



United States Department of the Interior



FISH AND WILDLIFE SERVICE
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ATTN: Board of Game Comments
Alaska Department of Fish and Game
Boards Support Section
P.O. Box 115526
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Dear Members of the Alaska Board of Game:

The Kodiak National Wildlife Refuge (NWR) appreciates the opportunity to comment on proposals to be considered by the Alaska Board of Game during its March 2023 meeting addressing Southcentral Region concerns. We reviewed the proposals pertaining to the Kodiak Area (GMU 8) and offer the following comments.

Proposal 65 (5 AAC 85.040) – Oppose

The Aliulik area is an important part of the current registration hunt area (RG480) for Mountain Goat. This proposal, if approved, would decrease the effectiveness of agency management of RG480 where the goal is to prevent the herd from exceeding habitat capacity by decreasing the size of the population via hunter harvest. Results of joint ADF&G-NWR surveys indicate that current regulations have decreased the rate of population increase but further decrease is needed. Because of the uneven distribution of access, some areas of RG480 are seldom hunted while others, such as parts of the Aliulik, receive intensive hunting—an expected and acceptable outcome. Moreover, goats from minimally hunted areas are expected to migrate to, and restock, areas with fewer goats.

Proposal 66 (5 AAC 85.040) – Oppose

Under current regulations there is no restriction on archery hunting opportunity in RG480. This proposal, if approved, would decrease the effectiveness of agency management of RG480 where the goal is to prevent the Mountain Goat herd from exceeding habitat capacity by decreasing the size of the population via hunter harvest. Because rifles are the primary hunting tool, current regulations have been successful at decreasing the rate of herd growth, as indicated by results of joint ADF&G-NWR surveys; however, the population is still well above objective level. Establishing a separate archery season would substantially decrease goat harvest and increase rate of herd growth.

Proposal 68 (5 AAC 85.025) – Support

The NWR supports the ADF&G's proposal to increase its management control of Feral Reindeer harvest via a registration hunt. However, the NWR does not support the upper limit for a population goal the ADF&G proposed (500 animals) as part of its reasoning for the proposal. Results of surveys conducted by the ADF&G and partnering agencies indicate that the population has not exceeded an estimated 400 animal since the 1990s. This result most likely suggests that habitat is the primary factor limiting herd productivity and size. We therefore recommend the ADF&G to base its goal upon the historic range in variation of herd size (e.g., 300-400 animals).

Proposal 69 (5 AAC 85.035) – Oppose

Kodiak Brown Bear is the top management and conservation priority of the NWR and the ADF&G in GMU 8. Establishment of huntable population of Roosevelt Elk on Kodiak Island would have two important adverse effects on bears and their habitat. First, there would be conflict incidents between elk hunters and bears. A fraction of these conflicts would result in bears killed under Defense of Life and Property (DLP) regulations. Such hunter related DLPs are the leading cause of documented non-sport mortality of bears in GMU 8, and the rate of conflict and DLP is substantially higher involving elk hunters (in the Afognak Island vicinity) compared to hunters of Sitka Black-tailed Deer. Second, elk introduced to Kodiak Island would selectively use the same berry-producing shrubs in winter that are selectively used by deer. This selective use consists of grazing elderberry stems to consume the inner live tissue, a process called 'barking', and browsing bud-bearing twigs of blueberry. With elderberry, winter barking kills the leaf and fruit bearing stems, which eliminates fruit production and fruit availability to bears. This specific effect is already a serious concern on Kodiak Island. Results of annual habitat surveys conducted there by the NWR since 2015 attributed winter barking by a robust deer population as the primary factor responsible for a landscape level decrease in the production and availability of elderberry fruit. In conclusion, the magnitude of these adverse effects would increase in correspondence with increases in the size and distribution of an elk population. "Train wreck" for bears and their habitat was how one biologist, an authority of Kodiak brown bear, characterized the potential effects of an elk population established on Kodiak Island.

Proposal 73 (5 AAC 85.030) – Oppose

The NWR disagrees with the proposal author's contention that the population of Sitka Black-tailed Deer has substantially decreased warranting reduced bag limits. To the contrary, results of NWR surveys indicated that intensive use of key winter browse (e.g., red elderberry) first documented in 2017 has been sustained through 2022, which suggests that the population has not decreased. Furthermore, it is the consensus view of agency biologists that the bulk of the deer population occurs in areas seldom accessed by hunters, is regulated primarily by severe winters, and is therefore not influenced by changes in hunter harvest rates. Finally, approval of this proposal would unnecessarily limit hunter harvest opportunity.

Proposal 74 (5 AAC 92.220) – Oppose

If approved, this proposal would have two unacceptable effects. First, it would curtail opportunity for hunters of Sitka Black-tailed Deer that routinely hunt backcountry, bone out their deer kill, and pack out the entire meat load in a single trip. Second, it would increase incidence of hunter-bear conflict because some hunters would require an additional trip to pack the rest of

their kill from the field. This would increase the odds of a bear claiming the carcass before the hunter arrived at the site, and it would increase the odds of a bear tracking the hunter packing out the second load.

Proposal 77 (5 AAC 92.061) – Support

The conservation of Kodiak Brown Bears is of primary importance to the refuge, to local people, and to the guides and sportsmen of this island. The ADF&G-led and community-created Kodiak Archipelago Bear Conservation and Management Plan ('Bear Management Plan'; ADF&G 2002) is a measure of that commitment. It has served as a valuable foundation for bear management across the archipelago since its inception, outlining management targets and demanding management action when bear densities fail to meet management targets. In the Southwest region of the island, the area for which this proposal was written, the management target established by the Bear Management Plan is 219 independent bears/1000 km^{2a}. The best available data—an aerial bear survey taking place each spring, jointly conducted by the NWR and the ADF&G—has found decreasing bear densities throughout the southwest region (comprised of Sturgeon, Karluk, Southwest survey areas, [figure 1](#)) and recent surveys that yield abundances below management targets. Among Southwest region survey areas, the Sturgeon River survey area contains the most complete and most striking data. Within the Sturgeon River area, estimated bear densities were 101 (84-222 90% CI) independent bears/1000 km² in 2019—almost half of the 219 independent animals/1000km² required in the management target and 48% lower than the number of bears estimated in 2007 (209 [191-375 90% CI] independent animals/1000km²; [figure 2](#)). The 2019 figure was also a corroboration of data previously collected in 2018 that produced the same findings, lending further credibility to the data. Based on our Bear Management Plan, the Sturgeon River area warrants management action. Data from the Karluk and Southwest survey areas are less clear but point estimates suggest management attention may be warranted there as well. Independent data from aerial stream surveys that monitor bears on salmon streams during July and August also suggest that the region has undergone change; the number of bears using many (seven of eight) SW and Karluk-area streams has decreased by over half from peak levels ([figure 3](#)) and the proportion of females with cubs (an indicator of population growth) remains low in the Sturgeon area ([figure 4](#)). Given these multiple forms of data suggesting changes in bear abundance and productivity within the southwest region, we support this proposal to reduce female harvest and commend the ADF&G on its commitment to conservatively manage Kodiak's bears to ensure a sustainable population within the bounds set by the Bear Management Plan.

^a The Bear Management Plan states that "In an effort to maintain the population at its maximum sustainable yield, the CAC [Citizens Advisory Committee] proposes to manage most of the archipelago at or slightly below (10 percent) the current estimated density, as shown in table 5-2" (page 5-4). These management targets were later updated to reflect new data from Van Daele and Barnes 2010 (table 6), presented here as [figure 5](#).

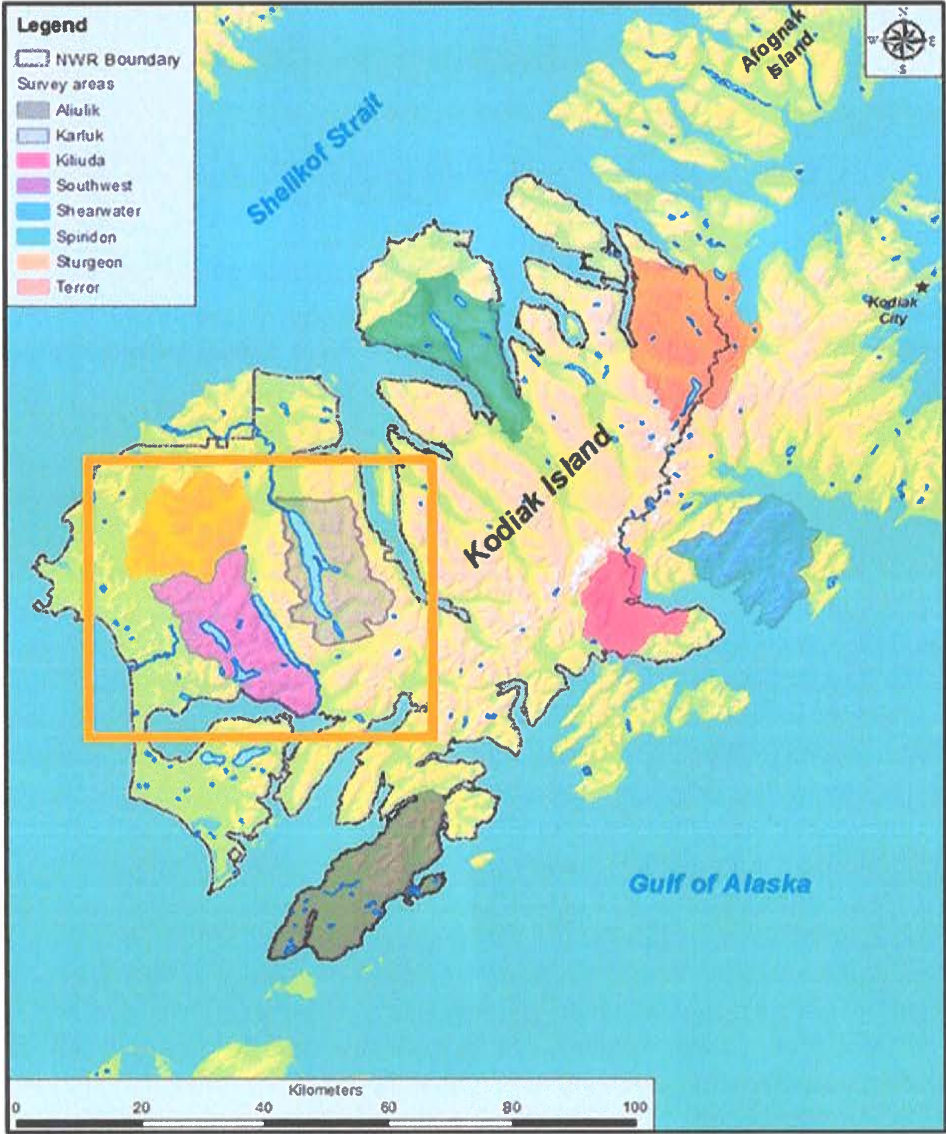


Figure 1. NWR/ADF&G spring aerial survey areas for bear density, SW region areas (Sturgeon, Karluk, Southwest) highlighted within yellow box.

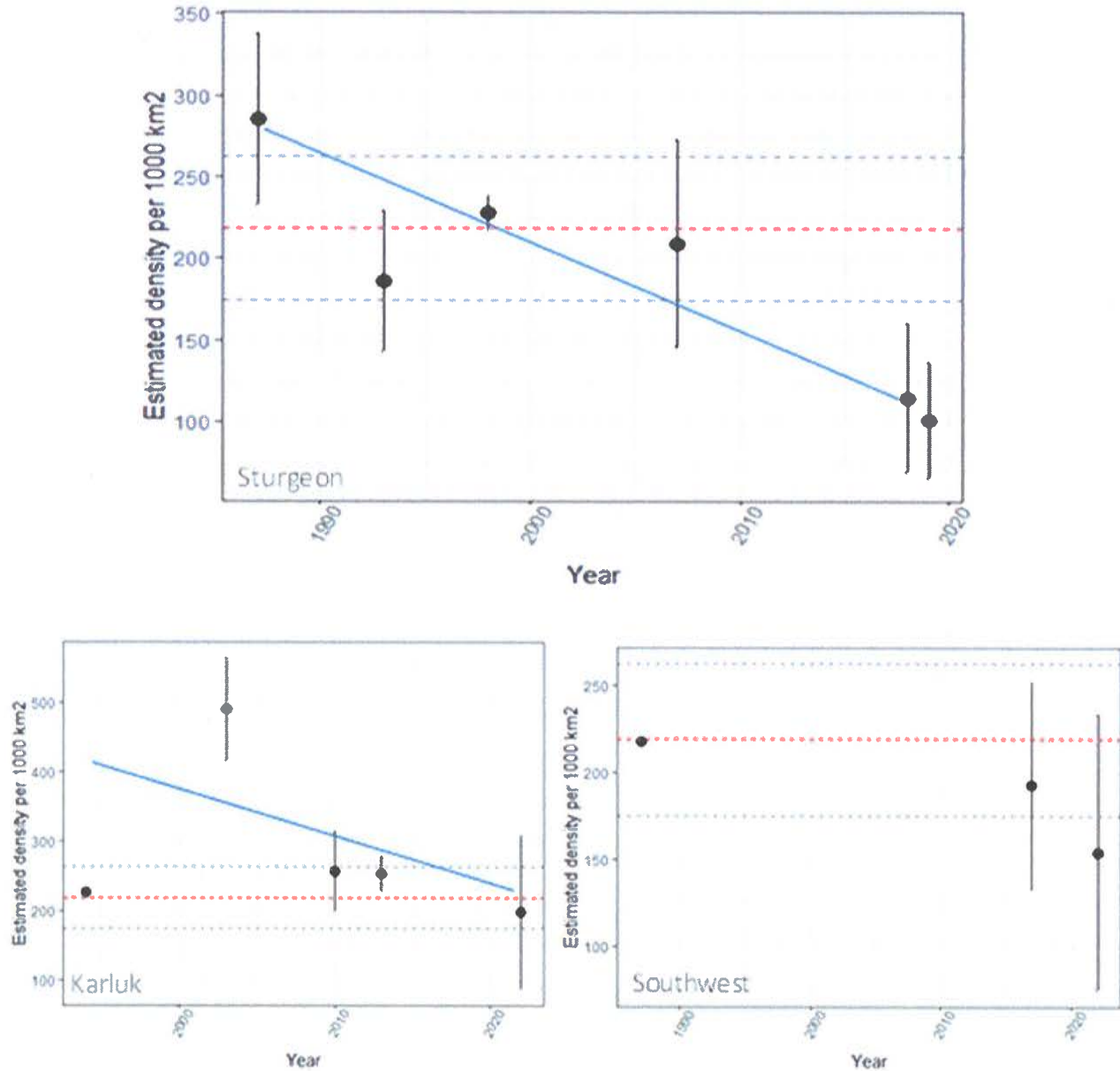


Figure 2. Estimated bear densities (independent bears/1000 km²; mean and 90% confidence intervals) for Sturgeon River (upper), Karluk (lower left), and Southwest (lower right) survey areas during spring bear surveys (NWR/ADF&G), 1987-2019, in relation to the management target (red dashed line; from the Bear Management Plan, ADF&G 2002, adapted to updated Van Daele and Barnes 2010). The trend for all areas appears to be decreasing, while the Sturgeon River data are significantly below the management target. More recent estimates for Karluk and Southwest survey areas show wider variation, but also show cause for concern as point estimates are below management targets as well.

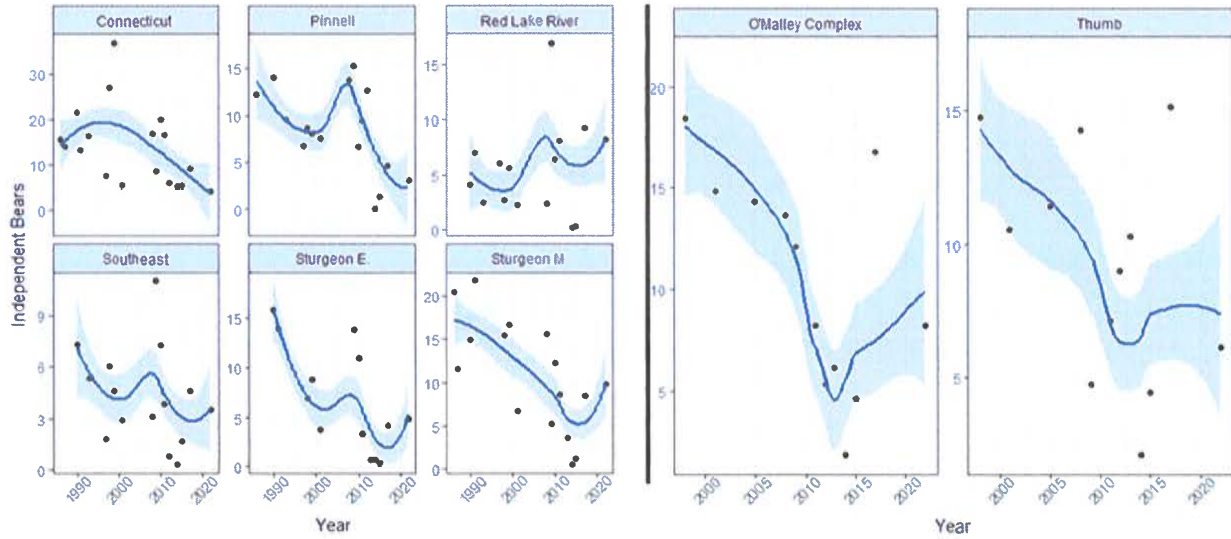


Figure 3. Counts from stream surveys (July/August), 1982-2022. SW area streams (n=6) left, Karluk area streams (n=2) right. Independent bears are all bears excluding cubs. Decreasing trends in bear abundance on most (7/8) salmon streams in the SW and Karluk areas are apparent, with recent numbers reaching less than 50% of historic maxima.

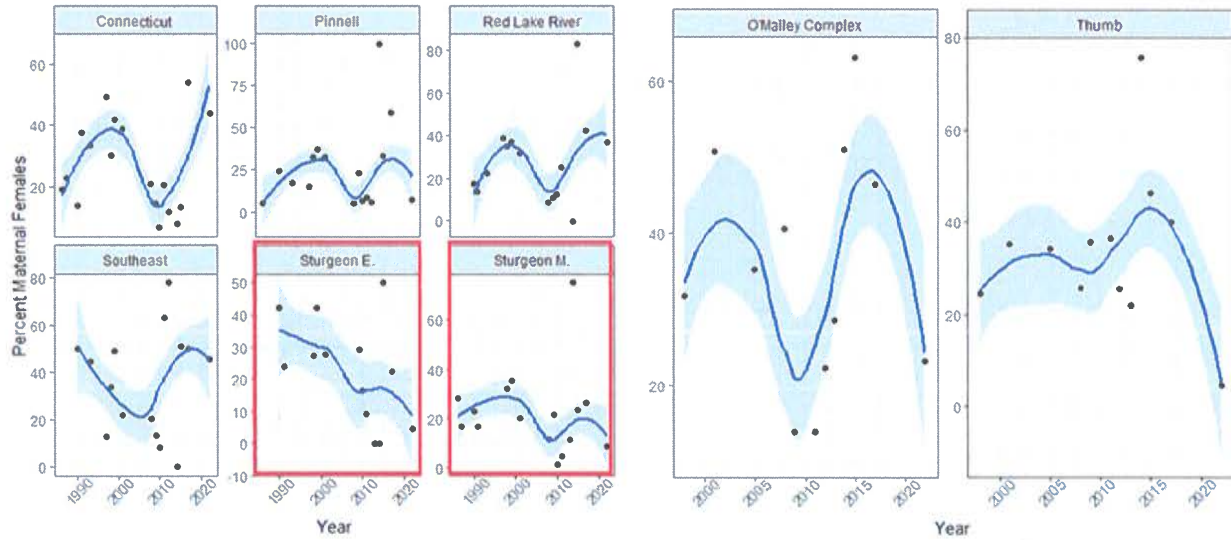


Figure 4. Counts from stream surveys (July/August), 1982-2022. SW area streams (n=6) left, Karluk area streams (n=2) right. Maternal bears are those observed with at least one cub. Sturgeon river area maternal females appear not to have rebounded from a low point around 2010.

Table 6. Estimates of brown bear numbers and density in each management subunit on the Kodiak Archipelago, Alaska, 1995 and 2005 (90% confidence intervals in parentheses).

Bear management subunit	Area (km ²)	1995 ^a			2005 ^b		
		Density ^c	Independent bears ^d	Total bears ^e	Density ^c	Independent bears ^d	Total bears ^e
Northern Islands	2,281	101 (±25)	231 (±58)	330 (±83)	132 (±33)	300 (±175)	430 (±108)
Northwest Kodiak	2,983	200 (±50)	596 (±149)	808 (±202)	224 (±56)	668 (±167)	908 (±227)
Northeast Kodiak	1,005	63 (±16)	63 (±16)	90 (±23)	70 (±18)	71 (±18)	101 (±25)
East Kodiak	1,738	146 (±30)	253 (±51)	471 (±94)	230 (±46)	400 (±80)	744 (±149)
Southwest Kodiak	3,498	204 (±41)	712 (±142)	1,019 (±204)	219 (±44)	765 (±44)	1,094 (±219)
Aliulik Peninsula	837	219 (±55)	183 (±46)	262 (±66)	208 (±52)	174 (±52)	249 (±62)
TOTAL	12,342	165 (±38)	2,038 (±462)	2,980 (±672)	193 (±42)	2,378 (±519)	3,526 (±790)

a – estimated bear density in 1995 (based on aerial surveys and extrapolation from 1987 – 1994; Barnes et al. 1988, Barnes and Smith 1998).
b – estimated bear density in 2005 (based on aerial surveys and extrapolation from 1987 – 2005).
c – estimated density of independent bears per 1,000 km².
d – estimated number of independent bears (excludes dependent cubs)
e – estimated number of bears in the harvest subunit (includes dependent cubs and independent bears).

Figure 5. Table 6 from Van Daele and Barnes 2010, which now acts as the updated bear management targets for Kodiak brown bears (2005 data).

Literature cited

- Alaska Department of Fish and Game. 2002. Kodiak Archipelago Bear Conservation and Management Plan. Alaska Department of Fish and Game, Anchorage, USA.
<https://www.adfg.alaska.gov/index.cfm?adfg=kodiakbearplan.summary>
Van Daele L, Barnes VG. 2010. Management of Brown Bear Hunting in Kodiak Island, Alaska. Unpublished report. Alaska Department of Fish and Game.

Thank you for your time to review our comments on these proposals.

Sincerely,

Michael Brady
Refuge Manager

cc: George Pappas, U.S. Fish and Wildlife Service
Della Trumble, Kodiak/Aleutians Subsistence Regional Advisory Council
Paul Chervanak, Kodiak Fish and Game Advisory Committee
Nathan Svoboda, Alaska Department of Fish and Game