

Honors Biology  
Ecology Discussion Questions  
Carmel High/Dooner

**“Global Atmospheric Change and Animal Populations”**

1. What does the term “anthropogenic” mean?
2. What is the greenhouse effect? Is it natural or unnatural?
3. What are the two greenhouse gases believed to most strongly influence animal population dynamics?
4. What effect does increased CO<sub>2</sub> levels have on leaf nitrogen levels?
5. In addition to ocean acidification, what impact does increased atmospheric CO<sub>2</sub> levels have on marine life?
6. How may increased CO<sub>2</sub> levels affect bird populations?

**“Keystone Species”**

1. What is the relationship between the diversity of organisms in rocky intertidal ecosystems and the number of predators in those ecosystems?
2. What is a “keystone” species?
3. How may the re-emergence of the wolf in the Greater Yellowstone ecosystem have led to an increase in songbirds?

**NOW or NEVER**

1. How many times larger than the atmosphere are the oceans(in volume)?
2. What human activity “liberates” the carbon that was once in living things, and allows it to reside again in the oceans and atmosphere?
3. What is meant by “Gaia”?
4. What does the author consider the three “great organs of Gaia” to be?