Important Bird Areas in Kenya

Leon Bennun & Peter Njoroge

Ornithology Department, National Museums of Kenya, P. O. Box 40658, Nairobi, Kenya.
e-mail kbirds@africaonline.co.ke

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The process of defining Important Bird Areas in Kenya has been underway since January 1995, with financial support from the Royal Society for the Protection of Birds. Literature review has proceeded in parallel with field surveys, which are still ongoing. Some 65 globally Important Bird Areas have so far been identified, and this total is likely to increase. Sites were initially selected using the criteria of threatened species (37 sites) and congregatory species (15 sites). Additional sites were then identified for biome-restricted and restricted-range species, using information from the Bird Atlas of Kenya; these sites must form part of a regional set. Threatened species sites are concentrated in forests (on the coastal strip, in the central highlands and in western Kenya) and papyrus swamps. Congregatory-species sites are concentrated along the Rift Valley and the coast. The remaining sites are concentrated in semi-arid areas to the immediate north and east of the central plateau, and in highland forest on each side of the Rift Valley. No IBAs have yet been identified in the flat, arid north-eastern sector of the country. A large number of sites require additional protection and/or improved management. Particular priorities include several papyrus IBAs around Lake Victoria, among them Lake Kanyaboli and Yala and Sare Swamps, grassland pockets in Mungatsi and Nambale, Western Province; the Kakamega, South Nandi and North Nandi Forests; the increasingly fragmented coastal forests, including Arabuko-Sokoke Forest; and the Taita Hills. Information on the IBA process and its results is being distributed to decision-makers through a high-level IBA Advisory council, with encouraging initial results.

INTRODUCTION

Kenya lies on the eastern coast of the African continent, astride the equator, and covers an area of some 590 000 km². From the 600 km coastline the land rises to a central area of high ground on either side of the Rift Valley, dominated by large volcanic mountains (the tallest being Mt Kenya, at almost 5 200 m). Further west the land dips down to Africa’s largest lake, Victoria. North-eastern Kenya is mainly low-lying, flat semi-desert, giving way to more rugged country around Lake Turkana.

More than three-quarters of Kenya is arid or semi-arid, at best marginal for cultivation; only some 20% of the land area, mainly in the highlands and the coast, is of medium or high agricultural potential. The numerous rivers are mainly small and seasonal, the length of the Rift Valley from Natron on the Tanzanian border to Lake Victoria is 510 km long. The three major drainage basins are those of the Tana and Athi Rivers (flowing into the Indian Ocean); the Lake Victoria basin; the Rift Valley basin (of internal drainage); the Lake Turkana basin, and the Ewaso Ngiro and north-eastern basin (MENR 1994).

Kenya’s very varied topography and climates give rise to a wide range of habitats – for example, coral islets, mangrove creeks, coastal scrub and forest, montane bogs, dry bushland and woodland, equatorial rain forest, open sandy and stony desert and semi-desert, montane forest, high grassland and moorland, papyrus swamps and glaciers. A chain of lakes, both freshwater and saline, lies along the length of the Rift Valley from Natron on the Tanzanian border to Turkana in the far north. Damming of the Tana and other rivers has created a number of large artificial water bodies as well. More than 1 080 bird species have been recorded in Kenya, of which at least six are national endemics. This high species total is due to Kenya’s diverse habitats and the presence of four endemic bird areas and six avian biomes (Fishpool 1996; see below). Kenya is also on a major flyway of Palaearctic migrants, both land- and water-birds, mainly from eastern Europe, Russia, the Middle East and Siberia (Fanshawe & Bennun 1991).

The country is ethnically and culturally highly diverse. The estimated 25 million or so people are concentrated in high-rainfall areas. Population densities are low in large parts of the north and east, where 80% of the land is occupied by just 20% of the population. Kenya is primarily an agricultural country, and only about 20% of people live in urban areas. Tea, coffee, horticulture and floriculture make major contributions to the economy and to foreign exchange earnings, as does tourism (MENR 1994).

CONSERVATION ISSUES

The overwhelming conservation issue in Kenya is loss and modification of habitat (Fanshawe & Bennun 1991). In higher rainfall areas, the pressure on land is intense. A population that is growing rapidly (at around 3.2% per year) is also increasing the pressure on marginal and semi-arid areas. In parts of the country where crops can reliably be grown, little natural habitat now remains outside protected areas. Since the protected area network was designed mainly to conserve water catchments (Forest Reserves) and large, charismatic mammals (National Parks and Reserves), this has led to serious and continued erosion of biological diversity.

The most threatened habitats are forests (of all types), wetlands and moist grassland. Most remaining forests are contained in gazetted forest reserves, and felling of indigenous trees is prohibited by Presidential decree, except in Coast Province. However, there are many management problems. Tree poaching, mechanised logging (despite the Presidential decree), charcoal burning and uncontrolled cattle grazing are doing great damage to forests in many areas. Many tracts of forest land have also been degazetted in the recent past, either for settlement schemes or for ‘allocation’ to influential individuals. The nature of the Forests Act and of Kenyan land law make it difficult to arrest this process, which has become increasingly rampant. Other, more localised threats to forests include elephant damage (e.g. in Shimba Hills) and changes in the flooding regime due to impoundments upstream (Tana River).

No coherent policy yet exists for wetland management in Kenya, although steps are being taken to formulate one. At present, different branches of Government often seem to work in opposing directions (Crafter et al. 1992). Drainage for cultivation, encouraged by the
Ministry of Agriculture, has destroyed many small wetlands and severely damaged some larger ones such as Yala Swamp. A more general problem (in a generally dry country) is the constantly increasing demand for water, mainly for industrial and irrigation use. Several wetlands are suffering from reduced inflows as water is diverted to other purposes. Pollution and eutrophication are becoming problems, particularly in some river systems, in Lake Nakuru, and in the Winam Gulf of Lake Victoria. The introduced Water Hyacinth has caused major ecological changes in Lake Victoria. By disrupting the fishing economy and forcing local people to depend more heavily on cultivation, it has also had severe knock-on effects on papyrus swamps. Kenya is a signatory to the Ramsar Convention and two sites, Lakes Nakuru and Naivasha, are already listed. Many more could potentially be added (Nasiwa & Bennun 1995).

Moist grassland is a disappearing habitat in Kenya, giving way to intensive cultivation and livestock rearing (Lens 1994; Nasiwa & Njoroge 1996b). It is poorly represented in the protected areas system, and several grassland birds are now globally or regionally threatened. Because most moist grassland is on private land, its conservation represents a particularly difficult challenge.

BIOMES AND ENDEMIC BIRD AREAS

Kenya includes significant parts of the Somali-Masai, African Highlands, African East Coast and Lake Victoria biomes. Two other biomes are represented by only small areas: the Guinea Forests and Guinea and Sudan Savannah. The Kenyan Mountains endemic bird area (EBA) is centred on Kenya, and the country contains a large proportion of the East African Coastal Forests EBA (Stattersfield et al. in prep.). Other EBAs are more marginal: the Serengeti EBA, represented by just one of the restricted-range species; the Juba and Shabelle Valleys EBA, which barely touches the extreme northwest corner of Kenya; and the Eastern Arc Mountains EBA, represented by the Taita Hills, which are geologically part of this mountain group but biogeographically rather distinct, and share no restricted-range species with other sites in this EBA.

THREATENED SPECIES

Collar et al. (1994) list twenty-three globally threatened bird species (including one data-deficient species, the Tana River Cisticola Cisticola restrictus) and 16 near-threatened species for Kenya. Bennun & Njoroge (1996) suggest that Sharpe’s Longclaw Macroneyx sharpei (presently near-threatened) and Aberdare Cisticola Cisticola aberdare (presently unlisted) should be re-classified as Vulnerable. The following species are relevant for defining IBAs in Kenya (nomenclature follows Collar et al. 1994):

| Species | Scientific name | Threat category |
|---------|-----------------|----------------|
| Abbott’s Starling | Cinnyriciuculus femoralis | Vulnerable |
| Aberdare Cisticola | Cisticola aberdare | Vulnerable |
| Amani Sunbird | Anthreptes pallidigaster | Vulnerable |
| Blue Swallow | Hirundo trocaerula | Vulnerable |
| Chapin’s Flycatcher | Musicipaca lendu | Vulnerable |
| Clarke’s Weaver | Ploceus galoliand | Vulnerable |
| Corncrake | Crex crex | Vulnerable |
| East Coast Akalat | Sheppardia gunningi | Vulnerable |
| Greater Spotted Eagle | Aquila clanga | Vulnerable |
| Grey-crowned Helmet Shrike | Prionops poliolophus | Vulnerable |
| Hinde’s Babbler | Tadoudes hindei | Endangered |
| Kulal White-eye | Zosterops kulalensis | Critical |
| Lesser Keelie | Falco naumanii | Vulnerable |
| Papyrus Yellow Warbler | Chloropeta gracilirostris | Vulnerable |
| Sharpe’s Longclaw | Macroneyx sharpei | Vulnerable |
| Sokoke Pipit | Anthus sokokensis | Vulnerable |
| Sokoke Scops Owl | Otus ireneae | Vulnerable |
| Spotted Ground Thrush | Zoothera guttata | Endangered |
| Taita Apalis | Apalis fasciculata | Critical |
| Taita Falcon | Falco fascinucha | Vulnerable |
| Taita Thrush | Turdus helleri | Critical |
| Taita White-eye | Zosterops siamensis | Critical |
| Turner’s Eremomela | Eremomela turneri | Vulnerable |
| White-winged Apalis | Apalis chariseta | Vulnerable |

The following near threatened species occur in Kenya:

- Basra Reed Warbler
- Fischer’s Turaco
- Friedmann’s Bush Lark
- Great Snipe
- Jackson's Widowbird
- Lesser Flamingo
- Madagascan Squacco Heron
- Malindi Pipit
- Pallid Harrier
- Papyrus Gonolek
- Plain-backed Sunbird
- Red-throated Tit
- Sharpe’s Longclaw
- Southern Banded Snake Eagle
- White-winged Dove
- William’s Bush Lark
- Acrocephalus griseolus
- Tauraco fischeri
- Mirafra pulpa
- Galango media
- Euplectes jacksoni
- Phoenicoparrus minor
- Ardeola idae
- Anthus melidnae
- Circus macrocru
- Lanarius mufumbiri
- Anthreptes reichenowi
- Pterus fringillimus
- Macronyx sharpei
- Circus fasciolatus
- Streptopelia reichenowi
- Mirafra williamsi

THE IBA PROGRAMME IN KENYA

The Important Bird Areas programme in Kenya is co-ordinated by the East Africa Natural History Society, the BirdLife Partner in Kenya and Uganda, and supported by the Royal Society for the Protection of Birds. Much of the technical work has, however, been carried out by the Ornithology Department of the National Museums of Kenya. A high-level Advisory Council, meeting three times each year, provides a direct link to Government – there is representation from the Department of Planning, Department of Forestry, the National Environment Secretariat, Kenya Wildlife Service, the National Environment Action Plan and Permanent Presidential Commission on Soil Conservation and Reafforestation, among others.

Survey work by the Department of Ornithology began in January 1995, based on a preliminary analysis of gaps in knowledge. Sites and areas that have been surveyed (see Nasiwa & Bennun 1995; Nasiwa et al. 1995; Nasiwa & Njoroge 1996a, b; Waiyaki 1996; Waiyaki & Bennun 1996) include:

- Creeks, estuaries and beaches along much of the Kenya coast;
- Papyrus swamps and other wetland sites along the entire Kenyan shoreline of Lake Victoria;
- The series of five large dams on the upper Tana river;
- South Nandi forest and forests on Mt Kenya and in the Cherangani Hills, the Taita Hills and South Baringo district;
- Moist grasslands in Busia and Suba Districts.

Compilation of published and unpublished information has continued in parallel. Draft accounts (and a summary list) have now been produced for the 64 potential sites so far identified. These will be circulated as widely as possible among ornithologists and others to ensure that the information is complete, up to date and accurate.

THE SITES

Sixty-four potential IBAs have been listed. They include sites in all provinces of the country except North-Eastern (Table 1). This rather uniform, flat province contains species characteristic of the Somali-Masai biome, which are already represented in large protected areas (such as the Tsavo National Parks) elsewhere in

| Province | Number of IBAs |
|----------|----------------|
| Coast    | 23             |
| Rift Valley | 14          |
| Central  | 8              |
| Eastern  | 6              |
| Nyanza   | 4              |
| Western  | 2              |
| Nairobi  |                |
| Total    | 64             |
Figure 1. Set diagram showing the numbers of Kenyan IBAs in different categories.

Table 2. Kenyan IBAs in four broad habitat categories, showing the number with some degree of formal protection.

| Habitat            | Protected | Not protected | Total |
|--------------------|-----------|---------------|-------|
| Forest             | 22        | 2             | 24    |
| Wetland            | 7         | 18            | 25    |
| Semi-arid savanna  | 7         | 2             | 9     |
| Moist grassland    | 3         | 3             | 6     |
| **Total**          | **39**    | **25**        | **64**|

Table 3. Kenyan IBAs in four broad habitat categories, assessed by degree of perceived threat.

| Habitat         | Low threat | High threat | Total |
|-----------------|------------|-------------|-------|
| Forest          | 2          | 22          | 24    |
| Wetland         | 11         | 14          | 25    |
| Semi-arid savanna | 9          | 0           | 9     |
| Moist grassland | 2          | 4           | 6     |
| **Total**       | **24**     | **40**      | **64**|

According to the country. Larger provinces do not necessarily contain more IBAs, an indication that biodiversity tends to be clumped rather than evenly scattered. Most IBAs (61%) qualify because of the threatened species they contain (Figure 1), with a good number (26%) qualifying because of bird congregations. Nine IBAs are listed for the biome-restricted species assemblages they contain. No IBA is listed solely because of its restricted-range species. Most IBAs in Kenya (77%) are forests or wetlands (Table 2). There is a small number in drier savannah habitats and just six in moist grassland. The total area of forests and wetlands in Kenya is small, and these sites are often in densely populated areas.

Sixty-one percent of IBAs have some type of formal protection (Table 2). The proportion of protected areas is highest for forests (92%) and lowest for wetlands (28%). Being in a protected area does not necessarily mean that the sites are safe, however. An analysis of the degree of threat (Table 3) puts 92% of forests in the high threat category, along with 67% of moist grasslands.

Even though many sites are unprotected, just 56% of the wetlands are at high risk. Almost all the savannah sites (90%) are in the low threat category.

PRIORITIES

Among sites in the high-threat category (Table 3), some stand out as requiring urgent attention if their valuable biodiversity is not to be lost. These include:

- Arabuko-Sokoke Forest, the largest remnant of East African coastal forest, with six threatened species of birds, is under threat from degazettlement for settlement, tree poaching and unsustainable use of forest products.
- Kakamega Forest, home to the threatened Turner's Eremomela Eremomela turneri and Chapin's Flycatcher Muscicapa lenda, plus many regionally threatened birds, and a very important eco-tourist destination. Already small and highly fragmented, the forest is being destroyed by uncontrolled grazing that prevents forest regeneration, rampant encroachment, high levels of tree poaching and charcoal.
- South Nandi Forest, sheltering perhaps the world's largest population of Turner's Eremomela, is being subjected to intensive mechanised logging that is rapidly changing the forest structure.
- Dzombo, Kaya Diani, Kaya Gandini, Kaya Waa, Marenji Forest and Mrima Hill, important for threatened coastal forest species, are all under pressure from a combination of illegal land allocations, logging and encroachment.
- River valleys around Kianyaga and Mukurweini, the stronghold of the scarce and local Hinde's Babbler Turdoides hindei, a threatened Kenya endemic, are being intensively cultivated, destroying the birds' thicket habitat.
- Papyrus swamps around Lake Victoria - Dunga, Lake Kanyaboli, Yala Swamp, Lake Sere, Koguta and Kusa - contain a unique set of papyrus endemics including the threatened Papyrus Yellow Warbler Chloropeta gracillimvis, but are being burned, harvested unsustainably and cleared for cultivation.
- Grasslands on Kinangop and Mau Narok, home to the Kenyan endemic Sharpe's Longclaw Macronyx sharpei and other highland grassland birds, are being converted to cultivation or intensive grazing, which the longclaw cannot adapt to.
- Grasslands around Busia, used for feeding and roosting by non-breeding Blue Swallows Hirundo atrocaudae (a threatened intra-African migrant), have almost disappeared as agriculture expands.
- The tiny forests of the Taita Hills, where three endemic bird taxa occur, are in danger of vanishing completely.
- Mt Kenya forests, important for the threatened Abbott's Starling Cinnyricinclus fernoralis and many African Highland biome species, are being degraded by large-scale illegal logging and clearance for agriculture and marijuana plantations.
- Mt Elgon forest, supporting a fine example of the African Highland bird community, is being cleared by (licensed) 'mechanised logging of indigenous trees.

CONCLUSION

The IBA process is well established in Kenya. The technical base to support it was already largely in place at the National Museums of Kenya, but the programme is helping the BirdLife Partner to grow and improve its management and advocacy capacities. The response from Government is positive and it seems likely that IBAs will be fully incorporated into ongoing environmental planning. There are many immediate challenges in improving conservation and management of a key set of IBAs - the IBA list is just a starting point for a great deal of work and effort to come.

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