Success of Grey Wolf Recovery In Europe vs the Contiguous United States

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Historically, populations of grey wolves, or *Canis lupus*, thrived throughout much of Europe and North America. By the mid-20th century, this had drastically changed due to their deliberate extirpation in unison with increasing habitat degradation. In both continents, wolf populations seemed to reach an alarming minimum around the 1960’s. As a result of this near-lethal mismanagement, legislative measures were taken in both regions to attempt to restore populations back to a stable and viable level. These efforts have had differing levels of success. While wolf populations have been increasing ubiquitously, wolf recovery efforts in Europe have shown greater success than in the United States. Interestingly, this is despite the fact that Europe has a higher human density and fewer protected areas. So, what are the variables influencing the greater success of recovery in Europe? While the answer isn’t crystal clear, there are a few key factors that could be causing this discrepancy. It is theorized that wolves could be doing better in Europe due to stricter legislative protections, differences in societal perceptions, or the fact that there is a lower percentage of private land. The effects of each of these factors combined can possibly explain the contrasting levels of successful recovery between the two continents.

The reason wolves became so threatened in the first place can be stemmed back to an overwhelming negative societal perception. Wolves were seen as dangerous for humans; with many people fearing they could be attacked. Furthermore, farmers and game hunters wanted to limit wolf populations to both protect their livestock and also the abundance of game species available. As a result of this abhorrence, large bounties were placed in many nations, causing wolves to be overhunted globally, almost near the point of full extermination (Pimlott, D. 1973). Thousands were killed per year, with accurate figures for the numbers of deaths not even being available in many instances. Remaining populations struggled, but it was apparent that wolves could survive in extremely diverse environments. The few wolves were surviving basically anywhere they could find a food source, whether this was livestock, wild animals, or garbage. Fragmented populations were continuing to be limited by human persecution and limited access to adequate sites for reproduction (Salvatori and Linnell 2005). As more groups began to pay attention to this, more efforts were made to track the remaining populations of wolves in both continents. It is estimated today that there are around 5,500 total wolves in the contiguous US and 17,000 total wolves in Europe (“United States | International Wolf Center” 2013). Overall, this a substantial increase in both areas. In the 1960’s the contiguous US only had two populations remaining, one in Minnesota and one on an island in Michigan (“America’s Gray Wolves: A Long Road to Recovery” 2020). Similarly, in 1973 the IUCN stated that there were only a few thousand wolves in Europe, with breeding populations only in 11 countries (Pimlott, D. 1973). It is stated that grey wolf populations have increased by 1,800% in Europe since the 1960’s (“Wolves and brown bear numbers are up in Europe, a new report shows" 2022). These quantitative studies in both instances were integral to the push for more legislative protection and conservation funding to try and preserve the remaining wolves and begin projects for their recovery back to stable numbers.

In terms of legislation, both the United States and Europe began to protect wolves around roughly the same time. On a federal scale in the United States, and an international scale in the majority of Europe, wolves are protected to some degree. However, the specific legislative measures are different from place to place, along with the fact that some regions agreed to these protections much later on. Multiple conventions protect the grey wolf internationally in Europe, primarily the Bern Convention of 1979 and the Habitats Directive of 1992. The Bern Convention, which currently has 51 member states, has the grey wolf listed primarily under their Appendix II protections (Linnell et al. 2017). This means that legally, European governments under this agreement will prohibit: all forms of deliberate capture, keeping and killing, the deliberate damage or destruction to breeding or resting sites, the deliberate disturbance of wild fauna, particularly during the period of breeding, and the possession of and internal trade of these animals alive or dead (“Convention on the Conservation of European Wildlife and Natural Habitats” 1979). These strict protections are likely to be incredibly helpful towards the recovery of the grey wolves of Europe, as nearly any and all forms of disturbance are strictly illegal. Furthermore, wolf habitats are also granted special protection under the Annex IV of the Habitats Directive as well. This means that legally, member states must have a strict protection regime of protection applied across the natural range of sites of community importance with the EU (“The Habitats Directive - Environment - European Commission” 1992). While these protections do seem to be greatly useful, it is worth mentioning that the rate to which these protections are actually enforced likely differs between regions as well. Still however, this legislation is in invaluable in terms of ensuring the safety of recovering wolves.

The similar protection afforded to wolves in the United States comes from their listing under the Endangered Species Act in 1974. Protections under the Endangered Species Act include: it is prohibited to harm or kill endangered species, import or export of endangered species is banned, it is required that land and water vital to species recovery is protected, and it necessitates that recovery plans are developed and implemented (“The Endangered Species Act Q&A | Stories | WWF” n.d.). While these regulations may seem similar to the Bern Convention and Habitats Directive, the Endangered Species Act has been criticized for having some key shortfalls. For example, recovery is primarily focused on “viable” populations. This means that small populations are often considered “inconsequential,” and their contribution to recovery is viewed as unimportant as these populations are not self-sustaining. Populations with too few females or males are usually disregarded and end up with no protection, which can be very harmful for recovery as migrating wolf packs may branch off into smaller packs, becoming “unviable” when entering new territory (Licht et al. 2010). It is also worth mentioning that in 2009, grey wolves were unlisted from the Endangered Species Act across many of their populations, thus affording states the rights to begin setting hunting regulations again which greatly halted recovery in terms of restoration to historic ranges (“Center for Biological Diversity” n.d.). In an interview conducted with Joey Hinton, a senior research scientist at the Wolf Conservation Center of New York, he cited those hunting regulations as a possible reason recovery efforts are slowed in the United States. He stated “For example, Montana is imposing hunting regulations to push the wolf population down to the minimum recovery goal of 150 wolves. Wyoming has a similar regulation to keep populations at an approved low population recovery goal. If we want more wolves, then we would have larger minimum population goals” (Hinton 2022). The prohibited hunting of wolves in general is a legislative shortfall of the United States in terms or restoring wolves back to their natural range, but thankfully as of February 2022, grey wolves are once again listed under the Endangered Species Act as primarily endangered (“Gray Wolf Recovery News and Updates | U.S. Fish & Wildlife Service” n.d.).

Another possible key factor influencing the differences in success between the two regions is the difference in societal perceptions. As stated previously, societal perceptions were greatly negative internationally in the past, which caused wolves to undergo severe anthropogenic decline. However, today, wolves are much more accepted socially with many people wanting them to make a recovery back to natural numbers. In a study conducted in the United States, only 23% of respondents said they wanted wolf populations to increase nationally, while 55% of respondents said they did not intend to engage in either supportive or oppositional actions (Slagle et al. 2022). On the other hand, studies indicate there is a much greater percentage of people with positive perceptions in Europe. In one study, 72-84% of respondents said they believed wolves should be legally protected and 65-77% disagreed that wolves should actively be kept out of their local region (László 2020). While these numbers of support are certainly greater than in the past, the presence of wolves is still seen as controversial by many due to the same reasons as before. Farmers do not want to compete with wolves for their livestock. Hunters do not want to compete with wolves for game animals. And still, many people do not want wolves local to them as there is the fear of dangerous behaviors and attacks. Luckily, with an increase in education, more and more people are accepting that wolves are not that great of a threat to humans. So long as livestock are properly protected, and people don’t go out of their way to disturb wolves in their habitats, wolves and humans can coexist in relatively close vicinities. The difference in societal perceptions between regions is likely caused by greater education on wolves in Europe, stemming from funding being allocated to educational programs and conservational education. It is also worth noting that in regions with a high percentage of positive perceptions, less wolves are likely to be hunted, poached, or disturbed.

Differences in percentages of private vs public land is also theorized to be a factor in the greater recovery success of Europe. In European countries that have smaller proportions of private lands, there are greater wolf densities than in countries with greater proportions of private lands (Couriot 2022). Some specific examples of this include the United Kingdom, which has nearly 70% private land in forested areas and no stable wolf populations at all, vs Romania which has only 20% private land in forested areas and a population of over 3000 individuals (Kerry 2014) (“United Kingdom | International Wolf Center” 2007) (Hinrichsen 2007). While this is only one example, this trend is further depicted when looking at the rest of the European nations as well, along with the comparison to the United States. The United States is comprised of roughly 50% public lands, and it has less wolves than Europe, which is comprised of nearly 60% public lands (Kerry 2014). A possible reason private lands tend to cause a trend towards less successful recovery is that legislative measures cannot be enforced as well on private lands. It is possible there are higher rates of poaching, disturbance and habitat degradation across private lands compared to public lands. Furthermore, greater percentages of private land in the US have likely caused for stakeholders to push for less strict regulations on wolf hunting so that individuals have more legal authority to rid their land of wolves. Also, wolves on public lands are more likely to be accustomed to human interactions, thus leading to safer behaviors and greater rates of survival.

In summation, due to many possible factors, wolves in Europe have recovered more successfully than in the United States. In order to continue to help grey wolves be restored to their natural population levels, we can analyze these possible trends and utilize our findings to shape legislative plans of the future. We should increase international involvement and cooperation for wolf management. We should increase public awareness and knowledge on the value of having large predators in our ecosystems such as wolves. We should make attempts to decrease physical, environmental, and cultural borders that limit their movement. And we should increase monitoring and management efforts in difficult regions where wolf populations are the highest. As we continue to do more of these things, wolves will continue to be returned to ecosystems within which they belong, and we’ll be even closer to undoing one of the many anthropogenic tragedies that have damaged our natural systems for multiple centuries.

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