BioScience, 2026, 0, biag132
https://doi.org/10.1093/biosci/biag132
Notes From The Field

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Animal immortality lives in our data

David E. Ausband *

U.S. Geological Survey, Idaho Cooperative Fish and Wildlife Research Unit, University of Idaho, 875 Perimeter Drive, MS 1141, Moscow, ID 83844, United States

*Corresponding author. David E. Ausband, E-mail: dausband@uidaho.edu
David Ausband works as a wildlife research biologist for the US Geological Survey, Idaho Cooperative Fish and Wildlife Research Unit at the University of Idaho, USA.

I once knew a wolf (*Canis lupus*) who was 13 years old. She was unusual because wolves live rough, spirited, often short lives. They die in the fangs of other wolves, under the hooves of their stout, powerful prey, and at the hands of humans (Smith 2026). More than half of all wolves born in the wild die before adulthood (Ausband et al. 2015). Those that reach adulthood generally live just a few years (Boyd et al. 2023). Thirteen is very old for a wild wolf, indeed. Born in the wilds of Idaho, USA, my research crews and I sampled this wolf annually since she was a pup using DNA isolated from scats. We collected scats at pup-rearing areas in summer (Ausband et al. 2010), which often required long, hot days and many fruitless surveys until we located her pack, which never seemed to want to be found. Such fieldwork is a crucible for one's character. What do you do when you are exhausted, sometimes bleeding, frustrated by a lack of success, and no one is watching? We all hope we are the type of people who will dig deep, persevere, and follow our scientific protocols religiously. When you have been alone and successfully plumbed the motivation living deep in your chest, then arrive back at camp to learn others fought the same lonely battle, an unrivaled bond blooms among crew members. The sky is more blue, the wind more fragrant, and the camp food tastes worthy of UNESCO World Heritage status. There is no stronger camaraderie than a weary field crew on such days.

As we sampled this unique wolf's pack for over a decade, I witnessed her survive from pup to adulthood and eventually inherit the coveted breeding position in her natal pack after her mother died. I had grown accustomed to seeing this wolf represented in my data each year, and it was admittedly with some sadness that I learned of her inevitable death. Several years after she died, I was working on some analyses and noticed an unusual point apart from the others on a graph (figure 1a, b). It was her. Staring at that lone point howling its truth from the far edge of the graph, I felt a compelling need to tell her story. This remarkable wolf gave birth to at least 35 pups and had five different mates over her lifetime (figure 1a, b). Every time I publish a paper, give a conference presentation, public talk, or interview, she lives on through the data my team collected about her life. In a significant way, she is immortal.

Some of us study organisms that live just a few hours or days (Arking and Dudas 1989), whereas some study individuals that live years or even decades (Hassell et al. 2017). Many of us in the ecological sciences outlive the species we study. As humans, we generally have the good fortune to study multiple generations of a species and make strong inferences about the mechanisms driving the natural world. Evolution's beneficence has heaped a great responsibility upon us, however. Because humans generally possess the gift of long lives, and because our studies often perturb nature in order to understand it, we have an obligation to the species and systems we study to share what we have learned about them thoroughly and widely provided such sharing does not endanger the system or animals we study. Their immortality lies in our data. Additionally, because fieldwork is often a social enterprise, we best honor those who have persevered through long days with us by sharing the fruits of their labors as widely as we can.

Too often, studies go unpublished, analyses do not inform conservation or management decisions, data are only partially used, and science is performed but not shared (Pullin et al. 2004, Caan and Cole 2012, Bowers et al. 2023, Bipeta 2025). When we embrace the privilege of communicating our findings widely through traditional channels and yes, even through story, as I have shamelessly done here, we pay proper tribute to those who have collected those data and animals can continue to speak truths from the darkness about how nature functions.

There is beauty in this concept; organisms can live on through our data.

Received: 12 August 2026. **Accepted:** 13 August 2026

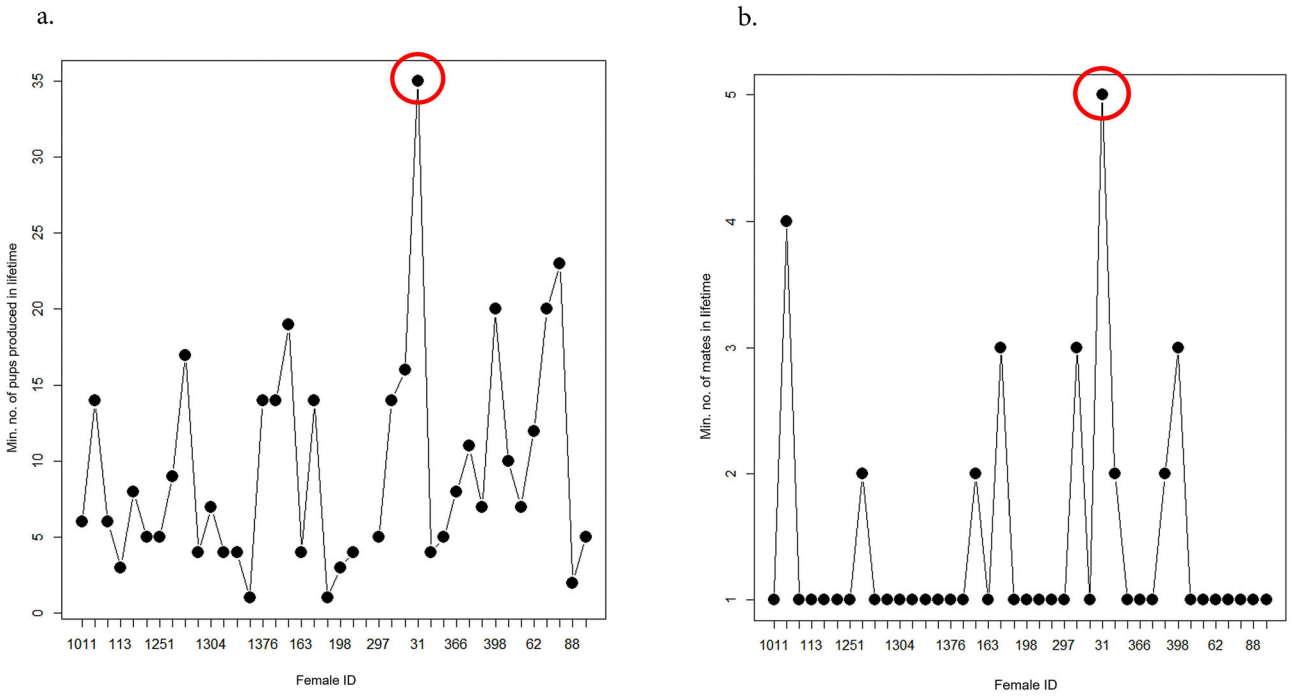

Figure 1. Minimum number of pups produced (a) and minimum number of different mates in a lifetime (b) for breeding female gray wolves (*Canis lupus*) in Idaho, USA, 2008–2021. Circle denotes a long-lived 13-year-old female wolf.

Acknowledgments

D.A. was supported by the U.S. Geological Survey. I thank Sarah Sells and journal editors at BioScience for comments that greatly improved this manuscript.

Author contributions

David Ausband (Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing)

Funding

None declared.

Conflicts of interest

The author has no conflict of interest to report.

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