

Notes on Acalypterates (Diptera) as pest of Cattle

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Introduction

Non-blood sucking pest of animals are relatively unknown. It includes eye frequenting Lepidoptera (Banziger and Buttiker 1969), Midges, mayflies and Caddishflies (Jamnback 1969). Nuisance is created by the large swarms and annoying entry into eye, nose, and host body landing. In few cases blood has been detected in stomach (Banziger and Buttiker 1969). Acalypterates have muscoid type of mouth part but this is the first reported observation as pest of cattle.

Observation

Swarms of flies were first observed on twenty-two zebu white cattle at Yelwa range in a savanna woodland of Nigeria. The rangeland with an area of 40 km² was developed by the Kainji Lake Research Institute, Nigeria as a demonstra-

tion scheme for pastoral fulani cattle. The flies were seen before sun-set towards the end of dry season. The nuisance created included entry into eye, irritating landing on host skin resulting in restlessness, foot stamping, body twitching, head and tail shaking. Most attracted cattle were those with injury spots and crustation on skin following tick infestation and Dermatophilosis. Initially it was assumed the flies were sandflies because of their small, blackish nature. However, samples were collected by suction of those frequenting the face, and a sweep net for those resting on the rest of the body into 70% alcohol.

Result

Three groups of flies were identified from collections based on landing observation (Table 1).

Table 1: Species of Acalypterates attacking cattle

Sub-family		Predilection site
Chloropidae	• <i>Lageroceras anomalum</i> Lamb	Face, eye and ear
	• <i>Elachiptera Ugandae</i> Sabrosky	" " " "
Milichiidae	<i>Leptometopa Coquillett</i> : Hendel	Abdomen, dewlap, neck, brisket
	<i>Desmometopa inaurata</i> Lamb	Injury spot, abdomen, brisket, dwlap, neck
Lonchaeidae	<i>Lonchaea sp. impressifron</i> group	Flies around animal for prolonged period with no observable landing

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Discussion

Acalypterates are higher Dipterae considered non-blood sucking except *Carnus hemapterus* Nitzsch (Milichiidae) in birds (Borror *et al.* 1976) but many are attracted to sweat, exudate and carbon dioxide from animal.

The landing of *Lageroceras anomalum* and *Elachiptera Ugandae* on face and eye of cattle is to imbibe lachrymal secretion. The crawling and probing action irritates the eye resulting in several head shakings to get rid of pest. Injury spots

on tick infestation and dermatophilosis produce exudations attracted to *Leptometopa Conquilletti*, *Desmomespa inaurata*. Also the several annoying landings, head and tail shakings, muscle twitchings and foot stampings, induces hederosis attracting more flies responsible for the presence of *Lonchae* sp. The large number of flies crawling on the face and body produce considerable

irritation and discomfort in the animal and may have significant effect in productivity of cattle and possible role in mechanical transmission of disease.

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