated and is ready to be published.
2. A total of 51 different giraffe have been individually identified between January and June 2019 out of a total population of 55 giraffe that were recorded in the annual giraffe population assessment.
3. Congolese National, Achille Diodio Sorue, who started as a volunteer on the Giraffe Project in 2018, was formally hired by Garamba in January 2019 on a one-year contract as the Giraffe Monitor.
4. A fixed observation post was constructed on a high point - “Muki” in a key giraffe area in April 2019.
5. World Giraffe Day was celebrated on 21 June 2019. Garamba’s giraffe monitor presented at a conference at the University of Kisangani whilst a local team hosted various activities to promote the awareness and conservation of giraffe at a school in Gangala na Bodio village.
6. The Park’s Husky (small-fixed wing aircraft) was damaged by a bird strike during a giraffe monitoring flight.
7. After due consideration Garamba management decided to postpone the deployment of two GPS satellite ossi-units donated by GCF until 2020.
8. A peer reviewed scientific paper on the Master’s research of Mathias D’haen - Population structure and spatial ecology of Garamba’s giraffe - was recently accepted.
9. Two members of Stanford University’s Program for Conservation Genomics visited the Park in May 2019 to conduct a feasibility study for a genomics project for key species in the Park, including Kordofan giraffe.



Programme

A population assessment of the Kordofan giraffe (*Giraffa camelopardalis antiquorum*) in the Garamba Complex was published at the end of April 2019 generating an estimate of 55 individuals in the population. During the first half of this year (January – June 2019), a total of 332 giraffe observations were made, divided over 101 herds. Of those observed, 51 individuals were identified from photographs using the current giraffe database. Unfortunately, four of the 55 giraffe were not observed during this period and every effort will be made to look for the remaining individuals in the future.

The giraffe monitoring efforts during the six-month period included a total of seven hours of aerial surveillance (using the Husky and Cessna 206) and 52 hours of vehicle patrols covering a total distance of 981 km. The Park's two-seater fixed wing aircraft (the Husky) was damaged by a bird strike during a giraffe monitoring flight being conducted by Alain Gerhard and Achille Diodio. Thankfully the team was able to land safely back at the station, but the damage caused meant that the Husky was out of commission for several months and restricted surveys. During the next period, a specialised camera will be fitted to the Husky which is anticipated to be able to assist with monitoring efforts of key species, including giraffe.

Seven new juveniles were added to the giraffe database during the latest giraffe population assessment for the Garamba Complex. This continues to show a positive trend in the growth of the population and hopefully will reach Garamba's target of 60 giraffe by 2021 as per the draft National Strategy and Action Plan of DRC.

An updated individual identification table (database) of 55 giraffe has been developed and submitted to management for approval. This identification table includes all giraffe that have been documented in the Garamba Complex, even those that have not been observed for more than 12 months – in the hope that they will be observed again in future. Those that are known to be deceased are also included to keep a record of their lives and time and cause of death.

In April 2019, the law enforcement team that manned the fixed observation post at PK15 was transferred to the newly constructed fixed observation post on a hill called "Muki". Muki is located in a key giraffe hotspot in the Garamba NP, where most of Garamba's giraffe are located. This observation post will contribute to the giraffe monitoring as a law enforcement team will be permanently based at the observation post and will record and photograph all giraffe that pass through the area.

To celebrate World Giraffe Day on 21 June 2019, the Garamba team carried out various activities. Giraffe monitor Achille Diodio gave a presentation to an academic audience at the University of Kisangani in the Faculty of Science. The theme was "Giraffe Conservation Issues in DRC, Case of

Garamba NP". Eighty-seven people took part in the conference, including nine professors, ten scientific researchers, four local journalists and 64 bachelor's students. The conference was successful and the heads of Kisangani University now plan to make an official visit to Nagero to speak with Garamba NP's managers to potentially negotiate a scientific research agreement that will benefit the Park and the University.

Meanwhile, back in the Garamba Complex, the Research and Monitoring team collaborated with Garamba's Sustainable Development Department to promote awareness and conservation of giraffe at a school in Gangala na Bodio village in the Gangala na Bodio Domaine de Chasse. Although the school children were the target audience, many different age groups attended and participated in the activities. This is an important area to gain community engagement and support as it is adjacent to a key giraffe area outside the Park.



Garamba's community outreach on World Giraffe Day on 21 June 2019 in Gangala na Bodio

The two trial GPS satellite ossi-units that were donated by Giraffe Conservation Foundation (GCF) were planned to be deployed during the first quarter of 2019. However, after great consideration and at the recommendation of APN's Head of Science Support (Dr. Angela Gaylard), the decision was made to postpone their deployment until 2020; by which time Zakouma NP (Chad) management would be able to provide feedback on their recent deployment of ossi-units with GCF. This precaution was taken as Garamba's giraffe population is small and vulnerable, whereas Zakouma NP (which has relatively similar environmental conditions to Garamba) has a more stable and larger population on

which to test the performance of the ossi-units. Garamba have since heard that the units have performed well in Zakouma NP (and several other countries), and plan to move forward with preparations for the deployment of units in the first quarter of 2020.

Mathias D’haen, former APN staff in Garamba, recently submitted a scientific paper based on his Master’s thesis research in 2016-2017 looking at the population structure and spatial ecology of Garamba’s giraffe. The peer-reviewed paper was accepted by scientific journal ‘Ecology and Evolution’ in mid-August 2019, and is planned to be published in the near future. This publication provides important scientific support of the research and monitoring efforts of the giraffe of the Garamba Complex, and was a valuable collaboration with Czech University of Life Sciences, Smithsonian Conservation Biology Institute and GCF.

In May 2019, two members from Stanford University’s Program for Conservation Genomics conducted a site visit to the Park to assess the feasibility of using genomic work to support the management and conservation of key species i.e. elephant, giraffe, carnivores and chimpanzees, in the Garamba Complex. The proposed method would include non-invasive sequencing of metabarcoding methods to assess genetic diversity, diet and infer multitrophic ecological networks of species interactions. Amongst other things, this work would help Garamba management and their partners to gain a better understanding of the giraffe population and thus make better informed management decisions regarding their conservation and ecology.



GIR47M, GIR42F and GIR28F in Gangala na Bodio Hunting Domaine; just few minutes before the bird strike on the Husky during a giraffe monitoring flight.

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