# Links Between Local Folklore and the Conservation of Sclater's Monkey (*Cercopithecus sclateri*) in Nigeria

# Lynne R. Baker

Department of Natural and Environmental Sciences, American University of Nigeria, Yola, Nigeria

Abstract: Animals feature prominently in African folklore, often in folktales as heroes, tricksters, or their accomplices. Depending on an animal's role or character, it may receive local protection through social taboos or other informal institutions. Folklore can thus provide a basis for culturally relevant conservation and help generate community support for conservation. Sclater's monkey (*Cercopithecus sclateri*) is a threatened primate endemic to southeastern Nigeria, where deforestation and bushmeat hunting are acute problems. The species does not occur in any officially protected areas. In two Igbo-speaking communities in the region (Lagwa and Akpugoeze), Sclater's monkey is intimately linked to traditional religious beliefs and local folklore and effectively protected by associated taboos. Many monkey groups range near people's homes and are commonly regarded as crop-raiding pests. During 2005–2010, I recorded folktales and other information from residents regarding monkey-human interactions, monkey behaviors, and the origins of the monkeys' sacred status. For some, this folklore contributes to their continual observance of the taboos against harming monkeys, particularly in Lagwa where monkeys occupy a totemic position. However, support for the taboos is weakened by the monkeys' crop- and garden-raiding activities and, due to widespread adoption of Christianity by residents, their association with traditional religious beliefs. "Positive" monkey folklore may help offset these negative feelings. Conservation efforts that integrate such folklore and highlight the primates' cultural values will better contribute to the long-term protection of these two important populations of Sclater's monkey.

Key words: Culture, folklore, folktale, human-wildlife relationships, Igbo, sacred, taboo

#### INTRODUCTION

In many societies worldwide, animals are important figures in literature, belief systems, and folklore. There are numerous cultural representations of primates as religious symbols and characters in literature, film, and folklore (Carter & Carter 1999). Folklore encompasses many things and so is not easily defined (Sims & Stephens 2005). Simply, it is "artistic communication in small groups" (Ben-Amos 1971: 13) and is expressed in various forms, which hold cultural symbolic significance. Among other things, folklore includes folktales, legends, myths, proverbs, jokes, games, art, song, dance, and medicine (Dundes 1965).

In African folklore, animals often appear as central or supporting characters, such as heroes or tricksters (Peek & Yankah 2004). Depending on an animal's role

or character, it may be culturally tolerated or protected by a society through informal institutions such as social taboos. Taboos that prevent human harassment or killing of wild species may prove critical in their conservation (Colding & Folke 1997, 2001; Lingard *et al.* 2003; Jones *et al.* 2008; Kideghesho 2008).

Globally, several primates receive some form of protection due to their folkloric or religious associations (reviewed in Cormier 2006; Baker *et al.* 2009; reviewed in Riley *et al.* 2011). Folklore may result in limited take of a species, as in Manu National Park, Peru, where howling monkeys (*Alouatta seniculus*) are regarded as shamans by the Matsigenka and hunted much less frequently than expected given their large size and abundance (Shepard 2002). Other primate populations may receive

near-complete or complete cultural protection, such as the Tonkean macaque (*Macaca tonkeana*) in Lore Lindu National Park, Sulawesi, Indonesia (Riley 2010); chimpanzee (*Pan troglodytes*) in the Tomboronkoto region of southeastern Sénégal (Clavette 2003) and other parts of West Africa (Kormos *et al.* 2003: Table 21.2); ring-tailed lemur (*Lemur catta*) and Verreaux's sifaka (*Propithecus verreauxi*) at Beza Mahafaly Special Reserve, Madagascar (Loudon *et al.* 2006); mona monkey (*Cercopithecus mona*) at Tafi Atome Monkey Sanctuary, southeastern Ghana (Ormsby 2012); and white-thighed colobus (*Colobus vellerosus*) and Lowe's monkey (*Cercopithecus lowei*) at Boabeng-Fiema Monkey Sanctuary, central Ghana (Fargey 1991; Saj *et al.* 2006).

Folklore can also have the opposite effect (Ceríaco et al. 2011). Negative folklore may result in the persecution of some primates, such as aye ayes (Daubentonia madagascariensis) in Madagascar (Simons & Meyers 2001) and mantled howlers (Alouatta palliata) in Costa Rica (Gonzalez-Kirchner & Sainz de la Maza 1998), both of which are considered evil omens or bringers of bad luck. The use of primates in folk medicine may also contribute to population declines. High demand for lorises (Nycticebus spp.) for use in traditional medicine in Cambodia has led to their pervasiveness in the wildlife trade (Nekaris et al. 2010). In a global review, Alves and colleagues (2010) found that 56% of all primates used in traditional medicine or magic-religious practices were classified as threatened by the IUCN. Africa was second to Asia in terms of percentage of species used. In northeastern Nigeria, folklore regarding the humanlike qualities and behavior of chimpanzees contributes both to their protection and killing, the latter partially for medicinal use of body parts (Nyanganji et al. 2011).

In southeastern Nigeria, some primate populations are protected through informal institutions, including Nigeria's only endemic primate species, Sclater's monkey (Cercopithecus sclateri) (Oates et al. 1992; Baker et al. 2009). This species is listed as Vulnerable by the IUCN (Oates et al. 2008) and does not occur in any officially protected areas, such as national parks. In parts of three states (Imo, Enugu, and Akwa Ibom), Sclater's monkey is not killed or eaten owing to social taboos (Baker et al. 2009). The species' sacred status in these sites is its only known form of full protection across its range. Due to the monkeys' garden- and crop-raiding activities, however, at least two of these populations (Imo and Enugu States) are considered nuisances and are often in conflict with their human neighbors (Oates et al. 1992; Tooze 1994; Baker 2009).

Over several years in these two sites, I recorded folktales from residents regarding monkey-human interactions, monkey behaviors, and the origins of the taboos protecting monkeys. I discuss the folklore of these communities and its potential role in the conservation of the Sclater's monkey populations that occur there.

# **METHODS**

### Study sites

Research was conducted in the Igbo-speaking region of southeastern Nigeria in two communities: Akpugoeze (Enugu State) and Lagwa (Imo State) (Figure 1). Igbo communities (or village-groups) are autonomous political units having a number of contiguous villages, which are in turn comprised of kindreds or lineages (Meek 1970). Until a few years ago, Akpugoeze was a single community; it has since divided into three autonomous communities that include seven villages (herein, "Akpugoeze" refers to all three communities). Lagwa consists of seven villages, although it formerly contained eight, one of which (Umunokwu) is now an independent community (herein, Lagwa and Umunokwu are referred to as "Lagwa"). The villages of each community share a geographic territory, schools, and a centrally located market. Residents of both communities overwhelmingly claim to be Christian (Baker 2009).

Lagwa and Akpugoeze occur in states that have relatively high average human densities - 424 (Enugu) and 774 (Imo) individuals/km2 (Geomatics International Inc. et al. 1998; NPC 2007) - and are extensively cultivated. Remaining natural forest is primarily found within small patches protected as sacred groves. In Lagwa, these tree groves are degraded and just 0.49ha on average (n = 15), or about  $\frac{1}{4}$  the size of those measured in Akpugoeze (n = 10) (Baker et al. 2009). Sacred groves are usually associated with a shrine dedicated to a deity. In Lagwa, shrines are often small buildings or altars that may reside within or near a sacred grove, although many have been demolished or abandoned. Few shrine forests contain physical structures in Akpugoeze; instead, the shrine is simply part of a tree grove, which is maintained free of vegetative undergrowth and debris by one or more shrine priests. In addition to sacred groves, other patches of secondary forest occur in the more-expansive Akpugoeze.

In both sites today, only Sclater's monkey is common, although several primate species historically would have been present. Mona monkeys (*Cercopithecus mona*) occur on the periphery of Akpugoeze, and in Lagwa, a single tantalus monkey (*Chlorocebus tantalus*) has been observed in association with a Sclater's monkey group. Censuses conducted in 2010 estimated 206 monkeys (density: 24.2 individuals/km²) in Lagwa and 249 (density: 36–38 individuals/km²) within a core area of Akpugoeze (Baker *et al.* in press).

#### Data collection

During October–November 2005 and April–June 2006, as part of a broader study on human attitudes toward monkeys, 431 interviews were conducted, including: 1) structured interviews with 410 randomly sampled residents who were  $\geq$  12 years old (n = 208,

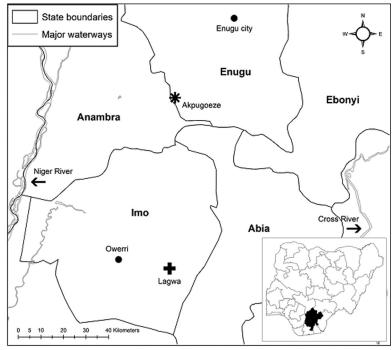


Figure 1. Location of study sites (Akpugoeze \* and Lagwa +) in southeastern Nigeria. Inset shows the main states of Igboland: Abia, Anambra, Ebonyi, Enugu, and Imo.

Lagwa; n = 202, Akpugoeze, in two villages that strictly protect monkeys) and 2) semi-structured interviews with 14 community leaders and elders and seven shrine priests (Baker 2009). During these interviews, informants were asked to share folklore, general stories, or other information about monkeys. Not all informants provided such data. Interviews were usually held at informants' homes. Because English is widely spoken in the region, most interviews were conducted in English, but always with a local Igbo translator.

In June–July 2010, as part of an oral-history project to document the history of the monkeys and religious change in the communities, I recorded folklore during 19 in-depth, semi-structured interviews with four traditional rulers, four shrine priests, five chiefs, and seven others (usually elders) (n = 10, Lagwa; n = 9, Akpugoeze; one interview involved two people) (Baker, unpublished data). Ten individuals were previously interviewed in the 2005–2006 study, thus some folktales were repeated or further explained. These oral histories were recorded on tape with permission and transcribed, and a printed and bound copy of each memoir was later given to each informant.

# **RESULTS**

# Folklore and the origins of the taboos

In Akpugoeze, monkeys are not harmed because they are considered the property of two shrines (deities). At the time monkeys were dedicated to the deities, a dispute between the community's two major clans over this

decree resulted in support from just two villages. Today, consequently, only two of Akpugoeze's seven villages strictly protect monkeys. A summary of this story told by one traditional ruler:

There are two major clans in Akpugoeze: Ihite and Ezi. Long ago, during the time of the forefathers, the Ezi clan said that the gods declared monkeys should never again be harmed or eaten, as monkeys belonged to the gods. However, one man did not agree, and he was supported by the entire Ihite clan and one Ezi village. The remaining two Ezi villages declared monkeys as the property of two shrines, located in Umuokpasialum and Amagu villages. Over time, monkeys learned that they were safe within the borders of these villages and took refuge there. Residents of other villages in Akpugoeze did not kill monkeys in Umuokpasialum or Amagu out of respect for their kindred.

Residents also reported that monkeys were formerly used by herbalists and native doctors in rituals. The use of monkey bones in preparing certain medicines was thought to help the people of Akpugoeze bear more children. Nonetheless, the taboo protecting monkeys in Akpugoeze is directly linked to local deities; most residents acknowledge this relationship as the reason monkeys are not harmed (Baker 2009).

In Lagwa, there are two primary sources of the taboo protecting monkeys. First, monkeys are said to be owned by a deity (Arukwu-Lagwa), although many people are reluctant to acknowledge this association (Baker 2009). According to a Lagwa chief, if people protected the monkeys only for religion, then they would have killed the monkeys by now:

[People still protect the monkeys because we see them] as part of us. We are not looking at the deity ... we don't believe in the deity again; we are only seeing the monkey as part of us.... We are not worshipping the monkey. There is nowhere a religion for the monkey. ... Just as somebody would have a dog in his house, a cat in his house, so also we are seeing the monkey.... That's why we are leaving it.

The second source stems from a folktale regarding the founder of Lagwa. Very few young people were aware of this story, indicating weak cultural transmission across generations. A common variation of this folktale:

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.

Some Lagwa residents also praised monkeys for the way they care for children and related this to why monkeys are unharmed in the community:

When people go to farm and leave behind their young children, monkeys will gather around the children and watch over them until the parents return. If any danger is detected, such as a dangerous animal, monkeys will carry the child to safety or sound an alarm to signal the parents that there is danger.

In Lagwa and Akpugoeze, residents relayed stories of how monkeys alerted the community to danger during the slave trade or wartime, such as inter-village warfare. I was told that long ago, when forests served as a buffer among neighboring villages, monkeys stayed in the forests. When they sighted a stranger or any non-indigene carrying guns or other weapons, the monkeys would alert the people. One Lagwa resident said the people "would then go out and defend themselves. By so doing, the monkeys became so endeared to the hearts of our ancestors."

# General folklore and stories

Some people conveyed negative monkey folklore, although it was relatively uncommon. For example, only

two people in the random sample of 410 mentioned that monkey urine and feces were poisonous and could cause a person's foot to swell if stepped on. In Lagwa, positive folklore and even expressions of affection and kinship toward monkeys were recurrent; such expressions were comparatively scarce in Akpugoeze. One Lagwa story explained that a person's cough could be cured by eating fruits partially consumed and discarded by monkeys.

Some Lagwa residents referred to monkeys as sisters and brothers, although they were most commonly called "daughters of the land" (by 7% of the random sample of 208), which I was told means they are "part and parcel of the community." Female indigenes who marry into other communities are referred to as "Lagwa daughters." One common folktale links Lagwa daughters to the protection of monkeys, while another links monkeys to the protection of Lagwa daughters. A variation of the former:

A monkey once crossed the boundary and entered a neighboring village. The inhabitants of that village pursued the monkey and tried to kill it. The monkey ran into the house of a Lagwa daughter who married in that village. The woman saw the monkey, locked her house, and told everyone to go away. Once nightfall came and the others finally left, she opened her house and let the monkey go free.

According to one chief, the monkeys "know the boundaries as if they were cautioned by nature not to cross to [other] places; for if they do, those people kill them." Residents explained how monkeys do not venture out of Lagwa, unless by accident. If they go astray, they know to locate the home of a Lagwa daughter or any Lagwa indigene residing outside the community for protection. The second folktale, which was told to me by a shrine priest, relays the story of a Lagwa daughter who had many problems with her husband's "wicked" family. He explained how the people of Lagwa worried and consulted the shrine. A summary of this story:

[Before they could help her], a large group of monkeys from Lagwa went to the home of that woman, covered the roof, and entered the kitchen. Nobody knows how they got there. When the people there saw the monkeys, they were shocked. Some ran inside the bush. When the woman's husband saw this, he apologized to his inlaws, and there was peace between the families. And that daughter of Lagwa was never harmed again.

Several residents expressed pride with regard to the monkeys, which have a totemic affiliation with the community (Baker 2009). For example, the throne chair of the current traditional ruler of Lagwa is carved with the images of monkeys, and one shrine priest likened eliminating the monkeys to removing one of his body parts. Other Lagwa residents noted:

The monkeys are identified with this place, and we do boast of them. People do come to watch them from other villages and towns.

Lagwa is known with the monkey. It is exemplary. In all of Mbaise, Lagwa is the only [place] that has the monkey. People do come from all over, even on motorcycles and in motos to come and look at the monkeys.

[Monkeys are] the pride of this community, and we are identified with them.

[Monkeys] bring out the uniqueness of our culture. They help to spread the culture of our people beyond the borders of this community.

Other folklore was related to the meanings behind particular monkey behaviors. In both Lagwa and Akpugoeze, when monkeys wrestle on the ground, residents reported that this means something bad will happen, usually that a prominent or elderly person in the community will die. Some folktales highlight the human-like behavior of monkeys and may be told to children to illustrate good behavior, such as morality and compassion, or bad behavior. One example from Lagwa:

Monkeys deserted my kindred's compound because of an incident that took place [many years ago]. One of our brothers killed his younger brother. The monkeys saw this and started crying. They stayed for many days at the back of the compound and left after the burial [and never returned].

The below summarizes a story told in Akpugoeze to illustrate need for caution in certain situations:

A hunter used to kill monkeys in a forest. A little monkey discovered the track being used by the hunter and explained to others. From that day on, the monkeys could not be killed again. The hunter devised a plan in which he lay down and pretended to be dead, but left his weapons around him. The other monkeys saw him and started to rejoice that their enemy was dead. They moved around the hunter, even though the little monkey warned them. Suddenly the man arose and killed many monkeys. The little monkey, however, escaped unhurt.

#### **DISCUSSION**

Social taboos currently represent the only full protection afforded Sclater's monkey across its range. Taboos are part of informal cultural institutions that may change over time, however. The way in which people value or perceive primates is tied to their beliefs and attitudes, which are not static and are affected by changing conditions and experiences (Hill 2002). Taboos related to traditional beliefs, for instance, may be rejected with the adoption of new religions. Whittaker

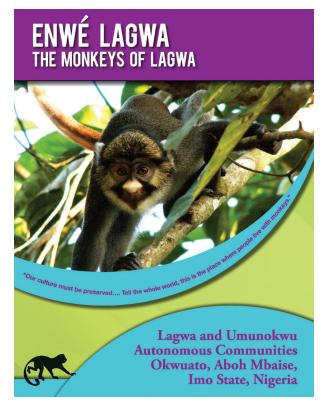


Figure 2. A Sclater's monkey in Lagwa feeding on oil palm (Elaeis guineensis), an important cash crop among the Igbo.

(2006) noted how Kloss's gibbon (Hylobates klossii) was considered sacred in the Mentawai religion, but with the arrival of Christianity, the local religion and its associated hunting taboos were largely abandoned. Crop raiding by primates may also affect attitudes. In India, damage to crops and gardens by rhesus macaques (Macaca mulatta) has caused growing resentment toward these culturally revered monkeys (Southwick & Siddiqi 1985; Srivastava & Begum 2005).

The informal institutions protecting Sclater's monkey in Lagwa and Akpugoeze are weakened by the monkeys' crop- and garden-raiding behavior and their association with local deities and the traditional religion (Tooze 1994; Baker 2009). Nearly all residents in both sites believe that crop destruction and its associated economic losses are the major disadvantages to living with monkeys (Baker 2009; Figure 2). Residents are also overwhelmingly Christian, and some have reported that because monkeys belong to the deities and people have been educated about Christianity, monkeys can now be killed (Baker 2009).

In Lagwa, the monkeys' connection to the deity was reported more often than the folktale about Agwa, his wife, and the monkeys; the latter was relayed by only 1.4% of residents interviewed (Baker 2009). This tale is tied to their forefathers' directive and strongly influences their respect for the taboo against harming monkeys. Consequently, such folklore may promote the conservation of these populations. Although the use of folklore cannot stand alone, it can supplement other essential conservation measures, such as those that address crop raiding and environmental degradation. Folklore can encourage community support by highlighting and reinforcing cultural values. Using the popular Monkey King character from the epic Chinese novel Journey to the West as an example, Burton (2002: 138) suggested that "folktales may provide the effectual



**Figure 3.** Cover of *Enwé Lagwa* brochure. Educational brochures documenting monkey folklore and the origins of monkey sacredness were distributed in local communities in 2012. Two versions were printed for Lagwa (1,000 copies in English language; 250 copies in Igbo); one bilingual version (1,000 copies) was printed for Akpugoeze. Electronic and hard copies may be requested by contacting the author.

basis for the development of conservation policy by profoundly residing in a people's cultural essence."

As part of a public-awareness campaign for the Siberian crane and wetland conservation in Russia, indigenous and Russian folklore is being compiled and published in two volumes entitled Migratory Birds in Russian Arctic Folklore (SCWP n.d.). Conservation efforts for the critically endangered subpopulation of Irrawaddy dolphins in the Mekong River have been assisted by local dolphin folklore, which has contributed to the very positive attitudes held by local communities toward the dolphins (Beasley et al. 2009). As a tool for orangutan (Pongo pygmaeus) conservation in Indonesia, organizations have developed awareness programs based on local customs and folklore of the indigenous Iban Dayak (Maiden 2011). Similarly, folklore related to Sclater's monkey has been documented and published as educational brochures and distributed in local communities (Figure 3).

For Sclater's monkey, the use of folklore may serve several purposes: 1) increase awareness both within and outside the communities about local culture and the species; 2) instill or reinforce a sense of pride; and 3)

provide a non-religious basis for maintaining the taboo protecting monkeys (i.e., promote cultural values). I previously found that nearly all residents in Lagwa and Akpugoeze were unaware of the uniqueness of Sclater's monkey, both within Nigeria and globally, and some were surprised and expressed pride when made aware of this information (Baker 2009). This was especially true in Akpugoeze, which has received comparatively few visitors interested in seeing monkeys. Folklore could also be integrated into educational programs for adults and children. Environmental education programs for primary and secondary schoolchildren were held in both communities in 2011; although these programs emphasized ecological values of monkeys (e.g., seed dispersal), discussion of cultural values would make a valuable addition in future educational efforts.

Finally, the shrines and deities of Lagwa and Akpugoeze have remained influential, yet people are generally wary about acknowledging any association with the traditional religion, and some are adamant that these beliefs are primitive and no longer followed (Baker 2009). As such, "positive" folktales, such as those about monkeys guarding over children and alerting the community to danger, may offer an alternative rationale for monkey conservation. Such folklore may also reinforce or extend the monkeys' totemic position in Lagwa and possibly help develop a similar affiliation in Akpugoeze.

### **ACKNOWLEDGMENTS**

I sincerely thank the leaders and residents of Lagwa, Umunokwu, Akpugoeze, Akpugoeze-Ugwu, and Akpugoeze-Agbada. Financial support for work done in 2005-2006 was provided by CENSHARE (University of Minnesota-UMN), Doctoral Dissertation International Research Grant (UMN Graduate School), Interdisciplinary Center for the Study of Global Change (UMN), and Rufford Small Grants Foundation. Financial support for research in 2010 was provided by Rufford, Baylor University Research Committee and the Vice Provost for Research, and Baylor University Institute for Oral History. Oral-history memoirs were transcribed, printed, and bound by the Baylor Institute for Oral History. Much appreciation goes to field assistants Oluseun Olubode and Adebowale Tanimola. In Nigeria, I am grateful to Glory Ajah, Chief Assam Assam, CERCOPAN, Claire Coulson, Andrew Dunn, Robert Warren, and Wildlife Conservation Society-Nigeria. I also thank Mary Glenn and Catherine Hill for their very constructive comments on earlier versions of the manuscript. The research was approved by the Institutional Review Boards of the University of Minnesota and Baylor University.

- Alves, R.R.N., W.M.S. Souto & R.R.D. Barboza. 2010. Primates in traditional folk medicine: a world overview. *Mammal Review* 40: 155–180.
- Baker, L.R. 2009. Sclater's Guenon in Nigeria: Outlook Good or Just Hanging On? Ecological and Human Dimensions of Hunted and Sacred Populations. PhD Dissertation, University of Minnesota, Minneapolis.
- Baker, L.R., A.A. Tanimola, O.S. Olubode & D.L. Garshelis. 2009. Distribution and abundance of sacred monkeys in Igboland, southern Nigeria. *American Journal of Primatology* 71: 574–586.
- Baker, L.R., A.A. Tanimola & O.S. Olubode. In press. Sacred populations of *Cercopithecus sclateri*: analysis of apparent population increases from census counts. *American Journal of Primatology*.
- Beasley, I., H. Marsh, T.A. Jefferson & P. Arnold. 2009. Conserving dolphins in the Mekong River: the complex challenge of competing interests. In *The Mekong: Biophysical Environment of an International River Basin*. I.C. Campbell, ed. Elsevier, New York. Pp. 363–387.
- Ben-Amos, D. 1971. Toward a definition of folklore in context. *Journal of American Folklore* 84: 3–15.
- Burton, F.D. 2002. Monkey King in China: basis for a conservation policy? In *Primates Face to Face: The Conservation Implications of Human-Nonhuman Primate Interconnections.* A. Fuentes & L.D. Wolfe, eds. Cambridge University Press, Cambridge, UK. Pp. 137–162.
- Carter, A. & C. Carter. 1999. Cultural representations of nonhuman primates. In *The Nonhuman Primates*.
  P. Dolhinow & A. Fuentes, eds. Mayfield Publishing Co., Mountain View, CA. Pp. 270–276.
- Ceríaco, L.M.P., M.P. Marques, N.C. Madeira, C.M. Vila-Viçosa & P. Mendes. 2011. Folklore and traditional ecological knowledge of geckos in Southern Portugal: implications for conservation and science. *Journal of Ethnobiology and Ethnomedicine* 7: 26–35.
- Clavette, K. 2003. Conservation through Folklore: Ethnoprimatology in Southeastern Sénégal. MA Thesis, Northern Arizona University, Flagstaff.
- Colding, J. & C. Folke. 1997. The relations among threatened species, their protection, and taboos. *Conservation Ecology* 1[online]. Available from: http://www.ecologyandsociety.org/vol1/iss1/art6/.
- Colding, J. & C. Folke. 2001. Social taboos: "invisible" systems of local resource management and biological conservation. *Ecological Applications* 11: 584–600.
- Cormier, L. 2006. A preliminary review of neotropical primates in the subsistence and symbolism of indigenous lowland South American peoples. *Ecological and Environmental Anthropology* 2: 14–32. Dundes, A. 1965. *The Study of Folklore*. Prentice-Hall,

- Englewood Cliffs, N.J.
- Fargey, P.J. 1991. Assessment of the conservation status of the Boabeng-Fiema Monkey Sanctuary. Unpublished final report to the Flora & Fauna Preservation Society, University of Science and Technology, Kumasi, Ghana.
- Geomatics International Inc., Beak Consultants Ltd. & Unilag Consult of Nigeria. 1998. The Assessment of Vegetation and Land Use Changes in Nigeria between 1976/78 and 1993/95. Forestry Management, Evaluation, and Coordinating Unit (FORMECU) and Nigerian Federal Department of Forestry (under the World Bank Environmental Management Project), Abuja, Nigeria.
- Gonzalez-Kirchner, J.P. & M. Sainz de la Maza. 1998. Primates hunting by Guaymi Amerindians in Costa Rica. *Human Evolution* 13: 15–19.
- Hill, C.M. 2002. Primate conservation and local communities—ethical issues and debates. *American Anthropologist* 104: 1184–1194.
- Jones, J.P.G., M.M. Andriamarovololona & N. Hockley. 2008. The importance of taboos and social norms to conservation in Madagascar. *Conservation Biology* 22: 976–986.
- Kideghesho, J.R. 2008. Co-existence between the traditional societies and wildlife in western Serengeti, Tanzania: its relevancy in contemporary wildlife conservation efforts. *Biodiversity and Conservation* 17: 1861–1881.
- Kormos, R., C. Boesch, M.I. Bakarr & T.M. Butynski, eds. 2003. West African Chimpanzees: Status Survey and Conservation Action Plan. IUCN/SSC Primate Specialist Group. IUCN, Gland, Switzerland, and Cambridge, UK.
- Lingard, M., N. Raharison, E. Rabakonandrianina, J.-A. Rakotoarisoa & T. Elmqvist. 2003. The role of local taboos in conservation and management of species: the radiated tortoise in southern Madagascar. *Conservation and Society* 1: 223–246.
- Loudon, J.E., M.L. Sauther, K.D. Fish, M. Hunter-Ishikawa & Y.J. Ibrahim. 2006. One reserve, three primates: applying a holistic approach to understand the interconnections among ring-tailed lemurs (*Lemur catta*), Verreaux's sifaka (*Propithecus verreauxi*), and humans (*Homo sapiens*) at Beza Mahafaly Special Reserve, Madagascar. *Ecological and Environmental Anthropology* 2: 54–74.
- Maiden, J. 2011. Could orangutan conservation be helped by the heavens? *Forests News* [online]. Center for International Forestry Research, Bogor, Indonesia. Available from: blog.cifor.org/2607/could-orangutan-conservation-be-helped-by-the-heavens.
- Meek, C.K. 1970. *Law and Authority in a Nigerian Tribe: A Study in Indirect Rule*. Barnes and Noble, New York. Nekaris, K.A.I., C.R. Shepherd, C.R. Starr & V. Nijman.

- 2010. Exploring cultural drivers for wildlife trade via an ethnoprimatological approach: a case study of slender and slow lorises (*Loris* and *Nycticebus*) in south and southeast Asia. *American Journal of Primatology* 72: 877–886.
- NPC (National Population Commission). 2007. Schedule II. Federal Republic of Nigeria Official Gazette 94: B179–B198.
- Nyanganji, G., A. Fowler, A. McNamara & V. Sommer. 2011. Monkeys and apes as animals and humans: ethno-primatology in Nigeria's Taraba region. In *Primates of Gashaka: Socioecology and Conservation in Nigeria's Biodiversity Hotspot*. V. Sommer & C. Ross, eds. Springer, New York. Pp. 101–134.
- Oates, J.F., P.A. Anadu, E.L. Gadsby & J.L. Werre. 1992. Sclater's guenon–a rare Nigerian monkey threatened by deforestation. *National Geographic Research & Exploration* 8: 476–491.
- Oates, J.F., L.R. Baker & Z.J. Tooze. 2008. *Cercopithecus sclateri*. IUCN Red List of Threatened Species. Version 2013.1. Available from: http://www.iucnredlist.org/details/4229.
- Ormsby, A. 2012. Cultural and conservation values of sacred forests in Ghana. In *Sacred Species and Sites: Advances in Biocultural Conservation.* G. Pungetti, G. Oviedo & D. Hooke, eds. Cambridge University Press, Cambridge, UK. Pp. 335–350.
- Peek, P.M. & K. Yankah, eds. 2004. *African Folklore: An Encyclopedia*. Routledge, New York.
- Riley, E.P. 2010. The importance of human-macaque folklore for conservation in Lore Lindu National Park, Sulawesi, Indonesia. *Oryx* 44: 235–240.
- Riley, E.P., L.D. Wolfe & A. Fuentes. 2011. Ethnoprimatology: contextualizing human and nonhuman primate interactions. In *Primates in Perspective* (2nd ed.). C.J. Campbell, A. Fuentes, K.C. MacKinnon, S.K. Bearder & R. Stumpf, eds. Oxford University Press, New York. Pp. 676–686.

- Saj, T.L., C. Mather & P. Sicotte. 2006. Traditional taboos in biological conservation: the case of *Colobus vellerosus* at the Boabeng-Fiema Monkey Sanctuary, Central Ghana. *Social Science Information* 45: 285–310.
- SCWP (Siberian Crane Wetland Project). n.d. Education and raising public awareness in Russia. UNEP/GEF Siberian Crane Wetland Project, Moscow.
- Shepard, G.H. 2002. Primates in Matsigenka subsistence and world view. In *Primates Face to Face: The Conservation Implications of Human-Nonhuman Primate Interconnections.* A. Fuentes & L.D. Wolfe, eds. Cambridge University Press, Cambridge, UK. Pp. 101–136.
- Simons, E.L. & D.M. Meyers. 2001. Folklore and beliefs about the aye aye (*Daubentonia madagascariensis*). *Lemur News* 6: 11–16.
- Sims, M.C. & M. Stephens. 2005. *Living Folklore: An Introduction to the Study of People and their Traditions*. Utah State University Press, Logan, UT.
- Southwick, C. & M.F. Siddiqi. 1985. The rhesus monkey's fall from grace. *Natural History* 94: 62–70.
- Srivastava, A. & F. Begum. 2005. City monkeys (*Macaca mulatta*): a study of human attitudes. In *Commensalism and Conflict: The Human-Primate Interface*. J.D. Paterson & J. Wallis, eds. American Society of Primatologists, Norman, OK. Pp. 258–269.
- Tooze, Z. 1994. Does sacred mean secure? Investigation of a sacred population of Sclater's guenon (*Cercopithecus sclateri*) in southeast Nigeria. Unpublished report to the Wildlife Conservation Society, New York.
- Whittaker, D.J. 2006. A conservation action plan for the Mentawai primates. *Primate Conservation* 20: 95–105.

Received: 7 May 2013 Revised: 1 August 2013