

*(Harpia harpyja)*

# the Harpy Eagle:

## Leading to Community

By Elizabeth King Humphrey '03M

**A** new community of conservationists is taking flight in Belize.

It started by monitoring a bird.

Mind you, it is the Harpy eagle, a big bird to monitor. Weighing as much as 20 pounds, with a wingspan that reaches up to 7 feet, the Harpy eagle commands attention.

But observing such large birds of prey is only part of what Jamie Rotenberg, assistant professor of environmental studies, has been accomplishing in Belize for the past five years. He is also involving local residents in the conservation of their environment.

Rotenberg, along with researchers at the Belize Foundation for Research and Environmental Education (BFREE), started a Harpy eagle monitoring program after a juvenile bird was first spotted in 2005. In 2010, the researchers

discovered what is thought to be the first active Harpy eagle nest in the Bladen Nature Reserve in the Maya Mountains of Belize.

According to Rotenberg, Harpy eagles are “essentially endangered” predatory birds, across most of Central America north of Panama. They have long been considered “critically endangered in Belize, due to habitat loss and harassment by people shooting them,” says Rotenberg.

In addition to gathering information about the Harpy Eagle, the group monitors other Belizean birds.

“We’re collecting long-term data, nearly 10 years or more, of which we’ve collected five years,” Rotenberg explains. “It is the first long-term data set ever collected in the Mayan Mountains.”

Rotenberg is also building a multi-faceted, active alternative livelihood strengthening program.

The livelihood program and its community outreach have trained and hired nearly a half-dozen people from local villages to become avian technicians who live at the field site.

“Many times in Belize and lesser-developed countries, you have scientists, like myself, who do their work and then leave. Many times they might hire a field assistant as a guide or porter, but the field assistants don’t really learn anything from it,” Rotenberg says. “So nothing is really left with the community or left with the local people, in terms of benefitting them other than the scientific research.”

Rotenberg wanted to take a different approach in Belize by actively involving local residents in the research and conservation of their environment. Part of the avian technicians’ job is outreach education into their communities.



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“Unfortunately for many locals, Harpy eagles have a negative connotation. They are analogous to our ‘boogie man’ in some of today’s Mayan folklore,” Rotenberg says. “The technicians become the conservation ambassadors. And they go into the villages, many times where they are from, and explain why birds are important, why kids shouldn’t be trying to shoot them with slingshots, and the kids listen. They explain why Harpy eagles are important, and why the national preserves are important. They really listen.”

And the livelihood project has flourished. William Garcia, one of the technicians, has embraced his job by taking part in the U.S. National Park Service Park-flight Internship, which teaches how to band and count birds and all the monitoring methods of an avian technician. Garcia’s six-month

internship was at the Klamath Bird Observatory in Oregon, and he did his internship nearby at Crater Lake.

Garcia had no formal education and didn’t know how to work a computer before the Harpy eagle project, but he has become the lead person on the Belize project. He is now in charge of on-the-ground operations for Rotenberg and has also submitted a paper for submission to the fifth North American Ornithological Conference, a conference that gathers “3,000 crazy ornithologists” every four years, Rotenberg says. Garcia also received the Emerging Wildlife Conservation Leaders award from Defenders of Wildlife.

The successes with the avian technicians gave Rotenberg and Jeff Hill, professor of

environmental studies, the inspiration to create a pilot avian technician training program at the field site. University of Belize students will visit the site once a month during the next academic year. They received a Cahill Grant through UNCW to help with the initial funding.

“We hope to train a whole new set of people to be, not only, conservation aware but also to work in the field. There are jobs available, but people don’t have the education to actually do it.” They will run it, using the model of applied-learning UNCW models, Rotenberg says. “At the end, we hope to then apply for another grant to embellish the program.”

And, perhaps, build an even bigger community of avian technicians.



JAMIE ROTENBERG

SAM MEACHAM

A house in the Maya village of San Miguel in the Toledo District. Inset, Jamie Rotenberg in the Bladen River.



JAMIE ROTENBERG

## AN INTERVIEW WITH WILLIAM GARCIA

### **How did you become involved with the project?**

I did an application for a job in the Bladen Nature Reserve as a ranger but did not get it, so I asked for a job with the Belize Foundation for Research and Environmental Education, and I was hired as the gardener. Jacob Marlin, founder of BFREE, was looking for interested people to work on the [Jamie Rotenberg] project so I applied for the job and got it.

### **Why did it interest you to become involved?**

The first year, I was just working for the money since it was good salary. But after working for a year and seeing that I was learning a lot of things about birds and Harpies, I started getting really serious about it. It was like getting paid to go to school.

### **What is your favorite part of the work you do on the project?**

I will say everything. I enjoy doing this kind of work, but what I really like the most is the environmental education program that we do every year. I feel like I am doing something that will change the minds of people about our environment.

### **What is it about the work that made you become interested in becoming an avian technician and now a recognized leader in your field?**

Well, after working for the first year on the project, I saw the potential for me to further my education and, by learning as much as I can about birds, it was going to help me in my future. Also, I saw that BFREE was offering me many training opportunities, and this was my chance for a change in my life.

### **Do you also go into the local community to talk to adults or children about the Harpy eagle and conservation? If so, what are some of the responses to the studies that UNCW is conducting?**

Yes, we do go into the local villages to talk about our work. First, when the project just started, the responses were not comfortable because people were thinking that I was planting marijuana at BFREE. After we started the environmental education programs, we started getting feedback like: The work you are doing is great. When can we go to BFREE and you can talk about Harpies? How can I get involved with the program? Let's protect these birds of prey, they live on our backyard. Are these education programs going to happen every year? I want to be involved in them. We are very lucky to have this bird in Belize.

### **What direction do you hope to take in your career?**

I hope to further my education in the future because I have only finished primary school. I also want to do more environmental education. I hope to train as many people as I can about birds and conservation and hope to make an impact so people start thinking differently about the environment.

### **What are the most amazing things you have learned about the Harpy eagle?**

I will say that everything that I have learned about the Harpies is amazing. I did not know anything about them and monitoring them up close was just amazing for me. Watching the juvenile Harpy interact with the parents was just amazing.

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William Garcia in the Bladen River.