Jarvis,M.J.F., Siegfried,W.R., & Currie, M.H.(1973) Conservation of the Cape Vulture in the Cape Province. Symposium on Wildlife conservation and Utilization in Africa, Southern African Wildlife Management Association, Pretoria, 4-8 June, 1973. Paper Number 3:1-7.

Mclachlan,G.R., & Liversidge, R. (1970) Roberts Birds of South Africa. Cape Town, Central News Agency.

Mundy, P.J. (1973) On the Cape and White-backed Vultures. Honeyguide Number 76 (in press).

Sauer, E.G.F. (1973) Notes on the behaviour of Lappet-faced Vultures and Cape Vultures in the Namib Desert of South West Africa. Madoqua ser.2 vol.2: 43-62.

VULTURE RINGING IN THE KRUGER NATIONAL PARK

By: V.de Vos,
State Veterinarian,
Skukuza,
Kruger National Park.

The decimating effects of anthrax in wild animal populations of the Kruger National Park (K.N.P.) was dramatically demonstrated during the 1959, 1960, 1962 and 1970 anthrax epizootics. During these outbreaks a minimum of 1532 animals, representing 22 species was found to have succumbed to the disease. This figure includes 83 roan antelope, a notoriously rare species in South Africa. This represents a fair proportion of the estimated 250 odd roan antelope for the K.N.P. and 300 to 350 total for the Republic of South Africa.

By virtue of a regular incidence and seasonal occurrence, the Pafuri area of the K.N.P. has already attained the reputation of being an enzootic anthrax region. The disease sporadically spreads from the lower lying Pafuri area onto adjoining regions to set up foci of infection which may flare up as epizootics, such as happened during 1970. The rest of the K.N.P., therefore, is exposed to the constant and dreaded threat of anthrax. A research programme was subsequently initiated with the object, inter alia, of devising practical and effective methods to curb the spread of the disease to neighbouring and maybe more distant areas in the K.N.P.

The probable ways and distance of dissemination from an infected focus,therefore, had to be determined. As vultures have acquired the disreputable reputation as one of the chief distributors of the disease, at least a part of the research programme had to be directed to them and their activities.

Evidence which has been accumulated seems to point to vultures as one of the chief disseminators of Bacillus anthracis organisms during anthrax epizootics in the K.N.P. Vultures were observed to visit watering places immediately after gorging themselves on dead animals, in order to bathe and/or drink. Here they invariable commence washing off the gore adhering to their feathers and also sometimes vomit excess ingesta into the water or along the edges, thereby forming prolific mechanical means of transmission. Presum-

ably in this manner a large number of natural waterholes as well as drinking troughs, situated at windmills and artificial dams, have become infected during previous outbreaks of the disease.

The excreta of vultures have also been shown to contain anthrax spores which pass untouched through their digestive tracts without the carrier host being adversely affected. This is most probably another important means of infecting the environment in the K.N.P.

Therefore it became imperative to gainsay or confirm these theories under local conditions and to study the movement patterns of the vultures that frequent the Pafuri anthrax region. With this objective in mind "operation vulture capture" was initiated. Specimens for later bacteriological examination, with special reference to anthrax isolation, were collected from each bird. At the same time ringing was done and openings or windows cut in the wing feathers for ground to air observations.

Birds were caught by means of nylon loop snares which were tied to a metal and wire grid as shown in the photograph above. Grids with snares were now placed on two sides of the bait (carrion) and camouflage attempted with soil and grass. With a heightening of activity around a spot, the birds seemed to become wary after a while and the catching spots had to be shifted regularly. To minimize losses of bait, which were not freely available, through the nocturnal forays of scavengers, the bait and traps had to be removed at night. Lions also constituted a problem in the sense that on four occasions they appropriated the bait during daytime. In one instance a snared vulture was found dead after a visit from a lion. It was badly bruised and probably received a clout from the visitor.

Very little difficulty was encountered in handling the captured vultures. As soon as a light tarpaulin was slung over a bird, it calmed down immediately. Once held it could be weighed, measured

and specimens could be collected for bacteriological examinations without any difficulty.

Catching and ringing started on a very small scale in July, 1972 and after a year a total of 32 vultures was ringed. The project has already proved to be rewarding with a number of ground to air sightings being recorded within the first three-months period after capture. All of these have been local observations within a 50 mile radius from the capture site. No ring recoveries have been recorded to date.

Although difficulties were encountered, the catching procedure was found satisfactory and will be used with a few minor alterations in the coming year. However, suggestions on the catching technique, from readers of SAFRING News will be most welcome.

THE ANALYSIS OF RINGING AND RETRAP DATA

Part II: Longevity

By: S.E.Piper,
P.O.Box 309,
Honeydew, Tvl.

Introduction

A start was made in the previous article in this series, SAFRING News 2 : 12-16, on the preliminary analysis of ringing and retrap data. As before the example used is the African Marsh Warbler Acrocephalus baeticatus. In this article I will consider the problem of estimating longevity from ringing data. The data consist of the combined results of two geographically close populations at Melrose Dam and Rosherville Dam, both on the Central Witwatersrand. As before I am grateful to the former W.B.C. Branch Ringing Organiser Des Hewitt, for collecting and collating the data.

Methods and Results

Very little is known of the potential or actual lifespans of most insectivorous passerines. The elapsed time between the first and last captures is shown in Table 1 and Fig.1. A duration of zero means that the bird was handled once only, i.e. it was never recaptured or recovered.

Interpretation

From either Fig.1 or Table 1 it is possible to see that the maximum duration between first and last captures is approximately eight years, (in fact it is 3 045 days, i.e. eight and one-third years.)

If we include those caught once only the mean duration between first and last captures is 450 days (i.e. 1.22 years). If those caught once are excluded then the mean duration is 502 days (i.e. 1.38 years).

Now it should be fairly obvious that if birds are caught in a purely random manner then the above method for estimating their mean and maximum lifespans will underestimate the true values. If the birds are initially caught in some post-fledgling stage of develop-