

THE THREATENED BIRDS OF NIGERIA

Augustine U. Ezealor

Department of Biological Sciences

Ahmadu Bello University, Zaria

A Synopsis of the Birds of Nigeria

About 915 bird species in 90 families and 343 genera have so far been recorded in Nigeria. This puts Nigeria among the top 10 countries in bird species diversity in the Afrotropical region. About 40 bird species that have been recorded in Nigeria are now considered to be threatened globally. At the national level, many more of our birds are under one form of threat or the other, although some species have also thrived despite the widespread modification and degradation of our natural ecosystems. Four of our bird species (the Ibadan Malimbe *Malimbus ibadanensis*, Anambra Waxbill *Estrilda poliopareia*, Rock Firefinch *Lagonosticta sanguinodorsalis*, and Jos Plateau Indigobird *Vidua maryae*) are endemic; they are found in Nigeria and nowhere else in the world. But very bothersome is the fact that none of these four nationally endemic bird species occurs in a federally-gazetted protected area. Furthermore, except for Manu's (2002) doctoral research which focused on the ecology of the Ibadan Malimbe, and recent research efforts on the Rock Fire Finch (e.g., Brandt. and Cresswell, 2002), none of these uniquely Nigerian birds has received substantial species-specific research attention.

The Values of Our Birds

There is hardly a Nigerian ethnic group that does not have several bird-related folklores with educative moral lessons or insights into ecological interactions in nature. Further on the larger world scene, ecologists have recognised that birds are good bioindicators of the health status of the environment. This is because a site which has a diverse and abundant birdlife is also very likely to be rich in other forms of life. Furthermore, some species of birds and other biodiversity have inherent but little understood or yet undiscovered values. For example, why do adult (i.e., parent) birds of some species eat the faeces of the nestling they are tending? Is there a lesson to be learned from this seemingly weird behaviour by the haggard malnourished nursing human mothers in resource-poor or war-ravaged parts of the world? We can only dwell on imaginations with regard to this seeming opprobrium.

It has also been argued from the ethical viewpoint that humans as co-inhabitants of the earth with other biota, are morally bound to care for the other life-forms (including birds) with which we share the earth. This is imperative because humans are part of the earth's intricate web of life in which every living thing has a function (niche) which directly or indirectly contributes to the wellbeing of other life-forms. If we sit and watch while other species disappear, we lose their ecologic-economic attributes, and exacerbate the chances of our own demise on earth. Our birds and other biodiversity also have socio-cultural values. For

example, the Abdim's Stork (*Ciconia abdimii*) is a *sine qua non* in the agricultural calendar of many rural communities in the northern parts of Nigeria and other Sudano-Sahelian regions of Africa in the bird's distributional range. The timing of their north-south migratory movements of this species serves as a calendar for local farmers in that harsh and ecologically unpredictable ecoregion. Rural Farmers in that region have through the ages come to associate the bird's migratory movements with the onset and end of the rainy season. Therefore, if for some reason these birds fail to reach some parts of that ecoregion, the agricultural calendar in that area is messed up.

Some of our birds (e.g., certain Bushfowl and Guineafowl species; Family: **Phasianidae**) are of economic importance as potential sources of animal protein, if properly managed and harvested. Another crucial value of birds is the vital role they play in maintaining ecosystem stability. For example, the maintenance of plant species diversity and stability in our forest ecosystems is largely attributable to the dispersal of seeds by frugivorous birds such as the Hornbills (Bucerotidae) and the Barbets (Capitonidae). Additionally, the educational, aesthetic, cultural, and scientific values of birds compel us to conserve them and other biodiversity associated with them. Finally, the diversity, ubiquity, conspicuousness, ease of identification, wide popular appeal, as well as a large bank of easily available information on birds make that vertebrate group a good and veritable candidate organism for use in assessing and setting conservation goals and priorities.

What Are Some of the Threats Faced by Nigeria's Biodiversity, Especially Birds?

NEST (1991) overviewed some of the key factors that threaten Nigeria's environment. The under-listed are some of the factors that have direct deleterious influences on the wellbeing of Nigeria's birdlife.

1. Habitat degradation and loss through uncontrolled logging, overgrazing, wildfires and extensive subsistence farming, resulting in reduced abundance and diversity of birdlife.
2. Improperly planned and wrongly executed large scale water-related development projects that emphasize the "aquatic" rather than the "hydraulic" culture, e.g., reclamation of wetland habitats for urban development. This impacts negatively on the habitats of waterbirds. According to Dugan (1993), these two cultures influence the way people relate to and utilize the resources of wetland ecosystems. Whereas the hydraulic culture seeks to control the behavior and characteristics of water bodies, through land reclamation activities (e.g., damming, channelization and dredging), the aquatic culture emphasizes adapting to and harnessing conditions created by the presence of water.
3. Lack of adequate trained manpower to manage the nation's conservation areas.
4. Lack of awareness of the intrinsic values of birds and other biodiversity associated with them.

5. Absence of a coherent and comprehensive post-independence national policy framework on forestry and wildlife conservation, to guide the Regions and subsequently States and Local Governments.
6. The country's main legislative Act (*The Endangered Species Act 11 of 1985*) enacted to protect wildlife has become outdated, and is hardly enforced. As a result, there is ongoing unsustainable exploitation of Renewable Natural Resources (RNRs) e.g., over-hunting, poaching and an illicit bush-meat and wildlife trade which still flourish in the country. In a startling case, over 2,000 pairs of Abdim's Stork *Ciconia abdimii* tibio-tarsus were found at a poachers' camp in the Hadejia-Nguru Wetlands during the early 1990s.
7. Industrialisation with its attendant pollution of wildlife habitats; for example, the widespread but grossly underreported cases of oil spill in the Niger Delta (see Obot *et al.*, 2007).
8. Avian disease epidemics, e.g., the recent outbreak of avian influenza and other bird-related diseases.
9. Ruinous global ecological phenomena such as climate change which is affecting many wildlife habitats.
10. Misconception of all bird species as vermin, especially among rural farmers in areas (e.g. the Hadejia-Nguru Wetlands; see Ezealor, 1995, Ezealor and Giles, 1997a,b) where birds are pests of agriculture. Such misconception often leads to unwarranted indiscriminate poisoning of all birds (including non-pestilent species) with avicides.

There have also been some national policy gaffs that unquestionably exacerbated the threats to our birds and other biodiversity. For example, the Federal Government of Nigeria recently downgraded the country's premier conservation area (Yankari) from a National Park status to a State Game Reserve. The withdrawal of Federal Government funding from the reserve is probably remotely responsible for the reported increase in incursions by poachers and illegal grazers into the reserve. Yankari is home to over 350 species of Nigeria's birds, as well as several other faunal taxa of global or national conservation significance. Another recent policy gaff is the decision of the Federal Ministry of Environment to combat desertification in the north of the country by introducing the notorious Prickly-pear Cactus *Cactus opuntia* into the frontline desert-prone areas of northern Nigeria. Going by antecedents when this potentially invasive exotic plant was introduced into Australia, Nigeria may be courting an environmental disaster of monumental dimensions, in which not only wildlife habitats but also valuable rangelands for livestock will be lost. Finally, Table 1 depicts the grim state of conservation in Nigeria. It is important to note in the last column of the table, that Nigeria fell very short of 25%, the percentage land mass which the UN prescribed as the minimum for each country to set aside for conservation activities.

Table 1. Extent of Protected Areas in Nigeria's Six Geopolitical Zones

Geopolitical Zone	Approximate Land Area (km ²)	Approximate Area of Forest Reserves (km ²)	*Percent (%) of Land Area Reserved as Forest
North Central	235,457	24,085	10.23
North East	278,981	18,216	6.52
North West	205,710	31,191	15.16
South East	28,699	449	1.56
South South	84,835	13,076	15.56
South West	77,889	12,959	16.64
Entire Nigeria	910,771	99,974	10.98**

Adapted and modified from Onochie (1984)

*Neither the geopolitical zones nor the country as a whole has met the 25% recommended by the UN as the percentage of its total area which each country should set aside for conservation.

**Little or no formal conservation activities occur in most of the remaining $\approx 89\%$ of the land that is not under reservation.

Checklist of Nigeria's Globally-Threatened Birds

Below is an annotated checklist of the threatened birds of the world that have been recorded in Nigeria. The ratings for the degrees of threat are as per the IUCN (1996) categories:

1. "*Extinct*" and "*Extinct in the wild*" (EX and EW) are the two highest categories, and refer to species that have already been lost (EX) or exist only in captivity (EW).
2. The next three categories "*Critically endangered*", "*Endangered*", and "*Vulnerable*" (CR, EN, and VU) are often collectively referred to as the "threat categories", and in decreasing order of severity of threat denote, species that are under various degrees of imminent to high risk of extinction.

The last three categories "*Lower Risk*", "*Data Deficient*" and "*Not evaluated*" (LR, DD and NE) respectively symbolize a species that is not currently predisposed to any known risk of extinction; a species of noteworthy concern for which there is insufficient information to determine its correct threat category; and a species whose status has not been evaluated.

FAMILY and Scientific Name	Common English Name	General Comments and Threat Category
SULIDAE		
1. <i>Sula capensis</i>	Cape Gannet	A sea bird that may be encountered off the coast of Nigeria. Rated as VU.
ARDEIDAE		
2. <i>Tigriornis leucolophus</i>	White-crested Tiger Heron	Rare resident of forest stream banks. Rated as DD.
PHOENICOPTERIDAE		
3. <i>Phoeniconaias minor</i>	Lesser Flamingo	Rated as NT.
ANATIDAE		
4. <i>Pteronetta hartlaubi</i>	Hartlaub's Duck	Rated as NT.
5. <i>Marmaronetta angustirostris</i>	Marbled Duck	Rated as VU.
6. <i>Aythya nyroca</i>	Ferruginous Duck	Rated as NT.
ACCIPITRIDAE		
7. <i>Torgos tracheliotus</i>	Lappet-faced Vulture	Rated as VU.
8. <i>Aquila heliaca</i>	Eastern Imperial Eagle	Rated as VU.
9. <i>Circus macrourus</i>	Pallid Harrier	Rated as NT.
10. <i>Falco naumanni</i>	Lesser Kestrel	Rated as VU.
RALLIDAE		
11. <i>Crex crex</i>	Corn Crake	Rated as VU.
GRUIDAE		
12. <i>Balearica pavonina</i>	Black Crowned Crane	This is the putative national bird of Nigeria! Rated as NT.
OTIDIDAE		
13. <i>Neotis denhami</i>	Denham's Bustard	Rated as NT.
14. <i>N. Nuba</i>	Nubian bustard	Rated as NT.
SCOLOPACIDAE		
15. <i>Gallinago media</i>	Great Snipe	Rated as NT.
GLAREOLIDAE		
16. <i>Glareola nordmanni</i>	Black-winged Pratincole	Rated as DD.
STERNIDAE		
17. <i>Sterna balaenarum</i>	Damara Tern	Rated as NT.
RYNCHOPIDAE		

18. <i>Rynchops flavirostris</i>	African Skimmer	Rated as NT.
PSITTACIDAE		
19. <i>Psittacus erithacus</i>	Gray Parrot	Rated as NT.
APODIDAE		
20. <i>Apus (barbatus) sladeniae</i>	Fernado Po Swift	Rated as DD.
BUCEROTIDAE		
21. <i>Ceratogymna elata</i>	Yellow-casqued Wattled Hornbill	Rated as NT.
CAMPEPHAGIDAE		
22. <i>Lobotos oriolinus</i>	Eastern Wattled Cuckoo-Shrike	Rated as DD.
PYCNONOTIDAE		
23. <i>Andropadus montanus</i>	Cameroon Montane Greenbul	Rated as NT.
24. <i>Phyllastrephus baumanni</i>	B a u m a n ' s Greenbul	Rated as DD.
25. <i>P. Poliocephalus</i>	Grey-headed Greenbul	Rated as NT.
26. <i>Bleda eximia</i>	Green-tailed Bristlebill	Rated as VU. There is some debate over the occurrence of this species in Nigeria. Whereas Elgood <i>et al.</i> (1994) list the species as occurring in southeastern Nigeria, Borrow and Demey (2001) do not have its range as extending into Nigeria. They instead have the range of the Lesser Bristlebill <i>B. notata</i> (which Elgood <i>et al</i> did not list for Nigeria) as just extending into eastern Nigeria.
MALACONOTIDAE		
27. <i>Malaconotus gladiator</i>	Green-breasted Bush-Shrike	Rated as VU.
28. <i>Malaconotus kupeensis</i>	Mount Kupe Bush-Shrike	Previously thought to be endemic to Cameroon, but recently recorded at Sankwala Mountains and Afi Mountain Wildlife Sanctuary in Cross River State. Rated as CR.
TURDIDAE		

29. <i>Zoothera crossleyi</i>	Crossley's Ground-Thrush	Rated as NT.
SYLVIIDAE		
30. <i>Bradypterus (lopezi) bangwaensis</i>	Bangwa Forest Warbler	Rated as NT.
31. <i>Poliolais lopezi</i>	White-tailed Warbler	Rated as NT.
32. <i>Cisticola dorsti</i>	Dorst's Cisticola	Rated as DD.
MUSCICAPIDAE		
33. <i>Muscicapa tessmanni</i>	Tessmann's Flycatcher	Rated as DD.
TIMALIIDAE		
34. <i>Kupeornis gilberti</i>	White-throated Mountain Babbler	This is the only bird species that is named after a Nigerian, Gilbert Nkwocha , who was bird collector. Rated as VU.
PLOCEIDAE		
35. <i>Malimbus ibadanensis</i>	Ibadan Malimbe	One of Nigeria's endemic birds. To date, Manu's (2002) thesis probably remains the only detailed autecological study of the species. Sometimes also called Elgood's Malimbe, in honour of Professor John H. Elgood, a former lecturer at the University of Ibadan. Rated as EN.
36. <i>Ploceus bannermani</i>	Bannerman's Weaver	Rated as NT.
PICATHARTIDAE		
37. <i>Picathartes oreas</i>	Red-headed Rockfowl	Rated as VU.
ESTRILDIDAE		
38. <i>Estrilda poliopareia</i>	Anambra Waxbill	One of Nigeria's endemic birds. Rated as NT.
39. <i>Lagonosticta sanguinodorsalis</i>	Rock Fire Finch	One of Nigeria's endemic birds. A brief ecological study was reported by Brandt and Cresswell (2002). Rated as DD.
VIDUIDAE		
40. <i>Vidua maryae</i>	Jos Plateau Indigobird	One of Nigeria's endemic birds. A brood-parasite of the Rock Fire Finch,

	with which it appears to be sympatric. Named after Mary Dyer, a former lecturer at Ahmadu Bello University. Rated as DD.
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Towards a Photo Documentation of Nigeria's Threatened Biodiversity, Especially the Birds

Below are photo documentations of some of Nigeria's threatened birds, causes of the threats to them, and the prospects for Nigerian ornithology. One yawning gap in any envisaged actions to save our threatened biota is the lack of an authentic photographic compendium of our national biota that are in danger of being lost forever. Such a publication will not only serve to focus attention on the species of conservation importance, but will undoubtedly awaken and strengthen our national consciousness to the values of conserving our natural heritage. I hereby make a plea for a joint action towards publication of this potentially invaluable book, by Nigeria's foremost environmental NGOs and societies {e.g., the Nigerian Conservation Foundation (NCF), Nigerian Field Society (NFS), the A.P. Leventis Ornithological Research Institute (APLORI), Nigerian Environmental Study and Action Team (NEST), Niger Delta Wetlands Centre (NDWC), *etc*}, in collaboration with government agencies that oversee national environmental protection matters {e.g., the National Environmental Standards and Regulations Enforcement Agency (NESREA) of the Federal Ministry of Environment}. The time for this critical project is now!

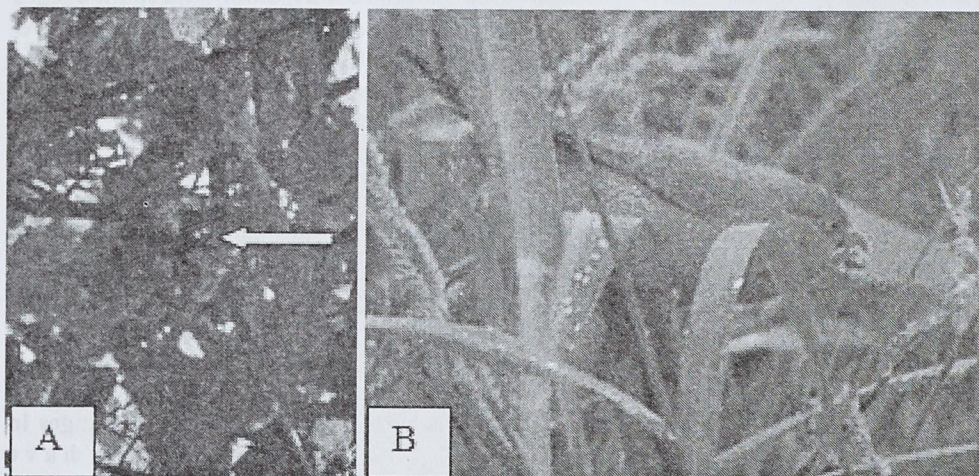


Figure 1. The foremost Nigerian endemics. A) An arrow points to an Ibadan Malimbe photographed at the Ifon Forest Reserve. The sighting of the Ibadan Malimbe outside of the Ibadan-Ife axis represents a substantial increase in the known distributional range of the species. B) The Anambra Waxbill photographed in Yenagoa. Both are threatened by habitat loss from expanding urbanization and agricultural activities.



Figure 2. A re-snapped picture of a young hunter in Brass (Niger Delta), who posed with a Crowned Eagle *Stephanoaetus coronatus* he had shot further inland in the delta. The foot of the eagle which he preserved as a trophy can be seen hanging at the top left corner of the photograph. A large number of our threatened birds and other wildlife die from subsistence hunting and trapping activities of rural dwellers.



Figure 3. The Black Crowned Crane *Balearica pavonina*: the national bird of Nigeria or Nigeria's favourite backyard pet? The species once roamed the vast floodplains of northern Nigeria, but is now mainly found as illegal captive pets in backyard enclosures of people's homes in many of Nigeria's northern cities. Hunting, trapping and adverse hydrological changes in its range have synergistically driven the species to a BirdLife International and the IUCN threat rating of Near-threatened (NT).

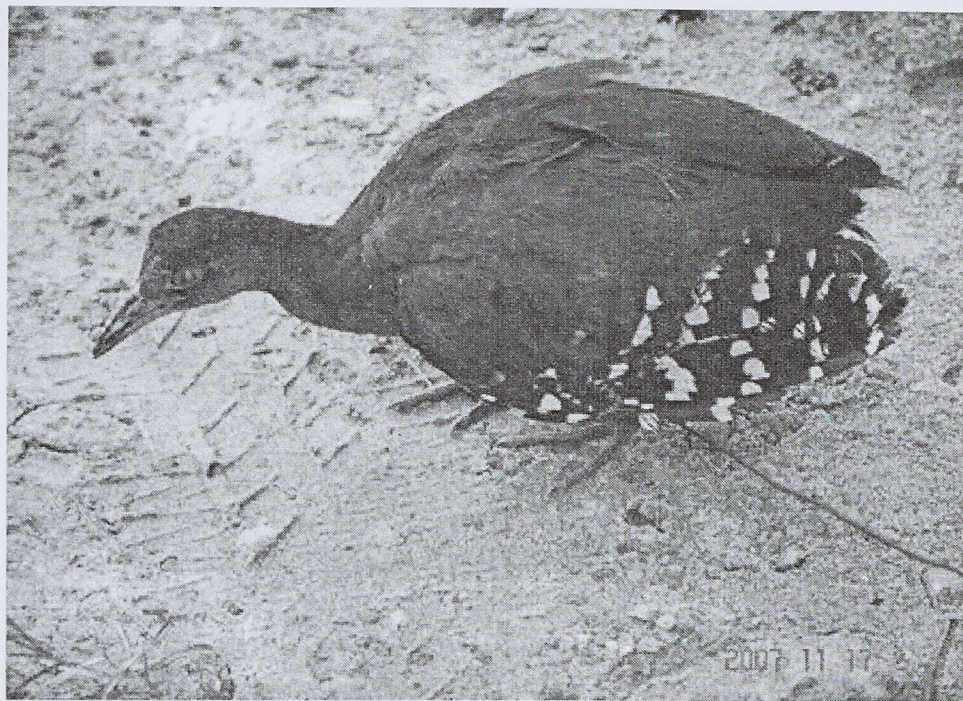


Figure 4. The bird photographed here is fourth national record of the very rare and elusive Grey-throated Rail *Canirallus oculus*, which was ignorantly kept as a pet by a resident of Brass Island in the Niger Delta. It was, however promptly purchased by the author and released back into the wild. Adverse hydrological changes is a major threat to all water-related birds in Nigeria and other sub-Saharan countries.

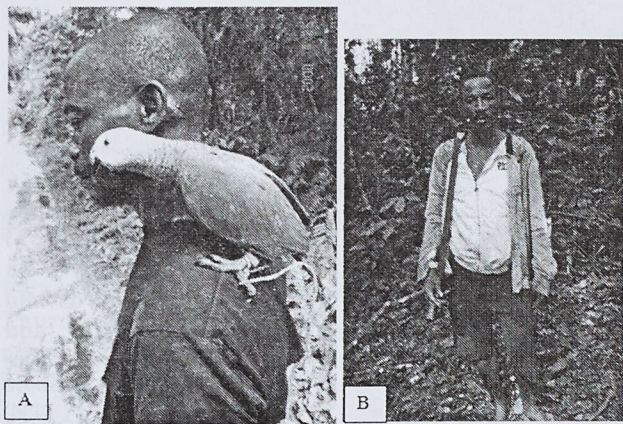


Figure 5. A) The ability of the Gray Parrot to mimic the human voice by whistling has made the species a favourite global household pet. The species has been overexploited to Near-threatened (NT) threat status as a result of a surreptitious international pet trade.

B) Unregulated subsistence hunting and trapping also pose serious threats to birds and other wildlife because most rural hunters and trappers are indiscriminate in their choice animals they hunt or trap.

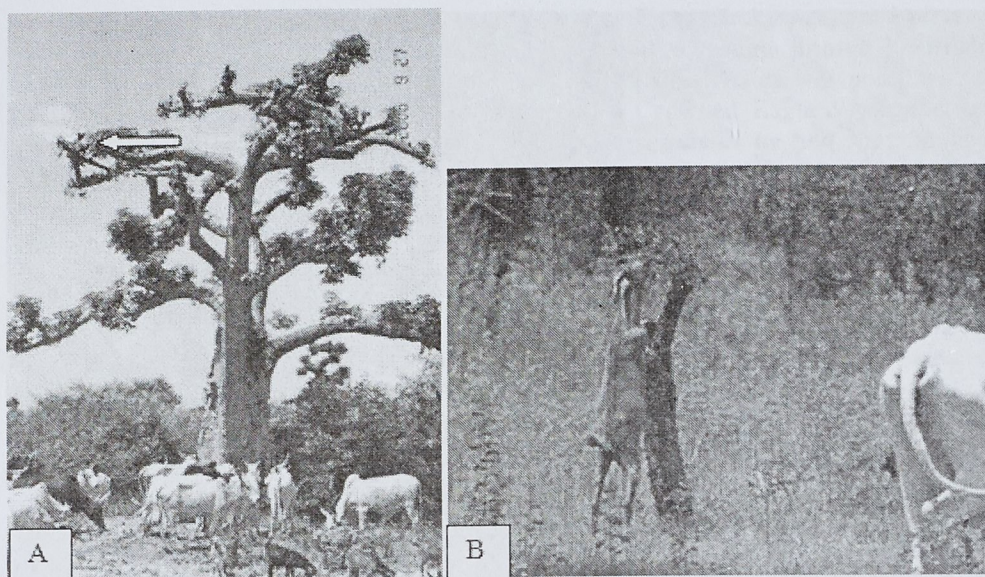


Figure 6. Widespread habitat degradation and loss is one of the key threats to the birds and other wildlife of Nigeria. A) A pastoralist (see arrow) lopping Baobab *Adansonia digitata* branches for his livestock; and B) a goat stretched full length to reach remnants of palatable vegetation on a tree which had earlier been severely chopped. Lopping of tree branches can adversely affect the physiognomy and composition of the vegetation in a habitat. It is a major habitat management challenge in Yankari Game Reserve and other protected areas where intruding cattle herders habitually lop trees such as *Azelia africana* for livestock.

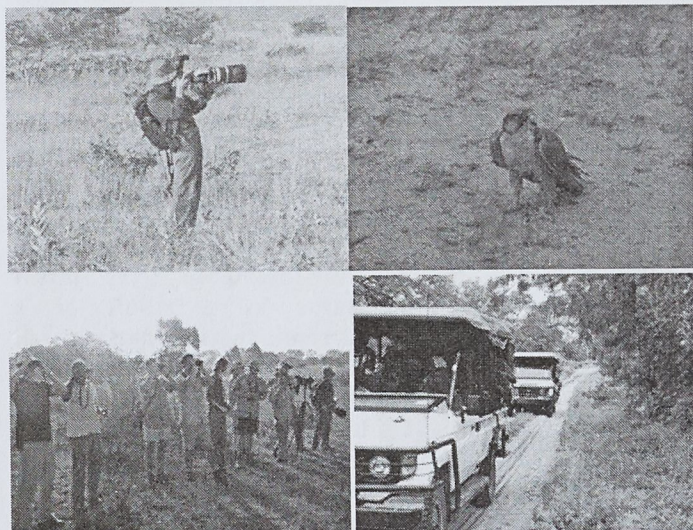


Figure 7. The composite picture and reports of field expeditions (e.g., Dyer *et al.*, 1988; Athanas, 2003; Obot *et al.*, 2003) indicate that birdwatching-based ecotourism and other outdoor recreational activities can thrive in Nigeria if our birds and other biodiversity and their habitats are adequately protected.



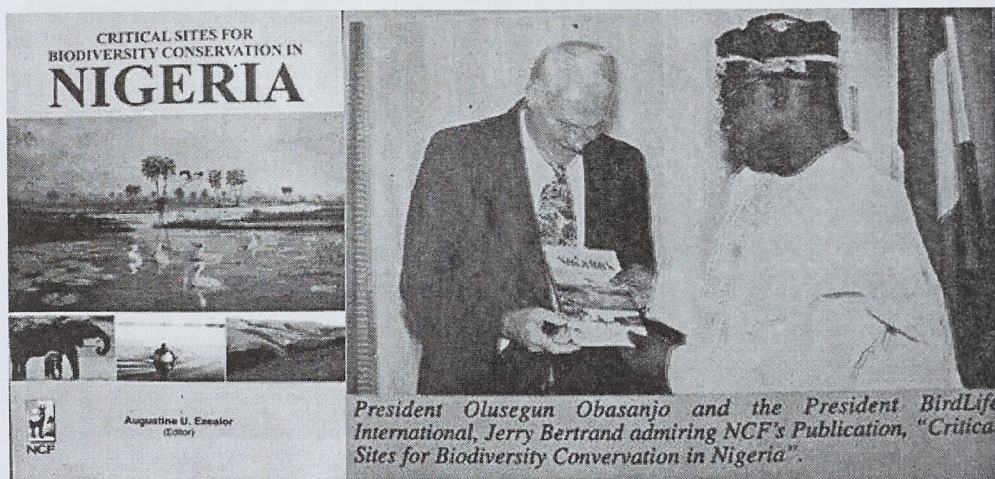
Figure 8. A) An ornithologist at the A.P. Leventis Ornithological Research Institute (APLORI) in Jos showing birds of the savanna to undergraduate biology students on an ecology field trip. The institute ground and its adjoining bird sanctuary are home to two of Nigeria's endemic birds (the Rock Fire Finch and Jos Plateau Indigobird). It was established to promote ornithological research in Nigeria and the West African sub-region. B) A foreign doctoral student of ornithology is seen here doing his field research in APLORI's bird sanctuary.



Figure 9. The Violet Turaco *Tauraco violacea* is an uncommon bird of the Guinea savanna. Tauracos are the only living creatures known to possess the natural pigment "turacin", after which the group appears to have been named. Environments in which such striking birds thrive often provide humans with very valuable Non-timber Forest Products (NTFPs), but sadly their key habitat (riparian woodlands of the Sudan-Guinea savanna) are being lost to shifting subsistence farming and uncontrolled illegal timber extraction.



Figure 10. When birds and their habitats are conserved, humans (especially rural dwellers) benefit through sustainable availability and utilization of Non-Timber Forest Products such as the material used by this woman to weave baskets.



President Olusegun Obasanjo and the President BirdLife International, Jerry Bertrand admiring NCF's Publication, "Critical Sites for Biodiversity Conservation in Nigeria".

Figure 11. Findings from scientific research on Nigeria's birdlife should be made available to policy makers at the highest levels, to facilitate shaping of efficacious national environmental policies.

Conclusion

Do we have adequate information on the threatened birds and other fauna of Nigeria? Are current policies that aim to protect our national wildlife heritage (especially the country's threatened birdlife) sufficient to achieve the desired and necessary objectives? The correct answer to these two important questions is probably "PARTIALLY". Therefore, there is an urgent need for more scientific studies of Nigeria's threatened fauna (especially the birds). There is also a need for all persons living in Nigeria to do our individual bits of conservation service for our environment, and in so doing contribute to the evolution of a Nigerian society and a world community in which there is a deep-rooted concern for the wellbeing of the environment and the non-human life-forms that inhabit it. We can each start by planting a wild fruit tree around our individual homes. This will feed us and provide food and cover for our cherished wildlife. We should also join or support environmental protection groups that are active in our various localities. Only through such environmental support actions can the threatened birds and other biodiversity of our country stand the ever increasing stress from our activities.

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