

Crocodile Specialist Group Steering Committee Meeting
Universidad Nacional del Litoral, Santa Fe, Argentina
(6 May 2018)

West and Central Africa

The West & Central Africa region (WACA) continues to advance its primary missions of: 1) better understanding crocodiles and their conservation and management needs in WACA, and 2) attracting local personnel/organizations and developing capacity for crocodile work within the region. To these two ends, we are succeeding with the regional office encouraging and supporting work in seven different countries, including Republic of Congo, Gabon, Nigeria, Benin, Ghana, Cote d'Ivoire, and Burkina Faso. We attach below the reports of some of the people working in these countries on crocodiles.

In addition, we are aware of the following burgeoning or underway projects in this region:

- WCS is working on a bushmeat demand reduction program in the two Congos. As part of this work, we are looking to assess the sustainability of the extensive trade in Dwarf crocodile (*Osteolaemus osborni*) bushmeat from the Lac Tele - Lac Tumba swamp forest landscape. One of WCS's lead Congolese biologists in Lac Tele (Bola Madzoke) was selected as a finalist for the annual John Thorbjarnarson scholarship to develop a survey protocol for estimating dwarf crocodile population size and monitor dwarf crocodile populations under harvest.
- One of WCS's lead Nigerian biologists in Nigeria (Peter Abanyam) was selected as a finalist for the annual John Thorbjarnarson scholarship to survey for West African slender-snouted crocodiles in Nigeria, where this species has not been encountered in over 20 years.
- Emmanuel Amoah (Ghana) was selected as an EDGE Fellow (Zoological Society of London) to implement ecological research on slender-snouted crocodiles. He is wrapping up his MSc research on Dwarf crocodiles, and has been invited to continue his research as a PhD student. See his extensive report below.
- Efforts are underway to develop the funding base for crocodile surveys and management in Liberia in collaboration with the Liberian Forestry Development Agency, University of Liberia, and Florida International University.
- West African slender-snouted crocodile was documented for the very first time since the 1980s in Sierra Leone. The Royal Society for the Protection of Birds (RSPB), who manage the Gola Rainforest National Park, are working to incorporate this species into their conservation management plan.
- An initial idea to search for remnant population/individuals of the Central African slender-snouted crocodile in Zambia was brought up to us by Paul Reilly (Zongwe Farming Enterprises) and Bill Thomas (Kalimba Farm). We have no news of this initiative, though have been encouraging it as Zambia is one of the range states with entirely unknown contemporary *Mecistops* population status.

Prepared by: Matthew Shirley, Regional Chair West and Central Africa

Date prepared: 5 May 2018

Summary of activités for conservation of Crocodiles in Ramsar site of Setté Cama and Gabon (by: Judicael Regis Kema Kema, WWF Gabon, jrkema@wwfgab.org)

2016 (from March to November) : we have conducted with local community a study of by catch for reptilian population in small fisheries of Nyanga basin area. The results of this study are identification of by catch of Slender snouted crocodile (*Mecistops cataphractus*), Nile crocodile (*Crocodilus niloticus*), Dwarf crocodile (*Osteolaemus tetraspis*), Nile softshell turtles (*Trionyx truinguis*). A peak of by catch has been observed in dry season with slender snouted crocodile. The fishing gear responsible of by catch is gillnet.

2016 (November) : we have organized a workshops on preliminaries results of study with National Agency of National Parks, Department of Wildlife and Department of fisheries. This workshops aim to show preliminaries results of study of by catch. The workshops held in Gamba with participation of 10 persons from local community and fishermen. They became aware of the scale of incidental catches of crocodiles in small fisheries of Nyanga Basin area. They decided to discuss with the other citizens of the fishing communities and to think about the possibility of cleaning the waters of Nyanga Basin area.

A press article has published in French with an online journal (Gabon news) and the link is: <http://www.gabonews.com/fr/actus/environnement/article/wwf-resultats-preliminaires-des-recherches>

An awarness calendar 2017 about reduction of by catch, has been designed and shared more 70 persons from local community, fishermen, local authority and partners (NGO, Universities).

2017 (May to October 2017): we realized an experimental study for reduction of by catch in lake Mandza (Nyanga Basin area). 3 stations have been installed: middle of lake and shoreline. The results indicate that the by catch are more important in shoreline of lake (0 meters of vegetation) and the relative abundance of fish is similar both shoreline and middle of lake Mandza. A technical report has been written.

2017 (November): After one year of discussion with local community, they have decided to do a campaign of clean up rivers and lake in Nyanga Basin area. This campaign has been realized with the support of Agency National of National Parks, Department of fisheries and WWF Gabon. A total 5078.741 acres have been cleaned including remove abandonned gillnets and industrials waste. 30 persons have participated in this campaign. An article has published in site web of Congo basin wwf and in the lastest WWF newsletter of March 2018 the link on site web is:

<http://www.gabonews.com/fr/actus/environnement/article/wwf-resultats-preliminaires-des-recherches>

2017 (From February to March): we support the organization of a study in Rembo Bongo river (Gabon) by a PhD student from Bristol University. This PhD student work to develop a protocol that uses acoustic recording devices to remotely monitor crocodiles via their vocalizations. The surveys for his study in Rembo Bongo river have been realized with success during 5 weeks.

2017 (March): I have participated for WWF Freshwater pratice on implementation of freshwater strategy. I meet a colleague from WWF India working also for conservation of Crocodile. We have discussed for sharing lessons for conservation of crocodiles and their habitat between WWF Gabon and WWF India. E-mails have been exchanged for a better planning of collaboration.

2017 (March): A scientific paper is press on by catch of crocodile and softshell turtles in artisanal fisheries (Ramsar site of Setté Cama) with the collaboration of WCS, Megaptera Consultancy, Department of fisheries in Gabon, Department of wildlife in Gabon, Agency National of National Parks and WWF.

2017 (March): Marine and Freshwater officer at WWF Gabon involving and working for conservation of crocodiles, has just appointed as Manager of two national parks by gabonese government: Pongara and Pointe Denis. His new position as National Parks manager will contribute to increase the effort of conservation of crocodiles in Gabon.

OELO's update on our "Projet Faux Gavial" to reduce slender-snouted crocodile bushmeat commerce in the Bas Ogooué Ramsar Site of Gabon (by: Heather Arrowood, OELO, hcarrowood@yahoo.fr)

We had a short conservation news piece published in Oryx in January last year (<https://www.cambridge.org/core/journals/oryx/article/div-classtitleprojet-faux-gavial-reduces-commerce-of-slender-snouted-crocodile-in-gabondiv/6CFA3137F9B8341B61AE3B20833AD9F7>).

We work with 18 primary and secondary schools in Lambaréné and have formed 12 youth nature clubs active in the city. Students are still involved in the citizen science part of the project using WhatsApp to record crocodile bushmeat sightings. We awarded our first Projet Faux Gavial scholarship to a high school student last fall who had sent in 19 observations of crocodiles for sale (<https://www.facebook.com/OELOGabon/posts/963065363851866>). This year, we're experimenting with opening up the contest to observations of bushmeat from all protected species.



Our EE team is still giving a slender-snouted crocodile lesson plan in primary and secondary schools. This year they organized an exchange with the Conservation Justice EE coordinator and a newer NGO in Mouila called Muyissi Environnement, who will be using the presentation in Libreville schools as well and potentially in Mouila in the future.

One of our nature clubs chose slender-snouted crocodile conservation as their theme last year and designed a mural on the front wall of their school. Another club negotiated permission with the fishing center to create their own protected species mural at Centre Peche, which included a slender-snouted crocodile.

Kids from several clubs got together last year and filmed a TV special on the slender-snouted crocodile. Unfortunately, the local TV station antenna broke down and still has not been fixed... I'll put it online as soon as I have access to a decent internet connection.

Our programs manager, Cyrille still leads bushmeat surveys in the Marché Isaac market, the largest bushmeat and fish market in the region. We recorded the first full year without crocodiles for sale in 2016, since we began recording in 2012, but after the election there was a resurgence in illegal bushmeat commerce, in particular in market restaurants. In response, we will be working with restaurant owners and the city to create a cooperative or association of market vendors. The idea is to create a shared space, with electricity/running water/toilets etc, at marché Isaac where the vendors can sell their pots of local foods. To use the space, the vendors cannot sell illegal bushmeat or they will be expelled by the other association members. Since law enforcement seems reluctant to enforce in restaurants, we will see if this could work to reduce commerce.

We suspect that by-catch in gill nets might play a larger role than actual hunting of crocodiles in this region and we'll be exploring ways to reduce by-catch in upcoming months as we work with fishing cooperatives on Oguemoué to finalize a the first freshwater fisheries management plan in Gabon and then with TNC as part of a MENTOR fish project to train professionals in fisheries management to replicate the process in other lakes and waterways in Gabon.

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Crocodile research and conservation is gaining great impetus in Ghana in recent years. The report presented herein covers the periods of June 2016-March 2018. The period under review has been very successful. Ghana's capacity in crocodile conservation has increased. For the first time in history, Ghana can boast of postgraduate crocodile researchers. Currently, there are two Masters students and one PhD candidate focusing on various aspects of crocodile research. Three undergraduate students have also successfully undertaken their theses research on crocodile while one is still ongoing. Furthermore, the Ghana Crocodile Team received training in crocodile surveys, capturing and handling techniques as well as radio tagging and tracking from Dr. Matthew Shirley, the Chairman for West and Central African Region, IUCN/SSC Crocodile Specialist Group.

In comparison to previous years, Ghana has relatively been more active in terms of crocodile research. Below are the highlights of projects initiated:

1. Spatial Ecology and Population Genetics of West African Slender-snouted Crocodile (*Mecistops cataphractus*) in Southern Ghana.

Status: Ongoing

Aim: This project aims to lay strong foundation for the long-term conservation of *M. cataphractus* in Ghana through detailed ecological and genetic studies, stakeholder engagements and awareness campaigns.

Progress: Through this project, the first two significant populations of *M. cataphractus* have been discovered at Obuasi Municipality and Tanoso. So far 62 and 30 individuals of this rare species have been recorded at Tanoso and Obuasi respectively. Furthermore, 7 individuals of *M. cataphractus* have been radio-tagged at Tanoso and monitoring is ongoing. Genetic samples have been collected awaiting laboratory analyses. Additionally, first country record of *M. cataphractus* nest has been made through this project.

2. Nesting ecology of West African dwarf crocodiles (*Osteolaemus sp. nov.cf. tetraspis*) in the Chirehin Community Land, Ghana

Status: Ongoing

Aim: This study aims to investigate nesting ecology of *O. tetraspis*.

Progress: The project has discovered one of the highest concentrations of *O. tetraspis* in West Africa. The study has also provided the first empirical evidence of natural incubation temperature dynamics and nest attendance of *O. tetraspis*.

3. Conserving the Vulnerable West Africa Dwarf Crocodiles; A Community Approach in Anweafutu

Status: Ongoing

Aim: This project seeks to assess the population status of *O. tetraspis* in Anweafutu community swamp forest and promote its conservation through awareness campaigns and capacity building.

Progress: Competition for resources (fish and snails) between locals and the species and unsustainable exploitation have been identified as major threats. Community interactions have been initiated to enhance local understanding to mitigate prevailing threats.

4. Status Survey and Customary Use of Crocodiles in Kakum Conservation Area (KCA), Cape Coast

Status: Ongoing

Aim: The project aims to assess the current population status, distribution and threats to crocodiles in KCA including determination of customary use of crocodiles by locals

Progress: Through this study, 32 individuals of *O. tetraspis* have been recorded. The major threat so far identified in the area is poaching of the species for meat.

5. Rapid Assessment of Crocodiles in the Amanzule Wetland

Status: Completed

Aim: The aim of this survey was to investigate the presence of the different species of crocodiles in the Amanzule Wetlands.

Finding: The study confirmed the presence of *Crocodylus suchus* and *O. tetraspis*.

6. Assessing the Potential of Chirehin Community for Crocodile Ecotourism, Ghana.

Status: Completed

Aim: This project sought to investigate the willingness of people of Chirehin to support crocodile ecotourism.

Findings: The study revealed high local support for crocodile ecotourism

7. Urban Ecology and Conservation of West African Dwarf Crocodile; the Case of Kumasi Metropolis, Ghana

Status: Preliminary stage

Aim: The study aims to investigate the ecology and diets of the urban populations of *O. tetraspis*

8. Hematology and Body Condition of West African Dwarf Crocodile in Southern Ghana

Status: Preliminary stage

Aim: The aim is to assess crocodile health using body condition complemented with hematology

9. Survey of West African Dwarf Crocodiles on KNUST Campus, Ghana

Status: Ongoing

Aim: The aim is to assess the status of the West African dwarf crocodile

Progress: The project has recorded 17 individuals of the species and further identified hunting and habitat destruction as the persistent threats.

10. Mitigating Human-Crocodile Conflicts: A Bottom-Up Approach in the Obuasi Municipality, Ghana.

Status: Ongoing

Aim: This study aims to resolve the existing human crocodile conflicts within communities through the use of education and the adoption of appropriate mitigation measures.

Progress: Awareness campaigns have been initiated in fringe communities and stakeholder engagements is being done to develop conflict mitigation measures

Update – DRC (by: Bashonga Bishobibiri Alexis, CRH-Uvira, bashobisho@gmail.com)

Je suis heureux de vous informer qu'après le 3^{ème} colloque du GSC d'Abidjan du 07 au 12/12 2015, j'ai eu un financement modeste de collecte des données sur les menaces qui pèsent sur crocodiles et les hippopotames des plaines congolaise, rwandaise et burundaise de la Ruzizi de janvier à août 2017. J'en ai fait la restitution à Kisangani (DR Congo) dans le colloque du 28/09 au 04/10/2017 organisé par IRSNB/CEBioS-MRV avec CSB (Centre de Surveillance de la Biodiversité) de l'Université de Kisangani en DR Congo.

Actuellement de janvier à juin 2018, je suis entrain de conduire la sensibilisation du public (administration locale, provinciale et population cible: agriculteurs, pêcheurs, éleveurs, vendeur des poissons, des oiseaux et la viande de brousse) sur la réduction des menaces qui pèsent sur les crocodiles et les hippopotames des zones humides des plaines congolaise, rwandaise et burundaise de la Ruzizi et du littoral du lac Tanganyika à Uvira.

L'objectif de ma recherche est de produire la documentation nécessaire sur la création d'une aire protégée, qui sera soumise à IUCN et à BirdLife International pour reconnaissance comme IBA (ZICO), puis au secrétariat de Ramsar pour reconnaissance comme site Ramsar congolais dans la plaine de la Ruzizi.

J'ai incessamment pris mon enregistrement en ligne comme candidat au programme de doctorat de l'Ecole Doctorale de l'Universite du Burundi sur le theme:"Ecology, Conservation and Management of crocodiles and Water Birds of the Ruzizi Plain, Northern Region of Lake Tanganyika" for three years period. Le challenge en reste les frais academiques (2500\$ par an, non encore publies officiellement) et les frais de collecte des donnees pendant deux ans.

Dans l'espoir de vous lire incessamment pour me preparer, je vous prie d'agreer, Madame et Monsieur, l'expression de mon profond devouement.

Activités Menées: Cameroun

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Introduction

Les crocodiles sont des espèces de grands reptiles qui jouent un rôle majeur dans l'équilibre des écosystèmes naturels qu'ils colonisent. Leur conservation au Cameroun connait une évolution depuis quelques années grâce aux actions concrètes et activités menées par la Cameroon Reptiles and Ecosystems Valorisation Society et ses collaborateurs. Dans le cadre du projet CROCS-WATCH plusieurs activités ont été réalisées depuis 2016 tant dans la vallée du Nkam (Zone protégée) que dans plusieurs localités du Cameroun par la CREVS et ses collaborateurs institutionnels notamment :

1- Le suivi écologique des crocodiles basé sur le suivi de chaque espèce et de son habitat

Les activités de suivi des crocodiles portent essentiellement sur :

- Identification et géolocalisation d'habitats et d'espaces de vision des crocodiles dans le Département du NKAM
- Suivi hebdomadaire des captures des crocodiles par les pêcheurs et chasseurs
- Suites d'inventaire des populations de crocodiles dans la vallée du Nkam

2- La recherche et la publication d'articles sur les crocodiles

Plusieurs activités de recherche sur les crocodiles sont en cours de réalisation au sein de la CREVS afin de contribuer à terme à l'enrichissement de la littérature sur ces Crocodiliens. Ces travaux sur l'étude des aspects bioécologiques des crocodiles présents dans les zones cibles, la cartographie de leurs aires de répartition, l'étude des aspects socio-culturels sur les valeurs sociales des crocodiles..... Un article a été publié et plusieurs sont en cours de publication en collaboration avec d'autres chercheurs des Universités Camerounaises.

- **C.T. TIOGUE, M. E. TOMEDI-TABI, D. A. ETABA et F. D. N. MAKONGO.**

Caractérisation socio - technico - économique de la pêche artisanale du crocodile nain Africain *Osteolaemus tetraspis* (Cope, 1861) dans l'arrondissement de Yabassi, Littoral Cameroun. Int. J. Biol. Chem. Sci. 10(3): 1027-1036, June 2016. Available online at <http://www.ifg-dg.org>.

- Régime alimentaire du crocodile nain Africain *Osteolaemus tetraspis* (Cope, 1861) dans le département du NKAM au Cameroun (en cours de publication)
- L'élevage des crocodiles au Cameroun : Etat des lieux et perspectives (en cours de publication)

3- La création d'un « Club des Amis des Crocodiles » dans la vallée du Nkam constitué de quelques pêcheurs, étudiants et de volontaires

Coordonner par la CREVS depuis le début de cette année 2018, le club des amis des crocodiles est un groupe qui vise la participation des communautés locales dans la gestion des crocodiles à Yabassi à travers la sensibilisation et la recherche scientifique.

4- La collaboration avec les ONG et les pouvoirs publics

Plusieurs activités ont menées en collaboration avec des structures décentralisées des ministères de la faune (MINFOF) et celui de l'environnement de la protection de la nature et du développement

durable (MINEPDED). C'est le cas de la célébration des journées mondiales de l'environnement (5 juin), et celles de la faune sauvage (3 mars). Des campagnes de sensibilisation des populations riveraines, des séminaires de présentation des résultats préliminaires de recherche sur les reptiles (crocodiles et mammifères aquatiques) et le reboisement d'espaces vides constituent l'essentiel d'activités menées durant ces journées.

Un partenariat a été établi en 2017 entre une ONG nationale (AMCO) et la *Cameroon Reptiles and Ecosystems Valorisation Society* (CREVS). Plusieurs collaborations sont envisagées avec des ONG internationales établies au Cameroun.

- **Nouveau projet**

- **Le projet de reproduction des crocodiles du Nil à Yabassi est envisagé.** Ce projet vise à étudier les caractéristiques de reproduction de l'espèce, identifier les périodes et sites de ponte. Les œufs récoltés en milieu naturel seront incubés en écloserie-nurserie.

Conclusion

La conservation de la faune sauvage menacée est un processus qui demande d'énormes efforts aussi bien des pouvoirs publics que d'Organisations Non Gouvernementale et l'implication des communautés villageoises. La prise de conscience par les populations sur les menaces qui pèsent sur les crocodiles et la mise en place d'un plan de gestion efficace à termes constituent nos motivations au quotidien.

Update – Cameroon (by : Ekke Waitkuwait, wewaitkuwait@gmail.com)

In Cameroon, a growing number of conservationists (NGO and NP staff), interested in crocodiles can be confirmed by me. As far as I can overlook, there are unfortunately not really concrete activities undertaken, still being in the stage of financial searching.

- Interest to integrate (*C.niloticus*?) crocodile management for Lake Ossa (ZSL) in faunal reserve Douala –Edea.
- Interest to rehabilitate (*C.suchus*) crocodile enclosures in the Garoua Zoo (North), manifested by the Zoo Director (MINFOF staff)
- Preparation of plans to monitor wild crocodiles (*C.suchus*) along the Benue River in Benoue NP (North), census by drones under discussion, NP director and MINFOF staff
- Interest to include a (*C.suchus*) crocodile study in the research programme of Wildlife school in Garoua (North)

Update: Sierra Leone

Edward Aruna, Founder/Managing Director, Reptile and Amphibian Program – Sierra Leone (RAP-SL), email: edwardaruna@rapsl.org, edwardaruna@yahoo.com
Gabriel Madiye, Board Chair, Save the Crocs Initiative, email: sheperdshospice@yahoo.co.uk

Summary Report

Three species of crocodiles are known to occur in Sierra Leone, the three include the West African crocodile (*Crocodylus suchus*), West African dwarf crocodile (*Osteolaemus sp. nov. cf. tetraspis*) and West African Slender-snouted crocodile (*Crocodylus cataphractus*) (Zug, 1987; Okoni-Williams et al, 2004; Aruna et al, 2013, 2014, 2015). Though little scientific or research information exists about their occurrence in Sierra Leone, it is widely believed that the Dwarf crocodiles occur in a large number at the Mamuta Mayosso Wildlife Sanctuary (Okoni-Williams, et al 2004), while also the dwarf and the other two species are sparsely distributed in streams, estuaries and other wetland areas in Sierra Leone.

According to biodiversity assessments surveys carried out by various institutions including the Conservation Society of Sierra Leone (CSSL), Wildlife Conservation Division of the Ministry of Agriculture, Forestry and Food Security, Institute of Marine Biology and Oceanography, Save the Crocs Initiative, Reptile and Amphibian Program – Sierra Leone, and results of ESIA studies carried out around the country by various consultancy firms, crocodiles are known to occur in many parts of the country. Of the known three species, the Dwarf and West African crocodiles are the most common species.

Though crocodiles are particularly hunted for meat within the southern region of Sierra Leone, they are not targeted in the northern region. Generally, juvenile crocodiles sometimes entangle in local fishing nets and once trapped or sometimes found astray due to extensive flooding; they are either kept as pet or killed. This happens because locals are not adequately aware of laws that prohibit the keeping as pets and killing of crocodiles in Sierra Leone and the situation has resulted in the Save the Crocs Initiative Sanctuary to confiscate about 150 juvenile crocs comprising largely of West African Nile and Dwarfs from around the country. Others isolated cases include three domestic pet facilities known to exist in Bo (Western African Crocodile), Eastern Freetown and Kenema. There is one that has been habituated in the Western Area Peninsula Forest at Tokeh village. (<https://www.youtube.com/watch?v=VpiCZgMg-2E>).

In order to curb these situations, the Wildlife Conservation Unit at the Ministry Agriculture, Forestry and Food Security has over the years been working on improving and enacting the Wildlife Conservation Act of 1972. The document has been finally updated and enacted. All species of crocodiles in Sierra Leone are included as prohibited and protected animals.

Being that the wildlife laws of Sierra Leone presently prohibit the keeping of crocs as pets, some locals have abstained from the keeping of crocodiles as pets. All present species in captive will be release to the wild in the nearest future though this is a challenging issue at the moment.

There is presently no dedicated survey, monitoring or research on crocodiles in Sierra Leone; all reports about their occurrence in the country are incidental and anecdotal. RAP-SL is presently searching for funds for a national survey of reptiles and amphibians of Sierra Leone in order to establish a comprehensive list of reptile and amphibian species of Sierra Leone with enough evidence including photos and videos where possible. In the interim, RAP-SL is documenting reptiles and amphibians across the country through opportunistic encounters and ESIA surveys.

In RAP-SL's many survey trips around the country; there has recently been report of crocodile meat sales in Bonthe town market. This is as a result of the resurfaced trapping exercise in the Bonthe District, mainly in Bonthe town but RAP-SL is working with the Wildlife Conservation Department of MAFFS on curbing the hunting/trapping situation.

Crocodiles are included in the reviewed wildlife act of Sierra Leone as prohibited species. This status however accords them protection and conservation, but at present there is particularly no special prioritized research on the species. RAP-SL, been a biodiversity conservation NGO, is undertaking low key survey of all reptile species in the country during its ESIA consultancy surveys. However, the National Protected Area Authority (NPAA) is with the full intention of assessing the biodiversity status of all protected areas and also ensuring that all protected/prohibited species are protected together with their habitats.

At regional level, the need for crocodile protection and implementing projects for their conservation is invaluable. Sierra Leone in working towards the conservation of the species, since they have been included in the wildlife conservation act and also at local level, community leaders have bylaws in place that cater for the protection of crocodiles in many communities across the country.

Aruna, E. (2015) Environmental Impact Assessment of the TIMIS Mining Company, Herpetofauna Species Assessment Report. Page 20, (unpub)

Aruna, E. et al (2014) Report on the Herpetological Survey in the Western Area Peninsula Forest and Environ. Page 12 (unpub)

Aruna, E. Johnny, J. & Jalloh, J. (2013): Follow-up Survey of Reptile and Amphibians of Bumbuna H Hydroelectric Project Area. Pages 10, 25 (unpub).

(<https://www.youtube.com/watch?v=VpiCZgMg-2E>).

Okoni-Williams, A.D., Thompson, H.S., Koroma, A.P. and Wood P. 2004. Important Bird Areas in Sierra Leone: Priorities for biodiversity Conservation. Conservation Society of Sierra Leone and Forestry Division, GOSL.

Zug, G. (1987) Amphibians and Reptiles of the Outamba-Kilimi Region, Sierra Leone. *Journal of Herpetological Association of Africa*. 33:1-4.

1. Monitoring des crocodiles

Au cours des deux dernières années, au total douze (16) crocodiles ont été capturés. Il s'agit de dix (13) crocodiles nains et trois (03) crocodiles de l'Afrique de l'Ouest. Parmi les trois *suchus*, un était blessé (photo 2) et a reçu les soins nécessaires avant d'être libéré. Pour rappel, nous faisons un suivi des crocodiles avec la méthode de capture-marquage-recapture. Le constat est qu'une fois encore, le taux de recapture est très faible. En effet sur les douze crocodiles, seul un (crocodile nain) a été recapturé. Pour la toute première fois, CREDI-ONG a enregistré la naissance de deux crocodilons (figure 1) issue d'un couple de crocodile détenu en captivité dans notre Refuge Animalier de la Vallée du Sitatunga.

2. Education des jeunes sur les crocodiles

CREDI-ONG dans sa mission de protection de l'environnement, accueille des milliers de jeunes venus des établissements d'enseignement maternel, primaire et secondaire. Un des points particuliers des visites est l'amélioration de leur connaissance sur les crocodiles. De ce fait, près de trois mille visiteurs dont 80% des scolaires ont bénéficiés de ce partage de connaissance car pour la plus part, c'est la 1^{ère} fois ils observent et certains ont touché à l'animal.



Figure 1. Lâcher de crocodile (à gauche) et crocodile nouveau-né (à droite)



Figure 2. Soins au crocodile de l'Afrique de l'Ouest

3. Participation

CREDI-ONG a participé à deux missions de recherche sur les crocodiles au Bénin. Il s'agit :

❖ De la mission exploratoire d'observation du faux gavia d'Afrique de l'Ouest (*Mecistops cataphractus*) dans la Réserve de Biosphère de la Pendjari dont figuraient dans l'équipe de recherche Damien Martin, le Directeur Technique et Georges C Hédégbétan, le Chargé du Suivi de la Biodiversité. La mission s'est déroulée du 16 au 25 mars 2017. 250 crocodiles ont été dénombrés, tous identifiés comme *Crocodylus suchus* et avons détecté une cinquantaine de terriers.

❖ De la mission exploratoire sur les crocodiles dans la réserve de biosphère transfrontière du Delta du Mono principalement dans les départements du Mono et du Couffo. Dans les deux départements, six communes pour dix sites ont été visité. Deux espèces (le nain et le crocodile de l’Afrique de l’Ouest) ont été observées.



Figure 3. Education des jeunes sur les crocodiles

Update – Burkina Faso (by : Ilassa Ouedraogo, Universite de Ouagadougou ilorescap@yahoo.fr)

Traditional beliefs and conservation of *crocodylus suchus* (Etienne Geoffroy Saint-Hilaire 1807) in the sacred sites of Bazoule and Sabou (Burkina Faso) (*in press*)

From January 2016 to May 2017, *crocodylus suchus* of two sacred pools in the rural communes of Bazoule and Sabou (Burkina Faso) were regularly monitored. The objective was to highlight local perceptions of this reptile, identify the anthropogenic factors that determine its distribution on each pond and capitalize on endogenous conservation measures. The results of this study suggest that traditional beliefs play a very important role in the protection and conservation of *crocodylus suchus* in Bazoule and Sabou villages. Local attitudes and perceptions of crocodile populations have been studied from an ethno-zoological approach based on interviews. A total of 268 crocodile individuals were counted at Bazoule, 10% of adults; 12% subadults; 17% of juveniles and 25% of newborns over a total distance of 22.80 km or a meeting rate of 11.75 crocodiles / km. In Sabou, 249 crocodile individuals were counted, or 14% of adults; 12% subadults; 12% of juveniles and 22% of newborns with a meeting rate of 13.11 crocodiles / km. Despite the different perceptions and traditional beliefs that provide some protection for crocodiles in these pools, the reptile lives in a state of stress due to the strong pressures of human activities generated by users of the pools. The anthropogenic activities that most influence the distribution of crocodiles in the sacred pools of Sabou and Bazoule are fishing, market gardening, nurseries, brick making, bathing, uncontrolled tourism, water withdrawal and plots of land.

Other Articles in writing:

- 1. Impact of anthropogenic activities on the abundance of crocodiles within the Nazinga Game Ranch, (Burkina Faso)**
- 2. Impact of road construction on distribution of *Crocodylus suchus* (Étienne Geoffroy Saint-Hilaire 1807) in the urban park Bangr-Weoogo (Burkina Faso)**

In addition to these research activities, we had exchange meetings with the populations of six villages in Burkina Faso. These meetings focused on the methods of protection and conservation of crocodiles and the Human-Crocodile conflicts.

Update – Zoo National d’Abidjan, West African slender-snouted crocodile conservation breeding program (by: DIGBE DOUE BARNABE, douesokuya@yahoo.fr)

Cette année l'élevage des faux-gavials du zoo national d'Abidjan compte améliorer son système. D'abord nous comptons identifier tous les nids qui meublent la superficie du lieu de ponte des crocodiles. Chaque nid doit être numéroté et ensuite détecter la femelle qui utilise le nid. Notre objectif c'est de savoir si ce sont les mêmes femelles qui pondent ou bien c'est une autre femelle.

Nous voulons aussi conserver un nid avec ses œufs jusqu'à l'éclosion. Car depuis 2013 où nous avons commencé cet élevage, nous avons toujours utilisé les incubateurs ; mais cette année nous voulons expérimenter le système naturel pour voir ce que cela peut nous offrir à la fin.

TABLEAU DES ŒUFS RECOLTES DEPUIS 2014- 15/02/2018

Années	2014	2015	2016	2017	2018
<i>récoltes</i>	04	05	01	08	02
<i>Nbre d'Œufs</i>	84	110	11	158	73
<i>Œufs retirés</i>	17	0	0	20	03
<i>Œufs avec bande</i>	63	110	07	70	50
<i>Œufs sans bande</i>	21	0	04	68	20
<i>Œufs pourris</i>	37	42	06	128	
<i>Œufs avec embryon morts</i>	06	43	05	05	
<i>vivants</i>	22	24	0	01	
<i>Décès les jours qui ont suivis</i>	05	02	0	01	

Compte tenu de la mauvaise expérience des deux dernières années (2016 et 2017), nous voulons essayer l'expérience des deux incubateurs, c'est-à-dire l'incubateur à chauffage et l'incubateur sans chauffage. Nous voulons exploiter ces deux sortes d'incubateurs, en y mettant des œufs et voir en fin d'éclosion lequel nous fournira un meilleur résultat avec tous les problèmes de variation de climat, de coupures intempestives d'électricité dans notre secteur et certains aléas climatiques que nous ne maîtrisons pas.

Voilà de manière brève ce que nous comptons faire pour l'an 2018 pour palier nos faiblesses des deux dernières années où nos résultats n'ont pas été satisfaisants. Car notre premier souci, c'est de tout mettre en œuvre pour sauver cette espèce en voie de disparition. Notre mission c'est de produire suffisamment cette espèce *Mecistops cataphractus* ou faux gavials pour enrichir nos cours d'eau. Pour nous cet objectif ne pourra être atteint qu'en pratiquant un élevage très pointu au ZOO NATIONAL D'ABIDJAN avec un personnel qualifié et dévoué pour la cause.