

ENDANGERED SPECIES -

Introduction:

We will use an online database to collect information about rare species. This information will be used to identify trends in the causes of species endangerment and extinction. In other words: *What factors are most often linked to species extinctions? What geographical locations are most prone to species extinctions? What choices do people make that impact species the most?*

WORK TOGETHER.

- 1) The database we will use is part of a website entitled: “ARKIVE: IMAGES OF LIFE ON EARTH”.
 - a) Connect to the ARKIVE website at www.arkive.org.
 - b) Click on the link at the top that reads “Explore by Species”.
- 2) On the “Explore by Species” pull-down menu, you will see nine groups of organisms (mammals, birds, reptiles, plants, etc.). Select one of these groups.
 - a) You will see “Top 50 species” at the top of the screen. Visit several pages until you find a species you would like to learn more about or use the “Search” box at the top to search for a species of interest. Click on your species of interest.
- 3) A photo of your species will pop up on the next page. On the left, you will see “Species Information” (Facts & Status, Description, Range and Habitat, Biology, Threats and Conservation, etc.). Read carefully through each of these sections to learn about your species.
- 4) In D2L, go to “Lab Information” module. In the “Endangered Species worksheet” folder you will find an Excel spreadsheet called “Endangered Species data template”. **DOWNLOAD AND SAVE THIS SPREADSHEET ON YOUR COMPUTER.**
- 5) Complete the spreadsheet with information you have found in the ARKIVE database.
 - a) The spreadsheet asks you to fill in the **species name**, **habitat**, **geographic range**, what **threats** are leading to this species rarity, and for unique, interesting, or valuable features of this organism that will be missed by humanity if this species were to go extinct.
 - b) Be sure to type in the complete species name (give the common name – not the scientific name). *Type the common species name exactly as written (correct spelling and any capitalization).*
 - c) Place a “1” in the appropriate columns to indicate where your species lives, what threats it faces, etc. **NOTE:** A species can live in *more than one geographic location*, and may face *more than one threat*. List all that apply to your species.
 - d) **DO NOT USE THE EXAMPLES IN THE SPREADSHEET – FILL IN YOUR OWN!!**

EXAMPLE: The queen conch is a marine invertebrate that lives in the Caribbean Sea and off the coast of South America. In the *geographic range* section of the spreadsheet, you would put 1’s under both North

America and South America. In the *biome* section of the spreadsheet, you would also put a “1” under the reef/coastal biome because conch live in shallow grass beds near the coast. Under *threats*, you would also put a “1” in the hunting column.

- 6) **Complete the steps above for 6 different species. Each species must be chosen from a different major group of organisms.** (See the pull down list under Threatened Species).

Questions: Based on your analysis of your data set (all 6 species)...

- 1) What are the three greatest threats to rare species (factors leading to endangered species)?
Based on your data, list the percentage of rare species that is influenced by each of these factors.
- 2) Does the main threat to endangered species differ by geographic region? Also indicate whether the leading cause of species extinctions in North America is the same as the leading cause of extinctions across the rest of the world.
- 3) Which types of biomes are losing the most species? List the top three biomes and give the number of endangered species in each (based on your survey). Explain why these particular biomes are likely to have higher numbers of endangered species.
- 4) What percentage of rare species were threatened by introduced or exotic species? In your textbook, look up “introduced species”. Explain, in your own words, how introduced species can negatively affect native species.