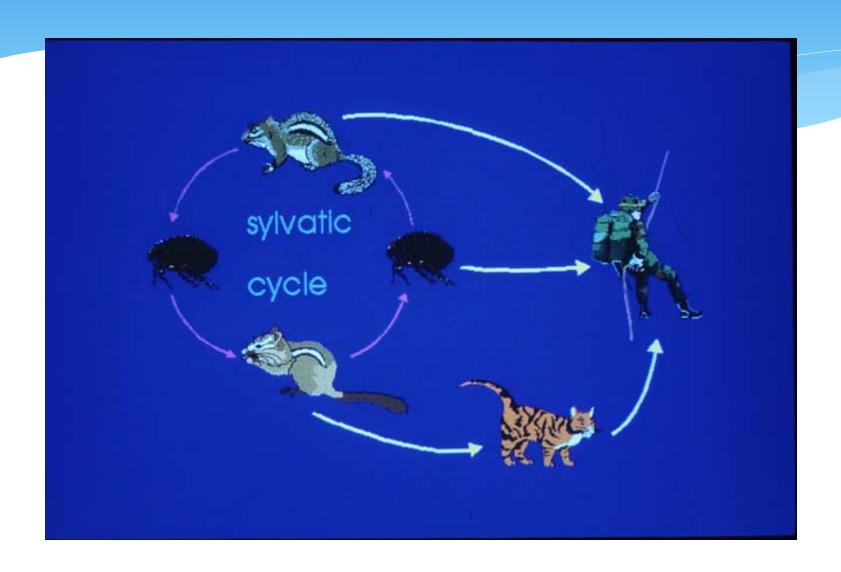
# Plague and Prairie Dogs: Should We be Worried?

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# Sylvatic Plague

- Bacterial Disease transmitted by fleas
- \* Most commonly found in wild rodents
  - \* Can afflict other mammals, including humans
- \* Prairie dogs are an ecologically important species that is highly susceptible to plague
  - Ecological and human health impacts





# Plague impacts on Wildlife

- \* Plague in Prairie Dog Colonies is normally enzootic
  - \* It occurs at predictable and persistant rates in the population.
- \* It can become epizootic
  - \* Temporarily occurring at unpredictably high rates, which can cause large population declines and increased likelihood of spread to other non-rodent mammals

# Plague impacts on willdife

- \* Epizootic outbreaks can cause widespread and catastrophic declines in prairie dog populations
- \* Prairie dogs are a prairie keystone species, and many other animals depend in part or in whole on them
  - \* Raptors, ferrets, badgers, burrowing owls, foxes, coyotes etc
- \* Of particular concern is how plague impacts the recovery of the black footed ferret.

#### Ferret Recovery

- \* Ferrets are an endangered species entirely dependent on prairie dogs for prey and habitat.
- \* The recovery of the BFF has been severely hampered by repeated plague outbreaks
- \* Managing plague on the landscape is a key to recovering the ferret.

# Managing plague

- Currently plague management activites are directed mostly at flea populations or rodent populations
- Pesticides can be applies to prairie dog and other rodent colonies to kill fleas
  - \* This is preferable in areas where rodents are needed to serve their ecological functions.
- \* Rodent populations can be controlled with pesticides or trapping
  - More useful in areas adjacent to human populations.



# Importance of managing plague

- \* Can keep prairie dog colonies intact in areas where wildlife depends on them
- \* Can help prevent transmission of disease to domestic animals and humans
- More effective management of prairie dogs
  - \* Can prevent listing of endangered species while allowing management around human habitation

# Vaccine Development

- \* Currently, the Black Footed Ferret Recovery Team and several other partners, including Navajo Nation are working to develop and test a sylvatic plague vaccine.
- \* If approved for widespread use a vaccine will become an important tool for management of plague and rodents on the landscape.
- \* Can prevent epizootics from occurring, provide population stability for ferret recovery, and allow effective management of prairie dogs where they are not desirable.



# Managing plague and prairie dogs isn't just about prairie dogs!









