

The Benefits of a Sylvatic Plague Vaccination Program

Some wildlife species, such as black-footed ferrets, prairie dogs, ground squirrels, and rock squirrels, suffer devastating outbreaks of plague, often experiencing greater than 90 percent mortality.

What is plague?

- Plague, caused by *Yersinia pestis*, is a bacterial disease of wild rodents that can be transmitted to people, pets, and other wild animals by flea bites or direct contact with infected animals.
- In humans, plague is treatable with antibiotics but can be fatal if untreated. Each year in the U.S., 10–20 people develop plague, mostly in the southwest (Utah, New Mexico, Arizona, Colorado).
- Plague has contributed to severe population declines in prairie dogs, including the Utah prairie dog, currently listed as a federally threatened species.
- Population declines in prairie dogs affect numerous grassland species that depend on them for prey or habitat, such as black-footed ferrets, golden eagles, swift foxes, mountain plovers, and burrowing owls.
- Black-footed ferrets, an endangered species, rely exclusively on prairie dogs for prey and use their burrows for shelter; their recovery is tied directly to prairie dog conservation and plague management.



What is sylvatic plague vaccine and how does it work?

An oral vaccine to prevent plague in wild prairie dogs has been developed as an alternative to the current method of “dusting” prairie dog burrows with insecticides to kill the fleas that spread the disease. Dusting individual burrows is time-consuming and labor-intensive, is not long-lasting, and may be environmentally detrimental if not properly done. Sylvatic plague vaccine, incorporated into edible peanut butter-flavored baits, could be distributed via plane or vehicle to vaccinate specific populations of prairie dogs.



Benefits of sylvatic plague vaccine include:

- Reduced pesticide use on public lands.
- Improved ability to balance prairie dog management with other land use needs.
- Increased economy and efficiency of ferret recovery and possibly other threatened species.
- Reduced risk of human plague exposure.