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**PREVALENCE OF TRYPANASOMOSIS AMONG THE ZEBU CATTLE IN MULANDA
SUB-COUNTY, TORORO DISTRICT**

BY

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UNIVERSITY**

MAY, 2013

DECLARATION

I, **NABULIME LOY** declare that this dissertation is original and has not been submitted for any academic award to any university or any other institution of learning.

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APPROVAL

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DEDICATION

I dedicate this report to my dad, Mr. Kigula Dan and my friend Muyanja Abdallah.friends. May the Almighty God reward you greatly.

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LIST OF ABBREVIATIONS

AAT	African Animal trypanosomosis
SSA	Sub Saharan Africa.
HCT	Haematocrit Centrifuge Technique
DG	Dark Ground
RBCs	Red Blood Cells.
MR	Mister
NaLIRRI	National Livestock Resources Research Institute
Spp	species
NAADs	National Agricultural Advisory Services
PCR	Polymerised Chain Reaction

ABSTRACT

The study was conducted in Mulanda Sub County, Tororo district in eastern Uganda in the month of April in the year 2013, to assess the prevalence of trypanosomosis which is a zoonotic vector borne disease that affects livestock as well as humans and is caused by haemoparasites called trypanosomes. The study considered two species that is *T. congolense* and *T. vivax*. The data was collected from 300 animals in the Sub County taking 100 animals from each of the 3 parish (Mulanda parish, Mwelo parish and Lwala parish). Trypanosomes were detected in whole blood by micro-haematocrit centrifugation and microscopic examination of thin blood smear films was used for trypanosome species identification. Animal age groups of 6 months to 3 years, 4-6 years, 7 - 9 years and above 9 years were considered. The results show an overall prevalence of trypanosome infection is 5% with the highest prevalence observed in animals aged 7-9 years. It can be concluded that the prevalence of *T. vivax* was higher than that of *T. congolense* and also there was no significance of the prevalence trypanosome infection with the age, parishes but there is significance with the PCV. Hence it can be recommended that the farmers should continue using long acting drugs for treating the animals, government should enforce frequent mass treatment in the area and also the government should train the farmers on the prevention measures of trypanosomes as well as their vectors.

CHAPTER ONE: INTRODUCTION

1.1 Back ground

African Animal Trypanosomosis (AAT) is zoonotic disease transmitted by tsetse flies. The vector borne disease is caused by trypanosomes and the major species affecting cattle are *T. congolense*, *T. vivax* and *T. brucei brucei* (Peter, 2011). The above three species are transmitted by tsetse flies of the genus *Glossina* (Andrew *et al.*, 2010).

Trypanosomosis remains a major constraint to the development of livestock in Sub-Saharan Africa (Geerts, 2011) and a big part of Africa is rendered unsuitable for the production of livestock due to the presence of tsetse flies (Murray *et al.*, 1984). Estimates show that about 50 million cattle in Africa are exposed to the disease (Mattioli *et al.*, 2004).

Nearly about 100 years have passed since tsetse and trypanosomosis control efforts came into play and yet tsetse fly distribution has remained the same in some areas and in the others, the tsetse fly belt has stretched to new areas (Okoth, 1999). This has interfered with agricultural as well as rural development. The time has come for the establishment of the current situation of African Animal Trypanosomosis and this research will in particular target the Zebu cattle in Mulanda sub-county, Tororo district. The objective of this study therefore is to assess the prevalence of bovine trypanosomosis among the Zebu cattle in Mulanda sub-county, Tororo district.

1.2 Problem statement

Tsetse fly infestation covers 50% of the whole surface area of Uganda and of the 5.4 million cattle, 2.2 million head are at risk of trypanosomosis (Chizyuka, 1998). These are estimates for the whole country which do not show the real prevalence of various areas in the country. Tororo district is one of the districts with high trypanosomosis risk that has not had the prevalence of the disease assessed. The lack of information about the prevalence of the disease in the various areas of the country has made its control hard. This has led to resurgences of the disease over and over for 100 years ((Okoth, 1999). The continued resurgences of trypanosomosis have resulted into significant economic losses in terms of low productivity of livestock, mortalities, prevention and therapeutic expenses incurred by farmers.

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