

# CHARACTERISING INVASIVENESS THROUGH A DESCRIPTIVE STUDY OF GUINEA GRASS GROWING IN THREE HABITAT TYPES AND DIFFERING HERBIVORE ASSEMBLAGES IN BOTH KENYA AND TEXAS

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## Introduction

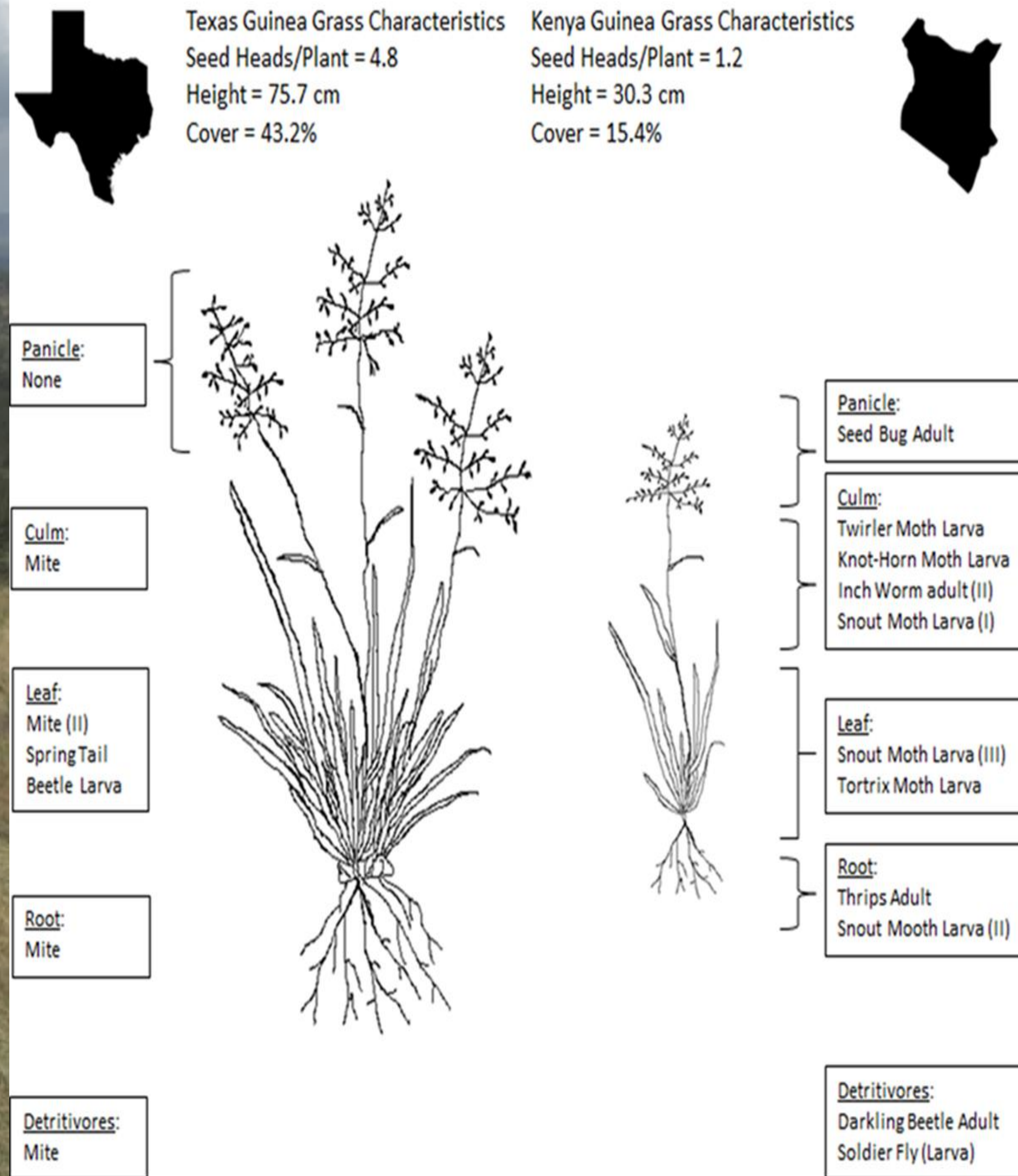
- Guinea grass (*Megathyrsus maximus*), is an important pasture grass that has been introduced pan tropically, escaped cultivation, and subsequently become naturalized.
- It has invaded native rangelands, displacing native species locally, resulting to major transformations of these ecosystems.

## Objective

- Our Objective was to test herbivore associates and functional traits in the invaded and native range under three habitat types-Under woody legumes, in open grasslands and in riparian habitats.

**Figure 1:** Comparison of Guinea grass growth and arthropod associates of “little” Guinea grass in Kenya and Texas. The sketch represents differences in tuft size and seed head counts. Boxes show counts of mophospecies

## Results



## Discussion

Texas Guinea grass was 50% taller than Kenyan guinea grass under woody legumes and in open grasslands, but was the same size in riparian habitats. Texas Guinea grass, occupied 50% more area and was most abundant under woody legumes, across all habitat types sampled. The arthropod diversity in Kenya was 2.5 fold more than in Texas. The ungulate diversity in Texas, is lower than in Kenya.

## Summary

Guinea grass in its introduced range, has escaped a rich assembly of both arthropods and ungulates. The lack of natural enemies may influence the observed pattern of growth and establishment in the introduced range. Among the mechanisms that make it possible for Guinea grass to escape cultivation and become naturalized in its introduced range, may be explained by resource-environment- herbivory, interaction.



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