



the EANHSS Bulletin

Volume 28 Number 3

December 1998

COMMENT

The COMMENT in the *EANHSS Bulletin* 28(2) of August 1998 contained a misleading first paragraph. One hundred years ago Nairobi was not mostly forest. To build the city the forest was not cut down, the colonial government did not allocate it as needed for the city's infrastructure and most of us in Nairobi do not live on former forest land.

Fortunately there are photographs taken at the turn of the century which show the error of Ms Ng'weno's statement. Most of Nairobi was completely bare of trees. Ainsworth set about rectifying this by planting eucalypts—first of which were planted around the Norfolk end of what is now Moi Avenue.

As Ms Ng'weno points out, there were forest patches—Ngong Forest (of which the forest now in Nairobi National Park was part), Karura and the patch in what became City Park (which was the first to be given protection). Contrary to the claim that the colonial government allowed forest to be cut down, it prevented this happening around Nairobi from its earliest days. The high proportion of exotic trees in Nairobi and its suburbs reflects the original 'baldness' and the necessity of having to plant trees where previously there were none. Today Nairobi is far more densely wooded than it was in 1898 when railhead reached it.

Errors of historical fact notwithstanding, I nonetheless support the Hon. Secretary's sentiments about the need to preserve what is left of Kenya's forests.

Ian Parker

Ms. Ng'weno adds:

One of Nairobi's attractions, and one reason over 600 species of birds have been recorded there, is that it is a meeting place of ecosystems, including the grasslands to the south and the forests to the north

INSIDE

Comment

1

Articles

2

Lhuya bird names: *Nixon Sagitu, Titus Luboma, Nicholas Shikuyenze, Smith Lakare, George Amutete, Christine Wilder, Joseph Oyugi and Thomas Books*

2

Reproduction in a group of captive southern tree hyrax *Dendrohyrax arboreus* *Judith Rudman*

5

Earthwatch Fellowships

8

The European Song Bird Project in Oseca, Hungary Team 11 August 2nd to 14th, 1889. *Mwangi Solomon Ngari*

8

Short Communications

11

A cross species mating between the diadem butterfly and Trimen's false acraea, rape or female choice? *Ian J. Gordon*

11

Cuddly or tasty? *Fiona Alexander*

12

Two brood-parasites and their hosts. *Leon Benmn*

13

Shimoni Forest: biodiversity worthy of protection. *Fleur Ng'weno*

14

Getting seabirds off the hook. *John Cooper*

14

Book Review

14

Wildflower Safari: the life of Mary Richards by William Condry. *Andrew Agnew*

15

Notices

15

Request for papers. *L.A. Depew, Editor*

15

ARTICLES

LUHYA BIRD NAMES

The modern world is concerned both with the loss of biological diversity and of cultural diversity (Diamond 1992). As people have increasingly little contact with natural habitats, we fear that traditional knowledge of the environment will be lost. In western Kenya, a very high human population density has caused the contraction of natural habitats into small patches such as Kakamega rainforest, which now covers only about 25% of its historical area (KWFT 1984).

In order to provide a permanent record of a part of the cultural heritage of the Luhya people of the Kakamega region, we decided to document traditional Isukha (the subtribe of the Luhya surrounding Kakamega Forest) bird names for as many species as possible. Of particular importance is the documentation of the name of the Grey Parrot *Psittacus erithacus*, a species which, once common, has now all but disappeared from Kenya (Zimmerman *et al.* 1996). Local names for trees have already been listed elsewhere (KWFT 1984, KIFCON 1994), perhaps because of the economic importance of many tree species, but the traditional names of other taxa have not previously been documented.

Additionally, we feel that documentation of local names is important for local conservation efforts, especially for school age children. Often it is the children who spend the most time in the forest, hunting or observing birds, and therefore efforts to educate them about local bird names and the customs surrounding birds are especially important.

For each bird species in the list below, we give common English names, italicized scientific names (with trinomial where relevant) and Luhya names, from Kakamega, in bold, and with the plural in parenthesis. Our taxonomy, English nomenclature and systematic order follow Zimmerman *et al.* (1996). Accounts of

any traditional beliefs or nomenclatural explanations concerning a particular bird follow the relevant entry. We recorded most of the names through interviews during our fieldwork in Kakamega in September 1996 (Anon. 1997), with further names (marked *) added subsequently by TI and GA.

- Family Ardeidae (Herons, Egrets, and Bitterns)
Cattle Egret *Bubulcus i. ibis*: **Shilonda ngómbe** (*Vilonda ngómbe*). Meaning, literally, "cattle follower".
Black-headed Heron *Ardea melanocephala*: **Mukhonoletlo** (*Mukhonoletlo*)
- Family Scopidae (Hammerkop)
Hammerkop *Scopus u. umbretta*: **Shiluvi** (*Viluvi*)
- Family Ciconiidae (Storks)
White Stork *Ciconia ciconia*: **Likuyi** (*Makuyi*)*
- Family Threskiornithidae (Ibises and Spoonbills)
Hadada Ibis *Bostrychia hagedash brevirostris*: **Shinamaha** (*Vinamaha*)
- Family Anatidae (Ducks and Geese)
Ducks Anatidae: **Libata** (*Mabaata*)
- Family Accipitridae (Vultures, Eagles, Hawks, Kites, and allies)
Eagles Accipitridae: **Lihungu***
Black Kite *Milvus migrans parasitus*: **Likhongoza** (*Makhongoza*)
African Harrier-Hawk (Gymnogone) *Polyboroides i. typus*: **Ikhasi** (*Tsikhasi*)
Great Sparrowhawk *Accipiter m. melanaleucus*: **Shilitza** (*Vilitza*). Meaning "one that eats", for the species' taste for chickens.
Long-crested Eagle *Lophaetus occipitalis*: **Inangobwa** (*Tsinangobwa*)
African Crowned Eagle *Stephanoaetus coronatus*: **Inditsu** (*Tsinduzu*). This name signifies strength, in particular, for the species' ability to take large prey
- Family Phasianidae (Quail and Francolins)
Quail *Coturnix* spp.: **Isindu** (*Tsisindu*)
Francolins *Francolinus* spp.: **Ikhwale** (*Tsikhwale*)
- Family Numididae (Guineafowl)

The EANHS wishes to thank the following for their support in 1998:

Sponsors of the Society:

Arturo Foresti
John Fox
Mary K. Minol
Norman Searle
Pat Colbert
Benny Bytebier
Lucile Ford
Jayant Ruparel
Radha Ruparel
Secta Ruparel
Narinder Heyer

Brooks Childress
Edward van den Berghe
J.H.E. Leakey
Clara Kathurima
Lucy Vigne Camm

Corporate members:

United Touring Company
Lake Turkana Lodge (Ivory Safaris)

Major Donors:

Royal Society for the Protection
of Birds (RSPB)
Global Environment Facility

- Guineafowl Numididae: **Makhanga (Likhanga)**
- Family Rallidae (Rails and relatives)
- Crakes Rallidae: **Bikhuttuvili (Shikhutuvili)**
- Family Gruidae (Cranes)
- Grey Crowned Crane *Balearica regulorum gibbericeps* **Lihohanyi (Lingóngyí)**. This name is onomatopoeic from the species' call "Hohany' Hohany!"
- Family Columbidae (Pigeons and Doves)
- Doves Columbidae: **Shituti (Vituti)**
- African Green Pigeon *Treron calva gibberifrons* **Ininga (Tsininga)**
- Tambourine Dove *Turtur tympanistris*. **Shinamusotsi (Vinamusotsi)**
- Speckled Pigeon *Columba g. guinea*: **Likaburuku (Vikaburuku)***
- Lemon Dove *Aplopelta l. larvata*: **Shituku (Vituku)***
- Red-eyed Dove *Streptopelia semitorquata*: **Ekuku***
- African Mourning Dove *Streptopelia decipiens*: **Likhuli*** *Likhuli* is wailing during times of sorrow or grief. This species has not been recorded in Kakamega itself (Savali 1989) although it occurs fairly close in the Lake Victoria basin (Zimmerman *et al.* 1996).
- Family Psittacidae (Parrots and Lovebirds)
- Parrots Psittacidae: **Ekasuku (Kasuku)**. *Kasuku* means "parrot" in both Kĩlũhya and Kiswahili (hence the popular Kenyan cooking fat, *Kasuku*, with its parrot logo). Calling someone a *Kasuku* means that they are very talkative.
- Grey Parrot *Psittacus e. erithacus*: **Liluma (Maluma)** From the verb *Khuluma* meaning "to bite".
- Family Musophagidae (Turacos)
- Turacos Musophagidae: **Makhulungu (Likhulungu)**
- Great Blue Turaco *Corythaes cristata*. **Emanda***
- Family Cuculidae (Cuckoos and Coucals)
- Cuckoos Cuculidae: **Linamasaa (Manamasaa)***. The call of the Black Cuckoo *Cuculus clamosus* is a bad omen; TI's mother, for example, had him chase it away from the house when it called at night.
- African Emerald Cuckoo *Chrysococcyx c. cupreus*. **Ijnyanga**. The pneumatic for the call of this species, *Ijnyanga*, is loosely translated as "What are you thinking?"; the second part of the call is translated as a response, *Ijonjoli*, which means "Nothing!".
- Blue-headed Coucal *Centropus monachus fischeri*: **Litutu (Matutu)**. The call of this species is believed to indicate coming rain. In addition, people on occasion catch this bird and carry it with them if they are attempting something difficult, in particular at sporting events, as a "good hope for success".
- Family Strigidae (Typical Owls)
- Owls Strigidae: **Shikhule/Likhule (Makhule)**. This name comes from the verb *Khwikhula*, "to wail", and signifies the ill omen bestowed on a village if an owl calls there. *Khwikhula* is specifically used for mourning after a person has died.
- Family Coliidae (Mousebirds)
- Speckled Mousebird *Colinus striatus kikuyuensis*: **Iseru (Tsieru)**
- Family Alcedinidae (Kingfishers)
- Kingfishers Alcedinidae: **Shisiamemu (Visiamemu)** *Shisiamemu* is mostly applied to the African Pygmy Kingfisher *Ispidina picta*
- Family Meropidae (Bee-eaters)
- Bee-eaters Meropidae: **Lilobi (Bilobi/Malobi)**
- Family Bucerotidae (Hornbills)
- Southern Ground Hornbill *Bucorvus leadbeateri* **Lihututu (Mahututu)**
- Crowned Hornbill *Tockus alboterminatus geloensis*: **Shimemia (Vimemia)**
- Black-and-white Casqued Hornbill *Bycanistes subcylindricus subquadratus*: **Linganga (Manganga)**
- Family Caprimidae (Barbets and Tinkerbirds)
- Tinkerbirds *Pogonulus* spp.: **Irondo (Tsirondo)** *Irondo* is believed to be the origin of the place name Rondo, as in Rondo Retreat, the missionary guesthouse in southern Kakamega, near Ischeno
- Grey-throated Barbet *Gymnobucco bonapartei cinereiceps*: **Litesi (Matesi)**
- Family Picidae (Woodpeckers and Wrynecks)
- Woodpeckets Picidae: **Isejelo (Tisejelo)**
- Family Motacillidae (Wagtails, Pipits and Longclaws)
- African Pied Wagtail *Motacilla aguimp vidua* **Shichonjonjia (Vichonjonjia)** The nesting of this species in the roof of a house is believed to bring good luck to the homestead. Carrying the head of *Shichonjonjia* with you to a sporting event, especially wrestling, ensures your victory.
- Family Hirundinidae (Swallows and Martins)
- Swallows Hirundinidae: **Iminyu (Tsiminyu)**



The Swallow
(*Iminyu*)

- Family Pycnonotidae (Bulbuls)
- Common Bulbul *Pycnonotus barbatus*: **Likholove (Makholove)**
- Family Timaliidae (Babblers, Chatterers and Illadopses)

Illadopses *Illadopsis* spp.: **Linyelela (Manyelela)**.

This name means "to creep in the undergrowth".

Family Turdidae (Thrushes, Chats and relatives)

African Thrush *Turdus pelios centralis*: **Lirole (Marole)**

Robin-Chats *Cossypha* spp.: **Imbilikinzi (Tsimbilikinzi)**

Family Sylviidae (Warblers)

Cisticolas *Cisticola* spp.: **Shitietie (Vitietie)**

Family Monarchidae (Monarch Flycatchers)

African Blue Flycatcher *Elmnia longicauda teresita*: **Shinabukoshe (Vinabukoshe)** This name comes from the word *Likoshe*, meaning "ash," and describes the bird's blue-grey color

Family Laniidae (Shrikes)

Shrikes *Lanius* spp.: **Inamande (Tsinamande)**

Family Corvidae (Crows and relatives)

Pied Crow *Corvus albus*: **Likbokho (Makhokho)**.

A school on the main Kakamega-Kisumu road is named after this species, and has two carved crows adorning its gateposts. Also, calling a person *Likhokho* means they are very slow, because the pied crow often spends the whole day at its meals of carrion.

Family Sturnidae (Starlings and Oxyechers)

Oxyechers *Buphagus* spp.: **Litsalia (Matsalia)**.

Burying an oxpecker in the bull fighting arena acted as a catalyst for the fights and made them more vigorous (bull-fighting is a traditional game among the Luhya—originally it was a ceremonial game after a warrior died, but is now mostly for entertainment, with especially big fights held on December 28th). More generally, buried oxpeckers are thought to cause animosity between people.

Family Nectariniidae (Sunbirds)

Sunbirds *Nectarinia* spp. and *Anthrepetes* spp.: **Mutsuni (Mitsuni)**

Family Passeridae (Sparrows and Petronias)

Grey-headed Sparrow *Passer griseus*: **Liroleli (Maroleli)**

Family Ploceidae (Weavers and relatives)

Weavers *Ploceus* spp.: **Lisoko (Masoko)** This name applies to all yellow and black weavers. The name comes from the word *khusoka*, which means "closely pressed together," because the birds' nests are tightly woven.

Viellot's Black Weaver *Ploceus nigerrimus*: **Litekeye (Matekeye)**

Family Estrildidae (Waxbills, Whydahs and Indigobirds)

Firefinches *Lagonosticta* spp.: **Shiyundichili (Vihindichili)**

Mannikins *Lonchura* spp.: **Shiyundi (Viyundi)**

Pin-tailed Whydah *Vidua macroura*: **Luvizu (Tsimizu)** The male bird's head (or even its tail) is a charm that allows men success in wooing obstinate women. For this reason, the Pin-tailed Whydah is apparently being overhunted and individuals are becoming locally scarce

Family Fringillidae (Seedeaters, Canaries and relatives)

Yellow-fronted Canary *Serinus mozambicus*:

Inyembele (Tsinyembele) *Inyembele* means "to hang something over a fire to dry"; why this should be applied to a bird is rather obscure. Because these birds are easy to catch, it is possible that they are therefore often roasted over the cooking fire

The grammatical construction of singular and plural names is noteworthy. As in Kiswahili, the first letters of the word are changed to indicate a plural. For large birds, the common singular prefix is Li-; the common plural prefix is Ma-. For medium-sized and small birds, there are a range of prefix pairs adopted. I- and Tsi-, Shi- and Bi-, Mi- and Mu-, and Shi- and Vi-.

Of the 354 bird species known from Kakamega (Savalli 1989), only 32 (9%) are specifically named in Luhya. However, 45 (26%) of the 173 genera of birds known from Kakamega (Savalli 1989) are named (either as a species within a particular genus, or as the genus itself), and 35 (65%) of the 54 Kakamega families (Savalli 1989) are named. More local names thus exist for higher levels of classification.

The 18 Kakamega bird families (Savalli 1989) not given Luhya names are as follows (with comments in parentheses): Pelecanidae (rare in Kakamega), Falconidae, Charadriidae and Scolopacidae (rare in Kakamega), Tytonidae (presumably included with Strigidae), Caprimulgidae (surprising considering the abundance of White-tailed Nightjar *Caprimulgus natalensis* in Kakamega), Apodidae (presumably included with Hirundinidae), Trogonidae (rare), Coraciidae (surprising considering how easy Broad-billed Roller *Eurystomus glaucurus* is to observe in Kakamega), Phoeniculidae, Indicatoridae, Eurylaimidae, Paridae, Campephagidae, Malaconotidae, Zosteropidae, Dreceridae and Oriolidae (largely restricted to forest) and Alaudidae (difficult to observe)

Sadly, it seems likely that many names for forest birds have already been lost: there is no name given, for instance, for Ross' Turaco *Musophaga rossae*. Following Bennun *et al.* (1996), only four forest specialists (FF) are given Luhya names (African Crowned Eagle, Lemon Dove, Grey Parrot and Illadopses), compared to nine forest generalists (F), five forest edge species (f) and 25 non-forest species. (The remaining general names cannot be classified using Bennun *et al.* (1996), as they apply to both forest and non-forest species.) We hope that this article may contribute a small amount to preventing further loss of the Luhya ethno-ornithological heritage.

Acknowledgments

We thank Mrs Bernadette Imboma and her family for their hospitality in Isecheno; Dr Leon Bennun for organizational help; and Mr Daniel Onsembe (District Game Warden), Mr David Muthui (Warden, Kakamega Forest National Reserve) and their staff for providing us with generous assistance throughout our time in Kakamega. Funding for our research in Kakamega was provided by National Geographic Society Research

Award #5542-95 to Dr Stuart Pimm of the University of Tennessee.

Nixon Sagita¹, Titus Imboma^{1,2}, Nicholas Shikuyenze¹, Smith Likare¹, George Amutele², Christine Wilder^{2,3}, Joseph Oyugi^{2,4} and Thomas Brooks^{2,4,5}

- 1 Kakamega National Reserve, P.O. Box 34, Kakungu via Kakamega, KENYA
- 2 Ornithology Department, National Museums of Kenya, P.O. Box 40658, Nairobi, KENYA. e-mail: kbirds@users.africaonline.co.ke
- 3 128 Euclid Circle, Oak Ridge TN 37830, U.S.A., e-mail: cmw6a@virginia.edu
- 4 Department of Ecology and Evolutionary Biology, 569 Dabney Hall, University of Tennessee, Knoxville TN 37996, U.S.A
- 5 Center for Advanced Spatial Technologies and Department of Biological Sciences, 12 Ozark Hall, University of Arkansas, Fayetteville AR 72701, U.S.A., e-mail: tbrooks@cast.uark.edu

References

- Anonymous. (1997) Sandgrouse, mangroves and illadopses. *Kenya Birds* 5: 51.
- Bennun, L., C. Drauzoa & D. Pomeroy. (1996) The forest birds of Kenya and Uganda. *Journal of East African Natural History* 85: 5-21.
- Diamond, J. M. (1992) *The Third Chimpanzee: the Evolution and Future of the Human Animal*. New York, USA: Harper Collins.
- KIFCON. (1994) *Kakamega Forest: The official guide*. Kenya Indigenous Forest Conservation Programme, Nairobi, Kenya.
- KWFT. (1984) *Conservation of vulnerable tropical forest ecosystems: the case study of Kakamega forest*. Report presented to the United Nations Environment Programme and Kenya Wildlife Conservation and Management Department by the Kenya Wildlife Fund Trustees. Nairobi, Kenya. Kenya Wildlife Fund Trustees.
- Savalli, U. M. (1989) *Checklist of Birds of the Kakamega Forest and National Reserve*. Unpublished report.
- Zimmerman, D. A., D. A. Turner, D. J. Pearson, I. Willis and H. D. Pratt. (1996) *The Birds of Kenya and Northern Tanzania*. Russel Friedman Books, CC, South Africa.

tree hyrax *D. validus* and western tree hyrax *D. dorsalis*, living in Tanzania and Central and West Africa, respectively. None provide a reproductive record even on these species, except for occasional births that were recorded (Möllaret, 1962). This article presents data on reproduction in a small, captive southern tree hyrax *Dendrohyrax arboreus* group observed from 1979-1989.

Material and Methods

An adult female and an adult male were trapped (20 December, 1978 and 19 December, 1979, respectively) in the attic of a Nairobi suburban dwelling where they had been free living for some time. A young female daughter of the adult female was caught in early 1979 and died of *Toxoplasmosis* infection a few months after capture.

Data on the subsequent litters of the adult female (Tanga) sired by the adult male (Meru) are presented here.

The age of the female could not be determined exactly, but judging from her tooth development the daughter trapped was probably not her first litter. Even assuming that it was only her second litter, her age when captured would have been at least four years assuming a 7.5-8 month pregnancy (Murray, 1942; Roche, 1962), a one year birth interval based on this study and age at first litter of about two years (Seattle Zoological Gardens, pers. comm.).

Judging by teeth development, the male must have been older.

The animals were housed in a garden in the Athi River area, in a wire mesh enclosure 3.5 m by 10 m by 2.4 m high with natural flooring and wire mesh ceiling. Several shelters, feeding tables, running boards and latrines were provided. For further details see Rudnar, 1984a.

The animals were trained to step onto a kitchen scale by offering favoured food.

Results

Between June 1979 and December 1988 six litters were born. In most cases two ova were fertilised and in four out of the six pregnancies two live young were born. One miscarriage occurred with two foetuses about 2.5 months old (Martin Fischer, pers. comm.) being born four days apart weighing 85 g each. On another occasion a miscarriage was assumed when the female lost weight from 1.900 g on 10 November to 1.625 g on 17 November, 1983. This was about one week after she had fallen off a board from a height of about 30 cm.

On two occasions one live female and one dead foetus was produced. On Oct. 20, 1988, Tanga was seen crouching on the ground and straining, after having gained weight since June, 1988. A large 4 cm bubble appeared and disappeared repeatedly but no young were forthcoming. After repeated straining she was taken to the vet who performed a Caesarean section which

REPRODUCTION IN A GROUP OF CAPTIVE SOUTHERN TREE HYRAX *DENDROHYRAX ARBOREUS*

Introduction

While some studies of short duration on tree hyraxes *Dendrohyrax* have been undertaken, most are on eastern

revealed a large dead female foetus and a ruptured uterus as the foetus was too big to pass through the birth canal. In this case only one foetus had developed. Tanga did not survive the operation.

Reproductive inhibition apparently prevented the other young females from reproducing. Only one of her daughters gave birth at 5 years 5 months of age. At that time the other females present ranged from 1 year 4 months to 9 years. In the Seattle Zoological Gardens a female *D. arboreus* gave birth to her first litter at 21 months old (Rachel Lawson, pers. comm.). Unfortunately, the colony was broken up before the effect of Tanga's death on reproduction in the other females could be determined.

Courtship consisted of: 1) close following by male, 2) the couple approached each other, the male moaning, the female with a wail, 3) male resting head on female's rump, 4) mounting and thrusts while the female was standing. This behaviour was witnessed for periods of between two to ten days at a time with intervals of two to four weeks.

Meru was the only adult male present, but some of his sons, from the age of five months onward tried to interfere with Meru's mounting and at six months mounted their mother with thrusts.

Conception occurred between two weeks before and two months after weaning of the previous litter. Post

partum copulation (up to 30 days after parturition) was observed from day 0 to 29 days after.

Nipples, one pectoral and one inguinal pair, were seen to be enlarged about one month before parturition.

Weight gain by female, Tanga, during pregnancy is shown in Fig. 1.

Birth intervals ranged between ten and seventeen months.

Except for one case when it occurred between 18.00 and 20.00 hours, all births occurred between 07.00 and 13.00 hours during daylight.

Males ranged between 210 g and 225 g (N=3) with an average of 215 g. Females weighed between 185 g and 206 g. For the record of the gain in combined weight of infants in multiple litters see Fig. 2 and for the average weight gain by males and females over time, see Fig. 3.

In L3 where birth was witnessed, first suckling occurred at ages 12 minutes and 35 minutes. By day four each young had established its own preferred teat. Of the two pairs—one inguinal and one pectoral—the former was preferred over the latter (Rudnai, 1984b). Peak time for suckling was 06.00 to 07.00 and 17.00 to 19.00 hours.

Weaning occurred at 7 months in L1 after which it occurred earlier and at varying periods. Weight of young at weaning was also very variable (Table 1).

Table 1 Weaning records for six litters of captive southern tree hyrax

Litter	Age (mo.) at weaning	Weight (gr) at weaning		Total litter weight (gr) at weaning
		Male	Female	
L1	7	1250	1090	2340
L2	6	900	822	1722
L3	4	-	630	
			590	1220
L4 (single)	3	-	480	480
L5	5	914	833	1747
L6 (single)	3.5	-	575	575

Table 2. Record of births by a captive female southern tree hyrax, Tanga

Litter	Date	Sex	
		Male	Female
L1	1 June, 1979	1	1
L2	6 November, 1980	1	1
L3	17 December 1981	-	2
L4	16 November 1982		1 plus one stillborn
—	November, 1983	Assumed miscarriage	
L5	16 September, 1984	1	1
—	19 & 24 January, 1986	2 stillborn	
L6	28 December, 1986	—	1 plus one stillborn
—	December, 1988	—	1 stillborn female
Total		10 live births, 5 stillborn, 1 assumed miscarriage	

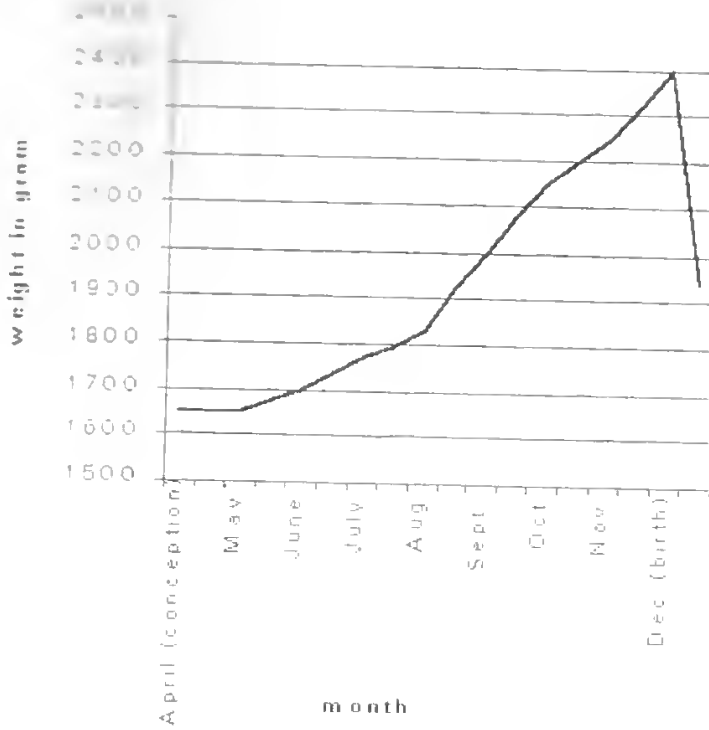


Figure 1 Weight gain by captive female southern tree hyrax Tanga (litter 3), during pregnancy

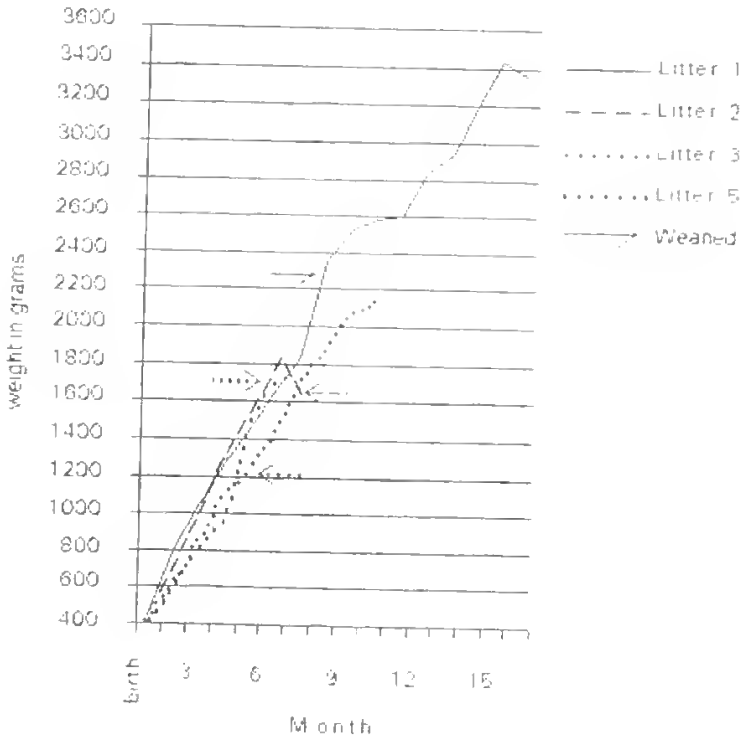


Figure 2 Gain in combined weights of offspring in litters of captive southern tree hyrax with more than one infant

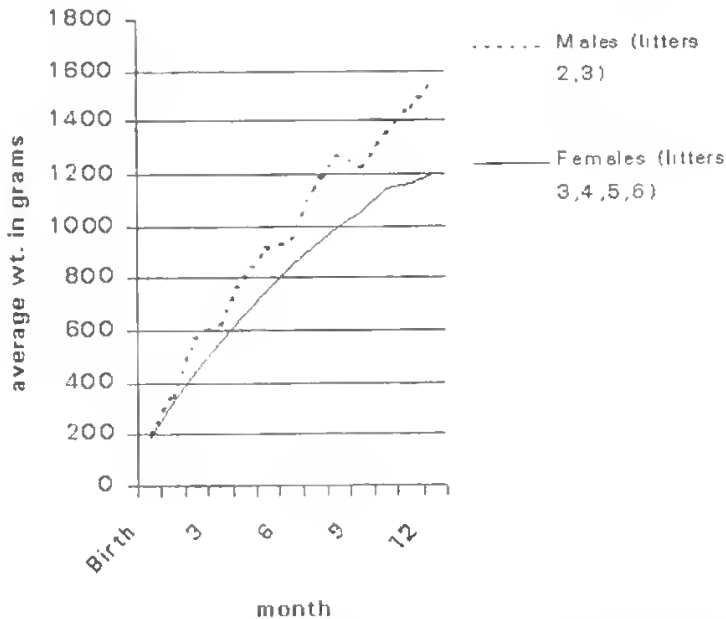


Figure 3. Gain in average weights of male and female offspring in several litters of captive southern tree hyrax.

Discussion and Conclusions

The most striking event here is the frequency of stillbirths and miscarriages. There were ten live deliveries and one miscarriage of two 2.5 month old foetuses, as well as one dead foetus born together with one live baby. Another miscarriage was presumed on the basis of otherwise unexplained loss of weight. One dead embryo was the result of its large size preventing parturition (Table 2).

These data are re-enforced by information coming from the Seattle Zoological Gardens where offspring from this colony also exhibited a similar tendency to miscarriage. There it was observed when a second generation female at age 19 months had a stillbirth after a 7 month 2.5 week pregnancy.

Whether this tendency is an artifact of captivity is hard to say as we lack comparable information from a wild population of *Dendrohyrax*.

Another hazard to the reproductive success of *D. arboreus* is the frequency with which youngsters fall off tree branches, witnessed during this study and proven to occur in the wild, where, in suburban gardens, people's dogs often pick them up from the ground.

The low reproductive rate of these animals combined with small litter size and the tendency to give birth on the ground (Rudnai, in prep.) exposing the young to great hazards from predation, all seem to conspire against the survival of this species of hyrax. However, survive they do, indicating that despite conjecture, predation must be low on these animals.

Judith Rudnai

c/o NatureKenya, Box 44486, Nairobi, Kenya

References

- Möllaret, H.H. (1962). Naissance de Damans en captivité. *Mammalia* 26: 530-532.
- Murray, O.N. (1942). The gestation period of *Procavia capensis* (Dassic). *Journal of the South African Veterinary Medical Association* 13: 27-28.
- Roche, J.J. (1962). Nouvelles données sur la reproduction des Hyracoides. *Mammalia*, 26: 517-529.
- Rudnai, J. (1984a). Activity cycle and space utilisation in captive *Dendrohyrax arboreus*. *South African Journal of Zoology* 19: 121-123.
- Rudnai, J. (1984b). Suckling behaviour in captive *Dendrohyrax arboreus*. *South African Journal of Zoology* 19: 121-123.
- Rudnai, J. (in prep.) Parturition and related behaviour in a captive *Dendrohyrax arboreus stuhlmanni* (Matschie 1892).

EARTHWATCH

OLD WORLD SONGBIRDS PROJECT, OCSA-HUNGARY TEAM II AUGUST 2ND TO 14TH 1998

INTRODUCTION

Ladies and gentlemen we are now approaching my watch clocked 11:20 am. The white sheets of

the nimbus clouds, which seemed endless, unfolded one after the other as we approached the Budapest Ferihegy Airport. My dreams had finally come true... I was in Europe!

Ocsa Landscape Reserve lies Northeast of the capital Budapest. The Reserve is predominantly a wetland representing a restoration/reclamation work of an old peat-mine, dominated by Sedges of the genus *Carex* and Reeds (*Phragmites australis*). Forests of varied species composition, characteristic of Eastern Europe surround these expanses of wetlands. Notable species include the Willow (*Salix spp*) common in wet places, Elderberry (*Sambucus spp*) and Poplar (*Populus spp*) among other species.

VOLUNTEERS TEAM

The Old World Song Bird team II consisted of five volunteers, teachers by profession from Great Britain: Lynn, Neil, Ian, Hughes and Hazel, an MSc. Research student from a Zoology Institute in Germany; two Kenyans, Willis, a Tour Guide, and myself and a number of Hungarian Volunteers. We also had visitors from Florence in Italy and UK who stayed for a short time at the station.

THE PROJECT

Migration has long been a mystery for many a scientist, and although a lot of research has been carried out in this field, some of the flyways still lack a comprehensive database. The Eastern flyway covering eastern/southern Europe and Eastern Africa falls into this category.

The Ocsa Bird Ringing Station has been running for the last 14 years and is one of the oldest in Europe. Its objective is to develop a comprehensive database for migratory birds, which could in future be used for monitoring purposes. In Kenya (East Africa) ringing is done at Ngulia in Tsavo west National Reserve.

Project Design

Mist nets were set up to cover at least seven different habitats representing the different stages of wetland succession: wet reeds, forest wood, dry reeds, dams, and disturbed habitats (close to farms and human habitats), all covering about 2400m of net line.

Mist Net Control

"Control Time" had almost become our anthem. Birds came before everything else and we'd all gather at the bird processing station, starting at 6:00 a.m. and ending at 9:00 p.m. Control bags bearing different colours for easy identification were distributed to the team leaders of the different groups. Groups' composition and leadership kept changing in every control time (I had time to chat and laugh with a different person in every control time). At least two to four volunteers would visit each of the control sites. It took me two days to

learn how to extract birds from the nets and in each day I had a new thing to learn from the Hungarian ringers and other volunteers. It was all fun in serious business.

In the cooler mornings, controls would be done at intervals of one hour and as the temperatures rose in the course of the day, controls would be done at intervals of half an hour. Birds would comfortably stay longer in the nets in the cooler mornings than in the heat of the day. We also did cleaning up of mist nets especially on the windy days.

Bird Processing

This was mainly done by the Principal Investigator (PI) and other licensed Hungarian Ringers. Hungarian volunteers also did data documentation. The Principal Investigator would occasionally demonstrate the banding process, species identification, fixing of the ring, aging procedure, sex determination, moult stage, and fat score among other biometrics. Fat and muscle score needed a lot of experience and expertise, especially because it goes with a lot of subjectivity and personal judgement. This was overcome by having only the PI and two other licensed and experienced ringers processing the birds to avoid wide variations and to ensure consistency.

Young birds, birds suspected to belong to one family, and those caught at night would be returned to the site where they were trapped, or released away from the light respectively, to avoid confusing them.

Capture Results

Results of the second week had not been compiled by the time the fellowship period was ending. However in the first week about 60 species were caught and processed, out of which 347 individuals were new catches and 203 were recaptures. *Acrocephalus scirpaceus* and *Sylvia atricapilla* dominated the catches. Other species included Nightingale, Nuthatch, Water Rail, Jays, and we were also lucky one of the mornings with a bird of prey, the Common Buzzard. The highlight of the week was a Penduline Tit ringed in Slovenia, Yugoslavia, and recaptured on the 7th of August 1998. It was thought to be a resident, which had probably migrated to breed in Yugoslavia.

Insects Abundance & Diversity Study

Besides acting as a breeding site for migratory birds, Ocsa Landscape is an important refueling station. The importance of a refueling station is dependent on the diversity and abundance of food resource. During my fellowship period, I participated in this study as an assistant to Marc (from Germany) who was doing the study. The study was designed to try and establish the abundance and diversity of insects at different control sites using the sticky plates method and to find out if there is any correlation between these two parameters and bird catches per site. We were also testing the effectiveness of different sizes of sticky plates (20X20 cm, 10X10 cm & 5X5 cm).

Over a period of years such data could be useful as a monitoring tool for migratory species especially

insectivores. Results had not been analysed by the time the fellowship period was ending. However, the wet reeds seemed to have a very high diversity and density of insects and also seemed to have relatively higher catches than other control sites. I recommend that a similar study be done on the abundance, distribution and preference of the fruiting tree species and check if there is any correlation with catches. It seemed to me that birds would switch from one food type to the other in different habitats. These interrelationships could probably spell out the importance of Ocsa Landscape as refueling site for migratory passerines.

The "Poo" Study (Avian Nematodes)

This study aimed at assessing the typical nematode burden of migrating songbirds and to establish whether there are any relationships between condition score and nematode egg counts. Dr. Sue C. Cork of Harper Adams Agricultural College, UK, was coordinating this study. Birds shocked by handling were an asset to this study (with the exception of the violent jays and shrikes); of course, getting faecal samples was at the mercy of the poor birds—thank God for the shock factor when we were sure of the next sample.

Data taken included condition score, age, sex and species. Faecal samples were collected and preserved in 70% alcohol to stop the eggs from hatching and for ease of identification. Samples would only be collected from birds whose biometrics had been documented. The samples were later to be examined for presence, species and number of nematodes per gram of sample. Nematodes like *Capillaria spp* and *Syngamus spp* have in the past been found to be highly prevalent in migratory passerines.

KNOWLEDGE GAINED

My participation in the Earthwatch Millennium Fellowship came at the right time; it gave me immense exposure to a number of important things:

- I now know how to set up mist nets, clean them up and maintain them to achieve maximum results (catches). Doing controls repeatedly for 14 hours each day exposed me to some fine details which I otherwise would not have learnt in 1-2 days training.
- I can confidently extract birds of different sizes, ages and species. Certain birds like jays and shrikes required careful extraction. I got a number of lacerations from shrikes. Young and small sized birds required a lot of care too, especially when getting the nets out of their hooked tongues.
- I am now in a position to take measurements and biometrics of birds, e.g. fat score, wing length, tail length among others, skills which will improve with more practice.
- Ocsa landscape seemed a very popular reserve and acted as a retreat and training site for amateur naturalists and Hungarian youth who would otherwise use such a time idling in the city—this idea can be transferred to Kenya's IBA sites: to

establish such camps for training Site Support Group members, as well as the rest of the community with, of course, proper publicity.

- I learnt a number of tips on how to manage a ringing station for naturalists of different backgrounds. For example, how to approach customer care, data documentation, ensuring participation of all volunteers, ensuring smooth flow of supplies, logistics, and programming of events, among other things.
- I have gained immense knowledge on insect sampling techniques using sticky plates; setting them up, spraying, collecting and preserving plates with insects, identification procedures mainly by order and categorising them in different size classes using grid paper

I am currently working as a Sites Conservation Officer for the Kenya's Important Bird Areas programme, and one of the things I am doing, and will do in future, is to develop site support groups and train the members in simple standard bird surveys and monitoring techniques, land-use surveys and environmental education. I believe the knowledge I have gained will be of great use in this work. Other groups have plans for setting up campsites and I hope to be able to share my experience with them.

OTHER EXPERIENCES

Culture Shock!

I have worked in the tourism industry for one and a half years and have had some experience of different cultures, but from the look of things, these experiences did not remove the African in me, and there were some extreme dressing styles I still considered obscene. Temperatures were not very cooperative, hitting 40 Celsius mark almost daily. Walking and riding bikes in pants and other summer clothing left me embarrassed. At the end of the day I think I had to accept and appreciate it as a way of life for them, it's all different now!

Hospitality

The kind of hospitality we got from the Hungarians left us feeling really at home, families would volunteer to take us out for a swim with their vehicles and give us rides back to the camp whenever they would spot us in town. We did not have to struggle to do anything as somebody was always there ready to assist. Long Live Hungarians!

Ocsa Museum and Church

We visited the museum twice, and had a chance to experience Hungarian culture, and the design and arrangement of an old peasant Hungarian house and farming equipment in the ethnographical collection of the landscape house. A highlight of this trip was the visit to the largest of the ten most ancient churches in Hungary built in the 13th Century. Seated beside the old pulpit, legs crossed, the church keeper sang for us a beautiful Hungarian gospel song, nicely modulated

by reverberations. It gave me a feel of the ancient times, an experience I have only had at the Gede Ruins at the Kenyan coast.

Food

I always looked forward to all the mouth-watering meals prepared in the traditional Hungarian style. Breakfasts were particularly special, and one could not resist the delicious leg-size dried sausages or the "mountain bread", not forgetting the varied blends of tea—peppermint tea was my favourite! I also had a chance to taste Hungarian pizza. I enjoyed taking Hungarian traditional dishes, prepared and served traditionally by the Hungarians. I am forever grateful that food and drinks were there in plenty ... for without any formal contract, it was shared between the bloodthirsty mosquitoes and me. Well, if I am to be remembered for nothing else, I am convinced a number of families of these ruthless bloodsuckers have a record of my contribution.

Team Members

Apart from enriching my birds' life list, that of foreign friends made a sizeable stride. It was great exchanging ideas on environmental, social and political issues. I especially loved sharing about Kenya, teaching Swahili, but more importantly listening to stories and life experiences from other countries. I'm looking forward to starting information exchange with some of the volunteers from Germany, United Kingdom and Hungary.

EVALUATION

Overall my trip to Hungary was a great experience. However, I have a few things that I would wish to point out:

- I would have appreciated an introductory theory session on how different things are done pertaining to bird processing.
- Whereas I really appreciated being in Hungary, I would suggest that this programme be carried out in an English speaking country, if it is supposed to be a learning experience for volunteers. Everything including taking measurements, biometrics, data entry, even the data entry books, are printed in Hungarian and attempts to have them explain some things was foiled by the language barrier. This would be fine if the volunteers are already ringers and took such a fellowship to have a feel of what goes on in other ringing stations, but not for freshmen.
- I would have really appreciated at least a day out to visit Budapest and have a feel of what public transport and life in a European city is like.

**Long Live Ocsa | Long Live Hungary!
Long Live Earthwatch!**

Mwangi Solomon Ngari, Sites Conservation Officer
with the Important Bird Areas Programme,

Nature Kenya, (The BirdLife partner for Kenya) PO
Box 44486, Nairobi



SHORT COMMUNICATIONS

A CROSS-SPECIES MATING BETWEEN THE DIADEM BUTTERFLY AND TRIMEN'S FALSE ACRAEA: RAPE OR FEMALE CHOICE?

Every now and then an unusual observation gets you thinking about a biological conundrum. I was recently startled to see a male diadem butterfly (*Hypolimnys misippus*) mating with a female Trimen's false Acraea (*Pseudacraea boisduvali*) in one of the Kipepeo Project flight cages. My surprise quickly gave way to a revived curiosity about an outstanding question regarding Batesian mimics. Batesian mimics are edible but have evolved a superficial resemblance to poisonous species. This resemblance fools predators who mistake the mimics for their poisonous models and leave them alone. The theory has been tested in the field and in the laboratory and it has been shown that it works.

This much is clear, but there are several features of Batesian mimicry which are not yet fully understood. Among these is the fact that mimicry is often sex-limited to females. In other words, females have mimetic patterns but males don't. The diadem butterfly is a good example of a female-limited Batesian mimic. The males are black and white and are non-mimetic while the variably patterned, mostly orange females resemble different forms of the poisonous African queen butterfly, *Danaus chrysippus*. This is puzzling: the males need to survive just as much as females, so why shouldn't they also resemble the African Queen? There have been several general attempts to answer this question. The more plausible explanations argue that it's easier for a female than for a male to evolve a new colour pattern.

Why should this be so? One possibility is that females are tightly programmed to recognise their mates by a particular colour pattern, which will normally be that typical for the species. Since females usually mate only once or twice, they can't afford to make a mistake and have to be choosy. They are thus likely to reject

any male that doesn't look right, so if a male carries a mutation which changes its colour pattern, it won't be recognised by females as a suitable partner, it won't get mated and the mutation won't be passed on to the next generation. Males on the other hand are usually less choosy and will mate with almost anything that moves if it lets them. This is because they can mate many times so that a single mistake is less costly. It is nearly always better for them to mate than to miss the chance, even if the female does look different from normal. So a female with a new colour pattern will still get mated and will pass on the genes for that pattern to its offspring.

Notice that the argument I've just presented depends crucially on females being able to choose their mates. If they don't fancy their partner then that's the end of the matter, and the frustrated male can do nothing about it. But what if the females are not in control? What if butterfly mating is often a case of rape? Then it doesn't matter what the males look like and they are as free to evolve a new colour pattern as the females.

Which brings us back to the strange mating in the flight cage between the diadem and the false *Acraea*. The false *Acraea* is largely orange with black borders, and looks something like some of the female colour forms of the diadem butterfly. But there is no form of the false *Acraea* that looks anything like a male diadem. So confusion on the part of the male diadem is understandable, but the female *Pseudacraea* couldn't possibly have confused it with a male of its own species. Either she didn't mind what he looked like or she was raped, and, in either case, our explanation for female-limited mimicry falls apart.

But the real lesson of the odd mating is not that it disproves this hypothesis, because it doesn't. Instead, it reminds us how much so many evolutionary arguments depend on other things being equal, and how little we know about courtship and mating in African butterflies. Other things being equal, colour pattern may indeed determine female choice in mating behaviour, but we don't know that they are equal. The truth is that we have no idea what factors led to the odd mating. It could, for example, have been due to a chemical coincidence, a chance similarity between male sex pheromones in the two species, since these sex perfumes are also important in mating (you may not only have to look right but also to smell right). It could have been due to some common behavioural traits in the mating behaviours of the two species. Or it could have been an artefact of the lack of other suitable partners in the flight cage, either as a complete fluke with no wider significance, or as a result of the cage preventing female escape from the attentions of a stimulated but frustrated male. All of which leaves me in a rather similar state: stimulated (by the problem) but frustrated (by the lack of an answer).

I.J. Gordon

Box 10018, Mombasa, Kenya

CUDDLY OR TASTY?

Through our wildlife sanctuary, here in the Shimba Hills runs a little-used, dirt, rural access road. My house lies a short distance from it.

One evening, after dark, I became vaguely aware of a lorry labouring up the steep incline. Suddenly a wild cacophony of excited screams and shouts erupted from its passengers, whereupon the vehicle stopped just about level with my gate. More maniacal shrieking and scuffling noises were heard. Then the engine restarted and off up the hill, then yet more bloodcurdling yells and screams, another stoppage. All repeated once again. The hullabaloo was tremendous. What on earth was happening? At last, bedlam ceased and the lorry climbed on out of the sanctuary, and out of hearing.

I went to the gate and asked my night watchman what it was all about. "Oh, it was the sungura, running ahead of the lights. The young people jumped out and were trying to catch it. But, by bad luck, it escaped them."

"Oh! Poor, frightened, pretty, little Crawshay's hare!" (It lives just beyond the road verge.) "And if they caught it?" I asked in trepidation.

"Oh, they would have torn it to pieces and shared it out."

Now, I have a book about diets. It is written by an American couple with, one assumes, their own well fed compatriots in mind (Diamond & Diamond (1985)). The USA—a land flowing with milk and honey, where few know what hunger is. Within this little treatise about diets, various interesting proposals and advice are advanced and some fairly unusual theories propounded. On one page, the following passage may be found:

"We as humans are not even psychologically equipped to eat meat. Have you ever strolled through a lush wooded area, filling your lungs with good air while listening to the birds sing? Perhaps it was after a rain, and everything was fresh and clean. The sun was filtering through the trees and glistening off the moisture on the flowers and grass. Just then perhaps a chipmunk scurried across your path. What was your VERY FIRST INSTINCTIVE inclination upon the sight of the chipmunk, before you even had time to think? To pounce on it, grab it with your teeth, rip it apart and swallow it, blood, guts, skin, bone, flesh and all? Then lick your lips with delight and thank the powers that be that you chose this particular path through the woods so you had the opportunity to devour this delectable little titbit? Or would you instantly, upon sight of the furry little creature, say, 'Shhh, did you see that cute little chipmunk?'"

Another passage: "Kids are the real test. Place a small child in a crib with a rabbit and an apple. If the child eats the rabbit and plays with the apple, I'll buy you a new car."

Well, if the authors would just step over here into a developing, third-world country where poverty and hunger are the norms, I might earn myself a new car. Or then perhaps I wouldn't, because the small child would avidly consume both the rabbit AND the apple!

So there we are—if you have a fat, satisfied belly you will cuddle the chipmunk (or hare), but if your belly is daily grinding with emptiness, you will instinctively tear it to pieces and devour it. This is truly what governs the way today's man regards cute furry little creatures; not comfortable theories proving that early man in his cave was equipped with teeth only appropriate for frugivorous forage (apologies, Dr Alan Walker!) and that thus meat-eating is unnatural to us, so ought to be abandoned.

And the cuddly, embattled Crawshaw's hare, scarce already 'Doomsday is in sight' But I who lament him have, needless to say, a replete belly

Fiona Alexander

Sable Valley Wildlife Sanctuary, P.O. Box 890, Ukunda, via Moinbasa, Kenya

References

Diamond, H. & M. Diamond. (1985). *Fit for Life*. Bantam Books, New York.

TWO BROOD-PARASITES AND THEIR HOSTS

On 25 June 1998 at 15:45 I was on the verandah of the Makerere University Biological Field Station at Kanyawara, Kibale Forest National Park, Uganda (approximately 0°30'N, 30°25'E) when a loud 'spishing' sound attracted my attention. In a small tree (4 m high), only some 10 m from the building, a little honeyguide was pursuing a male Collared Sunbird *Anthreptes collaris* and begging loudly from it. The honeyguide's stubby beak and small size suggested that it was either Willcocks's *Indicator willcocksii* or Least Honeyguide *I. exilis*, both of which have been recorded around the field station buildings in the past (Fishpool *et al.*, 1997). Immature individuals of small *Indicator* species are very difficult to identify in the field (Short & Horne 1988). This bird lacked conspicuous flank striping, suggesting that it was a Willcocks's Honeyguide.

As the sunbird foraged among the leaves of the canopy, the honeyguide followed close behind it, begging loudly and persistently. However, the sunbird ignored it completely. When the sunbird flew for about 40 m into another tree, the honeyguide flew after it and began begging again. As the sunbird flew once more into a tree some 50 m away, the honeyguide was right behind it. Unfortunately I was unable to follow them further.

I did not see the sunbird feed the honeyguide at any stage, but it seems likely that it was the honeyguide's host. The Amethyst Sunbird *Nectarinia amethystina* is a known host of Eastern Honeybird *Prodotiscus insignis*, while the Scarlet-chested Sunbird *N. senegalensis* is an occasional host of Greater Honeyguide *Indicator indicator* and a possible host of Wahlberg's Honeybird *Prodotiscus regulus* (Short & Horne 1985). The hosts of Least Honeyguide are thought to be various barbets and tinkerbirds, while the hosts of Willcocks's

Honeyguide are unknown (Short & Horne 1985, 1988).

Honeyguides that parasitise barbets must be prepared to fend for themselves once they emerge from their foster parents' nest. As they emerge they are recognised as honeyguides and immediately attacked by their foster family (Short & Horne 1992). This observation from Kanyawara suggests that the situation might be different for non-barbet hosts.

A few days later, on 26–28 June 1998, a juvenile African Emerald Cuckoo *Chrysococcyx cupreus* was present in the small trees (mainly *Polyscias*, *Zanthoxylon* and *Ficus* spp.) close to the Field Station library and lecture theatre. It was attended by a pair of Common Bulbuls *Pycnonotus barbatus*, who fed it various items, including fruit. Once one of the pair regurgitated five bright red fruits in sequence.

I was surprised by this combination of host and parasite, but in fact there are numerous records of this cuckoo species parasitising Common Bulbuls (Irwin 1988). This seems strange, since the African Emerald Cuckoo is a bird of the forest interior (Britton, 1980; Bennun *et al.*, 1996) while Common Bulbuls prefer more open habitats (Britton 1980) and rarely venture far into intact forest (pers. obs.). Irwin (1988) implies that there may be general confusion of hosts between African Emerald Cuckoo and Klaas's Cuckoo *C. klaas*, which is less dependent on forest. Indeed, the juveniles of the two species are very similar. In this case, the iridescent green barring on the underparts, lack of a buff wash on the breast, and the white (not buff) barring on the head showed that the bird was a young African Emerald Cuckoo. At Kanyawara the forest edge is blurred by secondary forest trees regenerating naturally around the buildings in a former pine plantation. This is one place where both African Emerald Cuckoos and Common Bulbuls regularly occur and probably come into frequent contact.

I thank the Tropical Biology Association for the opportunity to visit Kanyawara during their field courses.

Leon Bennun

Ornithology Dept., National Museum, Box 40658, Nairobi, Kenya

References

- Bennun, L., C. Dranzoa & D. Pomeroy (1996). The forest birds of Kenya and Uganda. *Journal of East African Natural History* 85: 5–21.
- Britton, P.L. (ed.) (1980). *Birds of East Africa: their habitat, status and distribution*. East Africa Natural History Society, Nairobi.
- Fishpool, L., L. Bennun, J. Oyugi & P. Weeks (1997). Distinctive foraging behaviour by Willcocks's and Least Honeyguides. *Scopus* 19: 110–112.
- Irwin, M.P.S. (1988). Cuculidae, cuckoos, malkohas and coucals. In *The Birds of Africa, Vol. III*. C.H. Fry, S. Keith & E.K. Urban, eds. Academic Press, London, Pp. 58–104.
- Short, L.L. & J.F.M. Horne (1985). Behavioral notes on the nest-parasitic Afrotropical honeyguides (Aves: Indicatoridae). *American Museum Novitates* 2825: 1–46.

Short, L.L. & Horne, J.F.M. (1988). Indicatoridae, honeyguides. In *The Birds of Africa, Vol. III*. C.H. Fry, S. Keith & E.K. Urhan, eds. Academic Press, London, Pp. 486–511

Short, L.L. & J.F.M. Horne (1992) Honeyguide-host interactions. *Proc. VII Pan Afr. Orn. Congr* 549–552

SHIMONI FOREST: BIODIVERSITY WORTHY OF PROTECTION

Shimoni, a trading and tourism centre in the southeastern corner of Kenya, hosts the headquarters of the Kisite-Mpunguti Marine Park and Reserve. The Kenya Wildlife Service buildings and the nearby Eden Bandas are located in a forest remnant just off the main road. On World Birdwatch weekend in October 1997, four trainers and two trainees from the KWS Waterbird Identification and Counting Techniques course formed a team covering part of the Shimoni area. Our team walked through the forest on the KWS property, and part of the neighbouring forest to the west. These are coral rag forests, an unusual and largely unprotected type of Coastal forest, and rich in biodiversity. We were amazed by the variety of birds and mammals that we saw in just a few hours' walk.

Black and red elephant shrews, Sykes' monkeys, black and white colobus, red duikers, bushbucks, east african red squirrels, and eastern red-legged sun squirrels (names according to *A Field Guide to the National Parks of East Africa* by John G. Williams) are just some of the mammals that we saw on the KWS land.

Among the typical Coastal forest birds that we noted in the two forest areas were Fischer's Turaco, Mottled Spinetail, Green Barbet, Eastern Green Tinkerbird, Eastern Nicator, Red-capped Robin Chat, Eastern Bearded Scrub Robin, Little Yellow Flycatcher, Forest Batis and Plain-backed Sunbird. However, we missed the most exciting bird sighting: on the same World Birdwatch weekend, Maia Hemphill saw a Black and White Flycatcher in her garden in Shimoni—the first record for many, many years.

In view of the potential of the forest on the KWS property at Shimoni for recreation and biodiversity conservation, I think it is important that it be protected. The boundaries of the plot had recently been surveyed and demarcated. If possible, links should be maintained with the forest to the west to ensure a viable area for biodiversity conservation.

Fleur Ng'weno, P.O. Box 42271, Nairobi

GETTING SEABIRDS OFF THE HOOK

In all the World's oceans, longline fishing vessels set and haul their lines, bringing aboard cod, hake, tuna, swordfish and Patagonian toothfish—and seabirds.

Longlining has been commonly regarded as an "environmentally friendly" fishing technique. Yet it now has the concerted attention of environmental NGOs such as IUCN and BirdLife International (BLI), as well as intergovernmental organizations.

Reports in the early 1990s from Australia of tens of thousands of albatrosses being killed in the Southern Ocean by tuna longliners first led to this attention. A resolution, *Incidental Mortality of Seabirds in Longline Fisheries*, adopted by IUCN at its First World Conservation Congress in Montréal, Canada in October 1996, led BirdLife International, with funding from its UK Partner, the Royal Society for the Protection of Birds, to inaugurate its Seabird Conservation Programme in 1997. Its first major project was a global review of seabird mortality caused by longline fisheries.

Seabird mortality has encouraged research into mitigation methods. A number of longlining nations, are now experimenting with underwater-setting devices which have been designed to keep baited hooks out of sight of birds.

Several agreements are in the offing which will require member states to report and regulate the effects of longline fishing on seabirds. Among others are an "International Plan of Action-Seabirds" and a "Range State Agreement" for albatrosses.

Although the above activities should go a long way to reducing seabird mortality from longline fisheries, pirate fishing remains an area of serious concern. Only concerted efforts through international agreements, with effective patrolling and penalties, will result in longline fisheries being managed sustainably and in far fewer birds being killed.

With the collaboration of governments, international organizations, environmental NGOs and the fishing industry it is hoped that come the next millennium, longlining can once more be regarded as an environmentally friendly fishing technique, and the World's seabirds will be able to fly their oceans without risk of being hooked.

For more information contact: BirdLife International's Seabird Conservation Programme, Avian Demography Unit, University of Cape Town, Rondebosch 7701, South Africa or on its web site at: www.uct.ac.za/depts/stats/adu/seabirds

John Cooper

BirdLife International Seabird Conservation Programme, E-mail: jcooper@botzoo.uct.ac.za

BOOK REVIEW

Wildflower Safari: the life of Mary Richards. By William Condry. Pp. 257, incl. 16 colour pages and many photographs. Gomer Press, Llandysul, Wales. 1998. U.K. 18.

Mary Richards collected herbarium specimens for Kew from East Africa between 1953 and 1974. She was not

paid to do so, but went to Africa to visit friends, and stayed on, starting her long series of over 25,000 numbers when she was already 68.

Her early life was lived in West Wales, to which she returned before she died in 1977. This short review is written to alert botanists and East African naturalists to an account of her life.

William Condry's biography is based on their long friendship and on her diaries to which her family gave him unrestricted access. This was his last book, and happily he saw a copy of it just one week before he died in May, 1998. Bill was a famous naturalist of Wales, humble in himself but loved and respected by all who knew him. He was a school teacher of classics who left that profession to devote himself to conservation and writing. Amongst other works he wrote the Collins New Naturalist volume on the Natural History of Wales (1981).

Over half of the book is a description of Mary's collecting safaris in Zambia, Malawi and Tanzania, with many references to her assistants and acquaintances during the period. There are 16 colour pages, each with two or four pictures, and these are beautifully prepared and printed. There are portraits of Ali Omari, Mhilu Abdallah, Edward Robinson, Samuel Arasulufa, Bill Morony and Penny Condry. Above all, there are many photographs of Dr Desmond Vesey-Fitzgerald who helped and accompanied Mary on most of her safaris. Bwana Vesey's work is revered by all East African ecologists, and his death in Peter Greenway's house at Limuru near Nairobi sadly coincided with Mary's final return to Wales.

This book is a fragment of the history of East African botany, a testament to the prodigious drive of a septuagenarian Edwardian lady, and a reference to the *loci classici* of the many new species which she found. It is a fitting tribute to Mary Richards, Bill Condry and Bwana Vesey.

Andrew Agnew
Garth House, Furnace, Machynlleth, Powys SY20 8PG,
Great Britain.

NOTICES

Request for Papers

The Editor is finding it more and more difficult to get an issue of the *Bulletin* out on time. This had previously been because of production problems, but things have changed and the problem is now, basically, because of lack of material.

All members are encouraged to send articles on any interesting observations on natural history, book reviews, trips, or anything else of interest to members.

Our COMMENTS section is for anyone who wishes to make a comment on a conservation related topic. It

is absolutely not reserved for Executive Committee members. If you are aware of a conservation issue which you wish the members to know about (and perhaps address), please write in about it.

For some time we have been wanting to start an urban wildlife section for articles and notes on the biodiversity in 'our own backyards'. So far there have been very few of these, even though there is an amazing biodiversity in urban areas. One of our most popular previous articles was one on a spider/fly relationship on a member's computer.

We also welcome illustrations.

Thank you in advance for your support.

L.A. Depew, Editor

Box 10018 Bamburi Post Office, Mombasa, Kenya.

E-mail: LADepew@africaonline.co.ke

E-mail attached files or text within an e-mail message are most welcome

EANHS MEMBERSHIP RATES PER ANNUM

	Local	US\$	UK
Life	now closed to further subscription		
Corporate	5000	200	150
Sponsor	1000	50	35
Institutional*	700	30	20
Full	500	20	15
Family	700	30	20
Pensioner	250	-	-
Student**	250	15	10

*Schools and Libraries

**Only children under 18 and full-time University undergraduates. Graduate students register as full members.

Membership offers you free entry to the National Museums, free lectures, films or slide shows every month in Nairobi; field trips and camps led by experienced naturalists; free use of the joint Society-National Museum Library (postal borrowing is possible) and a copy of the EANHS Bulletin every four months. The Society is the BirdLife Partner for Kenya. It organises the ringing of birds in eastern Africa and welcomes new ringers. It also runs an active Nest Record Scheme.

Subscriptions are due on 1 January. From 1 July you may join for half the yearly subscription and receive publications from that date. Application forms may be obtained from the Hon. Secretary, Box 44486, Nairobi, Kenya.

**THE EAST AFRICA
NATURAL HISTORY SOCIETY
EXECUTIVE COMMITTEE**

- Chairman:** Dr L.A. Belemn
Vice-Chairman: Dr G. Abungu
Hon. Secretary: Ms F. Ng'weno
Hon. Treasurer: Vacant
Hon. Editor: Ms L.A. Depew
Hon. Librarian: Dr D. Nightingale
- Executive Committee:** Dr. T. Aloo, Dr T. Butynski, P. Milimo, N. Ogunge, J. Oyugi, Mrs J. Rudnai, Mr J. Silvester
- Co-opted & Ex Officio members:** Mrs. A. Birnie, Mr B. Bytebier, Prof. L. Newton, Ms. C. Ngarachu (OM), Miss A. Owano, Ms. S. Rajani (EO).
- Patron:** Mr John Karmali
- Journal Editorial Sub-committee:** Ms L.A. Depew (Editor), Dr T. Butynski, Dr D. Nightingale
- Joint Library Sub-committee:** Dr D. Nightingale, Dr T. Butynski.
- Bird Committee:** Mr G.C. Backhurst (Chairman), Mr D.A. Turner (Secretary, Treasurer)
- Succulenta Sub-committee:** Prof. L. Newton (Chairman)
- Mammals Sub-committee:** Mr E. Kanga (Convenor)
- Nest Records Scheme Organiser:** Mr J.O. Oyugi
- Ringing Organiser:** Mr G.C. Backhurst
- EANHS Projects:** Friends of Nairobi Arboretum, Kipepeo Project, Friends of City Park

UGANDA BRANCH

- Executive Committee:**
- Hon. Chairman** Dr P.M.B. Kasoma
Hon. Vice-Chairman Mr R. Kityo
Hon. Secretary Dr D. Baranga
Hon. Treasurer Mr P. Mafabi
Publicity Secretary Mr. H. Tushabe
- Executive Committee:** Dr R. Bukunya-Ziraba
 Mr A. Katende, Prof. D. Pomroy
- BirdLife Uganda:** Mr A. Muhwezi (Convenor)
- Uganda Wetlands Working Group:** Mr T. Otim (Convenor)
- Herpetological Group:** Mr M. Behangana
- Executive Officer & Editor:** Mr J. Arinaitwe
Deputy Executive Officer: Mr A. Byaruhanga
Events Officer: Ms Maria Nakabito
Conservation Officer: Mr Ambrose Mugisha

The *Bulletin of the EANHS* is a printed magazine issued three times a year, which exists for the rapid publication of short notes, articles, letters, and reviews. Contributions may be in clear handwriting, printed or on disk. Black and white photographs and line drawings are most welcome. E-mail attached files or short texts in e-mail messages are most welcome. Please send to the Editor (EANHS) Box 10018 Bamburi Post Office, Mombasa Kenya

E-mail: LADepew@africaonline.co.ke

The *Journal of East African Natural History* is published in collaboration with the National Museums of Kenya. It is published two times a year. Contributions, typed in double spacing on one side of the paper, with wide margins, should be sent to the Editor (EANHS), Box 10018 Bamburi Post Office, Mombasa, Kenya. Authors receive 25 copies of their article free of charge.

E-mail attached files are welcome and can be sent to: LADepew@africaonline.co.ke

Scopus is the publication of the Bird Committee of the EANHS. It is published two times per year. All correspondence should be sent to D.A. Turner, Box 48019, Nairobi, Kenya.

Kenya Birds is a publication of the Bird Committee in conjunction with the Ornithology Dept., NMK. It is published two times per year and contains popular and informative articles on birds and birding in Kenya. Correspondence should be sent to Dr Leon Bennun, Box 44486, Nairobi, Kenya.

