1.1 NPS ARE DOMINATED BY D 27 pdf

1: Pleistocene Megafauna in Beringia (U.S. National Park Service)

Almost all the threads of this NPS die engage the stock, making proper alignment almost automatic, not a matter of skill. The downside of this product for English-system users is that its diameter is 30mm, so is too big to fit a standard 1" (mm) die holder.

White, Claire Gower, Matthew S. Becker, Shana Dunkley, Ken L. Watson The effects of wolves on elk in the Greater Yellowstone Ecosystem have been contested among laypersons, politicians, and scientistsâ€"with some claiming devastation, others suggesting healing restoration, and most seeing something in between. In , Montana State University initiated a study of about to elk inhabiting the Madison headwaters area in the west-central portion of Yellowstone National Park. The elk herd was nonmigratory and remained within the park year-round; therefore, the animals were not subject to harvest by human hunters. This high-elevation area has complex terrain, accumulates deep snow, and supports a mosaic of habitats including large tracts of burned and unburned forests interspersed with geothermal areas, meadows, rivers, and small lakes. The area is also an important winter range for bison that seasonally migrate west from their summer range in Hayden Valley. Prior to wolf restoration, coyotes were the only abundant mammalian predator, with some grizzly bears during spring and a few mountain lions. The study was initiated seven years before reintroduced wolves recolonized this portion of the park and continued thereafter, providing a rare opportunity to compare the responses of individual elk and the population as a whole to the restoration of a top predator that had been absent for approximately 70 years. The protocol for the study was based on maintaining a representative sample of radio-collared female elk with biologists conducting extensive field work from November to May each year to monitor their behavior, nutrition, movements, pregnancy, survival, and population trends in response to forage, snow, predators, and other conditions. From to , scientists amassed more than 12, person-days of field work and evaluated 15, observation periods of elk groups; 6, snow urine samples for assessing elk nutrition; 2, serum and fecal samples for assessing elk pregnancy; 1, plant samples for assessing biomass and nutrition; 17, measurements of vegetation; 4, kilometers 2, miles of snow tracking along wolf trails; and carcasses of ungulates killed by wolves. Also, 4, snow cores and more than 24, hours of wind data were collected to model spatial and temporal dynamics of the snow pack. Prior to wolf restoration, the probability of an elk dying was related to its age, body condition, and snow pack. The primary cause of death was starvation, with younger and older elk more likely to die than elk in the prime of their life years old that have uniformly high survival rates. Elk rely on their teeth to obtain and break up plant materials, which are further broken down by microbes in their four-chambered stomachs to obtain energy and protein. Teeth wear with age, so older elk become less efficient at obtaining nutrients and accumulating the fat and protein reserves needed to survive winter when the availability of nutritious foods is low. This is especially true in the Madison headwaters region where high concentrations of silica in the soils and fluoride in the waters accelerate tooth wearâ€"thereby leading to a shortened life span compared to elk in other areas. In addition, calves are smaller in body size, and as a result have smaller stores of fat and protein to metabolize during winter when forage was scarce. Deep, prolonged, or hard snow conditions also increased the risk of starvation of young and old elk by limiting access to forage under the snow and requiring more energy for them to forage and move about the landscape. As a result, the proportion of elk in the population dying from starvation each winter varied among years depending on winter severity. However, elk that frequently used geothermal areas where heat from the interior of the earth reduced or eliminated snow pack were less vulnerable to starvation. Wolves recolonizing the Madison headwaters area strongly preferred elk as prey and killed comparatively fewer bison, even though bison were more abundant than elk from midwinter through spring. Bison kills were more frequent during late winter when animals were in poorer condition. In contrast, elk do not use group defenses and generally flee when attacked. Wolves strongly selected calves and older elk, which are the age classes most vulnerable to starvation mortality during winters of average to severe snow pack. However, the survival of elk calves was lower and less variable among years after wolf numbers increased, suggesting predation limited the recruitment of animals into the breeding population. The diets and nutrition of elk remained similar to those prior to the arrival of wolves. Elk pregnancy rates remained high, but elk abundance decreased rapidly as breeding females were killed and wolf predation on calves consistently reduced recruitment to low levels. As elk numbers decreased due to wolf predation, wolf kill rates remained high and wolf numbers continued to grow. As a result, predation removed a higher portion of the elk population each year until elk became scarce. Thereafter, wolf kill rates decreased, strife among packs increased, wolf numbers declined, and packs began to hunt elsewhere for most of the year. After wolves established in the Madison headwaters, the probability of an elk dying was strongly influenced by factors other than its physical condition, including characteristics of the landscape and weather that increased its susceptibility to predation by wolves. Elk at higher elevations with deeper snows were more likely to be killed by wolves, as were elk in thermal areas or meadows where they could be chased into habitat boundaries of deeper snow or burned timber with down-fall that impeded their escape. Conversely, elk on steep slopes with shallow snow and good visibility, or in areas where they could quickly escape to deep, swift, and wide rivers after encountering wolves, were less vulnerable to predation. Wolves killed nearly all of the elk in the Firehole and Gibbon drainages where susceptibility to predation was high. Many of these elk were strong and in good condition, but were caught in "terrain traps" where they were unable to flee effectively. Wolves also substantially lowered adult survival and limited recruitment in the Madison drainage;but less than two dozen elk persisted in areas with shallower snow bordered by the swift, deep, and wide Madison River. Encounters with wolves remained high in these areas, but adult elk were sometimes able to flee to nearby refuge habitat. Ultimately, this study demonstrated how behavioral, physical, and environmental factors interact to influence the vulnerability of elk to predation by wolves and, in the end, revealed wolves can have a dramatic effect on the abundance and distribution of elk across the landscape. While the Madison headwaters study may represent what could be considered a "worst-case" scenario with respect to the impacts of wolf restoration on elk, the processes documented in this study are similar to those documented in other wolf-elk systems throughout the Greater Yellowstone Ecosystem by other research teams. Integrating the results from this impressive body of scientific work, we conclude the impacts of wolf restoration can be substantial for elk herds spending winter in forested, mountainous environments where elk are quite vulnerable to predation due to a heterogeneous landscape with deeper snow pack. Predators tend to be more diverse and numerous in these areas due to lower susceptibility to human harvest and less conflict with livestock production. Conversely, the impacts of wolf restoration can be modest for elk herds spending winter in open, low-elevation valleys where elk are less vulnerable to predation due to a more homogeneous landscape with shallower snow. Also, predators tend to be less numerous in these areas due to high susceptibility to harvest and culls after livestock depredations. Over time, higher survival and recruitment in lower elevation valleys should lead to an increased proportion of elk spending winter in these areas. Indeed, a review of migratory elk populations throughout the Greater Yellowstone Ecosystem indicates broad-scale distribution shifts are occurring, with a higher portion of elk spending winter on lower-elevation ranges. Certainly, many factors other than wolves, including human harvests, drought, and predation by bears and mountain lions, have had substantial effects on elk populations living in the Greater Yellowstone Ecosystem. However, the restoration of an additional top predator was a transformational event that eventually facilitated and maintained a substantive decrease in elk numbers and many other indirect effects to decomposers, other herbivores, predators, producers, and scavengers throughout the ecosystem. As a result, this bold restoration effort also led to a substantially improved understanding of the role of apex predators in terrestrial communities. Smith, Travis Wyman, Daniel R. MacNulty Unlike the northern range, wolf work in the interior can be tough. So tough, it was originally envisioned as aerial monitoring only, which is how most wolf studies accomplish the task of remote study. Bob Garrott and his team had successfully mastered ground data collection in the Madison-Firehole river drainages, but work elsewhere seemed infeasible. Most of these other locations were far from roads. Then in , the idea of working in Pelican Valley came upâ€”a long famous place and what some would call the "heart" of Yellowstone. Situated in the middle of the park and vital to much wildlife, it certainly fits. Fish and Wildlife Service who held her ground on wolf reintroduction despite criticism , and they seemed unique. Initially there were many hurdles to overcome; one was the uncertainty of success and, perhaps more importantly, some significant safety issues. The plan would entail camping out for two weeks in winter without a shelter and observing from a high point above the valley or an observation point OP. Before that though, the first task was to see if the wolves were even in the valley enough to make observation worthwhile. A quick plotting of radio locations revealed wolves were in the valley a significant portion of the time, especially in late winter. We decided we might just have a project! Clearing this new research with rangers and administrators took time. A daily ski across the valley would disturb any wildlife we wished to observe. The decision was made to camp at the OP above the valley and stay putâ€"no wildlife disturbance. In , with scant winter equipment, we did just that. It proved to be a wise decision. Once the hardship and struggle of hauling two weeks of gear across Pelican Valley was accomplished, with subpar equipment especially sleds and up a large hill, major scientific insights followed. At first we just watched and gathered behavioral data. Quickly the story became about wolves and bison. Formidable prey compared to elk, killing bison presented a different challenge to the wolves. Several bison kills were witnessed, and a few were filmed, wetting the appetite to learn more and how their strategy differed from killing elk. Bison commonly stand their ground, whereas elk commonly fleeâ€"a major difference we noticed right away. Wolves facing a 1,, pound animal presented a unique set of problems; taking the bison head on was out of the question. Wolves would have to work the environment to their advantage. Watching and waiting for the right moment to attack was critical. Wolves seem to have all the time in the world, so they were never in a hurry and waited. When they decided to attack, they chipped away: Using this strategy, some kills took up to nine hours. The wolves also had to use terrain to their advantage. Wind-blown hills had no snow and the bison favored such terrain for better footing; between the hills were troughs that collected snow, so the wolves favored these areas for attack as the snow hampered bison defense. Confrontation between bison and wolves was stunning to watch;rarely observed nature in action. Pressuring bison for hours, wolves gradually drove them into deep snow and then jumped on them, many wolves at times, hanging from muscle and hide by their teeth. Once on firm ground, the bison shook the wolves off like water droplets, finally swinging their horns at them. Seemingly undeterred, the wolves waited for their next chance, or inexplicably left the bison, sensing an unseen cue or sign that made them abandon the effort. At times, persistence paid off and a kill was made. But then another problem cropped up: This time of year a large bison carcass is a food bonanza. Every critter far and wide came in to grab what they could: Once bears arrived it was over for the wolves. The carcass now belonged to them. Virtually every documented carcass in Pelican Valley from March through October attracted grizzly bears. It was not a matter of if but when, and the wolves had to grab as much meat as they could before the bears moved in. Up to 24 bears have been observed on one wolf kill at the same time. In March during our study, these carcasses became small "eco-centers" and most of the action in the valley occurred here. Through time, our science became more sophisticated with fixed locations to observe from at regular intervals throughout the day, in addition to opportunistic observation of behavioral interactions. These observations indicated bison organized themselves differently when wolves were present in the valley versus when they were gone. Bison stayed closer to areas of good footing when wolves were around, and straying into riskier areas to forage when wolves were absent. So the valley changed, but in a vigorous way, and in fact gained some with the addition of wolves as they provided the carcasses that life hinged on in late winter.

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2: YS Shorts - Yellowstone National Park (U.S. National Park Service)

For example, 1/ NPS threads are 5/16" ") in diameter. Follow this link to see the corresponding Pipe Taps for these Dies.. Follow this link to explore our complete offering of taps, dies, and other threading tools.

This unglaciated region, which extended from the Yukon Territory in Canada west across to eastern Siberia, is called Beringia. Beringia 20, years ago. Tan areas are unglaciated Beringia. Light blue shows extent of Bering Land Bridge, gray areas are glaciers from Mann et al. Quite common were horses Equus spp. Cattle similar to the modern yak Bos grunniens grazed in Siberia and interior Alaska. Finally, there were species that are still alive today including muskox Ovibos moschatus , caribou Rangifer tarandus , mountain sheep Ovis dalli and nivicola , saiga Saiga tatarica , brown bears Ursus arctos , and wolves Canis lupus. Moose Alces alces , elk Cervus elaphus , and humans Homo sapiens were not present in eastern Beringia until the ice age was waning, perhaps 14, years ago. Ice Age Beringia was very different from modern Beringia. The Arctic is depauperate of megafauna today. If one were to wander around Beringia today, one might observe some caribou, or a few moose, sheep in the mountains, and wolves and bears. Muskoxen seen on the tundra today are descendants of muskoxen reintroduced in the s and s, decades after the last indigenous muskoxen of Beringia died off in the s. Given such dramatic changes, there are some questions to ask about Ice Age Beringia: How do we know those megafauna lived there? When did they live there? Why did they live there? And what happened to all of them? Being so far north, Beringia is its own deep freezer and has preserved the remains of many of its former inhabitants. The most dramatic finds have been in western Beringia, in Siberia, where mummies and skeletons of extinct Pleistocene mammals have been discovered Figure 2. Mummies and skeletons are not as common in eastern Beringia, but in the s, a steppe bison mummy was found near Fairbanks Guthrie Far more common are individual bones of these mostly vanished animals. These bones are not mineralized fossils like most dinosaur remains, but are still bone, sometimes with marrow inside. Because the bones have been frozen, they tend to be well-preserved and are suitable for various isotopic and DNA analyses. Miners across Beringia routinely expose bones of Pleistocene megafauna in their search for mineral treasures. Some rivers also expose bones as they meander back and forth across their valleys. Over decades, many of these bones have been collected and deposited in museums where they are studied by paleontologists. Mastodons and Mammoths What is the difference between mastodons and mammoths? By simply identifying the bones, we can learn what species were present and relative abundance of those species across different environments. From this it is immediately apparent that Beringia was not one vast homogenous ecosystem, but was made up of diverse ecosystems. For example, during the late Pleistocene about 45,, years ago in Siberia, caribou was the most common species followed by horse and bison, whereas in northern Alaska, the horse was most common followed by bison and caribou, and in interior Alaska, bison dominated the landscape followed by horse and mammoth Figure 3; Guthrie , Zimov et al. Relative abundance of late Pleistocene megafaunal species from three regions of Beringia. Data are from Zimov et al. When Did They Live There? There are two main ways of determining when an animal lived. Remains may be found embedded in layers of undisturbed geologic sediments. Some of these layers, such as volcanic ash, are very distinctive and their ages can be established, and thus those of the remains as well. For bones not in stratigraphic context, we can analyze small pieces of bone using radiocarbon 14C analysis to measure the amount of carbon 14 isotopes in bones and estimate how long ago the animal died. This 14C analysis is effective for bones up to about 45, years old; older bones do not retain enough carbon to be dated using this method. Unfortunately, there are no effective techniques for dating bones older than this. Not all bones collected have been dated, because 14C analysis costs hundreds of dollars per sample. Almost all the dates obtained on Pleistocene-era Beringian remains are from disarticulated bones and thus are from 14C analysis. Consequently, most of our information on ages of Beringian megafauna is from the late Pleistocene. Hundreds of 14C-dated bones from northern Alaska show that in addition to being spatially diverse, relative abundances of different species changed over time. In particular, the relative numbers of horse and bison changed throughout the last 45, years Figure 4 suggesting that climatic and environmental fluctuations differentially favored some species over others Mann et al. The probability density graph shows that the total numbers of animals in northern Alaska varied widely over time. The small pie charts show the relative abundances of the five main herbivore species over time. Data from Mann et al. Why Did the Megafauna Live There? Modern Beringia is covered by vast expanses of permafrost, peat, spongy tundra vegetation, and boreal forests of mostly coniferous trees. Much of it is buried in snow over half the year and during the cool, wet summer, it swarms with mosquitoes. This modern ecosystem supports a fraction of the animals that lived there during the Pleistocene. So, what was different? Not surprisingly, the climate was generally colder and drier during most of the Pleistocene, which would seem to make it less hospitable to megafauna. Because sea level was so much lower, the land mass of Beringia was larger and included the expansive Bering Land Bridge. This resulted in a more continental climate with little precipitation and clear skies: The climate was too cold for trees and the dry conditions favored steppe-like grasslands, which provided abundant food for grazing megafauna; the late-Pleistocene megafauna were grazers and not browsers or wood-eaters. The dry grasslands and low snow levels also provided a firm substrate that was easy for the hooved animals to walk over throughout the year. The Mammoth Steppe was a complex biome that changed over time and across the region. This resulted in a mosaic-like ecosystem that varied in response to a constantly changing climate. During the Pleistocene, the climate changed much more dramatically than it has during the last 10, years, the period known as the Holocene, a remarkably stable climatic period compared to the preceding million years or so. The unstable climate of the Pleistocene caused rapid changes in the plant communities and thus forage for megafaunal herbivores. Abundance and distributions of these animals would have varied in response to the changes. Being large, the megafauna would have been able to move across the landscape tracking favorable patches of habitat both seasonally and over longer time scales. Because of low snow levels and clear weather, green-up would have been earlier than now so the Mammoth Steppe growing season was probably longer. The clear skies of a continental climate may have allowed warmer temperatures during the growing season than occur with modern cloudier weather Guthrie Mammoth Steppe soils were therefore dryer, warmer, and more fertile than now Young , Walker et al. This would have enhanced plant productivity and megafauna, that could graze around the clock, and could grow larger during the summer. With the nutritious plant growth, the megafauna also would have been able to consume enough in the summer to put on reserves to help them survive the long, cold winter. This was a complete ecosystem of megafauna with herbivores and the predators that consumed them. Like most ecosystems, there were many more herbivores than carnivores. The giant short-faced bears may have mostly scavenged already-dead herbivores Matheus , but brown bears, lions, and wolves undoubtedly hunted and killed their prey. Radiocarbon dates suggest the lions may have specialized in hunting horses Mann et al. What Happened to All of Them? The Mammoth Steppe ecosystem vanished at the end of the Pleistocene. Some experts argue that humans are responsible for the megafaunal extinctions Alroy , but across Beringia, we know that humans co-existed with the extinct species for long periods. The region of Beringia is vast and the early human population was small. A more likely explanation for the extinctions is that the prolonged warming at the end of the Pleistocene caused environmental changes that did not favor the Mammoth Steppe megafauna. When the climate warmed, it became wetter. Shrubs would have invaded the region and replaced the grasslands. Many shrubs have chemicals that protect them from herbivore browsing and they are not suitable food for grazing animals. As the glaciers melted and sea level rose, the climate would have become more maritime, with increased precipitation and cloud cover. Despite the overall warming trend, the summer growing season would have been wetter, shorter, and probably cooler due to decreased sunshine Guthrie As these changes persisted, peat would have spread across the landscape and negatively affected megafauna. Peat is not a nutritious food and it insulates the ground promoting the spread of permafrost, creating a waterlogged, inedible substrate. The spongey substrate and deeper winter snows would have negatively impacted the megafauna. Most megafauna would have had difficulty walking through deep snow or over spongey ground because of their small feet relative to heavy body weight high foot loading. They would have had to expend more energy walking at the same time that food resources were becoming scarcer. The megafaunal herbivores that disappeared from Beringia had high foot loadings, whereas caribou and muskox that survived the changes to the modern climate have low foot loadings, making it easier for them to move across the present landscape. Moose and humans who moved into the region as the shrubs invaded also have lower foot loadings than the extinct megafauna Guthrie ; Figure 5. Foot loading of megafauna herbivores data from Guthrie The changing vegetation would have meant the diets of the grazers would have changed. Analyses of nitrogen and carbon isotope ratios in bones reflect the diet and amount of moisture the animal was consuming. By comparing isotope values in bones over time, it is possible to detect changing patterns in diet. A survey of bone isotope values at the peak of the ice age shows that bison, horse, and mammoth were consuming a different diet from caribou and muskox that were selecting plants that favored warmer and wetter environments. The dietary difference became more pronounced as the climate warmed Mann et al. Species that survived the end of the ice age had probably selected plant communities that would thrive in the post-Pleistocene climate throughout the ice age. It is interesting to note that caribou and muskoxen not only had a diet that favored the changing environment, but they had low foot loadings, which also favored the new environment. Differences in diets among species over glacial and post-glacial time periods based on ratios of nitrogen and carbon isotopes Mann et al. Thus, as the climate continued to remain warm, Pleistocene megafauna would have been confronted with food scarcity and increasingly difficult travel due to the boggy ground during summer and deep snow conditions during winter.

3: American Dryseal Pipe Threads (NPTF and NPSM)

Service's (NPS) Inventory and Monitoring Program and numerous other studies in the eastern United States have documented the underrepresentation of oak seedlings and saplings in forests with canopies dominated by oaks (Abrams , Widmann and McWilliams , Brose et al.

4: American National Pipe - NPT/NPS | Pipe and Hose

The National Park Service, Natural Resource Program Center publishes a range of reports that address natural resource topics of interest and applicability to a broad audience in the National Park Service and others in natural resource management, including scientists, conservation and.

5: 40g NPS Dominated Tank - Aquarium Journals - www.enganchecubano.com Community

Table 1 below presents the comparison between the Nominal Pipe Size (NPS), the Nominal Bore (NB/ DN) in mm, the Outside Diameter (OD) in both inches and mm, and the appropriate wall thickness schedules.

6: Table Nominal Pipe Size / OD / NB / WT â€“ Colstone Global

Figure 1. Beringia 20, years ago. Tan areas are unglaciated Beringia. Light blue shows extent of Bering Land Bridge, gray areas are glaciers (from Mann et al.).

7: Tap Chart NPT National Pipe Taper Threads

This NPS-IS plan addresses Piney Creek HUC 12 () within Captina Creek Watershed. Captina Creek is located in the southern portion of Belmont County, which is in east-central Ohio, near Wheeling, West Virginia.

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