

# Rabies Background

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# Rabies

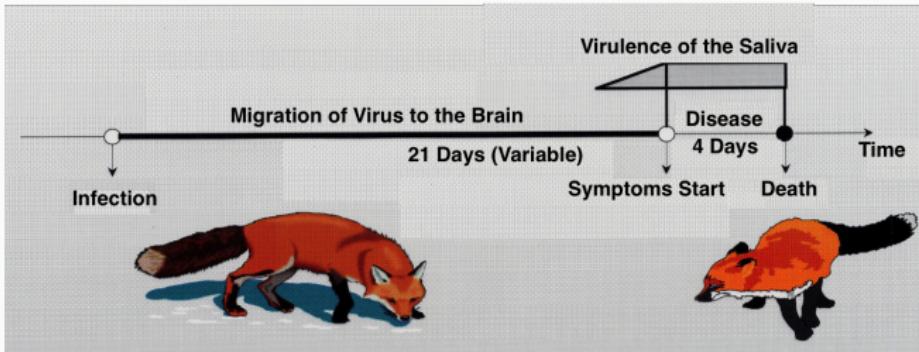
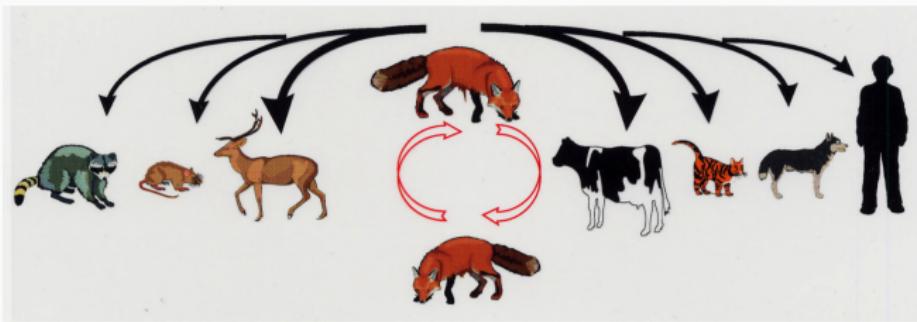
## Rabies

- Near 100% fatal without vaccination, kills over 59,000 people annually.
- Negative-stranded RNA virus belonging to the lyssavirus genus.
- Causes acute encephalitis in a wide range of mammals.
- Reservoirs include mammals in the order *Carnivora* and *Chiroptera*.

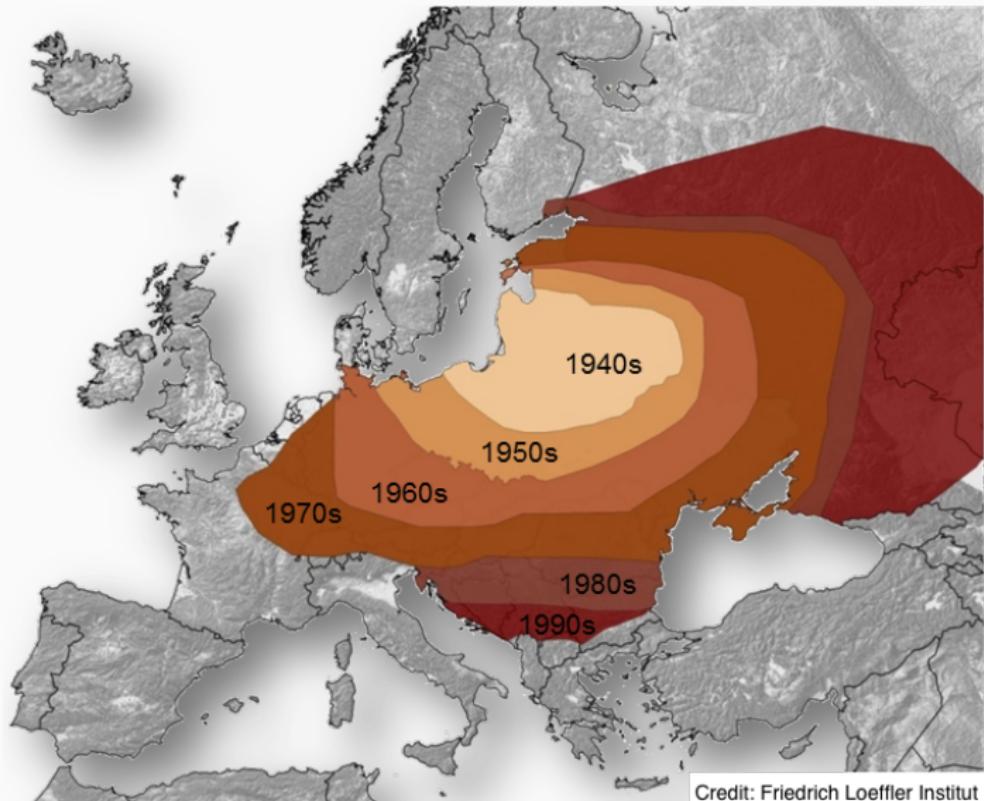


# Rabies Cycle

In Europe the main reservoir is the red fox, *Vulpes vulpes*.



# Fox Rabies Epidemic



Credit: Friedrich Loeffler Institut

# Oral Rabies Vaccination

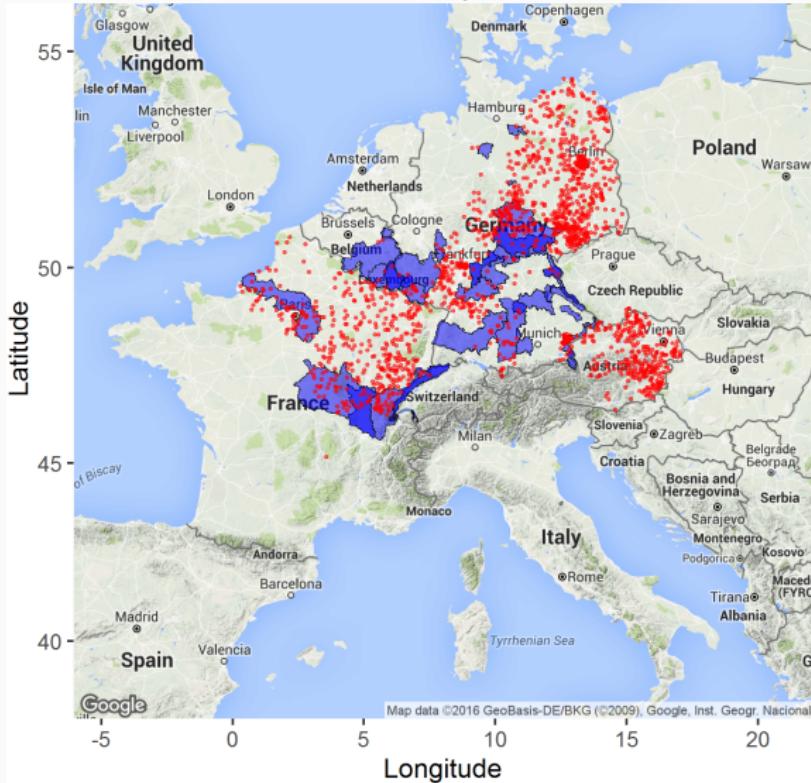
In 1978 developed an edible oral rabies vaccine (ORV).



*"That time Europe air-dropped vaccine-loaded chicken heads to bait rabid foxes"* - Ed Yong

# Fox Rabies Elimination

Over three decades, vaccine-loaded chicken heads were air-dropped over 2.36 million square kilometers (2 times size of Europe).



## References

1. Rabies re-examined. Rupprecht, Charles E et al. *The Lancet Infectious Diseases*, Volume 2, Issue 6, 327 - 343
2. Fox Rabies History, Pers. comm. Thomas Müller and Conrad Freuling, Friedrich Loeffler Institut
3. Hampson K, Coudeville L, Lembo T, Sambo M, Kieffer A, et al. (2015) Estimating the Global Burden of Endemic Canine Rabies. *PLOS Neglected Tropical Diseases* 9(4): e0003709.  
<https://doi.org/10.1371/journal.pntd.0003709>