

## Decades of Decline

## Graph Interpretation

Materials: Decades of Decline Worksheet - Pens \&/or pencils

Students should use the following graph to answer questions regarding selected state and national trends for Indiana bat populations. Please note that populations were surveyed at hibernacula and that some population estimates were based on surveys done near the year indicated. Long term data was taken from Clawson (2002) and figures for 2003-2007 were provided by United States Fish and Wildlife Service, Bloomington Field Office. As of this writing, it is estimated that the state of Indiana hosts almost half the total population of hibernating Indiana bats.

State and National Trends tor Indiana Bats


Answer Key

1. c) Declined
2. About 1 in 2
3. a) Missouri
4. In the eighties
5. Indiana bat populations would drop sharply to about 150-200,000 individuals (i.e. lose half the population).
6. See circled area on graph above.


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## Decades of Decline

State and National Trends for Indiana Bats


Using the graph, answer the following questions about hibernating Indiana bat populations in the United States:

1. What has happened to Indiana bat populations in the last thirty years?
a) Increased
b) Stayed Stable
c) Declined
2. Which state has had the biggest drop in Indiana bat populations?
a) Missouri
b) Indiana
c) Kentucky



Name
3. What proportion of Indiana bats in the United States hibernate in the state of Indiana?
a) about 1 in 10 them
b) about 1 in 4
c) about 1 in 2
d) all of
4. Using the graph, when do you think Indiana started protecting caves housing hibernating Indiana bats?
a) in the seventies
b) in the eighties
c) in the nineties
d) in the last decade
5. What would happen to Indiana bat populations if the three major caves in Indiana that house more than $80 \%$ of the state's Indiana bats were no longer protected?
6. In 2007, the total population of Indiana bats was estimated at 501,260 individuals. On the graph, plot their total population and draw a line showing the trend.

