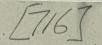
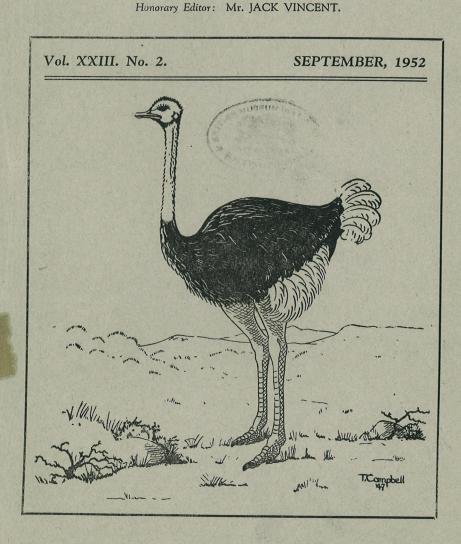
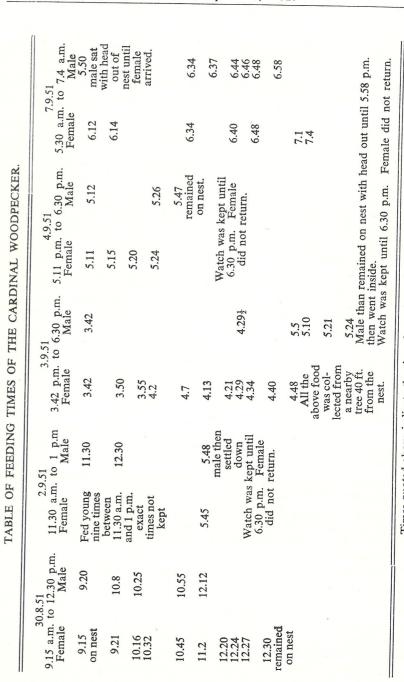
W. BuEtiker.



THE OSTRICH

THE MEDIUM OF RECORDS OF MEMBERS
OF THE
SOUTH AFRICAN ORNITHOLOGICAL SOCIETY





Times quoted above indicate the time the male or female arrived with food.

METHODS OF COLLECTING PARASITES OF BIRDS.

By W. Buttiker, D.Sc., Dipl.Rer.Nat., M.S.A.O.S.

It is intended to describe some of the most common and useful methods of collecting parasites of birds. The progress of this special branch of parasitology, the ecto- and endo-parasites, is gaining increasing interest for many ornithologists. The collaboration between ornithologists and parasitologists has resulted in many new species of mites, mallophaga, diptera etc. being described. The author of this dissertation would be very pleased to contact any ornithologists willing to help collect any of the various parasites.

I. COLLECTING.

- (1) In the nests mites, fleas, bugs and diptera in particular may be found. Soil nests especially contain many specimens of the above-mentioned groups of parasites. To collect the small mites, it is advisable to use the so-called Berlese apparatus which acts on the principle that mites are lucifugus organisms.
- (2) Mallophaga may be traced easily in the plumage of living birds. They prefer certain areas of the host (wings, neck, tail etc.). The Hippoposadae (Diptera) also have the habit of generally living in the plumage, for example junction of wings and the neck. Some particular species of Mallophaga and mites live in the shaft of the feather or in the beak of Cormorants and Pelicans.

Dusting birds, mainly heavily infested living birds, with insecticides (DDT 5%) gives good results. After only a few minutes it is possible to collect the parasites on a sheet of white filter paper.

Adults of mallophaga can be collected individually with forceps, small larvae with a brush moistened with alcohol (70%).

Sucking ticks on birds should be treated with paraffin; it is necessary therefore to wait some minutes before collecting the specimens. It is most important to get the mouth parts complete and undamaged to aid in classification.

- (3) When dealing with newly killed birds it is advisable to look for the parasites as soon as possible. According to Hopkins it is best to place the birds immediately in a light bag (paper or cloth). Close the bag carefully and put it in an airtight container containing chloroform gas. After half an hour collect the parasites from the bag and shake the bird. The latter process may be followed by stroking the feathers from the tail towards the head.
- (4) Skinned birds have to be shaken carefully over a sheet of white paper.

II. LABELLING.

(1) The collected parasites are only of value if all the data are correctly recorded. The species of the host is one of the most important facts for a successful classification of the parasite. Give full particulars of the locality, date, collector of the bird and the number of the museum classification. State also if there was the possibility of contamination by contact with other specimens, or with other species of birds.

It is of interest to indicate particulars about the nest (size, age, etc.) and whether situated in trees, crevices or among rocks.

If the parasites are from a zoological garden, please state the species of all animals that may have acted as a primary host.

III. KILLING.

It is advisable to immerse (bottle) most parasites in 70% alcohol. For Ixodidae and Mites acetic acid is a suitable medium. Dipterous larvae have to be killed by immersion in boiling water. When dead, transfer the specimens to 70% alcohol or a mixture of formalin and picric acid.

IV. TRANSPORT.

Specimens may be sent in glass tubes carefully packed into boxes or tins with the aid of cotton wool. Corrugated cardboard is useful for small packages. Rigorously avoid bottling parasites from various hosts in one tube.

(The author's address is: 25 Causeway, Salisbury, S. Rhodesia.—Hon. Editor.)

