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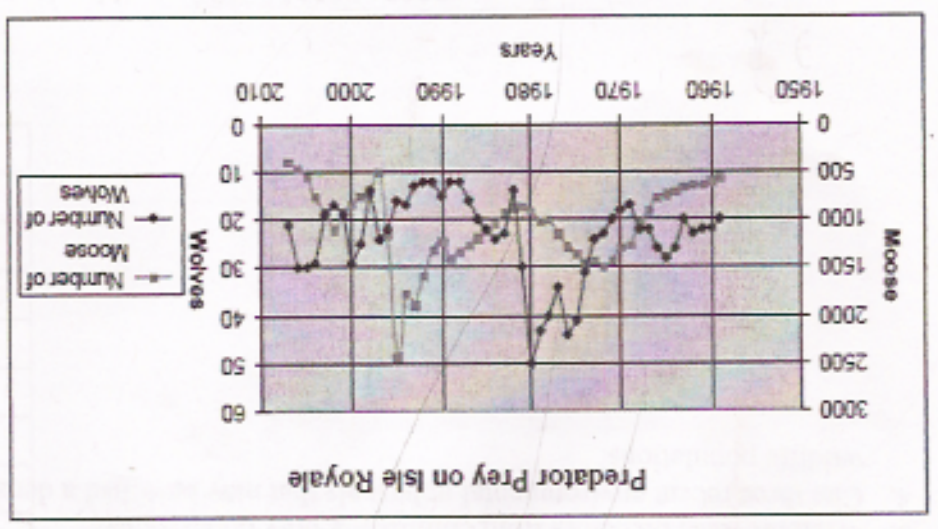
POPULATION ECOLOGY HW

Due 4/11/15

SLOs:

- Critically evaluate data accurately (graphs, tables, text)
- Identify factors that affect population growth and decline.
- Assess the role of humans in natural systems

PART I: Predator-Prey Graph: Isle Royale National Park on a remote island was established in 1940, and designated a wilderness area in 1976. The only mode of transportation available is by boat or seaplane. Moose first arrived at Isle Royale around 1900. The moose population tends to increase in years with mild winters, early spring, green-up, abundant winter forage, low wolf numbers and low levels of tick infestation. Wolves first arrived at the island on an ice bridge from Canada in 1940. Disease has also influenced the wolf population. Between 1980 and 1982, the wolf population declined from 50 to 14, due to canine parvovirus.



Directions: Use the graph above to answer the questions below.

1. What is the greatest moose population? What year did that occur? What was the wolf population when the moose population was at its greatest?
2. What would happen to the wolf population if the moose population decreases?
3. What would happen to the moose population if the wolves were removed from Isle Royale?
4. Describe the pattern between the wolf (predator) population in relation to the moose (prey) population.
5. Identify a factor, other than the moose population, that has influenced the wolf population in Isle Royale.