## **Evolution to Extinction**

## By: Derek, Evan, Ty, and Izzyh

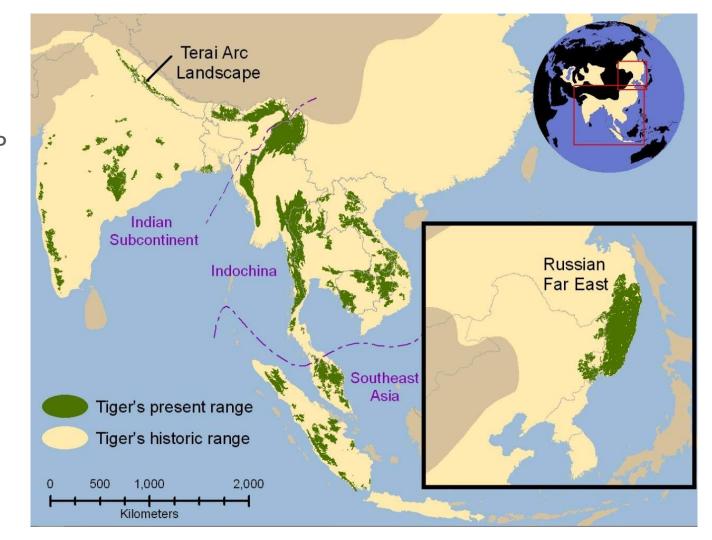


## **Background Information**

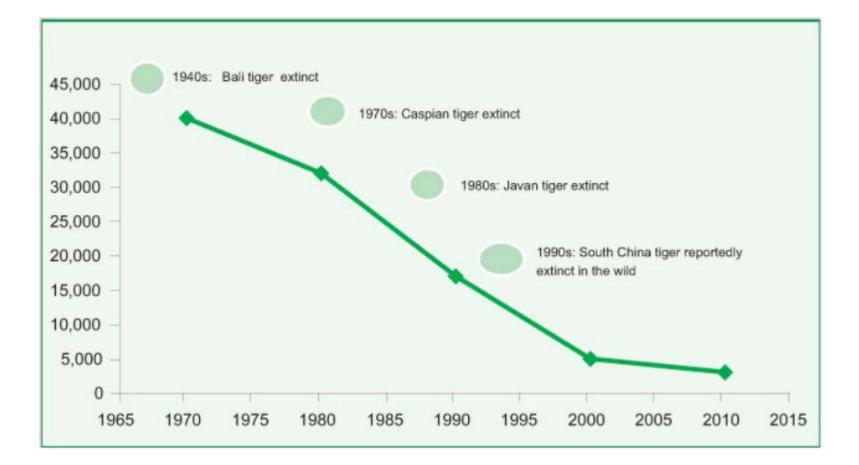
- Tigers are carnivorous predators that ambush their prey
  - Biggest species in the cat family
- Mostly live in South East Asia, India, and Indonesia
- Endangered, lost 97% of population in past 100 years
  - Environment destruction, hunting
- 1/3 of tiger species are extinct (3 species out of 9)







Big RIP



## Ancestral History of Tigers

- Tigers are closely related to the endangered snow leopards, lions, leopards, and jaguars.
- White tigers have a gene found in only 1 of 10,000 tigers. Tigers stripes help break the outline their body and make them harder to see.
- Tigers began evolving 3.2 million years ago
- Tigers developed genetic mutations that allowed them to adopt a carnivorous diet



## **Biodiversity and Tigers**

Biodiversity is the variety of life on Earth. Biodiversity is important in order for any species to survive because it boosts ecosystem productivity. Greater species diversity ensures natural sustainability and healthy ecosystems can better withstand and recover from natural disasters. Tigers play an important role in ensuring maximum biodiversity, at the top of the food chain tigers control the population of prey.

http://www.globalissues.org/article/170/why-is-biodiversity-important-who-cares

https://en.reset.org/blog/save-tiger

## Human Impact on Tigers

- **Poaching:** trophy hunting, bones (hu gu) used for Oriental medicine (pills), put in rice wine to make tiger bone wine (said to harness power of tiger)
- **Retaliatory Killings:** villagers kill tigers that kill their cattle (India)
- **Habitat Loss:** population explosion in China and India, competition for food, space and resources, ineffective reserves for tigers (more on this later)





## Tiger's Resources:

- Tigers rely on vegetation to hide in, water, and animals to hunt
- Tiger need vegetation to hunt prey and without it they are not able to hunt
- Tigers rely on water sources for hydration and hunting
- Without prey tigers can starve
- All three of these resources are threatened by human impacts



### Water



- Agricultural expansion, timber cutting, human settlements, and dams affect the areas where tigers can live and the possible water sources for them
- Tigers resources and territories are threatened by human expansion and Asia's demand for space and land and this provided tigers with less water

Ex:	Indonesia: They have cleared almost all of the forests where tigers would live for farming and agricultural needs.	China: 99% of the forests have been cleared for China's 50% increase in population.	India: India has over 60% of the world's tiger population and India's population has doubled over the last 20 years.
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## Vegetation

- Tiger must compete with humans for their land which contains the vegetation they need.
- When humans destroy their habitats they are pushed towards civilized areas to try and find a new place to live
- When they move towards humans to find vegetation the tigers are hunted



## Prey

- Illegal hunting in tigers territories can deplete the number of prey for tigers to hunt and eat
- Tigers are forced to compete

with each other and humans

for food





## How Tigers Rely on Other Species

- Tigers are dependent on other species such as deer, pigs, buffalo, and antelope for food.
- Tigers eat a lot every day, if they get the opportunity they will eat anything they can.
- No species depend on tigers but tigers are a very important species in the environment because they control their prey's population





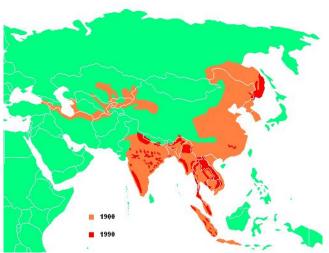
## Reproduction

- Females enter "heat" state (passionate, excited) every 6-9 weeks
  - Fertile for few days
- Male and female have courtship ritual
  - Circling each other, roaring and vocalizing, build trust
- Copulate (painful for females), female pregnant for 3 3.5 months
- Threatened by habitat loss
- Bad reserves: not protected, increased chance of inbreeding, reduced options for mates, disease



## Will Tigers Go Extinct?

- Tigers once had 9 subspecies
- Now only 6 are alive and 5 in the wild
- Only 3,500 tigers remain
- 3 are endangered and 2 are critically endangered
- 97% have vanished
- Hunting continues to be an issue and the territories are continuing to be depleted
- Human help for tigers has not been very successful
- Scientists have predicted that tigers may go extinct in the wild by 2029





https://www.nationalgeographic.com.au/animals/tiger-facts.aspx

https://www.livescience.com/29822-tiger-subspecies-images.html

http://s3.amazonaws.com/iucnredlist-newcms/staging/amazing-species/panthera-ti gris/pdfs/original/panthera-tigris.pdf?1466625016

http://www.sciencekids.co.nz/sciencefacts/animals/tiger.html

https://www.tigers-world.com/tiger-reproduction/

http://news.bbc.co.uk/earth/hi/earth\_news/newsid\_8512000/8512455.stm



https://www.wwfindia.org/?9561/

http://www.tigersincrisis.com/habitat\_loss.htm

https://blog.nationalgeographic.org/2014/04/29/tigers-in-traditional-chinese-medicine-a-universal-apothecary/

http://org.elon.edu/ncwildcat/nc-tigers/humanimpact.html

https://www.tigers-world.com/tiger-evolution/

http://www.globalissues.org/article/170/why-is-biodiversity-important-who-cares

https://en.reset.org/blog/save-tiger

## **Even More Sources**

http://www.tigersincrisis.com/habitat\_loss.htm

https://www.tigers-world.com/tiger-habitat/

http://s3.amazonaws.com/iucnredlist-newcms/staging/amazing-species/panthera-t

https://sciencing.com/role-tigers-ecosystem-7638501.html

https://www.worldwildlife.org/species/tiger

## The En...

## NO!

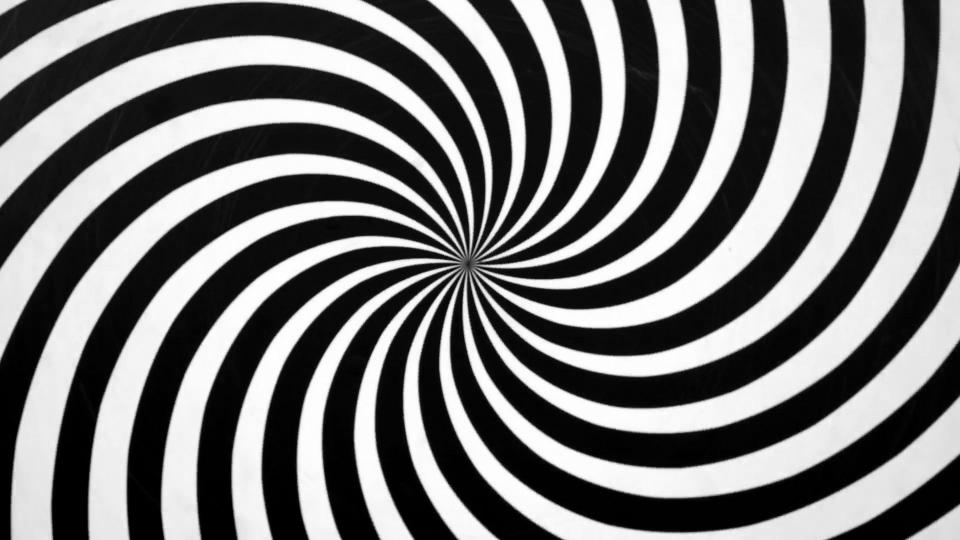
I am sick and tired

of these humans

killing all of my

friends!







#### Ryan used hunt.







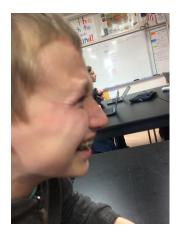




## Humans and poaching are tigers #1 predator.



#### Tiger used bite.









### Tigers must fight back when they are threatened.



## Tiger became confused.

Ryan used magic









## Wizards can negatively affect tigers.



## Tiger defense rose sharply

Tiger used hide







## Tigers use the water and vegetation to hide. Without this they are not able to hunt.

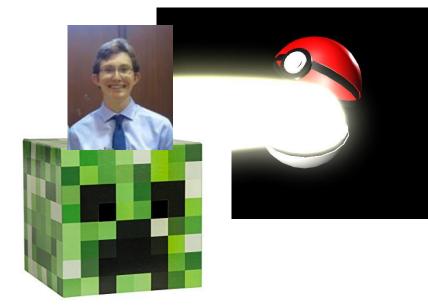


## Come back Ryan!





## Go Trevor!





## Trevor used pollution!





# If a water source becomes polluted it will no long be able to be used.



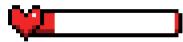
## Tiger used bite.

It was very effective









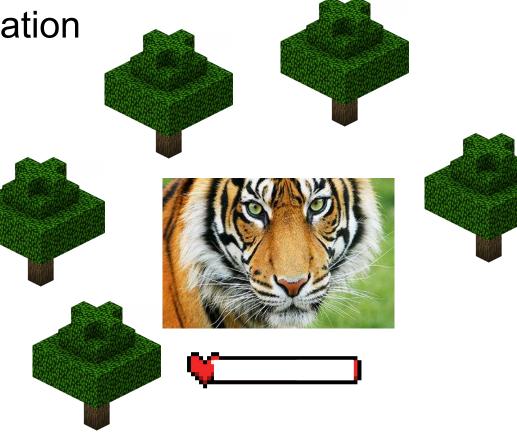
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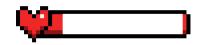


## Trevor used deforestation

It was very effective







# Deforestation leads to a large loss in the areas a tiger can live.



## The wild tiger fainted!





https://play.kahoot.it/#/?quizId=9a4453f6-ba0d-46ae-a5af-890d172bbe0b

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