

## Student Pages: Group Activity

### Polar Bear Science Team 1



For this activity, your group is the "Polar Bear Science Team 1". Your team is responsible for reading the scientific paper called "What to Eat Now? Shifts in Polar Bear Diet During the Ice-Free Season in Western Hudson Bay".

Step 1: Download this scientific paper from the Bear Trust International website:  
<http://beartrust.org/polar-bears-of-summer-2>

Step 2: Read this entire paper, but don't get bogged down in any statistical methods.

Step 3: As a Team, create a power point presentation about this paper that you will be giving to the rest of your class.

In this presentation, make sure to include AT LEAST the following:

1. Who were the authors, in which journal was this paper published, and in what year was this paper published?
2. What have polar bears historically eaten?
3. Why do polar bears come ashore in Hudson Bay, and for how long do they come ashore? Why is the period that polar bears spend on land predicted to increase?
4. What questions were the authors of this paper evaluating?
5. Briefly describe the methods of this study (hint: what did they collect to evaluate food consumption by polar bears?)
6. These authors compared results of their findings with \_\_\_\_\_
7. When did the authors do the field work for this study? When did Dr. Russell do the field work for his study?

8. Which study was done BEFORE the effects of global warming were documented by scientists? Which study was done AFTER the effects of global warming were documented by scientists?
9. How many polar bear scats were analyzed for each of the 2 studies?
10. Geographically, where was each field study done?
11. Why did the scientists of the paper you read use 593 of the 642 scats for analyses?
12. Cut and paste Figure 2 from the scientific paper into your power point presentation. This is the same figure you worked on for Activity 5 in your Individual Activities. Describe this figure to the class, make sure everyone understands what 95% confidence intervals mean. Make sure everyone understands which of the findings differed between the 2 studies. What do the results from this figure tell you about polar bear diets BEFORE the effects of global warming were detected compared to polar bear diets AFTER the effects of global warming were detected?
13. Dr. Russell did not find caribou or geese in the diets of polar bears for his study, why?
14. Dr. Russell found more garbage in diets of polar bears, relative to garbage found in the study done by the authors of the paper you read. Why?
15. Polar bears are often referred to as "fasting" during the time they are onshore. Why do the authors of this paper disagree with using the term "fasting" to describe polar bears in western Hudson Bay?
16. Summarize the "General Considerations"

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