

Project Updates: September 2022

Activities Undertaken and Methodology

We used standard crocodile survey techniques described in Webb & Smith, (1987) to conduct repeated population and threat surveys at the KNUST campus and initiated a new survey in the Ayoko community. We undertook 10 night and seven day surveys covering a total survey route of 40 km on the KNUST campus. Also, we surveyed the Ayoko community river for 7 nights and 7 days covering a total route of 21 km. The day surveys allowed us to conduct habitat quality assessments by detecting threats alongside recording crocodile activities and opportunistic crocodile sightings. At KNUST, we recorded 43 individuals comprising 20 hatchlings (46.51%), 15 adults (34.88%), and eight juveniles (18.60%). Contrary, we recorded 52 individuals representing 23 adults (44.23%), 19 hatchlings (36.54%), and 10 juveniles (19.23%) at the Ayoko community river. We observed a 34.38% increase in the number of individuals at the KNUST campus. This was also confirmed by an increase in the number of nests and the hatching success rates at this site. Additionally, we increased our survey efforts, which could also inform the increase in the number of crocodiles encountered. Both the populations encountered at the two sites are critical and add to our foundation for future monitoring and protection of the species.

Hunting (at KNUST) and habitat encroachment (at both sites) still remain the major threats to the species and its habitats. But it is worth mentioning that our repeated social surveys using questionnaires revealed that some local medicinal practitioners (n = 5) have stopped the sale of crocodile parts in the city of Kumasi (where KNUST is located), whilst at the household level, our repeated survey of 100 households revealed that 95 % of individuals within the households still remembered and appreciated the need for crocodile conservation. Also, the number of cartridges recorded per survey night reduced from 15 to six. We are still talking with farmers and the KNUST university authorities for developing a restoration protocol of the riparian buffers of the entire habitat which will help prevent habitat encroachment.

We have also been conducting occasional nesting ecology surveys from March 2022 to date. Twenty nests have been recorded of which 15 have hatched with an average hatching success rate of 98%. The average clutch size (number of eggs per nest) was 7 ± 3 which is a positive indication of progressive breeding of the species.

We have educated 600 school children through campaigns in three schools in the two project sites. Two volunteer groups have also been formed with 12 members in the two project locations and the members were trained in crocodile threat identification, monitoring, and crocodile rescue.

Also, we are in the process of developing local action plans for the species in the two habitats through our stakeholder consultation meetings and programmes. The university authorities of KNUST, local community authorities, farmers, hunters, and the Wildlife Division of Ghana were the major stakeholders that participated in the discussions.

Moving forward, we will complete the stakeholder discussions and define the road map for collaboratively managing the species in these two habitats. Additionally, we will

continue and complete the nesting ecology monitoring until all the nests have hatched. Also, we will execute the field visits with volunteer groups to directly practice the training they received. The remaining days will also be used in planning, organising, monitoring and evaluating, data analyses, report writing, and dissemination.

Limitations

Although Covid restrictions have been relaxed, some limitations were encountered during our awareness creation programmes as peoples' willingness to participate was reduced. This retarded the process. Nonetheless, we later had a good number (about 300) of people in August 2022 participating in the awareness campaign programmes.



Community awareness creation.



Community elders discussing the accidental death and burial of a hatchling.



Release of an adult dwarf crocodile by a community volunteer during training.



Dialogue with local authorities.