

26 July 2012

To: Natural Resource Board of Wisconsin

My testimony relates to several areas of the proposed rules that lack peer-reviewed scientific support or directly contradict scientific evidence.

I am an Associate Professor at University of Wisconsin–Madison. Sixteen years ago I earned a PhD from Harvard University in the topic of predator-prey ecology and have worked for the last 12 years on wolf management and public opinion of wolf policy in Wisconsin. I have authored 14 scientific papers on wolves and over 55 on predators and prey generally. I teach three classes on these topics to nearly 200 students annually. My team and I have surveyed more than 2,100 Wisconsin residents five times since 2001 about their preferences and opinion of wolf policy and management in our state. My team and I study hunting as a legitimate conservation strategy and methods for wolf depredation management and mitigation. I recently published a review of 101 research papers about the relationship between depredation and hunting of carnivores that revealed that the issue is not simply whether or not to hunt, it is how and where to hunt that are critical. On this basis, I offer the following recommendations about the proposed rules for wolf-hunting.

1. There is no peer-reviewed scientific evidence to support the safety or efficacy of hunting wolves with hounds. Although early 20<sup>th</sup> century and 19<sup>th</sup> century writers described the practice, they did not evaluate it scientifically. Their observations suggest the following: hounds will be injured or killed in the process, fights between hounds and wolves will result, wolves and their pups will die undetected by wardens or wolf monitors, and both wolves and hounds will die in savage ways modern society abhors. If hounds are to be used, the rules must be far more explicit about training hounds to avoid engagement, how training is to be regulated and certified, and precautions for health and safety of humans, hounds, and wolves. Modern scientific evidence is abundantly clear that hounds will be injured or killed during tracking, trailing, pursuit, or engagement with wolves. My research team published the only peer-reviewed scientific study of this phenomenon in Wisconsin (2002, 2009) and we were not consulted by the authors of Act 169 or during the secret drafting of the rules in early May.
2. There is no peer-reviewed scientific evidence to support the safety or efficacy of hunting wolves with bait. Depending on the location of baits and the type of bait used, this practice may habituate wolves to eating human foods or attract them to baiting sites for other game animals, putting hunters and their hounds at further risk.
3. Both of the practices above create a reasonable probability that wolves will be attracted to areas of human use and attack dogs of all sorts. Wolf depredations on pets have been increasing in the last decade and further familiarity with dogs or threats from them may prompt wolves to hunt dogs in and out of the hunting season. Only the selective, targeted removal of problem wolf packs can hope to stem this tide and hunters have been shown not to perform well as targeted takers of problem animals.
4. There is no peer-reviewed scientific evidence to support the safety or efficacy of hunting wolves at night.
5. I recommend a different zoning policy. First the zones for hunting are not designed to teach us how the hunt succeeds or fails. Consider zoning half of the wolves' core range as a protected area (zero quota) to compare to the zones being hunted. That way we can learn if packs that are hunted move away or collapse and scatter. Such responses

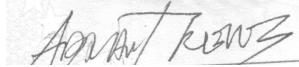
could elevate conflicts with people as has been shown for cougars and bears. Second, provide an incentive for hunting in the zones that have historically had higher depredations on private lands, otherwise hunters might not spend enough time there to eliminate packs living in forest-agriculture habitats. Third, if the hunting season were truly intended to reduce private landowners' conflicts with wolves it would be geographically distributed in only one-third of wolf range as we described in our 2011 peer-reviewed scientific study of the locations of livestock depredations in Wisconsin. Our spatial model (risk map) predicted 92% of future wolf depredations on livestock. I testified before assembly and senate committees, presented the maps of risk of livestock depredations, yet Act 169 was not modified to make the hunting season a better tool for depredation reduction. I was not consulted by the authors of Act 169 or during the drafting of the rules. I must conclude the authors did not intend to reduce wolf depredations on private property.

6. The quota is set too high for several reasons. (a) It assumes tribes will claim half the permits in the ceded territories but a cautious approach does not double a quota under an assumption. My research team published the only peer-reviewed scientific study of this phenomenon in Wisconsin (2011) and we were not consulted by the authors of Act 169 or during the secret drafting of the rules in early May. Our conclusions are far more nuanced about tribal actions once a wolf harvest begins. We recommend adjusting quotas and zones within the ceded territories to hunt only those wolf packs that have killed farm animals, because that is the only form of lethal control the tribes have deemed acceptable to them. (b) The quotas risk an unsustainable harvest. Research published in 2010 by Creel & Rotella on wolf hunting seasons throughout North America indicate that harvests are highly additive and many are super-additive up to 36% above quotas. Even the average season is 6% super-additive mortality beyond the quota and our hunting rules are not "average". Given the length of our season, its statewide distribution, the new methods being used (bait, hounds and night-time) and hunting during the wolf breeding period when the state counts its wolves, Wisconsin is likely to equal or exceed the highest super-additive hunts and drive our wolf population below 350 in the first year. (c) DNR estimates of the frequency of illegal take underestimate it by half and underestimate total mortality by a similar margin by my estimates, but there is not yet peer-reviewed scientific evidence for these numbers and they are the most critical foundation for setting quotas. I recommend the NRB send the rules back for a more conservative quota on this basis alone. One scenario that is not unlikely is the tribes do not claim permits, hunters overharvest wolves by 36%, our wolf population count is imprecise because of boycotts and hunting during the late winter count, and the federal government relists the wolf because of a court order to do so.
7. Litigation is nearly certain by several groups addressing several problems with Act 169 and the proposed rules, in state and federal courts. Because the Act over-reached and the proposed rules are not explicit on many new procedures, I predict legal action for years. Here are just a few problems that will fuel legal challenges and public discontent. The large silent majority – revealed by our public opinion surveys (2001, 2004, 2009) published in the peer-reviewed scientific literature – prefers a sustainable harvest designed to reduce depredations. A large majority prefers compensation be paid for farm animals not hounds on public lands. The public wants evidence of wolf involvement before compensation and current rules make it easy for hound-hunters to deceive the state about losses of hounds. Livestock owners are now in competition with hound hunters for the limited compensation dollars paid through hunters' fees that were once unlimited and provided voluntarily by anonymous donors. The NRB should send back the rules to align with public opinion first.

8. In general Act 169 and the proposed rules are neither prudent nor in line with Wisconsin's 35-year tradition of evidence-based wolf policy. The precautionary principle (first do no harm) upheld repeatedly in the literature on conservation science recommends small, initial steps in new policy and an adaptive management approach (learn to act, act to learn).

The wolf is not vermin but a grand trophy animal to be hunted with respect or not hunted at all.

Thank you for considering my testimony,



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