



Are bats and rodents reservoirs of emerging zoonotic diseases?



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Introduction

• Bats and rodents are known reservoirs for zoonotic diseases:
Rabies, Ebola virus and *Leptospira*

Objectives

Screening blood smears from bats and rodents for zoonotic pathogens.

Justification

Emerging zoonotic disease may come from bats and rodents.

Sample analysis Parasitology

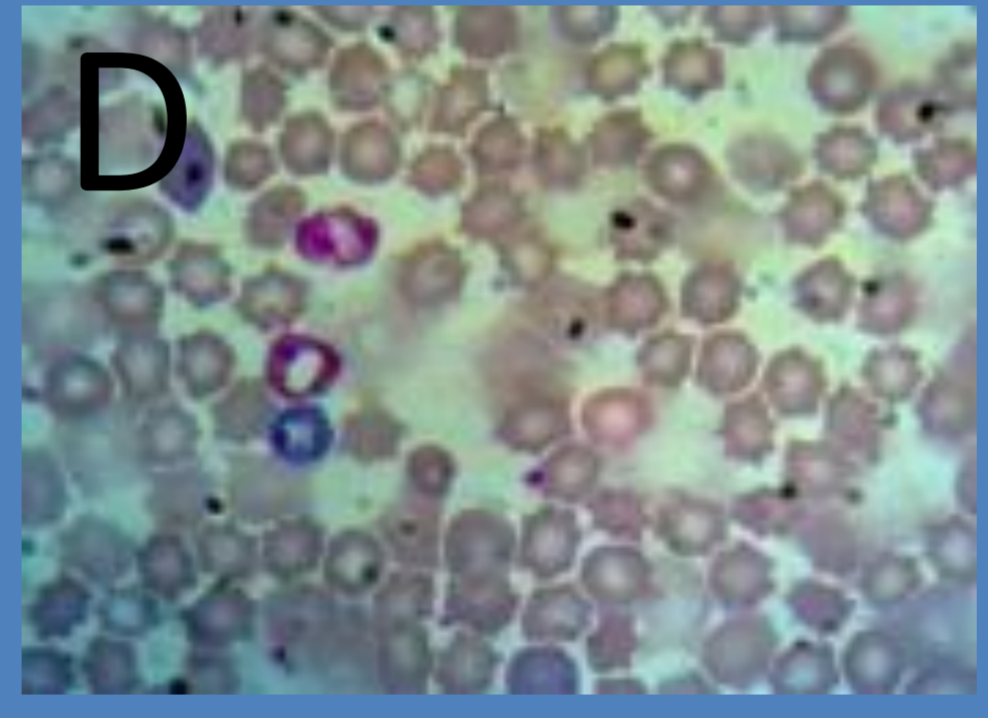
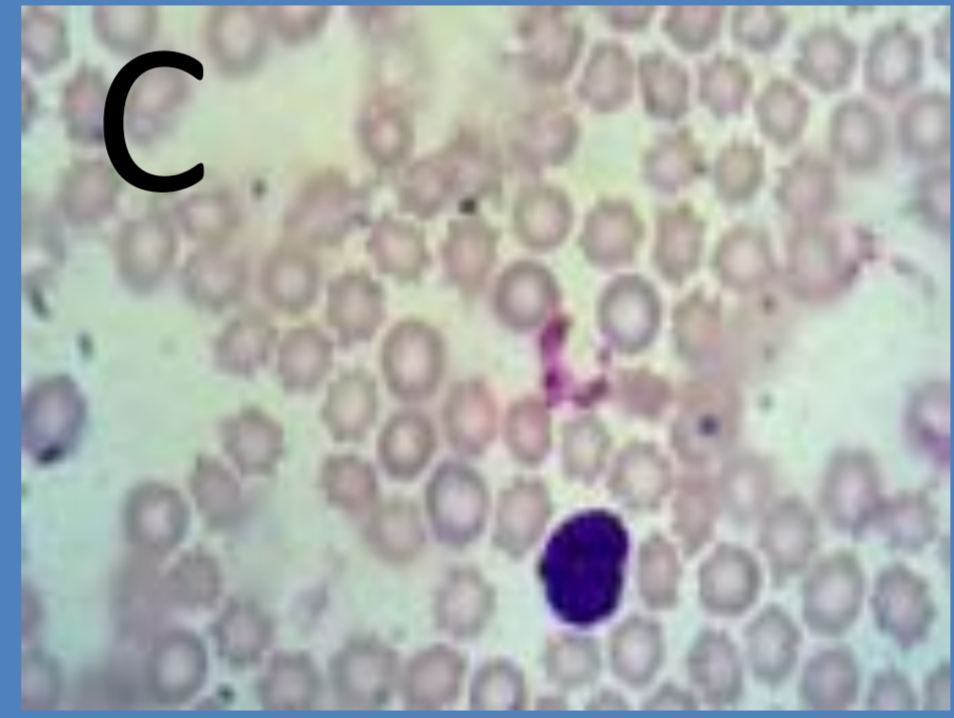
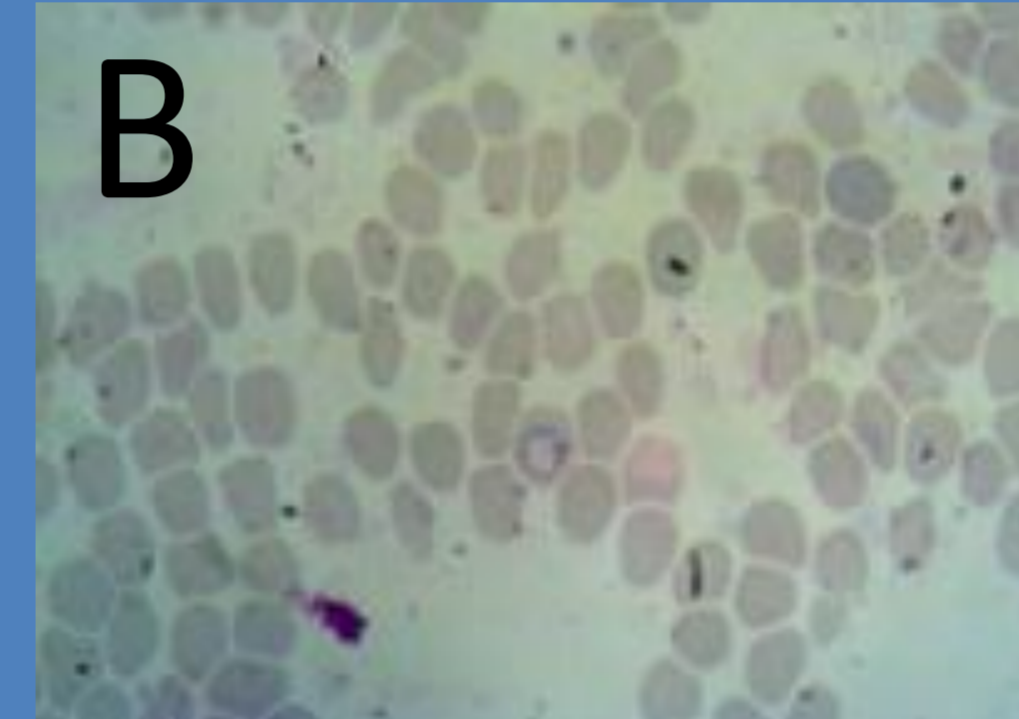
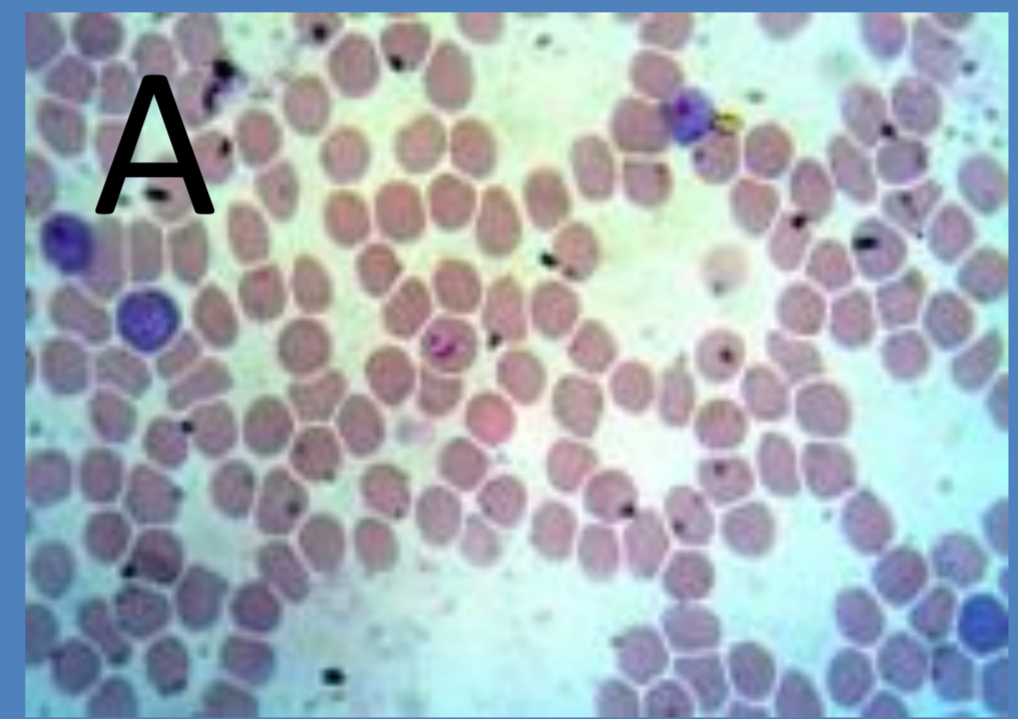


Figure A -D: *Haemosporidia* sp

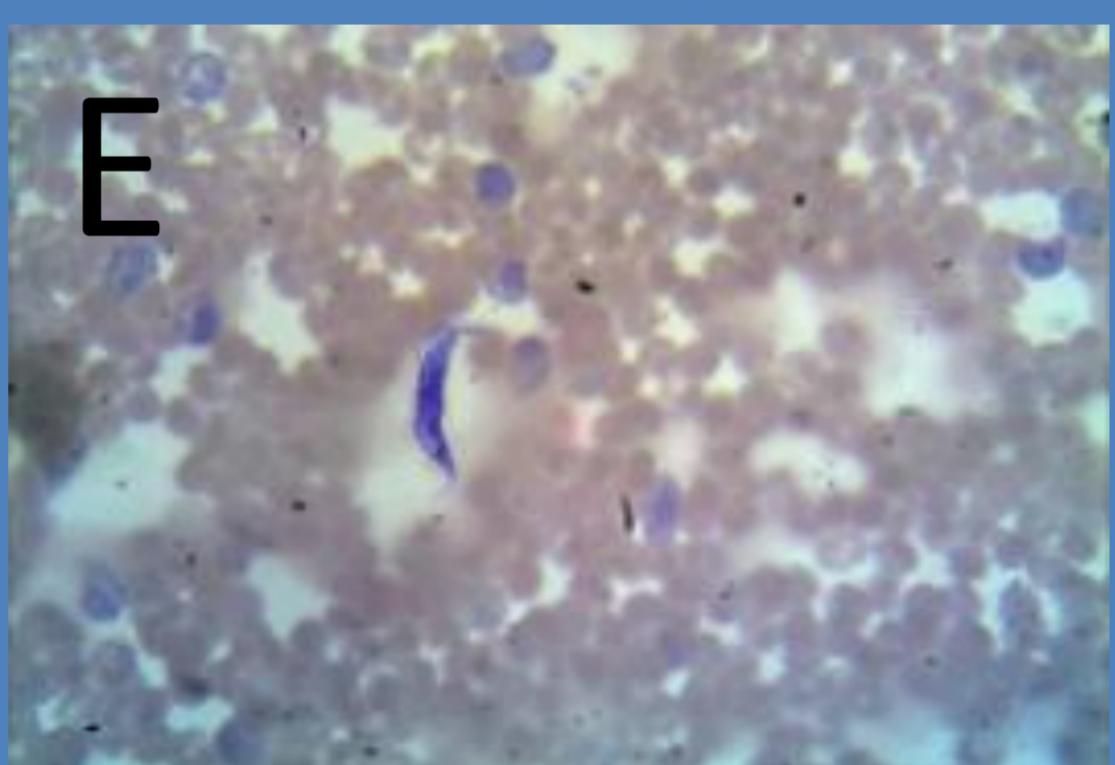


Figure E: *Trypanosome* sp from *Scotoecus*



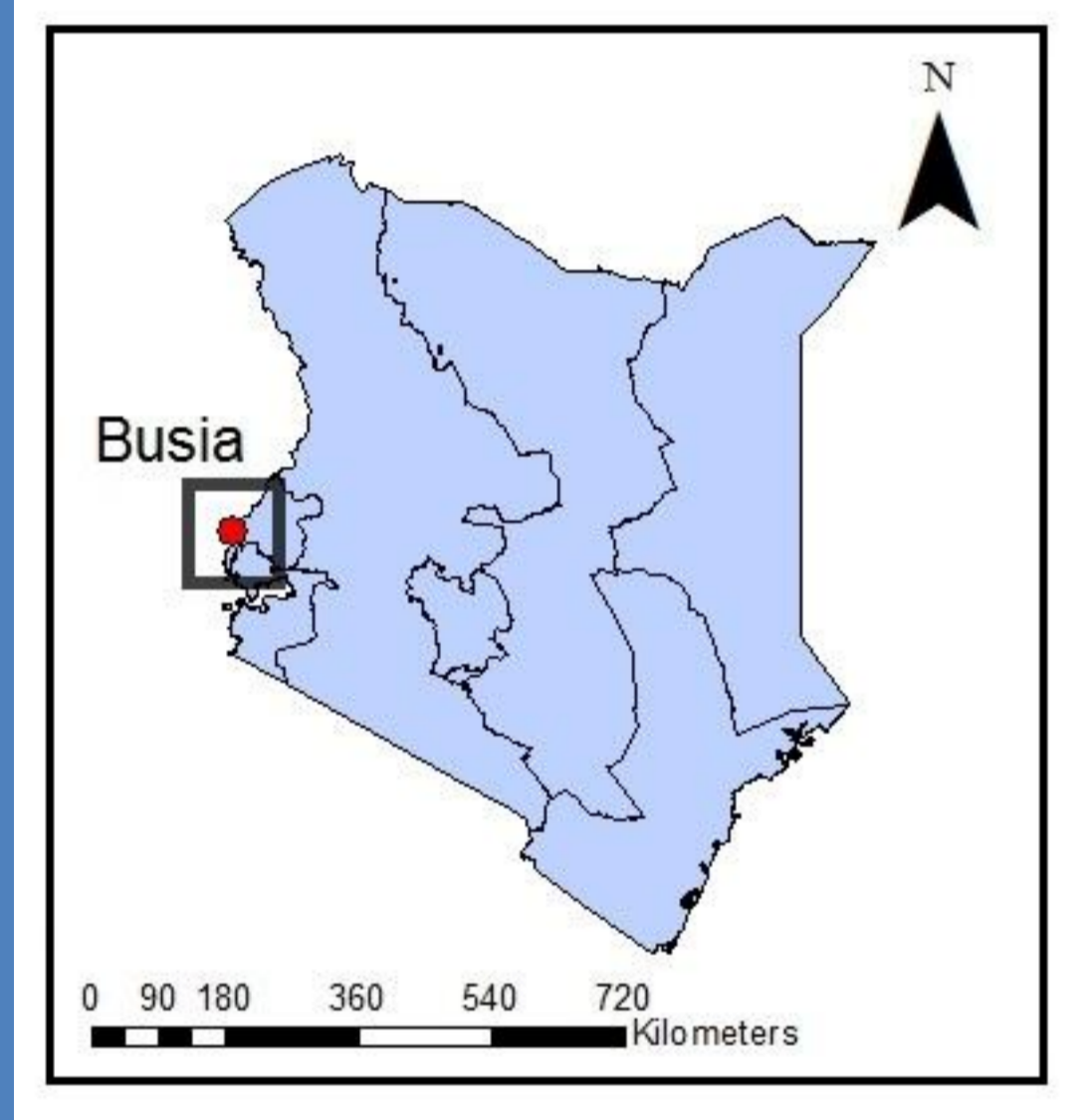
Figure F: *Trypanosome* sp from *Rattus*



Figure G: *Rattus* sp

Study site

45 km radius from Busia, Kenya



Methods

- Bats and rodents caught from randomly selected households
- Bats caught in mist nets
- Rodents caught in Sherman traps
- Heart blood collected for blood smear
- Giemsa staining
- Light microscopy

Species No.

Bats	
• <i>Chaerophon</i> sp	56
• <i>Pipistrellus</i> sp	15
• <i>Scotoecus</i> sp	8
• <i>Taphozous</i> sp	2
• <i>Epomophorus</i> sp	8
Rodents	
• <i>Rattus</i> sp	22
• <i>Mus</i> sp	11
• <i>Graphiurus</i> sp	7

Species tested	Results
Bats	
<i>Epomophorus</i>	4 positive <i>Haemosporidia</i>
<i>Scotoecus</i>	1 positive <i>Trypanosome</i>
Rodents	
<i>Rattus</i>	1 positive <i>Trypanosome</i>

Conclusion

Haemosporidia sp. and *Trypanosome* sp. identified in the bats and rodents respectively require specification and further investigation to determine whether they are transmissible to humans.