

# Effects of bovine tuberculosis and gastrointestinal parasite infections on African buffalo (*Syncerus caffer*) activity budgets

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# Aim

- To highlight the effects of bTB and other ecological factors on buffalo



## Issue to address:

- BTB and GI parasites impact on buffalo behavioural choices
- By investigating effects of these two parasitic infections on buffalo activity budgets



# Predictions

- bTB positive buffalo are less active than bTB negative ones
- Co-infection exacerbates the effects of bTB on activity budgets

# Methods

- Buffalo capture and bTB survey

Immobilization

Branding

bTB skin test



# Methods

- Direct faecal sample collection



# Methods

- Faecal egg count



Ezenwa (2003)

# Methods

## Behavioural observations

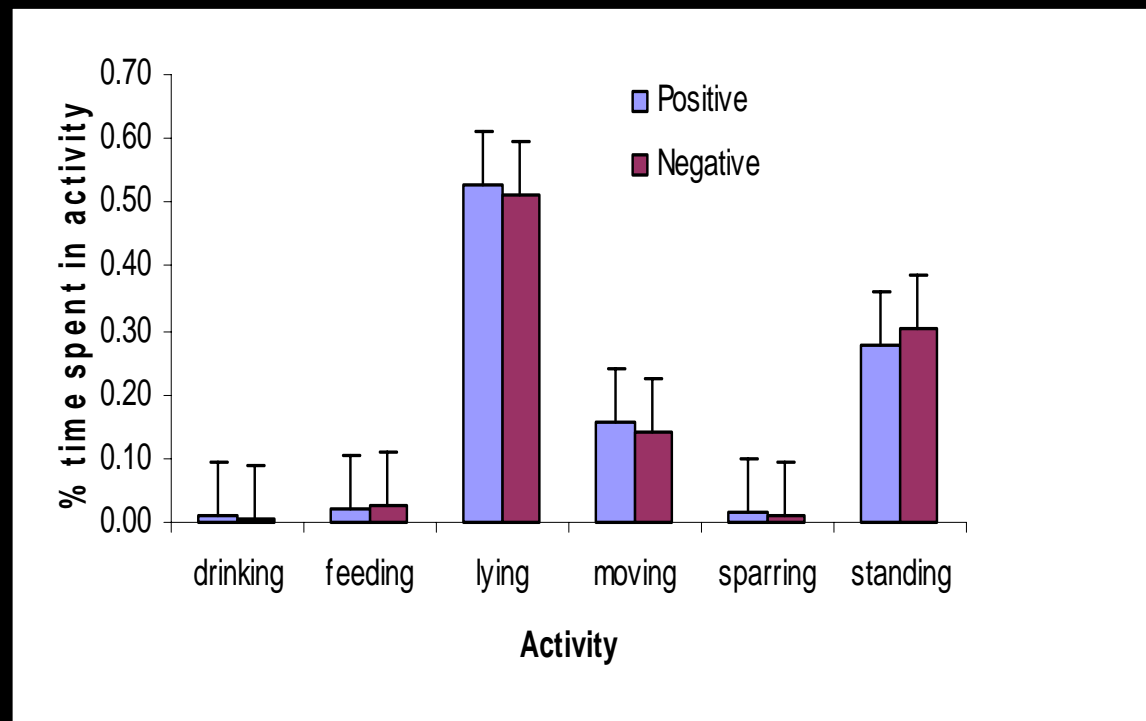
- Ten minute scans (Altmann, 1974)

## Data analysis

- Proportion of time devoted per activity calculated

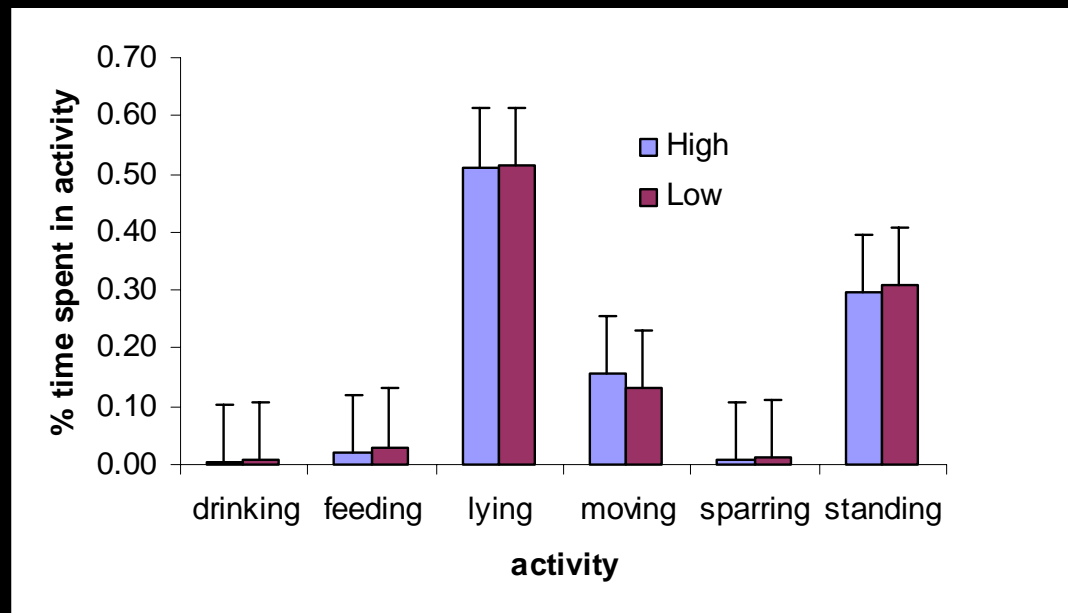
# Preliminary results

- Proportion of time spent on different activities by buffalo with different bTB status (Means with SE)



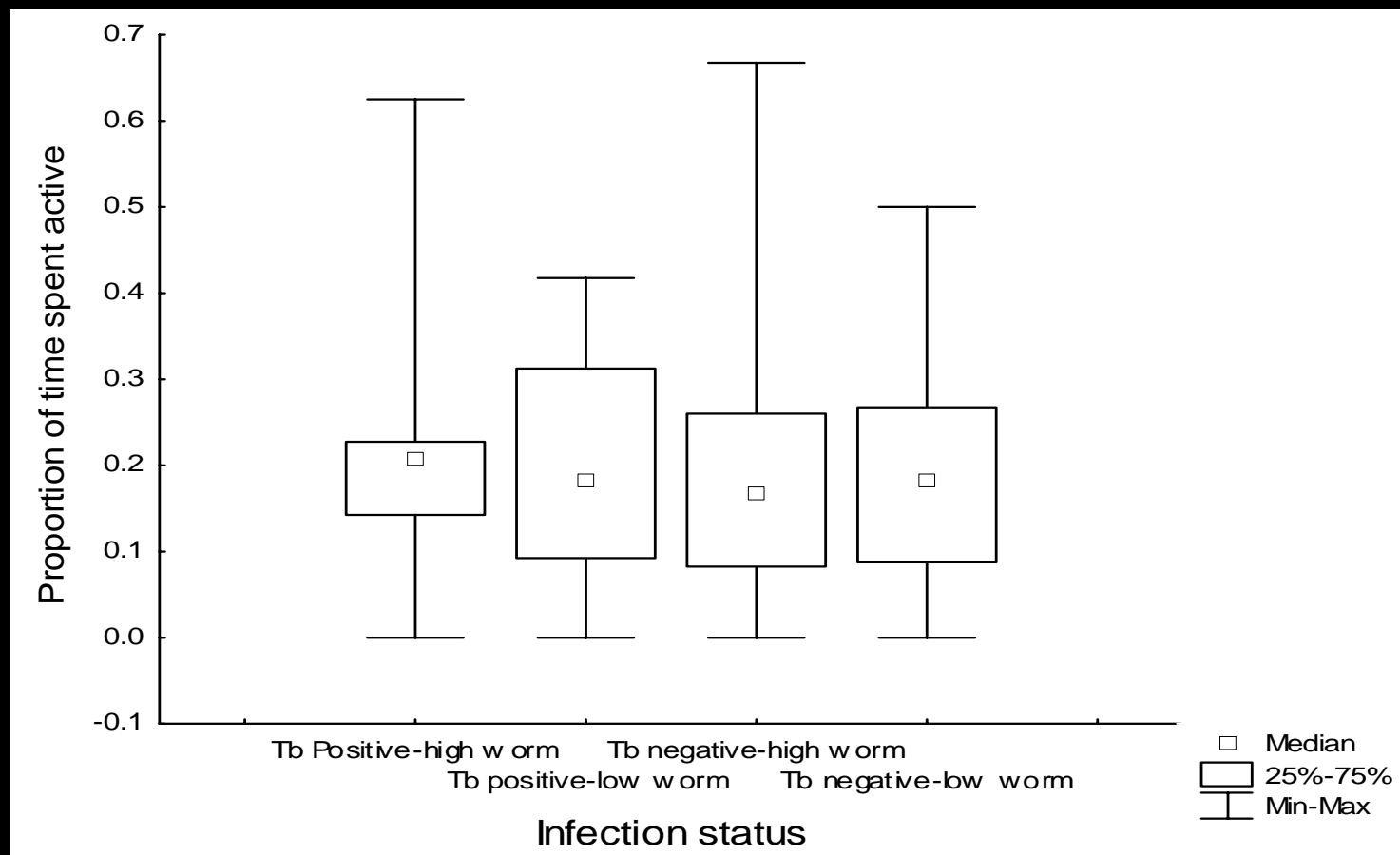
# Preliminary results

- Proportion of time spent on different activities by buffalo with different GI parasite load (Means with SE)



# Preliminary results

Differences in time spent active by buffalo with different infection status



# Preliminary results

- General linear model (ANOVA) to test for affects
- no association between bTB status, GI parasite load and activity budgets was found

# Summary

- Neither bTB infection nor GI parasite load is associated with activity budget.
- Results in contrast with expectations
- No conclusions can be drawn from these results – research in progress.

Thank you