

**Comparative Study of General Public Owl Knowledge  
in Costa Rica, Central America and Malawi, Africa**

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**Abstract.**—The public knowledge of owls in Central America and Africa was compared based on 162 interviews in Costa Rica and 147 in Malawi. General knowledge of owls included: species, common names, habitats, food, and calls, and was quite similar in both study areas. In Malawi, more than 90 percent of the respondents connected owls with bad luck, witchcraft, and death. In Costa Rica, only 4 percent associated owls with bad omens and 3 percent listed them as frightening. Strong negative superstitions about owls are contributing to the unnecessary killing of owls in Africa, but they are also killed in Central America. Further education of the general public is needed on how beneficial owls are, and that the superstitious beliefs and myths about them are groundless.

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The survival of several kinds of living creatures, including reptiles, bats, and owls, depends not only on environmental issues but also on social and cultural matters. The value of people's participation in resolving complex conservation issues has been rediscovered only lately (Raval 1994).

It is highly likely that owls were among the first birds to be noticed by ancient man, probably because their vocalizations in the night would cause havoc in the superstitious mind (Freethy 1992).

Few other birds or other animals have gathered so many different and contradictory beliefs about them: owls have been both feared and venerated, despised and admired, considered wise and foolish, associated with witchcraft and medicine, the weather, births and deaths—and have even found their way into *haute cuisine* (Weinstein 1989).

Folklore has it that owls are birds of ill omen and that deception is one of their favorite ploys. Conversely, owls have been widely admired through the ages by deities, scholars, poets,

and animal lovers in general (Cenzato and Santopietro 1991).

Owls have a well-defined position in the folklore of every country in which they live; and they can be found everywhere with the exception of the Antarctic and a few remote islands (Leach 1992). There are 17 owl species in Costa Rica (Stiles and Skutch 1989), but only four species are common in the study villages (Enriquez 1995). Malawi has 12 different owl species, eight of which are common all over the small country (Benson and Benson 1977).

In this paper we describe and compare the cultural relationships between owls and human communities based on two interview studies undertaken by the authors in Costa Rica, Central America (Enriquez and Rangel 1996) and in Malawi, Central Africa (Mikkola 1997a).

#### **METHODS**

In Costa Rica, 162 persons were interviewed between April and September 1995, and in Malawi 147 persons between July and November 1996. The questionnaires were more or less similar although the interview language in Costa Rica was Spanish and in Malawi it was English. Sampling methods and pretesting of the interview questionnaire are described in detail in the original papers (Enriquez and Rangel 1996, Mikkola 1997a).

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## Interviewed Persons

Age and sex distribution of persons interviewed in Costa Rica and Malawi was similar, although in Costa Rica middle-aged persons were not interviewed. Females comprised 46 percent of those interviewed in Costa Rica versus 37 percent in Malawi. In Costa Rica, females were 12 to 91 years old, in Malawi 11 to 72 years old. The age of interviewed males in Costa Rica varied from 12 to 95 years, and in Malawi from 10 to 82 years. In Malawi, many people (est. 50), especially women in the rural areas, refused to answer the questions, explaining why the Malawian material is more male biased than that from Costa Rica.

## RESULTS

### Common Local Owl Names

In Costa Rica, we recorded 21 popular or local names, but “Cara de Gato” (Cat face) and Oropopo (onomatopoeic) were the most common names used by the adults, while “Buho” (owl) was the name most used by adolescents and overall in Costa Rica (table 1).

In Malawi, some 40 different local names were recorded due to the numerous tribal languages in that country. Most commonly used names were: Kadzidzi, Matchichi, and Phululu. The English term “owl” was familiar to 65 percent of the interviewed persons.

The meaning of local names was not always clear, in either Costa Rica or in Malawi. In Costa Rica, adults as a group knew more local owl names than younger persons, and in both Costa Rica and Malawi men knew more local names than did women.

### General Owl Knowledge

Around 44 percent of the Costa Rican respondents knew only one owl, or treated all owl species as one entity. There was a great difference between the sexes, 56 percent of females knew only one owl against 35 percent of males (fig. 1).

In Malawi, 65 percent knew only one owl, and there was no difference between female and male knowledge of species (fig. 1). In Costa Rica, only 4 percent knew more than three species (out of 17 possible), while in Malawi 9 percent knew more than three species (out of 12).

### Owl Habitats

Both in Costa Rica and Malawi, people correctly listed mountains and forests the most important habitats for the owls (table 2). In Malawi 17 percent listed graveyards as owl habitat, but in Costa Rica owls were not connected with graveyards at all. In Costa Rica all interviewed people lived in the villages nearby a large, protected, forest reserve with

Table 1.—Four most common local names of owls in Costa Rica and in Malawi.

Name	Standing for	Females	Males	Total
<i>Costa Rica (%)</i>				
Buho	Owl	76	77	77
Cara de Gato	Tyto alba	37	46	41
Oropopo	Pulsatrix perspicillata	26	41	34
Hu de Leon	Ciccaba virgata	16	34	26
Total no. of answers		74	88	162
<i>Malawi (%)</i>				
Kadzidzi	Owl, maybe also Bubo africanus	96	96	96
Owl	Owl	73	60	65
Matchichi	Owl, species ?	44	71	61
Phululu	Owl, species ?	53	54	54
Total no. of answers		55	92	147

Figure 1.—General knowledge of owl species in Costa Rica and Malawi.

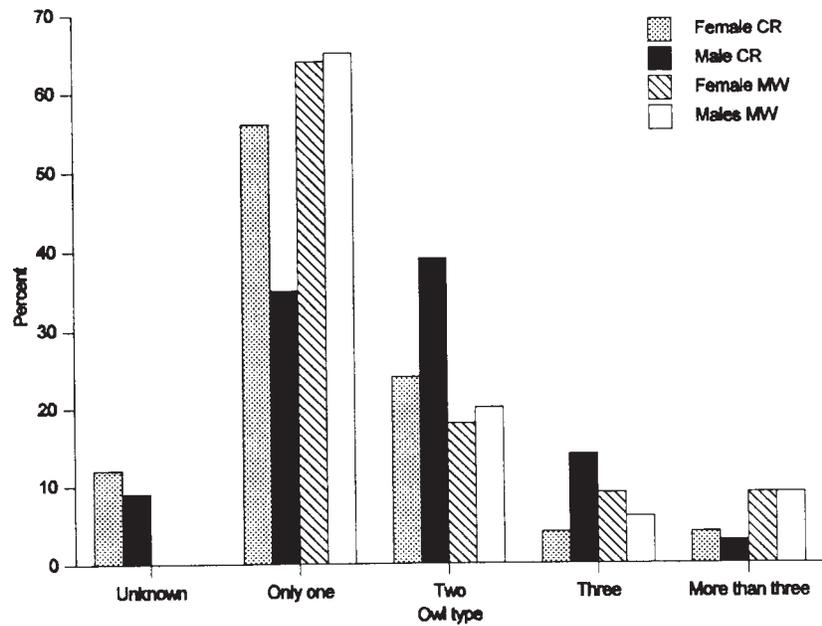


Table 2.—General knowledge of owl habitats in Costa Rica and in Malawi.

Habitat	Costa Rica (%)			Malawi (%)		
	Females	Males	Total	Females	Males	Total
Mountains	85	80	82	60	67	65
Forests	80	76	78	100	96	96
Wetlands	-	-	-	20	51	40
Fields	10	16	13	22	32	28
Villages	-	-	-	48	52	50
Cities	3	2	3	28	33	31
Graveyards	-	-	-	16	18	17
River banks & gullies	3	6	4	2	11	8
No. of answers	74	88	162	50	91	141

few graveyards present. Due primarily to firewood gathering, wooded areas around Malawian villages are mainly associated with graveyards.

**Owl Food**

In both countries, people correctly answered that owls mainly eat small mammals (table 3). In Costa Rica, insects were listed as owl prey in 13 percent of the answers; while in Malawi the corresponding value was 77 percent. In Malawi, 69 percent had reported snakes as food against 17 percent in Costa Rica.

Interestingly, both in Costa Rica and in Malawi, approximately an equal proportion of people

were wrongly convinced that owls were eating fruits, but only in Malawi did people list bread and maize as owl food (table 3).

In Costa Rica, 74 percent had never seen an owl catch or eat prey, while in Malawi those seeing owls actually take prey were 38 percent. In Malawi, people saw the following prey items (n=50) eaten: rats (9), hares (3), birds (2), frogs (2), snakes (7), insects (10), mice (5), dog (1), chicken (5), lizards (5), and fish (1).

Insects, rats, and snakes were frequently observed to be eaten by owls, which was also suggested in table 3.



Table 3.—General knowledge of owl food in Costa Rica and in Malawi.

Food	Costa Rica (%)			Malawi (%)		
	Females	Males	Total	Females	Males	Total
Small mammals	34	48	41	50	84	72
Cats	5	11	9	-	5	3
Chicken	10	14	12	4	23	16
Other birds	12	11	12	31	45	40
Frogs	1	5	3	2	4	4
Snakes	19	16	17	63	73	69
Lizards	4	8	6	46	61	56
Worms	4	3	4	2	2	2
Fish	1	1	1	19	14	15
Insects	12	14	13	77	77	77
Fruits	31	14	22	10	25	20
Bread and maize	-	-	-	2	3	3
Meat	4	2	3	-	-	-
No. of answers	74	88	162	48	88	136

### Owls Calling

In Costa Rica, 85 percent of those surveyed had heard owls calling at least a few times, while in Malawi the corresponding figure was 98 percent (100 percent for the males). A majority of people in Costa Rica connected the owl calls with summer and with a full moon.

In Malawi, owl calls were not linked to any season, rainy or dry, but 76 percent said that owls called at night in the forest (30 percent), near houses (28 percent), and in villages (24 percent). Graveyards were mentioned by 9 percent of the respondents.

### People Killing or Sacrificing Owls

In Costa Rica, every sixth, and in Malawi, every fourth interviewed knew somebody who had killed or sacrificed an owl or owls. In Costa Rica, owls were killed because they are thought harmful (eat chickens), just for fun, for curiosity, to study, because they were 'causing' bad luck or because they were 'bigs'.

In Malawi, the reasons for 41 killings were listed as below:

- superstitious beliefs to avoid bad omen	30%
- to make magic medicine <sup>3</sup>	5
- because they make too much noise	13
- just for fun during the hunt	23
- to be eaten as a relish	17
- because it killed a hen	2
- because it attacked first	2
- because it entered into a hospital	2
- because it was nesting too near the house	2
- killed by a car	2
- did not know why he/she killed the owl	2
Total	100%

There seems to be no mercy for owls in Malawi, as they are commonly killed for many reasons.

### Owl Beliefs

In Costa Rica, only 55 percent of those interviewed knew of beliefs or myths while in Malawi well over 90 percent knew and had strong beliefs and/or superstitions about owls.

<sup>3</sup> To make magic medicine needs an explanation. In Malawi, an owl-based medicine is only used for witching and killing people and not for healing any diseases (Mikkola 1997b).

In Costa Rica, those who knew stories and myths were older people, mainly old men. In Malawi, 92 percent of the answers from young and old respondents repeated that owls were responsible for bringing bad luck to humans, foretelling death, and that owls were associated with witchcraft.

Bad luck and death-related stories were also the most common myths in Costa Rica, but only 26 percent believed in those myths, 53 percent of the believers were women. Only 13 percent of young persons had any superstitious beliefs in Costa Rica, and 62 percent of them were females. Women appear to be more superstitious than men in both countries.

Some typical myth and story statements were as follows:

“Owls are birds of bad omen and bad luck, and have some secrets because they are nocturnal, they have a bad spirit (Costa Rica).”

“Should an owl settle on a roof of a hut (house), it is regarded as a messenger of death. Even if it merely screams while flying over or near the hut (house), it is believed to be predicting some misfortune to the inhabitants (Malawi).”

“Before my wife died, one owl was calling several days and people kept telling me that someone will die soon (Costa Rica); the Malawian version being: “When people hear an owl singing they believe that someone will pass away during that night in their village.”

“Owls are not real birds, as they are created by witches or wizards for bewitching people (Malawi).”

Also in Costa Rica owls were seen as messengers of a sorcerer.

In both Costa Rica and Malawi people mentioned that owls attack people and try to make them blind by grasping their eyes. Indeed, it is true that some owls get very aggressive towards any intruders when defending their fledged young or at their nest. In Europe, at least four people have lost an eye due to attacking owls (Mikkola 1983).

In Costa Rica, many people related owls with the cats, even named the Barn Owl as “Cara de Gato” (Cat face), but in Malawi only one person

said there was some resemblance between an owl and a cat’s head. In non-scientific terms, an owl is a cat with wings. It is a creature superbly adapted for hunting small rodents, watching silently until it pounces. Yet, like the cat, it can be noisy on occasions, rending the night with a never-ending series of raucous courting screams and hoots (Sparks and Soper 1989).

Only in Malawi was there a common belief that “if an owl crosses the road while you are traveling you are sure to get some misfortune.”

Interestingly, this same belief is very common in Europe, at least in Finland, but only when a black cat crosses the road and not an owl. In Morocco, on the other hand, the hoot of an owl was merely a bad omen for any traveler about to set out on a journey (Weinstein 1989).

### Owl Classification

In conclusion, the respondents were asked to classify owls according to their knowledge and beliefs (fig. 2). In Malawi, a great majority classified owls as a bad omen. Fewer Malawian women found owls beneficial than men (fig. 2). In Costa Rica, fewer males and females associated owls with a bad omen. Five percent of the women and 1 percent of the men in Costa Rica listed owls as frightening, while in Malawi, 29 percent of the females and 20 percent of the males admitted being scared or terrified even to talk about the owls. Again, both in Costa Rica and in Malawi women appear more superstitious than men (fig. 2).

A British television survey interviewed over 300 people above the age 15 about their animal likes and dislikes. When given a choice between the terms frightening and non-frightening, 39 percent of the people found owls frightening, 35 percent did not, 26 percent preferred to view owls as neither (Burton 1992).

In Costa Rica, many people, especially young persons, had obtained more knowledge on owls through television and by visiting zoos. In Malawi, there is no television, and only the City of Blantyre has a small zoo with no or a very few owls on display. Due to exposure to new knowledge about owls from TV and zoos, some young people in Costa Rica concluded that owls are clever and intelligent. In Malawi, none felt that way about owls.

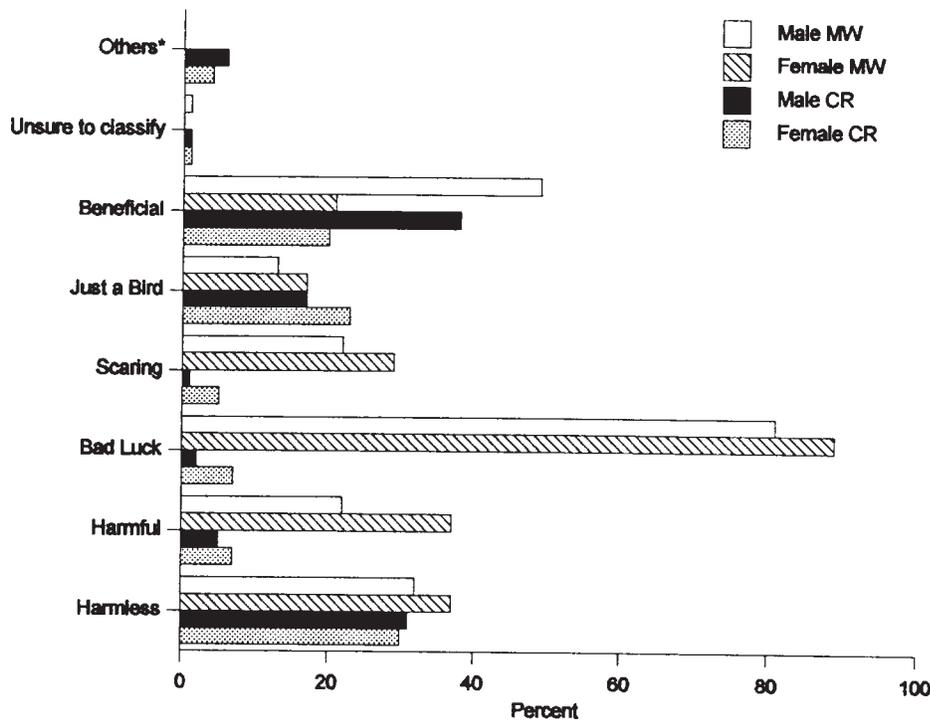


Figure 2.—Classification of owls in Costa Rica and Malawi.

\* Including: proclaiming, brave or fierce, and impressive.

## DISCUSSION

Interviews in Costa Rica and Malawi confirmed that there is a widespread belief that hearing or seeing an owl is an omen of death and disaster, a conviction which possibly originates from Africa (Mikkola 1995).

In Costa Rica, a majority do not believe this superstition, but stated that old people still believe myths about owls; some admitted that owls can cause them fear and terror. In both countries women were more superstitious than men.

With the dying out of superstitions by the 20th century—in the West at least—the owl has assumed its position as a symbol of wisdom (Weinstein 1989).

In Malawi and Costa Rica, people who thought of owls as beneficial and effective controllers of agricultural pests (e.g., mice, rats, and insects) also connected owls with witchdoctors and with magic powers. One possible explanation of strong superstitions existing in the 20th century could be that in Malawi owls were often correctly associated with graveyards. Due to heavy deforestation in most Malawian villages, graveyards are the only wooded areas remain-

ing. Owls use graveyards for breeding, calling, and daytime roosting. As a result, people are meeting owls more and more often in graveyards, thus reinforcing their strong belief that owls are connected with death.

In Malawi and Costa Rica, people had a lot of general knowledge of owls, but in many cases this knowledge was unclear or wrong. It is a paradox, that in reality owls are one of the most beneficial groups of birds, but one of the least understood (Clark *et al.* 1978).

Holl *et al.* (1995) suggest that it is important to consider how peoples' attitudes toward wildlife affects their action toward conservation of species and ecosystems. Understanding both environmental problems and the influence of human behavior is indispensable to achieve success in the conservation of owl populations around the world. Only by educating people, through schools and television, of the roles owls have in nature, will superstitious beliefs in them be overcome.

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Milky Eagle Owl (*Bubo lacteus*) is the largest owl in Malawi, length 66 cm (26 inches).