RABIES IN KUDUS AND ELAND?? IMPLICATIONS TO THE GAME INDUSTRY IN NAMIBIA

Ulf Tubbesing
HISTORIC BACKGROUND

- Fatal Viral Disease of Mammals
  - Nervous Symptoms
- Known since Ancient Times
- Endemic in Namibia, esp. Central and North
  now even far South!
- First Proven Major Outbreak in Kudu in
  Namibia 1977 - 1985 since then Sporadic
- Different strain in Kudus?
Aetiology and Epidemiology

- Single Strain affects All Mammals?
- Very labile Virus - Close Contact needed
- Some Spp more important in spreading disease
- Some Spp more susceptible - Kudu and Eland
- High Risk in Sociable Species and with high Population Density (or both)
SOCIAL BEHAVIOUR OF KUDU PREDISPOSES

- VERY SOCIABLE ANIMALS - GROOMING, BROWSING
- BREEDING IN AUTUMN - EARLY WINTER
- THEN SPLIT TO:
  - BACHELOR GROUPS
  - COW - CALF HERDS (BULLS < 2 YEARS)
- BULL HOME RANGE
  +/- 11 KM²
- MIGRATIONS???
- RABIES MOSTLY IN BULLS??
DRY - WET SEASON PREFERENCES

Bulls will leave preferred habitat for cow/calf herds.
Transmission

- Virus in saliva for last few days of life
- Exposure till Disease: Days - months
- Mostly Through bite (Jackal, Dog etc.)
- Kudu to Kudu?
- No Carrier state
WHY IS RABIES IN KUDU NOT ASSOCIATED WITH A HIGH INCIDENCE OF RABIES IN PREDATORS?

- Kudus don't bite Predators
- Virus dies shortly after death of host
- Predators on Farmland are solitary
- Groups of Lions, Wild Dogs, Bat Eared Foxes etc. wiped out
HOW DO I KNOW AN ANIMAL HAS RABIES?

• Suggestive Symptoms
• Tame ↔ Wild (Vice versa)
• All Cats become Vicious!
• Species, Season, History
• ONLY LAB TESTS CAN CONFIRM DIAGNOSIS!!
HOW DO I KNOW IT’S RABIES?

Could it be Mad Cows Disease?

• ONLY LAB TESTS (IFA + IHC)
• CAN CONFIRM DIAGNOSIS!!
WHAT PRECAUTIONS CAN I TAKE?

- Vaccinate annually (Man and Beast)!!
- Educate Family (Cute is not always cute)
- Inform Neighbours!!
- Stay Away from Animals showing Strange Behaviour!!
- Vaccinate Game - How?
- Game Camps?
How should I manage the outbreak of Rabies in my Kudu/Eland population?

- Let Nature Run its Course?
- Vaccinate?
- Culling?
- Capture and Sell??
- Is a Trophy Hunt still on?
- Can the Meat be Used?
  - Own Consumption
  - Commercial Sale
  - How to Handle carcase or meat
HOW DO I VACCINATE MY GAME?

Capture, vaccinate and release

Oral vaccines – unsolved Problems!
Dart vaccinate – currently the most (cost)effective method
IMPORTANT FACTS TO CONSIDER WITH VACCINATIONS

- Booster vaccinations are ideal but expensive— in for a penny, in for a pound
- Ideally vaccinate annually (at least every 2 years!)
- Vaccinate ALL animals (K & E)
- Vaccinate BEFORE an outbreak
- Vaccinate before leaves on trees
- The vaccine DOES NOT CURE!
- It is a dead vaccine and DOES NOT CAUSE DISEASE
- After vaccination during an outbreak there will be a lag effect before mortalities stop!
FIRST AID TIPS

- When Exposed, THOROUGHLY WASH Wounds with Soap !!!
- Where Rabies Vacc Status is unknown for the Animal AND High Index and Suspicion – Kill and Submit Head For Testing
- If Positive, Consult Dr for Treatment
- If Lab Test not Possible – Consult Vet. / Dr. for Treatment Recommendations
Are High Mortalities in High Density Kudu Populations always due to Rabies?

Winter – Spring Starvation Bottleneck in Browse Availability Coincides With Peak Rabies Incidence – Congregation at Water!!

High Stocking Density ➔ Longer Starvation Bottleneck + Increased Risk of Disease Transmission!!
PREDICTING KUDU MORTALITIES - MANAGEMENT PLANNING

- High Kudu population density in the area → Prolonged food shortage in dry season
- Poor preceding raining season → Late leaf cover on bush - thus prolonged period of food shortage
- Early severe frost → Early leaf loss and prolonged period of food shortage
- Severe cold stress →
  - Reduced leaf mass
  - Seeking shelter - eating less
  - Incr. susceptibility to disease, predation etc.
WILL RABIES LEAD TO THE EXTINCTION OF KUDUS IN NAMIBIA?

I hope this helped to answer some questions of the Kudu riddle.