DISTRIBUTION OF PLANT PARASITIC NEMATODES ASSOCIATED WITH BANANA CROPS IN TANZANIA

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SUMMARY

Plant parasitic nematodes significantly affect banana production in Tanzania. The general objective of this project is to generating information on occurrence, abundance, diversity and distribution of nematodes in banana-growing regions useful in development of management strategies for nematodes.

INTRODUCTION

- Banana is one of the major food crops in Tanzania and about 30% of the population depend on it
- However, the yield is low due to many factors including plant parasitic nematodes (PPN)
- PPN invade and destroy roots of banana and in severe cases resulting in falling of plants
- **Specific Objective:** To establish the geographical distribution of the key PPN of banana in major banana-growing areas of Tanzania.

Fig. 1:Nematode and effects on banana plants and roots

MATERIALS AND METHODS

- Survey was conducted in 4 agro-ecological zones comprising 10 major banana growing regions of Tanzania .
- Soil, roots and geographical data were collected.
- Nematode incidence was assessed before identification and counting of nematodes.
- The information was used to generate nematodes distribution Maps.

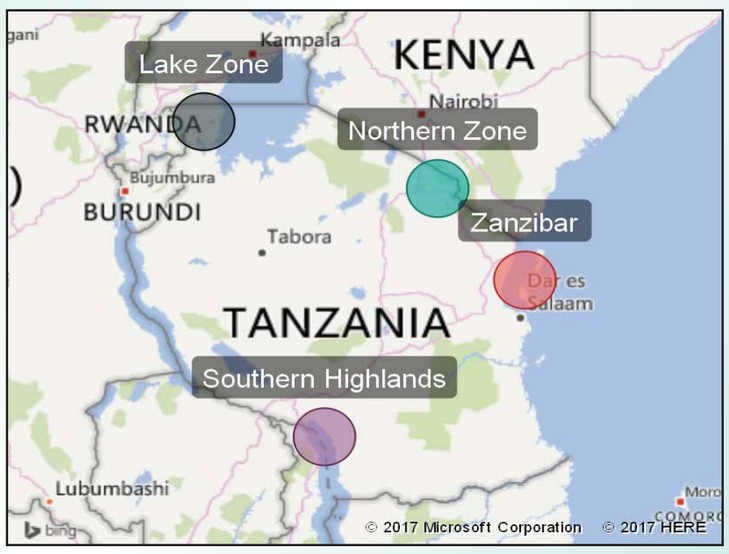

Fig. 2: Agro-ecological zones sampled. BLACK: Lake Zone; PUPLE: Southern Highlands; GREEN: Northen Zone; RED: Zanzibar

RESULTS

Nematodes Distribution and abundancy by zone in Tanzania

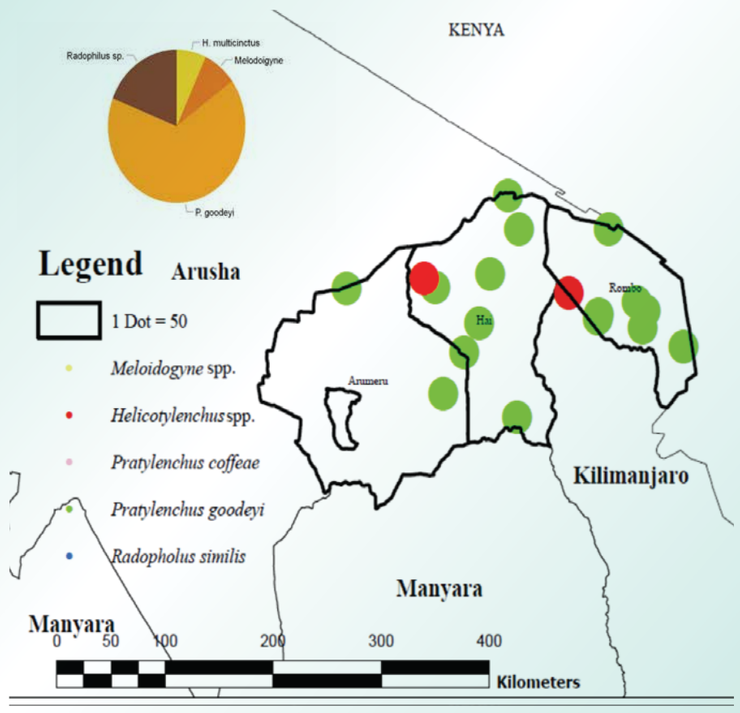

Fig. 3: Nematode distribution-Northern Zone

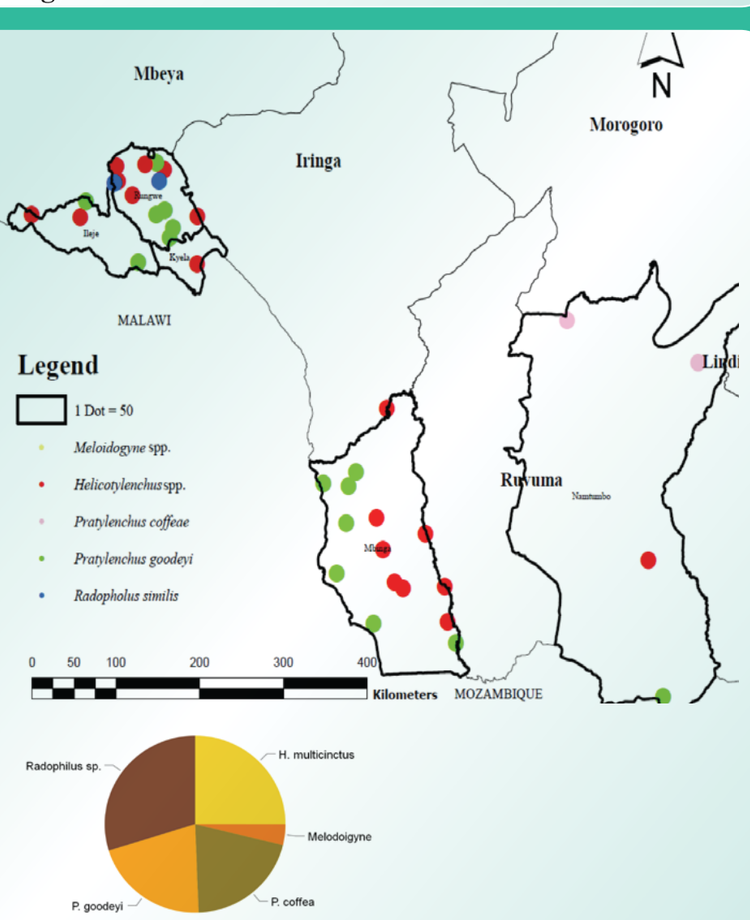

Fig. 4: Nematode distribution-Southern highlands

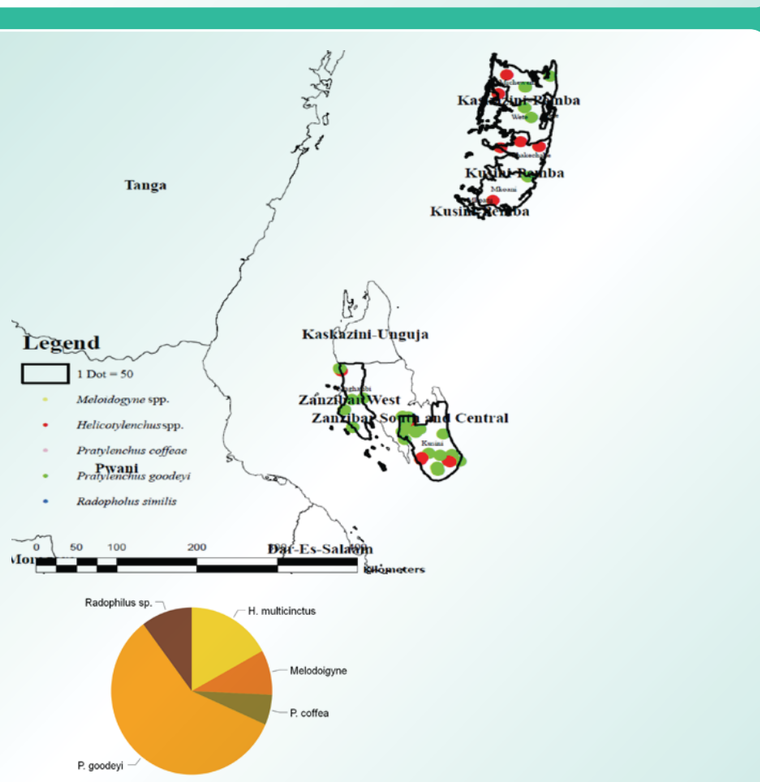

Fig.5: Nematode distribution-Zanzibar

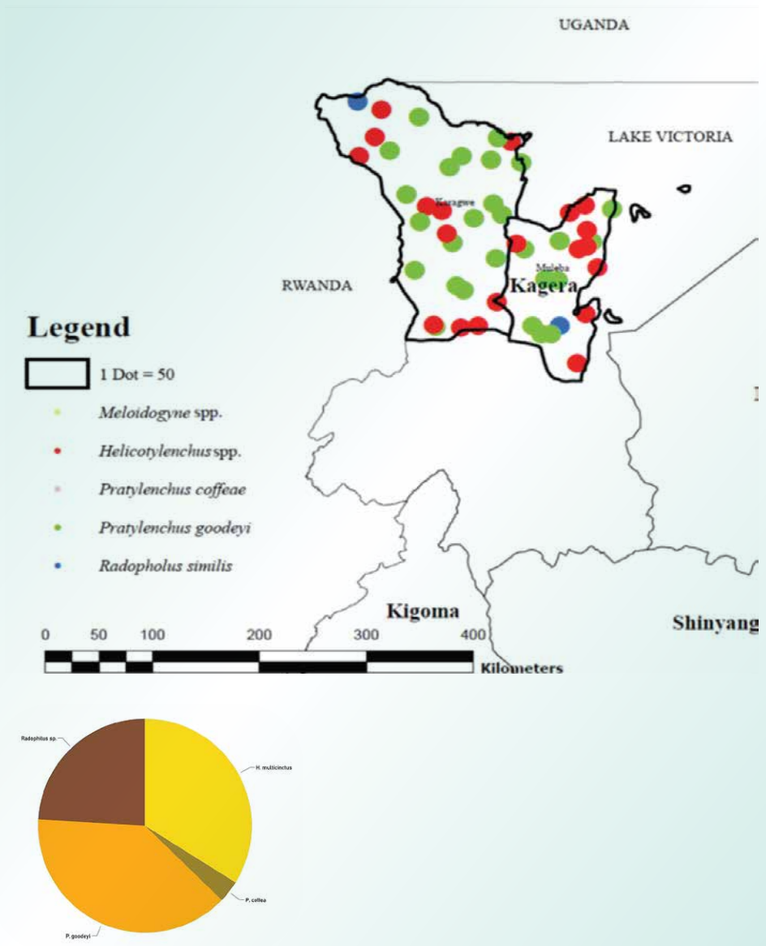

Fig.6: Nematode distribution-Lake Zone

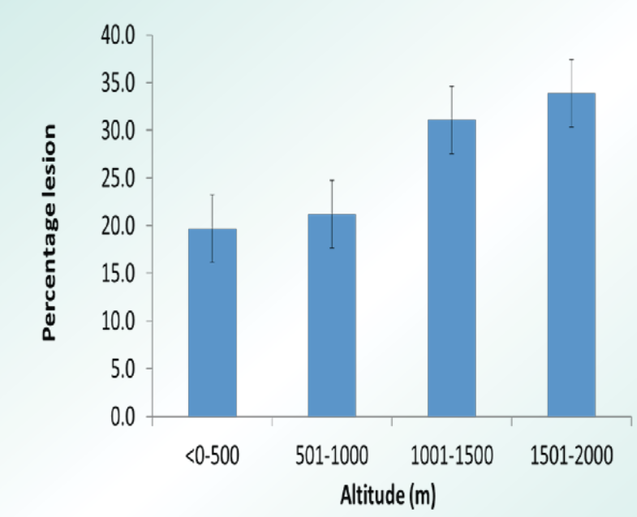

Fig.7: Percentage root lesions recorded at various altitude ranges

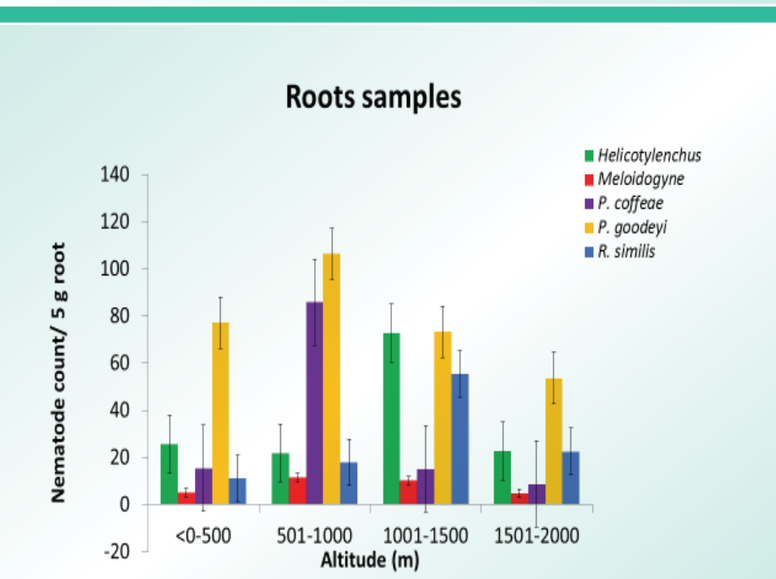

Fig. 8: Nematode abundancy in different altitude ranges

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