

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.; 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.*

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

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