

## PROGRESS REPORT

### Status survey and conservation of the West African Dwarf Crocodile in the Bono-East Region of Ghana

#### Introduction

The project has begun and is running smoothly without any major challenge. We commenced the project with community entry techniques to grasp local norms, beliefs, and ethics. This progress report focuses on Paniamisa community with surveys in Chirehin community currently underway. For fieldwork, we conducted diurnal reconnaissance surveys to identify threats and concurrently establish transects for population assessment. We conducted crocodile surveys on foot using nocturnal spotlight methods on predefined routes and detected crocodiles using LED headlamps. We approached each detected crocodile to visually estimate its total length, categorizing individuals as hatchlings, juveniles, subadults, or adults. We recorded individuals as "EO" (eyes only) only if they submerged before we could determine the size class. Using the Rapid Assessment and Prioritization of Protected Area Management Methodology, threats in the habitat were assessed, identifying and categorizing threats to terrestrial and aquatic ecosystems (Rao et al., 2007; Salafsky et al., 2003).

#### Preliminary Findings

Across a surveyed distance of 18 kilometers, we observed 133 direct encounters of individuals of the West African dwarf crocodile (*Osteolaemus tetraspis*, (now *afzelii*)). The population structure shows a dominance of juveniles (50 individuals), followed by adults (29), sub-adults (18), hatchlings (20) and EOs (16). The presence of all stages of life suggests ongoing reproduction and a potentially viable population in the area.

Habitat patterns show that crocodiles were most frequently associated with fallen trees and debris habitats (46 observations) and open water areas (33), followed by vegetation edges (25) and burrow entrances (20). Only a few individuals were found under riverbanks (9). This suggests that woody debris and structurally complex aquatic habitats provide important shelter and ambush sites for the species.

Major preliminary threats identified including illegal logging of trees and clearing of critical nesting habitat for dry season vegetable farming and the excessive of synthetic agrochemicals.

Overall, the survey indicates that Paniamisa provides suitable habitat conditions supporting multiple life stages of the West African dwarf crocodile, with habitat structures such as fallen trees, debris, and vegetated edges playing an important ecological role. Continued monitoring and habitat protection will be important to ensure the long-term conservation of this species in the area.

#### Next Steps

- **Conduct ecological surveys:** we will undertake population assessments in Chirehin community land and repeat surveys Paniamisa.

- ***Socioecological Survey:*** Conduct household and market surveys targeting at least 300 knowledgeable individuals, including farmers, traditional leaders, and community members (Salafsky et al., 2003) using an interview guide and six focus group discussions.
- ***Threat Assessment and Data Collection:*** Conduct ecosystem threat assessments, classify threats using local knowledge and previous surveys, and collect environmental data.
- ***Species Distribution Analysis:*** Use population and environmental data to model the distribution of the West African dwarf crocodile across terrestrial and aquatic habitats of the sites.
- ***Community Awareness and Stakeholder Engagement:*** Implement awareness and education activities including community presentations, school conservation programs, billboards, radio programs, YouTube outreach, and stakeholder information sharing.
- ***Monitoring, Evaluation, and Reporting:*** Track project performance using KPIs, conduct pre- and post-awareness surveys, assess habitat threat changes, and produce reports for stakeholders and peer-reviewed publications.



Adult West African Dwarf Crocodile



Hatchling West African Dwarf Crocodile