

Historical sketch of Afrotropical ornithology

R.K. BROOKE

Brooke, R.K. 1986. Historical sketch of Afrotropical ornithology. *Revue Zool. afr.* 100: 7-12.

An outline of the history of Afrotropical ornithology is presented. Emphasis is placed on cultural and economic developments in Europe which led to Europeans taking a methodical interest in Afrotropical birds. Historical developments are usually signaled by mention of first manifestations in Afrotropical ornithology. Prior to 1780 was the period of accumulating curiosities. 1780-1899 was the period of taxonomic and basic distributional studies. 1900 to the present has been dominated by biological studies. This is also the period of long term or life time residence in Africa by ornithologists to which is linked the development of African based journals.

Key words: Afrotropics, history, ornithology.

R.K. Brooke, Percy FitzPatrick Institute of African Ornithology, University of Cape Town, Rondebosch, 7700 South Africa.

A history is a selection of facts and trends that seem important to the historian and therefore a history reflects the personal viewpoint of the historian as well as those of his age and upbringing. In this case a study of Stresemann (1975) and Farber (1982) has contributed greatly to the development of the ideas expressed in this essay. The Afrotropical Region is here taken as Africa south of the Sahara Desert but excluding Madagascar and southwestern Arabia. Ornithology is the methodical study of birds to ascertain what birds there are and how and why they live as they do.

In this short essay it is only possible to mention a few of the writers and collectors responsible for our present knowledge and many others of note will go unmentioned. The first point to make in a history of Afrotropical ornithology is that it is the history of a response by Europe, and later North America, to their discovery of tropical Africa. One may limit the meaning of Europe to those parts of the continent in which the influence of the mediaevally inspired churches, the Orthodox and the post-

Tridentine Roman, was less strong. The rise of ornithology in Europe was just one of many aspects of an upsurge of interest in peoples' surroundings and how to manipulate them to human advantage that became a dominant trend in the lands no longer dominated by the mediaeval churches after the end of the wars of religion in the mid 17th century.

The first stage, as far as Africa and the tropics generally were concerned, was the accumulation of curiosities brought back to amuse and astonish the stay-at-homes. The obtainers of such curiosities normally worked from European bases in remote lands. At that time there were fewer bases in Africa (the most important being Cape Town, Dakar and Luanda) than in the Oriental and Neotropical Regions and thus fewer curiosities were obtained. The relative neglect of Afrotropical birds in 18th century natural history writing may be thus explained. Afrotropical ornithology is a byproduct of the economics of European colonialism. Where European traders and settlers went, naturalists could go with some form of secure base from which to work and some idea

of the lands in which they wished to collect specimens.

The first person to attempt a more serious approach to the study of Afrotropical birds was François Le Vaillant who merited a whole chapter in Stresemann (1975). He reached Cape Town in 1781 and set out to obtain examples of all the land birds he could find and at the same time to observe what he could of their habits. Le Vaillant was the first person to make a long journey to another continent to gather materials for an ornithology of that area. That he was not totally successful in the opinion of later workers is irrelevant to an appreciation of his pioneering impulse so magnificently summarized in his six volume *Les oiseaux d'Afrique* (1796-1808). During Le Vaillant's lifetime effective techniques were developed for the preparation and preservation of bird skins which meant that material could be collected which had a much longer study life. Some of Le Vaillant's specimens survive, mostly in the Rijksmuseum voor Natuurlijke Histoire in Leiden, and are the earliest scientifically collected bird material from Africa. Thus the age of accumulating curiosities passed and the age of collecting permanent documented specimens began.

Why should it have been Catholic France that produced the first scientific ornithological traveller? After the end of the wars of religion the wealthy French church, with the power-hungry King Louis XIV over it, pursued a policy of distancing itself from the control of the Roman popes, the Gallican movement analogous in some respects to the Anglicanism of England. The result was a decrease in doctrinal prejudice permitting people to pay more attention to their surroundings. The 18th century was also a period of rapidly increasing wealth in France, even if the government was sometimes virtually bankrupt. Increasing wealth

coupled with the decline of otherworldly religions were the preconditions, rather than the causes of the development of natural history studies so ably summarized by Brisson and Buffon, even though their knowledge of Afrotropical ornithology was largely derived from the products of Dakar in Senegal. These preconditions coupled with mercantile and then political expansion provided the background to the development and expansion of ornithology in Europe, and Afrotropical ornithology along with it.

Hardly had Le Vaillant returned to Europe when Swedish travellers, inspired by the European-wide renown of their great countryman Carl von Linné or Linnaeus, began to frequent parts of Africa, particularly in the south where the heat was less oppressive for northerners, in search of birds and other natural history material. Once the Napoleonic wars were finished the British, French, Dutch and Germans became enthusiastic collectors. The long period of peace provided by British naval control of the Atlantic allowed the United States of America to become prosperous and to take an interest not only in its own rich natural history but also in that of the tropics. In this connection John Cassin of Philadelphia took the lead, securing substantial collections from du Chaillu in Gabon and adjacent area as well as buying the worldwide collection of the Duc de Rivoli.

Descriptions of the many new birds being discovered in the Afrotropics were prepared and published in Europe where the only people competent to do so lived. Andrew Smith, a Scottish army doctor stationed in the then Cape Colony of South Africa, was the first to break the European stranglehold by publishing descriptions of new species in the newspapers and magazines of Cape Town, starting in 1829. Even so, he republished most of them in England in his *Illustra-*

tions of the zoology of South Africa (1839-1849). The colonial government made considerable use of Smith's strong interest in natural history, including ethnography after the manner of his time, as a cover for obtaining political intelligence. He was thus able to travel more widely and securely than he would have as a junior medical officer and obtained much zoological material. At the same time Cape Town was the business base of the natural history dealers, the three Verreaux brothers, though they eventually transferred their base to Paris.

Africa had to wait nearly fifty years after Le Vaillant's books for another book on Afrotropical birds to appear, Eduard Rueppell's *Die Voegel Nordost-Afrikas* (1845). 1867 saw the publication of the first bird book in Africa, Edgar Layard's *Birds of South Africa* (Juta, Cape Town) though his South Africa was a lesser area than that of the present Republic of South Africa. Other books appeared in Austria, Britain, France, Germany and Portugal covering various parts of the Afrotropics till just after the end of the century they were consolidated into Anton Reichenow's great work *Die Voegel Afrikas* (1900-1905) which closed the classical period of the discovery of African birds. Not that nothing else remained to be discovered: I am not convinced that every Afrotropical species has been named and described even now. Rather, Reichenow was able to provide an overview of the Afrotropical avifauna whose main outlines were clear and acceptable since they were based on the systematic revision of the Aves by Max Fuerbringer. One may say that Reichenow provided an acceptable structure for Afrotropical ornithology which permitted the rooms to be furnished by later workers who filled in the systematic and distributional details and began to study the biology of Afrotropical birds.

After Reichenow's work six further attempts were made to synthesize our knowledge of Afrotropical birds: George Shelley started on a compendium, including biological data, in his 1896-1912 *The birds of Africa* but died long before it could be completed. William Sclater published his 1924-1930 *Systema avium aethiopicarum*. Claude Grant and Cyril Mackworth-Praed published their six volume *African handbook of birds* between 1952 and 1973. Charles White published his *Revised check list of African birds* between 1960 and 1965. The British Museum (Natural History) published Pat Hall and Reg Moreau's *An atlas of speciation in African passerine birds* in 1970 and David Snow's equivalent non-passerine atlas in 1978. Finally, Leslie Brown, impressed by the rapidly increasing volume of publications on the biology of Afrotropical birds to which he had significantly contributed, was the prime mover of *The Birds of Africa* of which the first volume appeared in 1982. Further volumes are awaited eagerly.

A kind of synthesis of Afrotropical ornithology is Nigel Collar and Simon Stuart's 1985 *Threatened birds of Africa and related islands* in that it reviews the whole avifauna from the point of view of which species most need conservation action, an increasingly pressing problem due to the highest rate of human population increase of any continent coupled with rapid destruction of tropical evergreen forest and other habitats.

In 1906 the South African Ornithologists' Union was founded and published a journal principally devoted to the natural history, the biology of birds as opposed to their systematics. This Union and its journal were one of the many casualties of the first world war. The relatively uninvolved Americans sent James Chapin to work in Zaire from 1909 onwards. His duties were primarily faunistic and syste-

matic but he was very conscious of the importance of obtaining and reporting biological data in his four volume work, *The birds of the Belgian Congo* (1932-1954). He was the first to analyse the systematic and faunistic data already assembled on Afrotropical birds and to recognize zoogeographic patterns which are still accepted as substantially correct.

Meanwhile, Belgian control of most of the Congo basin, the heartland and centre of the Afrotropical region as Chapin had pointed out, permitted and encouraged Belgian naturalists, mostly amateurs, to fill in the many unknown details of bird distribution in that vast land. The result is the superb collection of the Koninklijk Museum voor Midden-Afrika founded and built up by Henri Schouteden and the impressive one of the Koninklijk Belgisch Instituut voor Natuurwetenschappen. The latter gained much from cooperation with the exploratory work of the Instituut der Nationale Parken van Belgisch Congo, the most biologically valuable part being the 1953 publication of René Verheyen's work on the birds of the Upemba National Park, Zaire. This was the first work on Afrotropical birds to provide weight and moult data as a matter of routine.

Between the two world wars there was a recrudescence in the study of the biology of Afrotropical birds. The Southern African Ornithological Society was established in 1929 and started publishing its journal, the *Ostrich*, the next year. The shortlived journal, the *Bateleur*, was established in Kenya though most data reporting appeared in the *Journal of the East Africa Natural History Society*. Moreau began publishing on the biology and ecology of Tanzanian birds at this time in various journals in Africa, America and Europe and Jack Winterbottom similarly on bird communities. The English field worker and theoretician, David Lack, visited Tanzania to work on the breeding

territory system of *Euplectes hordeaceus* though his brief experience of the tropics did little to dispel the preconceptions fostered by his Palearctic experience.

After 1930 the development of Afrotropical ornithology fell more and more into the hands of people resident for long periods in countries on whose birds they worked. This may be regarded as the start of an African ornithology as opposed to the study of Afrotropical birds by foreign specialists some of whom, like David Bannerman, had never been to Africa. Of course, the indigenous people knew their local birds well and had names for all but the most cryptic sibling species. They knew which species they liked to eat and how to get them. Some birds like *Scopus umbretta*, *Haliaeetus vocifer* and the two *Burcorvus* spp. had entered into their religions and folklore. But none of this is ornithology as defined at the beginning of this essay. It is only in the last few years that indigenous Africans have begun to undertake methodical studies of birds. The long term wellbeing of Afrotropical ornithology is intimately bound up with encouraging this development.

After the second world war Afrotropical ornithology made faster progress, in large part because of people resident for many years in Africa. Linking the pre- and post-war phases was Con Benson whose 1953 Malaŵi checklist was the first to be annotated with other than nomenclatural and distributional data. He included habitat and breeding season data in an abbreviated format as well as a complete listing of the literature references to each species in Malaŵi. In 1958 Geoff McLachlan and Richard Liversidge published their revision of Austin Roberts's 1940 *Birds of South Africa* in which they successfully summarized all that was known about southern African birds in one volume.

This period saw three other develop-

ments: the first being the writing of books providing complete coverage of what was known of a regional group of birds. The first of these was Jack Skead's 1960 *Canaries, seedeaters and buntings of southern Africa*. Field guides in the Roger Tory Peterson sense began to be produced for parts of Africa though it was not till Kenneth Newman published his South African one in 1983 that an efficient field guide appeared. The period saw the rise of more popular local journals and newsletters of which the most important have been, in historical order, the *Bokmakierie* in South Africa, the *Honeyguide* in Zimbabwe, *Scopus* in east Africa, *Malimbus* in west Africa and the *Cormorant* and *Vulture News* in South Africa, the last two catering for seabirds whose study had recently developed and for the threatened vultures. These more localized journals have been the means of publication of a mass of data, mostly by amateurs, and the means whereby some have advanced to a more professional standard of publication.

Meanwhile two further developments had taken place in Afrotropical ornithology. In the 1930s in Europe and North America the universities began to consider live birds fit and proper subjects for zoologists and their students to study but it was not till after the second world war that this view reached Africa and began to affect Afrotropical ornithology. The first students to obtain their Ph.D.s in Africa on African birds were Hilary Fry in Nigeria on *Merops bulocki* and Michael Jarvis in South Africa on *Morus capensis*. The university input into Afrotropical ornithology has led to a more critical appraisal of our knowledge and has assisted in the development of theoretical biology. The second was the establishment in 1960 at the University of Cape Town of the Percy FitzPatrick Institute of African Ornithology, set up by Mrs Cecily Niven to commemorate the name of her father, all

of whose sons died before marriage. The Institute's terms of reference were to study live birds and to curate and use ornithological data records. Its first Director was Winterbottom who followed his bent for faunistics, zoogeography and community studies. Its second and present director is Roy Siegfried who views ornithology mainly under two aspects: participation of birds in the ecosystems in which they live; birds as excellent subjects through which to test many biological hypotheses.

I have mentioned the major strands in the development of Afrotropical ornithology up to the present day. Work continues at several levels: systematics, faunistics, natural history, hypothesis testing. All are still needed to bring knowledge of the avifauna up to the level of that of the Holarctic. Work is done by overseas people, by people who make short visits, who reside in Africa for long periods or for all their lives, by people professionally employed in ornithology or as an avocation. The contribution of the latter has been immense and will continue to be so while so much simple data has yet to be gathered, let alone analysed and incorporated into biological theory. Biological theory developed in the Holarctic and has been imported into Africa, much to the disquiet of many field workers who view it as irrelevant to their experience. One may say that Moreau was the only avian theoretician whose formative experience was African. Since theoreticians are few and far between by nature and are probably most easily nurtured in urban environments, we who love Afrotropical birds must continue to study and report on the systematics, distribution and biology of our birds so as to have the empirical facts with which to test the models of the theoreticians. There is much to do in Afrotropical ornithology and no one now living will see the end of it, short of an atomic holocaust.

REFERENCES

- Farber, P.L. 1982. *The emergence of ornithology as a scientific discipline: 1760-1850*. Reidel Publishing Co., Dordrecht. 191 pp.
- Stresemann, E. 1975. *Ornithology from Aristotle to the present*. Harvard University Press, Cambridge, Mass. 432 pp.