

212
ad 23982

8441

PRELIMINARY REPORT OF THE
UNIVERSITY OF MANCHESTER SHIRA PLATEAU EXPEDITION 1986.

R.F. SHORE and S.J. PICKLES, 1986.

Introduction.

This preliminary report is a concise account of the activities of the University of Manchester Shira Plateau Expedition while in Tanzania, East Africa. The progress of the expedition in dealing with administration in Tanzania, transportation, medical problems and biological fieldwork on the Shira Plateau, Mt. Kilimanjaro, are described. Additional expedition activities in Tanzania are also reported.

Initial administration.

Stephen Garbett and Simon Pickles arrived in Dar es Salaam, Tanzania on 28th June 1986, one week in advance of the remainder of the expedition. They obtained final research clearance papers from the Scientific Research Council and the Ministry for Resources and Tourism. Additionally, they purchased train tickets, supplies, and finalised arrangements for Boniface Mhoro, a Botany technician from the University of Dar es Salaam, to accompany us. His assistance proved invaluable.

Travel to The Shira Plateau.

The expedition travelled overnight by rail to Moshi and from there by hired landrover to Arusha. Details with the National Parks Office in Arusha were finalised and a Park Ranger, Willbrody Awe, seconded to the expedition as a guide. On the 12th July, the expedition travelled in two landrovers up to the Shira Plateau, entering the National Park by the Londorossi Gate, and established a campsite at 3500 metres where the Shira track crossed the Simba River.

Biological Fieldwork.

a. Botanical studies.

The giant groundsel Dendrosenecio johnstonii was found to be restricted to certain river gorges on the plateau. These areas were botanically surveyed with special reference to the ecological factors affecting this species. Random quadrats and belt transects were used to assess various botanical and environmental features. As part of her undergraduate research project, Mandy Tyson continued with the study and investigated the geographical factors which may influence the growth and reproductive success of D. johnstonii.

The regeneration of Philippia trinera after burning was also studied.



842

In each burn area, the date of the fire was estimated by the extent of lichen regrowth, annular growth rings and the concentration of nitrogenous compounds in the soil. The regeneration communities were characterised by carrying out a series of random quantitative quadrats and by measuring the regrowth of Phillipia from stumps and seedlings.

Herbarium collections of the Shira Plateau flora were made. Copies have been donated to the Universities of Dar es Salaam and Manchester, the National Herbarium of Tanzania and the Botanical Gardens at Kew, London.

b. Zoological studies.

Small mammal populations were dead trapped in three habitats on the Shira Plateau, each area being trapped for five consecutive days. The flora of each habitat was described and the amount of cover available to rodents recorded. All specimens captured were examined and various biometric measurements made. Two duplicate collections of rodent skins and skulls were made for Museum collections in Tanzania and the United Kingdom. Gonadal material from trapped animals was fixed for later cytological screening and gut contents were preserved for parasitological studies by Dr. Jim Parkin of the University of Dar es Salaam.

A census of all bird species observed on the Plateau was also carried out and any carnivore faeces found were collected for subsequent examination of the contents. Some general collecting of lizards, invertebrates and skeletal remains was completed for Dr. Kim Howell of the University of Dar es Salaam.

Medical Problems.

Paul Sainsbury collapsed on the plateau during the first week on the mountain. He was evacuated by landrover to Arusha and then by air to Dar es Salaam. The medical diagnosis was exhaustion and subsequent tests indicated viral and bacterial infections. He was advised by doctors to return to the U.K. for treatment and so withdrew from the expedition. He has now fully recovered. No other serious medical problems arose.

Additional activities.

Three days were spent climbing Mount Kilimanjaro by the Shira route, overnight camps being made at Arrow Glacier hut on both the ascent and descent. The hut has been destroyed and is not currently of use to climbers.

Upon completing the fieldwork, the expedition undertook a four day safari to Ngorongoro Crater Conservation Area, Lake Manyara and Tarangire National Park.

Studies in Dar es Salaam.

The expedition returned to Dar es Salaam University and spent a week

working on fieldwork specimens. Material to be transported to the U.K. was packed for later shipment and collections made for the University of Dar es Salaam were distributed to academic staff. Seminars were given describing the work carried out and the "field phase" of the expedition was declared concluded on August 23rd.

Concluding Work In The United Kingdom.

Data accumulated from the botanical studies are undergoing computer analysis and the herbarium collection is being shipped back to the U.K. The rodent skin and skull collection have been donated to the British Museum (Natural History) for confirmation on species identification. It is hoped that a member of the Museum staff will examine the carnivore faecal material. The cytological studies on the fixed plant and animal tissues have yet to be completed.

Report and Publications.

A full expedition report will be produced during the next six months and will contain an acknowledgement of all the expedition sponsors. Papers describing the results of both botanical and zoological projects are in preparation.

Contact Address.

Richard Shore.
Department of Environmental Biology, University of Manchester,
Oxford Road, Manchester. M13 9PL. United Kingdom.