

# Unit 5: Extinction

## Announcements:

- **Assignment folders handed back**
- **Field trip** on Sat. March 4<sup>th</sup> 1-4pm  
field trip forms filled out?
- **presentation subjects**  
due Mon . Feb. 27<sup>th</sup>

## Unit 4 wrap up

Legacy of the expedition  
earth map update

## Unit 5 Extinction

the thylacine

## Sign up for Endangered species groups





# **Presentation Project**

ES3 Imagery of the Environment



Prepare a power point presentation that runs for 6-8 minutes so the information needs to be organized and concise.

**The power point presentation** is worth 100 points = 75 for the presentation + 25 for the 1-2 page summary write up that you hand in .

**The subject** for your presentation is up to you as long as it has to do with the environment and art, and it is approved by me before hand.

You can work with one to two other people in the class.

You will present your presentation to the class during the 11<sup>th</sup> week of the quarter You will sign up for one or the other the week before



# Presentation Write up

Everyone writes summary of the information presented in the presentation. If you are working in a group, each member writes their own paper.

Needs to be a minimum of 1 page.

Worth 25 points of the total 100

Give a general description of how your presentation is organized and what you focused on .

At the end of the write up , write a paragraph describing why you chose this topic, your experience researching this subject, did it have an impact on you? What problems arose? Did it spark an interest to further explore this subject? Etc.

Due week 11 - the second day of presentations.



## Possible subjects:

- **artist's work:** Their life and how they depict the environment in their art.
- **culture's art:** Where, who when--How does the art reflect the environment?.
- **Animal species;** endangered or extinct ? how was it viewed in the past and today? General views of the species and the Art that depicts it?
- **Art and environmental issue**—how some artists work to save what inspires them.
- **a medium** find how it has been used to depict the environment such as bronze, photography, wood , installations/mixed media stone etc.

These are only suggestions, there are many possibilities come up with something original..... Be sure it isn't a subject that was talked about extensively ie. Leonardo da Vinci , Maria Merian etc.



## **The Power point:**

- 15 to 20 slides is a good guideline. Of course it depends on how many images you have etc.
- Start with an introductory slide first, include title, date, class, your name.
- Keep your presentation clear, concise and informative, with pictures and text that are easy to read, consider the color of the text and background.
- Use the wording in each slide as an outline only.. Keep it simple.. Know your subject !!
- References need to be cited on the last slide.
- Be creative !! You can also demonstrate a technique etc.



# Presentation Project subject

- Choose something that you've always wanted to learn about and have fun with it.
- You must submit on a piece of paper, a brief explanation about your subject, 1 paragraph.  
Due week 8---2/28
- I will not grade your presentation or sign you up for a time to present without checking the subject first.
- Let me know if you have any questions.



# Unit 4 Activities

## 1. Lecture notes:

### The Age of Exploration

List and explain three motivations that countries had for exploring other continents. Why were artists brought along on these expeditions?

### North America during 1800's

What was North America like during this time, Geographically, politically etc. What was the main industry? Who lived west of the Mississippi River? What was the US gov't. attitude towards wilderness?

### The Expedition

Where did the expedition go? What were their motivations for going? What was Bodmer's job on the expedition and why did Maximillian hire him? What type of artist was Bodmer before the trip?

### The Legacy

Why was Bodmer's illustrations so important to the Native populations? What happened to their culture soon after the expedition?

## 2. Video Write up: *View of a Vanishing Frontier*



# UNIT 4 Terms

U.S. Fur Trade

Mandan

Keystone species

Louisiana Purchase

Manifest Destiny

Transcontinental Railroad



# Exploration of the Missouri River Basin

Privately funded  
Professional artist &  
Scientist  
Strict attention to detail and  
accuracy  
Happened at a pivotal  
moment in the history of  
the great plains





# Artist as Explorer

## (Bison Marker, 1833)

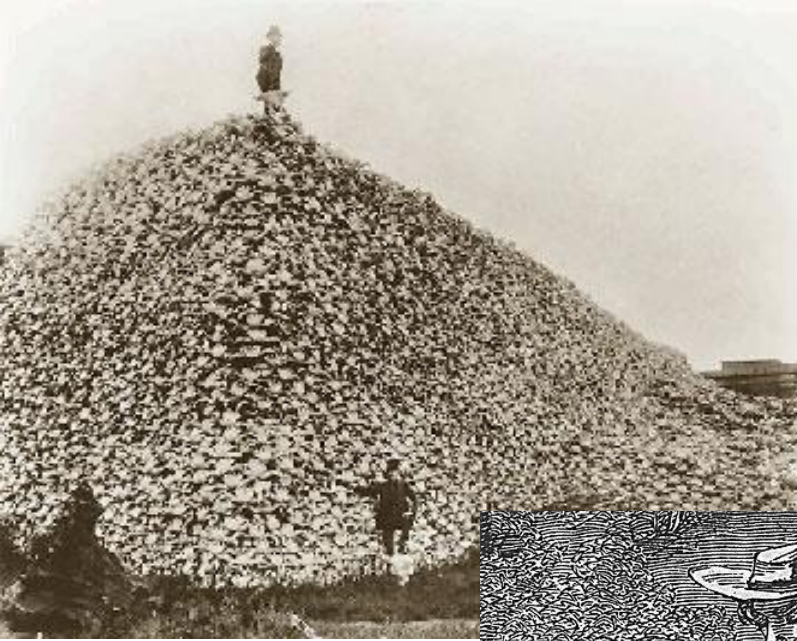
Soon after the expedition, the plains changed drastically:

- End of the fur trade
- Extermination of the bison herds
- Decimation of the plains tribes.





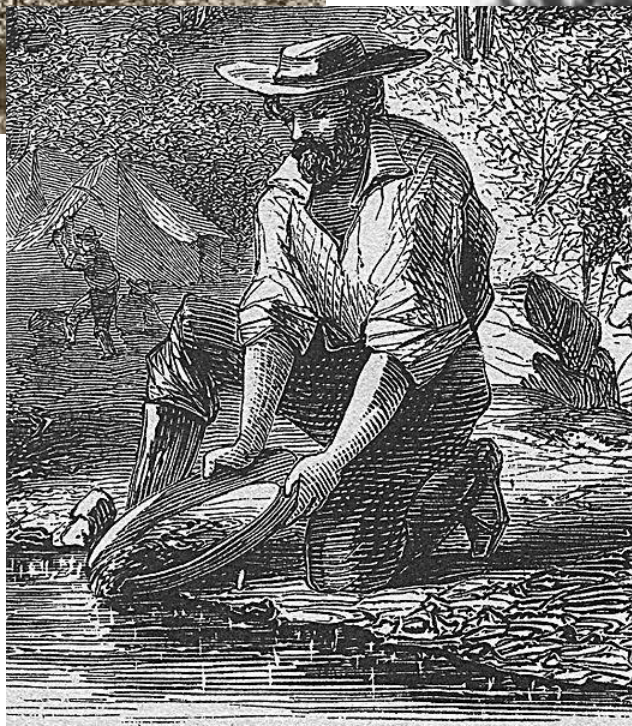
# Artist as Explorer



Extermination of the  
bison 1830 - 1880



Transcontinental railroad  
1868



California Gold Rush  
1848



# Expansion West

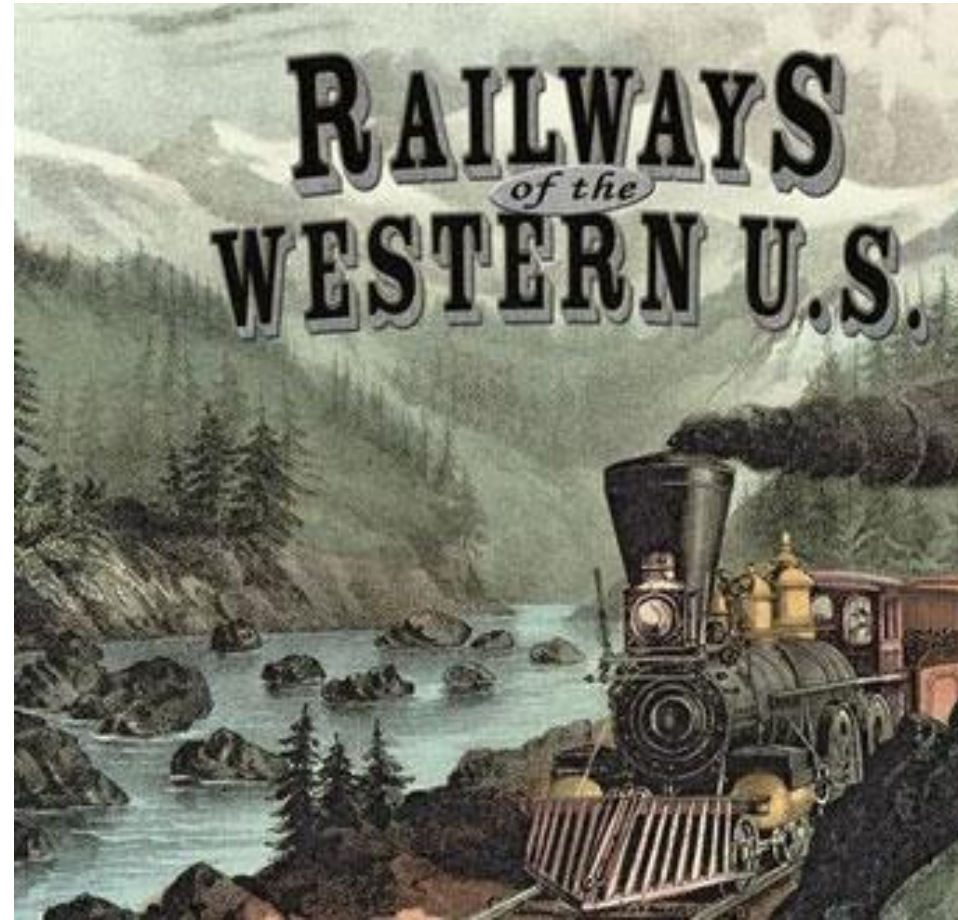
Motivation for taming the wilderness became economic and moral

Exploitation reaches it's pinnacle in late 1800 in the US.

Rapid increase in immigrants

Land, economic opportunity and freedom

West = last frontier and hope for prosperity





# Artist as Explorer

- Manifest  
Destiny

- Natural  
Resources were  
infinite

- Homestead Act  
of 1862



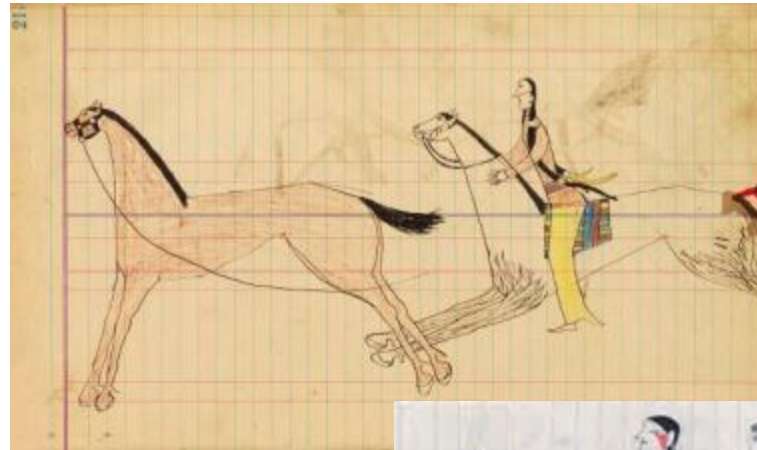
American Progress, John Gast , 1872



# Artist as Explorer the indigenous cultures

- Decimation of food resources-removal of livelihood
- Disease-small pox
- Removal onto reservations
- Assimilation—boarding schools
- Dying of elders--- loss of ceremonies and traditions
- Illegalization of ceremonies between 1882 -1930

Resulted in the Genocide of the indigenous people of North America.





# Artist as Explorer

- Maximilian continued to write articles about his experiences in North America up to his death in 1867 at 85 years old
- Bodmer continued to paint landscapes and animals until his death at 84 years in 1893.
- Neither of them ever returned to North America





# Joslyn Museum,

Omaha, Nebraska





# Artist as Explorer

## impacts of the 20<sup>th</sup> century



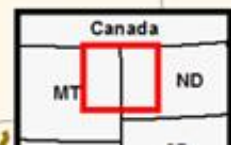
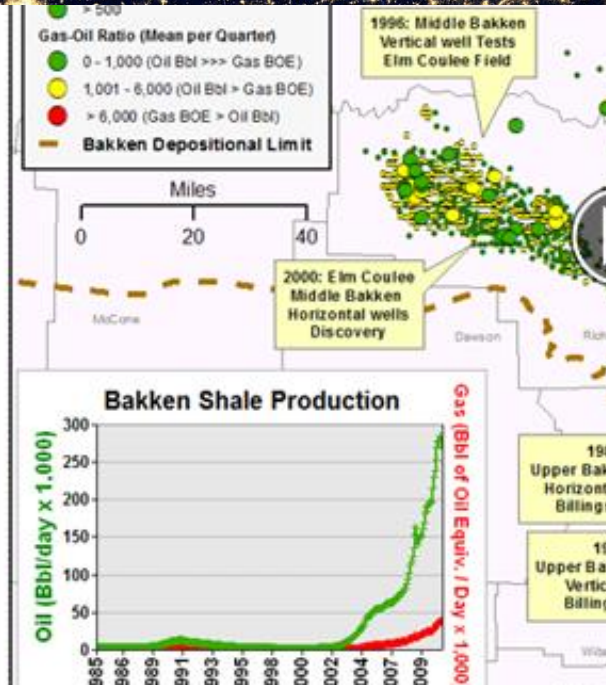
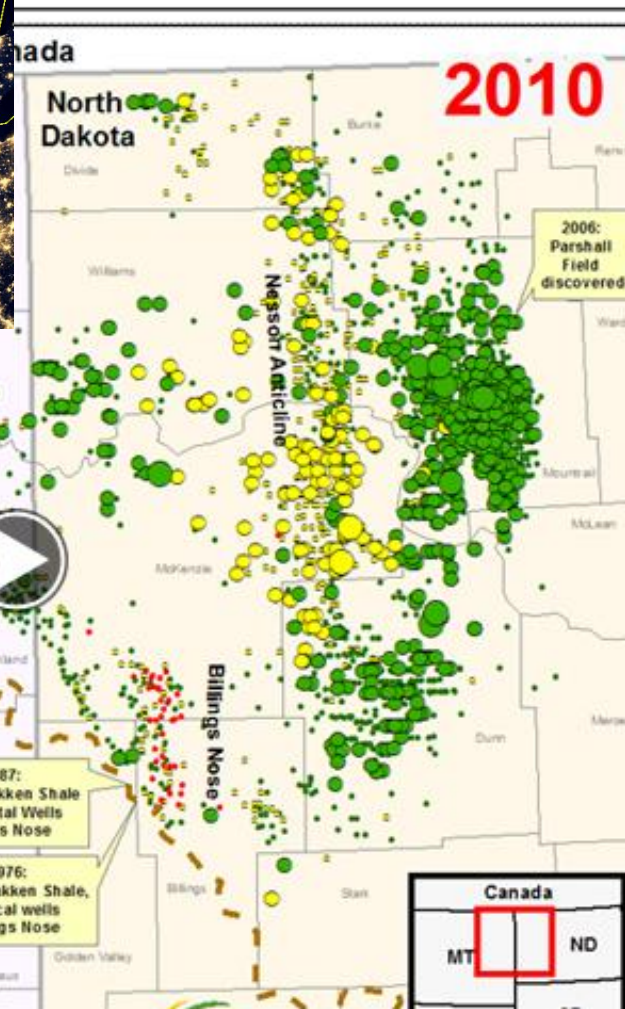
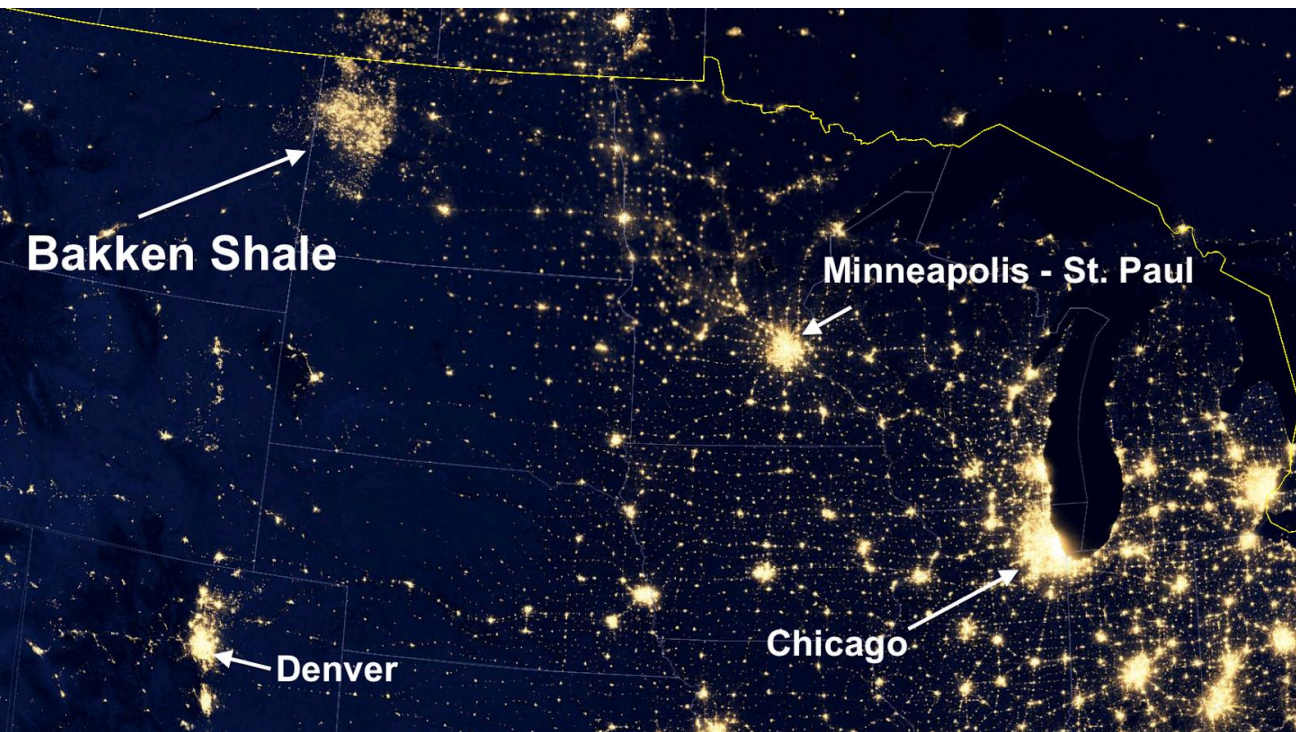


# The river today



- Narrower and deeper through channels and levees
- 15 hydroelectric dams built
- Less sediment load—ecosystems along river
- Pollution from agriculture
- Bakken Shale Oil fields







# Dakota Access Pipeline





# Dakota Access Pipeline Action

- [http://www.ecowatch.com/dakota-access-pipeline-emergency-order-2063073522.html?utm\\_source=EcoWatch+List&utm\\_campaign=0f747a8f52-MailChimp+Email+Blast&utm\\_medium=email&utm\\_term=0\\_49c7d43dc9-0f747a8f52-86043425](http://www.ecowatch.com/dakota-access-pipeline-emergency-order-2063073522.html?utm_source=EcoWatch+List&utm_campaign=0f747a8f52-MailChimp+Email+Blast&utm_medium=email&utm_term=0_49c7d43dc9-0f747a8f52-86043425)





# Earth Map update



**Prince Maximilian & Karl Bodmer's Expedition :**

**4a.** Boston, Mass.

**4b.** Fort McKenzie, Montana



# Unit 5 activities

## Lecture notes-

thylacine story

sixth mass extinction

endangered animals etc.

Walton Ford & John Audubon

**research notes on your species**

## Concept map-

endangered animal group work

**Write up** Saving your species !



# Unit 5 terms

- thylacine
- parallel evolution
  - Tasmania
  - Marsupial
- Anthropocene
- 6th mass extinction



# Industrial Revolution: 1700's



## **Technological advancement:**

- expansion of Western ideology to every corner of the globe
  - increased population exponentially
  - lengthened lifespan
- Increase in need for natural resources- extractive industries



# Historic vs. Contemporary Humans

## Historic - 300 years

- Nature = survival  
hunting, gathering,  
herding or growing
- Muscle power (animal etc.)
- Control of our food  
supply
- Abundance of resources
- Localized impact
- Human superiority

## Last 300 years

- Nature = profit and  
commodity later also  
aesthetic and healing
- Dependence on extractive  
resources  
(oil & gas)
- Leisure and recreation
- Stewardship position
- Top of food chain
- Extraction of finite resources  
with global impact

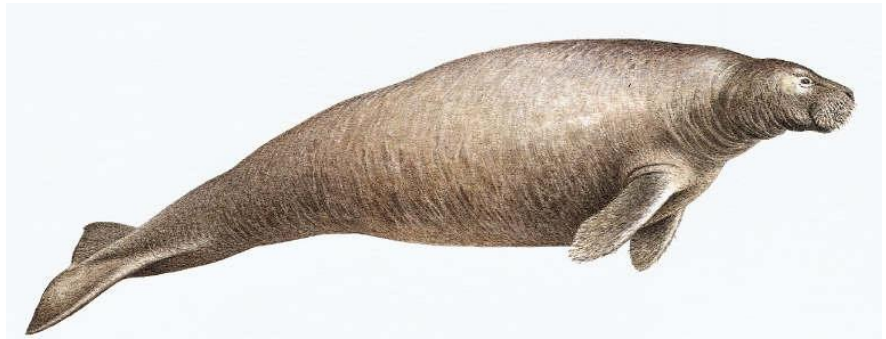
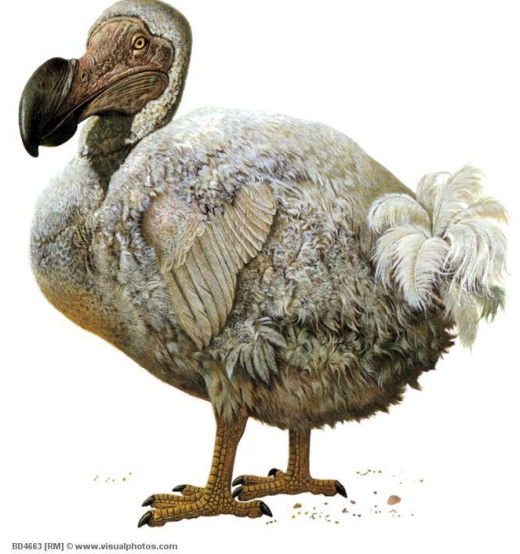


# Extinction

## Pleistocene extinctions

During the age of exploration, a few species went extinct as early as the 1600 and 1700's as explorers and colonists arrived:

- Dodo bird-1598-1662
- Auroch- 1627
- Stellar's sea cow 1741-1768





# Lecture #5: Extinction



Since 1900, just in the last 100 years, it is estimated that 3,125 species of plants and animals have gone extinct as a direct result of human actions.



# Gone but not forgotten



*Thylacinus cynocephalus*

Tasmanian tiger or zebra wolf

Last member of Thylacnidae family

4 million years old



# THE THYLACINE



Parallel evolution --- canine ?

Sexual size dimorphism



# THE THYLACINE

*Thylacinus*

*cynocephalus*,

Carnivorous marsupial

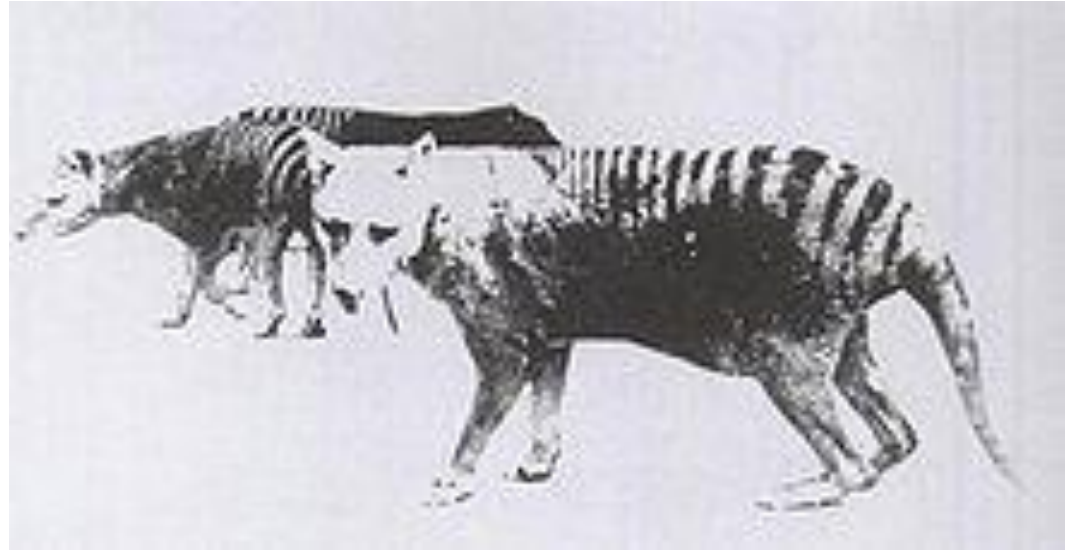
Sub group of  
mammals

2-4 Atricial young

In pouch, attached to  
mother for few  
weeks

In pouch for 3 months

Nursed for 9 months





# THE THYLACINE

## Natural History:

Powerful jaws

Body size 5 to 6 feet long

Habitat – coastal forests,  
savannah and wetlands.

Camouflage

15 – 31 sq. miles

Little is known

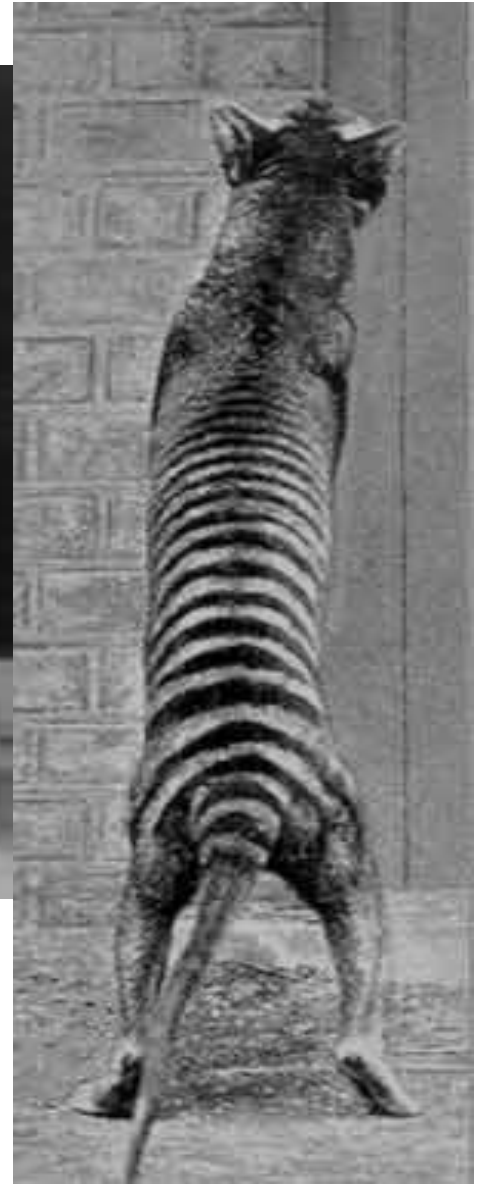
Shy and hunting habits

Eat only freshly killed prey

Nocturnal or crepuscular

Opportunistic hunters

Life expectancy = 5 – 7 years





# THE THYLACINE



This is a sketch by George Harris, 1806  
First drawing of a thylacine

Historic range:

New Guinea, Australia  
and **Tasmania**,

The thylacine vanished  
from mainland  
Australia and New  
Guinea approximately  
2000-3000 years ago.

Dingo was introduced  
from Asia 4,000 ya



# THE THYLACINE

## Dingo vs Thylacine

Thylacine powerfully built, could have stood it's ground against a dingo

## Outcompeted by the dingo

Dingos are semi domestic, having supplementary food source.

Dingos diurnal pack hunters

Life expectancy thylacine 5-7 yr.  
dingo 20 years

Thylacine went extinct in Australia and New Guinea about 3,000 years ago.



The dingo



# THE THYLACINE

## Tasmania:

The dingo didn't make it  
to the island

became the thylacines'  
(and other marsupial  
species' ) last refuge

By 1788 when  
Europeans colonized  
Australia

the thylacine was  
already restricted to  
Tasmania





# GONE BUT NOT FORGOTTEN: THE THYLACINE



Rock art of northern Australia depicts the thylacine, documenting the species' tenure on that continent.



Top: Kakadu National Park, NE Australia

Bottom: Ubirr, N. Australia



# THE THYLACINE

The art dates from about 5,000 years ago.





# GONE BUT NOT FORGOTTEN: THE THYLACINE





# GONE BUT NOT FORGOTTEN: THE THYLACINE



Also from Australia is this naturally mummified thylacine head, found within a cave.



# GONE BUT NOT FORGOTTEN: THE THYLACINE

Another thylacine  
mummy  
3,300 years old





# THE THYLACINE



Protected in its island home of Tasmania, the extraordinary thylacine flourished until the early 1800' s.





# GONE BUT NOT FORGOTTEN: THE THYLACINE



no natural predators,  
although white-tailed  
eagles and Tasmanian  
devils preyed on their  
young.

Tasmanian devils are the  
largest remaining  
carnivorous marsupial.

High birth rate  
opportunistic



# GONE BUT NOT FORGOTTEN: THE THYLACINE

In 1802, European  
settlers in Tasmania  
brought sheep

Thylacine perceived to  
be vicious sheep and  
chicken killers

They were forced into  
higher elevations

Until sheep populations  
increased.





# THE THYLACINE



Predator extermination program

Habitat loss due to forest clearing also began to take its toll on the thylacine.

The final decline of this superb marsupial proceeded quickly, abetted by a public campaign of extermination.



# THE THYLACINE

In 1888 the Tasmanian government placed a bounty

£1 per adult and 10 shillings per pup.

Didn't have flexibility to adapt

Rarely left their territories

Made tracking them and killing them easy.





# THE THYLACINE



1850's est. 150 individuals in zoos throughout the world

Brought attention to this unique species and its plight.

Only one successful litter was produced in captivity



# THE THYLACINE



Between 1888 and 1908,  
2,184 bounties were paid.  
People began to voice their  
opposition

A noted decline in population  
1935 expeditions into remote  
areas to document  
population

But it was too little too late  
Bounties plus distemper  
decimated the populations  
Population bottleneck

The last to be killed in the wild  
was shot in 1932.



# GONE BUT NOT FORGOTTEN: THE THYLACINE

“When the comparatively small island of Tasmania becomes more densely populated, and its primitive forests are intersected with roads . . . the numbers of this singular animal will speedily diminish, extermination will have its full sway, and it will then, like the Wolf in England and Scotland, be recorded as an animal of the past.”

(Naturalist John Gould, 1863)



# GONE BUT NOT FORGOTTEN: THE THYLACINE

On September 7, 1936,  
the last thylacine in  
captivity died at the  
Hobart Zoo, Tasmania.  
Fifty years later, in 1986,  
the thylacine was  
declared extinct.





# GONE BUT NOT FORGOTTEN: THE THYLACINE





# GONE BUT NOT FORGOTTEN: THE THYLACINE





# GONE BUT NOT FORGOTTEN: THE THYLACINE

. . . and there was hope, that some still remain in the high wild mountains of Tasmania.

But this hope is fading as the years pass with no sightings.





# TIGER LIVES

## Tassie tiger alert after reported bush sighting

By LUNE SARTER

ONE of the state's most celebrated Tasmanian tiger hunters yesterday told of a bush sighting on a bush road this week.

A Thurlisford man said the supposedly extinct predator had stared at him before fleeing into woodland & was bawling on a bush near Christmas Island.

Tiger hunter James Muller, who has spent almost half a century searching for a thylacine, said he had no reason to doubt the report.

The man who said he saw the tiger is reluctant to go public because of the stigma associated with sightings.

Mr Muller, of Black River near Frankston, said the man showed him, some other his brother on Thursday.

"It was definitely a tiger. I got some of sightings like this extremely regularly and it is, well, said Mr Muller, who

**BELLEVILLE:** James Muller says report is credible.



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## In quest of the tiger

... living proof worth a fortune!



Claim made in the latest issue of Ecological Economics after Dutch and US environmental economists used computer modelling to reach the conclusion that thylacines might still be with us

## Tigers can be flushed out: MP

By MICHELLE PARRE

A LINE of people watching across the Tasmanian wilderness could be able to flush out Tasmanian tigers and flush out MP.

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## Credible sightings keep hopes alive

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# GONE BUT NOT FORGOTTEN: THE THYLACINE





# GONE BUT NOT FORGOTTEN: THE THYLACINE

(TASMANIA'S GOVT. LOGO)



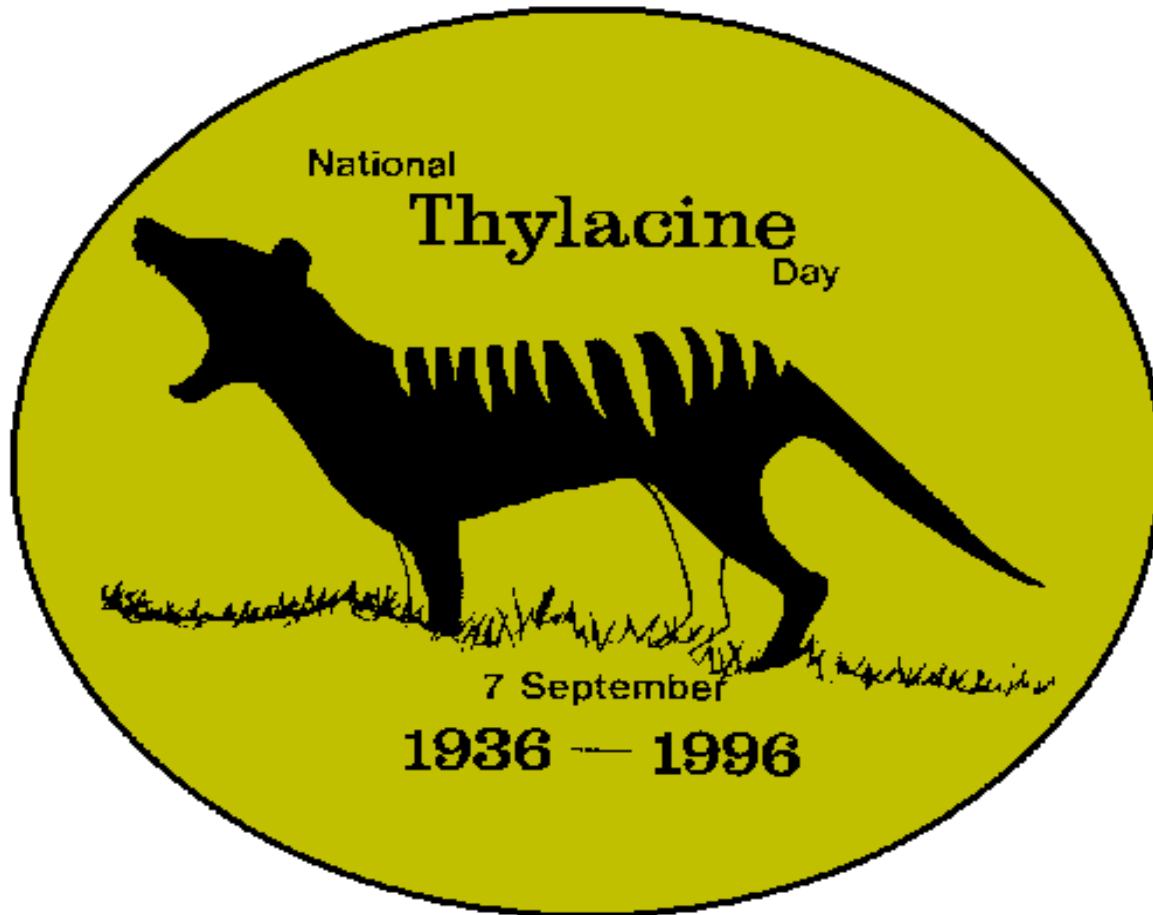


# GONE BUT NOT FORGOTTEN: THE THYLACINE





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