

# INBREEDING IN PRAIRIE DOGS



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# GOALS OF PRESENTATION

- ◉ Basic ecology
- ◉ Threats to prairie dogs
- ◉ Inbreeding in prairie dogs
- ◉ Conservation
- ◉ Conclusion

# ECOLOGY OF PRAIRIE DOGS



- Herbivores
- Colonial rodents
- Live in coterie
- Females produce one litter each year
- All females in a coterie give birth at the same time
- 40 % of litters lose pups to infanticide

# THREATS TO PRAIRIE DOGS

- ◉ Initially the prairie dogs had a dramatic increase in their population
- ◉ Farmers/Ranchers perceive prairie dogs as agricultural pests
- ◉ Increase in habitat loss
- ◉ Are considered “near threatened”



# INBREEDING

- ◉ To prevent inbreeding dominant males usually leave their coterie before female pups reach adulthood
- ◉ Due to habitat loss male offspring now are more prone to stay in their coterie and reproduce with close relatives
- ◉ Currently they avoid extreme inbreeding

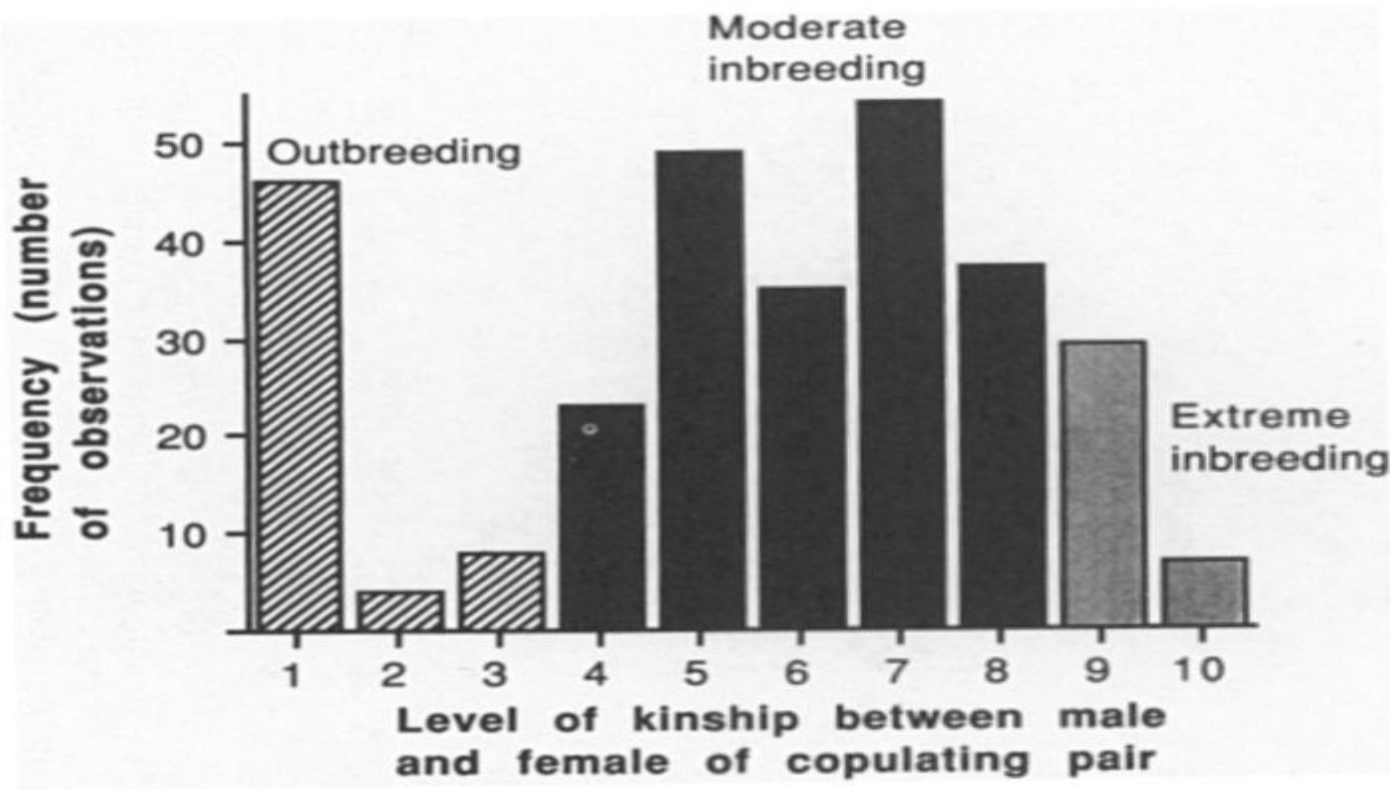


# DISCUSSION



- 1st young males depart before they reach sexual maturity
- 2<sup>nd</sup> older males remain in the same breeding coterie
- 3<sup>rd</sup> yearling females are less likely to reproduce successfully
- 4<sup>th</sup> females refuse to mate with males who return to original coterie

## LEVELS OF INBREEDING AMONG PRAIRIE DOGS



# CONSERVATION

- ◉ To lessen effects of inbreeding depression in prairie dogs the American Bison Society (ABS) are restoring the American bison
- ◉ This would in-turn increase the prairie dogs and other populations of American wildlife
- ◉ The freely moving bison can trim prairie grass patches down to the right height for the prairie dogs to make its home





# CONCLUSION

- ◉ The biggest threat to prairie dogs today is habitat loss from livestock grazing and agriculture.
- ◉ Due to habitat loss there is an increase in inbreeding
- ◉ Females avoid extreme inbreeding , however they will mate with second cousins
- ◉ Conservation acts such as the one involving the bison can contribute to the restoration of prairie dogs

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