

THE ROLE PLAYED BY WILD CARNIVORES IN THE EPIDEMIOLOGY
OF BOVINE CYSTICERCOSIS IN KENYA.

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SUMMARY

The incidence of cysticercosis in cattle in Kenya is very high. Meat inspection figures from annual reports of the Kenya Meat Commission (1961 - 1971) show that 22.8% of 1,302,136 cattle slaughtered at the Athi River abattoir during that period were infested with Cysticercus bovis. The total losses incurred each year from condemnation and downgrading of carcasses including freezing, are very high.

The object of this work was to find out the role played by wild carnivores in the epidemiology of bovine cysticercosis in Kenya.

The first part of the work was a field survey planned to establish the incidence of cysts with hooked scolices which originate from wild carnivore cestodes, in cattle from selected study areas. Areas selected for the purpose of this study were those within or neighbouring National Parks and Game Reserves as well as Game Conservation Areas and open range, where there is a close inter-relationship between game animals and domestic livestock.

Cysts were collected from cattle in slaughterhouses and processed for examination using two different methods, namely, treatment with glycerin-alcohol and evagination technic.

The results show that out of a total of 3,584 individual cysts examined from 524 bovine carcasses, no cyst with a hooked scolex was recovered.

The second part was a laboratory experiment designed to confirm results from surveys. In this experiment, artificial infection trials were carried out in young calves using Taenia eggs recovered from a lion tapeworm.

Two of the experimental calves died too early for any cysts resulting from the artificial infection to have developed, but even then no cysts were detected at necropsy in the remaining two calves which survived 11 and 21 days after infection, respectively.

Three theories are advanced in an attempt to explain the apparent low incidence of cysts of wild carnivore origin in Kenya cattle. One of the theories is low exposure of the susceptible age group (calves) to Taenia eggs of wild carnivore origin. These calves are exposed to T. saginata eggs within a few hours of birth. The second theory is the possible rapid loss of viability of eggs from wild carnivore cestodes in the dry range areas of the country where the interaction of game animals and domestic stock is often encountered. The third theory on which more weight is put, is that cattle

may have a high degree of innate resistance to infection with Taenia eggs of wild carnivore origin.

From the results of both the field survey and the laboratory experiment, a conclusion was drawn that wild carnivores probably do not play any significant role in the epidemiology of bovine cysticercosis in Kenya.