

Response to Gostomski

John Vucetich, Rolf O. Peterson, and Michael P. Nelson

VUCETICH ET AL. (2012) ASSESSES SOME OF THE KEY VALUES AT STAKE in deciding whether to conserve wolves in Isle Royale National Park. Many points made in Gostomski (this issue) misrepresent what we wrote. Some examples include: We did not, as Gostomski states, “affirm [our] belief that primitive America is gone and ‘natural process’ is an outdated concept.” Rather, we highlighted the relevance of a substantial body of scholarship that explains the conceptual difficulties associated with the concept ‘natural’ and how and why wilderness is an evolving concept. Nowhere do we suggest that wolves equal wilderness or vice versa, as Gostomski suggests. We did not assert or imply that the wolves of Isle Royale or the wolf-moose project are “too big to fail” or that wolves and moose are “the entirety of the island’s worth.” Rather, we provided clear, objective evidence for the scientific and educational value of the Isle Royale wolf-moose project. We also provided clear, objective evidence that wolves are important to the cultural and wilderness values of Isle Royale. Conversations about the relationship between humans and nature are challenging. It is unlikely that such conversations are advanced by hyperbole or misrepresentation.

Gostomski suggests that perhaps wolves should not be reintroduced because climate change will make moose vulnerable to extinction, and cites the declining moose populations in Minnesota and Ontario as evidence for the concern. Moose population dynamics are certainly influenced by climate and climate change. But Gostomski’s explanation is undermined by the complexity of those effects. For example, the most important reason for moose decline in Ontario and Minnesota is likely an interaction between climate and parasites (especially brain worm) that moose acquire when they live in the presence of white-tailed deer. Because Isle Royale is deer-free, Isle Royale may be among the last places at the southern limit of moose distribution where they survive. The complex influence of climate is also indicated by the fact that, after 50 years of observation and analysis conducted by several groups of scholars, the influence of climate warming on the population dynamics of Isle Royale moose is equivocal at best (e.g., Vucetich and Peterson 2004; Wilmers et al. 2006). Soon we will publish an analysis suggesting advances in the timing of spring green-up (an expected consequence of climate warming) favors population growth of Isle Royale moose. Also, since 2010 the moose population in northeastern Minnesota has declined by 52% (Minnesota DNR 2013),

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while during the same period of time the Isle Royale moose population has increased by approximately 70%. During winter 2013, the Isle Royale moose population exhibited both the highest occurrence of twins and second highest rate of recruitment ever observed in the population's history.

Gostomski also writes, "To say that the extinction of wolves on the island will 'significantly diminish its ecosystem health' (because of the cascading effects of increasing moose severely impacting the vegetation) is only partly true." We did not conjure that idea ourselves. The loss of top carnivores is considered by the community of conservation scholars one of the greatest causes of diminished ecosystem health (e.g., Estes et al. 2011). It would be a bold, precedent-setting perspective, with far-reaching implications, to suggest that a top predator should not be conserved because climate change might threaten the viability of their prey at some indefinite time in the future. The consequences of climate change will be profound, but we will be poor at predicting many of its important consequences (e.g., Broecker 2010; Francis and Vavrus 2010; Taleb 2010).

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