



Wolf Essay

Readings: The Ninemile Wolves
"Wolf Reintroduction Threatens Ranchers' Livelihoods"
"Wolf Reintroduction Does Not Threaten Ranchers' Livelihoods"
"Wildlife Reintroduction Programs Help Endangered Species"
"Wildlife Reintroduction Programs Harm Endangered Species"
(essays in Reader)

The Yellowstone Tracker, Summer 2002

Wolves were reintroduced into Yellowstone National Park in 1995 with the release of 14 wolves. The following year, 17 more wolves were released. No additional wolves have been released since that time. Over the same two year time period, 20 wolves were born and there were 11 mortalities. Consequently, by the end of 1996, there were 40 wolves in the Greater Yellowstone Area. According to the *Yellowstone Tracker* (a National Park Service publication) the wolf population of the Greater Yellowstone Area had grown to 216 wolves by the end of 2001. Additional data are given in the table below.

Year	Wolf Population
1996	40
1997	86
1998	112
1999	118
2000	177
2001	216
2002	273
2003	301
2004	324

Initial Mathematical Work

- Analyze the data - construct a chart, draw a graph, begin to think about what the data tell you.
- Generalize. Use the data for the years 1996 and 2001 to construct an exponential model. For the model, let

$$t = \text{years since 1996} \quad P(t) = \text{the wolf population}$$

- Test the accuracy of the model - graph the model and see how closely it fits the data. Use the model to compare known data points to values predicted by the model. Evaluate the accuracy of the model and assess the effectiveness of the model as a predictor of the future.
- Make predictions - use the model to make predictions about the future. Use the model to predict the wolf population of the Greater Yellowstone Area in the years 2005 and 2010. According to your model, when will the wolf population reach 2000? How accurate are your predictions? Why?

Writing Your Paper

Your job here is to write a clearly structured essay that makes specific recommendations for the wolf reintroduction program in Yellowstone at this particular time. If you were asked to make a recommendation to Congress, what would it be?

In preparing for this essay, you may find an aspect of this topic that you feel strongly about. Are you for or against wolf reintroduction, in general? Are you opposed to particular methods, such as the radio collars? Do you feel wolf reintroduction is just a colossal waste of taxpayers' money? Do you feel ranchers should be able to protect their stock by any means necessary? Do you feel that the ecological balance provided by having wolf predators is important? Should wolves no longer be considered endangered? Should the program be turned over to the states? What should be the future of wolves in Yellowstone? Consider as many aspects as you can, but focus on the ones that seem most important or interesting to you.

You'll want a two-part Baker style thesis for this essay so that you can acknowledge the complexity of the issue. Make certain that your stand is clear, though, and that your thesis allows you to discuss several "pro's" as well as at least one "con."

Be certain also that your discussion goes beyond simply summarizing somebody else's ideas. Use the book and the essays as support, but the ideas and reasoning should be your own. Don't forget about the persuasive powers of anecdote and description in your development. Your essay should show your ability to incorporate different sources and different kinds of support into your argument.

You will also include a discussion of your mathematical predictions for the Yellowstone Wolves. Summarize the mathematical work that you did to develop your mathematical model. Present your predictions, and support them with graphs and charts. Do you believe your predictions? Why, or why not? What implications do your predictions have for the issue of reintroducing wolves to the Greater Yellowstone Area?

You **must** use the MLA documentation system to identify your sources. In your text, include a parenthetical reference for all borrowed material. Also include a Works Cited page (**REQUIRED--you'll automatically lose 1 grade if it is missing**) that gives the full citation for each source you used. You must use The Ninemile Wolves as one of your sources.

Note: The data source is the *Yellowstone Tracker, Summer 2002*. Additional data is from the *Yellowstone Wolf Project: Annual Report, 2002*, available at the website

www.nps.gov/yell/nature/animals/wolf/wolfup.html

and from the *Rocky Mountain Wolf Recovery Annual Reports* at

<http://westerngraywolf.fws.gov/annualreports.htm>