



West African Ornithological Society
Société d'Ornithologie de l'Ouest
Africain



**Join the WAOS and support
the future availability of free
pdfs on this website.**

<http://malimbus.free.fr/member.htm>

If this link does not work, please copy it to your browser and try again.
If you want to print this pdf, we suggest you begin on the next page (2) to conserve paper.

**Devenez membre de la
SOOA et soutenez la
disponibilité future des pdfs
gratuits sur ce site.**

<http://malimbus.free.fr/adhesion.htm>

Si ce lien ne fonctionne pas, veuillez le copier pour votre navigateur et réessayer.
Si vous souhaitez imprimer ce pdf, nous vous suggérons de commencer par la page suivante
(2) pour économiser du papier.

BIRDS OF LAGOS, NIGERIA

by J. Gee and J. Heigham

Received 18.x.76

Part I

THE CHANGING AVIFAUNA OF LAGOS

Intensive field work by the authors and others from 1966 to 1975 resulted in the accumulation of many new data concerning the birds of Lagos. Comparison with the reports of Sander (1956-57) and previous authors shows that significant changes have taken place in the avifauna. The first part of this paper discusses these changes in relation to changes in the environment, and identifies some population trends currently affecting the birds. The second part will summarize the occurrences of every species observed to date, draw conclusions about their present status, and compare that with status reported in the literature.

Changes in the Environment

Lagos has undergone tremendous expansion during the past twenty years, and many of the areas which Sander and others found productive of birds have been replaced by factories, housing projects and crowded highways. Many of the areas worked during the period 1966-75 are being rapidly urbanised also; however, as old haunts are being destroyed, new ones are constantly becoming more accessible as a result of construction of new roads and bridges.

Environmental changes caused by man are not wholly a modern development; as a result of "slash and burn" agriculture and other human interference, the original rain forest which formed a barrier between the interior savannas and the coast of southwestern Nigeria has been modified to the extent that "derived savanna" (Elgood, Sharland & Ward 1966) extends north from Lagos through and beyond Abeokuta and Ibadan into the original savanna zone. This has permitted increasing numbers of birds usually associated with the interior to extend their ranges south to the coast.

Relatively unchanged rain forest is still to be found north and east of Lagos Lagoon, but most of the remaining tracts of forest were

difficult of access during 1966-75, and the only forest area regularly worked was the Isieri area on the west bank of the Ogun River to the north of the road between Ikeja and the village of Isieri. This area consists of stands of second growth forest of varying heights, interspersed with remnant tracts of high forest and abandoned farmland covered with thick new growth and small trees. There are also scattered active farms, small villages and patches of swamp-forest. There are numerous paths throughout the Isieri area but by 1975 it was beginning to suffer encroachment by road building for industrial and residential purposes.

Fresh-water marshes near the centre of Lagos which were worked intensively during 1966-75 (Iganmu, Ijora and Apapa marshes) have since been much reduced and in some cases destroyed, but additional, unspoilt marshes lie to the west of the Apapa area and near the mouth of the Ogun River and to the east of Lagos Lagoon.

Sander (op. cit.) found that a number of resident species were virtually restricted to the grasslands in such sections as Yaba, Itire and Ebute Metta, which have now been urbanized and their grasslands completely destroyed. Although tracts of grassland still exist in the coastal strip and along the Ojo Road and the new Lagos - Badagry Highway, some of the grassland inhabitants reported by Sander have now been extirpated from the vicinity of Lagos and others are rare or irregular.

Some of the places which previous authors reported as being especially productive of birds were inaccessible during 1966-75 because of the Nigerian Civil War and its aftermath. For example, the forest surrounding the Iju waterworks, made famous by W. P. Lowe (vide Bates 1930, and Bannerman 1930-51) during the early part of the century, was closed to civilians. For the same reason potentially interesting savanna and grassland to the west of Apapa in the vicinity of the old Lagos airport had to be left unexplored.

Several of the specialised habitats created by man have tended to increase the variety of birds to be found at Lagos. The West Mole which protects the mouth of Lagos harbour has caused the formation of a sheltered beach just west of the harbour mouth which is a favourite resting place of Laridae and other birds, and has proved to be one of the best places on the middle Upper Guinea Coast to observe littoral species and pelagics. The mature gardens of Ikoyi Island and other residential sections of the city are attractive to certain savanna-woodland and forest birds. Parts of Lagos which have been created by artificial sandfill, such as Victoria Island and portions of Apapa, are suitable during certain stages of development for species favoring open wastelands and grasslands.

Composition of the Avifauna

The 435 species of birds which have been identified to date at Lagos may be grouped according to origin as follows:

Table 1. Lagos species grouped by origin

	New 1966-75	Previously recorded	Not recorded 1966-75	<u>TOTAL</u>
Palaearctic Migrants	39	47	(- 3)	86
Migrants of Palaearctic and/or Ethiopian Origin	10	10	(- 0)	20
Ethiopian Migrants and Visitors	36	64	(- 10)	100
Residents and Probable Residents	17	207	(- 24)	224
Miscellaneous	2	3	(- 1)	5
TOTALS	<u>104</u>	<u>331</u>	<u>(- 38)</u>	<u>435</u>

Sander and others recorded 331 species up to 1965 (Table 1), and we have added 104 subsequently - an increase of one-third. Of greater significance, however, is the fact that certain categories of birds have increased substantially, as to both variety and number of individuals, while others have remained essentially unchanged or have decreased. The largest net increases were among Palaearctic migrants and migrants of Palaearctic and/or Ethiopian origin, the combined increase for these two categories being more than 80%. The net increase of Ethiopian migrants and visitors was only half that amount, and there was actually a small net decrease in resident species (Table 1).

Palaearctic Migrants

The net increase in Palaearctic migrant species since 1965 was 77%. Among the 39 newly recorded species were nine waders, no less than ten gulls and terns, and six warblers. Analysis of data concerning previously recorded Palaearctic migrants indicates that 16 of them have increased in numbers of individuals recorded at Lagos since 1965 and only two have decreased.

At least 24 of the 39 additional Palaearctic migrants are species which migrate mainly across the Sahara and whose normal migration routes in West Africa would result in their reaching Lagos from the

north. Moreover the primary West African wintering grounds of many of them lie to the north of Lagos in the savanna zones of the interior. The breakdown of the forest barrier and its replacement by "derived savanna" have undoubtedly encouraged these Palearctic migrants to extend their autumn migrations further southward and also encouraged southward expansion of the winter ranges of those species which winter mainly to the north of Lagos. This trend has accelerated since Sander's time and it is reasonable to predict that this population trend is likely to continue to effect changes in the avifauna of Lagos.

These 24 species are as follows; asterisks denote those whose winter range lies primarily north of the forest zone in West Africa:

*Anus crecca	*Merops apiaster
*A. acuta	*Riparia riparia
*A. clypeata	Anthus trivialis
*Buteo rufinus	Lanius collurio collurio
Pernis apivorus	L. minor
*Porzana porzana	Oriolus oriolus
*Limosa limosa	*Oenanthe oenanthe
*Gallinago minima	Acrocephalus schoenobaenus
*Philomachus pugnax	*Hippolais icterina
*Sterna hybrida	Sylvia borin
Apus apus	*Phylloscopus collybita
A. pallida	Ficedula hypoleuca

Previously recorded "northern" Palearctic migrants which have increased in numbers include Hippolais polyglotta, Anas querquedula and several waders, e.g. Tringa erythropus.

Palearctic migrants which reach Lagos by migrating around the coast of West Africa or over the ocean have also increased significantly, but the number of species involved is much less than the number of "northern" migrants. Thirteen such species have been added since 1965, including all four skuas and no less than five gulls (Larus ridibundus, L. genei, L. minutus, L. argentatus and L. sabini). These additions are due in part to several years of very intensive field work at Tarkwa and around the harbour mouth (Wallace 1973), but the substantial increase of Larus fuscus at Lagos since Sander cannot be attributed merely to intensive field work. The general range expansion and population explosion of many species of Northern Hemisphere gulls must certainly be one of the population trends now affecting the composition of the birds of Lagos.

Less easily explained is a comparable increase in some of the species of waders and terns which migrate mainly around the coast of West Africa. Haematopus ostralegus and Calidris alpina, which have been added since 1965, are still rare, but Calidris canuta is now an uncommon but fairly regular visitor from August through February.

Limosa lapponica, which Sander considered very scarce, has now been recorded in every month of the year, as have Numenius phaeopus, Sterna dougalli, S. hirundo and S. paradisaea.

In relation to coastal and pelagic terns which are not Palearctic migrants, Sterna bergii and Anous tenuirostris have each been recorded for the first time; the previously recorded Sterna maxima is now regular throughout the year, and there has also been an increase in observations from shore of Sterna fuscata.

The three Palearctic migrants mentioned by previous authors but not recorded from 1966 through 1975 are Tringa terek, Anthus cervinus and Acrocephalus arundinaceus. The first two were vagrants. It is interesting to note that the last named has become a much more common winter visitor to Ibadan since 1965. The previously recorded Palearctic migrants which have decreased since the time of Sander are Charadrius alexandrinus and Phylloscopus sibilatrix. In southern Nigeria P. sibilatrix is mainly a forest bird whose decrease may be linked to the destruction of forests.

Migrants of Palearctic and/or Ethiopian Origin

Twenty of the species identified to date are migrants which could be of Palearctic or Ethiopian origin, or both. The number of species in this category doubled during 1966-75 and all species recorded previous to 1965 have also been recorded subsequently. The 20 species concerned are listed below and those which have been added after 1965 are denoted by asterisks:

* <u>Pelecanus onocrotalus</u>	<u>F. tinnunculus</u>
<u>Nycticorax nycticorax</u>	* <u>Gallinula chloropus</u>
<u>Ardeola ralloides</u>	<u>Himantopus himantopus</u>
<u>Egretta alba</u>	* <u>Glaucopis pratensis</u>
<u>E. garzetta</u>	<u>Sterna albifrons</u>
<u>Ardea cinerea</u>	* <u>Clamator glandarius</u>
<u>A. purpurea</u>	* <u>Cuculus canorus</u>
* <u>Plegadis falcinellus</u>	* <u>Upupa epops</u>
<u>Milvus migrans</u>	* <u>Hirundo daurica</u>
* <u>Falco peregrinus</u>	* <u>Hippoboscus pallida</u>

All but three are "northern" - Pelecanus onocrotalus which is a coastal migrant at Lagos, Falco peregrinus which has been recorded too few times in West Africa to establish the origin and migration route of the population involved, and Sterna albifrons, locally occurring races of which reach Lagos by way of coastal migration.

The only previously recorded species in this category which appears to have decreased noticeably since Sander's day is Nycticorax

nycticorax. The fact that most of these species have either been added since 1965 or have increased as to number of individuals supports the proposition that the breakdown of the forest barrier is resulting in an increase in "northern" birds at Lagos.

Ethiopian Migrants and Visitors

The same environmental changes have resulted in an increase of 41% in Ethiopian species, and all but five of the 36 new species are "northern" birds in the sense used herein. Such species which have been recorded at Lagos only once or a few times to date include the following:

<u>Podiceps ruficollis</u>	<u>Turtur abyssinicus</u>
<u>Ardea goliath</u>	<u>Asio capensis</u>
<u>Ciconia episcopus</u>	<u>Merops bulocki</u>
<u>Sarkidiornis melanotus</u>	<u>Coracias naevia</u>
<u>Melierax gabar</u>	<u>Indicator minor</u>
<u>Buteo auguralis</u>	<u>Riparia cincta</u>
<u>Aquila rapax</u>	<u>Hirundo senegalensis</u>
<u>Falco cuvieri</u>	<u>Chlorocichla flavicollis</u>
<u>Neotis denhami</u>	<u>Nectarinia senegalensis</u>
<u>Vanellus superciliosus</u>	<u>Euplectes orix</u>

Other "northern" species added during 1966-75 include Egretta intermedia which has now been recorded during every month of the year, Columba guinea the number of individuals of which have increased annually since it was first recorded in 1968, Neophron monachus, of interest because it is resident as close as Shagamu, 60 km to the north, but was never recorded at Lagos until 1969, Corvus albus, a common resident 30 km inland, which was first recorded in 1968 and has since occurred each year, particularly just after summer rainstorms.

New species which are not "northern" birds are: Butorides (Erythrocnus) rufiventris, a southern African heron; Andropadus gracilis, a forest species which to date has been observed each year only in September and October at Isieri; and Stephanoaetus coronatus and Coracina azurea, forest birds each recorded only once. All four could prove to be rare residents rather than migrants/visitors. Anous tenuirostris is also counted in this category because the only bird which visited Lagos is most likely to have come from an island breeding site in the Gulf of Guinea.

On the basis of present limited knowledge it appears that approximately 60% of the species in this category are actual migrants, as opposed to mere stragglers and casual visitors. Very few of these come to Lagos to breed, Euplectes afra being the only one known to nest there on a regular basis, although Cursorius temmincki, Merops

pusillus, Ploceus pelzelni and Ploceus superciliosus are also known to have nested at least once. One of the interesting changes involves Dendrocygna viduata which Sander found a numerous dry-season visitor, whereas we found it to be a fairly common visitor but only in the rainy season; obvious pairing and other actions during the summer of 1973 caused us to suspect nesting, but no proof was secured.

Previously recorded Ethiopian migrants and visitors which were not recorded after 1965 include Anhinga rufa, Accipiter erythrops, Haliaeetus vocifer, Vanellus senegallus, Glaucidium perlatum, Oriolus auratus and Batis senegalensis, all of which are "northern" species, and Macrodipteryx vexillarius (from southern Africa) and Alcedo leucogaster (a rare forest species).

Migrants in General

Summarizing the above, 75% of all non-resident species added during 1966-75 are "northern" birds whose occurrence at Lagos can be attributed to or associated with the breakdown of the forest barrier between the coast and the original interior savannas. 20% are coastal and pelagic migrants and the remainder consist of one southern African species and three forest birds.

Residents

Table 1 shows that more than half of the species recorded at Lagos are residents or probable residents and that this is the only category which has decreased in number of species.

Four of the newly recorded species are of northern affinity. Philostomus afer is a locally common resident which was conspicuous in such areas as Victoria Island and Ikoyi during 1966-75; however, it is possible this, as well as certain other "northern" species, have reached the coast via the Dahomey Gap rather than across the derived savanna. Turdoides reinwardii is a probable resident which was observed in a small area of savanna-woodland near Tarkwa. The small local populations of Estrilda bengala and Lonchura malabarica could have originated from escaped caged birds, nevertheless the latter species is now well established and widespread.

Anastomus lamelligerus was a rare and irregular visitor in Sander's time, but now a flock seems to be permanently established and has increased from about a dozen individuals in 1968 to over 100 by 1972. No evidence has been found that it breeds at Lagos, and it may prove to be another example of an Ethiopian migrant which is present throughout the year. An example of a breeding resident which increased notably both as to numbers and as to range at Lagos during 1966-75 is Prinia subflava.

Despite the above-mentioned additions and increases, and in contrast to the very marked increase in Palearctic and Ethiopian migrants which visit Lagos outside their breeding seasons, there has been a general decline among birds which breed in savanna and savanna-like habitats. Such species which nested at Lagos during the time of Sander include Coturnix chinensis, Turnix hottentotta, Caprimulgus pectoralis, Tchagra minuta, Acrocephalus rufescens and Bradornis pallida; the first two were Ethiopian migrants which moved into the grasslands of Lagos to nest, but the remainder were apparently permanent residents. Other residents and probable residents which have declined in recent years include Centropus monachus, Tyto alba, Caprimulgus natalensis, Laniarius ferrugineus, Bias musicus, Amblyospiza albifrons, Euplectes macrourus and Estrilda melpoda. Additionally, all previously known species of Cisticola, except C. galactotes and C. anonyma, are now either rare or absent. The decrease of such residents and breeding migrants is of course connected with the continuing destruction of Lagos' grasslands, marshes and the more open portions of the forest zone. This continuing loss of breeding birds is a population trend which can be expected to continue affecting the avifauna of Lagos.

A few grassland and marsh species appear to have held their own or even increased, notably Turnix sylvatica and Euplectes afra (a breeding migrant), however it is believed that this is due to concentration of remaining individuals in shrinking favourable habitat, rather than to any real increase.

Despite the obvious destruction of large portions of the original forest at Lagos, comparison of information on forest birds as reported by Sander with information obtained during 1966-75 does not reveal a great deal of change. The number of new forest species (13) nearly counterbalances the number of previously recorded forest species which were not observed after 1965 (17) and analysis of data for species recorded during both periods actually indicates that more species appear to have increased than decreased.

The species which have been added after 1965 and which are birds primarily of the forest zone are:

<u>Nycticorax leuconotus</u>	<u>A. poliocephala</u>
<u>Cuculus solitarius</u>	<u>Camaroptera superciliaris</u>
<u>Cercococcyx olivinus</u>	<u>Nectarinia seimundi</u>
<u>Chaetura ussheri</u>	<u>N. batesi</u>
<u>Halcyon badia</u>	<u>N. reichenbachii</u>
<u>Dicrurus atripennis</u>	<u>Parmoptila woodhousei</u>
<u>Alethe diademata (castanea)</u>	

N. batesi and P. woodhousei had previously been recorded only from south-eastern corner of Nigeria; the securing of specimens of both at

Isieri indicates their ranges probably extend all the way across to the Dahomey Gap. Also, both of the Alethes were secured somewhat to the west and south of their previously known ranges in Nigeria. C. ussheri and N. reichenbachii are not, strictly speaking, forest birds at Lagos. During 1966-75 the former was a common but easily overlooked resident of the more urbanized part of the city, while it was decidedly uncommon in the forest at Isieri, and the latter was a locally common resident of the outer edge of swamp-forest at Ikoyi and Ojo Road.

The 17 forest zone birds which appear to have been lost from Lagos are listed below:

<i>Tigriornis leucolophus</i>	<i>Phyllostrephus baumanni</i>
<i>Scopus umbretta</i>	<i>Trichostoma puvelli</i>
<i>Urotriorchis macrourus</i>	<i>Apalis rufogularis</i>
<i>Turtur brehmeri</i>	<i>Macrosphenus concolor</i>
<i>Bubo leucostictus</i>	<i>Myioparus plumbeus</i>
<i>Phoeniculus castaneiceps</i>	<i>Batis minima (poensis)</i>
<i>Dryoscopus sabinii</i>	<i>Trochocercus nitens</i>
<i>Tchagra australis</i>	<i>Nigrita fusconota</i>
<i>Peeptera lugubris</i>	

Some of the above are common not far inland from Lagos at Ipake forest reserve near Ilaro, and probably they still occur at Iju and in the undisturbed forests across the Ogun.

(To be concluded)

