

The Grey-breasted helmet guineafowl (*Numida meleagris galeata*), a new host for *Amyrsidea powelli* (Bedford 1920) and *Cuclotogaster occidentalis* (Tendeiro 1954)

by J. P. FABIYI

National Veterinary Research Institute, Vom Nigeria

RÉSUMÉ

La pintade (*Numida meleagris galeata*)
nouvel hôte d'*Amyrsidea powelli* (Bedford 1920)
et de *Cuclotogaster occidentalis* (Tendeiro 1954)

Amyrsidea powelli et *Cuclotogaster occidentalis*, qui sont habituellement des poux du francolin ont été découverts pour la première fois chez des pintades indigènes (*Numida meleagris galeata*) en provenance de diverses régions du nord de la Nigeria.

INTRODUCTION

Amyrsidea powelli has been recorded from various species of the bush fowl (hereby loosely used for the francolins) including Swainson's red-necked francolin, Angola red-necked francolin, Drakensberg red-necked francolin, red-billed noisy francolin and crowned francolin from South Africa the type locality (1, 3) and South West Africa (2) and *Cuclotogaster occidentalis* from double-spurred francolin from Guinea Bisau the type locality (5) and Nigeria (4). Both species have also been reported from the domestic fowl in parts of Nigeria, the former species often reaching pathogenic levels (4). In this study, it is found that also the domestic guineafowl can be infested with these biting lice.

MATERIALS AND METHODS

Six hundred and twenty of these indigenous and plentiful birds in Northern Nigeria as elsewhere in the savanna areas of West Africa, examined primarily to assess the effect that parasites may play on the health and vigour of

these birds, provided the opportunity which enabled the detection of these two species of lice.

The birds, which originated from various parts of Northern Nigeria including Sokoto, Niger, Kaduna, Bauchi, Plateau and Gongola States belonged to various age groups and consisted of both well and sick, alive or had died within one hour or so before examination. They had no recent contact with the bush fowl, domestic fowl or any other species of birds so that the ectoparasites collected must be true parasites rather than stragglers on the guineafowl.

Lice were collected from the body and plucked feathers, fixed in 70 p. 100 alcohol, cleared in lactophenol or caustic potash or polyvinyl alcohol and identified microscopically.

RESULTS

Of the 620 birds examined, 78 p. 100 were infested with *Amyrsidea powelli*, the burdens being heavy on some birds to the extent that they were the primary cause of retarded growth and somnolence, or associated with another

louse *Menacanthus cornutus* (SCHOMMER, 1913) or other conditions in causing death. It was found on the skin and body feathers. *Cuclotogaster occidentalis* was found on the head and neck feathers of 17 p. 100 of the birds, commonly in low numbers, namely below 50 in number on any one bird.

DISCUSSION

This report extends the host range of *A. powelli* and *C. occidentalis* to include the domestic guineafowl and identifies a new potential causative agent of clinical phthiriasis namely *A. powelli*, for the domestic guineafowl.

Although the two species of biting lice have not been reported previously from the guineafowl, their occurrence could be expected considering that the probable original host, the bush fowl (4) and an apparently adapted host, the domestic fowl (4) are both closely related in phylogeny to the guineafowl (all being gallinaeous birds and members of the same family Phasianidae).

Although these species of lice have so far been reported from the guineafowl and the domestic fowl only in Nigeria, their presence may be expected on these hosts in many other coun-

tries in Africa, in particular the Republic of Niger, Republic of Camerouns, Republic of Chad and Republic of Benin, some of the collections in the present study having come from the border areas with these countries.

Extensive surveys of guineafowl and domestic fowl in various countries in Africa and in which these species are particularly carefully looked for are necessary to confirm this geographical distribution. The careful examination is necessary because each of these species may be readily mistaken for a well-know related species on the account of close resemblance especially in size, shape and colour of the body. *A. powelli* is easily mistaken for *M. cornutus* and *C. occidentalis* for *Cuclotogaster heterographus*, if seen.

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SUMMARY

In the course of examination of 620 grey-breasted helmet guineafowl (*Numida meleagris galeata*) from various parts of Northern Nigeria, two species of lice namely *Amyrsidea powelli* and *Cuclotogaster occidentalis*, hitherto unreported from these birds were recovered. *A. powelli* was present in 78 p. 100 of birds, reaching pathogenic proportions on occasions while *C. occidentalis* was present in 17 p. 100 with all infestations being low.

RESUMEN

La pintada (*Numida meleagris galeata*) nuevo huesped de *Amyrsidea powelli* (Bedford 1920) y de *Cuclotogaster occidentalis* (Tendeiro 1954)

La observación de 620 pintadas (*Numida meleagris galeata*) originarias del norte de Nigeria permitió descubrir dos tipos de piojos *Amyrsidea powelli* y *Cuclotogaster occidentalis* no encontrados todavía en dicha especie. El primer tipo infesta 78 p. 100 de las aves y el segundo 17 p. 100.

BIBLIOGRAPHIE

1. BEDFORD (G. A. H.). Anoplura from south african hosts. Part 2. 7th and 8th Rep. Dir. Vet. Res. Un. S. Afr., 1920, p. 708-734.
2. BEDFORD (G. A. H.). Anoplura (Siphunculata and Mallophaga) from south african hosts. 16th Rep. Dir. Vet. Serv. Un. S. Afr., 1929, p. 153-173.
3. BEDFORD (G. A. H.). A synoptic check-list and host-list of the ectoparasites found on south african mammalia, aves and reptila, 2nd ed. 18th Rep. Dir. Vet. Serv. Anim. Ind. Un. S. Afr., 1932, p. 223-523.
4. FABIYI (J. P.). The occurrence of *Cuclotogaster occidentalis* and *Amyrsidea* sp. *powelli* group (Mallophaga ; insecta) on the domestic fowl in the Vom area of Benue-Plateau, State Nigeria, *Vet. Rec.*, 1972, **91** : 198.
5. TENDEIRO (J.). Malofagos da Guine Portuguesa. Estudos sobre diversos malofagos dos galliformes guineensis : *Boln Cultural Guinea Portuguesa*, 1954, **9** (33) : 134.