

Ketchikan Area & Prince of Wales Island – Units 1A & 2

PROPOSAL 42

5 AAC 85.030. Hunting seasons and bag limits for deer.

Extend the deer season to December 31, in Unit 1A Remainder as follows:

Make the following changes to:

Unit/Area: Unit 1A Remainder

Bag limit: Four Bucks

Permit/Hunt #: Harvest Ticket

Open Season: Aug. 1- **Dec. 31.**

Note; the only thing that changes is the ending season date from Nov. 30 to Dec. 31.

What is the issue you would like the board to address and why? I would like to see more deer hunting opportunity in Unit 1A. Adding one more month of deer hunting to the Remainder of Unit 1A (not to include the Cleveland Peninsula) would aid hunters who have time or financial constraints to fill their deer tags in the current season. The deer season was changed in 2011, shortened by one month to allow the low deer population to recover after the hard winters of 2007/2008. Current harvest data from ADF&G indicates the deer numbers have rebounded.

PROPOSED BY: Ed Toribio

(EG-F22-100)

PROPOSAL 43

5 AAC 85.040. Hunting seasons and bag limits for goat.

Increase the resident bag limit to two goats in Unit 1A as follows:

We propose to allow Alaska residents the opportunity to harvest a second mountain goat in the defined area of RG001, Unit 1A.

- a) Resident Open Season (Subsistence and Nonresident Units and Bag Limits General Hunts) Open Season (1) Unit 1(A), Revillagigedo Aug. 1 - Dec. 31 Aug. 1 - Dec. 31 Island, except that portion (General hunt only) south and west from Donnelly Point to Naha Bay, Roosevelt Lagoon, Naha River, and Heckman Lake, the divide between Heckman Lake and the head of Salt Lagoon and the western shores of Salt Lagoon and George Inlet to Mountain Point 1 goat by registration permit only; the taking of nannies with kids is prohibited Unit 1(A)
- b) **For Alaska residents, a second mountain goat registration permit (Unit 1A) may only be issued if the goat harvested with the first registration permit was a billy. For those hunters who harvested their first goat in Unit 1A the pursuit of a second goat can't occur in the TCA (Trend Count Area) of the original harvest. Taking of nannies with kids is prohibited in Unit 1A.**
- c) **Resident hunters looking to pursue a second goat can receive a second registration permit after presenting the harvest record or sealing documents from their first harvest to ADF&G in Ketchikan.**

If adopted an Alaska resident is only allowed to be issued and in possession of one RG001 goat permit at one time. A second RG001 goat permit will be issued only after successful harvest and sealing of a male mountain goat. If a female goat is harvested on the first permit the hunter is ineligible to receive a second permit. If a second permit is issued the hunter would be unable to hunt in the trend count area (TCA) of the first harvest. The second permit must be hunted in another TCA. The change in regulation would not prevent a hunter from harvesting a female mountain goat with the first permit. It would prevent a hunter who did harvest a female goat on their first registration permit from being issued a second. The second permit would allow for harvest of a male or female goat, harvesting of a female goat with kids is prohibited.

It is our belief that if the board was to implement this change to regulation the increase in hunting pressure and harvest would be minimal. Due to well established limitations such as access, weather, time and resources, only a few local residents would consider and pursue this additional harvest opportunity. For those that would pursue a second mountain goat, it would be another opportunity to secure high quality protein and could lead to distributing effort to other less traditional areas.

For local hunters the ability to harvest a second mountain goat while being required to hunt in a different TCU could lead some hunters to explore and pioneer new areas. Pioneering of new areas utilized by mountain goats will better distribute hunting pressure and help to maintain the aesthetics of the hunt for more individuals. Boots on the ground and the information derived from exploring new hunting grounds would be of value to local wildlife managers.

What is the issue you would like the board to address and why? The Ketchikan Fish and Game Advisory Committee would like to increase the bag limit for goats in Unit 1A for Alaska residents to two goats.

Mountain goats are the most under-utilized game species in Unit 1A. Recent modifications in management, namely expanding the number of TCAs from 14 to 43, the use of a sightability correction model and harvest based on a sliding scale are expected to increase harvest opportunity. Modifications in management with current sealing requirements will allow for TCAs to be closed by emergency order when harvest warrants, thus protecting potentially vulnerable populations while maintaining harvest opportunity in other TCAs.

Unit 1A has three distinct goat populations. Two mainland populations are considered native to the Cleveland Peninsula and Misty Fjords. The third population was introduced to Revillagigedo Island from plants in 1983 and 1991. Populations resultant from the plants currently provide registration and draw permit opportunity. Goats are currently distributed throughout all suitable habitat on Revillagigedo. Modifications in management will also allow for the harvest of a greater percentage of the population of an introduced population vs. a native population. Local resident hunters are the largest group currently pursuing mountain goats. From 2013-2017 they represented 50% of successful hunters for an annual average of 16 harvests.

Due to loss of deer hunting opportunity on federal land on Prince of Wales and increasing pressure on Gravina Island and Revillagigedo Island, mountain goats provide a viable hunting opportunity to put meat on one's table and in the freezer for local resident hunters.

PROPOSED BY: Ketchikan Fish and Game Advisory Committee (HQ-F22-016)

PROPOSAL 44

5 AAC 85.040. Hunting seasons and bag limits for goat.

Extend the goat season in Unit 1A Remainder as follows:

Extend the current goat season in the Remainder of Unit 1A for RG001 from its current season to allow the month of January to harvest of goats.

Season dates: August 1–January 31 for RG001

What is the issue you would like the board to address and why? To extend the current registration goat hunting season in Unit 1A (RG001) to January 31.

The current mountain goat season runs from August 1st to December 31st in Unit 1A Remainder. Extending the season to January 31st would allow 31 additional days to harvest goats within the unit which residents could take advantage of after the deer seasons end on December 31st.

This season would be for both resident and nonresident hunters.

Allowing the season to be extended would allow trappers who pursue furbearers in areas inhabited by goats to hunt goats opportunistically.

Allowing the season to be extended would be beneficial to the local residents as it offers an alternative source of game meat after the deer season is over in Unit 1A.

The most current harvest and effort information from the Department of Fish and Game website done in 2017 states that there were 107 permits issued for RG001 which 66 of those applicants did not hunt.

A solution would be to implement a block management process with goats so that certain drainages may be shut down, but not the entire hunt.

This proposal would advocate for the harvest of goats by local people, but also allow the nonresident and nonlocal hunters to harvest goats during this time of year.

Note all nonresident hunters must be accompanied by a guide or immediate family.

PROPOSED BY: Ketchikan Fish and Game Advisory Committee (HQ-F22-017)

PROPOSAL 45

5 AAC 84.270. Furbearer trapping.

5 AAC 85.056. Hunting seasons and bag limits for wolf.

5 AAC 92.008. Harvest guideline levels.

Raise the population objective from 150-200 wolves to 250-350 wolves in Unit 2, and raise the threshold for closing the season from 100 to 200 wolves as follows:

General authority, as applicable: 5 AAC 84.270. (13), 5 AAC 85.056(1), and 5 AAC 92.008.

The annual harvest of wolves in Unit 2 shall be managed to maintain a unit-wide population objective of 250-350 wolves.

In light of this historic data, we suggest the current population objective of 150-200 wolves is both too low and too narrow. It should align more closely with ~250-350 wolves when conservation measures were initially put in place. The goal is to maintain a number that may sustain a significant annual harvest and not lead to a downward spiral in the wolf population.

To that end, and until a more rigorous evaluation of this vulnerable population is completed, we suggest that the Board of Game raise the threshold for season closure from 100 to 200 wolves, and raise the population objective from 150-200 wolves (current), to 250-350 wolves.

What is the issue you would like the board to address and why? At the January 2019 Board of Game (BOG) meeting, the BOG adopted a spring wolf population objective between 135-180 wolves in Unit 2. In the discussion record, the lower goal of the population objection (135 wolves) was derived by subtracting 40% of the Department of Fish and Game (department) historic population point estimate. One hundred wolves was set as the lowest acceptable population level for wolves in Unit 2. This was because the BOG believed that there was a 40% maximum mortality that the wolf population could recover from year-to-year, as long as trappers do not take too many adults. The upper limit of the population objective was based on 20% of the low-end population estimate.

The population objectives were adopted by the board in 2019 in step with a new proposal to manage wolves by population objective. The department specifically avoided recommending those objectives, deferring instead to the BOG and the public process. In that process, the BOG referenced wolf population estimates gathered in the 2014 and 2015 season¹, which was the all-time low point in the Unit 2 wolf population. The department has since adopted the position that these early estimates were likely biased low.² On that basis alone, the population objectives need to be revised to reflect the new, more accurate population numbers.

Some history may be useful in revising this objective. The department's research biologist in 1996 published a population estimate for Unit 2 that was based on two different methodologies. One, based on home range modeling, estimated the wolf population at 321. The second, based on empirical observations of wolves from the air, returned a population estimate of 218 wolves. He believed the first method (home range) *overestimated* the population due to the fact that many of the islands in Unit 2 are not permanently occupied by wolves. The second method (empirical observations) was believed to underestimate the population because of heavy wolf harvest in the area preceding the fall 1994 counts. He therefore averaged the two and produced his best estimate of the Unit 2 wolf population at the time: 269 wolves³ (Roffler et al. 2016).

This population estimate was low enough to raise concerns by the BOG about unsustainable harvest, which at the time, was ranging from 85-105 wolves per year⁴. Consequently, the BOG, in

1997, enacted wolf harvest guidelines that capped legal harvest at 25% of the most recent population estimate.

During the 1980s and early 1990s, the Unit 2 wolf population probably hovered between 250 and 350 wolves, with 30-50% being harvested annually. As the population declined through the 1990s and 2000s, the static harvest cap of 90 wolves (later reduced to 60 wolves) drove the population further downward. In 2014, if the Spatially Explicit Capture–Recapture (SECR) population estimate showed the Unit 2 wolf population numbered just 89 animals.

The department excused itself from establishing a population objective in 2019, preferring, instead, to let local residents set it. The public has no way of knowing wolf carrying capacity, much less what number of wolves might be needed to maintain viability or to provide for a maximum sustained yield.

The decision to set 100 wolves as the minimum did not include a consideration of the genetic diversity needed to sustain this isolated, genetically distinct population; genetic bottlenecking, susceptibility to rabies and disease; resiliency to harvest over 40%; or resilience to habitat fragmentation and loss from old growth logging. In fact, the department conducted no population viability analysis to support the BOG’s decision to set 100 wolves as the minimum acceptable level.

Since 2019, and in light of new genetic studies, it appears the minimum population number has been on the department’s mind. At a public hearing in Prince of Wales on November 9th, 2021, the department representative stated, that “new genetic data raises questions about genetic diversity to prevent inbreeding” in Unit 2 and that the agency was keeping the trapping season short (one month) because, “the population objective might not be genetically sustainable.”

There is no area within Unit 2 where a wolf pack is not exposed to legal and illegal killing. With no evidence of immigration into Unit 2 from surrounding management areas, a small residual population of 100 wolves could be feasibly extirpated, and risks a positive ESA listing decision.

¹ “When setting the current fall population objective (150–200 wolves) the Alaska Board of Game referenced estimates from 2014 and 2015.” (ADF&G press release 10 Nov 2021)

² “Although ADF&G’s Unit 2 wolf population estimates have always been reasonable and consistent with the DNA collected, analysis of data from 2019 and 2020 suggests earlier estimates may have been biased low. Along with incremental improvements in capturing DNA from hair samples, in 2019 and 2020 ADF&G first had access to DNA from relatively large numbers of wolves harvested within the study area during the October–December study period. That DNA collected at sealing contributed to larger datasets available for the 2019 and 2020 population estimates and in part, appears responsible for higher estimates in those years. Fewer samples from harvested wolves available for earlier estimates may have biased those estimates low.” (ibid)

³ Page 9, in: *Roffler, G. H., J. N. Waite, R. W. Flynn, K. R. Larson, and B. D. Logan. 2016. Wolf population estimation on Prince of Wales Island, Southeast Alaska: a comparison of methods. Alaska Department of Fish and Game, Final Wildlife Research Report ADF&G/DWC/WRR-2016-1, Juneau.*

⁴ “These results are consistent with observations made in the field by biologists and trappers who believe that wolves on Prince of Wales and Kosciusko Islands were at a population peak during winter 1992-93 and have declined since, owing primarily to trapping and hunting (in GMU 2, 86, 105, 103, 85, and 99 wolves were reported killed during the 1991-92, 1992-93, 1993-94, 1994-95, and 1995-96 trapping seasons, respectively”. From *Person, David K.; Kirchhoff, Matthew; Van Ballenberghe, Victor; Iverson, George C.; Grossman, Edward. 1996. The Alexander Archipelago wolf: a conservation assessment. Gen. Tech. Rep. PNW-GTR-384. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 42 p.* Person et al. 1996. *Person, David K.; Kirchhoff, Matthew; Van Ballenberghe, Victor; Iverson, George C.; Grossman, Edward. 1996. The Alexander Archipelago wolf: a conservation assessment. Gen. Tech. Rep. PNW-GTR-384. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 42 p.*

PROPOSED BY: Alaska Wildlife Alliance (HQ-F22-023)

PROPOSAL 46

5 AAC 85.056. Hunting seasons and bag limits for wolf.

Lengthen the hunting season for wolves in Unit 2, to open September 1 as follows:

Open to residents and nonresidents:

Five wolves

September 1st [December 1st] - March 31st

All wolves taken in Unit 2 must be sequentially numbered or marked by the hunter, the hunter must call the ADF&G office at (907) 225-2475 within 7 days of take to report the date and location of take, and all hides must be sealed within 15 days of take.

What is the issue you would like the board to address and why? We would like to see the start of wolf season in Unit 2 start on September 1 to better align with the federal season and to provide additional harvest opportunity.

Wolves are often encountered throughout the deer hunting season in Unit 2. Opportunistic harvest of wolves during this time is prohibited because the current season does not open until December 1.

We believe the department could benefit from the information that would be gathered from wolves harvested prior to the current season start date.

PROPOSED BY: Ketchikan Fish and Game Advisory Committee (HQ-F22-018)

PROPOSAL 47

5 AAC 92.170. Sealing of marten, fisher, lynx, beaver, otter, wolf, and wolverine.

Require wolf harvest information be reported within 48 hours of recovery and sealing within 14 days in Unit 2 as follows:

5 AAC 92.170. Adjust the requirement for all wolves taken in Unit 2 to be reported via call in as follows: Wolves taken during either the hunting season or during the trapping season must be called in within 48 hours and sealed within 14 days of harvest.

Require hunters and trappers that kill wolves to call in harvest information to a recorded department line within 48 hours of recovery. As wolves are taken and reported, they should be numbered sequentially to assist the department in censoring the wolf from the mark-recapture study. Very general location data should also be provided in the call-in. Sealing requirement remain the same (within 14 days). An area office, or a wolf sealing station, on Prince of Wales Island would make reporting and sealing requirements easy for the public, and provide other useful information.

What is the issue you would like the board to address and why? To manage wolves sustainably, the annual mortality the population experiences must be sustainable. The best way to ensure that is to monitor the harvest during the season, and close it if necessary to avoid over-

harvest. It is a standard management practice with many fish and wildlife populations, especially where the economic valuation is high (e.g. herring), or where the populations are small and relatively vulnerable (e.g. bowhead whales, musk ox). Historically, harvest information has been gathered when hunters and trappers present the wolf hides for sealing, typically within 30 days after the season closes. While presentation of the animal for sealing yields beneficial data (including genetic samples), a late report does not benefit the Spatially Explicit Capture–Recapture (SECR) population estimation technique, nor does it signal to the department when an overharvest is being approached.

The sooner a report is filed with the department, the better they can manage. We suggest a cell phone call to a recorded department line within 48 hours of recovery. This is a light burden to impose and does not affect a large number of people. During RY10–RY14 an average of 12 trappers per year were successful (range 10–17).¹ If one doubles it for safe measure, the reporting burden still falls on relatively few shoulders.

¹ Porter, B. 2018. Wolf management report and plan, Game Management Unit 2: Report period 1 July 2010–30 June 2015, and plan period 1 July 2015–30 June 2020. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2018- 10, Juneau.

PROPOSED BY: Alaska Wildlife Alliance (HQ-F22-030)

PROPOSAL 48

- 5 AAC 84.270. Furbearer trapping.**
- 5 AAC 85.056. Hunting seasons and bag limits for wolf.**
- 5 AAC 92.008. Harvest guideline levels.**

Change the methodology for setting the population objective for wolves in Unit 2 as follows:

General authority, as applicable: 5 AAC 84.270(13), 5 AAC 85. 056(1); 5 AAC 92.008.

5 AAC 92.008 is amended to read:

The minimum population objective for wolves in Unit 2 shall be based on a biological population viability analysis, using available demographic data.

We recommend that ADF&G contract with a qualified researcher to conduct a population viability analysis for wolves in Unit 2 using available demographic data. From that research, ADF&G recommends a baseline population objective based on the results. This will ensure that the population objective considers genetic diversity (based on the agency’s best available science), resilience to habitat loss or fragmentation, carrying capacity, and other biological factors.

What is the issue you would like the board to address and why? In the January 2019 Board of Game (BOG) discussion which set the population objective for wolves in Unit 2, the BOG adopted a spring population objective between 135-180 wolves. In the discussion record, the lower goal of the population objection (135 wolves) was derived by subtracting 40% of ADF&G’s historic population point estimate. One hundred wolves was set as the lowest acceptable limit of wolves in Unit 2. This was because the BOG believed that there was a 40% maximum mortality that the wolf population could recover from year-to-year, as long as trappers do not take too many adults. The upper limit of the population objective was based on 20% of the low-end population estimate.

The population objectives were adopted by the board in 2019 in step with a new proposal to manage wolves by “population objective”. Managing to a population objective is not a flaw, we simply have concerns that the minimum population objective (100 wolves) is inadequate to assure viability over the long term.

The department (ADF&G) excused itself from establishing a population objective, preferring, instead, to let local residents set it. The public has no way of knowing wolf carrying capacity, much less what number of wolves might be needed to maintain viability or to provide for a maximum sustained yield.

The decision to set 100 wolves as the minimum did not include a consideration of the genetic diversity needed to sustain this isolated, genetically distinct population; genetic bottlenecks, susceptibility to rabies and disease; resiliency to harvest over 40%; or resilience to habitat fragmentation and loss from old growth logging. In fact, ADF&G conducted no population viability analysis to support the board’s decision to set 100 wolves as the minimum acceptable level.

Since 2019, and in light of new genetic studies, it appears the minimum population number has been on ADF&G’s mind. At a public hearing in Prince of Wales on November 9th, 2021, a representative from ADF&G stated that “new genetic data raises questions about genetic diversity to prevent inbreeding” in Unit 2 and that the agency was keeping the trapping season short (one month) because, “the population objective might not be genetically sustainable.”

There is no area within Unit 2 where a wolf pack is not exposed to legal and illegal killing. With no evidence of immigration into Unit 2 from surrounding management areas, a small residual population of 100 wolves could be feasibly extirpated, and risks a positive ESA listing decision.

In sum, even if the minimum number of wolves (100) currently set by the BOG is sustained, there are serious concerns that 100 is too few wolves to provide a viable population. If the population objective, particularly the minimum, does not consider the above-listed conservation considerations, the state risks violating sustained yield principles by not taking what the courts consider a “hard look” at variables influencing a resource’s sustainability.

PROPOSED BY: Alaska Wildlife Alliance (HQ-F22-024)

PROPOSAL 49

- 5 AAC 84.270. Furbearer trapping.**
- 5 AAC 85.056. Hunting seasons and bag limits for wolf.**
- 5 AAC 92.008. Harvest guideline levels.**

Utilize the lower confidence interval of the wolf population for estimating the population in Unit 2 as follows:

General authority, as applicable: 5 AAC 84.270(13), 5 AAC 85. 056(1), 5 AAC 92.008

5 AAC 92.008 is amended to read:

The lower confidence interval of the population estimate shall be utilized for the purposes of estimating the wolf population in Unit 2.

To exercise the state's precautionary management policy in the face of high uncertainty, utilize the lower bound of the confidence interval as the assumed wolf population for purposes of management and quota-setting. To gauge the magnitude of this adjustment, this proposed change would lower the official estimated wolf population size in the fall of 2020 from 386 wolves to 320 wolves.

What is the issue you would like the board to address and why? The Board of Game (BOG) is currently utilizing the statistical mean of the Spatially Explicit Capture-Recapture (SECR) analysis as the assumed wolf population for purposes of management and quota-setting in Unit 2. Given uncertainty about the veracity of these population estimates, a more conservative measure is advisable.

The department has acknowledged that the observed changes in the Unit 2 wolf population from year to year, concurrent with reported harvests, are not particularly logical. An experienced trapper on Prince of Wales Island who sits on the Federal Subsistence Regional Advisory Council was succinct: "This roller-coaster ride of population estimates has really upset a lot of people, including myself....Somebody ought to admit there's some shortcomings somewhere."¹

Let's examine this "roller-coaster ride" he references, starting in regulatory year 2013², to illustrate why the population estimates for wolves in Unit 2 are questionable:

- In 2013, after 26% of the estimated wolf population was harvested, the population *declined* 60% (unlikely).
- In 2014, after 34% of the estimated Unit 2 wolf population was harvested, the population *increased* 21% (unlikely).
- In 2015, after 6% of the estimated wolf population was harvested, the population *increased* 114% (impossible).
- In 2016, after 13% of the estimated wolf population was harvested, the population *decreased* 3% (possible).
- In 2017, after 27% of the estimated wolf population was harvested, the population *decreased* 24% (unlikely).
- In 2018, after 25% of the estimated population was harvested, the population *increased* 76% (highly unlikely).
- In 2019, after 52% of the estimated population was harvested, the population *increased* 23% (impossible).

The numbers simply do not align. A barely sustainable 26% harvest in 2013 caused wolves to *decrease* 60%, while the same percentage harvest in 2018 supposedly caused wolf numbers to *increase* 86%. A population more than doubling in a single year (2015-2016) is impossible. A harvest of 52% in one year causing wolf numbers to increase 23% the next is impossible.

Year after year, the department reports the new numbers, absent critical thought as to their believability. Their desire to show wolf population increases, and "fight off" a possible listing by the U.S. Fish and Wildlife Service reflects the department's mindset, and a lack of objectivity.³

Why these estimates might be wrong is not for the Alaska Wildlife Alliance, or the Board of Game to determine. Any number of assumptions in the SECR methodology may have been violated, and

those violations may differ year to year. But what the Board of Game *must* do is recognize the inherent unreliability of these population estimates, and err on the side of caution when managing wolves on this basis.

The department has sometimes excused these swings by pointing out that these are the means (i.e., point estimates) and that there are quite broad confidence intervals around those means.

Pointing to poor precision as a positive, and as an excuse for population trends that do not make sense, only underscores the basis for our concerns.

Likewise, it is incorrect to claim, as the department does, that because confidence intervals overlap in consecutive years, the population is stable.⁴ Failure to detect a decline does not mean there was no decline...it simply means the data were too variable to detect a decline. Declines of 50% or more can be “not significant” if the underlying data are noisy, and the confidence limits excessively large.

It appears the “goodness” of the population estimates is, in the department’s eyes, linked to the value itself. Signs of abundance, or increase, are trustworthy. Signs of scarcity, or decline, are discounted with reference to small sample size, or unrefined methods. Such post-hoc rationalizing damages the department’s credibility.

¹ From transcripts of an ADFG meeting with the regional Advisory Committee, held 20 November 2020.

² Data on population size and number of wolves harvested are by same regulatory year, as reported in ADF&G memos and reports, available online. The harvest numbers are for legally reported harvest only. They do not include illegal kills or natural mortality. Regulatory year, population size, and reported harvest are as follows: (2013,221,57) (2014,89,30) (2015,108,7) (2016,231,29) (2017,225,61) (2018,187,44) (2019,316,165) (2020,389,68) (2021, ,64)

³ “And we need to keep that (cooperation) going, because we have a petition we have to fight off. Like I said, this is the time when we really have to work together to avoid a listing decision. Because this petition is more likely than the last one to end up in a listing decision, just because of how it’s structured.” (*quote from ADF&G Region 1 supervisor, at a 20 November 2020 meeting with the Southeast Regional Advisory Committee*).

⁴ “The fall 2019 and fall 2020 population estimates are statistically indistinguishable suggesting that the Unit 2 wolf population is stable.” From: *6 Dec 2021 ADFG memo on Unit 2 Wolf Population update, fall 2020*.

PROPOSED BY: Alaska Wildlife Alliance (HQ-F22-025)

PROPOSAL 50

5 AAC 84.270. Furbearer trapping.

5 AAC 85.056. Hunting seasons and bag limits for wolf.

5 AAC 92.008. Harvest guideline levels.

Establish a population estimate and harvest limit based on Prince of Wales Island wolf population that excludes extrapolation from outer islands in Unit 2 as follows:

General authority, as applicable: 5 AAC 84.270. (13), 5 AAC 85.056(1), 5 AAC 92.008

5 AAC 92.008. is amended to read:

The preseason population estimate of wolves in Unit 2 shall be based on the estimated population of wolves on Prince of Wales Island alone, with no extrapolation for the outer islands in Unit 2.

Estimate the population of wolves on Prince of Wales Island, alone, and set a harvest cap based on this number. This would directly align the trapper effort with the department's population estimate. To the extent that some Unit 2 wolves occur on small islands, they can provide a minor source of immigration to Prince of Wales if and when wolf packs on that island are over exploited. This proposal echoes a recommendation of the interagency wolf technical committee.⁵

What is the issue you would like the board to address and why? The wolf population estimates in Unit 2 make untested assumptions about the relative density of wolves on the outer islands, leading to an overestimate of wolves on Unit 2, and a potential overharvest of wolves on Prince of Wales.

The department has little to no data on wolf densities on the outer Islands west of Prince of Wales. Since the Spatially Explicit Capture–Recapture (SECR) genetic population estimation method was developed (first estimate in 2013), > 99% of the cumulative samples (nodes x years) have been drawn from the northern 2/3rds of Prince of Wales Island¹. Less than 1% of the sample effort is on islands (one, Sukkwan Island, which is separated from Prince of Wales Island by ~ 600 m of protected water).

The department has no samples in 40% of the Game Management Unit, including southern Prince of Wales Island, and scores of medium-sized and highly insular² islands to the west. The department justifies extrapolating to these islands with weak statements to the effect that “they have no reason to believe the wolf densities are different”.

That requires willful disregard for evidence from ADF&G wolf and deer researchers who have conducted field work on many of these islands and found wolf use was low and sporadic, especially on smaller, more distant islands. Only the three largest islands—Prince of Wales, Kosciusko, and Dall are large enough to have been continuously occupied by wolves for more than 20 years.³

Wolves that must piece together a pack home range by swimming among numerous islands have far greater energetic costs than a wolf pack that merely trots down a logging road. While wolves can swim, the odds of them making long swims (> 2 km), or multiple swims (> 3), or swims in high seas (outer islands) to reach an island too small to sustain a pack are scant. It is telling that when wolves were transplanted by boat to Coronation Island (in Unit 3), they quickly outstripped their food resources and began cannibalizing each other. They lasted 10 years, starving in place rather than swim 900-m of open-water to nearby islands with deer⁴...strong evidence that swimming represents considerable friction to wolf movements.

To assume that wolf habitat use on small islands, requiring multiple or long swims, is equivalent to wolf use on a large, contiguous land mass is contravened by empirical evidence. By ignoring this evidence, the department overestimates the Unit 2 wolf population, and so too overestimates the number of wolves that can be safely harvested.

¹ This summary is derived from maps showing the locations of sample nodes, by year, as reported in annual Departmental memos on the most recent Unit 2 wolf population estimate.

² Insularity refers to how likely an island is to be visited, or colonized. Smaller islands are less likely to be inhabited than large islands; and islands that require long swims, multiple swims, or swims in heavy seas are less likely to be inhabited than islands accessible via easy swims.

³ “Within Unit 2, only the three largest islands—Prince of Wales, Kosciusko, and Dall—are known to have been continuously occupied by wolves for more than 20 years. Wolf packs may include several smaller islands...in their home ranges or may exclusively inhabit smaller islands for a few years, but they are unable to persist permanently”. From: *Person, David K.; Kirchoff, Matthew; Van Ballenberghe, Victor; Iverson, George C.; Grossman, Edward. 1996. The Alexander Archipelago wolf: a conservation assessment. Gen. Tech. Rep. PNW-GTR-384. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 42 p.*

⁴ “Wolves failed to cross the 900 m of water to the adjacent Spanish Islands where deer densities remained moderately high throughout the study.” (from *Klein, D. R. (1995). The introduction, increase, and demise of wolves on Coronation Island, Alaska. Ecology and conservation of wolves in a changing world, 275, p. 280.*

PROPOSED BY: Alaska Wildlife Alliance (HQ-F22-026)

PROPOSAL 51

5 AAC 84.270. Furbearer trapping.

5 AAC 85.056. Hunting seasons and bag limits for wolf.

5 AAC 92.008. Harvest guideline levels.

Establish a percentage of the Unit 2 wolf population that can be harvested on a sustainable basis, develop a harvest quota each season, require in-season reporting, provide the harvest to the public in real time, and allow three days’ notice before closing the season by emergency order as follows:

General authority, as applicable: 5 AAC 84.270(13), 5 AAC 85.056(1), 5 AAC 92.008.

5 AAC 92.008 is amended to read:

The Board of Game (BOG) is to establish the percentage of the wolf population that can be safely harvested on a sustainable basis. Using the department’s latest available population estimate, and accounting for wolf mortality (natural, legal human harvest, and illegal human harvest), the department develops a harvest quota each season. The department shall monitor the annual harvest of wolves in Unit 2 with in-season reporting. That reported taking shall be tallied and made available so trappers and hunters know whether the harvest quota is being approached. At least three days notice shall be given before a season is closed by emergency. An additional allowance of up to three days may be given if adverse weather conditions require.

This proposal speaks to the management framework only, and adopts the same method that was used to manage wolves in Unit 2 from 1997 through 2018. Returning to that method, with the benefit of annual population estimates, a population objective, more convenient in-season reporting requirements, and a transparent public process represents a significant improvement over the current system. This proposal echoes a recommendation of the Interagency Wolf Technical committee. ²

It is understood that a majority of lands in Unit 2 (72%) are federal lands, administered by the USDA Forest Service (USFS). The USFS recognizes the state to be the primary manager of game species on federal lands when not in conflict with USFS government regulations. Hence, state regulations apply to all federal and state lands in Unit 2 unless a person is harvesting under federal subsistence regulations. The Federal Subsistence Board (FSB) sets regulations for federally qualified subsistence users on federal lands. In order to reduce regulatory confusion and ensure successful management of game species the FSB often aligns with State regulations. If the BOG adopts this proposal it is likely the FSB will adopt the regulation on federal lands for federally qualified users to avoid regulatory confusion and ensure successful management of wolves.

What is the issue you would like the board to address and why? The management scheme that the BOG adopted in 2019 (per the department's recommendation), which aims to meet wolf population objectives set by the BOG by season length alone, is too blunt to meet the management needs of this wolf population. The current management scheme inadequately controls harvest, and requires annual Emergency Orders to work.

The department manages wolf populations by managing direct human-caused mortality. Mortality is most commonly controlled by limiting the number of hunters and trappers, installing bag limits, or establishing harvest quotas. It can be crudely controlled by adjusting season length, but without bag limits, trappers can take too many animals if conditions are ideal, or too few animals if conditions are poor. It is difficult to consistently and accurately predict the number of trappers that will participate, and the number of animals that will be taken, in a given season.

This was proven in the very first year (2019) the new population objectives management system went into effect. The prior year population estimate was 170 wolves in Unit 2 (or 178, depending on which department report is referenced). Either is squarely within the desired wolf population range of 150-200 wolves. The department had suggested, and the board adopted, a season length guideline of up to eight weeks when populations were in that range. In-season reporting requirements were also rescinded on the mistaken belief that this system would work well without monitoring the kill.

In that first 8-week season, a record 165 wolves were legally harvested and an untold additional number lost to natural mortality, wounding loss, and illegal take. The gross overharvest was shocking, but was explained by the department as being a result of higher-than expected trapper numbers—an admission that reinforces the inadequacy of a season-length only management tool.

To correct for this apparent problem, the department has abandoned the general season-length guidelines the board adopted. Instead, in every season since 2019, the department has shortened the trapping season by a “pre-emptive” emergency order/regulation. In effect, they anticipate the emergency, and substantially shorten the season under emergency authority before it even starts.

Using season length to control harvest amounts to a guessing game. Compounding the problem is the fact that this game now takes place behind closed doors. There is no opportunity for input from the BOG, or the public. The crude nature of this tool leaves wolves at risk. The opaque nature of this tool leaves the public frustrated and distrusting.¹

¹ Resolution 21-04 by the City of Coffman Cove, passed 4 November 2020.

² “Any management plan should include population and **harvest objectives** for wolves, clear direction on how wolf abundance will be estimated and **measurable indicators that will trigger specific management actions** (emphasis added). This larger planning effort would be outside the scope of normal survey and inventory activities and to be successful should be led by ADF&G.” from:

PROPOSED BY: Alaska Wildlife Alliance

(HQ-F22-027)

PROPOSAL 52

5 AAC 84.270. Furbearer trapping.

5 AAC 85.056. Hunting seasons and bag limits for wolf.

5 AAC 92.008. Harvest guideline levels.

Establish a harvest quota for wolves, between 20% and 35% of the estimated wolf population in Unit 2 as follows:

General authority, as applicable: 5 AAC 84.270 (13), 5 AAC 85.056(1), 5 AAC 92.008.

5 AAC 92.008 is amended to read:

A harvest quota between 20% - 35% of the estimated population of wolves in Unit 2 is established by the Board of Game based on conservation concerns.

As a matter of policy, the Board of Game should establish an allowable percent mortality figure that varies between 20% and 35%, depending on where the current population sits relative to the objective. If the population needs to be reduced to meet population objectives, the Board of Game can institute a 35% mortality guideline. If, on the other hand, there is a conservation concern for wolves, a lower cap of 20% can be instituted.

This approach provides to trappers the maximum possible number of wolves to harvest while honoring the constitutional sustainability requirement, and moving towards the population objective. It is a biologically driven, based on empirical data from Unit 2, and can be set in a clear and transparent fashion by the board. Establishing this percentage is consistent with past practice, and will be even more successful as the department improves on its ability to estimate wolf population size and monitor in-season harvest.

What is the issue you would like the board to address and why? Neither the Board of Game nor the department has established a sustainable wolf harvest level for Unit 2.

The department is obligated under the Alaska State Constitution to manage wildlife resources on the sustained yield principle.¹ In common terms, sustained yield means managing for an ongoing annual harvest without jeopardizing the harvest (or yield) for future generations.

The percentage of a population that can be harvested annually, in perpetuity, is driven by various population traits, including age and sex structure, productivity, recruitment, immigration and natural mortality. Where human-caused mortality is compensatory, and immigration likely, human harvest rates of 17-48% of wolf populations can be sustained. If there is no possible immigration (as on Unit 2), or if human-caused mortality is partially additive to natural mortality, sustainable rates are lower—in the range of 22-25%.²

In studies of the wolf population on Unit 2, it was determined that in order to maintain current population levels, a level of mortality (from all causes: including natural, legal, and illegal harvest) for wolves in southeast Alaska is 30-35%³

The Board of Game has variously set the percentage of sustainable mortality between 20-30%, adopting the more conservative figure in years of particularly acute conservation concerns, and 30% in years of lesser concern.⁴

¹§ 4. **Sustained Yield** — Fish, forests, wildlife, grasslands, and all other replenishable resources belong to the State shall be utilized, developed, and maintained on the sustained yield principle, subject to preferences among beneficial uses. From: *The Alaska State Constitution*.

²“Most studies demonstrate that high rates of reproduction and immigration can compensate for human-caused mortality rates of 17–48% (±8%; Fuller et al. 2003, pp. 184–185; Adams et al. 2008 [29%], p. 22; Creel and Rotella 2010 [22%], p. 5; Sparkman et al. 2011 [28%], p. 5; Gude et al. 2012 [25%], pp. 113–116). However, results of other studies suggest that harvest of wolves by humans are at least partially additive (Murray et al. 2010, pp. 2519–2520), and therefore, sustainable mortality rates may be lower than expected (~22–25%; Creel and Rotella 2010, p. 5). From: *Wolf Technical Committee. 2017. Interagency Wolf Habitat Management Program: Recommendations for Game Management Unit 2. Management Bulletin R10-MB-822. USDA Forest Service, USDI Fish and Wildlife Service, and Alaska Department of Fish and Game.*

³“Based on our analysis of birth rates and population size for wolves on Prince of Wales and Kosciusko Islands, we estimate the per capita birth rate for wolves to be approximately 0.33 (SE = 0.15). The buffering effects of immigration and emigration are probably limited for most of the wolves in southeast Alaska; consequently, total annual mortality should not exceed reproduction to maintain current population levels. Thus, to maintain current population levels, a level of mortality (from all causes: including natural, legal, and illegal harvest) for wolves in southeast Alaska is likely to be less than or equal to 30 to 35 percent. From: *Person, David K.; Kirchhoff, Matthew; Van Ballenberghe, Victor; Iverson, George C.; Grossman, Edward. 1996. The Alexander Archipelago wolf: a conservation assessment. Gen. Tech. Rep. PNW-GTR-384. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 42 p.*

⁴Since 1997, there have been 2 years at 25%, 17 years at 30%, and 3 years at 20%.

PROPOSED BY: Alaska Wildlife Alliance (HQ-F22-028)

PROPOSAL 53

- 5 AAC 84.270. Furbearer trapping.**
- 5 AAC 85.056. Hunting seasons and bag limits for wolf.**
- 5 AAC 92.008. Harvest guideline levels.**

Establish an estimated unreported mortality rate for Unit 2 wolves to be used for establishing the harvest quota as follows:

General authority, as applicable: 5 AAC 84.270(13), 5 AAC 85.056(1), 5 AAC 92.008.

5 AAC 92.008 is amended to read:

An estimated unreported mortality rate of 35-50% shall be utilized in establishing an annual harvest quota of wolves in Unit 2.

The Board of Game should establish an estimated percentage of unreported mortality in the Unit 2 wolf population of between 35-50%, and count that percentage toward the annual allowable mortality. This proposal echoes a recommendation made by the Interagency Wolf Technical Committee recommends that harvest quotas continue to be adjusted annually for unreported kill.⁴

What is the issue you would like the board to address and why? The legal take of wolves in Unit 2 underestimates the total mortality in the wolf population, and thus leaves the state vulnerable to overharvesting a genetically distinct, isolated wolf population.

Wolves die from any number of causes, including legal harvest by trapping and hunting, wounding loss, illegal harvest (wolves killed but not reported or sealed per regulations), and natural mortality. Illegal mortality is particularly difficult to assess because illegal activities are not self-reported, and there is a minimal enforcement presence on Prince of Wales Island. Unreported human-caused mortality has been documented in Unit 2 at rates of 38% (Roffler et al. 2016a) and 47% (Person and Russell 2008) of collared wolves killed by humans (3 of 8 and 16 of 34 wolves, respectively). Causes of death in these unreported instances included gun shot, snare, and trap wounds, though it is important to recognize that data from most of these cases do not speak to intent. Some of these animals may have been injured during attempted lawful harvest but escaped, and so were not successfully recovered and therefore went unreported. Regardless, unreported human-caused mortality exists at fairly high levels in Unit 2. Harvest quotas should continue to account for this.¹

There may be a bias against reporting killing of radio-collared wolves, which would inflate these numbers somewhat. That acknowledged, it is reasonable to assume that 35-50% more wolves die each year (including natural mortality) than are accounted for in the reported harvest.²

Explicit recognition of unreported mortality is not without precedent. For 2015 and 2016 the department documented an apparent decline in wolf numbers and documented a high rate of unreported human-caused mortality (Roffler et al. 2016). Consequently, as a conservation measure, the Board of Game reduced the wolf harvest quota by 50% to account for unreported mortality³.

¹ From: *Wolf Technical Committee. 2017. Interagency Wolf Habitat Management Program: Recommendations for Game Management Unit 2. Management Bulletin R10-MB-822. USDA Forest Service, USDI Fish and Wildlife Service, and Alaska Department of Fish and Game.*

² *Person, David K.; Kirchoff, Matthew; Van Ballenberghe, Victor; Iverson, George C.; Grossman, Edward. 1996. The Alexander Archipelago wolf: a conservation assessment. Gen. Tech. Rep. PNW-GTR-384. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 42 p.*

³ *Porter, B. 2018. Wolf management report and plan, Game Management Unit 2: Report period 1 July 2010–30 June 2015, and plan period 1 July 2015–30 June 2020. Alaska Department of Fish and Game, Species Management Report and Plan ADF&G/DWC/SMR&P-2018- 10, Juneau.*

⁴ *Wolf Technical Committee. 2017. Interagency Wolf Habitat Management Program: Recommendations for Game Management Unit 2. Management Bulletin R10-MB-822. USDA Forest Service, USDI Fish and Wildlife Service, and Alaska Department of Fish and Game*

PROPOSED BY: Alaska Wildlife Alliance (HQ-F22-029)

PROPOSAL 54

5 AAC 92.008. Harvest guideline levels.

Identify an area in Unit 2 for protected status for wolves as follows:

Under general authority, as applicable: 5 AAC 84.270(13), 5 AAC 85.056(1), 5 AAC 92.008.

Task the department with identifying 2/3rds of Unit 2 land area for protected status for wolves. Work to ensure the protected areas have relatively high deer carrying capacity and are large enough to be buffered from trapping pressure.

What is the issue you would like the board to address and why? Managing wolves by population objective requires accurate population size estimates. Tracking mortality requires accurate and timely reporting, as well as an estimate of illegal and natural mortality. Obtaining population and mortality data is difficult and costly, and its accuracy has been questioned.

An alternative is to manage the system spatially. If the wolf population can sustain ~30% annual mortality, then open ~ 1/3rd of the unit to wolf trapping each year and close the remainder. The areas subject to closure, and those that are open, could be established permanently by the Board of Game, or perhaps rotated on a long-term schedule. The goal would be to maintain large enough reserves for two-three packs of wolves to be protected and thereby serve as a source population for the “sink areas” that are producing the 30% annual harvest. Spreading the protected areas across the unit could help maximize genetic diversity.

PROPOSED BY: Alaska Wildlife Alliance

(HQ-F22-031)
