Thylacine: The Tasmanian Tiger

By Josh Leibowitz
Goals of Research

- Explore the known ecology of Thylacine
- Understand the dueling theories of extinction
- Decide which theory seems most plausible
- Discuss future cloning of Thylacine
Ecology of the Thylacine

- Dog-fox hybrid
- Characteristic tiger stripes on lower back
- Lived mainly in Australia, New Guinea, and Tasmania
- Not much known about Thylacine, but presumed to live in eucalyptus forests
- Life span thought to be 5-14 years, due to captured Thylacine
Ecology, continued

- Iteroparous marsupial, having clutch sizes around 3
- After birth, the babies would stay in the mother's pouch, similar to kangaroos and other marsupials
- Carnivorous, many times eating emus
What happened to the Thylacines?

- Became extinct around 1936
- Disease?
- Hunting?
- Dingoes?
The Dingo Hypothesis

- Thylacine was the largest predator in New Guinea and Australia for many years
- Inter specific competition
- Dingoes arrived around 3500 years ago
- Possible that Dingo predation and competition diminished female Thylacines
Results of Dingo Hypothesis

![Graph showing body mass distribution for Nullarbor and South-west locations.](image)

![Images of dingo skulls.](image)
The Hunting Hypothesis

- 1886, bounty by the Tasmanian government
- Researchers recorded how many thylacines were killed in the bounty
- In Tasmanian meta models, population decreased by 52%
- Concluded that this bounty and normal stresses, such as competition, led to the extinction
Future Directions

- Possible Thylacine resuscitation via DNA cloning
- Some thylacine DNA is preserved, but is fairly old. This DNA is from the mid 19th century
- Long shot
- Some work is still being done
Summary

- Thousand of years ago, Thylacines were the largest predator
- Dingoes became prominent, diminishing female Thylacines
- Hunting in Tasmania was the cause of false perceptions of thylacines
- DNA research is ongoing
References

• Colgan, Don et al. (January 2000) the Thylacine Project. *Australasian Science*. 21; 1.

• Letnick, Mike et al. (May 2012) Could Direct Killing By Larger Dingoes Have Caused the Wxtinction of the Thylacine From Mainland Australia? *PloS One*. 7; 5.

• Luntz, Stephen. (April 2013) Bounty was sole cause of Thylacine extinction. *Australasian Science*. 34.3; 5.


Questions?