

June 4, 2018

Wyoming Game and Fish Department Regulations 3030 Energy Land Casper WY 82604

Attn: Regulations Chapter 47, Gray Wolf Hunting Season Submitted electronically at WGFD site

Dear Commissioners,

Thank you for the opportunity to submit the following comments regarding the Draft Chapter 47, Wyoming Gray Wolf Hunting Season (Plan) on behalf of the 20,000-plus regional and national followers of Wyoming Untrapped (WU). Wyoming Untrapped is a 501(c)3, not-for-profit organization based in Jackson, Wyoming whose mission it is to "create an environment safe for people, pets and wildlife through education, trapping reform and advocacy."

Living and working in Wyoming for decades, we greatly appreciate the state's unparalleled wildlife diversity and abundance. We also recognize and respect that what we have is in many ways the result of the good work of the Wyoming Game and Fish Department's (Department) dedicated biologists and the agency's leadership. We thank you for that.

## **STATEMENT:**

Wyoming Untrapped would like to thank the Department for prohibiting wolf trapping and the use of dogs for wolf hunting within the Trophy Game Area. WU would also clearly state that we oppose any sport hunting of wolves, whether as trophy game or as predators.

# **NEED FOR A WOLF HUNT:**

Wyoming Untrapped takes exception to the premises put forth by Department staff for continuing Wyoming's wolf hunt and specifically for increasing the kill quota. At a recent meeting in Jackson, Department personnel attempted to make the case for both the hunt and the quota increase based on the premise that wolves had "moved elk off historical winter grounds" (specifically Department operated feed grounds in the Upper Gros Ventre

Valley). Department personnel added that this was upsetting to the Department feeding crew, and without proof, implied that this movement was also detrimental to the elk (Koshmrl 2018).

Regarding elk abandoning their traditional feed grounds, this may very well turn out to be beneficial for the habitat surrounding the feed grounds. Without hundreds of elk concentrated on that small area for 5 to 6 months each year, the habitat may now have a chance to rebound a bit. And, there was no evidence provided that the elk suffered higher than usual winter mortality on their new winter habitat. WU sees this concern as being more about having decades of tradition suddenly change and the Department not being willing to accept change. We submit that change might be beneficial for the elk and the habitat. For the Department to imply that wolves had "done bad" and thus deserve more hunting pressure is unfounded, unprofessional and unfortunate.

A second reason put forth for a wolf hunt is the assertion that wolves need to be "controlled" i.e. killed, to protect domestic livestock. Recent studies have shown that when anthropogenic removal of wolves occurred over a broad landscape (such as Wyoming's wolf Trophy Game Area) "the odds of livestock depredations increased 4% for sheep and 5% for cattle with increased wolf control-up until wolf mortality exceeded the mean intrinsic growth rate for wolves at 25%." "Depredations began to decline after mortality exceeded 25%." (Wieglus, R. 2014).

Professional opinion has it that an annual wolf mortality rate greater than 25% is not sustainable over the long period if federal relisting of wolves is to be avoided. The assumption is that mortality rates greater than 25% will likely result in breeder loss, smaller pack size, pack instability and possible dissolution followed by compensatory increases in breeding pairs, numbers of wolves and hence, increases in depredations.

WU understands the rights and needs of livestock owners to protect their property, but this may be better accomplished with focused removal of depredating wolves carried out by professional personnel instead of the broad-scale and un-focused approach of a hunting season.

#### <u>APPROPRIATENESS OF A WOLF HUNT:</u>

We are opposed to sport hunting of wolves for several reasons, including the significant role wolves play as an apex predator within the Greater Yellowstone Ecosystem. Researchers over the past twenty-plus years have compiled an indisputable body of evidence supporting the conclusions that the random, continuous and large-scale removal of wolves, and other apex predators has a disproportionate, cascading impact on the entire ecosystem they occupy. (We will only provide a few critical citations, the Department's biological staff is aware of these publications, and we are confident that other commenters will cite this point in detail.)

These negative impacts begin when a population of apex predators, particularly wideranging, low-density species such as the wolf are subject to indiscriminate, random anthropogenic removals, particularly hunting. Not only is there an impact to ecosystem function brought on simply because the population is held below environmental limitations, but there are additional and significant impacts resulting from the disruption of the social order within packs when key members are removed.

Ken Mills, Large Carnivore Specialist, is credited as saying during a Jackson meeting that it is "possible" that some packs may incur heavy losses due to changes in the Gros Ventre hunting Plan, but he doesn't think that any packs will be wiped out (Koshmrl 2018). WU thinks that this sentiment is misinformed.

A Comprehensive study of wolf populations from throughout North America, authored by 19 leading wolf biologists, concluded that when key individuals, usually breeding individuals, are removed, some packs dissolved and abandoned their territories (av. 38.2%). For example, when one breeder was removed, 25.8% of the packs dissolved whereas 84.6% of the packs dissolved when both breeders were removed. Reproduction occurred in 56.2% of the packs the year after the loss of one breeder and only 9.1% of the time when both breeders were removed (Brainerd, S. et al 2006). Clearly, random killing of pack members can have impacts significantly greater than just the addition of one or two bodies added to the mortality tally. With no disrespect meant towards Mr. Mills, WU stands by this and other research documenting similar outcomes following the loss of key pack members—a scenario likely to play out repeatedly with Wyoming's proposed wolf plan.

Cassidy, K.A. et al (2016), spell out how pack stability and survivorship, and consequently territorial integrity and population limitations are positively affected by larger, stable packs made up of a range of ages. And with significant disruption (loss of key members), the pack age and social structure, hunting patterns and efficiency can be negatively impacted. It is no stretch to anticipate that under these conditions, smaller packs consisting of younger and less experienced members may turn to easier prey such as domestic stock.

There is also strong scientific evidence that when populations of apex predators, and again specifically wolves are left to their own devices and grow to the limits of the system's carrying capacity, they begin to control their numbers through fewer and smaller litters and increased intra-specific territorial conflicts resulting in deaths (Smith, D.W et al. 2012). And the opposite is also true; when wolf numbers are artificially reduced, and all other environmental factors remain supportive, wolves are very likely to compensate by increasing litter size and having younger and/or more adults breeding.

Research demonstrates that if a population is reduced by whatever action(s), it will likely rebound to the point where it will once again become self-limiting. All this is to say that when left alone, wolves are density-dependent and will limit their own numbers.

Because of their high sociability, stable packs develop hunting strategies including extraordinary cooperation during hunting. Stable packs are likely to initiate higher degrees of territorial behavior then packs whose members are in flux due to human-caused removals, including sanctioned hunting seasons. And stable packs will have more accumulated knowledge of their territory and its prey distribution, again likely resulting in higher hunting efficiency and prey utilization.

Another advantage of having stable packs that know and defend their territories is that they will likely avoid dangerous areas, such as occupied livestock range. Simply stated, a stable wolf population will partition the landscape into defended territories and exist at a population level that the environment can support.

The indiscriminate hunting of wolves can have significant impacts that will reverberate throughout the ecological systems. Wolves are apex species and exist not as individuals but as social units-as packs. Leave them alone and they will flat out control their own numbers (Ordiz, A. et al. 2013.). Witness the Yellowstone wolf population: after 20-plus years, this sub-population has stabilized around 100 individuals—without human intervention, control or hunting. And the Northern elk herd, a primary food source is on a steady increase.

Another reason often put forth to justify a sanctioned wolf hunt is the claim that wolves need to be "controlled" i.e. killed, to protect domestic livestock. Recent studies have shown that when anthropogenic removal of wolves occurred over a broad landscape (such as Wyoming's wolf Trophy Game Area) "the odds of livestock depredations increased 4% for sheep and 5% for cattle with increased wolf control-up until wolf mortality exceeded the mean intrinsic growth rate for wolves at 25%." "Depredations began to decline after (wolf) mortality exceeded 25%." (Wieglus, R. 2014).

The research did show that livestock depredations did decrease as wolf mortality exceeded the 25% threshold. However, professional opinion holds that an annual wolf mortality rate greater than 25% is likely not sustainable over the long period if federal relisting of wolves is to be avoided. And even if the wolf population did persist, the impacts of a high mortality rate will likely result in more depredations, the very opposite of the intended outcome.

Wyoming Untrapped understands the rights and needs of livestock owners to protect their property, but this may be better accomplished with professional agency personnel focused on the removal of depredating wolves instead of the broad-scale and un-focused hunting season approach. And, any agency removal should only occur <u>after</u> all reasonable non-lethal methods have been employed.

#### THE NORTH AMERICAN MODEL OF WILDLIFE CONSERVATION:

Wyoming Untrapped also opposes the hunting of wolves because it violates several principles of the North American Model of Wildlife Conservation (NAMWC). First, wildlife is

held as a Public Trust Resource by state or federal agencies and is not owned by anyone. This, in conjunction with wildlife being Allocated by Wildlife Law wherein the public – all the public has input into law-making causes us to ask: why, after years of the Department "taking public comment," we who have alternate views regarding wolf management have yet to see any significant changes made from any of the original Plans? This can hardly be viewed as respecting, let alone incorporating the public's input.

## WYOMING'S DUAL CLASSIFICATION:

We also disagree with the State of Wyoming and the Department for maintaining a Plan ascribing dual status to Wyoming's wolves. In so doing, the State has designated, and the Department continues to manage 85% of the state as a Wolf-Predator Zone within which the State allows and condones the killing of wolves at any time, by any means and for no better reason than to simply kill a wolf. This means that wolves can be shot, trapped, run to death with snowmobiles or other vehicles at any time and nearly anywhere they exist. It allows for the killing of wolves in their dens- along with their dependent and defenseless offspring by gassing, explosives and execution with fires. This is amoral and absolutely contrary to the NAMWC principle that "Wildlife Should Only be Killed for a Legitimate Purpose" (Bookhout, T.A. 2012. P.18).

In addition, the killing of wolves in the Predator Zone by any means also violates the very premise of "Fair Chase" as defined by numerous individuals, organizations and in many publications. Nowhere is the principle of "Fair Chase" better defined then by Jim Posewitz (as quoted in Lein, D. 2014): [fair chase]" address the balance between the hunter and the hunted. It is a balance that allows hunters to occasionally succeed while animals generally avoid being taken." Many of the actions carried out against wolves within the Predator Zone allow them no chance of escape. These activities are contrary to the principle of "Fair Chase."

Discussions about what constitutes unethical hunting, inevitably concludes that the use of aircraft (and "drones") to locate animals and the herding or chasing of animals with motorized vehicles violates the "Fair Chase" principle. In simple terms, "Fair Chase" means "hunting without taking advantage of the animals and allowing them a fair chance to escape in defense[.]" (Bullen, V. 2018). What is allowed and often happens within the Predator Zone cannot in any way be called hunting or "Fair Chase"—it is simply barbaric and inhumane behavior that brings disgrace to all bona-fide, ethical hunters.

How can the State of Wyoming and the Department support, let alone justify establishing a Predator Zone for wolves? Even if the abhorrent killing practices are technically legal within the Predator Zone, they are by every reasonable standard amoral and demonstrate a complete disregard for the principle of "Fair Chase" and the ethical treatment of wildlife. If the Department remains silent and does nothing to eliminate the Predator Zone, does not call-out the inhumane killing practices employed therein, and does nothing to remove the

wolf's Predator Status within 85% of the State, the Department, and the State are tacitly condoning and remain complicit in this unethical killing activity.

All Wyoming wolves, except those within Yellowstone (YNP) and Grand Teton National Parks (GTNP), the John D. Rockefeller Memorial Parkway (JDRP), the National Elk Refuge (NER) and the Wind River Indian Reservation (WRIR) should be designated as a game species without exception. The current dual status designation is not responsible, twenty-first century wildlife management; it is instead a total abdication of management responsibility by the Department.

And last, hunting wolves by the general public serves no purpose other than as an expression of "blood lust" and a catalyst for "bragging rights". There is no derived food value, only ego gratification. Many members of WU were brought up in hunting families and were taught that you only kill what you will eat. WU still subscribes to that value. A trophy hunt of wolves feeds nothing more than the personal ego, and as it all too often occurs within the Predator Zone, is a disgrace to the ethical hunting community. Again, Wyoming's wolves should have big game status with a year-round closed hunting season.

#### HUNT AREA CONFIGURATIONS Sec. 4(h):

For years WU, and many others have asked the Game and Fish Commission to change the configuration of the HA's, particularly HA's 1, 2, 3, 6, and 8, and 9. Instead of having these HA's radiate out from YNP, GTNP and the NER as they currently do, their boundaries should be reconfigured to resemble concentric arcs moving away from the park boundaries, with the HA closest to the parks acting as a buffer and having a very low or zero quota.

This configuration would have three positive aspects: first, it would protect wolves that venture out of the parks from being shot, second, it would allow for increased quotas focused farther from the parks where livestock depredations may be more likely to occur, and third, if quotas are judicially applied, the overall quota can remain unchanged.

For two reasons, the current HA configuration exposes park and refuge wolves to considerable hunting pressure. First, because these wolves spend some or most of their time within the protective confines of the park and refuge (and near a conspicuous human population), they may be somewhat habituated to and less fearful of humans. And second, these wolves face significant hunting pressure because their home ranges and the HA's are relatively accessible to hunters.

In an attempt to assess hunter impact on these 6 wolf packs, we conducted a rough analysis of information from the 2017 season. We estimated that 15 hunter-killed wolves, or 34% of the 44 quota came from the 4 HA's abutting GTNP and the NER (HA's 6, 8, 9 and 10).

Based on further calculations, the 4 HA's contained at least 6 packs (totaling 46 individuals) that had home ranges partially or completely overlapping the park and/or the refuge

(Annual Report. 2017. Table 1, Fig. 1). And as many as 10 of the 15 (67%) wolves killed by hunters in the 4 HA's came from these 6 packs. When all known mortalities are added in, these 6 packs lost a grand total of 20 of their 46 members. In other words, at least 43% of the members of the packs whose home ranges overlap to some extent GTNP and the NER were lost in 2017. All but one of the mortalities is attributed to human actions.

When one considers the probability of these mortalities including one or both breeding adults in a pack and considering the potential for pack break-up and loss of reproductive potential due to breeder loss, and the subsequent flux in surrounding territories, we must conclude that human activities, particularly sanctioned hunting of wolves had a significant impact on the wolves of Grand Teton National Park and the National Elk Refuge.

## **ECONOMIC VALUE OF WOLVES:**

Absent specific data regarding the positive economic impact of wolf viewing in Jackson Hole, we rely upon data from a 2005 survey conducted in YNP (Duffield, et al. 2006) which estimated the economic impact to the region of wolf tourism at +\$35.5 million (2005 dollars). We can safely say that the positive economic impact of having viewable wolves in the Jackson Hole is equally significant. In fact, it is likely tens-of-times greater than all the costs of managing wolves in the region, including livestock losses and alleged diminished hunting opportunities attributable to wolves. In other words, we feel confident in saying that a cost-benefit analysis of having wolves in the Jackson Hole region would show a very significant positive impact to the region's economy.

We have no way of knowing how the local economy is impacted by the loss of 43% of the 6 packs whose home ranges abut or overlap the park and refuge. However, we feel confident that a loss of this magnitude has a severe impact on viewing opportunities and hence, a related impact upon our tourism economy. Removing that many wolves from packs that spend some or most of their time in and near GTNP and the NER, is unwarranted and reflects little or no respect for local interests, national park values and mandates, and the local and state tourist economies.

Clearly, wolves are worth much more as "watchable wildlife" then as "huntable wildlife." And wolves are worth much more alive than dead.

## PROPOSED HA CONFIGURATIONS:

Before we proceed, we must reiterate our unequivocal opposition to any sport hunting of wolves in Wyoming. However, barring that preferred outcome, we strenuously object to increasing the kill for 2018. We bring this up here because it factors into the reconfiguration currently being proposed.

The 2018 Plan proposes splitting HA's 5 and 11 into two new units, 13 and 14 and increasing the kill quota for 2018 from 44 to 58–a 32% increase. We also do not understand the rationale for having a floating quota of 15 for HA's 8, 9 and the newly shrunken HA 11. If

there was ever an argument to be made by the Department that HA's were set up to direct off-take of wolves to specific landscapes, this new "floating" quota appears to blow that argument out of the water. As proposed, all 15 wolves killed by hunters could be from any one of several packs in the HA's. But more significantly, they could all be taken from packs that overlap GTNP and the NER. This is unacceptable and demonstrates no respect for GTNP or NER wolves and the interested public- who also owns these wolves.

Wyoming Untrapped respectfully requests that HA's 6,8, and 9 be reconfigured as previously described, and that if the two new HA's (13 & 14) are necessary, that they have lower kill quotas ascribed to each; quotas that in total come to far fewer then what is currently proposed for those HA's.

## **SEASONAL TROPHY HA 12:**

Hunt Area 12 is of particular concern to WU. The Department states that HA 12 will be managed as a wolf movement corridor between Idaho and Wyoming to help ensure adequate genetic diversity within the Wyoming wolf population. However, when Wyoming's HA's management plan is viewed in context to that of neighboring Idaho- the anticipated "source" of immigrating wolves, the potential for successful movement between the two states is severely limited.

Between the two states and their various wolf hunting seasons (and trapping season in Idaho), there is not one single day of the year when wolves moving through that area are not subject to hunting or trapping on one or both sides of the state line. Not one.

Specifically, the Idaho Big Game (Wolf) Hunt Units (HU) adjacent to Wyoming's HA 12 are open to hunting from August 30th to March 31<sup>st</sup> (Idaho 2017-2018). Unfortunately, during that same time, and longer (March 1<sup>st</sup> to October 14<sup>th</sup>) Wyoming's HA 12 is officially a Predator Zone during which period all wolves can be killed by anyone at any time and by any means. Also, Idaho allows trapping from November 15<sup>th</sup> to March 31<sup>st</sup> within the HU along the northern approximate one-third of the shared state boundary. To be realistic, this so-called safe wolf movement corridor exists only on paper, certainly at no time does it exist upon the landscape.

If Wyoming is truly committed to maintaining genetic diversity within its wolf population, then WU urges the Commission to eliminate the Predator Zone aspect from HA 12 and manage it as a year-round, "zero quota" – i.e. "no take" HA. At least then, Wyoming can say it has done its part to accommodate inter-population, inter-state wolf movements.

# <u>DEFINITIONS – MORTALITY Sec. 2(a):</u>

In defining mortality, dictionaries do not differentiate between types of death. Mortality means death, whatever the cause. When used to assess the status and condition of Wyoming's wolf population, mortality figures need to consider <u>all</u> mortality, whether human-caused or not. To exclude wolves killed by "Department take", "legal take permits",

and those "...taken under the authority of §W.S.23-3-115(c)", which are all human-caused, is simply incomprehensible. Any wolf mortality is a dead wolf and needs to be accounted for and factored into any population assessment. And making an exemption for "...known natural and accidental gray wolf deaths[.]" is also unacceptable and diminishes the credibility of populations estimates and status reports.

Plus, what is an "accidental" death if not natural or human-caused?

Section 4(h) needs to be re-written to state that ALL known mortalities will be identified, recorded and used in all population assessments, modeling and predictions, and that this information will be made available to the public in the annual report.

# **HUNTING REGULATIONS Sec. 4(a):**

The second sentence of Section 4 (a) needs to be re-written as follows: "These regulations, and any allowance for hunting, do not apply to all lands within the boundaries of Grand Teton Nation Park, the John D. Rockefeller Memorial Parkway or the National Elk Refuge." The point is that hunting of wolves on Grand Teton Park inholdings and within the John D. Rockefeller Memorial Parkway should not occur.

Also, the last sentence of Sec. 4(a) should be re-written as follows: "Gray wolves in Wyoming are designated as predatory animals as defined in §W.S. 23-1-101(a)(viii)(B) except for:

- (ii) Yellowstone National Park, **Grand Teton National Park, the John D. Rockefeller Memorial Parkway, the National Elk Refuge;** and,
- (iii) All lands within the boundaries of the Wind River Reservation."

Regarding Sec. 4(a)(ii), the point is that by omitting GTNP, the NER and the JDRP, it appears that Wyoming has management authority over wolves within those Federal jurisdictions. Gray wolves occurring within the boundaries of GTNP, the JDRP and the NER should never be hunted.

Regarding Sec. 4(a)(iii), the point of this recommendation is that <u>all</u> gray wolves within the boundaries of the Wind River Indian Reservation, including within private inholding, should be managed by and have their status determined by Reservation authorities.

Regarding Sec. 4(f), the last sentence should be re-written as follows: "The pelt and skull shall be presented in an unfrozen condition to allow collection of biological samples for DNA analysis to assess genetic connectivity and to determine the age and sex of the gray wolf." DNA collection "may be request(ed) and "voluntarily provided...from the gray wolf..." killed within the Predator Zone for genetics sampling. This should be mandatory.

The point here is that tissue samples should be taken so that DNA analysis can be done on all hunter-taken wolves. Only through rigorous and extensive sampling can the genetic diversity- and health of the population be determined.

#### WOLVES DESIGNATED AS PREDATORY ANIMALS - Sec. 8:

Although WU vigorously opposes having any Predator Zone designation, barring that outcome, we request that Sec. 8(a) should contain a sentence making it clear that the public will have easy and timely access to the following information: the date, location, sex, and method of death of all wolves taken as designated predatory animals. Simply stated, this basic information (without individual hunter information) should be readily available to the public, which is currently not the case.

## **THE PUBLIC TRUST:**

All wildlife Native to the United States is held in public trust by designated public agencies as described in The Public Trust Doctrine (PTD). In the case of wolves in Wyoming, their management is a responsibility shared between the Game and Fish Commission, the National Park Service and the National Wildlife Refuge System. In all cases, public trust means managing for the benefit of the resource and the public (Wildlife Society, 2010).

Wolf management decisions need to be founded on more than hunting quotas. They need to consider all mortality regardless of cause. At the end of 2017, it was estimated that 347 wolves resided in Wyoming, including the two parks and the WRIR (238 were counted within Wyoming's jurisdiction). And during the same year, it is reported that at least 168 wolves died from various causes throughout the state (162 mortalities occurred within Wyoming's jurisdiction) (Annual Report, 2018. Table 1).

Simple calculations would then conclude that at least 515 wolves (347 living + 168 deaths = 515) resided in the state at some time during 2017, and 400 of those (238 living + 162 deaths = 400) resided within Wyoming's jurisdiction. And simple calculations would conclude that Wyoming's entire wolf population suffered a mortality rate of 33% (168/515 = 33%), and the state's jurisdictional wolves suffered a mortality rate of 41% (162/400 = 41%). Hunters killed 44 wolves (43 legal + 1 Illegal taken by a hunter = 44) or 11% of Wyoming's portion of the mortality figure (44 kills/400 population = 11%).

Wyoming's <u>human-caused</u> wolf mortality totaled 144 (Annual Report, 2018, Table 2) or 36% of the population (144/400 = 36%). A wolf population cannot sustain itself for the long haul with an annual mortality rate of 41%. It cannot sustain itself with an annual, human-caused mortality rate of 36%.

Regardless of what the current wolf population might be, increasing the hunt quota to 58 will ensure that the overall mortality rate for 2018 will remain far above sustainable levels. This is not acceptable public trust management. Wyoming's wolf management plan should focus on reducing human-caused mortalities and accepting that natural mortalities and

depredation removals will occur, the logical place to lower the mortality figure is by closing the hunt season, or at least reducing the hunt quota, not increasing it.

Together, the NAMWC and the PTD, clearly state that wildlife should be managed by best science for the benefit of the public in compliance with existing laws. The National Park Service Organic Act of 1916 (Organic Act, 1916) proclaims the purpose of National Parks to be: "...to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations[.]" (emphasis added). Our National Parks, often called "America's best idea," and referred to by President G.W. Bush as "America's gift to the world" (as cited by: U.S. Dept. Int. 2005), are a model for parks around the world. And Yellowstone and Grand Teton National Parks form the conservation core of the Greater Yellowstone Ecosystem.

The followers of WU, along with many citizens of the world expect our National Parks to act as "arks" for native wildlife—safe havens for those species residing therein. When the home ranges of wolf packs are reviewed, only 5 packs appear to have home ranges entirely within the boundaries of the parks, and all 5 occur within Yellowstone N.P., (Lamar Canyon, 8-Mile, Prospect Peak, Mollie's, and Wapiti Lake). No packs have their entire home ranges within Grand Teton National Park. (Annual Report, 2017, Fig. 1 & Table 3). The 5 YNP packs account for a "minimum" of 55 wolves.

Of the 5 packs, only one, the 8-Mile pack is listed as "Border pack with MT, assigned to Yellowstone National Park", making it very likely that members of this pack cross into the hunting zones of Montana (Annual Report, 2017, Table 3). Two additional packs, the Lamar Canyon and Prospect Packs have home ranges very near the Park's boundaries.

It needs to be mentioned that home ranges very likely do not represent the actual and larger areas frequented by wolves—they simply represent the polygons formed by locations verified either visually or with radio collar monitoring. In other words, pack members likely venture beyond the limits of the polygons, and potentially out of the safe havens of the park and into state hunt areas. And, knowing the movement capabilities of wolves, most wolves within YNP, regardless of their home range descriptions might, during their lives venture beyond the Park's protective boundaries.

If one divides the 55 wolves of the 5 "safe" park packs by the 515, the total population alive in 2017 (See: Public Trust, above), we can say that only 11% of the Wyoming's wolf population is safely living within our protected National Parks. If we only count the two packs (Wapiti Lake and Mollies's) with home ranges well within the safe confines of the Park's borders we have 35 wolves divided by the region's total population of 515, resulting in having only 7% of the region's wolf population safe from sanctioned anthropogenic removal.

When we look at wolf distribution throughout the western United States, we see no other geographical area where wolves now exist that might provide a protected "no hunt zone." None. In a 2010 article, renowned Yellowstone wolf biologist, Doug Smith is quoted as saying that in 2004 "...there's not one wolf pack entirely contained within Glacier National Park," (French, B. 2010). It is likely that the same holds true today. And there are no other parks or refuges large enough to exclusively accommodate a wolf pack.

Our point here is that throughout the lower 48 states, Yellowstone, the environmental core of the Greater Yellowstone Ecosystem, the protected core of Wyoming's wolf population is likely the only area remaining in the 48 states where native wolves can find a safe harbor. And even in this instance, that safe harbor accommodates roughly 55 wolves—only 55 wolves out of the 400 to 500 wolves living in the GYE are mostly protected from sanctioned human killing. Only 55 wolves within the entire contiguous 48 states are free to live out their lives relatively free of human interference.

Although many may say that wolves are doing well in the region, it is WU's conclusion that the Wyoming Game and Fish Department, with its proposed aggressive 2018 hunting season- a plan structured to maintain just the minimum population necessary to prevent relisting under the Endangered Act, is not doing enough to insure the wolf's long-term survival. We feel that the Department is not living up to the obligations of responsible wildlife stewardship as prescribed in the North American Model of Wildlife Conservation and the Public Trust Doctrine, and, that the Department is putting politics over best science. The Department is simply not living up to the public's expectations to manage all wildlife, including wolves for the benefit of all citizens. And we feel the Department's Plan may even jeopardize the wolves residing within our two premier National Parks.

#### **CLOSING:**

Wyoming Untrapped considers it philosophically indefensible to have a sanctioned gray wolf hunting season, or to allow wolves to be killed as predatory animals. And, although we firmly believe that the Department's 2018 Wolf Management Plan ignores many of the fundamentals of both the North American Model of Wildlife Conservation and the Public Trust Doctrine, and that it largely ignores best available science, we respectfully submit these comments for your collective consideration. Thank you.

Respectfully,

Lisa Robertson,
President, Board of Directors
Franz J. Camenzind, Ph.D.
WU Advisory Council
Board of Directors

#### **CITATIONS:**

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