

# UTAH PRAIRIE DOG

## *Recovery & Disease*

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# OVERVIEW

1. Background
2. Species decline
3. Conservation
4. Research





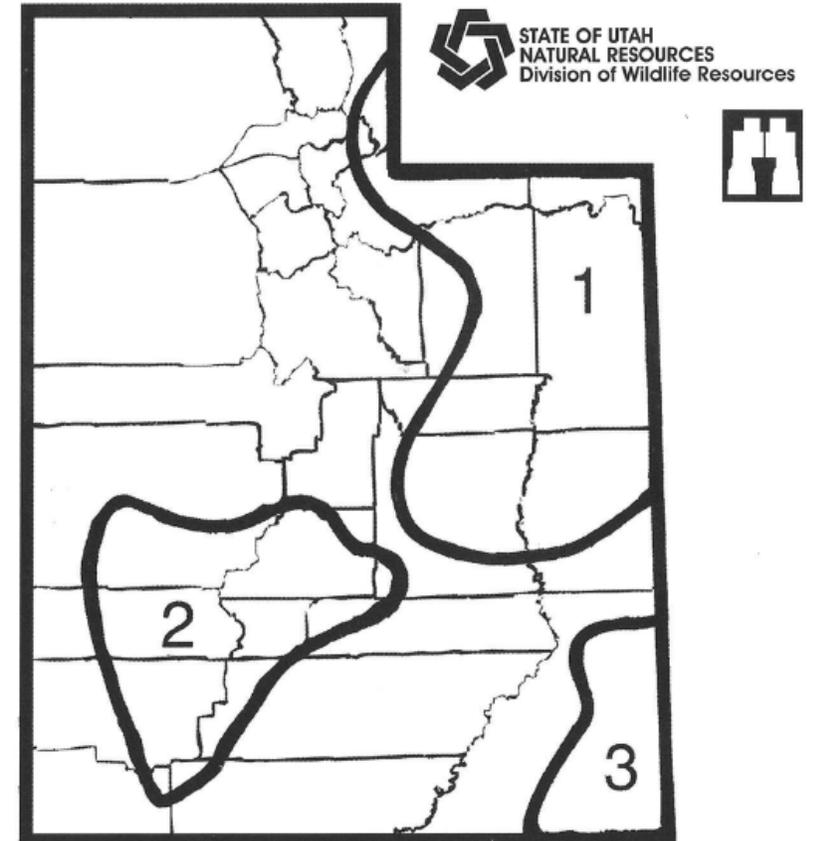
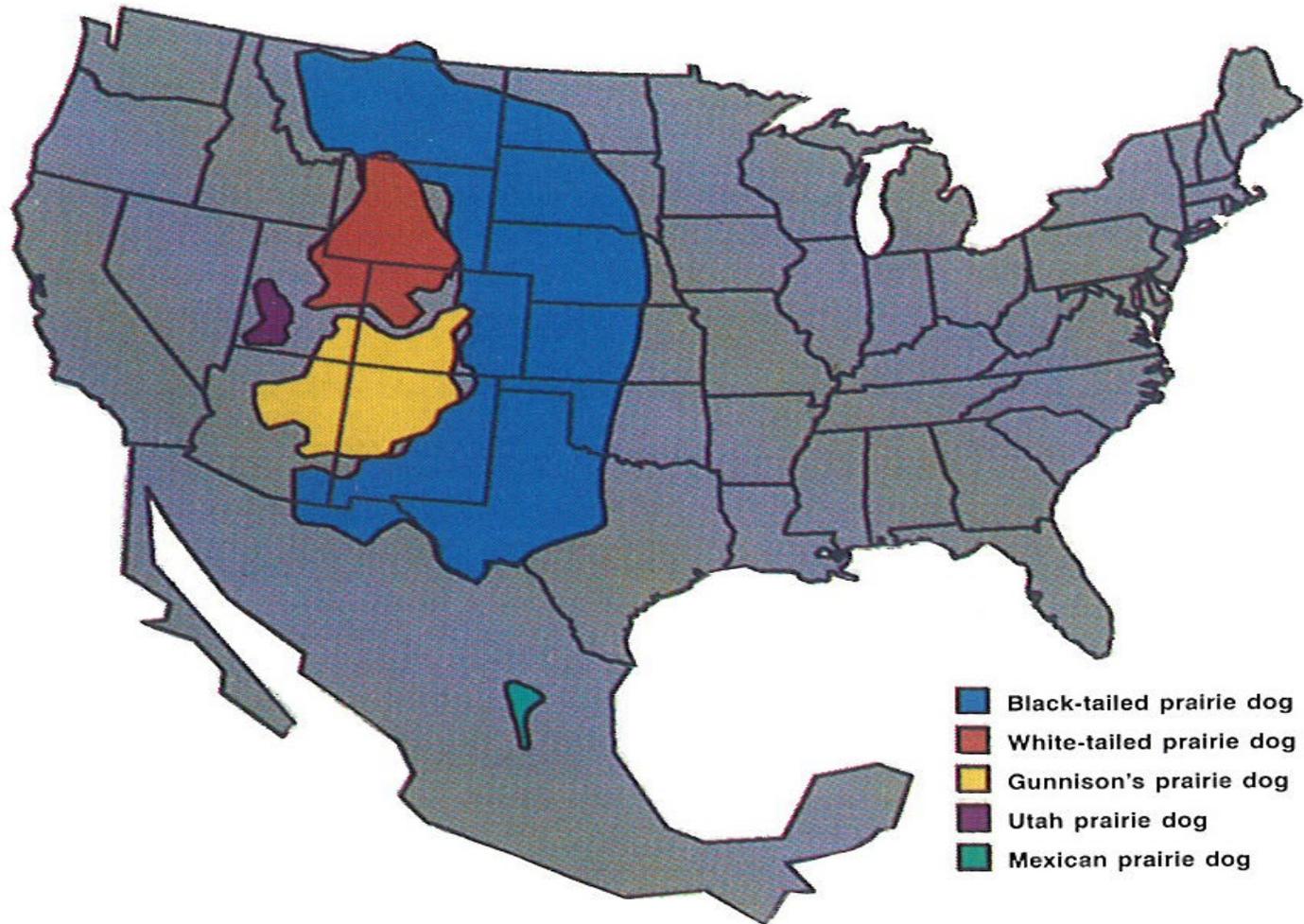
**BACKGROUND**

# PRAIRIE DOGS

- Order - Rodentia
- Family – Sciuridae
- Genus – *Cynomys*
- 5 species
  - Mexican, black-tailed, Gunnison's, white-tailed and Utah
- Utah prairie dogs
  - *Cynomys parvidens*



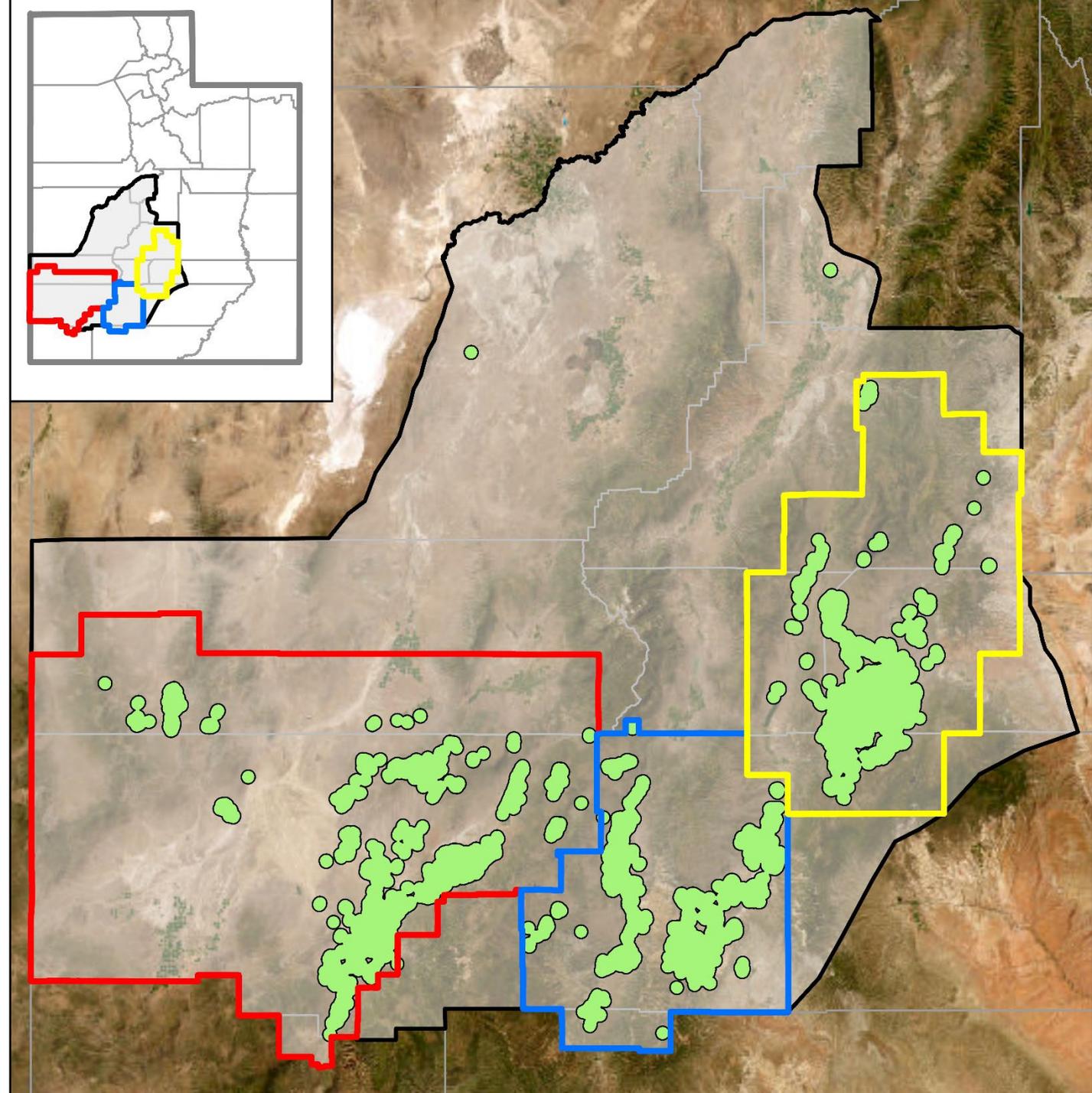
# RANGE

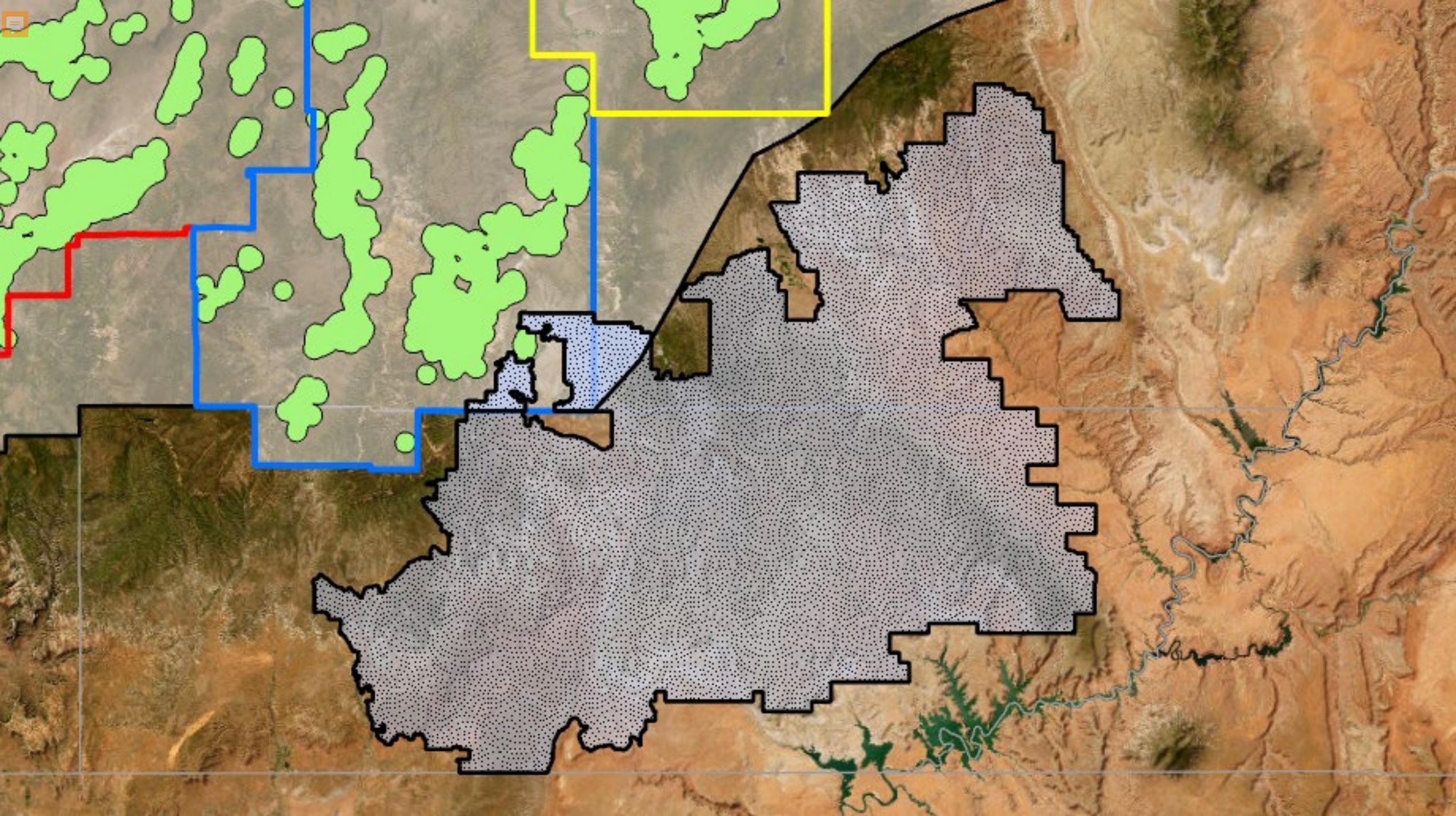


- 1 - White-tailed prairie dog
- 2 - Utah prairie dog
- 3 - Gunnison's prairie dog

# DISTRIBUTION

- Found in southwestern Utah
- Elevations from 5,000 ft. to almost 10,000 ft.
- Primarily in valleys, but also some mountain plateaus
- Found in a variety of habitats





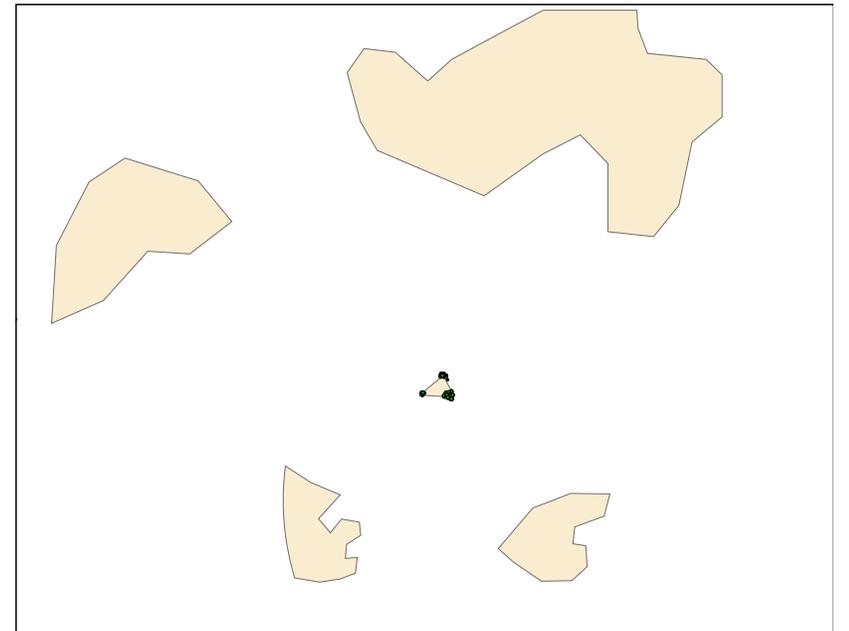
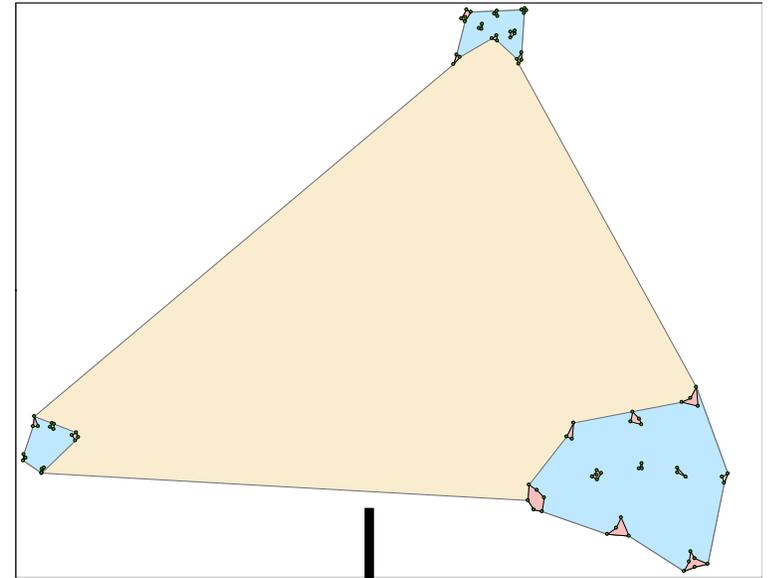
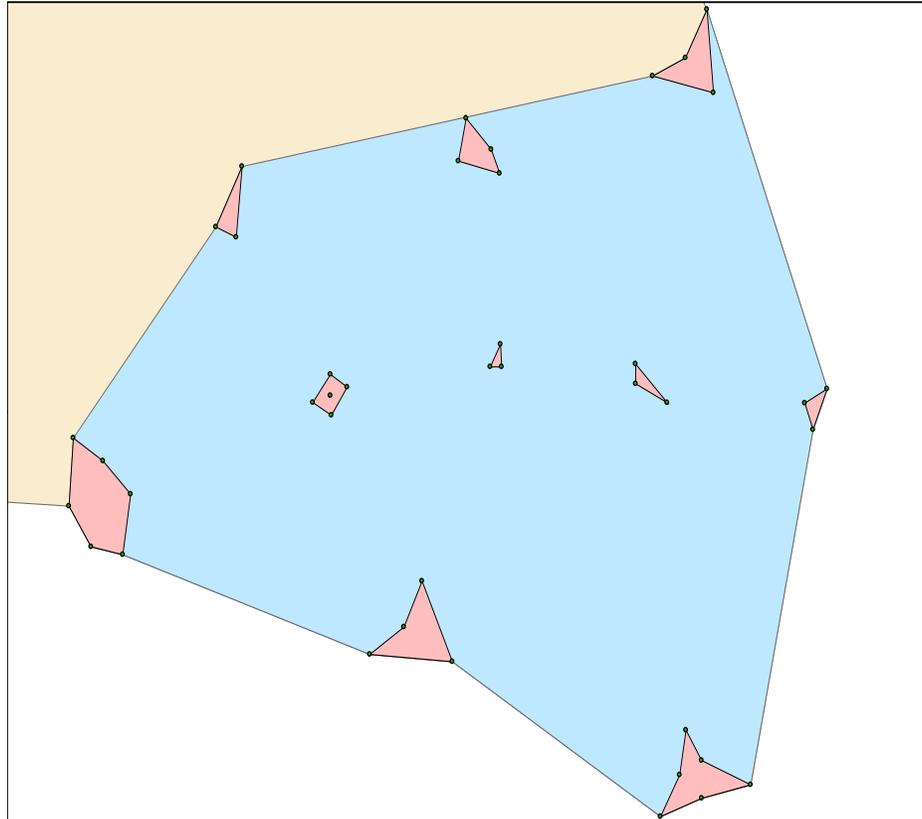
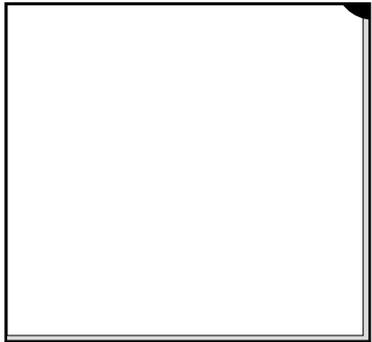


# POPULATION STRUCTURE

- Social mammal
- Coterie – family group
- Colony – a group of related coteries
- Complex – all colonies close to each other
- Metapopulation dynamics



# POPULATION STRUCTURE



# LIFE HISTORY

- Estrous & gestation
- Litter size
- Juvenile emergence
- High summer production
- Diet
- Hibernation



# LIFE HISTORY

- Burrows
- Dispersal
- Diurnal
- Predators
- Juvenile mortality



# BEHAVIOR

- Vigilance
- Anti-predator calling
- Communal nursing
- Kissing, grooming
- Infanticide
- Cannibalism
- Fighting



# SPECIES IMPORTANCE

- Keystone species
- Ecosystem engineer
- Create habitat for other species
- Prey
- Soil
- Grazing



# CLASSIFICATION & ACTIONS

- Endangered in 1973
- Threatened in 1984
- Recovery Plan in 1991
  - Revised 2012
- Translocation since 1972
- Spring counts since 1976





**SPECIES DECLINE**

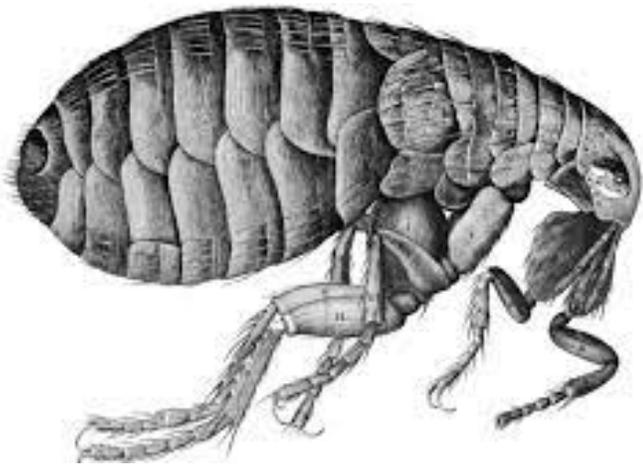
# HISTORIC ESTIMATES

- Estimated 95,000 UPDs in 1920's
- <3,300 UPDs remaining in 1970's
- Reasons for decline
  - Poisoning
  - Shooting
  - Sylvatic plague
  - Habitat loss and fragmentation



# PLAGUE

- Sylvatic plague
- Non-native disease
- Reached Utah in 1930's
- Fleas
- Control efforts



MAGAZINE SECTION **THE OGDEN STANDARD** MAGAZINE SECTION  
OGDEN CITY, UTAH, SATURDAY, JULY 18, 1914.

## Guarding America Against Plague Ravages



**How Surgeons at Sea Inspect Everybody Before Landing at Port, and How the Battle Against Invasion of Foreign Rats Goes On In Every Harbor**

Why is it we have feared rats through all ages? The rat is typical of all that is low and mean, and we would rather be left alone in a dark room with a Black Hand murderer than with a rat. For ages the wise men of the world have laughed at the fear of rats. The fear was only an instinctive one, and we were told to get rid of our instinct and listen to reason.

Today it is the wise ones who are urging us to kill the rat. As usual, instinct was right. We feared the rat without knowing why and now find he is a deadly enemy of man. He is the agent of the bubonic plague.

The other day the medical experts were alarmed with the news that two cases of bubonic plague or suspected plague had broken out in New Orleans. Surgeon General Rupert Blue of the Government Health Service was rushed to New Orleans to combat the possibility of the plague spreading all over the United States.

America is a land practically free from disease. Seldom, indeed, do the terrible Asiatic scourges cross

have to watch for invasion. Bubonic plague has its original home in Siberia, the land of Russian exiles. It lives among the prairie dogs of that extensive land and they keep it continually alive. The only way the disease can be forever stamped out is to kill the prairie dogs of Siberia. From Siberia the disease from time to time crosses the frontier into the western bounds of China. Last year it is estimated by officials of the Chinese Republic that 175,000 persons died of bubonic plague.

It frequently goes west and crosses into Europe by way of Russia. There are strict quarantines against the bubonic plague centers of Siberia, however, and it rarely breaks across the frontier.

The disease is transmitted to Europeans and Americans by the rat through the agency of the flea. The question naturally arises, why the plague does not kill the rats. The fact is that every rat is like "Typhoid Mary," who was a culture for the typhoid bacillus, but did not get seriously ill herself. The rat and other rodents are plague cultures, but they are not seriously ill. The

early stages of illness could pass the examinations when boarding the steamer, they would have more difficulty at this end of the journey, where the disease would be further developed. It is customary for an examination to be made at the European port because a steamship line has to take the passengers back to Europe free of charge if they bring them to this side of the water in a diseased condition.

The examinations on shipboard are often very picturesque. Many of the great liners reach port early in the morning and many of the first class passengers go to the physician for examination before they have dressed for breakfast. They are anxious to have the ordeal of examination over. Men of all kinds and women, too, can be seen on such a morning going for their examination.

The fact that bubonic plague germs were found in America recently indicates failure of some physician on board a vessel to make perfect examination of the patients or else a rat was allowed to enter the port.

When news of possibility of dis-

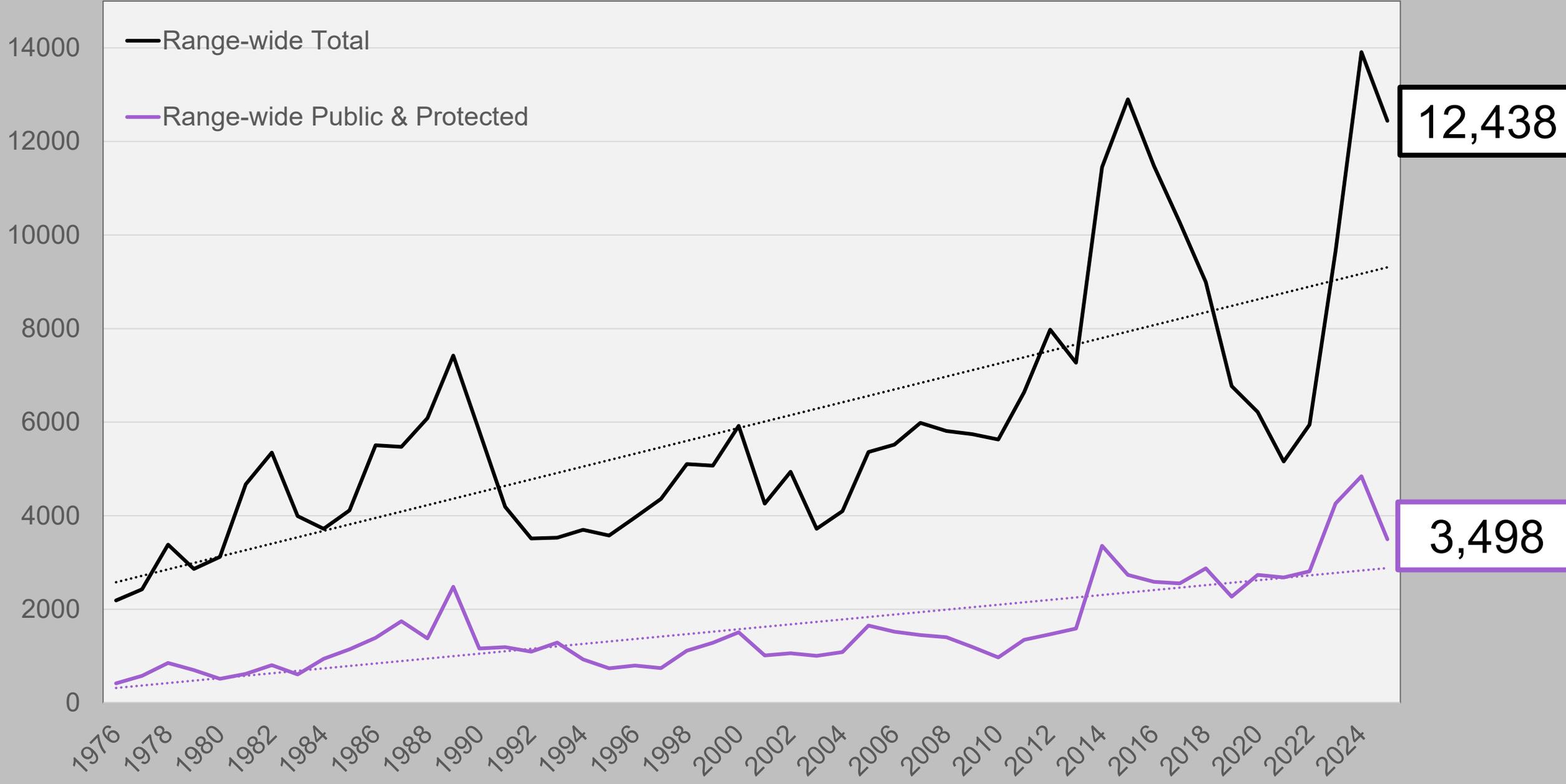




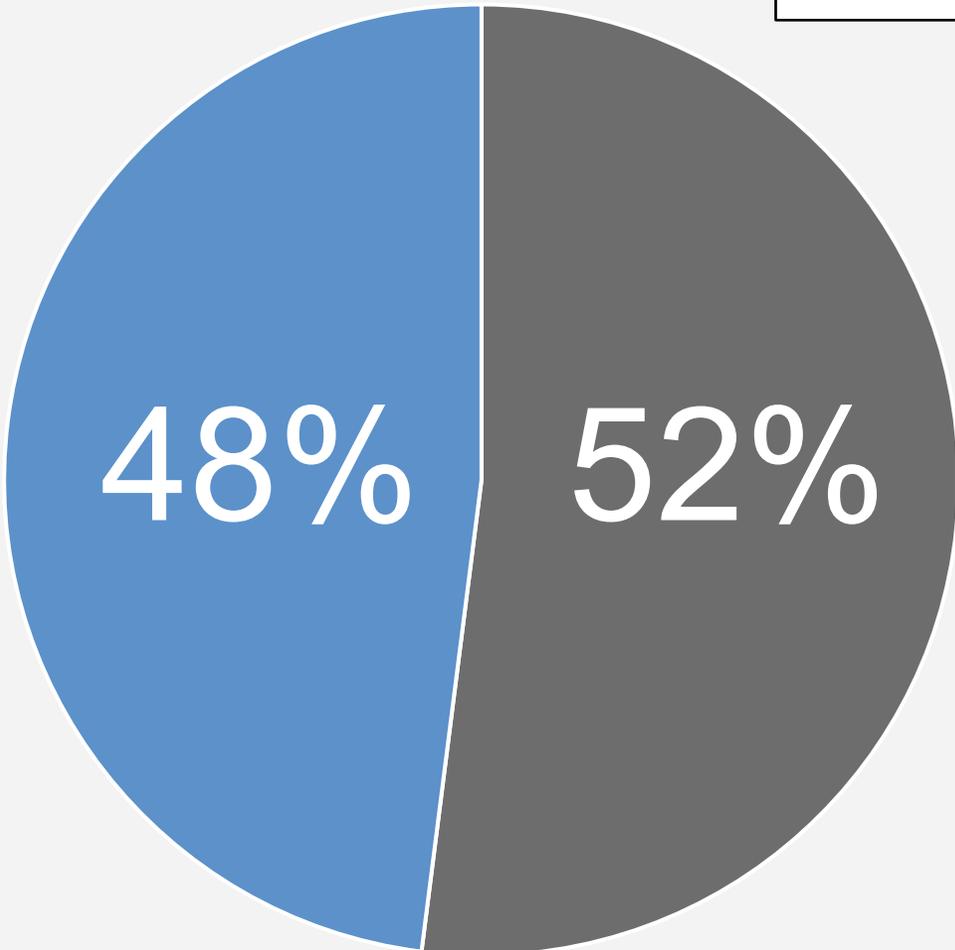
**CONSERVATION**



# RANGE-WIDE UPD SPRING COUNTS 1976-2025

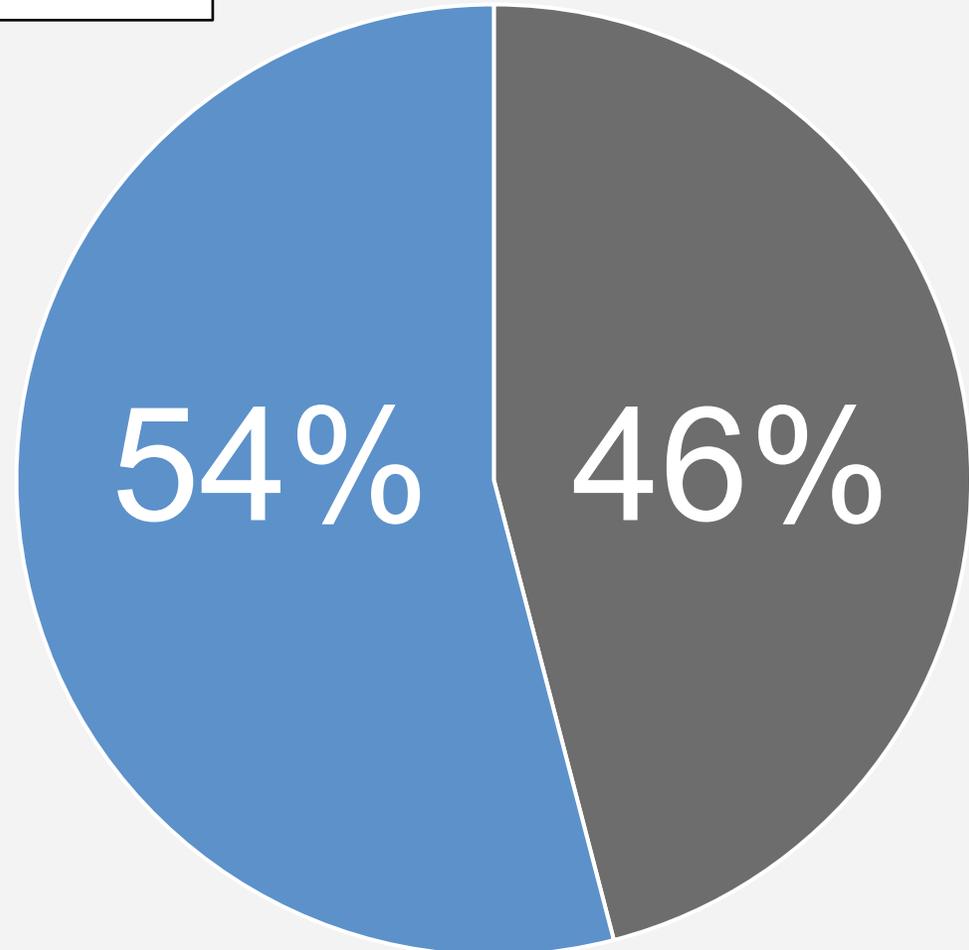
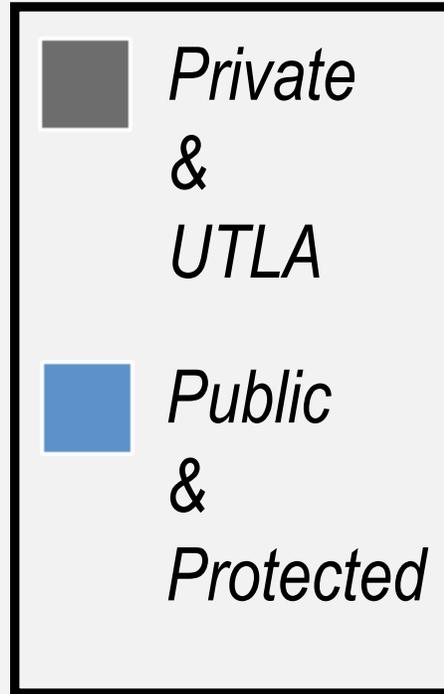


# RANGE-WIDE



**Mapped**

69,909 acres



**Occupied**

19,385 acres

# TRANSLOCATION

- Trap from human-wildlife conflict situations
- New colonies established
- Existing colonies repopulated
- Translocation sites
  - Public or protected land
  - Good vegetation
  - Good soil
  - Minimal human conflict



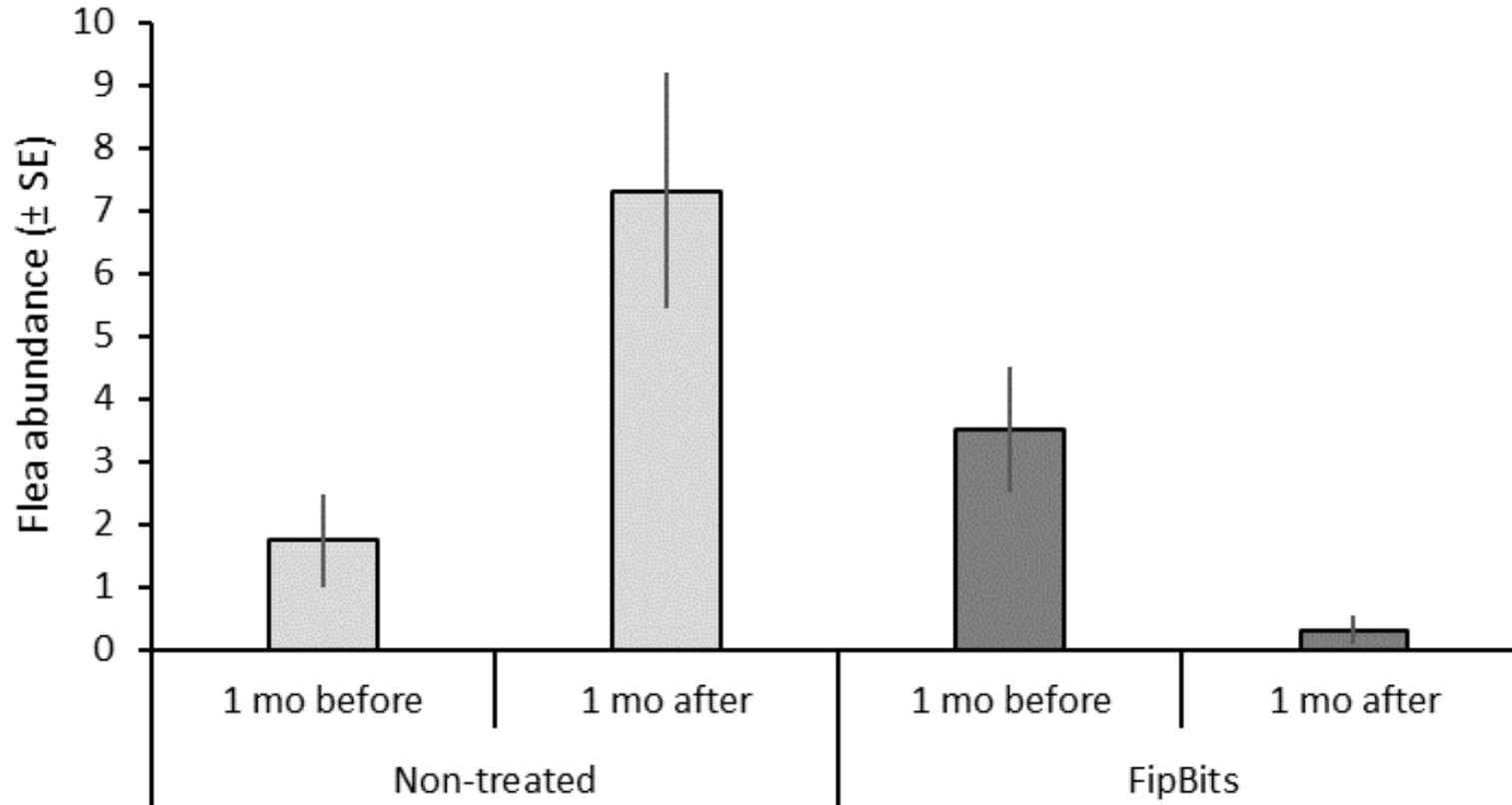


**RESEARCH**





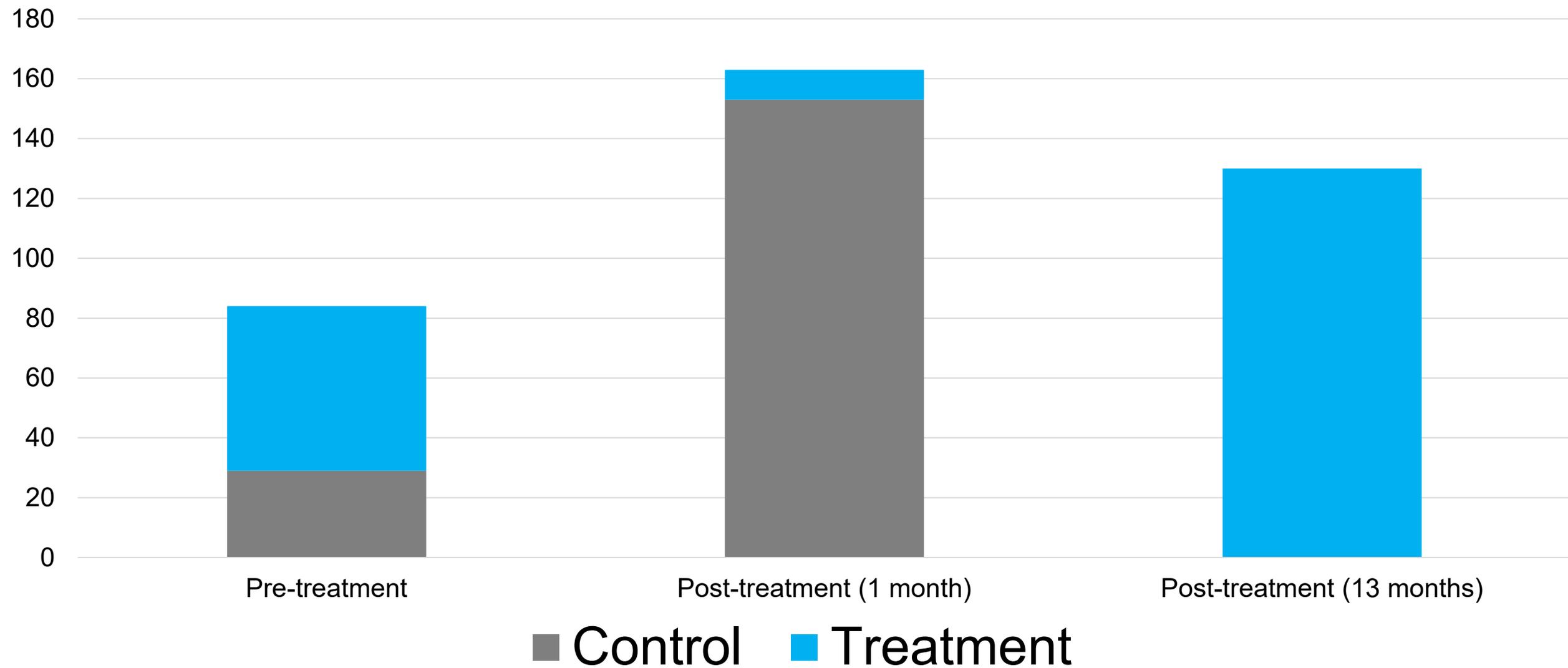
# RESULTS 2024



Graph created by David Eads

- 98 UPDs trapped, 91 UPDs processed
- Trapping pre-treatment fleas
  - Control = 29
  - Treatment = 55
- Trapping post-treatment fleas
  - Control = 153
  - Treatment = 10
- Confirmed UPD with plague – East Creek control site

# RESULTS 2025



# THANK YOU

UTAH DIVISION OF  
WILDLIFE RESOURCES

*February 2026*



Utah Division of  
Wildlife Resources

