

# Disease-Free Buffalo Project of the State Veterinary Services and South African National Parks

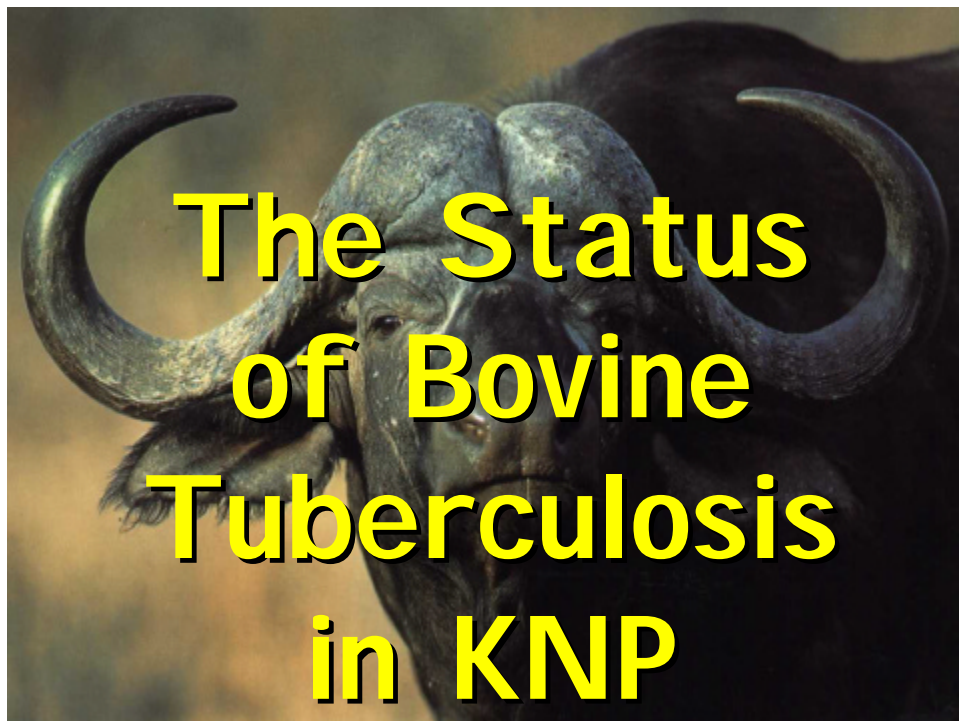
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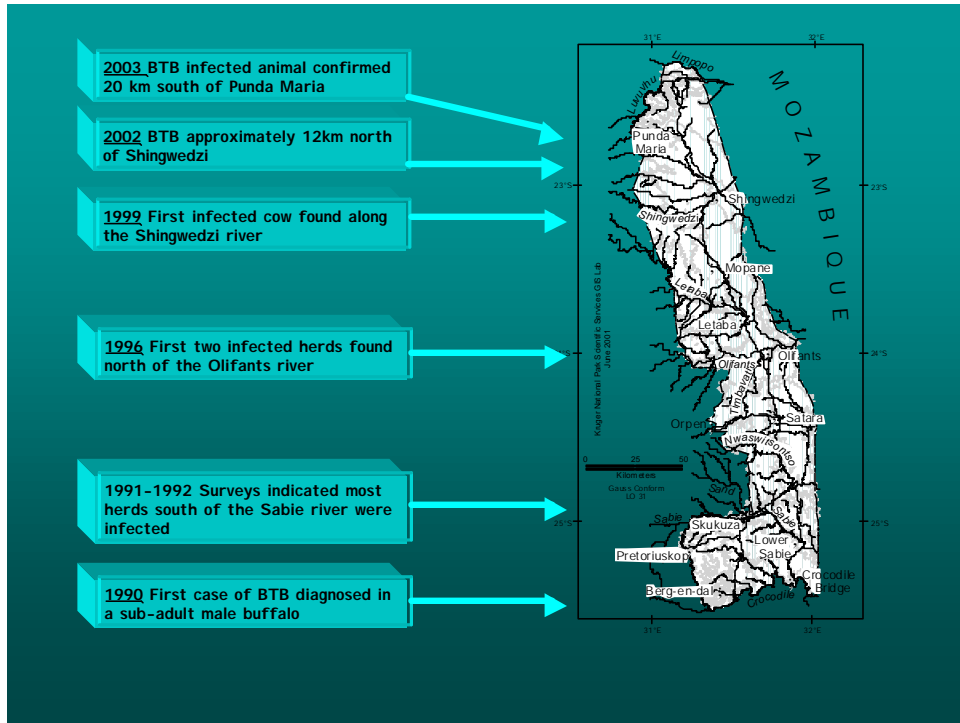
## **DISEASE - FREE ?**

- FOOT AND MOUTH DISEASE
- CORRIDOR DISEASE
- BOVINE TUBERCULOSIS
- BRUCELLOSIS

### Why does SANParks need disease-free buffalo?

- Buffalo are extinct from most of their former range due to over-hunting, last rinderpest epidemic and exclusion from cattle ranching areas
- Need to re-introduce buffalo into newly established national parks within its former range
- Role as bulk feeder in the ecological system
- Preserve the most heterogeneous buffalo genetics in other parks apart from Kruger
- To pre-empt a potential political decision to remove TB infected buffalo from the Kruger National Park







Procedure

### **At capture:**

- Buffalo cows and heifers are tested for pregnancy status
- Test for brucellosis is done in the field as the animals are immobilized
- Positive animals are released

## Temporary bomas at Shingwedzi

- Animals are held for 3 days, re-immobilized and the results of the intradermal skin test for tuberculosis are determined
- Positive animals are euthanased and necropsied to confirm TB status
- If an individual animal is positive for BTB, the whole group captured from a herd is rejected from the project







## Cows at Skukuza bomas

- Cows are sprayed every 6 to 8 weeks for ticks
- This prevents the transmission of Corridor disease (*Theileria parva lawrencei*) to the calves



*Rhipicephalus  
appendiculatus*

## Calves

- Left with their mothers for approximately 6 months
- Maternal antibodies prevent them becoming infected with Foot and Mouth Disease virus
- Weaned at approximately 6 months and at least 100 kg body weight



## Weaned Calves

- Tested repeatedly for their levels of antibodies to Foot and Mouth Disease
- This ensures that their maternal antibodies are decreasing and they have not contracted the disease from the adult cows
- Stage one quarantine ends if all calves have negative foot and mouth titers and tested negative once for brucella, corridor and TB (gamma interferon test)





### Mzinti Quarantine Facility

- Calves undergo final testing
- At the end of stage two quarantine all calves must have tested negative 2x for foot and mouth a month apart, one negative TB skin test, one negative corridor test and one negative brucella test
- Move to the “disease-free” area allowed only with the department of agriculture provincial directors approval of all affected provinces



Buffalo at Satara Camp



THE FUTURE ?