

TOS 4018

ISSN 0250-4162

THE NATURAL
HISTORY MUSEUM

21 JUL 2010

EXCHANGED
TRING LIBRARY

SCOPUS



A publication of the
Bird Committee of the
East Africa Natural History Society

Edited by
Mwangi Githiru

Volume 29, December 2009


BirdLife
INTERNATIONAL


NatureKenya
The East Africa Natural History Society

SCOPUS

Scopus is published twice a year, or as a combined annual volume, by the Bird Committee of the East Africa Natural History Society. For information on current subscription rates and modes of payment, contact Nature Kenya P.O. Box 44486, G.P.O. 00100, Nairobi, Kenya, tel. +254 20 3749957, E-mail: membershipservices@naturekenya.org or visit the website: www.naturekenya.org. For subscriptions in Uganda contact Nature Uganda, P.O. Box 27034, Kampala, Uganda, tel. +256 41 540719 or E-mail: eanhs@imul.com or visit www.natureuganda.org.

Cover illustration from a gouache painting by P.A. Clancey.

Editor

Mwangi Githiru mwangi_githiru@yahoo.co.uk

Editorial board

Leon Bennun

Norbert Cordeiro

Luc Lens

Jeremy Lindsell

David Pearson

Derek Pomeroy

Muchai Muchane

Darcy Ogada

Editorial Assistant

Darcy Ogada darcyogada@yahoo.com

Notes for contributors

Scopus welcomes original contributions on all aspects of the ornithology of eastern Africa, encompassing the area from the Sudan south to Mozambique and including the Indian Ocean islands.

Contributions include original (full) papers, short communications (normally less than two pages in length, including short notes and records) and letters. Original articles and short communications should present some new results that have not been published or been submitted for publication elsewhere. All manuscripts are subject to peer review. They will be assessed by at least one member of the editorial board as well as by independent referees.

Manuscripts must be written in English and should be typed double-spaced throughout with wide (1 inch) margins. When preparing your manuscript, please follow the conventions used in *Scopus* and refer to a recent issue (vol. 21 onwards) for guidance. Some examples of conventions

are:

Units: Metric units and their SI equivalents should be used.

Dates: 21 February 2001 [note the order, no comma, not 21st].

Time of day: 13:00 [note colon, no 'hours', 'hrs' or 'h'].

Names of birds: Cape Rook *Corvus capensis* [no comma, no parentheses, no author's name].

References cited in the text: Cite multiple references in chronological order, separated by commas, e.g. (Njoroge & Launay 1998, Mlingwa *et al.* 2001) [note ampersand, italicised '*et al.*', no comma between authors' names and date].

List of references at end of an article: See the examples below for format.

Give names of journals in full. For books, after author(s), year of publication and title, give town followed by the publisher. For example:

Cordeiro, N.J. & Githiru, M. 2000. Con-

(continued on inside back cover)

Notes on the ecology of Ethiopian Bush-crow *Zavattariornis stresemanni*

Ben Ross, Mengistu Wondafrash, Mihiret Ewnetu, Sandy Watt, Celia Broadhurst, Rob Critchlow, Aman Dadesa, Tom Deas, Chere Enawgaw, Berihun Gebremedhin, Eilidh Graham, Sarah Maclean and Richard J. Mellanby

Summary

We used the focal sampling method to conduct a behavioural study of the endemic Ethiopian Bush-crow *Zavattariornis stresemanni* in the Yabelo-Mega area of southern Ethiopia. We found that feeding rates were lower in areas with low sward height and low numbers of trees. This was particularly concerning given the degradation of natural habitat in this area.

Introduction

The Ethiopian Bush-crow *Zavattariornis stresemanni* is an endemic bird found in the Yabelo-Mega region of southern Ethiopia (Birdlife International 2009). Little is known about this species' ecology; notably, the factors contributing to its remarkably restricted range. There are only a few reports on the status of this species and most are descriptive reports of brief field observations (Ash & Gullick 1989, Syvertsen & Dellelegn 1991, Gedeon 2006). Borghesio & Gianetti (2005) reported a dramatic decline in the number of Ethiopian Bush-crow sightings between 1989 and 2003, which they attributed to dramatic changes in the local habitats. The results of that study prompted the upgrading of the species' conservation status from vulnerable to endangered (Birdlife International 2009). In July and August 2005 a team of ornithologists visited the Yabelo and Mega regions to carry out further studies on this species. The distribution, abundance and habitat preferences of the Ethiopian Bush-crow are described in Mellanby *et al.* (2008). This paper builds on that study and describes the feeding ecology of the bush-crow using intensive behavioural observations.

Study area

Fieldwork was carried out in the Yabelo-Mega area of Southern Ethiopia's Borana region. Observations were recorded in and around the Yabelo Sanctuary, the boundaries of which are ill-defined but taken to lie between 05°12' and 04°37' N, and 38°09' and 38°35' E. The altitude of the sanctuary ranges from 1430 m to 2000 m and the annual rainfall is c.700 mm, with a

principal rainy season between April and May (Fishpool & Evans 2001). The Yabelo Sanctuary is the only protected area within the range of the Ethiopian Bush-crow (EWNHS 1996, Fishpool & Evans 2001). The most common habitat within the Yabelo Sanctuary is woodland savannah dominated by several species of *Acacia* (*A. tortilis*, *A. brevispica*, *A. horrida* and *A. drepanolobium*), *Terminalia* and *Commiphora* spp. (Borghesio & Giannetti 2005). The dominant land use is pastoralism by the Borana tribe although agriculture has increased in recent years (EWNHS 1996, Borghesio & Giannetti 2005).

Methods

The study was undertaken between 15 July and 29 August 2005. Behavioural observations were made using the focal sampling method. Individual Ethiopian Bush-crows were observed through binoculars and their position and behaviour was recorded every 45 seconds for up to 10 minutes at a time. Periods of at least 10 minutes were left between samples and no more than three observation periods were undertaken on any one flock. The number of bush-crows in each flock was recorded at the start of each observation period. A bird was defined as being in a flock if it was within 10 m of another bush-crow. The number and species of other birds within the flock were also recorded at the start of each observation period. Observations were made on an opportunistic basis whenever bush-crows were encountered during a wider survey of the Yabelo region.

Positions were recorded as either on the ground, perched in trees or vegetation, in air, in nest, or obscured. Behaviours observed were placed in one of the following 16 categories:

- | | |
|-----------------------------------|--|
| 1) feeding on vegetation | 10) preening another bush-crow |
| 2) feeding on bare earth | 11) being preened by another bush-crow |
| 3) feeding on dung | 12) calling |
| 4) feeding on wasp nest | 13) interacting with other species |
| 5) hawking for insects | 14) nest repair |
| 6) walking | 15) collecting nest material |
| 7) inactive | 16) obscured |
| 8) preening | |
| 9) being fed by another bush-crow | |

Observation periods with less than 10 behavioural recordings were excluded from further analysis. At the end of each observation period, habitat variables were recorded within a 25 m radius of the spot where the last bird was seen (see Mellanby *et al.* 2008). Habitat variables recorded included:

- 1) % of bare earth visible
- 2) % shrub cover
- 3) mean sward height
- 4) % canopy cover

- 5) number of trees < 6 m high
- 6) number of trees > 6 m high
- 7) number of termite mounds
- 8) houses present within 200 m of the spot where the last bird was seen

To examine the effect of time of day, the day was split into four equal periods: early morning (06:00 to 09:00), late morning (09:00 to 12:00), early afternoon (12:00 to 15:00) and late afternoon (15:00 to 18:00). A Mann Whitney U-test was used to compare habitat variables for observations with low and high levels of feeding activity. Low levels of feeding activity were defined as samples where 20% or less of observations indicated feeding activity; any samples with > 20% of observations indicating feeding activity were defined as high levels of feeding. A Chi-square test was used to test for relationships between the presence and absence of termite mounds or villages, and observations where feeding was the dominant behaviour. Variation between flock size and time of day was tested using a Kruskal-Wallis test.

Results

A total of 1897 individual behavioural observations were recorded during 169 observation periods. The overall proportion of time that individuals were observed in each of the positions or activities, and their respective times of day, are shown in Table 1. Feeding was the most common behaviour observed overall, accounting for 41% of all observations. The most common feeding position was on the ground amongst vegetation, which accounted for 79% of all foraging locations. Additional foraging was in trees or termite mounds (2% each), amongst rubbish or on wasp nests (1% each) or by hawking (<1%). When habitat characteristics were compared between observations with low and high-feeding levels, sward height and the total number of trees were found to be higher in areas where feeding activity was greater ($W = 4803$, $P = 0.001$, and $W = 4906$, $P = 0.028$ respectively) (Table 2).

Table 1. Percentage of three-hour periods spent by Ethiopian Bush-crow in different positions or activities.

Position	No. individual observations	% Of Three-Hour Period				Overall %
		06:00-09:00	09:00-12:00	12:00-15:00	15:00-18:00	
Ground	1251	81%	61%	53%	66%	66%
Tree	584	16%	35%	45%	30%	31%
Nest	11	0%	0%	1%	0%	1%
In air	50	3%	4%	1%	3%	3%
Activity						
Feeding	722	47%	37%	34%	44%	41%
Walking	430	33%	24%	19%	22%	25%
Preening	207	6%	12%	21%	10%	12%
Socializing	70	1%	7%	6%	3%	4%
Inactive	318	14%	20%	18%	20%	18%

Table 2. Habitat characteristics for Ethiopian Bush-crow in areas of low and high levels of feeding activity (*notes significant difference).

Habitat variables	All observations (n=124); Mean \pm SD	Low feeding (n=85); Mean \pm SD	High Feeding (n=39); Mean \pm SD	P value
% bare earth	21.7 \pm 16.5	22.2 \pm 16.7	20.7 \pm 16.2	0.600
% scrub cover	12.1 \pm 8.3	11.6 \pm 8.5	13.2 \pm 7.7	0.149
Sward height (cm)	7.9 \pm 5.9	6.7 \pm 4.3	10.6 \pm 7.7	0.001*
% canopy cover	8.8 \pm 14.7	9.2 \pm 15.0	8.1 \pm 14.0	0.862
No. trees <6 m high	5.3 \pm 10.4	4.7 \pm 10.7	6.7 \pm 9.7	0.110
No. trees >6 m high	2.2 \pm 3.2	2.1 \pm 3.2	2.6 \pm 2.8	0.092
All trees	7.6 \pm 10.5	6.7 \pm 10.8	9.0 \pm 9.7	0.028*
No. observations with termite mounds	66 (53%)	41 (48%)	15 (38%)	NS
No. observations near villages	59 (48%)	43 (51%)	16 (41%)	NS

The average flock-size was four (range: 1–12). There was no significant difference in flock-sizes at different times of day. Other birds were seen with bush-crows in 51% of observations. The mean flock size (including other species) was six (range: 1–29). Twenty-seven different species were seen with bush-crows. The most common species found in flocks with bush-crows were Superb Starlings *Lamprotornis superbus* found in 27% of observations, followed by White-browed Sparrow-weavers *Plocepasser mahali* (8%), Red-billed Buffalo Weavers *Bubalornis niger* (6%), Red-billed Hornbills *Tockus erythrorhynchus* (5%), White-headed Buffalo Weavers *Dinemellia dinemelli* (5%), and Ring-necked Doves *Streptopelia capicola* (2%).

Discussion

Ethiopian Bush-crows feed mainly on invertebrates and favour habitats characterised by a low density of bushes, the presence of tall trees and loosely-packed soils (Gedeon 2006, Mellanby *et al.* 2008). This study supports these findings, highlighting the range of foraging locations used by bush-crows, but demonstrating that the dominant foraging position is on the ground and preferentially amongst vegetation. The fact that this study showed that feeding activity was lower in areas with low sward height and fewer trees is of particular concern given the degradation of natural habitat in the area. The traditional land-use in the area is nomadic pastoralism. However, cultivation for cereal crops is becoming more prevalent, and subsequently grazing pressure by cattle is increasing. This trend is consistent with other studies conducted in this area (EWNHS 1996, Bassi 2002, Borghesio & Gianetti 2005, Solomon *et al.* 2007, Mellanby *et al.* in press). Recent studies have highlighted large-scale habitat changes within the range of the bush-crow (Borghesio & Giannetti 2005, Mellanby *et al.* 2008). These include increases in cultivation for cereal production, increasing dense shrub cover, heightened grazing-pressure and a loss of trees (Mellanby *et al.*, in press). In the absence of any

direct habitat management to benefit nature conservation, and with potential widespread changes in land-use in the area, it is essential that habitat changes and any impacts on Ethiopian Bush-crow populations continue to be closely monitored. The future of this species may be dependent on its ability to adapt to a rapidly changing environment.

Acknowledgements

The authors of the study are very grateful to the BP Conservation Awards Programme, Carnegie Trust, University of Glasgow, People's Trust for Endangered Species, Royal Geographical Society, African Bird Club, Glasgow Natural History Society and Edinburgh Trust 1 for their generous financial support of this project. We would also like to thank the local guides and drivers. We are also very grateful to Luca Borghesio for his excellent advice throughout the development of the project; Luca and Paul Kariuki provided useful comments on an earlier version of the manuscript. The project would not have been possible without the initial assistance from Yilma Dellelegn, Claire Spottiswoode and Nigel Collar to whom the authors are very grateful. We are also grateful to John Ash and Per Ole Syvertsen for their advice and guidance.

References

- Ash, J.S. & Gullick, T.M. 1989. The present situation regarding the endemic breeding birds of Ethiopia. *Scopus* 13: 90-96.
- Bassi, M. 2002. The making of unsustainable livelihoods: an ongoing tragedy in the Ethiopian drylands. *Policy Matters* 10: 7-12.
- BirdLife International 2009. Species factsheet: *Zavattariornis stresemanni*. Downloaded from <http://www.birdlife.org> on 22/1/2009.
- Borghesio, L. & Giannetti, F. 2005. Habitat degradation threatens the survival of the Ethiopian bush crow, *Zavattariornis stresemanni*. *Oryx* 39: 44-49.
- EWNHS [Ethiopian Wildlife and Natural History Society] 1996. *Important Bird Areas of Ethiopia*. Ethiopian Wildlife and Natural History Society, Addis Ababa, Ethiopia. Pp. 185-187.
- Fishpool, L.D.C. & Evans, M.I. 2001 (Eds.). *Important Bird Areas in Africa and associated islands: priority sites for conservation*. 1st Ed. Newbury and Cambridge, UK: Pisces Publications and Birdlife International.
- Gedeon, K. 2006. Observations on the biology of the Ethiopian Bush Crow, *Zavattariornis stresemanni*. *Bulletin of African Bird Club* 13: 178-188.
- Mellanby, R.J., Ross, B., Watt, A., Wondafrash, M., Ewnetu, M., Broadhurst, C., Crtichlow, R., Dadesa, A., Deas, T., Enawgaw, C., Gebremedhin, B., Graham, E., MacLean, S., McKean, M., Collar, N.J. & Spottiswoode, C.N. 2008. Distribution, abundance and habitat preferences of White-tailed Swallow, *Hirundo megaensis* and Ethiopian Bush-crow *Zavattariornis stresemanni*, two southern Ethiopian endemics. *Bird Conservation International* 18: 395-412.
- Mellanby, R.J., Broadhurst, C., Wondafrash, M., Ewnetu, M., Watt, A., Crtichlow, R., Dadesa, A., Deas, T., Enawgaw, C., Gebremedhin, B., Graham, E., MacLean, S., McKean, & Ross, B. *In press*. Perceptions of habitat changes in the Yabelo Sanctuary and surrounding areas. *African Journal of Ecology*.
- Solomon, T., Snyman, H. A. & Smit, G. N. 2007. Rangeland dynamics in southern

Ethiopia: (1) Botanical composition of grasses and soil characteristics in relation to land-use and distance from water in semi-arid Borana rangelands. *Journal of Environmental Management* 85: 429-442.

Syvertsen, P.O. & Dellelegn, Y. 1991. The status of some bird species endemic to south Ethiopia. *Scopus* 15, 30-34.

Ben Ross^{1,2,*}, Mengistu Wondafrash^{2,3}, Mihiret Ewnetu^{2,4}, Sandy Watt², Celia Broadhurst², Rob Critchlow², Aman Dadesa^{2,5}, Tom Deas², Chere Enawgaw^{2,4}, Berihun Gebremedhin^{2,6}, Eilidh Graham², Sarah Maclean² and Richard J. Mellanby²

¹ Scottish Natural Heritage, Great Glen House, Leachkin Road, Inverness, IV3 8NW.

² Project Yabelo, Institute of Biomedical Sciences, Graham Kerr Building, University of Glasgow, Glasgow, G12 8QQ, U.K.

³ Ethiopian Wildlife and Natural History Society, PO Box 13303, Addis Ababa, Ethiopia.

⁴ Ministry of Agriculture and Rural Development, Wildlife Conservation Department, PO Box 10-22-98, Addis Ababa, Ethiopia.

⁵ Yabelo Wildlife Sanctuary, PO Box 34, Yabelo, Ethiopia.

⁶ Institute of Biodiversity and Conservation, Addis Ababa, Ethiopia.

*E-mail for correspondence: Ben.Ross@snh.gov.uk

Scopus 29: 1-6, December 2009

Received June 2008

A survey of Echuya Central Forest Reserve, Uganda, for the breeding population of Grauer's Swamp Warbler *Bradypterus graueri*

Michael Ellison

Summary

During March and April 2007 a survey was undertaken of breeding Grauer's swamp warblers *Bradypterus graueri* within Echuya Central Forest Reserve. Thirty-one breeding territories were discovered during the study, which translated to a total of about 50 territories (ranging between 40 and 73 territories) for the entire swamp.

Introduction

Echuya Central Forest Reserve (ECFR) is located in the extreme south-west of Uganda, straddling the border with Rwanda at 01°17' S 29°49' E. It is a montane rainforest of c.3400 ha extent incorporating the c.7 km long, 700 ha, high-altitude swamp of *Muchuya*. The forest lies between two north-south-aligned ridges, with its eastern and western borders lying essentially on the ridge tops and falling down steep sides into Muchuya swamp in the valley between. It ranges in altitude between 2270 and 2570 m. It is one of Uganda's 30 identified Important Bird Areas (IBAs) (Byaruhanga *et al.* 2001).

The forest is dominated by mature *Macaranga kilimandscharia* and *Hagenia abyssinica* together comprising c.80% of the forest cover, with a declining but still significant Mountain Bamboo *Yushania alpina* presence comprising c.20% of the forest cover. Muchuya swamp is dominated by the sedge *Pycnus nigricans*, with heather *Erica kingaensis*, giant lobelia *Lobelia mildbraedii* and red hot-pokers *Kniphophia* spp. being well represented.

Echuya was surveyed first in August 1993, and again in July, November and December 1994, as part of a broader National Forest Biodiversity Inventory Programme. About 150 species of birds have been recorded at Echuya, a relatively low number for its size and habitat diversity (Byaruhanga *et al.* 2001). However, this list includes 13 Albertine Rift endemics including an important population of the globally-threatened Grauer's Swamp Warbler *Bradypterus graueri* which lives within Muchuya swamp.

Methods

From 10 March to 18 April 2007, with the aid of staff from Nature Uganda,

I undertook a survey of the breeding population of the Grauer's Swamp Warbler within Muchuya swamp. The swamp was divided into four transect sections: northern, central, south-central and southern. These allowed for c.60-70% of the swamp area to be covered by our survey. Territories were mapped using a technique adapted from the UK Common Bird Census (CBC) territory mapping survey method, designed by the British Trust for Ornithology (Marchant 1983), which involved making multiple visits to each of the four transect sections. Although we initially aimed to visit each section three times, bad weather prevented third visits to the south-central and southern sections. The northern section had four full visits with additional monitoring in the course of other activities.

Results

Thirty-one breeding territories of Grauer's Swamp Warblers were discovered as follows: northern section 18; central 7; south-central 5; and southern 1. It was clear that the birds were clearly not uniformly distributed across the swamp, being apparently thinly distributed across the bulk of Muchuya swamp with the exception of the northern section, which is where more than half of all singing birds were recorded.

A rough extrapolation was made to give an estimated total number of territories for the whole swamp, based on the observed patchy distribution of warbler territories found during the study. Given that c.65% of the total swamp area was surveyed, with c.15% comprising the northern transect with 18 territories, and the remaining c.50% of the total swamp area having 13 territories, the following three assumptions can be made about the unsampled 35%:

- i) *Optimistic*: good (northern-type) quality habitat which may yield an additional 42 territories for a total of 73 territories for the swamp
- ii) *Pessimistic*: poor quality habitat (e.g. the southern and central sections), which may yield an additional 9 territories for a total of 40 territories
- iii) *Middle ground*: habitat quality was in the same proportions as the surveyed area, thus 8% good quality and 27% poor quality: this may yield an additional 17 territories (10 in the good quality and 7 in the poor quality) for a total of 48 territories.

In sum therefore, it is likely that the number of territories in the entire swamp ranged from 40 to 73, and was likely to be around 50 breeding territories at the time of this study.

Discussion and Conclusion

Although no previous complete studies of Muchuya swamp have been undertaken it has been thought that the swamp holds a very important population of Grauer's Swamp Warblers (Byaruhanga *et al.* 2001). In this first survey of the entire swamp, I found a total of 31 breeding territories,

translating to c.50 breeding pairs for the entire swamp. Though this is a notable population for this globally-threatened species, is perhaps smaller than has been assumed. Higher densities had been anticipated because previous estimates (obtained from yearly index survey work undertaken by the Institute of Tropical Forest Conservation (ITFC) (Carswell *et al.* 2005)) have been based on the relatively dense Grauer's Swamp Warbler population in the northern sector of the swamp. Indeed, assuming the rest of the swamp had similar densities as we observed on the northern side, then a total population of 120 breeding pairs could have been expected.

The uneven distribution of the Grauer's Swamp Warblers within the swamp may well be related to the variations within both the swamp's structure and plant species composition. The sparsely populated central, south-central and southern sections were fairly dry apart from along the central spring-line, and the vegetation was dominated by fairly tightly packed clumps of sedge with stands of giant lobelia, red-hot poker and tree heather. In contrast, the densely populated northern section of the swamp was notably wetter than the other sections and the dominant sedge species was present in more loosely packed clumps than found throughout the rest of the swamp. Better population estimates for the entire swamp could be obtained by surveying the vegetation structure at the non-surveyed areas to check if they are likely to be of high or poor quality.

This last point may be of particular significance because, when encountered, the Grauer's Swamp Warblers preferred to stay within cover, frequently being seen at one location only to reappear more than 10 m away. Indeed, they were only visible for any notable duration when singing. The looser structure of the vegetation in the northern swamp would allow the birds to move within cover whereas the tighter structure noted within the rest of the swamp may not be conducive to such movement and thus may be a significant factor limiting their breeding density here. More detailed research on the breeding requirements is required to elucidate this further.

As a comparison, Mubwindi swamp in Bwindi Impenetrable National Park was visited after the Echuya survey was completed. This swamp is estimated to have a population of 200-400 Grauer's Swamp Warblers (Byaruhanga *et al.* 2001). Though smaller than Echuya (c.400 ha swamp area, compared to 700 ha for Muchuya) the area visited appeared to have a structure akin to the northern sector of Echuya, which lends support to the hypothesis that a wet, more open structured swamp is more favourable to breeding Grauer's Swamp Warblers. Again, more detailed (comparative) breeding studies are necessary to establish the reasons for these disparities, besides building vital information for informing conservation actions for this species.

Acknowledgements

I would like to thank the following people for their support, organisation and guidance towards the project: In the UK, Chris Magin, Paul Buckley, Judith O'Brien,

Mark Underhill & Ian Fisher of the RSPB; In Uganda, all the staff of Nature Uganda, particularly Ambrose Mugisha in Kampala and both, Zeneb Musimire and Henry Mfitundinda in Kabale, Derek Pomeroy, Alistair McNeilage and Eric Sande in Kampala, Godfrey Tumwebaze, Chepkurui Scovia Nelly and Joseph Mugaga at Echuya Forest Reserve. My special thanks go to Zoreka Keresi and Gershom Arineitwe for both their help and friendship whilst at Echuya, without which little would have been achieved.

References

- Byaruhanga, A., Kasoma P., & Pomeroy, D. 2001. *Important Bird Areas in Uganda*. NatureUganda, East Africa Natural History Society, Kampala.
- Marchant, J.H. 1983. *Common Birds Census Instructions*. British Trust for Ornithology, BTO, Tring. 12 pp.
- Carswell, M., Pomeroy, D.E., Reynolds, J. & Tushabe, H. 2005. *The bird atlas of Uganda*. British Ornithologists' Union, Tring, United Kingdom.

Michael Ellison

13/67-69 St Pauls Street, Randwick, Sydney, NSW, Australia

E-mail: michaelellison@live.co.uk

Scopus 29: 7-10, December 2009

Received February 2009

Multiple broods from a hole in the wall: breeding Red-and-yellow Barbets *Trachyphonus erythrocephalus* in southeast Sudan

Marc de Bont

Summary

Nesting and breeding behaviour of Red-and-yellow Barbets *Trachyphonus erythrocephalus* was recorded from a nest in the brick stone-wall of a house in Nanyangacor, south-eastern Sudan in 2005. There were at least five breeding attempts throughout the year, with at least four broods from this single nesting hole. The mean number of days in between broods was 27, and breeding did not appear to be directly related to rainfall.

Introduction

Barbets are known to breed throughout the year depending on their locality (Del Hoyo *et al.* 2002). In the temperate zone of southern Africa, breeding is seasonal and is limited to September–February, whereas in other areas, breeding can be opportunistic and year-round depending on rainfall. The Red-fronted Barbet *Tricholaema diademata*, for instance, is known to breed in virtually every month of the year (Del Hoyo *et al.* 2002). Similarly, the Crested Barbet *Trachyphonus vaillantii* from southern Africa can have up to four broods per year, whereas Yellow-breasted Barbet *T. margaritatus* of the Sahelian zone may have two broods. However, little is known of the multiple brooding behaviour of the Red-and-yellow Barbet *Trachyphonus erythrocephalus*.

From 19 January 2004 until 5 January 2006, I lived in Nanyangacor (05°30'N 34°46'E), Kauto Payam, south-east Sudan very near the Ethiopian border. I observed Red-and-yellow Barbets in the vicinity of our house (Fig. 1). They were commonly observed throughout my two-year stay in this house, and were found to be a common breeding bird in the wider area (de Bont, 2009). Though I observed possible breeding in the wall of my house (inset, Fig. 1) from the outset, it was only on 6 March 2004 that I noted sounds of birds in the nest hole, and not until February of the following year that I first recorded breeding inside the wall.



Figure 1. My house and the immediate surroundings. Inset: the nest hole and one of the breeding adults.

Methods

The area around Nanyangacor is semi-arid, largely falling within the Somali-Masai biome, but including some parts of the Sudan-Guinea Savannah, Afro-tropical Highland, Sahara-Sindian and Sahel biomes; it is partly degraded due to growing human pressure and overgrazing (de Bont 2009). The landscape consists of dry river beds bordered with dense vegetation and rocky hillsides. The vegetation is dominated by various *Acacia* species, as well as the Toothbrush Tree (*Salvadora persica*).

Nikolaus (1987, 1989) stated that breeding of the Red-and-yellow Barbet in the Sudan commenced in May and June. According to Fry *et al.* (1988), laying dates in north-west Kenya are April-May (during the rains), and between December and June in south to south-west Kenya and north to northeast Tanzania. Fry *et al.* (1988) also states that this species 'double-brooded in captivity'. Reference material suggests that breeding could occur in any month within the entire distribution range of this species (Fry *et al.* 1988, Del Hoyo *et al.* 2002).

I recorded breeding activity opportunistically throughout 2005 for a total of 248 days. Observation periods were typically short. I kept nest records by listening for the presence of nestlings through the wall. I recorded the fledgling date as the day when nestlings could no longer be heard in the nest. Adults were occasionally filmed or photographed around the nest or when entering the nest hole with food for the young. Rainfall was measured daily using a standard rain gauge placed within the compound.

Results

Nest description

The nesting hole was unusual since it was situated in the stone wall of our small house. The house was in a compound with four other buildings: two

houses, a small chapel and a small garage. Adjacent to the nest site were several trees and bushes, amongst them a Toothbrush Tree growing on a low termite mound. The walls of the house were built of clay bricks with a cement spray on the exterior. The walls consisted of two layers with a mud layer in between.

The nest entrance was about 1.5 m above the ground; it was about 5 cm wide and 6 cm high. Depth was not measured to avoid excessive disturbance, but the nest was lined with leaves. It is likely that it took a long time to create this nest hole, because at the beginning of 2005, the birds were slowly making another hole less than 1 m from the first one, which never got finished before we left in January 2006.

Pair-group composition

In the vicinity of the breeding site several other Red-and-yellow Barbet groups were present. The nearest group was 500-600 m away, close to the mostly dry riverbed of the Nanyangacor River. There were several other groups along the same river with nests dug either in the steep riverbanks or on the nearby hill.

Because the birds were not ringed, it was difficult to recognise individual birds. This limits the ability to be more definite about the size of the group, especially whether it was a single pair or a larger group, albeit there were rarely more than two adults at a time around the nest. It was unlikely that other pairs would have used the same nest hole, since barbets are generally very aggressive and defend their feeding and breeding territories against conspecifics as well as other species (Del Hoyo *et al.* 2002).

Breeding records

There were five distinct instances of breeding activity at this hole in 2005 (Table 1), but as indicated above, it was not possible to ascertain whether it was always the exact same pair breeding.

Table 1. Breeding activity of Red-and-yellow Barbets from a single nest in south-eastern Sudan in 2005.

Date	Brood No.	Nesting activity	Fledging date	No. of Fledglings	Observed post-fledging
11 Feb	1	feeding young	unknown	unknown	no
25 Apr	2	young heard	17 May	unknown	yes
1 Jul	3	nest building	unknown	unknown	no
11 Sep	4	young heard	4 Oct	unknown	no
19 Nov	5	young seen	unknown	unknown	no

Rainfall data

Rainfall in 2005 was less than the mean annual rainfall measured from March 2000 – December 2005. Rainfall in 2005 was 641 mm compared to an annual

mean of 738 mm. Despite this, local conditions were wet in March-May, August and September (Fig. 2).

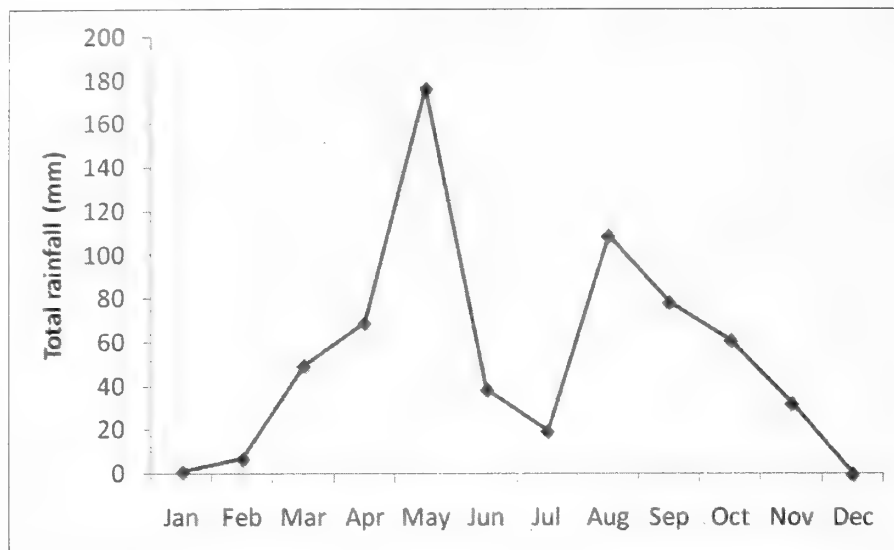


Figure 2. Total monthly rainfall during 2005 in Nanyangacor, SE Sudan

Discussion

Besides Fry *et al.* (1988) who mentions breeding of *T. margaritatus* in mud walls of buildings, the only other literature I found with breeding behaviour of *T. erythrocephalus* mentioned nesting in termite mounds or earthen banks.

The nestling period of the Red-and-yellow Barbet is 'unknown', whereas that of the Crested Barbet is given as '17-30 or more days' (Del Hoyo *et al.* 2002). From my notes I estimated a nestling period of 23 days for the second brood (young hatched on 25 April 2005 and fledged on 17 May 2005), and 24 days for the fourth brood (hatching: 11 September 2005; fledging: 04 October 2005).

In terms of clutch size, Fry *et al.* (1988) say that a clutch is 'usually 4-5', whilst Del Hoyo *et al.* (2002) states 2-6. Del Hoyo *et al.* also mention that the Crested Barbet lays eggs at a daily interval and I presume this would also hold for the Red-and-yellow Barbet. A calculation using these clutch numbers and eggs laid at a daily interval shows that the breeding period of the second nest was 45 days, and that of the fourth nest was 46 days. The Nashville Zoo has reported the breeding period for this species in captivity as 35-40 days (Nashville Zoo 2008).

It is noteworthy that the period between the 4th and 5th broods was only 23 days: the young of the 5th brood hatched on 19 November 2009. If one subtracts about 17 days of incubation, then minus 5 days laying eggs (assuming a clutch of five), gives 28 October 2009 as the approximate date for initiation of this clutch. This is barely four weeks from the fledging date of the fourth brood, suggesting that this could have been a different pair breeding in the same nest, or if it was the same pair, that either the young became rapidly independent, or had suffered mortality.

Calculating back from the definite breeding indications found in various months, there was some breeding activity in almost every month of 2005. Considering that I estimated an average breeding period of 46 days (per brood), calculating back shows that the first brood was initiated around 20

January 2005. There was no rain in this period (Fig. 2). In fact, there was only 8 mm of rain in the first two months of 2005 and another 67 mm in December 2004. The back-calculated date for the second brood is a full week after the four days of rain in the last week of March. The third brood begun around 16 June 2005, which was nearly two weeks after the heavy rains during the last week of May. The fourth brood was in a period of good rains in August, while the fifth brood of the year was started around a period of rainfall during the whole second half of October 2005. Albeit based on breeding activity at a single nest only, this may suggest that breeding was not as tied to rainfall in this area, as has been mentioned in previous publications (Nikolaus 1987, 1989, Fry *et al.* 1988, Del Hoyo *et al.* 2002).

Acknowledgements

I would like to thank Don Turner for very constructive comments on an earlier version of this manuscript. Both missionary priests Fr. T. Galvin and S. Cremin, I would like to thank for offering a job in an area that made it possible to do a lot of interesting observations, giving some details of the building of the house, and measuring the rainfall during all the mentioned years.

References

- de Bont, M. 2009. Bird observations from south-east Sudan. *Bull ABC Vol.* 16: 37-52.
- Del Hoyo, J., Elliott, A. & Sargatal, J. (eds) 2002 *Handbook of the Birds of the World*. Vol. 7. *Jacamars to Woodpeckers*. Lynx Edicions, Barcelona.
- Fry, C.H., Keith, S. & Urban, E.K. 1988. *The Birds of Africa*. Vol. 3. Academic Press, London & San Diego.
- Nashville Zoo 2008. *Lybiidae – The African Barbets and Tinkerbirds*. Downloaded from www.nashvillezoo.org/piciformes/lybiidae.htm on 1 November 2008.
- Nikolaus, G. 1987. Distribution atlas of Sudan's birds with notes on habitat and status. *Bonn. Zool. Monogr.* 25: 1–322.
- Nikolaus, G. 1989. Birds of South Sudan. *Scopus Suppl.* 3: 1–124.

Marc de Bont

Oude Graafseweg 261, 6543 PP Nijmegen, The Netherlands.

E-mail: hermarc10@hotmail.com

Scopus 29: 11–15, December 2009

Received November 2008

Short communications

Bat-hunting behaviour of the Dark Chanting Goshawk *Melierax metabates*

The Dark Chanting Goshawk *Melierax metabates* (weighing between 645 and 850 g (Kemp 1994)) is known to prey on reptiles, birds, rodents, amphibians and insects (Kemp 1994, Ferguson-Lees & Christie 2001, Dean & Milton 2005), including termite alates (BPF, pers. obs.). Here we report, for the first time according to our knowledge, on bat-hunting behaviour by this bird species. The observations were made near the Seronera Research Centre, Serengeti National Park (SNP), Tanzania (2° 26'S, 34° 51'E; 1535 m). The Dark Chanting Goshawk is a commonly occurring breeding resident of the open woodlands in the SNP (Zimmerman *et al.* 2001).

At 18:30 (dusk) on 20 September 2007, six African Sheath-tailed Bats *Coleura afra* which weigh between 10 and 12 g (Dunlop 1997) were observed leaving their day roost located under the roof of the residential house of the research station. (NB: the bats were identified from digital pictures and videos using the Kingdon (1997) mammal guide). A Dark Chanting Goshawk of unknown sex glided down from a branch (c. 5 m high) of a nearby tree (*Acacia tortilis*), where it had positioned itself prior, and plunged down among the dispersing group of bats. The individual stooped with stretched legs and spread-out talons in between the flying bats. The raptor made a second similar attack after a turning manoeuvre in mid-air before returning to its original perch.

Two minutes later a new group of four more sheath-tailed bats left the roost using the same exit and once more the goshawk launched a similar mid-air attack with spread tail feathers. Neither of these attacks was successful though. Merely another minute later, a third group of about ten bats left the roost at a second exit behind the same house. Once more, the raptor was observed to launch several more aerial attacks lasting for about three minutes on the chiropterans with spread talons followed by sharp mid-air turns, but no bats were captured. All attacks occurred in the immediate vicinity of the bat's day roost exits and the bird of prey did not pursue the bats further. Instead, it returned to its original perch on the *Acacia* and left the scene at about 18:40 with its characteristic wing beat, presumably since no additional bats came out from under the roof.

Remarkably, the bats responded on the following day by emerging a considerable 20 minutes later than any other night in the previous two weeks. A similar response in bats was documented by Fenton *et al.* (1994). The goshawk was not seen that night. Indeed, in the following two weeks it was only observed during daytime. Although the Dark Chanting Goshawk was not successful in its bat-hunting attempts (8 observed attacks), these were repeated,

purposeful attacks. Therefore, we believe that this observation constitutes a noteworthy addition to the list of raptors hunting bats opportunistically (e.g., Baker 1962, Rutledge 1986, Del Hoyo *et al.* 1994, Fenton *et al.* 1994, Ferguson-Lees & Christie 2001, Brown 2007). This is even more noteworthy because Dark Chanting Goshawks are not renowned for aerial agility at catching flying prey, compared to other accipiters and falcons, perhaps leading to the unsuccessful attempts by this individual.

Acknowledgements

We thank the Tanzanian Wildlife Research Institute (TAWIRI), Tanzania National Parks (TANAPA) and the Tanzanian Commission of Science and Technology (COSTECH) for their permission to work in Serengeti. We thank R.A.G. Davies, G. Malan, A. Monadjem and D. Ogada for useful comments on this manuscript. This study was financially supported by the University of Groningen, the Netherlands Organization for Scientific Research (NWO) and the Robert Bosch Foundation (Germany).

References

- Baker, J.K. 1962. The manner and efficiency of raptor depredations on bats. *Condor* 64: 500-504.
- Brown, M. 2007. Raptors eating bats. *Gabar* 18: 34-35.
- Dean, W.R.J. & Milton, S.J. 2005. Stomach contents of birds (Aves) in the Natural History Museum, Tring, United Kingdom, collected in southern Africa, northern Mozambique and Angola. *Durban Museum Novitates* 30: 15-23.
- Del Hoyo, J., Elliot, A. & Sargatal, J. (eds) 1994. *Handbook of the Birds of the World. Vol. 2. New World Vultures to Guineafowl*. Barcelona: Lynx Edicions.
- Dunlop, J. 1997. *Coleura afra*. *Mammalian Species* 566: 1-4.
- Fenton, M.B., Rautenbach, I.L., Smith, S.E., Swanepoel, C.M., Grosell, J. & Van Jaarsveld, J. 1994. Raptors and bats: threats and opportunities. *Animal Behaviour* 48: 9-18.
- Ferguson-Lees, J. & Christie, D.A. 2001. *Helm Identification Guides: Raptors of the world*. London: Christopher Helm.
- Kemp, A.C. 1994. Dark Chanting-Goshawk. Pp 143-144 in Del Hoyo, J., Elliot, A. & Sargatal, J. (eds) *Handbook of the Birds of the World. Vol. 2. New World Vultures to Guineafowl*. Barcelona: Lynx Edicions.
- Kingdon, J. 1997. *The Kingdon Field Guide to African Mammals*. Princeton: Princeton University Press.
- Rutledge, B.A. 1986. Mackinder's eagle owl feeding on bats. *Scopus* 10: 49.
- Zimmerman, D.A., Turner, D.A. & Pearson, D.J. 2001. *Birds of Kenya and Northern Tanzania*. London: Christopher Helm.

Sara N. de Visser, Bernd P. Freymann and Han Olf

Centre for Ecological and Evolutionary Studies, Community and Conservation Ecology Group, University of Groningen, PO Box 14, 9750 AA Haren, The Netherlands
E-mail for correspondence: s.n.de.visser@rug.nl

Scopus 29: 16-17, December 2009

Received: December 2008

Recent results from Barn Swallow *Hirundo rustica* ringing in Iringa, Tanzania

A Barn Swallow *Hirundo rustica* roost was discovered at Kihesa Kilolo Bwawani (7°43'S, 35°42'E) on 1 December 2004. The site is on the northern outskirts of Iringa about 7 km from the town centre. At dusk, thousands of birds were seen circling over the c.5 ha lake and, as is typical of the species (Curry-Lindahl 1963), they descended *en masse* to roost in the *Typha latifolia* fringing the lake just before it became dark. The estimated number of swallows at the roost that evening was 5,000-7,000.

On the evening of 15 December 2004 the Tanzania Bird Atlas Project team started ringing at this roost. In April 2005, having moved to a house beside the lake, we found that capture rates improved when nets were opened just before dawn to catch birds leaving the roost. Ringing activities continued until the swallows deserted the roost after the 2007 season. To date, 2,386 Barn Swallows have been ringed at this site.

In the first three months of 2007, three foreign-ringed birds were recovered at Kihesa Kilolo. They were ringed at the Chokpak Pass in Dzambul, Kazakhstan, Obrowiec in Gogolin, Poland, and at Lake Atanasovsko in Burgas, Bulgaria (Table 1). We have learnt from East African Ringing Reports (Backhurst 1972, 1973, 1974) that Barn Swallows were also ringed by J. F. Reynolds in the early 1970s at Kibebe Farm (7°46'S, 35°42'E), which is c.11 km from our site. Five of his birds were recovered in Uzbekistan, Germany, Russia, and Georgia (Table 2). Remarkably, on 5 February 1971, Reynolds also recovered a bird originally ringed from the Chokpak Pass in Kazakhstan, indicating that this population is still wintering or passing through this part of Africa almost 37 years later.

Table 1. Foreign-ringed Barn Swallow recoveries at Kibebe Farm (1970s) and Kihesa Kilolo (2007) in Iringa, Tanzania.

Ringed				Recovered	
Date	Site	Latitude	Longitude	Date	Site
24 April 1970	Chokpak Pass, Kazakhstan	42°31'	70°38'	5 February 1971	Kibebe
18 May 2005	Chokpak Pass, Kazakhstan	42°31'	70°38'	31 January 2007	Kihesa
9 August 2005	Obrowiec, Poland	50°28'	18°02'	27 March 2007	Kihesa
2 October 2006	Lake Atanasovsko, Bulgaria	42°34'	27°29'	5 February 2007	Kihesa

Table 2. Foreign recoveries of Barn Swallows ringed at Kibebe Farm, Iringa, in the early 1970s.

Date ringed	Date recaptured	Site	Latitude	Longitude
10 January 1970	7 June 1972	Nürnberg, Germany	49°27' N	11°05' E
5 February 1971	14 June 1972	Tamishi, Ochamchire Dist, Georgia	42°38' N	41°21' E
9 March 1971	5 September 1973	Akbulak, Orenburg, Russia	51°00' N	53°31' E
10 March 1971	17 June 1973	Derbent, Dagestan, Russia	42°03' N	48°18' E
27 March 1971	14 May 1971	Dzhuma, Samarkand, Uzbekistan	39°42' N	66°40' E

References

- Backhurst, G.C. 1972. East African Bird Ringing Report 1970-1971. *Journal of the East Africa Natural History Society and National Museum* No 136. Nairobi, Kenya.
- Backhurst, G.C. 1973. East African Bird Ringing Report 1971-1972. *Journal of the East Africa Natural History Society and National Museum* No 144. Nairobi, Kenya.
- Backhurst, G.C. 1974. East African Bird Ringing Report 1972-1973, 1973-1974. *Journal of the East Africa Natural History Society and National Museum* No 146. Nairobi, Kenya.
- Curry-Lindahl, K. 1963. Roosts of Swallows (*Hirundo rustica*) and House Martins (*Delichon urbica*) during the migration in Tropical Africa. *Ostrich* 34: 99-101.

Elizabeth Baker

P.O. Box 1605, Iringa, Tanzania. E-mail: tzbirdatlas@yahoo.co.uk

Scopus 29: 18-19, December 2009

Received: 20 August 2009

Notes on nesting herons and other birds of interest at Lake Kalemawe in northern Tanzania

Lake Kalemawe (northwest end: 38°5'S, 04°23'E) lies in the valley east of the South Pare Mountains and west of Mkomazi Game Reserve. It was created during colonial times by damming the southern end of the Kadando Swamp that drains the eastern slopes of the South Pare Mountains principally through the Yongoma and Higililu rivers. These rivers flow south into the Pangani River through the Mkomazi River between the South Pare and West Usambara Mountains. The swamp to the north of the lake is currently a large rice scheme. At high water the lake covers some 800 ha along the 520 m elevation contour.

Lake Kalemawe is not included in the gazetteer in Britton (1980) and no mention can be traced of it in the bird literature of the 1980s and 1990s although it has been counted by the Tanzania Bird Atlas Project (TBAP) team in the recent past, and was included in the 1995 waterbird count when only 2377 birds were counted (Baker 1997).

On 21 May 2004 the water level was still high after heavy rains. We took a canoe trip across the lake to visit a heronry just off the north-eastern shore. Among the extensive stands of water grass were some thousands of Lesser Moorhen *Gallinula angulata* and hundreds of Allen's Gallinules *Porphyrio alleni*; no attempt was made to look for nests of these species. However, some 30 active nests of Whiskered Tern *Chlidonias hybridus* were opportunistically seen, with clutches of between 2 and 3 eggs.

We found the heronry in a ring of *Acacia* trees, which was at the time isolated from the shore by the higher than usual water levels. The majority of nests were within the ring of trees; it was possible to push the canoe through

the *Acacia* branches to actually reach the core of the heronry. The following nine species were represented at the heronry (including some adjacent colonies): Pink-backed Pelican *Pelecanus rufescens* (15 individuals, no nests found); Greater Cormorant *Phalacrocorax carbo* (a few pairs in adjacent smaller colony); Long-tailed Cormorant *P. africanus* (>50 active nests, many with large chicks, often five per nest, plus approximately 20 nests in an adjacent colony); Sacred Ibis *Threskiornis aethiopica* (<50 pairs towards the higher branches so nest content was hidden from our view); Cattle Egret *Bubulcus ibis* (>active 200 nests, many with small young); Squacco Heron *Ardeola ralloides* (<50 nests, many sitting tight on eggs); Little Egret *Egretta garzetta* (a few birds, no nests seen); Yellow-billed Egret *Egretta intermedia* (a few active nests, the lime green lores of adult birds being most distinctive); and African Darter *Anhinga rufa* (a few active nests in adjacent colony).

In light of many wetlands being under threat from development and agricultural expansion in eastern Africa, reports of nesting colonies of waterbirds are important baseline information to collect. This is especially true if observers can estimate the number of nests, which will enable an assessment of the breeding populations of waterbirds in this region. We therefore hope this note will encourage others to document records of waterbird breeding colonies, especially in poorly studied wetlands of eastern Africa.

References

- Baker, N.E. 1997. *Tanzania Waterbird Count: the first co-ordinated count of the major wetlands of Tanzania. January 1995*. Dar es Salaam: Wildlife Conservation Society of Tanzania.
- Britton, P.L. (ed) 1980. *Birds of East Africa*. Nairobi: East Africa Natural History Society.

N.E. Baker

Tanzania Bird Atlas, P.O. Box 1605, Iringa, Tanzania. E-mail: tzbirdatlas@yahoo.co.uk

Scopus 29: 19–20, December 2009

Received: 17 August 2009

Records

First record of the Wattled Crane *Grus carunculatus* in Uganda

On the afternoon of Saturday 2 May 2009, SNK had accompanied students to Kibimba rice scheme, eastern Uganda, for fieldwork when she observed one individual Wattled Crane *Grus carunculatus* among 30 individual Grey Crowned Cranes *Balearica regulorum*. Kibimba rice scheme located in Bugiri District is one of the commercial rice-growing areas in Uganda. These birds were recorded in one of the paddocks that had been freshly harvested, a habitat most preferred by cranes in rice fields (Nachuha 2006). On sighting the bird, contact was quickly made with AB (Executive Director of NatureUganda, the BirdLife partner in Uganda) to crosscheck the sighting.

On Sunday 3 May 2009 both authors travelled back to Kibimba and confirmed this record. During the second visit, the bird was still feeding among a group of 60 Grey Crowned Cranes. It was occasionally aggressive, probably indicating that it was a new arrival to the area. When we approached it would fly together with other cranes over short distances.

The Wattled Crane is easily distinguishable from the other cranes due to its large size and height. It has a clear white neck, with yellowish-orange eye, long tail feathers and grey cap with a distinct red facial patch, which extends along the front of two large wattles covered in white feathers (Urban *et al.* 1986). Photographs for this observation were taken and can be accessed on NatureUganda website: www.natureuganda.org

Some information and facts about the Wattled Crane

Family/subfamily: Gruidae

Author: Gmelin, 1789

Synonyms: *Begeranus carunculatus* Collar and Andrew (1988)

Status: The 2009 IUCN Red List category as evaluated by BirdLife International classifies this bird as *Vulnerable* because it has a small population which appears to have undergone a rapid decline and faces continued threats (BirdLife International 2009).

Range and population: *Grus carunculatus* is found in Ethiopia, and central and southern Africa. However, this record now adds Uganda as part of the known range of this species. In Ethiopia, usually only 1-3 individuals are seen together, though they do flock occasionally. In central and southern Africa, they are reported as locally abundant to rare, but are thought to be declining and perhaps endangered or recently extinct in some areas (BirdLife International 2009).

Ecology: This species is generally not migratory but those that inhabit wetlands are irregularly nomadic in response to water availability. It nests in shallow sedge-dominated wetlands often above 2000 m altitude and it continues to rely on wetland habitat during the non-breeding season. It is monogamous with each pair defending a territory. Since this species is not known to migrate between populations in Africa, we cannot speculate on the origin of this single bird which was probably a vagrant.

Threats: The biggest threat to the survival of the Wattled Crane is loss and degradation of wetlands as a result of intensified agriculture, draining for rice cultivation and flooding by dam construction (BirdLife International 2009). Other threats include collision with power lines, persecution, traditional medicine, and illegal removal of eggs and chicks.

Conservation measures: Both in-situ and ex-situ methods are being employed to conserve this species (BirdLife International 2009). Ramsar sites and other protected areas have been established in several key wetland areas with local human communities sensitised about the importance of this species. There are captive breeding efforts mainly in southern Africa, which are not very successful due to poor fertility in captivity (BirdLife International 2009).

References

- BirdLife International 2009. Species factsheet: *Grus carunculatus*. Downloaded from <http://www.birdlife.org> on 3/10/2009.
- Nachuha, S. 2006. *Explaining distribution pattern of waterbirds on rice paddies and other wetlands in eastern Uganda*. PhD Thesis, Oxford University, UK.
- Urban, E.K., Fry, C.H. & Keith, S. (eds) 1986. *The Birds of Africa*. Vol. 2. London: Academic Press.

Sarah Nachuha Kasozi

Department of Environmental Science, Faculty of Science, Islamic University in Uganda, P.O Box 2555, Mbale, Uganda. E-mail: snachuha@hotmail.com

Achilles Byaruhanga

NatureUganda, Birdlife Partner in Uganda, Plot 83 Tufnell drive Kamwokya, Kampala. E-mail: achilles.byaruhanga@natureuganda.org

Scopus 29: 21–22, December 2009

Received: 9 May 2009

East African Rarities Committee report and change of remit

The East African Rarities Committee assesses records of new and very rare birds occurring in Kenya, Tanzania and Uganda. Our remit has changed slightly and we now consider up to the fifth record of any species from *each* of the three countries. It is hoped that this will make it easier for observers to establish whether or not their sightings need to be submitted to the committee. If you see a species with fewer than five records in the country please submit the details to the EARC secretary: Jeremy Lindsell, c/o The RSPB, The Lodge, Sandy, Bedfordshire, SG19 2DL, UK, or E-mail them to jeremy.lindsell@rspb.org.uk. Please contact the secretary if you are unsure whether your sighting requires a submission and for guidance on details to include in any submission. Past records of rare species are also sought. Records from other countries within the *Scopus* region (Sudan, Ethiopia, Djibouti, Somalia, Rwanda, Burundi, Zambia, Malawi and the Indian Ocean islands) can be submitted to the editor of *Scopus*. The committee has recently been expanded and now comprises: Neil Baker, Brian Finch, David Fisher, Colin Jackson, Jeremy Lindsell, David Moyer, Willis Okech, David Pearson, Don Turner and James Wolstencroft.

Recent circulations have resulted in the acceptance of thirteen country firsts, including five regional firsts. We are grateful to all observers who submit their records to the committee as this helps ensure that the national lists for the three countries remain clearly documented and up-to-date.

Cassin's Hawk Eagle *Spizaetus africanus*

First record for Tanzania. Ndundulu Forest, Udzungwa Mountains, Tanzania, 11 September 2004 and three subsequent dates (Trevor Jones). An extraordinary addition to the Tanzania list with further details to be found in Jones (2007).

Cassin's Hawk Eagle *Spizaetus africanus*

Second record for Kenya. Imenti Forest, near Meru town, Kenya, 16 May 2006 (Brian Finch). This is an astonishing record from such a well-known area. Could it really have been overlooked all this time, or does it represent recent arrival – but from where?

Saker Falcon *Falco cherrug*

Third recent record for Tanzania. East of Mkumbale, en route between Mombo and Same, Korogwe District, Tanzania, 7 November 2003 (S. Plat, B.W.J. Oosterbaan, W.E.J. Oosterbaan). Adult.

Grey-throated Rail *Canirallus oculeus*

First record for Uganda and East Africa. Hotsprings area, Semliki National

Park, Uganda, 21-22 July 1996 (Urban Olsson). Carswell *et al.* (2005) refer to an earlier sighting which lacked any supporting details so the current record is the first with adequate documentation.

Wattled Crane *Bugeranus carunculatus*

First record for Uganda. Kibimba rice scheme, eastern Uganda, 2-3 May 2009 (Sarah Nachuha Kasozi and Achilles Byaruhanga). Although this species occurs in East Africa in southwest Tanzania, it is possible that this individual came from the Ethiopian population.

Pectoral Sandpiper *Calidris melanotos*

First record for Tanzania. Crater Lake in the Ngorongoro Crater, Tanzania, 14 March 2005 (Matthew Aeberhard).

Common Gull *Larus canus*

First record for Kenya and East Africa. Sabaki River mouth, Kenya, 1 December 2005 (Terry Stevenson *et al.*). A single adult bird.

Thick-billed Cuckoo *Pachycoccyx audeberti*

First record for Uganda. Ruroko Track, Lake Mburo National Park, Uganda, 29 March 2000 (Charlie Williams). An old record from Murchison Falls National Park (Britton 1980) was not considered acceptable by Carswell *et al.* (2005) so this becomes the first for Uganda.

Abyssinian Roller *Coracias abyssinica*

First record for Tanzania. Seronera Airstrip, Serengeti National Park, Tanzania, 1 February 2005 (Teet Sirotkin). Adult.

Swallow-tailed Bee-eater *Merops hirundineus*

First record for Kenya. Arabuko-Sokoke Forest, Kenya, 21 May 2000 (Colin Jackson and Tansy Bliss). From the description this was certainly not the race *heuglini* found in Uganda, Sudan and Ethiopia, but most likely *furcatus* which reaches southern Tanzania with a few records further north and is known to be somewhat migratory. A record from Vanga (Lewis & Pomeroy 1989) was unverified and the species subsequently removed from the Kenya list.

Crested Barbet *Trachyphonus vaillantii*

Second record for Uganda. Mityebili, south of Kyotera, southern Uganda, 6 March 2006 (Derek Pomeroy). The only previous record in Uganda was about 80 km from here on the Tanzania border (Carswell *et al.* 2005).

Gillett's Lark *Mirafra gilletti*

Second record for Kenya. Between Mandera and Ramu, northern Kenya, 6

September 2000 (J. Miskell). The first record for Kenya was in 1901 (Miskell & Ash 1985) but there have been none since.

South African Cliff Swallow *Hirundo spilodera*

First record for Kenya and East Africa. Aruba Dam, Tsavo East National Park, Kenya, 22 July 2000 (Terry Stevenson *et al.*). This species migrates between breeding grounds in South Africa (August to April) and non-breeding grounds in the Democratic Republic of Congo, Zambia and Malawi, so this was presumably an overshoot from that northward movement.

Woodchat Shrike *Lanius senator*

Second and third records for Tanzania. South-east of Seronera, Serengeti National Park, Tanzania, 28 April 2000 and south of the Seronera airstrip, Serengeti National Park, Tanzania, 24 February 2005 (Thomas Gottschalk).

Rose-coloured Starling *Pastor roseus*

First record for Kenya and East Africa. Near Oloololo gate, Maasai Mara, Kenya, 17 July 2003 (Terry Stevenson *et al.*). A single adult in a flock of Wattled Starlings *Creatophora cinerea* was not only the first record for Kenya but seemingly the first for the Afrotropical region since published records from Ethiopia and South Africa post-date this bird (Schollaert 2006, Sagvik 2009).

Rufous-tailed Weaver *Histurgops ruficauda*

First record for Kenya. Maasai Mara, close to the Tanzania border, Kenya, 4 July 2000 (Dave Richards). A group of five birds. With it occurring so close to the Kenya border in Tanzania, this arrival of this species in Kenya is not unexpected. There have been numerous recent records from the Maasai Mara including breeding, but this observation by Dave Richards is the earliest dated sighting we have been sent, so constitutes the first record for Kenya.

Rufous-tailed Weaver *Histurgops ruficauda*

Second record for Kenya. Musiara, Maasai Mara, Kenya, 2 May 2007 (Brian Finch). A party of six birds, considerably further north than the first sighting.

White-billed Buffalo Weaver *Bubalornis albirostris*

First record for Tanzania. Naabi Hill Gate, Serengeti National Park, Tanzania, 2 March 2005 (Johnny Stenbäck). An odd record of a bird well outside of its normal range seen in a well-watched area. Thankfully, there is a convincing photograph to back it up.

Orange-cheeked Waxbill *Estrilda melpoda*

First record for Uganda and East Africa. Sempaya, near Semliki National Park, Uganda, 26 December 2002 (David Gee and Fay Enright). This sighting of eight birds predates an earlier published record (Dijkstra & Balyesiima 2004)

and thus becomes the first for Uganda and the region.

A number of other records remain under review: Congo Serpent Eagle *Dryotriorchis spectabilis* (Bwindi Impenetrable National Park, Uganda 19 August 2003), Great Bittern *Botaurus stellaris* (Lake Baringo, Kenya 22-23 December 1994), Dimorphic Egret *Egretta dimorpha* (Samuka Island, Lake Victoria, Uganda 23 April 2005), Wedge-tailed Shearwater *Puffinus pacificus* (Zanzibar channel, Tanzania 30 July 2006).

A number of records were rejected either because of misidentification or insufficient details to establish identification with certainty. These were: Wedge-tailed Shearwater *Puffinus pacificus* (at sea of northwest Pemba, Tanzania 16 September 2004), Pallid Swift *Apus pallidus* (Nairobi National Park, Kenya 16 April 2006), Dusky Lark *Pinarocorys nigricans* (Lake Mburo National Park, Uganda 16 June 2001), Cyprus Wheatear *Oenanthe cypriaca* (Serengeti National Park, Tanzania 27 November 2004).

References

- Britton, P.L. (1980). *Birds of East Africa: their habitat status and distribution*. East Africa Natural History Society, Nairobi.
- Carswell, M., Pomeroy, D., Reynolds, J & Tushabe, T. (2005). *The bird atlas of Uganda*. Oxford and London: British Ornithologists' Union and British Ornithologists' Club.
- Dijkstra, K-D. B., & Balyesiima, G. (2004). First record of Orange-cheeked Waxbill *Estrilda melpods* in East Africa. *Scopus* 24, 50.
- Jones, T. (2007). Cassin's Hawk-Eagle *Spizaetus africanus* in Ndundulu Forest: a first record for Tanzania, with biogeographical implications. *Journal of East African Natural History* 96 (2), 187-192.
- Lewis, A. & Pomeroy, D. (1989). *A bird atlas of Kenya*. Rotterdam and Brookfield: A. A. Balkema. Pp 620.
- Miskell, J.E. & Ash, J.S. (1985). Gillett's Lark *Mirafra gilletti* new to Kenya. *Scopus* 9: 53-54.
- Sagvik, J. (2009). A record of Rose-coloured Starling *Sturnus roseus* in southern Africa. *Bulletin of the African Bird Club* 16 (1), 89-90.
- Schollaert, V. (2006). First record of Rose-coloured Starling *Sturnus roseus* for Ethiopia and sub-Saharan Africa. *Bulletin of the African Bird Club* 13 (1), 75.

Jeremy Lindsell

The RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL, UK.

E-mail: jeremy.lindsell@rspb.org.uk

David Fisher

56 Western Way, Sandy, Bedfordshire SG19 1DU, UK

Book reviews

Birds of the Horn of Africa: Ethiopia, Eritrea, Djibouti, Somalia and Socotra. Nigel Redman, Terry Stevenson and John Fanshawe with contributions from Nik Borrow and Brian Finch. Illustrated by John Gale and Brian Small. 2009. Christopher Helm. 496 pages. Paperback. ISBN 9780713665413.

This is an outstanding guide to one of the few remaining areas on the continent without full coverage in a contemporary field guide. Many of the illustrations will be familiar to users of Stevenson and Fanshawe's East African guide, but they seem to be reproduced more attractively here. There are plenty of new illustrations and some of the groups have been entirely redone regardless of overlap, so that only two illustrators are used throughout the book. So there are new, and very good, plates of cisticolas and flycatchers, for example. The maps contain a great deal of detail, presumably benefiting from the recent publication of the Ethiopian atlas (see below). There is no serious competition for this book for the countries it covers, but I suspect it will become invaluable for many strictly East African birders too, given the high degree of overlap, the improved illustrations and the coverage of some potential vagrants to the south.

Jeremy Lindsell

The RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL UK

Birds of Ethiopia and Eritrea: an atlas of distribution. John Ash and John Atkins. With contributions from Caroline Ash, Sue Edward, Chris Hillman, Geoffrey Last and John Miskell. Photographs by Hadoram Shirihai. 2009. Christopher Helm. 463 pages. Hardback. £45.00. ISBN 9781408109793.

This is a first class atlas covering a key area of avian endemism on the continent. Each species is mapped on a quarter degree grid with distinction made for breeding records and approximate boundaries showing subspecific limits where applicable. The dataset of over 100,000 records draws on historic information from specimen collections, published literature and more recent observations – 70% the authors' own. A map in the introductions shows the very high percentage of tetrads visited by the authors themselves (70%) and the extremely small number with no records at all (28 out of 479) – mostly in border areas or offshore islands. The accompanying text gives details on status within the two countries, preferred habitats, breeding seasons, favoured sites

(with tetrad indicated) and the number of tetrads occupied. Where there have been historic changes in distribution, these are noted in the text. There are informative introductory chapters on biogeography and the history of ornithology in the countries, breeding seasons, migration and conservation. There are also numerous appendices listing unsubstantiated records (with details), Important Bird Areas, a record of ringing activity in the countries (including species totals and details of recoveries) and a lengthy gazetteer and bibliography. For anyone unfamiliar with the birds of these two countries, the set of excellent colour photographs in the introduction depicting 29 of the 32 endemics will act as a great enticement to visit.

Jeremy Lindsell

The RSPB, The Lodge, Sandy, Bedfordshire SG19 2DL UK

Letter to the Editor

On the reported presence of Leaflove *Phyllastrephus scandens* in Ruaha National Park, Tanzania

Among the notable bird records from Ruaha National Park, Tanzania, Glen *et al.* (2005) include Leaflove *Phyllastrephus scandens* but do not give any details of the features by which the identity of the bird was determined. This appears to represent the first record of this bulbul species away from the extreme western fringe of the country: Britton (1980) reports a number of specimen records from this area, the closest to Ruaha being Mahari Mountain (6°12'S 29°50'E), some 470 km WNW of the localities mentioned by Glen *et al.* Indeed, its presence in Ruaha would represent a significant eastward range extension for a species which is otherwise largely confined to the forests of the Guineo-Congolian region of central and western Africa, notwithstanding its presence in some forest outliers of central Uganda and restricted parts of the eastern edge of the Albertine Rift, with Mahari Mountain on the south-eastern extremity of its range (Keith *et al.* 1992, Fishpool & Tobias 2005).

These observations are, however, not only somewhat surprising on distributional grounds. Glen *et al.* (2005) state that the record of the bird mist-netted in November 2002 was from an altitude of 1,812 m, while subsequent sight record(s) – number not specified – in September 2004 were made at 1,730 m. Elsewhere in its extensive range, the species is exceptional above 1,200 m and unknown above 1,500m (Keith *et al.* 1992, Fishpool & Tobias 2005). Furthermore, Leaflove differs from most other members of the genus *Phyllastrephus* (notwithstanding that it is sometimes separated into the genus *Pyrrhurus*) in being extremely conspicuous vocally, with a loud, highly

distinctive and readily uttered song. Given the four expeditions the authors report, extending for a period of at least three weeks in the field, it would be very surprising if this species had not drawn attention to itself in this way but Glen *et al.* (2005) make no mention of vocal records.

In view of these seeming anomalies, and given the lack of published detail, I suggest that the validity of the records of Leaflove from Ruaha require further substantiation. The fact that an individual was mist-netted might indicate that there is mensural and / or photographic evidence with which to resolve the matter?

References

Britton, P.L. (ed) 1980. *Birds of East Africa*. EANHS, Nairobi.

Fishpool, L.D.C. & Tobias, J.A. 2005. Family Pycnonotidae (Bulbuls). Pp. 124-250 in J. del Hoyo, A. Elliot. & D.A. Christie, (eds) *Handbook of the Birds of the World 10. Cuckoo-shrikes to Thrushes*. Lynx Edicions, Barcelona.

Glen, R., Mtahiko, M., De Leyser, L. & Stolberger, S. 2005. Bird records from the Isunkaviola Hills of Ruaha National Park, Tanzania. *Scopus* 25: 61-66.

Keith, S., 1992. Family Pycnonotidae: bulbuls Pp. 279-377 in S. Keith, E.K. Urban & C.H. Fry, (eds) *The Birds of Africa*. IV. Academic Press, London.

Lincoln D.C. Fishpool

BirdLife International, Wellbrook Court, Girton Road, Cambridge CB3 0NA, UK

E-mail: Lincoln.Fishpool@birdlife.org

PETER LESLIE BRITTON: 1943 - 2009



Peter Leslie Britton was born in London on 12 May 1943. Together with his elder brother he attended a small private school in NW London where the headmistress introduced them both to bird-watching. Peter soon became passionate about everything to do with birds, and influenced by the RSPB, waders and birds of prey became his favourite groups. When he was 15, he cycled with his brother from London to the Orkneys to see the ospreys and other Scottish specialities. In the late 1950's he was a regular visitor to the Dungeness Bird Observatory, where he became engrossed with bird migration and soon became a ringer. After three visits to the uninhabited island Bird Observatory at Great Saltee, Peter became acting warden at Dungeness for a short period when Bob Scott went to Sweden.

Peter married Hazel Fitzgerald in February 1963 and left the UK in August 1964 for a teaching contract in Zambia. He was posted to the Roan Antelope Mine School in Luanshya for six months before moving to Southern Rhodesia (Zimbabwe) where he did an external London Post Graduate Certificate in Education. Soon afterwards they were posted to Balovale (now Zambezi) in western Zambia, near the Angola border, where they lived from 1966-68. On leaving Zambia Peter and Hazel returned to the UK where they bought a cottage in Cornwall and Peter wrote up his Birds of Balovale District. Peter later applied and was accepted to do a post graduate course on Ornithology at Cornell University, but when an opportunity to teach in Kenya came up, they both knew that they wanted to get back to Africa as soon as possible, and so Peter and Hazel arrived in Kenya in September 1968 to take up a teaching post at Sawagongo Secondary School in Siaya District, Nyanza. The school was new, the students keen to learn and the local Luo population were a pleasure to live amongst.

They soon realized that Siaya District had been badly neglected by ornithologists due to being so densely populated. The high rainfall and prolific vegetation growth ensured that *shambas* (gardens) were alive with birds, in particular seedeaters, warblers and sunbirds. Every patch of water and stream had birds along the edges, and at Lake Kanyaboli they found quite a few birds previously unrecorded in Kenya. At weekends Peter and Hazel

would often leave the house at 03:45 to put up mistnets at Lake Kanyaboli at dawn. Kakamega Forest was quite near and so many weekends were also spent at the old rest house. There was also the Kisumu Heronry where they made observations, with Peter collaborating with Jasper Parsons who was working for the Medical Research Council on mosquitoes at the Heronry. During daylight hours, Peter was either in the classroom or bird-watching and writing up notes, looking up references, or marking books and preparing lessons once it became dark. After two contracts in Nyanza District, Peter finally requested a transfer, and in 1973 he and Hazel moved to Shimo-la-Tewa, north of Mombasa, where Peter took up a teaching post at Shimo-la-Tewa High School. Highlights at the coast included the birth of their two sons Mark and Paul in 1973 and 1979 respectively, together with many hours either ringing waders or spending time in the nearby Arabuko-Sokoke Forest where Peter and Hazel discovered the first nest and eggs of the Amani Sunbird. There, they also recorded in-depth observations of the then newly discovered Sokoke Scops Owl.

Ringling was a passion for both Peter and Hazel, and as such they became involved at the very beginning with Graeme and Daphne Backhurst at the Ngulia Ringing Station (now in its 36th year of operation). Peter and Hazel were also founder members of the journal *Scopus* – which remains the premier ornithological journal for East Africa, itself now in its 33rd year. Moreover, Peter was the inspiration behind the production of the magisterial “*Birds of East Africa, their habitat, status and distribution*” for the EANHS, later known affectionately throughout Kenya, Uganda and Tanzania simply as “*Britton*”. The amount of time that Peter put into this project was phenomenal. Not only did he scrutinize all the ornithological literature, but he would unearth mounds of unpublished notes and lists, items in major and obscure journals and newsletters and even visit various museums in Europe to look at several East African collections. Both he and Hazel became close friends with the late Leslie Brown, and co-authored several landmark publications with him. Peter would frequently comment, often around a camp fire, on the various trips that he and Hazel took with Leslie and life in the bush together. They soon learnt that Leslie was definitely a minimalist camper. Whenever it started to rain he had two strategies, either take off your shirt and pretend you are having a nice shower aided by a bit of singing, or shake your fist towards the heavens and berate the deity! On all such safaris they also quickly learnt **not** to peel potatoes, and that Sandy, Leslie’s dog, did most of the washing-up! Without question, Peter was an inspiration to all who knew him and to all who worked with him. His enthusiasm for everything to do with birds was truly infectious; he would regale anyone with stories of all manner of ornithological exploits.

Peter, Hazel and the family finally left Kenya in September 1981. After spending 15 months in England they emigrated to Australia in January 1983. Peter took up the post of Head of Mathematics at All Souls and St Gabriel’s School at Charters Towers, Queensland, a post he held until retirement in 1999. A serious car accident in April 1983 prevented him from being as active as he would have wished, but as in Kenya, Peter quickly became involved with birds in Australia, editing *Sunbird* the journal of the Queensland Ornithological Society from 1989-2000, and compiling the Queensland Bird

Reports for several years. Retiring to Tasmania in 2000, he was Editor of the Tasmanian Bird Reports from 2002-08, and assisted Bird Australia with editing the IBA nominations for the whole of Australia. He also organized shorebird counts in Tasmania twice a year, and was President of the Friends of the Lilico Penguins there. He was in fact working on a summary of a wader count the day before he died in July 2009.

Peter is duly commemorated in *Serinus citrinelloides brittoni* now known as *Serinus hypostictus brittoni*, described by Melvin Traylor in 1970. On behalf of all their friends and colleagues in Kenya, we wish Hazel together with both Mark, Paul and their families every happiness and success in the days and years ahead. Peter will remain strong in the hearts and minds of birders and ornithologists throughout Africa for many years to come; for those of us who knew him, we will remember him each time we turn the pages of *Britton 1980*.

Don Turner

ervation evaluation for birds of *Brachylaena* woodland and mixed dry forest in north-east Tanzania. *Bird Conservation International* 10: 47–65.

Stuart, S.N., Jensen, F.P., Brøgger-Jensen, S. & Miller, R.I. 1993. The zoogeography of the montane forest avifauna of eastern Tanzania. Pp. 203–228 in Lovett, J.C. & Wasser, S.K. (eds) *Biogeography and ecology of the rainforests of Eastern Africa*. Cambridge: Cambridge University Press.

Urban, E.K., Fry, C.H. & Keith, S. (eds) 1986. *The birds of Africa*. Vol. 2. London: Academic Press.

Both English and scientific names of birds should be given when the species is first mentioned—in the title and in the text—thereafter, only one name should be used.

Bird names should be those of a stated work. Any deviations from this work should be noted and the reasons given. Original black-and-white photographs and line illustrations should not be larger than A4 (210 x 297 mm). Line illustrations should be on good quality white paper or board, or on tracing material, with lettering of professional quality (if this is not possible, label an overlay, not the original figure). Copies of graphics as separate electronic documents (files) in JPEG, TIFF or EPS format are appreciated. All articles should be submitted by email or on paper (two copies) with a copy on disc as a Rich Text Format (RTF) file; submission by email is preferred. Hard copies should be printed on one side of the paper only with wide margins all around. Authors of full papers and short communications receive a PDF copy of their article *gratis*. Any paper copies, charged at cost, must be ordered when the MS is accepted.

Please send all contributions to:
Mwangi Githiru, The Editor, *Scopus*,
c/o Ornithology Section, Department of
Zoology, National Museums of Kenya, P.O.
Box 40658 00100, Nairobi, Kenya
E-mail: mwangi_githiru@yahoo.co.uk

Rare birds in East Africa

Records of rare birds from Kenya, Tanzania and Uganda are assessed by the East Africa Rarities Committee. Records from other countries in the region can also be submitted

for review and possible publication in *Scopus*. A full account of the record should be sent to the *Scopus* editor at the address above or to East Africa Rarities Committee, c/o Nature Kenya, P.O. Box 44486, G.P.O. 00100, Nairobi, Kenya.

Tel. +254 20 3749957.

E-mail: jeremy.lindsell@rspb.org.uk

Ringling scheme of eastern Africa

This covers several countries in the area. Qualified and aspiring ringers should contact the ringling organizer, Bernard Amakobe, Ornithology Section, Zoology Dept. National Museums of Kenya P.O. Box 40658, 00100-Nairobi, Kenya.

Tel. +254 20 3742161 ext. 243

E-mail: scopumbre@yahoo.com

EANHS Nest Record Scheme

Details of most kinds of breeding activity are welcomed by the scheme and nest record cards may be obtained free of charge from the Nest Record Scheme organizer, EANHS, P.O. Box 44486 00100, Nairobi, Kenya. Tel. +254 20 3749957.

E-mail: office@naturekenya.org

The BirdLife International Partnership in eastern Africa

Through its national partners, the BirdLife International Africa Partnership Secretariat in Nairobi co-ordinates bird conservation work in the region and produces several other publications of interest to ornithologists.

Ethiopian Wildlife & Natural History Society, P.O. Box 13303, Addis Ababa, Ethiopia. Tel. +251-(0)2-183520

E-mail: ewnhs@telecom.net.et

The East Africa Natural History Society:

Nature Kenya, P.O. Box 44486, Nairobi.

Tel. +254-(0)2-3749957/3746090, fax 3741049. E-mail: office@naturekenya.org

Nature Uganda, P.O. Box 27034, Kampala, Tel. +256-(0)41-540719, fax 533528.

E-mail: eanhs@imul.com

Wildlife Conservation Society of Tanzania, P.O. Box 70919, Dar es Salaam.

Tel. +255-(0)22-2112518/2112496, fax 2124572.

E-mail: wcst@africaonline.co.tz

Contents

BEN ROSS, MENGISTU WONDAFRASH, MIHIRET EWNETU, SANDY WATT, CELIA BROADHURST, ROB CRITCHLOW, AMAN DADESA, TOM DEAS, CHERE ENAWGAW, BERIHUN GEBREMEDHIN, EILIDH GRAHAM, SARAH MACLEAN AND RICHARD MELLANBY. Notes on the ecology of the Ethiopian Bush-crow <i>Zavattariornis stresemanni</i>	1
MICHAEL ELLISON. A survey of Echuya Central Forest Reserve, Uganda, for the breeding population of Grauer's Swamp Warbler <i>Bradypterus graueri</i>	7
MARC DE BONT. Multiple broods from a hole in the wall: breeding Red-and-yellow Barbets <i>Trachyphonus erythrocephalus</i> in southeast Sudan	11
Short communications	
SARA N. DE VISSER, BERND P. FREYMAN AND HAN OLFF. Bat-hunting behaviour of the Dark Chanting Goshawk <i>Melierax metabates</i>	16
ELIZABETH BAKER. Recent results from Barn Swallow <i>Hirundo rustica</i> ringing in Iringa, Tanzania	18
NEIL BAKER. Notes on nesting herons and other birds of interest at Lake Kalemawe in northern Tanzania	19
Records	
SARAH NACHUHA KASOZI AND ACHILLES BYARUHANGA. First record of the Wattled Crane <i>Grus carunculatus</i> in Uganda	21
East African Rarities Committee report and changes in remit	23
Book reviews	27
Letter to the Editor	28
Tribute	
Peter Leslie Britton: 1943-2009	30