The background of the slide is a dark blue space scene featuring a satellite in orbit. The satellite has a long, rectangular body with several solar panel arrays extending from it. The Earth's surface is visible in the lower right, showing a blue and white horizon.

# AmericaView<sup>SM</sup>

Empowering Earth Observation Education

**AmericaView.org - Est. 2003**

AmericaView and StateView Educational Outreach Empowers Earth Observation Education: The Half-Earth Project Exercise

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Empowering Earth Observation Education  
[americaview.org](http://americaview.org)

# Introduction to Geography

- World Regional Geography Course
- General Education – Social Sciences and Multi – Cultural
- Face to Face and Online
- Broad Goals
  - Improve Spatial Thinking
  - Better Global Citizen
  - Understand the Human – Environment Interaction

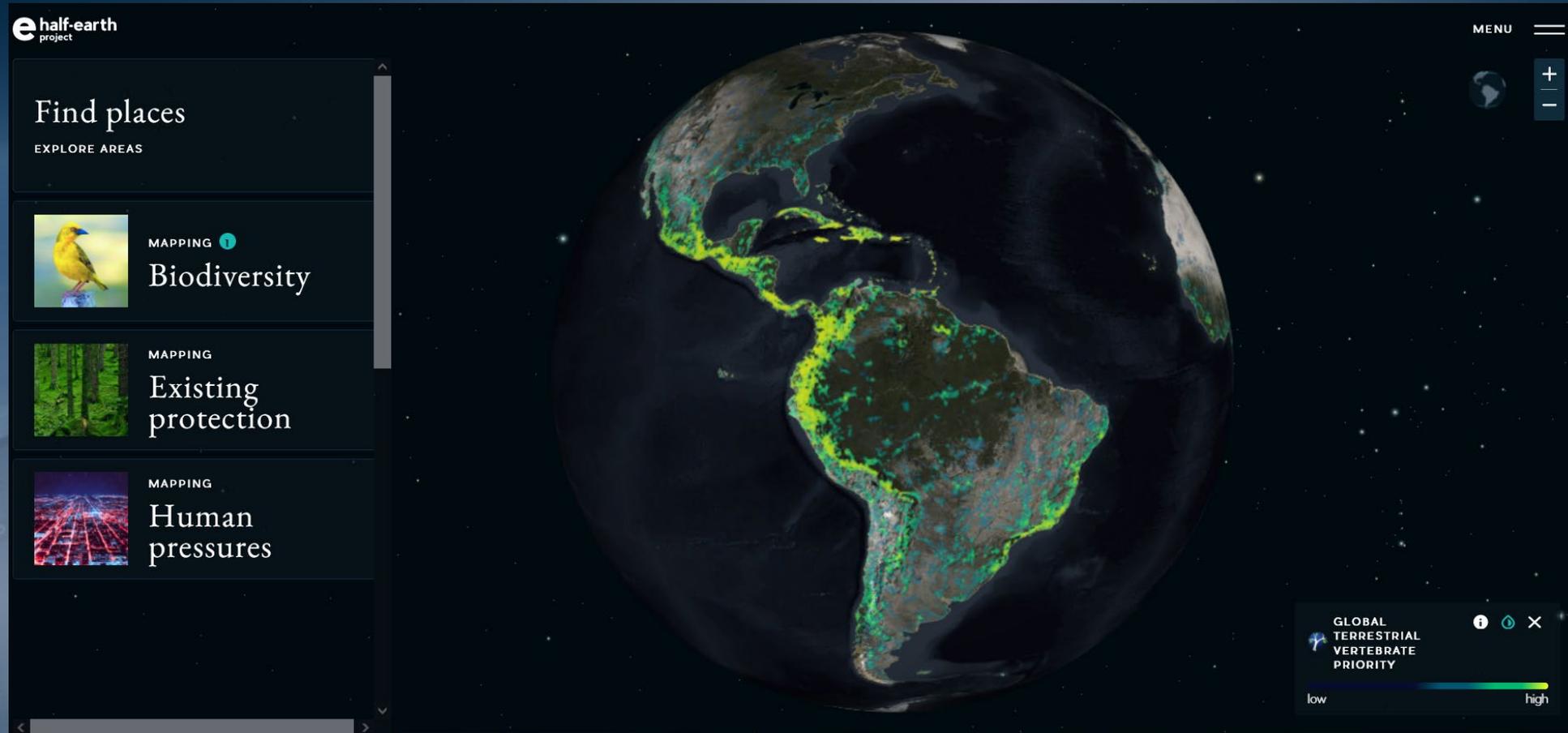
# Introduction to Geography – Course Setup

- Book Chapter Quizzes
- Lectures and Discussion
- Exercises on a topic
  - Ukraine and Language
  - Conflicts in Sub Sahara Africa
  - North Korea and the Nuclear Issue
  - **Need more on Human – Environmental Interactions**

# Half Earth Project

- “With science at its core and our transcendent moral obligation to the rest of life at its heart, the Half-Earth Project® is working to conserve half the land and sea to safeguard the bulk of biodiversity, including ourselves.” - <https://www.half-earthproject.org/>
- Half-Earth Project Map

# Half Earth Project Map



# Objective of Lesson

- Through this lesson, students will be introduced to the Half-Earth Project by E.O. Wilson. Using the data from [www.half-earth.org](http://www.half-earth.org), students will explore conservancy and preservation projects around the world, designed to preserve half of the land and oceans. According to Wilson, if we can preserve half of the Earth, we can potentially save up to 85% of the world's species can be saved from extinction

# NGSS Standards

- HS-LS4-5 Evaluate the evidence supporting claims that changes in environmental conditions may result in (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.
- HS-LS2-7 Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
- HS-LS2-8 Evaluate evidence for the role of group behavior on individual and species' chances to survive and reproduce

# Beginners to Advanced Learners

- **Beginning Learners:** Assign students a country or region to help alleviate the choice and have students work in groups. For the conclusion, use the conclusion section as a guided questionnaire for students to build a conclusion paragraph.
- **Intermediate Learners:** Let students choose their own country or region of study and work in groups. Students can use conclusion questions to guide their conclusion. Suggested length: 2 or more paragraphs.
- **Advanced Learner:** Students can work alone and choose their own country or region of study. In addition to exploring the types of species in the region, this lesson can be expanded to include exploratory into the Map of Life and IUCN statuses for each species.

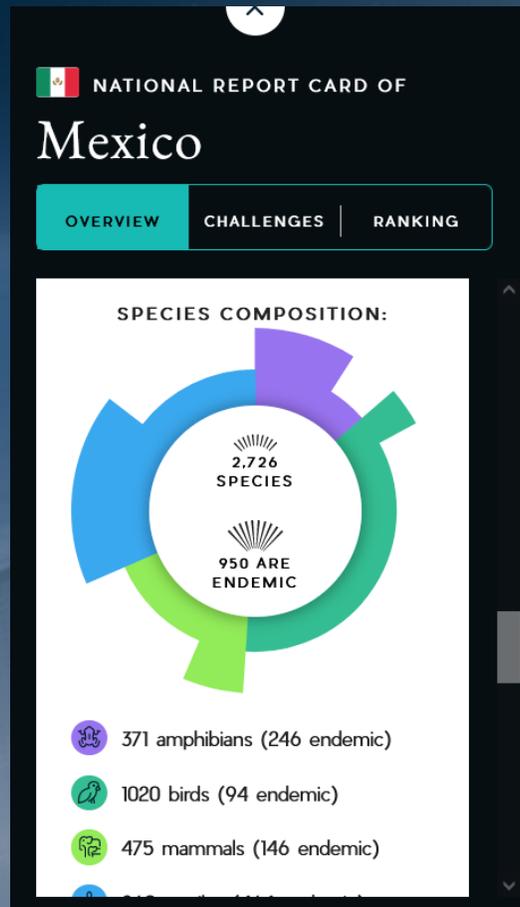
# Country



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# Biodiversity

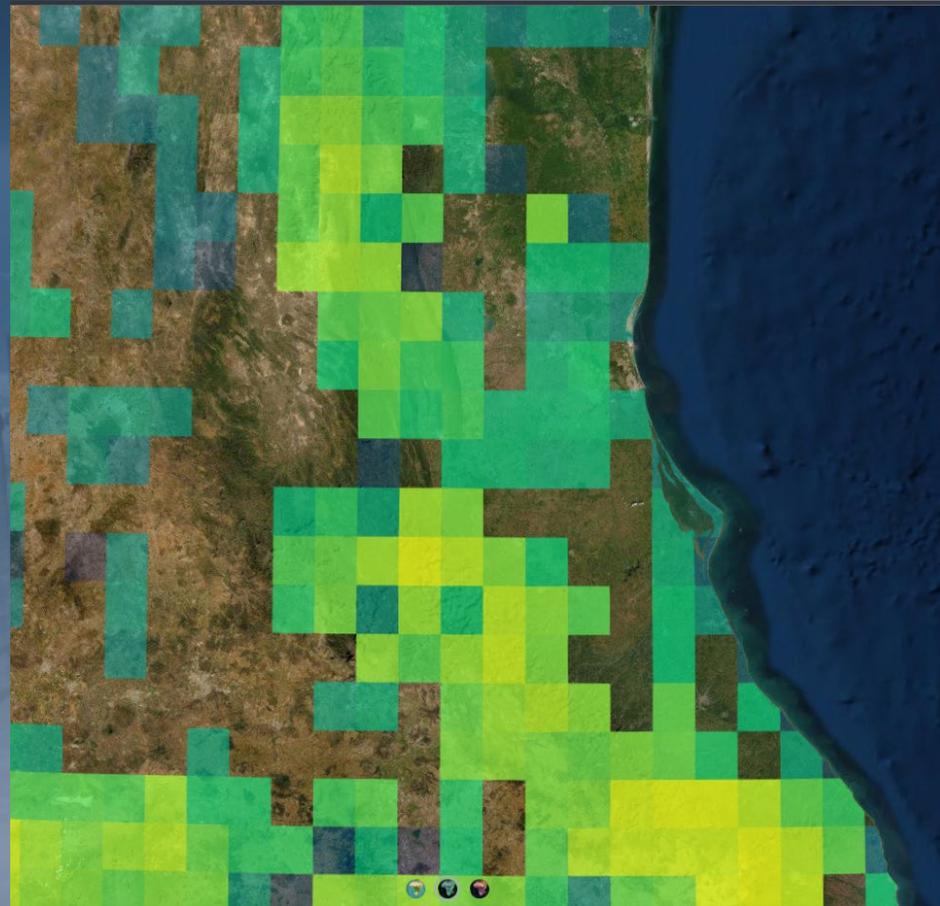


Here are some example species of significant conservation interest for each taxonomic group. These species are either endemic to Mexico or have small range sizes



**GRAY ROBBER  
FROG**  
*Craugastor glaucus*  
Global range  
protected:  
0-10%

# Biodiversity 2



# Biodiversity 3

## Half-Earth Project

Name:

Class:

### PART 1 Exploration

1. What country or region is your team going to be researching?

2. Complete the following table about your area of research

Total Area	Land Coverage
Population	Climate

3. Complete the Species Table below.

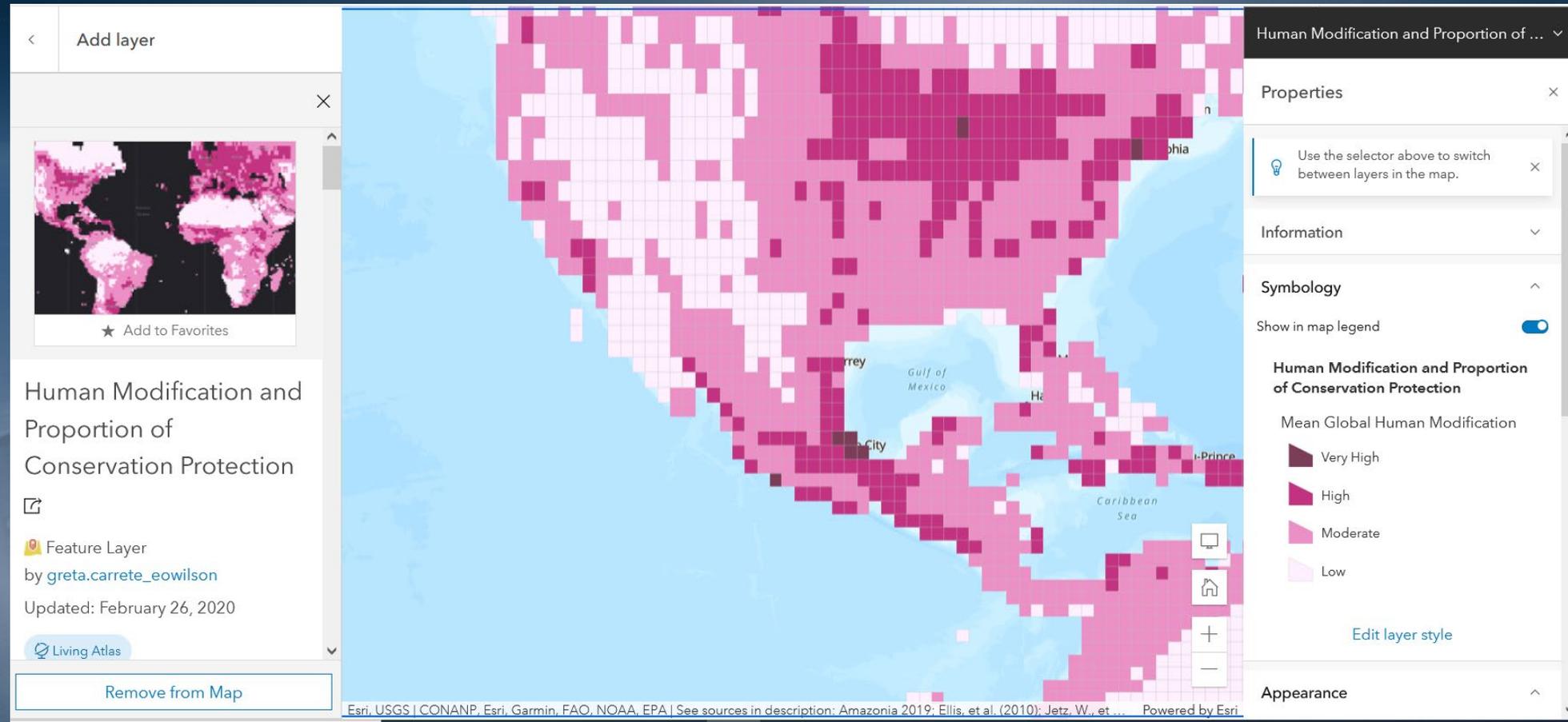
Total Terrestrial Species	
Birds	
Mammals	
Reptiles	
Amphibians	

### PART 2 Biodiversity

4. Describe the priority for terrestrial vertebrates. Using cardinal directions, explain where in the region there is priority and/or explain where there is not.

5. Compare and contrast the priority between the four different terrestrial groups (birds, mammals, reptiles and amphibians).

# Human Modification and Conservation Protection



# Human Modification and Conservation Protection

II. Complete the table below on the Human Pressures, noting whether the pressure is high or low in your area.

<b>Urban Pressures</b>	
<b>Rainfed Agriculture</b>	
<b>Irrigated Agriculture</b>	
<b>Rangeland</b>	

Which pressure has the greatest coverage in your area?

12. Based on what you have researched in Part 1, 2 and 3, recommend where you would increase or start conservation efforts for the Half-Earth Project? Use the cardinal directions to help explain and draw a map showing the areas.

# What did Students learn?

- Compared their country to other countries (neighboring or different economic power)
- Spatial distribution of Protection and Human Modification (Relationships?)
- Protected Areas = National Parks?
- Examined the “pressure” on resources of certain land uses
- What would I have done differently? (“Duh !” – Homer Simpson)

# Thank you and Questions?

- **AmericaView**
- **GeoTech Center**