ARGOS TRACKING TO UNDERSTAND THE ECOLOGY AND BEHAVIOUR OF AGAMI HERONS

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Abstract
The Agami heron is ranked 13th among the world’s conservation priority heron species, and 2nd for the Americas. To date, nothing is known about the areas used during the breeding and non-breeding seasons. In French Guiana, which holds the world's largest Agami heron colony (representing over 95% of the known population), the location and characterization of these habitats as well as the identification of the geographic location and routes travelled by breeding and non-breeding individuals is crucial in order to evaluate the threats on the species and develop an effective conservation action plan both in the department and throughout its distribution in South and Central America. To achieve this objective, GEPAG (Group for the Study and Protection of Birds in French Guiana) is tracking agami herons since 2012 via the European LIFE+ Cup DOM program. Data from one Agami Heron fitted with a satellite transmitter in 2012 showed that this species migrates and is able to cover the distance from French Guiana to Venezuela of about 1,100 km within two months, including several stop-overs. During breeding season, this individual had a home range of about 95 km² covering the colony surroundings and two feeding sites located in marshes and mangrove forest. This study is pursued in 2013 with 5 other individuals equipped in April with satellite transmitters which are able to work at least 1 year, depending on the environmental conditions.

Introduction
The Agami heron is:
- one of the most cryptic and unknown heron species of the Americas
- scarce throughout its distribution in North-Eastern South America and Southern part of Central America
- just updated to “Vulnerable” by the IUCN Red List because it is suspected to lose 10–20% of suitable habitat within its distribution over the next three generations
- one of the French Guiana flagship bird species thanks to the colony of over 2,000 couples found in the Natural Reserve of the Kaw marshes

Objective: enhance the understanding of the ecology and behaviour of this species through Argos Tracking

Materials and Methods
Study conducted between 2012 and 2015 → April 2012: 2 males + 1 female; April 2013: 3 males + 2 females
Material: NorthHutle 20g battery and 12g solar PTTs (USA); Bureau Waddenfisch harness (Netherlands)
Procedure:
2) Step 1: Capture with two 12m nets near to the colony
3) Step 2: Biometry measures, selection of birds to be equipped
4) Step 3: Equipment, choice of PTT and harness

First home range Results
1 PTT worked in 2012: Eliot, a male equipped with a 20g battery PTT
Between 24th of April and 8th of July, Eliot did several round-trips between the colony surroundings and two feeding spots in orange and mangroves

Discussion/Conclusions
Conclusion: Agami herons migrate long distances → Need of international cooperation at the continent level for conservation efforts
Perspectives:
3 PTTs working in 2013: 20g battery PTTs → July 2013: 1 bird in Suriname; 1 bird in the Kaw marshes and 1 bird in the Parque Nacional de Cabo Orinoco, Brazil

Acknowledgments

References

Bibliography