Back From the Brink Lab

Name _____

Date _____

Period _____

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Do Now In 1941 there were only 16 whooping cranes left in the wild. In the winter of 2024 to 2025, scientists counted about 540. 2 minutes, before you open the lab

A. What is your best guess about what happened?

☐ People protected them ☐ They changed on their own ☐ Not sure yet

B. Write one thing people could do to help a species come back.

_____

☐ I can use the endangered species list to compare groups with percents.

☐ I can name the human cause (HIPPCO) behind a real species' decline.

☐ I can use population counts to argue which ways of protecting a species work.

Part 1. The list (Tab 1)

SEP 5 Using Mathematics · CCC Scale, Proportion, and Quantity

Pick a group. Find its percent of the list, type it in and press **Check**. Do all six groups in the table. Its bar appears on the graph.

1. SEP 5 · Percent of the list = total listed ÷ 728 × 100. Round to the nearest tenth.

Group	Total listed	Percent of the list (%)
Mammals		
Corals		
Fishes		
Insects		
Birds		
Clams		

2. Which of these six groups is the biggest share of the list? _____ The smallest? _____

READ FIRST. In the lab, find the green **Learn It** box and read it. Then answer 3 to 5.

3. Tick the word that fits each description.

Description	Endangered	Threatened
Enough are left for now, but its numbers are falling.	☐	☐
So few are left that it could soon go extinct.	☐	☐

4. SEP 5 · **Clams:** 76 of 92 are endangered = _____%. **Fishes:** 93 of 170 are endangered = _____%. Fishes have more listings. Which group is more in danger, and how do your numbers show it?

_____

_____

5. SEP 2 · Model check. Each bar on the graph stands for _____.
Name one thing this bar model leaves out.

_____

Part 2. The cause (Tab 2)

SEP 4 Analyzing Data · CCC Cause and Effect

Open all seven case files, **A** to **G**. Read each one and its big number.

6. Case B: raccoon sightings fell _____% after pythons spread.
Case D: _____ bald eagle nesting pairs were left in 1963.

7. SEP 5 · Case F: black rhinos fell from 65,000 to 2,410. Percent lost = (65,000 − 2,410) ÷ 65,000 × 100 = _____%

READ FIRST. In the lab, find the green **Learn It** box and read it. Then answer 8 to 10.

8. CCC 2 · Cause and effect. What is the **main** human cause in each case? Tick one in each row.

Case	Habitat loss	Invasive species	Population growth	Pollution	Climate change	Over-exploitation
F. Black rhinoceros	☐	☐	☐	☐	☐	☐
B. Everglades raccoons	☐	☐	☐	☐	☐	☐
E. Polar bear	☐	☐	☐	☐	☐	☐
A. Bornean orangutan	☐	☐	☐	☐	☐	☐
D. Bald eagle	☐	☐	☐	☐	☐	☐
C. Tiger	☐	☐	☐	☐	☐	☐

9. Case G, the honeybee, has three human causes at once. Tick all three.

☐ Habitat loss ☐ Invasive species
☐ Population growth ☐ Pollution ☐ Climate change
☐ Overexploitation

10. Which human cause is the greatest threat to wild species? _____
Which is second? _____

Part 3. The comeback (Tab 3)

SEP 5, SEP 7 · CCC Stability and Change

Pick each species. Read the lowest and the latest count off the graph. Then find **times larger** and press **Check**.

11. SEP 5 · Times larger = latest count ÷ lowest count. Round to the nearest tenth.

Species	Lowest count (year)	Latest count (year)	Times larger
Bald eagle (pairs)			
California condor			
Whooping crane			
Black rhinoceros			

12. Which species grew the most times over from its lowest count? _____

READ FIRST. In the lab, find the green **Learn It** box and read it. Then answer 13 to 15.

13. Which fix did the most to bring each species back? Tick one in each row.

Species	A law that bans a poison	Captive breeding	Protected land	A treaty that bans trade
Whooping crane	☐	☐	☐	☐
Black rhinoceros	☐	☐	☐	☐
Bald eagle	☐	☐	☐	☐
California condor	☐	☐	☐	☐

14. CCC 7 · Stability and change. Black rhinos: 65,000 in 1970, 6,487 in 2022. 6,487 ÷ 65,000 × 100 = _____% of the 1970 number. Is the black rhino back? ☐ yes ☐ not yet Why?

15. SEP 7 · Argue it. A student says: "*Captive breeding alone can save the California condor.*" Do you agree? Use a number from the lab.

Claim	
Evidence	
Reasoning	