

Progress in addressing animal disease threats (including zoonoses) and priorities in the GLTFCA - a JMB Veterinary Sub-Committee Update on Challenges and Progress

Roy Bengis, Chris Foggin, Markus Hofmeyr, Nazare Manguze



**GLTFCA JMB Veterinary Subcommittee**

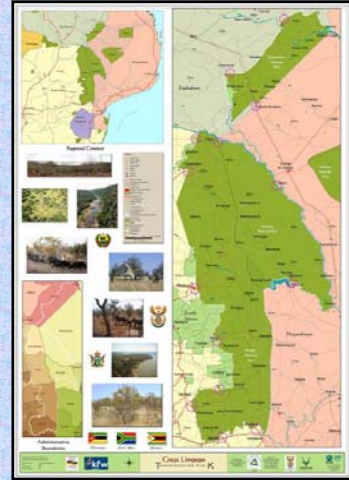
This committee's mandate includes :

-The identification of potential animal health issues and challenges related to expansion of the geographic range of wildlife and their pathogens.

This objective is largely met with active and passive surveillance but additional health surveys are needed to get a better handle on what the current status is of important diseases in especially livestock & pets and buffalo

-Identification of potential conservation threats related to pathogens cycling in neighbouring livestock (in all 3 countries)

Currently BTB is still the most important threat- need better status understanding especially in Mozambique and Zimbabwe - anthrax and rabies remain threats



- Identification of the related human health and zoonotic issues.

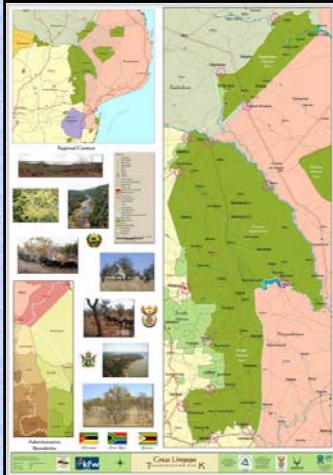
**Better understanding of current health status is required but anthrax (in Zimbabwe) and rabies in livestock and dogs respectively remain threats in all three countries**

- Inclusion of these veterinary issues in the development of a Joint Management Plan for the GLTP.

**This plan is outstanding and in urgent need of updating**

- To advise the Joint Management Board (JMB) on the management of animal health challenges, and prioritise appropriate activity areas to address these issues.

**This communication has not been effective and is a real concern to the veterinary committee**



Interface issues!?

### PRIORITISATION OF ANIMAL HEALTH CHALLENGES IN THE GREAT LIMPOPO TRANSFRONTIER PARK

#### A) INFRASTRUCTURAL NEEDS

- Basic veterinary monitoring and laboratory capabilities lacking in all three countries
- Diagnostic capability - local lab capacity compromised in all three countries. OVI currently main reference lab. Potential of improving lab capacity in Skukuza state vet office. Lab capacity being developed in Malilangwe
- Centralised data base with GIS capability and data management system - in progress of being developed by PPF but has not achieved its optimum potential and is currently only being used in SANParks for capture related records

• Technical equipment - available in South Africa, reduced in Zimbabwe and slowly being developed in Mozambique

• Training and capacity building - in process of developing training course at various levels - first course will be presented to vets at the end of March 2009 at Onderstepoort

• Development of a Wildlife Veterinary Unit in Mozambique - ongoing (Chokwe workshop) - establishment of Limpopo Veterinary Working group and met in February 2009

• Support of Wildlife Veterinary Unit in Zimbabwe - reduced due to lack of support funding from PPF and other sources - this is very problematic as the unit is capable of doing most required work but lacks resources to do the work

#### B) Disease monitoring and management recommendations

• General disease status surveillance in cattle, pets and other livestock are needed in all three countries

#### C) Primary Animal Health Care at the interface

• Vaccination of cattle against FMD and anthrax - suffering from logistical constraints both in Zimbabwe and Mozambique - cold chain problems, vaccine breakdown?

• Vaccination of dogs against rabies and canine distemper - not in place adequately but large effort undertaken around Gonarezhou in 2009 and in South Africa but some resistance from local communities to have dogs vaccinated

• Deworming of dogs (including echinococcus) - not in place adequately

• Regular dipping and inspection of cattle - not in place adequately in all three countries and innovative methods required to improve this

### Bovine Tuberculosis



#### Bovine Tuberculosis (BTB) and Brucellosis

- Monitor of BTB and brucella status of cattle in the Sengwe corridor - being repeated by CIRAD currently
- Buffalo tested and 2 post mortems conducted in Gonarezhou NP (February 2009) - suspicious lesions and awaiting culture results
- Monitor of BTB and brucella status of cattle on the KNP southern & western boundary - ongoing (no TB found so far)
- Monitor the TB dynamics of the KNP buffalo herds - survey planned for 2009 postponed to 2010. Survey in 2008 completed for the Shingwedzi area - prevalence between 4-8%

*In the above surveys (Mozambique and Zimbabwe), funds are often lacking for compensation for positive cattle that must be slaughtered to confirm the diagnosis and for TB strain fingerprinting.*

#### BOVINE TUBERCULOSIS IN LIONS

Workshop planned in mid-March 2009 in KNP



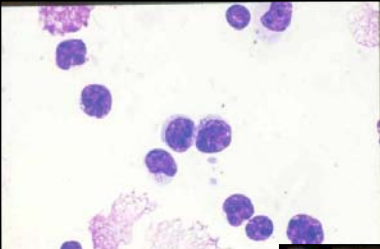
#### Foot & Mouth Disease



Topotyping of foot & mouth disease viruses in buffalo in Gonarezhou (outstanding) and Limpopo National Park (completed for buffalo captured in 2007 & 8).


Blood and probang samples from a number of buffalo in Gonarezhou (Wildlife Unit and CIRAD in 2008)


Large scale outbreaks in cattle seen in Zimbabwe in 2008



**Corridor disease:**

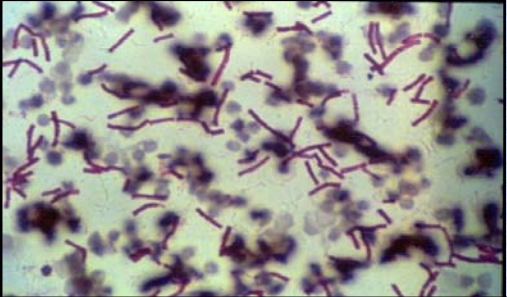
Currently been problematic only sporadically on the south western border of KNP and possibly in Mozambique but specific diagnosis lacking






**ANTHRAX**

- Last outbreak was a focal area in the NE of KNP in 2006, one case in 2008 in Pafuri area
- Sporadic cases in Zimbabwe
- Vaccination of cattle in all three countries seem to be current for this disease currently but will be challenged should another outbreak occur




- Major outbreak in Limpopo Province & Mpumalanga in 2006/7/8/9 (humans/domestic animals) -rabies strain from Zimbabwe
- First wild animal in KNP - side striped jackal in 2007
- Malilangwe lost all but 3 wild dogs in 2007
- Ongoing in domestic animals and humans in Zimbabwe

**RABIES**



**BRUCELLOSIS**

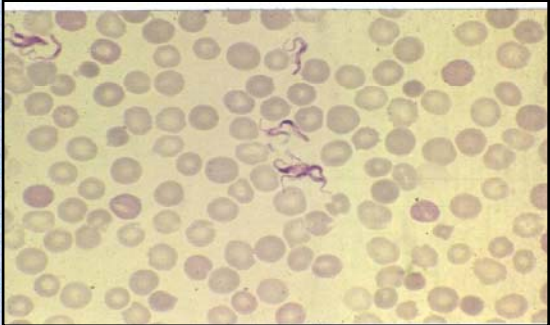

- Present in KNP buffalo
- Not recorded in isolated Limpopo buffalo herd
- Cattle on western and southern KNP boundary are infected
- Cattle infected in the Sengwe cattle in Zimbabwe
- Mozambique?




**TRYPANOSOMOSIS**

**Tsetse flies and Nagana**

- Monitoring of tsetse fly activity and spatio/temporal spread in Gonarezhou National Park.
- Monitor the northern KNP and LNP for tsetse fly incursion.
- No sign of fly revival or tryps in livestock recently

**Avian Influenza**  
- No sign of pathogenic strain in southern Africa yet




**Classical Swine Fever**  
- Under control

**Crocodile deaths in Olifants Gorge**

- Cause still unknown but multifactorial and large scale program (Crocs) is planned to understand water related threats better.

**Other diseases or system health issues?**

- We recognize that global environmental change is a major threat to biodiversity



4 8 2008

*AHEAD MEETING*

**VETRINARY activities in LIMPOPO NATIONAL PARK**

Namahacha , 04/03/2009  
Por. Nazaré

## Main activities

1. diseases monitory
2. diseases surveys
3. control end prevention of diseases
4. wildlife department capacity (WCS)

## surveys

- Fmd surveys ("atualment p ver nivel de imunizacao da vacina")...on goin (dr zacarias)
- btb surveys on Buffaloes (todos anos)
- Brucellosis surveys/btb cattle

## Prevention and control

- FMD vaccination
- Anthrax vaccination
- Blackquoter vaccination
- Rabies vaccination!!!! (preocupacao!!!eliminacao caes!!!)
- NC diseases vaccination ( vet services/kyeema fundation)
- Lump skin disease vaccination

## coordination

- Improved coordination with LNP, DNAC, SAN Parks, WCS
- Coordination NGO's
- Capacity building within wildlife disease control department
- Acquisition of equipment : gps, binoculars.

## Next steps

- Improve coordination
- improve build capacity and training
- Equipment acquisition
- Disease surveys (btb in buffaloes and cattle LNP)

## Next steps cont...

- Croc. Deaths monitoring in elefante river.
- Vaccination program in livestock
- FMD
- anthrax
- blackquoter
- rabies
- newcastle
- lump skin disease

MUITO OBRIGADO A TODOS!!!