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THE BIRDS AS INDICATORS OF THE INVISIBLE WORLD: ETHNO-ORNITHOLOGY OF THE MBUTI HUNTER-GATHERERS

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ABSTRACT The relationship of the birds with Mbuti hunter-gatherers is described and analyzed. A total of 115 types of birds were observed in the Ituri Forest of the Congo Basin. Vernacular names, practical uses, food and other behavioral restrictions, and folk belief concerning these birds were recorded. While the birds occupy almost a negligible position in the diet and subsistence activities of the Mbuti, they have important meanings in the rituals, folk belief and other aspects of the Mbuti spiritual life. Particularly interesting is the role of birds as the mediators between human society and the invisible world. The birds are believed to convey information on otherwise unaccountable causes of illness, unpredictable distribution of animals and their behavior in the forest, unexpected failure of hunting, sudden visit of a guest, and other events which the Mbuti feel require some kind of explanation.

Key Words: Ituri Forest; Ethno-ornithology; Nomenclature; Practical use; Food avoidance; Folk belief.

INTRODUCTION

Since the early 1970's, we have carried out ecological and anthropological research on the Mbuti hunter-gatherers in the Ituri Forest of the Democratic Republic of Congo, formerly Zaire. One of the major fields of our interest is ethnoscience, that is, a study of traditional knowledge on the plants and animals in the forest. We have so far collected about 1,000 specimens of plants in the Ituri Forest, and the ethnobotanical information has been accumulated in the database called AFlora (Terashima et al., 1991). We have also collected data on about 60 species of mammals identified in the study area, including their vernacular names, hunting methods used for capturing them, importance to the diet and ethnozoological knowledge.

The research on the avifauna had been difficult, mainly because of the poor visibility in the dense forest. Scientific identification was possible for only some birds observed in open places such as village sites and the roadside, and occasionally other birds captured with hunting nets, such as francolins and Guinea-fowls. In 1980, however, a mist net was used for the first time to capture the birds, which proved to be quite effective; dozens of bird species were captured with the mist net and identified through close observation. Moreover, from the interviews with the Mbuti with actual, living birds in hand, reliable ethno-ornithological information could be obtained.

The mist net was 9 m long, and set in the following three different types of vegetation: (1) secondary forest around Mawanbo village, the research base on the roadside, (2) secondary forest near the Mbuti base camp situated in the boundary area between secondary and primary forest, and (3) dense, closed (probably primary) forest around the

hunting camp. The net was shifted every 2 to 3 days in one of the three vegetation zones. During a three month research period from October, 1980 to January, 1981, the net was set for a total of 31 days around the village, 26 days around the base camp and 9 days around the hunting camp, and a total number of birds captured during this period counted 255.

Of the 255 birds captured during the three months, a species of greenbulbs (*kietu*, *Andropadus* sp., Pycnonotidae) accounted for one third (84). Combined with other species of greenbulbs and bulbuls, the Pycnonotids accounted for almost a half of the captured birds. The Muscicapid birds (family of flycatchers) follow the Pycnonotids in number, which is probably related to the large number of species included in this family.

There are also other birds which were not captured, but nevertheless identified by either direct or indirect observations. When all of these birds were included, a total of 115 bird types were identified, for which 109 vernacular names were obtained. Of the 115 bird types, 63 identified at the species level, 77 at least at the genus level. In addition, there were 16 bird types for which only vernacular names were obtained without any scientific names. The scientific as well as ethnographic information of these birds are given in the appendix.

The Ituri Forest is situated on the northeastern edge of the tropical rain forest of the Congo Basin. To the east, the forest is replaced by grassland after crossing the Ituri River. The grassland extends to the lakeside of Albert (former Lac Mobutu), 100 km to the east of the Ituri River. In the northern part, the forest disappears in the south of Mungbere, 100 km north of Mambasa, the administration center in the Ituri Forest, and replaced by the vast savanna grassland extending to the southern part of Sudan. Bound in this way by the grasslands and located near the Rift Valley Lakes, the Ituri Forest accommodates a variety of birds of mixed origins; while the avifauna is dominated by the species of a forest type common to central to western Africa, there are also the birds of a savanna type, such as pied wagtails, yellow-vented bulbuls and weavers.

According to the ornithological report by Schouteden (1963), a total of 600 to 700 species were recorded from the entire Ituri Region. Of these, 289 were identified in the Zone de Mambasa, the central part of the Ituri Forest. Therefore, this paper covers a little more than a third of the avifauna described by the ornithologist.

PRACTICAL RELATIONSHIP WITH THE BIRDS

The Mbuti consider most of the birds as their food, including the birds of prey. There are only five kinds of birds which they would not eat even when available. These are pied wagtails, owls, crows, nightjars and various species of swallows and swifts. It is a taboo for the villagers in the Ituri Forest to kill wagtails which inhabit the human settlements. The Mbuti also avoid eating such birds that are closely associated with villages. Owls are avoided because they are thought to be the "watchman" of a witch or sorcerer (*mumbwa*). None of the swallows and swifts are eaten, whereas they are used for ritual medicine for hunting; in particular, their feathers are fastened to a hunter so that he may move in the forest as fast as swallows. Crows are disliked because they are "polluted," feeding on human wastes and other dirty things. It is not clear why nightjars are avoided, but it may be related to their nocturnal habits, which makes the Mbuti feel

uneasy. Some Mbuti in other areas, however, did not deny they had eaten nightjars.

While the Mbuti consider almost all the birds in the area as their food, actual proportion of birds in their diet is not high. For example, during a one-month period in the beginning of 1975, they obtained almost 900 kg of game meat (Ichikawa, 1983), of which less than 5 kg were that of birds (5 birds, consisting of two black Guinea-fowls and three forest francolins). As a source of energy or protein, the importance of birds is almost negligible, compared with the importance of mammal meat. At least, birds are not indispensable to the Mbuti's diet.

Neither is hunting for birds important in the Mbuti subsistence activities. Some game birds like Guinea-fowls and francolins are sometimes captured with hunting nets primarily used for duikers and other medium-sized mammals. In the secondary forest around the base camp, hunting with bows and arrows is often carried out, in particular for killing arboreal monkeys. On this occasion, turacoos and hornbills are shot occasionally, if they are encountered by chance within shooting range.

Some birds are captured by special methods. In the rainy season, a shrub species in the secondary forest, *amakurumbe* (*Rantana camara*) bears plenty of green fruit on which greenbulbs and other bulbuls feed. A special trap is set for capturing these birds using *Rantana* fruit as bait. Sometimes more than 10 birds are caught in a day, and eaten mainly by children. Another type of trap is used for Guinea-fowls and francolins. These birds have a habit of moving along relatively open and drier places such as human and animal trails, particularly after heavy rain (William, 1963). The Mbuti know well such habits of these birds, and set traps called *sikpa* along the trails. They even make such trails of 50 to 60 cm wide, removing the fallen branches and leaves, and set the traps along such false trails. These traps are mainly made by old men who no longer participate in hunting for larger animals.

Special technique is employed in capturing large hornbills. Hornbills are known to feed their offspring in a tree hollow. In the breeding season, the nest entrance is sealed with soil, leaving a small hole through which the mother and offspring are fed by males (William, 1963). When the Mbuti find out such a breeding nest of hornbills, they climb the tree to the nest and blow smoke into it to drive the mother out. Then, the young birds are caught with hands.

The Mbuti children often play with a catapult when they are at the base camp. They obtain a strip of an old rubber tube and fastened it to a Y-shaped wood. Wild rubber from the latex of *Landolphia* spp. and *Funtumia* is also used for making a catapult. The major targets of catapult shooting are birds and other small animals like squirrels. Even adult men use the catapult especially when they travel along the road to visit nearby camps. Whenever the Mbuti encounter a larger bird within short distance, they hunt it by throwing stones, a piece of wood, or anything available on the spot. One day I encountered a great blue turaco (about 70 cm long) at only a 6-7 m distance. A Mbuti man threw a stone, and it fell onto the ground, hit with the stone.

Unlike net hunting and other hunting for mammals, hunting for birds is not carried systematically, nor as frequently as hunting for mammals. While various birds are occasionally eaten, they do not contribute much to the diet from a quantitative viewpoint. Feathers of some birds such as hornbills and turacoos are used for ritual dances and for personal beautification, but these are used only when obtained by chance. The Mbuti do not usually hunt the birds intentionally for such purposes. In short, the

birds do not play a significant role in the material life of the Mbuti.

In their spiritual life, however, the birds are at least as important as other animals, the mammals in particular. There are some birds which have important ritual meaning to the initiates to the circumcision rite, and others are prohibited or avoided as ritually "marked" during certain periods of the Mbuti's life cycle. Even for the birds without obvious ritual or material uses, the Mbuti have a vernacular name for each of the birds they recognize and rich knowledge about their habitat and behavior.

THE VERNACULAR NAMES FOR THE BIRDS

There are 63 species of birds identified at the species level. Of these, 49 show one-to-one correspondence to the vernacular names, whereas others are underdifferentiated, with only 7 vernacular names given to 14 scientific species. No vernacular name is overdifferentiated against a scientific name. Among the species identified only at the genus or family level, there are birds which have only general names as a group. For example, all the swallows and swifts are called *byanbya*, and many sunbirds are simply called by the same name, *amatinebulu*. The Mbuti are lumpers as to the classification of the birds.

For the 115 types of birds recognized in the study area, obtained were a total of 109 vernacular names, all of which are the lexemes of terminal taxa (see, Berlin et al., 1974). These were classified into three categories according to Berlin et al. Ninety-six were classified as "unanalyzable" lexeme with only one root morpheme, three were "analyzable" but "unproductive", with more than one root morpheme, but without any morpheme that meant "bird" or other higher level taxon, five were "analyzable" and "productive," containing morphemes for higher level taxon, and five were "secondary lexeme," with a binomial form, showing a hierarchical structure in the name itself.

Most of the vernacular names are composed of a single, unanalyzable root morpheme. There are only five vernacular names composed of secondary lexemes; two names for parrots (*akukwa ngoma* and *akukwa toto*), one for two species of blue-bills (*kutu nyeusi*), and two for weavers (*siele la muka* and *siele ya ngungu*). Berlin et al (1974) regarded the secondary lexemes as having hierarchical structure akin to that of the binomial system of genus and species in the modern scientific classification. According to this view, hierarchical classification does not develop in the Mbuti nomenclature of birds. Apart from the several cases listed above, there is no name for an intermediate category between the terminal taxa and the unique beginner (see Berlin et al., 1974), that is, the bird as a whole (*ba-bu*).

The etymologies of 60 bird names could be clarified. These are classified into the following four types: (1) Forty names (67%) derive from the sounds made by the birds such as calls and flying sounds. These names are constructed by adding to the onomatopoe of bird call and other sounds a prefix, *apa-* or *ama-*, meaning "owner of." In some other cases, metaphors deriving from sounds are used for making the names, as in the case of *apakolokolo*, a species of turacos whose call sounds like coughing (*kolo*). (2) Eleven names (18%) derive from the places where the birds are believed to be often found, or from the animals and plants with which they are thought to be closely associated, as described later. (3) Six (10%) derive from the behavior, flying manner,

and other habits of the birds. Finally, (4) three names derive from the external appearance of shape and color.

There are some other names which are thought to have some etymology judging from their forms. For example, the morphemes associated with the prefix, *apa-* or *ama-*, must have some semantic origins, even if they are not known to the present-day Mbutis. If such cases are included, 73 out of 104 generic names (according to Berlin et al.) are thought to have derived from, or at least semantically linked to, other words than the bird names themselves.

This is notable, because in principle, any name could be given to the birds or other objects. The basic characteristics of human language is that the relationship of a concept with its linguistic marker (i.e., names) is arbitrary. Many of the bird names, however, derives from, or linked to, the linguistic markers which indicate the shape, color, call, behavior and other habits of the birds. This suggests the relationship of a bird with its name is often not of a totally arbitrary nature.

It is also noteworthy that a considerable number of names derive from the calls and sounds of the birds. This is probably due to the poor visibility in the forest environment in which the Mbuti depend mainly on the auditory information in order to identify the birds. Hunn (1977) also reported that among the Tzeltal of central America, nearly a half of the vernacular names of the birds derived from onomatopoe of their calls. He attributed it to the fact that the birds in this area have developed auditory communication system. He, however, underestimates the environmental restriction imposed on human perception. It is difficult to see the birds passing quickly in tree shades, and almost impossible to identify them in the dense, closed forest by eyesight only. Under such a condition, it is easier and more reliable to identify the birds by auditory information. In fact, the Mbuti often could not identify the captured birds by their figure alone, but immediately identified them when the birds emitted their peculiar calls.

FOLK BELIEF AND KNOWLEDGE CONCERNING THE BIRDS

I. Food Restrictions

While most of the birds are eaten when captured by the Mbuti, there are some food restrictions concerning the birds. Twenty-nine types (25%) of the birds recognized in the study area are subject to such restrictions. The details of food restrictions among the Mbuti society were given in a previous paper (Ichikawa, 1987). A brief description on the avoidance of birds is given here.

There is a food taboo for the totemic animal(s) of a particular clan. The clan members cannot eat these animals called *ngini-so* (things prohibited), or *ngini-so-su* (things prohibited to us), which symbolize their membership of a particular clan. Should one eats one of such prohibited animals, his teeth would fall out. Among the birds, a species of lesser type of hornbill (*kohekohe*), white-browed alethe (*mopie*), great blue turaco (*kulkoko*) and Senegal coucal (*jifi*) are prohibited as such totemic animals.

Secondly, certain animals are avoided by suckling infants and their parents, and also by infants and youths in general, for fear that they may cause severe illness in those who eat them or their dependent children. These dangerous animals are generally called

kuwari, and are supposed to have certain evil power to cause diarrhea, fever, skin rashes, and other serious diseases in the person who eat them or his or her dependent child. There are as many as 20 species of birds considered to have such power to cause an illness. The type of disease and its graveness vary, depending on the animals eaten. The most powerful and dangerous ones are avoided for most of the life cycle. These are called "the birds for the old," which can be eaten only by old people. The birds for the old include black Guinea-fowl (*gbengbengbe*), a species of turaco (*apakolokolo*), Senegal coucal (*jifi*) and some water birds including white-spotted crakes (*amabonbonbon*) and egrets (*nyange*).

Immediately after a baby is born, Mbuti parents cannot eat any meat of mammals and birds. The initiates to the circumcision rites (*baganja*) must observe similar food restrictions during a series of circumcision rite. During the circumcision rite and immediately after that, Mbuti boys under initiation are prohibited from eating most birds, except some common birds as greenbills and weavers. These prohibited birds are also regarded as *kuwari*. By imposing such food restrictions on the initiates, the Mbuti conceptualize circumcision as a social birth of an adult. The birds play another special role in a circumcision rite. There are songs about yellow-vented bulbuls (*kpupele*) and pigeons (*etiti*) sung by the initiates during the rite.

There are other birds avoided as *ekoni*, which may cause difficulty on delivery or deformation of the baby born from the parents who have eaten the birds of *ekoni* during pregnancy. Great blue turacos and certain species of the birds of prey (*muksue*) are such examples of *ekoni*. Moreover, young parents who have never lost their offspring are prohibited from eating three species of francolins (*endonbi*, *ekonbi* and *koryakorya*). These are called *ekusa* birds, which may cause the death of offspring if eaten by such young parents.

II. Other Behavioral Restrictions Concerning the Birds

Among the Mbuti society, there are behavioral taboos called *nba*. These taboos are strictly imposed when they stay in a hunting camp. For example, they are prohibited from throwing a stone in a hunting camp, sitting with legs crossed, or pouring cold water over the fire in the morning. It is also prohibited to follow a person who is going out for fishing or honey-collecting. In addition to these, there is a taboo (also called *nba*) for mentioning certain names, including the names of worker termites, chameleons, and lumps of pollen stored in a stingless bees' nest. If one should violate one of these taboos, it would anger Apakumandura (master of the forest), which, the Mbuti fear, would result in failure of food procurement in the forest.

Included in these taboos are the names of certain birds. Before going out for a hunt and during the hunt in particular, the Mbuti are prohibited from mentioning certain names of birds, such as the long-crested eagle (*sonbouko*), white-spotted crane (*amabonbonbon*), black-headed paradise flycatcher (*suekeke*) and Senegal coucal (*jifi*). Black-headed paradise flycatchers are omen to an extremely bad luck. To say nothing of mentioning their name, just encountering with them by chance is an ill omen. Thus, when the hunters happen to see the bird, or hear its call during the hunt, they may change the hunting route, or even return to the camp.

III. Association of Birds with Other Animals and Plants

One of the most interesting folk beliefs about the birds is that of special associations of birds with animals and plants. The Mbuti insist that many animals, mammals in particular, have their own birds, which are called "the birds of such and such animals." The following are examples of such associations.

1. The birds associated with elephants are a species of hornbill (*kohokohe*), yellow-spotted barbet (*bururu*) and *amasanginbo* (unidentified small birds). It is said that, if men approach an elephant, these birds fly around the elephants, making a noise at the ears to inform the elephants of danger. The dwarf and pygmy kingfishers (*mangamako*) are also called the birds of the elephants, but these birds help the men instead, pointing to the location of the elephants with their conspicuous red bills.
2. Great blue turacos and a species of Muscicapidae called *cheecheechee* are said to be the birds of okapis. They inform the okapis of danger, the former by crying loudly on the treetop over the okapis, and the latter by making a noisy "cheecheechee" call.
3. West African nicators (*amapopo*) are closely associated with chimpanzees, which are said to be found where this bird sings beautifully. It is also called the bird of *baganja* (initiates for circumcision), because it shakes its tail like the initiates who shake their hips in the circumcision dance.
4. Bristlebills (*gbengbe*) and a species of bulbul called *esholo* are the birds of duikers (called *nyamapanda* in general). If they are encountered with during the hunt in the forest, the duikers are said to be hiding in the nearby bush.
5. Yellow-vented bulbuls (*kpupele*) are the birds of tree pangolins and tree hyrax. While these two mammals belong to different families, they are nevertheless considered to be relatives due to their similar arboreal habits.
6. Other associations include those of brown-chested alethes (*mopie*) with bush pigs, Senegal coucals with giant forest hogs, *efunbe* (unidentified) with forest buffaloes, *amabaaha* (a species of Cuculidae) with leopards, *manbueituri* (unidentified) with Nile crocodiles, white-tailed bulbul (*amepiya*) with honeybees, a species of flycatchers (*Sizorphy fraseri*, called *manbuapiso*) with a major species of stingless bees (*apiso*, *Meliponula bocandei*) and fire-crested alethe (*bunjaku*) with army ants.
7. Other than animals, there are also associations of birds with certain plants, like in the case of *amakisorbikisonbi* (a species of Camaroptera) with *kisonbi* (*Dioscoreophyllum cumminsii*, root of which is eaten) and *manbuatumba* (a species of flycatchers) with *tumba* (*Dioscorea mangelotiana*). These birds are said to be often found where there are *kisonbi* or *tumba* roots.

The Mbuti explain these associations in following ways: "Where these birds are crying, often found are the animals associated with them." Or, "these birds inform the

animals of the danger, if men approach them." These explanations suggest the birds are thought to be an important source of information either for the animals or for men. Such a role of birds as "spotter" is probably based on the condition of forest environment. In the dense forest with poor visibility, it is often difficult for men to locate the animals to hunt, which also means it is difficult for the animals to perceive the approach of their enemies, men in particular. The birds flying freely over the trees, however, may see both men and terrestrial animals much more easily. Moreover, the forest birds (and arboreal monkeys) frequently exchange vocal communication, which, except for chirping of some insects, is almost the only source of auditory information in the dense and quiet forest. The Mbuti may well think the birds can quickly see what is happening on the ground. Thus, it seems rather natural that the Mbuti assign to the birds a role of "spotters."

In some cases, such associations between certain bird species and other animals are empirically supported. The fire-crested alethes, for example, are in fact often found with the marching army ants on which they feed (Mackworth-Praed and Grant, 1973). The great blue turaco makes their peculiar loud call when they saw humans passing beneath. Pygmy kingfishers often shake their heads slowly, as if they were pointing to a specific direction.

Apart from these examples, however, the associations are not empirically confirmed. The Mbuti probably overestimate the role of birds as the addresser of information. A few actually observed associations like that of alethes with army ants, however, are important in that they provide the Mbuti with an empirical basis for other similar associations. They use these examples as a model for generalization. From an empirical viewpoint, it may be a wrong generalization, but it nevertheless reflects the Mbuti desire for some explanations for the animal distribution in the forest or their sudden fleeing behavior, which are otherwise unpredictable and unaccountable. It is also based on their idea that different species of animals in this forest do not live in isolation, but in close association with other species.

IV. Birds as Predictors

Other than the birds which indicate the existence of other animals by their supposed associations, there are also the birds which, by their peculiar calls, foretell future events or reveal hidden matters. The Mbuti say, when the bird called *goria* makes a "goria" call, somewhat different from the usual one, it is followed by the death of a relative. The bird *manbuekendu* (meaning a bird of guest) heralds, by its call, that there will be a guest in the near future, as its name suggests. A larger species of kingfishers called *lungengiya* is said to emit a different call when there is a menstruating woman, who is prohibited from participating in the hunt.

V. Anthropomorphism Applied to Birds

A species of greenbuls called *mbilie* (*Criniger calurus*) is said to be the chief of the birds, because, according to the Mbuti, other birds will gather around him, when it calls "mbilie!" In fact, the greenbuls often form a mixed-species group in which they (the greenbuls) play the role of leader (Mackworth-Praed and Grant, 1973). As African indicators (*amapopo*) is said to be the bird of circumcision, from the way they shake the

tail like the dancing initiates in circumcision rite, they are eaten only by a circumcisor (*tende*). A species of barbets, *ekpee* (*Gymnobucco bonapartei*) is called the king of birds, because other birds keep silence, when it cries loudly "ekpee!" According to Williams (1963), the bird actually emits a long-hauling call "chooooo!" The owls are called "watchman of sorcerers" and not eaten, because of their nocturnal habits like that of sorcerers.

DISCUSSION: THE BIRDS AS INDICATORS OF THE INVISIBLE WORLD

A comparison was made on the use of birds for food among three ethnic groups in Africa (Table 1). The Turkana are pastoralists in the semi-arid zone in northern Kenya, and the Tongwe, horticulturalists in the woodland to the west of Lake Tanganyika. The data on these two groups are obtained from Itani (1980). As shown in the table, the Mbuti consider more birds as their food than other two groups. While the Mbuti regard as many as 104 species (95%) as food, the Turkana and Tongwe only 59 (63%) and 54 (74%), respectively. The Mbuti have a wide range of food repertory including the birds, which is a general tendency of hunter-gatherer food cultures.

However, the Mbuti do not eat these birds at anytime whenever available. Nor do they show a similar attitude toward all the birds living in this region. The folk belief and cultural restrictions concerning the birds are summarized in Table 2. The most striking is the birds regarded as *kuweri*, *ekoni* and others which are avoided for fear of the diseases, abnormal births and other misfortunes, which are thought to be caused by these birds.

Table 1. The proportion of the birds regarded as edible among three ethnic groups in Africa.

	Mbuti	Turkana	Tongwe
Recorded No. of species	109	93	73
No. of edible species	104	59	54
%	95	63	74

Table 2. Folk belief and restrictions applied to birds.

Type of belief and restriction	Number of species (%)
Food restriction	32 (29)
<i>nginiso</i>	4
<i>kuweri</i>	21
<i>ekoni</i>	2
<i>ekusa</i>	3
other	2
<i>Nba</i>	7 (6)
Associations with other animals	20 (18)
Foretelling	3 (3)
Analogy	4 (4)

Kuweri and *ekoni* are believed to have some supernatural power to cause diseases and other misfortunes, and as such, they provide the Mbuti with a concrete image of the cause of dreadful diseases and other misfortunes, which is otherwise invisible and unaccountable. In this regard, it is interesting to see the birds associated with other animals, as they also provide the Mbuti with explanations of otherwise unpredictable distribution of animals and their behavior in the forest. Moreover, the birds of *nba* (taboo) or those heeded for omens are expected to predict the failure of hunting, arrival of a guest, or death of a relative. To put it another way, the birds may provide the Mbuti with the reason for such unusual events.

The birds therefore play an important role of delivering information on the matters which are otherwise invisible and unaccountable in the empirical world. There are as many as 46 species of birds which are thought to mediate in some way the information on the invisible world to the human society. It is an interesting theme why birds in particular are expected to play such a role, compared with other animals, among the Mbuti society.

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Appendix. A List of Birds Recorded In the Ituri Forest.

Scientific Name	Vernacular	English	Food Avoidance	Other Remarks
Non-Passeriformes				
Ardeidae				
<i>Egretta</i> sp.	<i>nyange</i>	egret	<i>kuweri</i>	Birds for old people.
Anhinga				
<i>Anhinga rufa</i>	<i>apakolo</i>	African darter	<i>kuweri</i>	Avoided by suckling infants and their parents. Said to be snake-eating birds.
Anatidae				
?	<i>libuta</i>	wild duck		Called by the same name with domesticated ducks.
?	<i>euya</i>	wild goose		If a drum is beaten while they are flying in a flock, they begin to dance in the sky to the sound of drum.
Accipitridae				
<i>Lophoaetus occipitalis</i>	<i>sombouko</i>	long-crested hawk	<i>nba</i>	Prohibited from mentioning the name of this bird during the hunt.
<i>Gypohierax angolensis</i>	<i>amakonbi</i>	palmnut vulture	<i>kuweri</i>	Avoided by suckling infants and their parents.
<i>Polyboroides radiatus</i>	<i>ndia</i>	harrier hawk		The birds often raid chickens in the village.
	<i>segbe</i>	eagle		Larger type of <i>ndia</i> . Eat monkeys and duikers.
<i>Terathopius ecaudatus</i>	<i>mukue</i>	batclaur	<i>ekoni</i>	If a pregnant woman or her husband eat this bird, a baby with an extraordinary large head may be born to them.
Phasianidae				
<i>Agelastes niger</i>	<i>gbengbengbe</i>	black Guinea-fowl	<i>kuweri</i>	Birds for the old. Only old people can eat it.
<i>Francolinus lathami</i>	<i>endombi</i>	forest francolin	<i>ekusa</i>	Appearing in a song of <i>molimo</i> ritual. Young couples should avoid eating this bird, as their offspring may be lost.
F. sp.	<i>ekombi</i>	redleg	<i>ekusa</i>	This bird even drives the leopard away, threatening by its blood-colored red legs. Also avoided by young couples for fear of the loss of offspring.
F. sp.	<i>koryakorya</i>	francolin	<i>ekusa</i>	The name derives from its voice, "korya, korya". Also avoided by young couples as <i>ekusa</i> .
<i>Guttera plumifera</i>	<i>kanga</i>	plumed Guinea-fowl	<i>kuweri</i>	Avoided by parents. If they eat this bird, it may cause skin rashes (<i>upele</i>) to their dependent children.
?	<i>amakipowali</i>	quail		Inhabiting the secondary forest near the settlement.
Rallidae				
<i>Sarothra pulchra</i>	<i>amabonbonbon</i>	white-spotted crane	<i>kuweri</i>	The name derives from its voice, sounding like a clock, "bon, bon, bon...". The bird for the old.

Appendix. (continued)

Scientific Name	Vernacular	English	Food Avoidance	Other Remarks
Columbidae				
<i>Treron australis</i>	<i>kpetule</i>	green pigeon	<i>kuweri</i>	Prohibited to the initiates of a circumcision rite.
<i>Turtur tympanistria</i>	<i>kuka</i>	tambourine dove	<i>kuweri</i>	<i>Kuweri</i> for the circumcision initiates.
?	<i>etiti</i>			Appearing in the song of a circumcision rite.
?	<i>pimo</i>			<i>Kuweri</i> for the circumcision initiates.
?	<i>mbingi</i>			<i>Kuweri</i> for the circumcision initiates.
Musophagidae				
<i>Corythacla cristata</i>	<i>kulkoko</i>	great blue turaco	<i>ekoni, ngniso</i>	The vernacular derives from its loud voice, which may also cause deaf to the newborn, if its parents eat the bird during the pregnancy. Hence, the bird is avoided by them. Also said to be closely associated with okapis. The totemic bird of a clan.
<i>Tauraco</i> sp.	<i>apakolokolo</i>	turaco	<i>kuweri, nba</i>	The vernacular derives from its call sounding like coughing, <i>kolo</i> . Birds for the old. It is also a taboo (<i>nba</i>) to mention the name of this bird while hunting in the forest.
Cuculidae				
<i>Ceuthomochares uereus</i>	<i>amakpenbe</i>	yellowbill coucal		The vernacular derives from its voice "kpenbe".
?	<i>amabaaha</i>			Birds of leopards.
<i>Centropus senegalensis</i>	<i>ffji</i>	senegal coucal	<i>kuweri</i>	Birds for the old.
Psittacidae				
<i>Poicephalus</i> sp.	<i>akukwa tolo</i>	parrot	<i>kuweri</i>	Birds for the old.
<i>Poicephalus</i> sp.	<i>akukwa ngoma</i>	parrot	<i>kuweri</i>	Birds for the old.
Strigidae				
?	<i>apamuku</i>	owl		Birds of a sorcerer (<i>mumba</i>), hence not eaten.
Caprimulgidae				
<i>Macrodipteryx longipennis</i>	<i>apasuasua</i>	standard-winged nightjar		Not eaten. The vernacular derives from the shape of the tail feather looking like an arrow, <i>sua</i> .
<i>Caprimulgus</i> sp.	<i>amakuyuyu</i>	nightjar		Not eaten.
Coliidae				
<i>Colius striatus</i>	<i>manjoa</i>	speckled mouse-bird		The name is also used for a human personal name. Thought to be related to flycatchers.
Alcedinidae				
<i>Halcyon</i> sp.	<i>lungengiya</i>	kingfisher	<i>kuweri</i>	Avoided by infants and their parents in an afraid of causing fever to the infants. It emits a different voice when there is a woman in menstruation nearby.

Appendex. (continued)

Scientific Name	Vernacular	English	Food Avoidance	Other Remarks
<i>Isipidina picta</i>	<i>mangamako</i>	pygmy kingfisher	<i>kuwari</i>	Avoided by suckling infants and their parents. Said to be the bird of elephants, closely associated with elephants and pointing to the direction of the elephants with its red bill.
<i>Myioceyx lecontei</i>	<i>mangamako</i>	dwarf kingfisher	<i>kuwari</i>	Same as above.
Meropidae				
<i>Merops gularis</i>	<i>amediyange</i>	black bee-eater		The vernacular derives from its feeding habit to catch flying (yange) object.
<i>Merops pusillus</i>	<i>mbyalo</i>	little bee-eater		Said to be dry season immigrants from December to March.
Bucerotidae				
<i>Bycanistes albobibialis</i>	<i>ngawa</i>	white-thighed hornbill		The vernacular derives from its voice, "ngaa". Appearing in the song of <i>molimo</i> ritual.
<i>Ceratogymna atrata</i>	<i>apachochocho</i>	wattled black hornbill	<i>kuwari</i>	The vernacular derives from its noise of flying, beating the air by feathers, "choa, choa". Infants and their parents avoid eating this bird.
<i>Tropicranus albostrigatus</i>	<i>katakata</i>	white-crested hornbill	<i>kuwari</i>	The vernacular derives from its flapping ("katakata") flying manner. Avoided by infants and their parents.
?	<i>kohekohe</i>	hornbill (yellow-bill ?)	<i>kuwari, nginiso</i>	The name derives from its voice, "kohe, kohe." Avoided by infants and their parents. Also regarded as totemic (<i>nginiso</i>) birds of a certain clan. Birds of elephants.
?	<i>abikyangolo</i>	hornbill	<i>kuwari</i>	Avoided by infants and their parents. It is said to attack other small birds to feed.
?	<i>apakunyekunye</i>	hornbill	<i>kuwari</i>	The name derives from its call, "kunye, kunye". Infants and their parents avoid eating this bird.
Capitonidae				
<i>Buccanodon duchaillui</i>	<i>bururu</i>	yellow-spotted barbet		The name derives from its voice, "rrr...". Birds of elephants. Also regarded by some group as the bird of <i>molimo</i> ritual.
<i>Gymnobucco bonapartei</i>	<i>ekpee</i>	grey-throated barbet		The name derives from its voice, "ekpee". The bird is said to be the king of birds, because other birds keep silence when this bird cries "ekpee".
<i>Pogoniulus bilineatus</i>	<i>amapongotolo</i>	golden-rumped tinkerbird		The name derives from its voice, "pongotolo".
<i>P. scolopaceus</i>	<i>amapongotolo</i>	speckled tinkerbird		Same as above.

Appendix. (continued)

Scientific Name	Vernacular	English	Food Avoidance	Other Remarks
<i>Trachyphonus purpuratus</i>	<i>bukukubukuku</i>	yellow-billed barbet		The name derives from its voice, "kuku, kukuku". Said to be often found in fig trees.
?	<i>inguu</i>			Said to be a relative of <i>aqmapongotolo</i> , but a little bigger.
?	<i>apabukaka</i>			
Picidae				
<i>Campethera caroli</i>	<i>amanbere</i>	brown-eared woodpecker		The name derives from its wood-pecking sound, "berri...".
<i>C. nivosa</i>	<i>amanbere</i>	buff-spotted woodpecker		Same as above.
?	<i>amangoka</i>	woodpecker		A larger type of woodpecker. The vernacular derives from its habit to frequent on the log (<i>ngoko</i>).
Passeriformes				
Motacillidae				
<i>Motacilla aquimp</i>	<i>manbiase</i>	pied wagtail		Not eaten. It is also a taboo to kill it, because it is always associated with villages.
Hirundinidae				
?	<i>byanbya</i>	swallow		Not eaten, but the feather is used for hunting ritual medicine to give hunters of the ability to move in the forest as swiftly as these birds.
Pycnonotidae				
<i>Andropadus latirostris</i>	<i>njomba</i>	yellow-whiskered bulbul		The name derives from its voice, "kietu". Frequents in the secondary forest. Often caught with a special trap.
A. sp.	<i>kietu</i>	greenbul		The name derives from its voice, "kpeda, kpedadada."
A. sp.	<i>kpedada</i>	greenbul		The name derives from its dirty (<i>sholoi</i>) outlook. Said to be the bird of the duikers.
?	<i>esholo</i>	a species of bulbul		The call sounds "kpukpele".
<i>Pycnonotus barbatus</i>	<i>kpukpele</i>	yellow-vented bulbul		Appearing in the song of circumcision rite. Said to be the bird of pangolins and tree hyrax.
? <i>Criniger calrus</i>	<i>mbilie</i>	bulbul		It is called the chief (<i>sultani</i>) of birds, because when it cries "mbilie!" other birds gather around it.
<i>Bleda syndactyla</i> <i>woosnami</i>	<i>gbenge</i>	bristlebill	<i>kuweri</i>	The name derives from its voice. Avoided by infants and their parents. Said to be the bird of duikers, to be frequently found near the duikers.
<i>Baeopogon indicator</i>	<i>amepiya</i>	white-tailed bulbul		The bird is said to have a good eyesight (<i>piya</i>). It is the bird of honeybees around which it is said to be often found.

Birds as Indicators of the Invisible World

Appendix. (continued)

Scientific Name	Vernacular	English	Food Avoidance	Other Remarks
<i>Nicator chloris</i>	<i>amapopo</i>	west African nicator		The name derives from its voice. The bird of circumcision, because it shakes its tail like the initiates dancing in circumcision rite. Eaten only by a circumcisor (<i>tende</i>). The bird of chimps.
Muscicapidae				
<i>Alethe diadema</i>	<i>bunjaku</i>	fire-crested alethe		The bird of army ants (<i>ba-njaku</i>), frequently found near the army ants.
<i>A. poliocephala</i>	<i>mopie</i>	brown-chested alethe	<i>nginiso</i>	Totemic bird of the clan. Also said to be the bird of bushpigs.
<i>Cossypha cyanocamptor</i>	<i>alipandoi</i>	blue-shouldered robin chat	<i>kuweri</i>	The name derives its habit to emit a variety of voice (<i>mlipandoi</i>). Avoided by infants and their parents.
<i>Siphornis erythrothorax</i>	<i>tungurubei</i>	forest robin		The name derives from its voice, "tungulubei!"
<i>Apalis</i> sp.	<i>amasiesie</i>	apalis		The name derives from its voice, "sie, sie."
<i>Cuculatroptera brachyura</i>	<i>anabe</i>	broad-tailed camaroptera		The name derives from its voice, "be, be, be". Another name is <i>amakpidakpida</i> , also deriving from the voice.
<i>Sylvia</i> sp.	<i>amakisonbikisonbi</i>			Said to be the bird of <i>kisonbi</i> , <i>Dioscoreophyllum cumminsi</i> , the root of which is eaten by the Mbuti.
?	<i>manbuatumba</i>			The bird of <i>tumba</i> , <i>Dioscorea mangenotiana</i> , the root of which is eaten by Mbuti.
?	<i>amatolotolo</i> <i>amakasatembu</i>	brown-crowned eremomera		The bird frequents in the leaves (<i>kasa</i>) of <i>Cynometra alexandrii</i> (<i>tenbu</i>).
<i>Prinia bairdii</i>	<i>dede</i>	banded prinia		The name derives from its voice, "de, de".
<i>P. leucopogon</i>	<i>dede</i>	white-chinned prinia		Same as above.
<i>Hylia prasina</i>	<i>kpeleke</i>	green hylia		The name derives from its voice, "kpeleke!"
<i>Stizorhina fraseri</i>	<i>manbuapiso</i>			The bird ("bu") of a species of stingless bees (<i>apiso</i> , <i>Meliponula bocande</i>).
<i>Bias musicus</i>	<i>amakurukuru</i>	black-and-white flycatcher		The name derives from its flying manner like butterflies (<i>amakurukuru</i>).
<i>Trochocercus nigromitratus</i>	<i>amatanbeka</i>	black-crowned crested flycatcher		The name derives from its blackish appearance like the bottom of a pot (<i>amabeka</i>).
<i>Platysteira castanea</i>	<i>amekpongo</i>	chestnut wattle-eye		The name derives from its voice, "kpongo!"
<i>P. blisseti</i>	<i>amekpongo</i>	Blisset's wattle-eye		Same as above.

Appendix. (continued)

Scientific Name	Vernacular	English	Food Avoidance	Other Remarks
<i>Tapsiphon viridis</i>	<i>arijaberi</i>	paradise flycatcher		The name also used for human personal name. Said to be a relative of mousebirds.
<i>T. rufiventer</i>	<i>suekeke</i>	black-headed paradise flycatcher	<i>kuwari</i> , <i>nba</i>	The bird cries "sue, suekeke". Infants and their parents avoid eating this bird. Also a taboo to mention the name of this bird while hunting.
?	<i>amendurunduru</i>			The name derives from its flying manner, flying from and back to a branch (<i>durun</i> , to return).
?	<i>cheecheechee</i>	flycatcher		Named after its voice, "chee, chee, chee". Said to be the bird of Okapis.
Nectarinidae				
<i>Antheptes</i> sp.	<i>amatinebulu</i>	sunbird		Said to be found on the stem (<i>ine</i>) of a kind of Marantaceae plants (<i>Ataenidia conferta</i> , <i>bulu</i>).
<i>Nectarina</i> sp.	<i>amatinebulu</i>	sunbird		Same as above.
Estrildidae				
<i>Mandingoa nitidula</i>	<i>amandengendenge</i>	green-backed twin-spot		
<i>Lonchura fringilloides</i>	<i>njinji</i>	magpie mannikin		
<i>Spermophago polioegenys</i>	<i>katu nyeusi</i>	Grant's blue bill		A black (<i>nyezusi</i>) type of <i>katu</i> .
<i>S. ruficapilla</i>	<i>katu nyeusi</i>	red-headed blue-bill		Same as above
	<i>katu</i>	blue-bill		
Ploceidae				
<i>Plocerus cucullatus</i>	<i>siele</i>	black-headed weaver		
<i>P. nigerrimus</i>	<i>siele</i>	Vieillot's black weaver		
<i>Malimbus nitens</i>	<i>siele la muka</i>	blue-billed malimbe		The vernacular means the weaver (<i>siele</i>) of palm-vines (<i>muka</i>), on which it frequents.
?	<i>siele ya ngungu</i>			The weaver (<i>siele</i>) of <i>Megaphrynium</i> (<i>ngungu</i>).
?	<i>amachiyo</i>			
Oriolidae				
<i>Oriolus brachyrrhynchus</i>	<i>amakokobuo</i>	black-headed oriole		The vernacular name derives from its voice, "kokobuo".
Dicruridae				
<i>Dicrurus ludwigii</i>	<i>apasia</i>	square-tailed drongo		Said to be so aggressive as to drive away larger birds of prey, even hawks and eagles.
Certhiidae				
<i>Salpornis spilonotus</i>	<i>njidanjida</i>			The bird is of savanna (<i>bokani</i>) origin.
Unidentified	<i>amanbokanibokani</i> <i>pie</i> <i>manbueituri</i>			Cries "pie". The bird of the Ituri River.

Appendix. (continued)

Scientific Name	Vernacular	English	Food Avoidance	Other Remarks
	<i>amapolangungu</i>			Said to shake (<i>pola</i>) the leaves of large <i>Megaphrynium</i> leaves (<i>ngungu</i>).
	<i>tututunu</i>			Cries "tutututunu".
	<i>goria</i>		<i>nba</i>	It informs of the death of a relative, crying "goria!". It is a taboo to mention the name of this bird.
	<i>amakpokokpokoko</i>			Cries "kpoko, kpoko". The bird of duikers.
	<i>manbuekendu</i>			If this cries nearby, there will be a guest (<i>kendu</i>) in near future.
	<i>ameshumashuma</i>			Said to feed on ripen sweet banana (<i>shuma</i>).
	<i>amayeye, esusa</i>			Said to feed on oil palm fruit.
	<i>manbuekpolo</i>			
	<i>anganbo</i>			The birds of forest buffaloes.
	<i>efunbe</i>			
	<i>bungoda</i>			
	<i>amasanginbo</i>			The bird of elephants.
	<i>angulo</i>			Cries gulo, gulo.

Note: The birds were identified by the author, referring to Mackworth-Praed, et al (1973), Serie et al (1977), Shouteden (1963) and Williams (1963).