

# The Nigerian Guenon in Southern Nigeria: Outlook Good or Just Hanging On?



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**DATE**: Report covers research period from September 2005-June 2006.

**SUMMARY**: The following data summarize the activities completed by Lynne Baker for her research project on the Nigerian guenon (*Cercopithecus sclateri*) in southern Nigeria.

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#### I. ACTIVITY SUMMARY

- 1) Completed study in Lagwa, Imo State, which included interviews with more than 200 people, five shrine priests, and other community leaders; a census of the primate population; measurements of sacred groves; inventory of Christian churches; and evaluation of the status of current and past shrines. (*Preliminary data analysis results on this study are included in this report.*)
- 2) Completed study in Akpugoeze, Enugu State, which included interviews with 300 people, three shrine priests, and other community leaders; a census of the primate population; measurements of sacred groves; inventory of Christian churches; evaluation of the status of current and past shrines; collection of historical data on clan divisions within Akpugoeze; and mapping of community boundaries. (*Preliminary data analysis results on this study are included.*)
- 3) Completed occupancy survey of diurnal primates in the Edumanom forest area in the Niger Delta from early January through March 2006. This study occurred in two community forests, those owned by Emago, Rivers State, and Okoroba, Bayelsa State. Study included surveying 16 transect-based plots; 1 elongated plot; and 40 plots, each measuring 6.25ha. The Nigerian guenon occupied 14 plots, the mona monkey 3 plots, and the putty-nose guenon 1 plot. I hope to complete analysis on this section of the project by February 2007.
- 4) Follow-up correspondence regarding initial study results and ideas for future research, conservation, and development for both Lagwa and Akpugoeze communities was made with the following people and organizations: Lagwa community leaders; Imo State Director of Forestry; Imo State Commissioner of the Ministry of Commerce, Industry, and Tourism; Akpugoeze community leaders; Enugu State Governor; Enugu State Director of Forestry; director of the Enugu Tourism Board; and Enugu State Commissioner of the Ministry of Information, Culture, and Tourism.

#### II. 'SACRED' MONKEYS OF LAGWA & AKPUGOEZE

Previous visits to Lagwa and Akpugoeze in 2004 facilitated my access to these communities, as well as preparations for work there. In Lagwa, we<sup>1</sup> initially stayed in Ezido village with the family of Chief Cosmas Onyeneke. Due to local conflict over the appointment of a new Eze (the traditional paramount ruler in Igbo culture), after our first few weeks, we needed to relocate to the independent, and thus impartial, village of Umunokwu. (Umunokwu received autonomous community status a few years ago, but I will refer to Lagwa and Umunokwu herein as "Lagwa".) During our stay in Lagwa, the Imo State Government issued an official white paper on the political conflict. In June 2003 this crisis escalated and resulted in the burning and destruction of several buildings, injury to several people, and the death of one person. The government recommended holding an election and identified those responsible for initially bringing about the crisis; the situation is still yet unresolved.

Conducting research in Lagwa during this stressful time in the community proved a bit challenging. Fortunately, by maintaining an unmistakably neutral stance, we were able to acquire the information needed and have productive, positive meetings with members of both "sides" of the Ezeship issue. I do, however, foresee this division in the community as a significant obstacle for any future primate research, development, or conservation-related activities. It is very difficult, if not impossible, to initiate any such activities in a community with no clear leadership. For example, it is uncertain who would control and

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<sup>&</sup>lt;sup>1</sup> Herein, "we" refers to the research team: me and three Nigerian research assistants: Debo Tanimola, Oluseun Olubode, and Rose Bassey.

apparent collaboration with one group or the other could conceivably end in further bloodshed. I was able to speak openly about this with community leaders, who agreed with me about this concern and said they would keep me informed of any developments.

#### Analysis of Interview Data

The sampling procedure involved 1) stratifying the Lagwa and Akpugoeze communities by number of villages, 2) collecting data on the number of households in each village (initially grouped by either kindred or family compound), 3) numbering each household within the villages, and 4) using a random-number generator to select households.

Although Umunokwu is now an autonomous community, it remains closely tied to Lagwa in that they share the same schools, market, culture, etc. As such, it was not treated as separate. In Akpugoeze, there are just two villages in the community that protect monkeys (Umuokpasialum and Amagu). Thus, we divided these two villages by ward, as well as divided the larger village of Umuokpasialum into its two major divisions: Abo-Abo and Ofemmili. We also conducted 100 interviews in the villages that do not protect monkeys (and never have). It is important to understand the attitudes of these people toward the monkeys, whether they ever encounter the monkeys in their villages, and if they now see or could see any benefit or value to having the monkeys present in the overall community.

Within each household, we determined the number of persons in residence, noted gender and age, numbered each person who was at least 12 years old, and then randomly chose one person to interview. We selected informants by drawing a number out of a bag; the

senior male member of the household normally selected the number after formal introductions were made. This method not only was transparent to everyone, but also helped us avoid making many additional, not-for-analysis interviews with heads-of-

Interview Breakdown: LAGWA					
Village	% Total				
Ezido	34	16			
Obo	11	5			
Okwuta	20	10			
Umuabazu	35	17			
Umunoke	23	11			
Umunokwu	45	22			
Umuokere	22	10			
Umuosi	18	9			

household who protested that their wives or children "know nothing about the monkeys."

The total number of persons per household ranged from one to eight. I had previously considered randomly choosing one person per family compound, but in Igbo communities, compounds are generally very large, easily consisting of 20 or more people. Thus, I determined that creating a numbered list from 20, 30, or more potential informants and then randomly choosing a number from a bag now full of numbers would have been excessive and unproductive.

The number of persons interviewed per village was determined from the total household count (adjusted for families that are no longer resident), discussions with community members, and our movements in the community. In Lagwa, Umunokwu is largest in terms

of population. Because it is currently autonomous, I further subdivided it by its eight villages and conducted as many as interviews in each village as is

Interview Breakdown: AKPUGOEZE					
Village (Ward) # of Interviews % Total					
Abo-Abo	72	35.5			
Ofemmili	72	35.5			
Amagu	58	29			

proportionate to the village's size in Umunokwu. The final breakdowns for both Lagwa and Akpugoeze are shown in the tables on the previous page.

Initial data analysis provides preliminary information about the population of each community in terms of demographics and attitudes toward the monkeys. Of the 208 informants interviewed in Lagwa, 112 are female and 96 male. All males are indigenes of the community, while 70% of the females are non-indigenes, who typically entered the community through marriage. Assuming the random sample is representative of the population of the community, roughly 38% of Lagwa residents are non-indigenous females. In Akpugoeze, random sampling resulted in interviews with 99 females and 103 males. Female interviewees included 34 non-indigenes and 65 indigenes. Only one male interviewed was not from Akpugoeze.

I have thus far evaluated responses to two key questions to find out if any significant differences exist in relation to three variables: gender, indigenous status, and village of residence. The questions are:

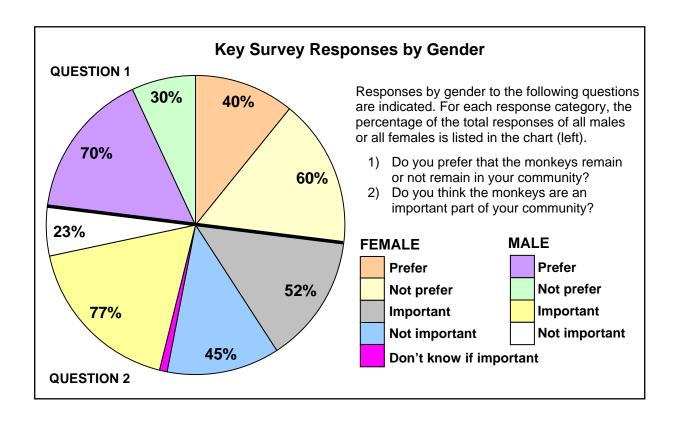
- 1) Do you prefer that the monkeys remain or do not remain in your community?
- 2) Do you think the monkeys are an important part of your community?

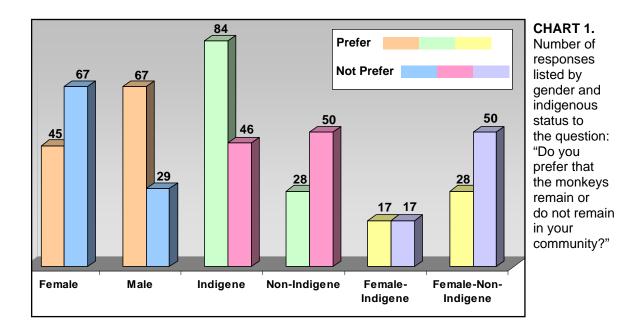
#### LAGWA RESULTS

# Question 1: Prefer or Not Prefer Monkeys

For gender and indigenous status, a  $\chi^2$  test with Yates' correction and Fisher's exact test were used (Fisher p-values are listed where they differ from  $\chi^2$  values). Results indicate there are significant differences between males and females ( $\chi^2$ =17.07, df=1, p-value=0) and indigenes and non-indigenes ( $\chi^2$ =15.04, df=1, p-value=0), but not between indigenous and non-indigenous females ( $\chi^2$ =1.42, df=1, p-value=0.2). Number of responses per group is listed in Chart 1, next page.

Regarding village of residence, the test result was significant at the .05 level: ( $\chi^2$ =14.68, df=7, p-value=0.04). Individual logistic regression analyses were also conducted on the

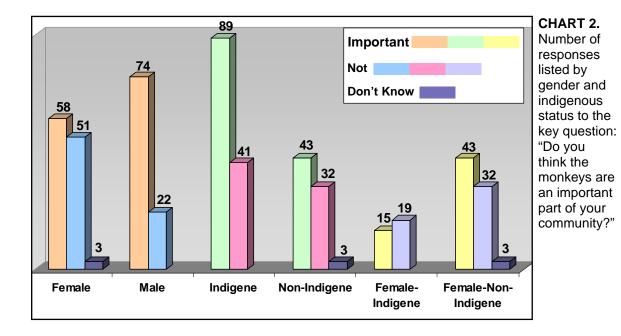




variables. Analysis-of-variance (ANOVA) results for the fitted village model indicate some variation among villages (F=2.2, df=7, p-value=0.03). The more deviant results are from Ezido, which largely does not prefer the monkeys, and Umuosi, which largely prefers the presence of the monkeys. It is important to note that Ezido has two, possibly three, resident monkey troops, while none occurs in Umuosi. As such, Ezido residents more commonly encounter the monkeys and have to cope with their destructive behaviors more often.

#### Question 2: Monkeys are Important or Not Important

Results to this question indicate there are significant differences between males and females ( $\chi^2$ =11.67, df=1, p-value=0), but not between indigenes and non-indigenes ( $\chi^2$ =2.11, df=1, Fisher p-value=0.13). Among female informants, indigenous status is not significant ( $\chi^2$ =1.15, df=1, Fisher p-value=0.22). Three female non-indigenes answered "don't know"; these answers are excluded from the analysis. The number of responses per group is listed in Chart 2, next page.



With regard to the variable village of residence, the test result was not significant  $(\chi^2=12.76, df=7, p\text{-value}=0.08)$ . ANOVA results on the fitted logistic model confirm no significant variation among villages (F=1.92, df=7, p-value=0.06).

#### **Advantages & Disadvantages**

Respondents in Lagwa overwhelmingly (92%) consider the monkeys' destruction of their crops and fruits as a disadvantage. Monkeys are even known to enter people's households when they are away, such as entering the kitchen to take cassava, eggs, or other food items. The second most noted disadvantage (18%) was that monkeys damage the zinc on rooftops. Two respondents noted that the monkeys scare children. One said they are demonic ("from the shrine"), and another said if you kill a monkey, you will have problems in the future. These were the disadvantages cited by respondents. Fourteen people believe that there are no disadvantages to the monkeys living among them.

There is more variation in the responses regarding advantages to having the monkeys present. The No. 1 advantage (noted by 25% of the interviewees) is that the monkeys are fun to watch and play with; 20% said the monkeys attract tourists and visitors; 18% said the monkeys are a symbol of the community or provide the community with an identity; and a few respondents said the monkeys drop fruits from trees for children.

#### **Churches, Sacred Forests, & Shrines**

In Lagwa, particularly when compared to Akpugoeze, there are very few remaining sacred groves. The ones that do remain are degraded and nearly devoid of large and/or economically valuable trees. The average size of Lagwa's protected forests is only 0.49ha (see table, next page). In 2004 I sighted primates several times in one of the larger sacred forests, but during this study, I found only people cutting and sawing trees within its boundaries and never detected primates in this forest after checking it several times.

The Lagwa monkeys, however, are still regularly sighted in some of the remaining protected forests, which now mostly comprise secondary growth, scrub, and farm-bush. This may possibly be a result of routine or habit passed down over generations, as these forests likely once provided good habitat for primates.

Most of Lagwa's shrines are demolished or long abandoned (see table, next page). The only remaining intact shrines are in the villages of Ezido and Umunokwu, which have 5 and 3 active shrines, respectively. Shrines in Lagwa are buildings (often referred to altars) that may reside within an associated sacred grove, but many do not. This is quite different from Akpugoeze's shrines (see Page 16).

In Lagwa, the dominant religion is Christianity, specifically the Catholic faith. A large Catholic church is attended by most residents. There are also numerous, small Pentecostal churches, though some are ephemeral or apt to change locations within the community.

#### **Primate Population Census**

In the 2004 survey, I estimated the primate population in Lagwa to be 83 individuals in 10 groups (group size  $\overline{x}$  =9.1, SD=6.4). However, this was an underestimate as we were not permitted to enter a few villages at that time due to political unrest. This year we were able to cover the entire community, which encompasses a total area of approximately  $8.5 \text{km}^2$ . After making repeated visits to locations where monkeys are regularly sighted, I estimate the primate population to have 124 individuals, of which 15 are infants, in 15 troops (group size  $\overline{x}$  =8.3, SD=3.3) (see table, below). Because of the difficulty in counting some of the more skittish groups, there may be one or two additional groups in the Ezido-Okwuta zone. Population density is estimated to be 14.6 individuals per km<sup>2</sup>.

		COMMUNITY SHRINES			PROTECTED (SACRED) FORESTS		
VILLAGE NAME	NUMBER CHURCHES	Demolished	Abandoned/ Not Maintained	Active/ Maintained	Number	Area (m²)	
Ezido	5	3	1	5	5	4,711; 104.8; 121.8; 975.5; 237.0	
Obo	2	1	2	0	1.5	1,924; 24,529.2 (latter shared with Umuabazu)	
Okwuta	0	0	3	0	2	443.1; 910.2	
Umuabazu	1	3	1	0	2.5	1,647.2; 354.5	
Umunoke	7	3	0	0	1	17,964.7	
Umunokwu	5	3	2	3	2	11,343; 5,461.6	
Umuokere	2	0	0	0	0	0	
Umuosi	1	1	1	0	1	2,083.2	
TOTAL	23	14	10	8	15	Average size = 4,854.1m <sup>2</sup> (0.49ha)	

Currently, most of the monkeys' food appears to come from fruit trees and crops grown by community residents. As such, the monkeys are often found in or near household compounds, where people plant most of their fruit trees, such as mango, orange, papaya, and guava. Of the 66 sightings of primate troops made during the survey in Lagwa, 76% was made of troops either inside a household compound or adjacent to or very near a household compound.

VILLAGE	RESIDENT TROOPS	TOTAL (# INFANTS) PER TROOP
Ezido	2; possibly 3	11(2); 8(1); possibly a third group of 7(1)
Obo	1.5 (shares with Umuabazu)	5; 7(1) – latter shared with Umuabazu
Okwuta	4; possibly 5	6; 4; 14(2); 12(2 – yet quite independent); possibly a fifth group of 8(1)
Umuabazu	2.5 (shares with Obo)	10(2); 11(1)
Umunoke	2	11(2); 5(1)
Umunokwu	2	5(1); 4
Umuokere	1	11
Umuosi	0	0
TOTAL	15 (possibly 17)	124(15); (group size $\overline{X}$ =8.3, SD=3.3)

#### **AKPUGOEZE RESULTS**

### Question 1: Prefer or Not Prefer Monkeys

As in Lagwa, there is a significant difference between males and females in answer to the question of whether they prefer the monkeys living in their community ( $\chi^2=8.13$ , df=1, p-value=0), with males preferring the monkeys more than females. There is no significant difference between indigenes and non-indigenes ( $\chi^2=0$ , df=1, p-value=1), though the latter

may be complicated by the fact that only 18% of the interviewees are non-indigenes. Between indigenous and non-indigenous females, there is also no significant difference  $(\chi^2=2.23, df=1, p\text{-value}=0.1)$ . Regarding ward/village, the test result was again not significant  $(\chi^2=6.03, df=5, p\text{-value}=0.3)$ . Chart 3, below, summarizes the responses.

# Question 2: Monkeys are Important or Not Important

Results to this question indicate there are significant differences between males and females ( $\chi^2$ =8.13, df=1, p-value=0), but not between indigenes and non-indigenes ( $\chi^2$ =0.61, df=1, p-value=0.4). Regarding ward/village, the result was again not significant. The number of responses per group is listed in Chart 4, next page

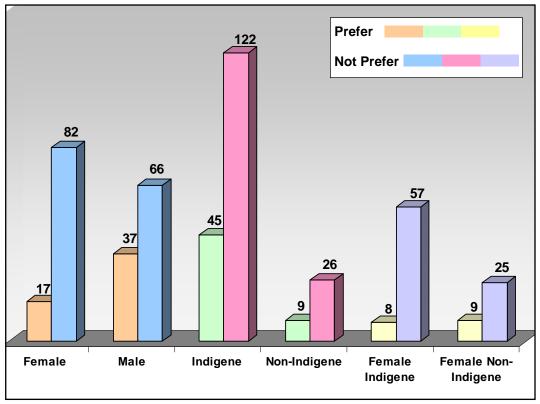
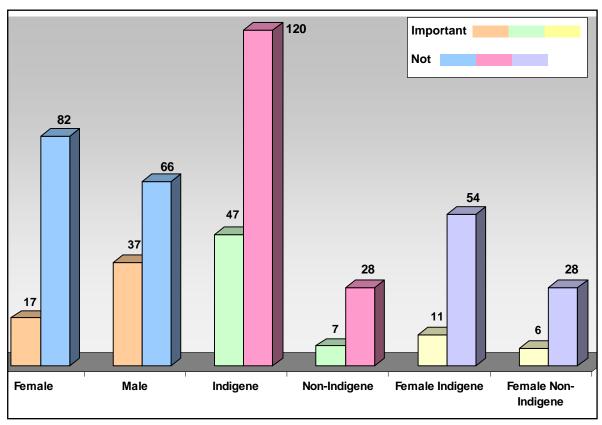


CHART 3. Number of responses in Akpugoeze listed by gender and indigenous status to the question: "Do you prefer the monkeys remain or do not remain in your community?"



**CHART 4.** Number of responses in Akpugoeze listed by gender and indigenous status to the key question: "Do you think the monkeys are an important part of your community?"

#### **Advantages & Disadvantages**

In Akpugoeze, as in Lagwa, the majority of respondents (94%) consider the monkeys' destruction of their crops and fruits as a disadvantage. The second most reported disadvantage (6%) is that monkeys damage the zinc on rooftops. Six respondents noted that the monkeys scare or disturb children, while one person noted that monkeys are responsible for attracting mosquitoes. Eleven people believe there are no disadvantages to the monkeys living among them.

With regard to advantages, there is no overwhelming response. The most commonly noted advantage (noted by just 6% of respondents) is that the monkeys are fun to watch and play

with; 5% said the monkeys attract tourists and visitors; and 4% said the monkeys are a symbol of the community or provide a community identity. Just a few people noted the following as advantages: monkeys alert humans to danger, serve as meat, boost the human population (increase fertility among people), educate children, transmit diseases, and act as messengers of the shrine.

#### **Churches, Sacred Forests, & Shrines**

Akpugoeze is an expansive community compared to Lagwa; it is roughly 56km<sup>2</sup>, though much of the land comprises farms, farm-bush, and remnant forest patches on the outskirts of the community. Because monkeys are safe in only two villages in the community, the area that monkeys inhabit is at most about 6km<sup>2</sup>, based on confirmed locations of the remotest primate troops.

There are several sacred groves in Akpugoeze, and from local reports, it seems all of Akpugoeze's shrine groves still exist, though many are diminished in size due to agriculture and construction encroachment. The average size of the protected forests that are used by monkeys or that lie within villages that protect monkeys is 20,593.8m² (2.06ha) (see table, next page). Different from Lagwa, groves in Akpugoeze are, in essence, the shrines themselves – there are very few physical structures associated with shrines. In Akpugoeze, a particular shrine area is a sacred forest that is cleared of undergrowth and maintained free of leaves and other vegetative growth and debris by one or more shrine priests. Sometimes there are clay pots or other symbolic items in the groves.

		COMMUNITY SACRED FORESTS/SHRINES			
VILLAGE NAME	NUMBER CHURCHES	No Priest/ Not Maintained	Active/ Maintained	Number	Area (m²)
Amagu	6	2	2	4	4717.8; 96040; 2 undeterminable
Umuokpasialum	8	5	3	8	9673.2; 16634.8; 2423.4; 7524.2; 16650.5; 9000; 5573.8; 1 undeterminable
Umuokpara	4	0	1	1	37700
TOTAL	18	7	6	13	Average size = 20593.81m <sup>2</sup> (2.06ha)

Akpugoeze is dominated by two Christian denominations: Anglican and Catholic. A large Anglican church is located in the center of the community, adjacent to the main market.

## **Primate Population Census**

In the 2004 survey, I estimated the primate population in Akpugoeze to be 187 individuals in 14 groups (group size mean  $\overline{x}$ =13.4, SD=5.6). This study produced a very similar population estimate: 193 individuals, of which 16 are dependent infants, in 20 troops (group size  $\overline{x}$ =9.7, SD=4.2) (see table, next page). Population density is estimated to be 35.1 individuals per km<sup>2</sup> – about 2.5 times the density of monkeys in Lagwa.

VILLAGE	WARD	RESIDENT TROOPS	TOTAL (# INFANTS)
Amagu	_	8	7(1); 4; 8; 11(1); 19(1); 13(1); 15(2); 4
Umuokpasialum	Abo-Abo	7	10(3); 13(1); 9; 11; 6; 12(1); 8(1)
Umuokpasialum	Ofemmili	1	8(1)
Ofechem & Egbeagu	_	3	4; 17(2); 7
Umuokpara	_	1	7(1)
	TOTAL	20	193(16); (group size $\overline{X}$ =9.7, SD=4.2)

# III. SACRED - OR EVIL?

In both Lagwa and Akpugoeze, monkeys are associated with traditional religious beliefs (also called "juju"), which are practiced via shrines. Most community residents are born into Christian households and do not practice or believe in, at least not openly, the shrines. In Akpugoeze, where shrine forests are mostly intact and several shrine priests are still active, the monkeys' protection is intimately tied to two shrines. The story of how monkeys came to be in Akpugoeze goes like this:

There are two major clans in the community: the Ihite and Ezi. During the time of the ancestors, the Ezi clan said that the gods declared monkeys should never again be harmed or eaten, as they belonged to the gods. However, one man from the village of Umudim called Ngopi did not agree, and he was supported by the entire Ihite clan and the people of one Ezi village called Umuokpara. The remaining two Ezi villages declared the monkeys as the property of two shrines: Ngenenbor, located in Umuokpasialum, and Aki in Amagu. Over the generations, the monkeys learned they are safe within the borders of Umuokpasialum and Amagu and take refuge in these villages. Residents of other villages in Akpugoeze do not kill monkeys in Umuokpasialum or Amagu out of respect for their kindred.

Many in Akpugoeze express concern that the monkeys' presence is anti-Christian and shows allegiance to the shrine deities. However, Christian or not, nearly all residents respect the taboo against killing the monkeys. Interview respondents overwhelmingly recognized that the monkeys "belong to" the shrine and, due to fear of retribution from the shrines (i.e., no one wants to be the first to start harming the monkeys – just in case), do not

kill them. There were reports that one family in Umuokpasialum had killed monkeys, but in general, monkeys that remain within the boundaries of Umuokpasialum and Amagu are safe from harm, though people do throw sticks or stones at them or chase them away from their fruit trees and out of household compounds.

In Lagwa, the killing of monkeys occurs more frequently and is considered more acceptable than in Akpugoeze. Most shrines in Lagwa are demolished or abandoned, and sacred forests are presently just small clumps of a few trees. There is some fear among residents that the killing of monkeys will result in retribution from the shrine, but in general residents do not kill monkeys because it is the tradition of their community (i.e., people fear how other people will react, not what the shrine will do to them). This may be because there are two stories regarding the origin of monkeys in Lagwa, and one has nothing to do with juju and instead claims that monkeys have always been friends of Lagwa. There are variations of the story of how monkeys came to be in Lagwa, but the following version is commonly known:

Before any person lived in Lagwa, there were monkeys. One day a man called Agwa arrived and brought his pregnant wife. Each morning Agwa left his home to tend his farms and hunt animals. One day he was delayed in the bush, and his wife became weak from hunger. While she was waiting for her husband, monkeys came to their compound and began picking fruits from trees. The monkeys dropped these fruits for the woman, who was then able to eat and nourish herself and the baby growing inside her. When Agwa returned, his wife told him what had happened. He was so grateful to the monkeys that he proclaimed from that day forward, any animal capable of such behavior should

not be killed or harmed by anyone in his family or village. That is how the monkeys became friends of Lagwa.

This may also help explain why a larger number of interviewees in Lagwa (18% vs. 4% in Akpugoeze) believe the monkeys are a symbol of the community or provide the community with an identity. In Akpugoeze, monkeys are directly linked to the shrines, while in Lagwa they are also associated with the above origin story. Additionally, while 27% of the respondents in Akpugoeze prefer the presence of the monkeys, twice that – 54% – prefer them in Lagwa. In Akpugoeze, 27% consider the monkeys important to the community vs. 64% in Lagwa. These results may also be influenced by the density of monkeys in each community: Primate density in Akpugoeze is about 2.5 times that in Lagwa, thus monkeys may disturb people more and be more destructive in Akpugoeze.

In both communities, however, most residents see little or no value in having the monkeys live among them. It was not uncommon to be hear people say, "I can't sell it or eat it," or that the monkeys "can't marry my daughter," "can't go to market for me," "can't help me in the farm," and "can't fetch water for me." As a result of Western influence, Christianity, other reasons, or likely a combination of several effects, few people in Lagwa and Akpugoeze see any value in the presence of the monkeys, other than watching them play or that visitors occasionally come to see them. (The frequency of the latter response may have been positively affected by the presence of me and my advisor, two white foreigners, very rare visitors to these Igbo communities.)

# IV. 'WILDLIFE MUST PAY'

The "no value" attitude toward wildlife among communities in many developing nations is common. The concept is that wildlife can stay, if they pay their own way. In other words, communities will tolerate and will not harm wildlife only if it is in some way utilized for economic or development benefit.

Elephants in southern Africa provide one of the most well-known examples of "wildlife must pay." The CAMPFIRE program and the culling of elephants for the later sale of ivory are cases of where elephants are usually tolerated, even though they sometimes kill people, by both local communities and government in exchange for proceeds received from tourism, sport hunting, and the sale of ivory stocks. In 2001 in Botswana, 12 sport hunters each paid £4,000 (about \$7,300 USD) to kill a single bull elephant. Five villages that occur in the region of interest received roughly \$75,000 from this venture. Tanzania adopted a similar program in 1998 when the government recognized "the principle that wildlife must pay if it is to be welcome on private and communal lands." Again, most programs such as these are ecotourism or wildlife-utilization (as meat or ivory for sale) projects.

Unlike elephants, the monkeys of Lagwa and Akpugoeze are not dangerous, are small-bodied, and are few in number. As many people in these communities pointed out, the monkeys usually flee when pursued and do not directly harm people, other than sometimes scaring children. Yet, they do damage fruit trees and some crops, which deprive people of the income they would otherwise receive for these fruits/crops. It would be very difficult to generate revenue sufficient to "benefit" the community from the sustainable harvest of

these slow-reproducing primates or through ecotourism. Nigeria can be a dangerous country for visitors and has a poor reputation among travelers.

However, the Igbo communities of Lagwa and Akpugoeze could serve as unique research sites for the study of primate behavior, human-primate interaction, Igbo culture and religion, and other physical and social anthropological studies. Presently, there is only one such site known throughout all of Africa (Ghana). With the monkeys' continued cropraiding activities and the gradual erosion of traditional beliefs in the communities, it is likely only a matter of time before someone takes a bold step and initiates the regular killing of monkeys.

One of the main observations made during the course of this study is that most residents in Akpugoeze and Lagwa do not know anything about the monkeys – nearly everyone did not know that the monkeys are endemic to southern Nigeria, endangered, and protected by international and national laws. After discussions with community leaders, we decided it would be a very wise idea to generate an informational brochure about the monkeys to distribute throughout each community, in both English and Igbo. Consequently, funds from one project sponsor will be allocated to the production of this brochure, which I will distribute later this year on a follow-up trip to Nigeria.

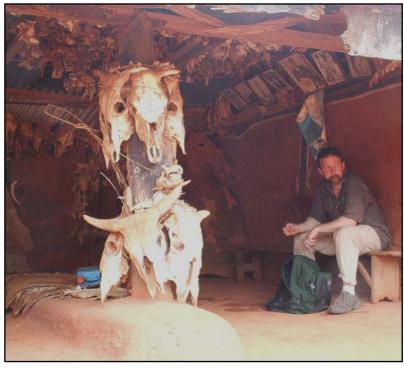
# IV. PHOTOS



Members of the Lagwa Development Union and other community leaders with Lynne Baker and Debo Tanimola, after a meeting in Umuabazu village.



Visiting professor, Dr. Dave Garshelis, UMN associate professor, with Chidi, one of the project's Igbo translators (above), and (right) visiting Akpugoeze's chief priest of the Ajala shrine in his compound.







#### **UPPER LEFT.**

Lynne Baker conducting an interview with local translator, Chima Anyanwu, in Ezido.

#### CENTER LEFT.

Research assistant Debo Tanimola, a Nigerian graduate student, conducting an interview with translator Chima.

#### **UPPER RIGHT.**

Monkeys are regularly seen moving on the rooftops of homes and in and around homes, including those under construction.

## воттом.

One of the less wary groups was regularly seen in Okwuta village. Monkeys in this grooming party are members of a group of 12 individuals.



# V. SCHEDULE

Date	Activity	Location
27 Sept.	Depart USA	USA-London-Lagos
29 Sept.	Arrive Lagos; travel Lagos to Calabar	Lagos-Calabar
30 Sept. – 18 Nov.	Conduct full study in Lagwa, Imo State	Lagwa, Imo State
19 Nov.	Travel to Akpugoeze; meetings with Chief Gabriel of Umuokpasialum and Chief Okoli of Amagu	Akpugoeze, Enugu State
20 Nov.	Meetings with newly elected Igwe Ezenobe and Igwe Nwajagu of Akpugoeze-Ugwu and Akpugoeze-Agbada; initiation of collection of household data	Akpugoeze
21-26 Nov.	Measure shrine forests, evaluate status of shrines, interviews with Igwe Nwajagu and two shrine priests	Akpugoeze
26-29 Nov.	Follow-up with Igwe Anigbo; pay student salaries; meetings with students; arrange transport to Calabar; students travel to Ibadan	Enugu
30 Nov.	Travel Enugu to Calabar	Enugu-Calabar
1-3 Dec.	Meetings with director of local sponsor, CERCOPAN	Calabar
4-28 Dec.	Initial analysis of Lagwa data; preparations for occupancy survey; revisions to questionnaire for Akpugoeze; correspondence with leaders of Lagwa and Akpugoeze, as well as government officials of Imo and Enugu States; accounts updated; interim reports completed	Calabar
JanMarch 2006	Occupancy survey in the Edumanom Forest Reserve area in the Niger Delta, Bayelsa State.	Emago & Okoroba community forests
March end – early April	Depart Nigeria to Equatorial Guinea, re-entry	Port Harcourt-Malabo
Mid-April – June	Complete Akpugoeze study; visit from academic advisor, Dr. Dave Garshelis	Enugu State
Mid-June	Depart Nigeria-return to USA	Calabar-Lagos via London

# VI. ACCOUNTING

The following summarizes expenses incurred during the 2005-2006 field season that were funded by the Rufford Small Grants for Nature Conservation grant. This grant was used to pay for accommodation expenses, transportation fees, and miscellaneous expenses while conducting fieldwork from late September 2005 to mid-June 2006. Without support from Rufford, this project would have been neither possible nor successful. I am very grateful to Rufford for its support of this important research project.

TRIP EXPENSES					
Item	Expenses in Naira	USD\$ Equivalent	Expenses in USD\$	Funds From Rufford Grant in \$USD Dollars	
Maintenance: food, meals, field/cooking/washing supplies	425735.00	3292.61	17.09		
Maintenance: medical/pharmacy	9010.00	69.68	0.00		
Maintenance: accommodation	461110.00	3566.20	150.00	1561.06	
Travel: transportation, air flights, car hires, okadas, etc.	546325.00	4225.25	2438.72	4700.00	
Fees & Salaries: Interviewees in Lagwa & Akpugoeze, Nigerian research assistants, local assistants, etc.	878380.00	6793.35	0.00		
Miscellaneous: photocopies, phone, GSM recharge cards, mailings, printing, etc.	129329.70	1000.23	0.00	1000.23	
TOTALS	2449889.70	18947.33	2605.81	\$7261.29	
	3,907.08 GBP				

Detailed statement copies & receipts available if requested.