# **Rabies Revisited 2013**

John W. Poe, D.V.M., M.P.H. State Public Health Veterinarian Division of Epidemiology & Health Planning Kentucky Department for Public Health



## Sick Bat





## **Sick Bat**



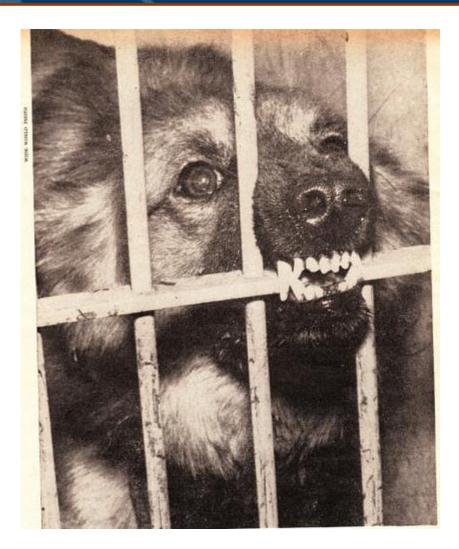


## **Rabid Bat**



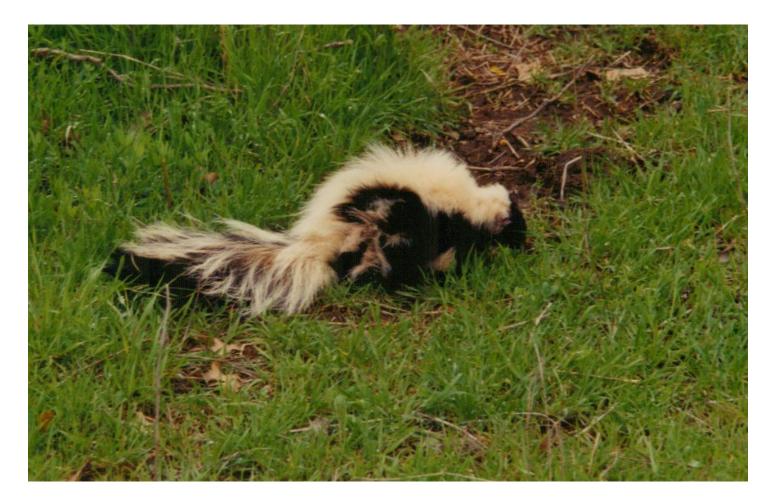


## **Rabid Dog**





# **Rabid Skunk**





### **Rabies Cases 2012**

- 2/28/2012
- 3/5/2012
- 3/15/2012
- 4/27/2012
- 7/27/2012

Green County Garrard County Lincoln County Todd County Davies County dog skunk bat skunk bat



# Human Rabies Fatalities 2006-2011

- 15 humans cases 9/15 bat variant assoc
- 2006 3 cases = 2 bat + Phillipine dog
- 2007 1 case = 1 bat
- 2008 2 cases = 1 bat + fox
- 2009 4 cases = 3 bat + 1 Indian/Asia dog
- 2010 1 case = 1 bat
- 2011 4 cases = 1 bat +2 dogs (Haiti & Afghan) + unknown





\*Raccoon Rabies has spread from west of Mobile Bay to Canada Rabid Bats have been found in 49 states.



Multiple Rabies Virus Types/Variants #'s represent feriousness/viciousness/meaness

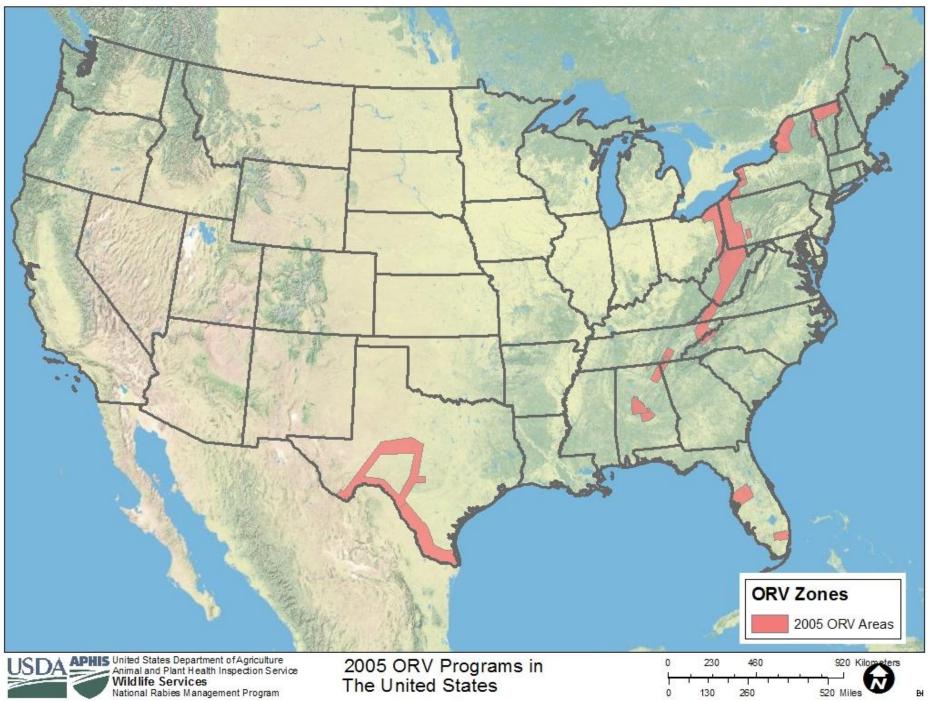
1 2 3 North Central skunk variant = KY 4 = KY5 Bat variant 6 7 8 9 Raccoon variant = Devil Monster NOT KY 10



## **Oral Rabies Vaccine**







ы

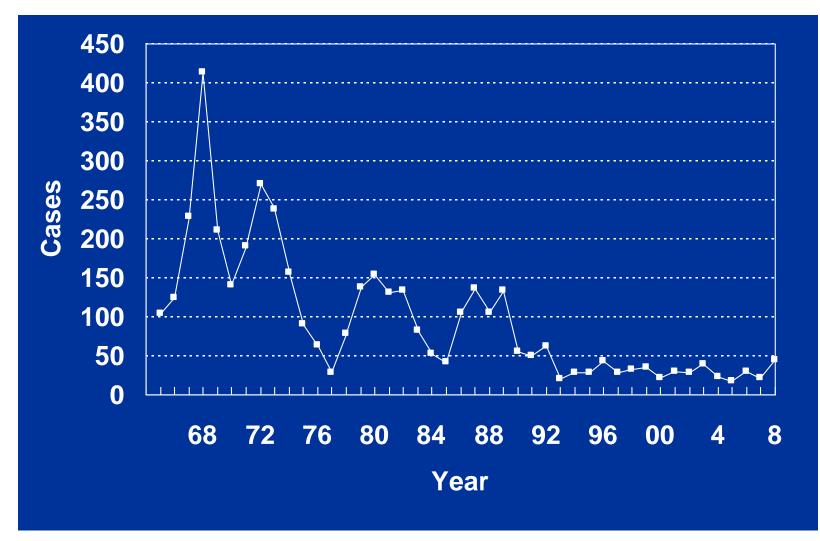
520 Miles

130

0

260

#### Laboratory Confirmed Cases of Animal Rabies, Kentucky, 1965-2008





## **COURSE OF THE DISEASE**

SITE OF INFECTION

PERIPHERAL NERVES

**CENTRAL NERVES** 

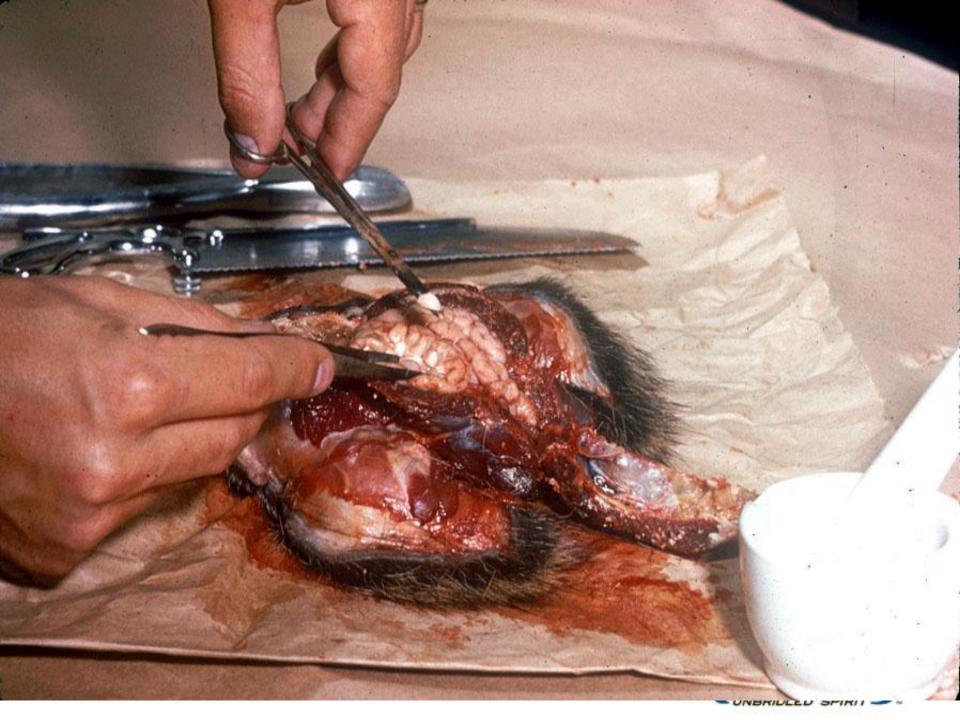
**BRAIN (Encephalitis)** 

**CRANIAL NERVES** 

SALIVARY GLANDS

(Only saliva, and Nerve Tissue Infective)



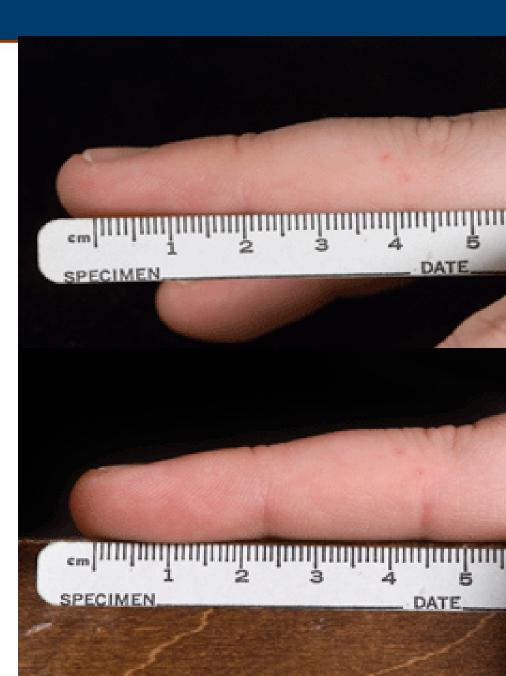


# **Rabies DFA Test**

- Rabies Direct Fluorescent Antibody Test is an extremely difficult test to perform
- Difficulty scale is 12 out of 1-10 scale
- Requires pristine brainstem fresh samples
- Requires highly skilled laboratorians
- 25 page rabies DFA SOP



# Brown Bat Bite



- Silver-haired Bat
- (Lasionycterus noctivagans)





# What Vaccine May Be Given

- ANY <u>USDA APPROVED</u> VACCINE
- 3 YEAR VACCINES FOR H.D. CLINICS
- TAG WITH SERIAL # & YEAR
- NASPHV # 51 or equivalent
  1 COPY OWNER
  1 COPY RETAIN



# WHEN To Give Vaccine

- VACCINATE BY 4 MONTHS OLD
- REVACCINATE PER LABEL
  - Always 1 year for primary vaccination
  - 1 or 3 year booster thereafter



# **RABIES VACCINATION CLINICS**

- DETERMINED BY LHD OR CHFS
- CHFS MAY DESIGNATE LAY PEOPLE
- USE 3 YEAR VACCINES
- MAXIMUM FEE = \$5.00



# **Important Perspectives**

- Many causes of animal/mammal encephalitis
- Most common causes canine distemper virus
- Raccoons reservoir for canine distemper
- Canine distemper encephalitis causes crazy acting raccoons
- Roundworms migration in squirrels, raccoons through the brain = crazy acting behavior



# **Important Perspectives**

Many causes of encephalitis

- Canine Distemper virus common
- Roundworm migration common

Rabies is Rare

