

PHOTO GALLERY

ELK PREFER GRASSLAND MEADOWS

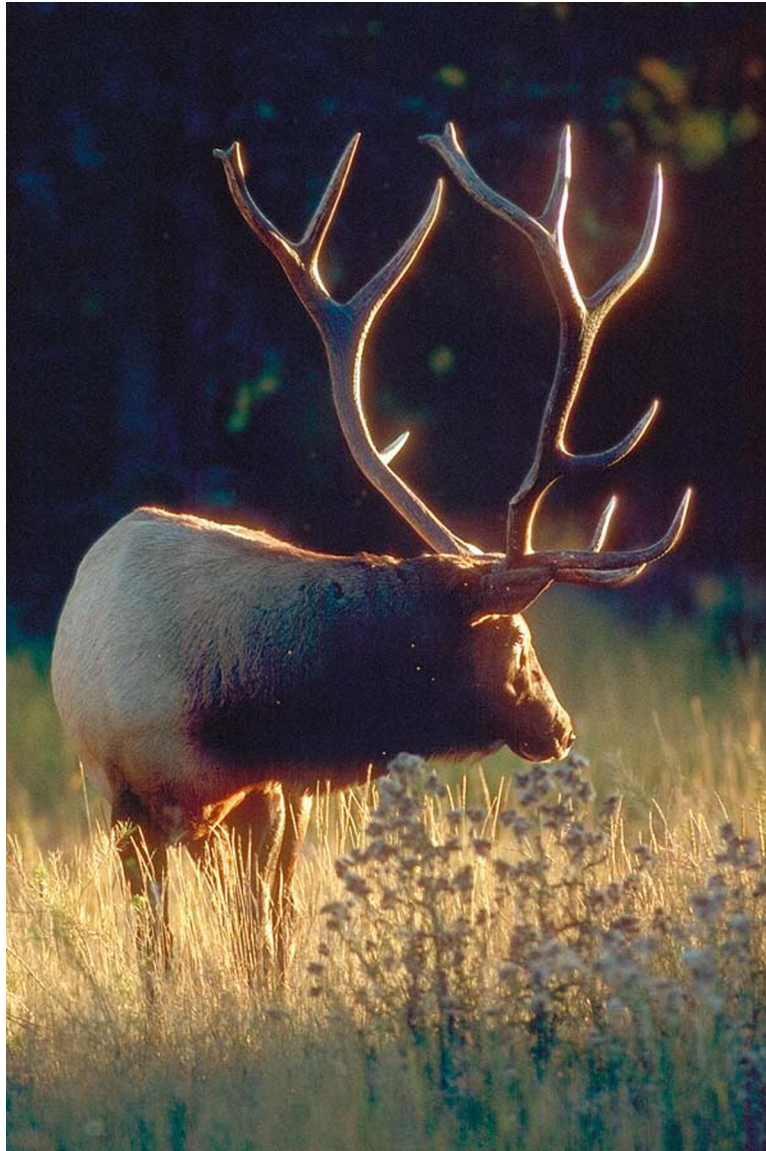


Photo © John Winnie, Jr.

These photographs show elk (*Cervus elaphus*) in the grassland meadows, which they preferred in the absence of wolves, but avoided in the presence of wolves. The article analyzes data from elk carrying GPS collars to ask if their movements and habitat selection were affected by the presence of wolves.



Photo © John Winnie, Jr.

Wolves regularly moved into and out of the four drainages on our study site in the Yellowstone ecosystem. Investigators took advantage of the movements to ask whether elk used the landscape differently on days that wolves were present and when they were absent. Because the analysis considers the behavior of the same elk, in the same location, in the same year, when wolves are present and absent, it circumvents confounding variables that have complicated prior studies. In the presence of wolves, elk were more likely to use coniferous woodlands that provided protective cover, and less likely to use open meadows that were their preferred foraging habitat in the absence of wolves. These results have implications for the hypothesis that predation risk can drive trophic cascades, and for discussions of the relative importance of direct and indirect effects of predation on prey.

These photos were taken in association with the article, "Elk alter habitat selection as an antipredator response to wolves," by Scott Creel, John Winnie, Jr., Bruce Maxwell, Ken Hamlin, and Michael Creel, to be published in *Ecology* **86**(12), December 2005.