

Annual Counts of Northern Yellowstone Elk and Wolves
and the Ratio of Wolves per 1,000 Elk, 1986–2004

Year	Winter elk count	Wolf numbers	Wolf/elk ratio
1986	16,286	0	0
1987	17,007	0	0
1988	18,913	0	0
1989	*10,265	0	0
1990	14,829	0	0
1991	*9,465	0	0
1992	12,859	0	0
1993	17,585	0	0
1994	19,045	0	0
1995	16,791	0	0
1996	—**	21	—**
1997	—**	24	—**
1998	11,736	32	2.73
1999	11,742	48	4.09
2000	14,539	44	3.03
2001	13,400	72	5.37
2002	11,969	77	6.43
2003	9,215	84	9.12
2004	8,335	106	12.72

*Poor counting conditions; count is likely a substantial underestimate.

**Elk count not available in 1996 and 1997.

Adapted from Patrick J. White and R. A. Garrott, "Northern Yellowstone Elk after Wolf Restoration." ©2005 by John Wiley & Sons, Inc.

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The main purpose of the passage is to

- A) discuss an ecological phenomenon.
- B) analyze a scientific experiment.
- C) resolve an environmental debate.
- D) draw attention to a historic discovery.

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According to the passage, what was a direct result of the drop in the elk population at Yellowstone National Park?

- A) An investigation of the grizzly bear population
- B) A decrease in the number of aspen trees
- C) An increase in fruit-bearing plants
- D) A surge in the wolf population

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Which choice provides the best evidence for the answer to the previous question?

- A) Lines 6-7 ("A study . . . what")
- B) Lines 12-15 ("The over-browsed . . . hibernation")
- C) Lines 42-46 ("When . . . beavers")
- D) Lines 49-50 ("We put . . . course")

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According to the passage, one potential challenge to the survival of the grizzly bear population in Yellowstone National Park is a shortage of

- A) elk.
- B) beetles.
- C) cottonwood trees.
- D) whitebark pine trees.

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Which choice provides the best evidence for the answer to the previous question?

- A) Lines 27-30 (“Over . . . fell”)
- B) Lines 50-53 (“In the . . . nuts”)
- C) Lines 59-60 (“Ripple . . . regrow”)
- D) Lines 60-62 (“It may . . . grizzlies”)

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As used in line 10, “browsed” most nearly means

- A) inspected.
- B) skimmed.
- C) destroyed.
- D) grazed.

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Which choice most closely captures the meaning of the figurative “big silver bullet” referred to in line 61?

- A) Unexpected outcome
- B) Tempting choice
- C) Definitive solution
- D) Dangerous event

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The main purpose of the final paragraph of the passage is to

- A) advise the reader of some potential limitations of Ripple’s conclusions about the nutritional needs of the grizzly bear.
- B) extend the implications of the relationship between wolves and grizzlies in a particular environment to other animals and contexts.
- C) describe a certain experiment that Ripple will be undertaking in the future to corroborate his findings.
- D) suggest the potential ramifications of reintroducing another species into an already fragile ecosystem.

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According to the table, the wolf/elk ratio experienced a decrease between which of the following years?

- A) 1998 and 1999
- B) 1999 and 2000
- C) 2000 and 2001
- D) 2003 and 2004

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Which claim from the passage is most directly supported by the data given in the table?

- A) Elk numbers in Yellowstone National Park showed an overall decline as a result of the introduction of wolves.
- B) Elk numbers in Yellowstone National Park declined every year following the introduction of wolves.
- C) Elk numbers in Yellowstone National Park in any given year decreased as the ratio of wolves to elk that year increased.
- D) Elk numbers in Yellowstone National Park stabilized after an initial decline as wolf population numbers stabilized.