

**RINDERPEST SURVEILLANCE IN  
UGANDA NATIONAL PARKS  
BETWEEN 1998-2003.**

**PAPER PRESENTED**

**BY**

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**1.0 Introduction:**

- Rinderpest still poses a potential threat to both the wild and domestic ungulates in Eastern Africa.
- RP undermines food security and promotes poverty in affected countries.
- Serological relationship exists between RP and PPR but the viruses are not identical.
- RP infection produces life long immunity and protects against RP related strains.

- Rinderpest was introduced into Uganda in the 19<sup>th</sup> century.
- Uganda participated in the JP-15 (1962-1972) programme and the PARC programme (1988-2001).
- Rinderpest vaccination ceased in Uganda in 2001.
- Last outbreak was reported June, 1994.
- Serosurveillance in both the wildlife and livestock has been major tool for monitoring presence or absence of rinderpest virus circulation.

## **2.0 Materials and Methods:**

- Sera samples were collected from these National Parks and Game Reserves:
  - *Kidepo NP,*
  - *Pian Upe GR*
  - *Murchison Falls NP*
  - *Semliki GR*
  - *Kibaale NP*
  - *Lake Mburo NP*

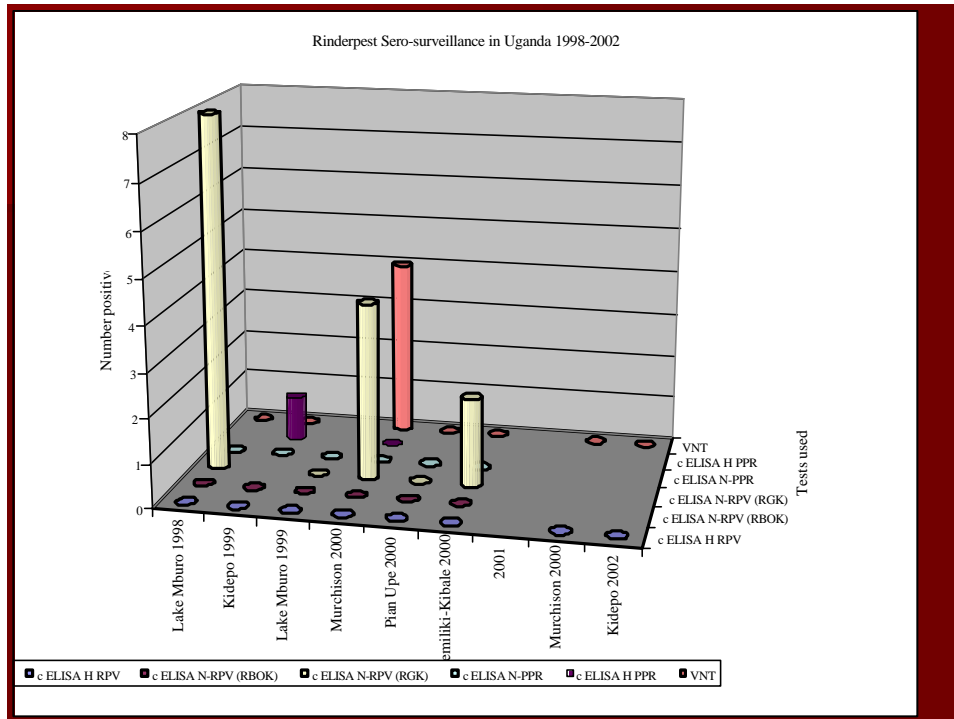
- Representative samples from all age groups were collected.
- Both aerial and ground darting were used.
- Samples were collected from buffalo, impala, topi, bushbucks and warthog.
- The samples were collected between May 1999 and October 2002.
- Samples collected by a team from PACE Uganda, UWA and PACE-AU/IBAR.



## 2.2 Techniques used to analyse the samples

- Six tests were used during sample analysis:
  - C ELISA H RPV,
  - C ELISA N RPV (RBOK),
  - C ELISA N RPV (RGK),
  - C ELISA N PPR,
  - C ELISA H PPR
  - VNT.
- These tests were meant to verify Rinderpest antibody existence in the samples.
- Four laboratories were used in sample analysis (Entebbe, Muguga, CIRAD and Pirbright).

NP & Year	Mturo	Kidepo	Murchison	Pian Upe	Kibale	C ELISA H RPV	C ELISA N-RPV (RBOK)	C ELISA N-RPV (RGK)	C ELISA N-PPR	C ELISA H-PPR	VNT
Lake Mburo 1998	Impata (30)					0	0	8	0		0
Kidepo 1999	Buffalo (6) Topi (3)	Buffaio (11)				0	0	0	0	1	0
Lake Mburo 1999	Wartnog (1)										
Murchison 2000			Buffaio (17)	Roan (1)		0	0	4	0	0	4
Pian Upe 2000				Kongoni (2) Buffaio (6)		0	0	0	0		0
Semliki - Kibale 2000					Buffalo (16)	0	0	2	0		0
Kidepo 2002		Buffalo (17)				0					0
Murchison			Buffaio (8)			0					0



## 4.0 Discussion:

- From the results and their analysis;
- The most specific test in the detection of wildlife rinderpest antibodies is C ELISA N RPV (RGK).
- Up to the year 2000, rinderpest antibodies were detectable in the sentinel population (wildlife) in Uganda by the two tests; VNT and C ELISA RPV (RGK).
- The VNT and C ELISA H RPV on the samples of the year 2002 were all negative.
- Fewer animals tested positive with C ELISA N RPV (RGK) test since 1988.

- The VNT tallied with C ELISA N RPV (RGK) on the samples from Murchison Falls National Park, indicating four animals positive in 2000.
- Three national parks; Lake Mburo, Murchison, Semliki and Kibale, out of the six NPs/game reserves sampled, showed some few animals with rinderpest are showing antibodies.
- The evidence of antibodies in the sentinel population makes it necessary to maintain keen interest in wildlife surveillance to guard against any possibility of disease surge.
- However, the animals that were positive were adults and could have been exposed to infection earlier in life.

## **5.0 Conclusion:**

- Wildlife surveillance remains a very important tool in rinderpest surveillance.
- Sampling techniques and diagnostic tests, however, need to be perfected so as to detect RPV circulating.
- It is evident that there is no RPV in circulation in Uganda National Parks.
- This is further supported by the passive surveillance data that is collected using surveillance formats filled by the district staff monthly.