Between 1902 and 1924, jurisdiction over Alaska’s land mammals and migratory birds came under the purview of the Agriculture Department’s Bureau of Biological Survey (BBS). For most of the first half-century of its existence, members or associate members of the Boone and Crockett Club directed the agency. At least three of these well-educated men maintained a strong interest in Alaska and used their contacts in government to implement its first game laws and some of its wildlife preserves. Evidence of decimation and waste of wildlife, largely a product of the Gold Rush and the salmon industry, firmed their resolve to conserve Alaska’s game animals.

ABUSE OF LAND MAMMALS

Alaska’s land mammals and birds escaped the brunt of the assault by the early fur seekers. This began to change when the Russians moved inland and American and Hudson’s Bay traders arrived. In their quest for furbearers, some traders introduced alcohol to the Natives, cheated them, and undermined their
culture in a variety of ways. The Gold Rush era, however, affected land mammals more detrimentally than the land fur traders did. Russians found gold in parts of Alaska but did little or no prospecting. Men attracted by the 1880 Juneau gold strike, as well as salmon canners, put heavy hunting stress on the deer in the Southeast. Then came the great Klondike strike of 1896 and its aftermath. Gold fever drove people from around the world to explore the creeks of the Yukon and of Alaska, whose non-Native population jumped 750 percent between 1890 and 1900 (Table 10.1). Gold seekers killed accessible wildlife to feed themselves or pay their bills. They caught furbearers by any means possible, including poisons and destruction of beaver lodges. Meat hunters, many of them Indians, supplied the miners. Widespread reckless slaughter of game mammals took place. Game and some furbearers dwindled, especially in river drainages where the gold seekers traveled and worked.

Settlers, sport hunters, and commercial trophy hunters added to the toll of wildlife, often wastefully. Treasury agent Joseph Murray described in 1895 what he had witnessed in the Southeast: “[T]he smell from decaying deer carcasses became horribly offensive around the towns and villages. White men go out and kill the animals for fun, just to see who can knock down the most in a given time. The natives kill them, because they can get a drink of whiskey, valued at 25 cents, for each skin secured.” An investigative report by J. Alden Loring for the New York Zoological Society in 1901 stated, “It is believed by

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**Table 10.1. Human Population of Alaska, 1740–2000**

<table>
<thead>
<tr>
<th>Year</th>
<th>Native American</th>
<th>White</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1740</td>
<td>74,700</td>
<td>—</td>
<td>—</td>
<td>74,700</td>
</tr>
<tr>
<td>1840</td>
<td>40,016</td>
<td>700</td>
<td>—</td>
<td>40,716</td>
</tr>
<tr>
<td>1880</td>
<td>32,996</td>
<td>430</td>
<td>—</td>
<td>33,426</td>
</tr>
<tr>
<td>1890</td>
<td>25,354</td>
<td>4,298</td>
<td>2,298</td>
<td>32,052</td>
</tr>
<tr>
<td>1900</td>
<td>29,542</td>
<td>30,450</td>
<td>3,600</td>
<td>63,592</td>
</tr>
<tr>
<td>1910</td>
<td>25,331</td>
<td>36,400</td>
<td>2,625</td>
<td>64,356</td>
</tr>
<tr>
<td>1920</td>
<td>26,558</td>
<td>27,883</td>
<td>595</td>
<td>55,036</td>
</tr>
<tr>
<td>1930</td>
<td>29,983</td>
<td>28,640</td>
<td>655</td>
<td>59,278</td>
</tr>
<tr>
<td>1940</td>
<td>32,458</td>
<td>39,170</td>
<td>896</td>
<td>72,524</td>
</tr>
<tr>
<td>1950</td>
<td>33,884</td>
<td>92,973</td>
<td>1,976</td>
<td>128,643</td>
</tr>
<tr>
<td>1960</td>
<td>43,081</td>
<td>174,546</td>
<td>8,540</td>
<td>226,167</td>
</tr>
<tr>
<td>1970</td>
<td>(52,000)</td>
<td>236,767</td>
<td>(12,000)</td>
<td>300,382</td>
</tr>
<tr>
<td>1980</td>
<td>64,357</td>
<td>311,968</td>
<td>25,526</td>
<td>401,851</td>
</tr>
<tr>
<td>1990</td>
<td>85,698</td>
<td>415,492</td>
<td>48,853</td>
<td>550,043</td>
</tr>
<tr>
<td>2000</td>
<td>98,043</td>
<td>434,534</td>
<td>94,355</td>
<td>626,932</td>
</tr>
</tbody>
</table>


Note: 1970 figures for Native American and Other are approximate.
responsible men that five moose are killed for every one that is used.” One Indian reportedly shot 50 moose in a summer, when the meat would not be at its best. Hunters killed many so the largest antlers could be picked out for sale and left the rest of the bodies. They shot thousands of deer for the hindquarters or for the skins alone, which sold for 10 to 20 cents each. Many deer died for even lesser reasons. A Mr. Britten recalled a winter day in 1901 when deep snow had driven deer down to the shore to feed on seaweed in Wrangell Narrows: “Soon a five dory halibut boat came along with, I think, five guns shooting. They simply shot the deer, leaving them lay, not even putting a boat down to pick one up. I counted 28 deer killed below the snow line, with bloody tracks leading into the woods where cripples had escaped, to die later. This took place within a stretch of five or six miles.” At Sand Point in 1911, F.E. Kleinschmidt encountered a Native offering 82 caribou tongues at 50 cents each. The remainder of the animals lay in the field on the Alaska Peninsula where they fell. In various localities hunters eradicated herds of mountain sheep. Governors’ reports stated that beavers approached extinction and that furbearers in general had become scarce.6

Trophy hunting got under way before the turn of the century, mainly in the relatively accessible Southeast and the Alaska and Kenai peninsulas where settlers first appeared about 1898. It took two forms: sport hunting by wealthy individuals who sought adventure, social status, and decorations for their dens and clubrooms; and commercial gathering of animal parts to be sold outside Alaska. Both groups of hunters looked for the largest specimens they could find of moose and caribou antlers, sheep horns, and bear heads and hides.

British military officer Colonel Claude Cane, who visited both peninsulas in 1902, exemplified the gentleman-hunter perspective. Reflecting on his sheep hunt on the Kenai, he reasoned, “Some people, I know, will blame me for shooting four rams in one day and five in another, and call it massacre and not sport; but they must remember I had come thousands of miles to get these specimens, and had already hunted many blank days and put in a great deal of hard work without results.” By contrast, his sporting friend Frances Paget had just come down from the headwaters of the Indian, and had got six nice rams, though he said they were neither so plentiful as they were the year before, nor did there seem to be as many good heads. This was not to be wondered at, as two brothers had spent the whole winter in this ground, and had brought out twenty-five big heads, besides, as we afterwards found out, leaving a good many smaller ones, which they did not think worth the trouble of packing out, to rot on the ground.

Such slaughter as this is inexcusable, and cannot even be profitable, as the fur dealers will pay only five dollars each for sheep heads, and it is to be hoped that the new Alaskan Game Law will effectively put a stop to it in the immediate future.
Regarding moose, Cane pointed to the Berg brothers as having killed and shipped out during the last winter to taxidermists in the States twelve moose with heads more than 65 inches in spread, a number which, most sportsmen will agree, is somewhat excessive, even in a country as full of game as the Kenai Peninsula.

It is this demand for trophies by people who go no farther in search of them than the nearest taxidermist’s shop which is doing all the harm—at least on the American continent—and closing so many districts which only a few years ago were teeming with game, to legitimate sportsmen.9

By implication, many other moose may have been shot to pick out those carrying the largest antlers. Cane himself had killed four moose, nine Dall sheep, and three brown bears on the trip.10 Apparently an educated and conscientious person, Cane believed sport hunters deserved priority status in taking wildlife and that they would not become so numerous or kill so much as to place a species in jeopardy.

Having heard the accounts of his fellow countryman Cane and others, Charles R.E. Radclyffe and two companions traveled to the United States in 1903. After personal briefings by BBS officials C. Hart Merriam and Theodore Palmer, they set out for the Kenai Peninsula. They took a considerable toll of wildlife (Table 10.2). Radclyffe argued, however, that

<table>
<thead>
<tr>
<th>Species</th>
<th>Number</th>
<th>Species</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown bear</td>
<td>13</td>
<td>River otter</td>
<td>1</td>
</tr>
<tr>
<td>Black bear</td>
<td>2</td>
<td>Wolverine</td>
<td>1</td>
</tr>
<tr>
<td>Moose</td>
<td>6</td>
<td>Porcupine</td>
<td>6</td>
</tr>
<tr>
<td>Dall sheep</td>
<td>15</td>
<td>Snowshoe hare</td>
<td>31</td>
</tr>
<tr>
<td>Caribou</td>
<td>7</td>
<td>Eagle</td>
<td>3</td>
</tr>
<tr>
<td>Seal</td>
<td>3</td>
<td>Grouse &amp; ptarmigan</td>
<td>108</td>
</tr>
<tr>
<td>Fox</td>
<td>2</td>
<td>Goose, duck, other birds (sp.)</td>
<td>60</td>
</tr>
</tbody>
</table>


Note: Includes some sheep and caribou shot by guides for food.

Sportsmen . . . have been so few and far between in the country up to the present date, that they have not been to any extent a real menace to any kind of big game. The real danger at present lies in the indiscriminate killing of bears, moose, caribou, and sheep by the natives for the sale of the hides and horns, and also for the sake of the meat of the last three species which is sold by the natives and others to ships, canneries, and miners throughout the country. For the last-named purpose males, females, and young of all kinds of game have hitherto been killed at all seasons of the year.11
Sport hunters from faraway nations answered Alaska’s call. In 1907 Charles Madsen guided Austrian Baron von Guttman on a hunt lasting several weeks. After bagging eleven walruses and four polar bears north of Bering Strait, the baron killed eight mountain sheep and fourteen brown bears on the Kamchatka Peninsula in Siberia. At Herendeen Bay on the Alaska Peninsula he got seven bull caribou; then he wound up the trip by shooting nine Dall sheep and six bull moose on the Kenai Peninsula, considerably more than the law allowed. In recounting the hunt, Madsen accurately observed that “game was in theory under the protection of the territorial governor . . . but in reality there was little control.” F.E. Kleinschmidt organized a similar hunt in 1913. First the group of four American hunters collected fourteen walruses and five polar bears in the north. Then at Pavlov Bay on the Alaska Peninsula they bagged eight caribou and a brown bear. On the Kenai Peninsula they added eighteen Dall sheep, seven moose, and four black bears. One of the polar bears and all four of the black bears were cubs or yearlings.
Whatever the sport of killing nearly defenseless animals with a high-powered rifle, the excursions often entailed danger and hardship. Madsen had a close call when he tried to skin a sleeping brown bear he thought had been shot, and the next day another bear injured him. Kleinschmidt’s party lost a rudder, narrowly escaped being frozen into the Arctic icepack, and nearly foundered on the rocks of the Alaska Peninsula. On the Kenai they boated into the interior and backpacked far into the mountains. On the way out they carried their trophy heads and skins and pulled their loaded boats eighteen miles up the fast-moving Kenai River in subfreezing temperatures. One of the guides froze his feet as the thermometer approached zero. Yet as they left the hunting grounds in late October they met English hunters coming in.14

Gold miners, often too busy to hunt, relied on commercial meat hunters. In 1903, a year after Felix Pedro discovered gold near Fairbanks, moosemeat sold for 40 cents a pound and caribou for 20 cents. Mountain sheep and fresh salmon fetched even higher prices. Between 1903 and 1908 Tom and Elmer Gibson, among others, supplied mining camps, restaurants, and meat markets in the region. Journeying hundreds of miles in winter by dogsled and carrying large quantities of meat, they engaged in a difficult and dangerous occupation. Construction of the Tanana River Railway in 1905 made transportation much easier. On November 12, 1907, the Gibson brothers shipped 2,430 pounds of meat to Fairbanks; on the 24th, 1,905 pounds; and on the 27th, 1,554 pounds. By that time entrepreneurs had begun to import livestock in quantity from the States via the Gold Rush routes, undercutting the meat-hunting business.15

THE 1902 AND 1908 GAME LAWS

Depictions of wildlife abuse alarmed stateside conservation groups. Boone and Crockett, American Ornithologists’ Union, New York Zoological Society, and other organizations applied their weight. Aided by the Bureau of Biological Survey, they lobbied through a series of wildlife protection laws, including the Alaska game laws of 1902 and 1908. These laws built upon the Lacey Act of 1900, which prohibited interstate transportation of game taken in violation of state statutes. The 1902 law transferred jurisdiction over most land mammals, plus walruses and sea lions, to the Department of Agriculture, Bureau of Biological Survey. Land mammals classified as furbearers remained under the Department of Commerce, Bureau of Fisheries, until 1920.

The 1902 law sought to curb the trade in deer and bear hides, moose antlers, and sheep horns and to head off plans to increase the market export of meat. It prohibited sale of hides, horns, and heads of game mammals, excluding furbearers, in or from Alaska. It permitted shipment of game parts and live animals from Alaska to the outside as registered trophies and by scientific permit. It
outlawed killing of female and yearling ungulates and set bag limits for all land game mammals and birds, including brown bears but excluding black bears. In any one year a hunter could kill two moose, walrus, or sea lions; four caribou, mountain sheep, mountain goats, and adult brown bears; and eight deer. The law instituted hunting seasons and allowed sale of meat until fifteen days beyond closing of the season. It authorized the secretary of agriculture to make rules, such as halting the taking of an endangered species for up to five years. However, it left enforcement to existing federal marshals, burdened by other duties and reluctant to impair their local ties by upholding an unpopular law. Moreover, local citizens complained that well-connected outside sportsmen received favored treatment in being permitted to ship out their trophies.16

Criticism of the 1902 law led to a revision in 1908 empowering the governor to appoint wardens and issue licenses for hunting and exporting game. In response to complaints about protection of brown bears, the law compromised by removing the season limit on bears north of 62 degrees, a line running across south-central Alaska. It reduced annual bag limits on large mammals to two moose; one walrus or sea lion; three each of caribou, sheep, and brown bear; and (by regulation), six deer, reduced again to three by 1916. It tightened the rules for shipping hides, trophies, and scientific specimens and retained the other key provisions of the 1902 law. While the governor’s wardens enforced the law, the Bureau of Biological Survey wrote the regulations.17

Alaska Natives, who did the bulk of commercial hunting, suffered most from the prohibition of hide and horn exports and sale of game meat out of season. Except for work in the salmon industry and selling items to tourists, coastal Natives had few opportunities to earn money. But Boone and Crockett leaders and other supporters of the game laws firmly believed excess killing and waste by Natives jeopardized wildlife populations. They fought off attempts to revise the laws to ease the impact on Natives. In 1916 the Bureau of Biological Survey prohibited the sale of sheep and moose to railroad construction camps, another source of cash for Natives. When the BBS assumed responsibility for furbearer management in 1920, it banned the shooting of muskrats and beavers. In 1923 it temporarily outlawed trapping of beavers statewide, even though the animals had been depleted only in some locations. Indians in the interior, who relied on furs for most of their cash, saw their income lowered.18

In legal terms, the Migratory Bird Treaty Act of 1918 also impinged upon the Natives’ economic well-being. To protect nesting geese and ducks it banned hunting between December 15 and September 1. Almost all the birds left Alaska by early fall, especially in the interior. Adherence to the law would deprive Natives of vital food supplies and put sport hunters at a disadvantage relative to those in the States where most of the birds wintered. Yup’ik Eskimos on the Yukon Delta, a major nesting area, ignored the law and harvested geese and
ducks in the spring and summer. The conflict went unresolved until long after statehood.

Wardens, being gubernatorial appointees, acquired a reputation as political hacks who exhibited little will to enforce the law. In one case a warden reportedly participated in a “side hunt,” a sport calling for a group of hunters to choose up sides for a day and kill every wild creature they could find. Players assigned points to different creatures, and the side tallying the most points won. Although some wardens performed their duties well, many lacked competence and ignored blatant lawbreaking. In any case, the governor needed personnel and funds to police the enormous territory. Seven wardens, occasionally supplemented by Bureau of Forestry officials, carried the responsibility in 1911. In 1918 fish and fur wardens from the Department of Commerce, as well as forest rangers, assisted eight regular game wardens under the Department of the Interior. Until 1924 three departments shared jurisdiction over Alaskan wildlife, creating confusion and duplication of effort. Despite the enforcement weaknesses, the 1902 and 1908 laws appeared to succeed in shutting off the commercial export of wild animal parts. Sport hunting (Table 10.3) took a modest toll of game.

When Alaska achieved territorial status in 1912, its federally appointed governor retained the power to hire game wardens. The new legislature, unlike those in other territories, had no jurisdiction over fish, furbearers, or game. For decades, resolutions called for territorial control of wildlife, for an end to land restrictions by the federal government, and for surveys and other measures to facilitate settler ownership of land. A typical 1913 resolution demanded that the land “be thrown open for the general use of the prospector, miner, and settler.” Withdrawals of the Tongass and Chugach national forests in 1903–1907 provoked anger; then parks and monuments at Mt. McKinley, Katmai, and Glacier Bay later appeared, followed by numerous military reservations in the 1940s. Territorial governor and later U.S. senator Ernest Gruening, an inveterate booster, lamented that “the story of land in Alaska is one of contrast between

<table>
<thead>
<tr>
<th>Specimen</th>
<th>1910</th>
<th>1911</th>
<th>1912</th>
<th>1913</th>
<th>1914</th>
<th>1915</th>
<th>1916</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown bear skin</td>
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<td>15</td>
<td>7</td>
<td>19</td>
<td>22</td>
<td>35</td>
</tr>
<tr>
<td>Glacier bear skin</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sheep head/horns/skin</td>
<td>10</td>
<td>34+</td>
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<td>31</td>
<td>30</td>
<td>19</td>
<td>28</td>
</tr>
<tr>
<td>Moose head/antlers</td>
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<td>21+</td>
<td>13</td>
<td>18</td>
<td>17</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Caribou head/antlers</td>
<td>—</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Goat head/horns/skin</td>
<td>—</td>
<td>2+</td>
<td>—</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Does not include an unknown number of trophies shipped in personal baggage or killed but left in Alaska.
natural and man-made restriction. It is a tale of continuous effort by Americans there to secure a small share of this abundant ground. It is, no less, a necrology of their legitimate aspirations through the thwarting by a distant government. Its full narration would be depressing. It begins in 1867 and it is still ‘to be continued.’

Alaska’s population had been calculated at 64,000 in the 1910 census, about 37,000 of it white. By 1939 the total stood at 72,524, including 39,170 non-Natives. The 1912 report of the congressional House Committee on Territories described the enabling act as containing “more than the usual safeguards against unwise or vicious legislation.” Federal politicians and administrators did not want to entrust such a huge territory to so few people, and entrepreneurial Alaskans strongly resented the government’s barring their full access to the resources. The difference in attitudes informed virtually all natural resource disputes in the territorial period and during statehood as well.

C. HART MERRIAM

Clinton Hart Merriam (1855–1942) can be considered, at least in a jurisdictional sense, one of Alaska’s first wildlife managers. Brought up near the Adirondacks in a wealthy family at Locust Grove, New York, Merriam acquired an interest in natural science. His father, a former congressman, introduced him to Smithsonian director Spencer F. Baird. Impressed by the boy’s work in taxidermy, Baird arranged a position for him on the Hayden Yellowstone expedition of 1872. This experience confirmed the sixteen-year-old’s desire to do taxidermy. Medical degrees at Yale and Columbia, and work as a doctor between 1879 and 1885, diverted him from professional pursuit of his passion. But in his spare time he earned a reputation as a highly competent student of birds and mammals. When an elite group of ornithologists formed the American Ornithologists’ Union (AOU, 1883), Merriam assumed leadership as a founding member, secretary, and chair of the migratory bird committee. He organized a volunteer reporting network to track migration routes in North America. Through AOU he made the lifelong friendship of Theodore Roosevelt. Later he befriended John Muir; they spent time in the field together.

Merriam ranks as an ancestor of the U.S. Fish and Wildlife Service. AOU members feared the imminent extermination of the passenger pigeon, Carolina parakeet, and other species and sought government intervention. Through AOU lobbying the Agriculture Department created a position for an ornithologist in 1885 and hired Merriam. The office advanced to Division of Economic Ornithology and Mammalogy in 1886, Bureau of Biological Survey in 1905, and Fish and Wildlife Service in 1940. Merriam directed the agency from 1885 until his retirement in 1910.
Merriam presided during a pivotal era in government and public attitudes toward wildlife protection. Modeled by such writers as John Muir and John Burroughs, nature appreciation grew popular after mid-century. It found organized expression in private groups like AOU and the Audubon societies. Scientists in and out of government began to show active concern in the 1870s. Baird of the Smithsonian Institution applied his connections to help create the U.S. Commission on Fish and Fisheries (1871), perhaps the first federal government unit expressly dedicated to conservation of wildlife species. Similarly, through AOU Baird pushed for the ornithology office within the Agriculture Department. Now able to operate both inside and outside of government, AOU worked for laws protecting birds. George Bird Grinnell tried to complement the group’s mainly scientific membership by organizing a national Audubon Society to involve the public more directly.26

Public and private naturalists recoiled at the slaughter of the passenger pigeon, fur seal, and other species. They objected to the fashion in women’s hats, lasting from about 1890 to 1910 and causing mass killing of egrets and other birds for their feathers. As the naturalists sought legislation to halt commercial hunting, a peculiar event involving Alaska cropped up to assist them. Rumors of a gigantic harvest of wild bird eggs in Alaska and northwest Canada attracted national attention in 1895. Allegedly, the commercial photography and prepared food industries bought and used the eggs. Grinnell of Forest and Stream investigated the claims, finding them untrue. Nevertheless, coming at a time of heightened concern about commercial abuses of wildlife, the affair strengthened public sentiment for a protective law passed in 1900.27

Outdoor sporting groups had proliferated after the Civil War and held significant potential for wildlife protection. Attempts to organize them to that end produced the League of American Sportsmen (1898), the most active private group supporting the Lacey Act. Its leaders included Merriam, William T. Hornaday, and Ernest Thompson Seton. The league, the Audubon societies, scientists led by AOU’s Joel A. Allen and New York Zoological Society’s Hornaday and Henry Fairfield Osborn, and the supporting Boone and Crockett Club and Bureau of Biological Survey made up the first broad-based American coalition for wildlife conservation. Their victory in the Lacey Act advanced wildlife protection to prominence within federal policy and in the conservation movement of the 20th Century.28

Merriam and his small staff conducted fieldwork over much of the United States, Canada, and Mexico, collecting and classifying thousands of specimens of fauna for the Smithsonian. On a research expedition to Arizona in the late 1880s, Merriam noticed the differences in flora and fauna at different altitudes. He found that each layer, based on temperature, hosted a distinct community of plants, birds, and mammals. Relating altitude to latitude and terming the
habitats “life zones,” he projected the concept onto the map of North America, identifying seven life zones from the Arctic to the Florida tropics. Approaching the description from the perspective of habitat rather than plant and animal identification, Merriam significantly advanced the emerging science of ecology. Scholars later modified his theory to account for moisture differences in understanding ecological zones and communities.29

In 1891 superiors recalled Merriam from a Death Valley expedition to go to the Pribilofs and investigate the fur seal controversy. Ignoring warnings about robbers, he took a shortcut alone across the Tehachapi Mountains. He spotted two armed men following him. When they separated in an apparent pincers movement, he readied his rifle, crouched behind a rock, and picked them both off. As a scientist who had studied the fur seals, in 1909 he received appointment to the Fur Seal Advisory Board. He took a more conservative position than that of Henry W. Elliott, whom he could not abide.30

In his capacity as a government scientist and administrator, Merriam raised public awareness of the beneficial nature of most birds, especially those that controlled rodents and insects. He worked for legal protection of birds but harbored no such charitable views of mammals. He testified in a 1908 hearing that the “great bulk of mammals are pests. Except the badgers, weasels, skunks, bats, moles and shrews, very few of our mammals are of service to man.” Merriam expressed a highly utilitarian perspective oriented particularly to the interests of Western agriculture, a potent force in government. Congress had forced a more directly economic role on the renamed Bureau of Biological Survey in 1905, including a rodent control program that widened to target a variety of mammalian predators. Merriam preferred a research emphasis but did not object to predator control as such. He considered rodents, coyotes, and wolves bad. Although he revised his stand on predators late in life, the Bureau of Biological Survey acted as the prime mover in efforts at predator control that decimated some species and begot decades of controversy in Alaska and elsewhere.31

Founder and first president of the American Society of Mammalogists (1919), Merriam authored more than 500 books and articles on birds, mammals, plants, Indians, and the life of William H. Dall. His mastery of taxonomy won widespread adoption of his methods of classification of animals. He dominated the early evolution of the modern science of mammalogy, even though he possessed only a partially ecological view of the environment.

Merriam participated in, organized, and chose the scientists for the Harriman Alaska Expedition of 1899 and supervised the publication of its voluminous reports. As a result, Mt. Merriam in Glacier Bay National Park is named for him.32 His positions as chief of the Division of Economic Ornithology and Mammalogy and the successor Bureau of Biological Survey gave him supervi-
sory responsibility for the Alaska game laws, but he had no taste for politics. Except for efforts to save the brown and grizzly bears, in which he adopted a special interest, Merriam shied away from environmental disputes. He devoted most of his time after retirement, funded by a grant from the Harriman Foundation, to research on California Indians.33

THEODORE S. PALMER

Merriam chose as his Biological Survey assistant in charge of game Dr. Theodore Sherman Palmer (1868–1955), a Californian and self-taught scientist who had studied birds and other wildlife in Alaska. As had Merriam, Palmer earned an M.D., but he did not practice medicine. Arriving at BBS in 1890, Palmer led the Death Valley expedition in 1891 and collected and wrote descriptions of fauna. Supported by Merriam, he initiated the bureau’s emphasis
on wildlife protection and maintained connections between the bureau and outdoor sporting and nature preservation groups. In addition to work on the Lacey Act and the Alaska game laws of 1902 and 1908, Palmer wrote the initial draft of the Migratory Bird Treaty of 1916 and the regulations for the Migratory Bird Treaty Act (1918).

A leader in the National Audubon Society for 30 years, Palmer also served as a biographer in the American Ornithologists’ Union. He assisted states in drafting game laws and helped create the programs that evolved into the national wildlife refuge system. As a member of Boone and Crockett he remained active in wildlife protection after retirement, serving on the committee on birds at the National Conference on Outdoor Recreation. He wrote on jackrabbits, rodents, and other game and nongame species and their protection. At the Smithsonian between 1928 and 1933 he helped draft the first whale protection treaty.34

JOHN B. BURNHAM

Much or most of the credit for the actual drafting of the Migratory Bird Treaty belongs to John B. Burnham (1869–1939), the first president of the American Game Protective and Propagation Association founded in 1911. The arms industry, promoting wildfowl protection laws as essential to its future in a time of rapidly waning flocks, organized the association. George Bird Grinnell, for whom Burnham had worked at Forest and Stream, recommended him for the directorship.35

Burnham played a leading role in the passage of the Federal Migratory Bird (McLean-Weeks) Act. Critics widely regarded as unconstitutional a law placing all migratory species under federal protection; President William Howard Taft had vowed to veto such a measure. It passed through Congress as a rider to an appropriations bill and reached Taft’s desk on March 4, 1913, his last day in office. Turning the clock back to prevent his term from legally expiring, Taft signed the bill, apparently taking no notice of the migratory bird provisions. Courts later affirmed the measure’s constitutionality.

During the Gold Rush in 1897–1898, Burnham crossed White Pass to Lake Bennett and returned through Chilcoot Pass. He undertook no scientific study and spent only a short time in Alaska but maintained a strong concern for conservation of its wildlife. For much of his career he served as a New York state game official.36 His game protection association joined the Camp Fire Club of America and the Boone and Crockett Club to reserve Mt. McKinley National Park (Chapter 6), and he served as the group’s chief congressional lobbyist. These groups, and the National Association of Audubon Societies, then assisted passage of the 1925 Alaska Game Law.37
EDWARD W. NELSON

In 1916 the directorship of the Bureau of Biological Survey passed to another prominent naturalist, Edward William Nelson (1855–1934). Born in Amoskeag, New Hampshire, Nelson spent the next few years in Manchester. His patriotic father joined the Grand Army of the Republic in 1861, and his mother followed suit by volunteering as a nurse in Baltimore. She sent Edward to live on his grandparents’ farm in the northern Adirondacks where he experienced a reintroduction to Nature. His first overnight trip into the woods to pick blueberries sparked a lifelong desire to explore wild places.

Shortly before the war ended, Edward’s father died in battle. His enterprising mother moved the family to Chicago and established herself as a successful dressmaker. School and play in the nearby woods furthered Edward’s interest in natural science, above all, birds. The high school principal encouraged him, and a friend shared the first bird books, Wilson’s and Nuttall’s, he had seen. A prominent entomologist interested him in bug collecting, but fate intervened. His home and his mother’s shop burned in the 1871 Chicago fire. As the family fled in a stream of refugees, Edward momentarily put down his insect collection box. Within seconds it disappeared. He lost interest in entomology.

While skinning birds, Edward contracted a disease for which a doctor ordered mountain air. Accordingly, in 1872 he traveled west on a biological expedition through the Rockies and to California. A teaching position following normal school did not satisfy him, so he went to see Spencer Baird at the Smithsonian, seeking a field research position. No opening existed, but a year later, in 1877, Baird called him to act as meteorologist at the St. Michael station at Norton Sound, replacing Lucien M. Turner. Nelson exulted in striking off immediately for Alaska, not least because in addition to the mundane task of weather recording he would gather geographical, ethnological, and zoological data. This would accomplish Baird’s real object. The Smithsonian lacked funds for studies of Alaska but wanted to develop its collections of data and specimens. Baird served simultaneously at the Smithsonian and as the first U.S. fish commissioner. This enabled him to get his people assigned to such government agencies as the Army Signal Corps and have them collect on the side. Arranging for others to do meter readings, Nelson embarked on collecting and exploring expeditions, covering thousands of miles by kayak and dogsled in all seasons for four years.38

Travel called for endurance of harsh conditions. During a 1,200-mile trip through the marshy Yukon and Kuskokwim drainages in 1878, Nelson encountered “violent storms of snow, rain and sleet accompanied by high winds.”

[M]y bedding became saturated with moisture, as did also my clothing, and day after day forced marches were made over a country covered with slush
When he reached a half-flooded shelter on the seacoast south of Cape Vancouver just ahead of a storm, “Here my interpreter and myself crouched against the wall in silent misery for two days, while one of the most violent tempests I ever witnessed swept over the desolate tundra.”\textsuperscript{39} From this he caught pneumonia, which plagued him for the rest of his life. But he grew to be a leading authority on Alaska, manifested in his authorship of over 200 books and articles on birds, mammals, and Eskimo life.

William Fitzhugh of the Smithsonian characterized the St. Michael achievements as “pioneering ethnographic work”: 10,000 artifacts collected, extensive ethnographic notes, about 100 photographs, and a continuous sequence of 12,000 meteorological observations. “During the course of this work, much of it conducted in the face of great adversity and physical danger, Nelson established a record unparalleled in extensiveness and diversity of subject matter for any individual in the history of North American arctic studies.”\textsuperscript{40} Nelson Island and Nelson Lagoon bordering the Bering Sea commemorate his achievements in the region.\textsuperscript{41}

In 1881 Nelson made the acquaintance of John Muir while assigned as a naturalist on the Corwin expedition. Stops along the Arctic coast, including the first landing on Wrangel Island by Euro-Americans, enabled him to secure additional Eskimo artifacts. His study of Nature eventually led to his naming of numerous species and subspecies of mammals (including the Dall sheep), birds, plants, insects, and other life forms. When he returned to the Smithsonian, tuberculosis forced him to reduce his work schedule. He spent most of the 1880s in the Southwest, where he and his brother ran a cattle ranch and he served as county clerk. He joined Merriam’s Death Valley expedition in 1890–1891 and from 1892 to 1908 traveled throughout Mexico and Guatemala as a field agent of the Bureau of Biological Survey. Ignoring a damaged lung and heart, he climbed the twelve highest peaks in Mexico. He advanced to chief field naturalist and, in 1916, to director of the bureau.\textsuperscript{42}

Nelson continued to pay attention to Alaska after leaving in 1881. His habit of sending talented young men to Alaska produced Alfred M. Bailey, an ornithologist who opened the first Bureau of Biological Survey office in the territory in 1919 and who later became curator of the Denver Museum of Natural History. Nelson also recruited Lawrence J. Palmer, an agricultural expert who studied the ecology of caribou, reindeer, muskoxen, and moose. Not least of Nelson’s finds, Olaus J. Murie matured into a national leader in wilderness
preservation. On Nelson’s second and final trip to Alaska in 1920, Palmer and Murie accompanied him up the Yukon to Fairbanks, whence Murie undertook his survey of the caribou herds that led to his prominent place in conservation history.

Nelson directed the Bureau of Biological Survey until 1927. He helped formulate the 1916 Migratory Bird Treaty, the Migratory Bird Conservation Act
Bureau of Biological Survey Chiefs

(1929), and the Migratory Bird Hunting Stamp Act (1934), all fundamental to the creation of bird refuges.43 His philosophy of conservation fit well into the utilitarian mode and paralleled the thinking of wildlife managers and his Boone and Crockett associates:

The game and wild life of this country . . . is of great value from several points of view but mainly in supplying a highly prized form of food; as affording sport to a multitude of men and employment to others; and as a source of renewed health and vigor to numberless men attracted by it to a period of vigorous life in the open each year. . . . It is a blot on the custodianship of the wild life of the country, however, that commercial slaughter should have been permitted to the extent that the supply was ruthlessly wasted both as regards large and small game and game birds.44

THE 1925 ALASKA GAME LAW

Nelson closely followed Alaskan affairs and expressed concern over the plight of its wildlife. But Alaska game laws could be no better than their enforcement. It proved exceedingly difficult to control the behavior of people who saw themselves as fighting for survival in a wilderness and who had seldom encountered enforcement of game laws, commonly regarded as imposed by an outside urban elite. And the 1902 and 1908 game laws permitted the sale of game within Alaska, a practice widely condemned by sport hunters and conservation groups in the States. When the United States entered World War I, Alaska’s congressional delegate Charles A. Sulzer introduced a bill intended to meet the needs of Fairbanks residents, who viewed the 1908 law as an obstacle to their food supply. In effect, the bill would seriously weaken the law. Nelson and Charles Sheldon went to see Sulzer and persuaded him to modify his position.45 The resulting compromise bill would shift the hunting season later into December and eliminate the rule restricting the sale of game to fifteen days after being killed. Abolition of the August season would reduce spoilage of meat, and the indefinite period of sale would enable residents to avoid the high prices charged by the “beef trust” over the winter. The new law would apply only to Alaska north of 62 degrees latitude and stay in force one year beyond the end of the war.46

In February 1918 the House Committee on Territories held hearings on the bill. Speaking for the Bureau of Biological Survey and also identifying himself as a member of Boone and Crockett’s game preservation committee, Nelson endorsed the bill as a useful temporary measure. He cautioned, however, that “there is no question that the continuous commercialization of game at the present time will bring about its extinction in any part of North America.” Sheldon, representing Boone and Crockett, stated that the club had not had
Bureau of Biological Survey Chiefs

time to pass a formal resolution but that the leaders objected only to a clause explicitly endorsing the sale of game. Sheldon insisted that “the spirit of cooperating with [Alaskans], and understanding their point of view, and winning them over—winning each individual over to the idea of protecting game . . . will be the most valuable thing.” He added, “If this privilege is not accorded the people will go in and kill the game anyhow.”

William T. Hornaday testified on behalf of the New York Zoological Society and the Permanent Wild Life Protection Fund. He adamantly opposed the selling of game and contended that no existing law clearly authorized it. Pointing out that the sale of buffalo parts directly caused destruction of the great herds, he predicted, “If you commercialize the sale in Alaska any further, it is good-bye to the game.”

Belmore Browne, speaking for the Camp Fire Club, concurred. He pointed to a case wherein meat hunters had killed an entire herd of 47 caribou but delivered very few to Fairbanks because of the distance. He declared:

When meat is made a business, there is no such thing as sentiment or ethics.

. . . I know of many cases where 10 caribou have been shot and left because other caribou were found nearer the sea, nearer the roads, or nearer the main trails. . . . I have seen corporations of different kinds feed their men openly out of season on wild game, including steamship lines, cement companies, mining companies, and construction companies.

Marshall Scull and Henry W. Elliott, both experienced in Alaska, seconded the arguments against game sale. Lack of information about game populations and uncertainty about the probable results of the bill infused the hearings. No bill passed the House, and Nelson lost an opportunity to create goodwill between Alaskans and the Bureau of Biological Survey.

Nelson and Sheldon enjoyed a working relationship with Alaska governor Thomas Riggs, based in part on their cooperative success in establishing Mt. McKinley National Park. They had tried to compromise on the sale of game issue but met defeat by Hornaday and other militant wildlife protectors. For his part, Riggs intensely resented the militants’ attitude. He labeled their views “sentimental but ignorant propaganda.” Conservationists, he charged, “have done nothing but befog the situation. Alaska has suffered and is still suffering so severely from ill-advised so-called conservation measures that the average Alaskan sees red when the very word ‘conservation’ is mentioned.” Conservation had “ruined so many people” and “retarded territorial growth.” The conservationist “thinks he is rendering unselfish aid to the cause of conservation by putting himself on record against what has been put up to him evilly and falsely as wanton slaughter of living animals.” Riggs insisted that Alaskans believed in conserving game, “and if the Legislature of Alaska should be given control, there would be sane and stringent laws, better enforced and more cheerfully obeyed than any laws promulgated by self-chosen champions of wild life.”

230
Alfred Bailey’s 1921 report graphically illustrated the difficulties of game law enforcement:

The average person considers a game warden as being a seeker of a “soft” job; he is condemned for such a position, and is considered as doing an injustice to a person if he makes an arrest, and is a damned loafer if he does not. This past season, Mr. Folta, Secretary to the Governor, saw several men kill three goats on the mountain tops near Juneau. He informed the warden, and was severely criticized for so doing. It is almost impossible to get a conviction for deer killing, for a jury trial is necessary, according to Judge Jennings, and the person accused is invariably turned loose, or assessed a minimum fine, say of twenty-five dollars. What could be more discouraging to a warden than to take a prisoner over a hundred miles in his little boat, and then have him turned loose, or assessed such a low fine?

Many deer were killed and the meat canned in the salmon canneries. Others were used for sport shooting: Many nonresidents come to Alaska each summer, cruising about in their own boats, and bringing an arsenal with them. The game suffers severely from these people, and females and young are the usual victims. Aliens to a great extent are responsible for the wanton killing, shooting just to see the animals fall.51

Jim Russell told Bailey, “Speaking of wasting deer, six years ago, in Douglas, I saw about one hundred deer scattered about in front of the Indian houses, where they had spoiled because the whites wouldn’t buy them. It wasn’t because the average white wouldn’t buy either, but just because an Indian is too lazy to gut the deer, if they get them near the beach, and of course they sour. The dogs were chewing a few.” Bailey noted that the law allowed Alaska Natives to take game virtually without limit, adding, “[t]here should be some line drawn between natives living a civilized life, and those still in a primitive condition, as in the interior. This question would of course be settled in the revision of the game laws which must come soon.”52 His speculation turned out to be wildly optimistic; the question of Native rights bedeviled wildlife management throughout the century. Bailey’s other recommendations, however, laid a foundation for a revised game law.

Nelson’s Bureau of Biological Survey gained jurisdiction over Alaskan fur-bearing land mammals in 1920. But Nelson’s most immediate concerns involved ungulates—moose, caribou, sheep, and Sitka deer, all subject to exploitation to fulfill demands for meat. He wanted a strengthened and comprehensive game law to overcome the weaknesses of the 1902 and 1908 acts. His 1920 visit to the territory allowed him to appraise the situation and make contacts. He directed his agents to gather as much information as possible on game populations and harvests. Warden Olaus Murie reported a strong reliance on purchased game for food in the Fairbanks vicinity in 1921 (Table 10.4). Stores paid their suppliers...
as follows: moose $0.20-$0.25 per pound, caribou $0.20, sheep $0.30, and
grouse $5.00–$7.50 per dozen.53

BBS could afford to field only a few agents in the vast territory. Like most in the early days, Murie traveled by boat in summer and dogsled in winter. Game management relied heavily on comments from trappers, miners, and settlers, often reflecting local or temporary conditions or biased by some form of vested interest. By the time a trend became clear, it might be too late to prevent depletion of a wildlife population.

Nelson enlisted the backing of most major national conservation groups, spearheaded by Boone and Crockett. His fur wardens, chosen by the BBS rather than the governor, appealed to the Alaskan game clubs. Nelson demonstrated the economic value to the territory of hosting outside sport hunters. A relatively stable postwar and post–Gold Rush population responded positively to the idea of sustaining wildlife through federal professionals advised by representatives of the Alaskan public.54 At the March 1924 hearings in Washington, all major players submitted statements in favor of the proposed reform bill: the Interior and Agriculture departments, the Permanent Wild Life Protection Fund (Hornaday), Boone and Crockett (Sheldon), American Game Protection Association (Burnham), Camp Fire Club (W.B. Greeley), and National Association of Audubon Societies (T. Gilbert Pearson). Nelson pointed out the advantage of having one agency manage both game and fur mammals. Hornaday pronounced the bill “perfectly sane and just.” Alaska congressional delegate Dan Sutherland, who had introduced the bill in 1921, described it as “agreed upon by virtually all the people of the territory.”55 Absent significant opposition, Congress passed the law effective January 13, 1925.56 Several months earlier, in June 1924, Con-

Table 10.4. Game Purchased by Six Fairbanks Stores, Fall 1921

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<tbody>
<tr>
<td>Moose</td>
<td>30</td>
<td>8</td>
<td>2</td>
<td>8</td>
<td>15</td>
<td>(2)</td>
</tr>
<tr>
<td>Caribou</td>
<td>100</td>
<td>24</td>
<td>7</td>
<td>20</td>
<td>—</td>
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</tr>
<tr>
<td>Sheep</td>
<td>25</td>
<td>12</td>
<td>1</td>
<td>—</td>
<td>(5)</td>
<td>(8)</td>
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<tr>
<td>Sharptail grouse</td>
<td>500</td>
<td>100</td>
<td>—</td>
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<tr>
<td>Ruffed grouse</td>
<td>200</td>
<td>50</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Spruce grouse</td>
<td>125</td>
<td>20</td>
<td>—</td>
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<td>—</td>
</tr>
<tr>
<td>Willow ptarmigan</td>
<td>200</td>
<td>200</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>Grouse (all species)</td>
<td>—</td>
<td>—</td>
<td>60</td>
<td>—</td>
<td>144</td>
<td>80</td>
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Note: Murie advised that “these figures are very conservative, as some of the dealers showed an inclination to minimize the quantity of game used.” Figures in parentheses include parts of animals, e.g., hindquarters.
gress had placed all enforcement of Alaska land game laws under the Bureau of Biological Survey.57

The Alaska Game Law of 1925, strongly oriented to utilitarian conservation, crafted a prudent compromise between federal control and local autonomy. A five-member federally appointed Alaska Game Commission, consisting of residents from each of Alaska’s four judicial districts and a chairman-director representing the Bureau of Biological Survey, made fur, game, and sport hunting regulations, subject to approval by the secretary of agriculture. Federal officers chosen for their skill, integrity, knowledge of the country, and ability to convince local Alaskans of the value of wildlife conservation acted as wardens. Big game guides applied to the Game Commission for licenses. Written and oral exams focusing on skills, reputation, and attitudes toward conservation produced a corps of guides known for honesty and competence.58 During the 35 years of its operation, the 1925 Alaska Game Law and its management earned a widespread reputation for success in wildlife management.

BUREAU OF BIOLOGICAL SURVEY ACTIVITIES

From its inception in the mid-1880s, the BBS carried out much of the fieldwork necessary for knowledge and conservation of North American flora and fauna. In its mature form in the 1930s the BBS engaged in (1) basic research in North America and elsewhere; (2) identification and control of wildlife diseases; (3) control of pests and predators; (4) propagation (e.g., fox farming) and distribution of useful plants (such as duck feed) and animals (such as quail); (5) protection and habitat restoration for game mammals and birds, especially migratory birds; (6) acquisition and maintenance of wildlife refuges; and (7) educational activities including scientific publications and assistance to museums, educational institutions, government agencies, and private groups. The bureau applied its influence to encourage the passage of state wildlife protection laws. In Alaska BBS reintroduced muskoxen and attempted to create a reindeer industry. It managed terrestrial and some oceanic wildlife through the semi-independent Alaska Game Commission.59

Plans for a network of national wildlife refuges gathered momentum in the 1920s and 1930s. They drew strength from shortages of ducks and geese caused by market hunting and later by droughts. Outdoor sporting groups and nature preservationists united in support of refuges and migratory bird protection laws. The 1929 Migratory Bird Conservation (Norbeck-Anderson) Act, supplemented by the 1934 Migratory Bird Hunting Stamp Act, generated funds for refuge acquisition. Franklin Roosevelt, a nature enthusiast and former chair of the New York Senate Committee on Forests, Fish and Game, presided over a vast expansion of the wildlife refuge system. As a means of assisting farmers
during the Depression, the federal government purchased more than 40 million acres of marginal lands and converted much of it into refuges. Bureau of Biological Survey director Jay N. “Ding” Darling, an ardent conservationist who held office from 1934 to 1935, employed his position to organize the National Wildlife Federation (1936) and headed it after leaving government. The federation, in turn, lobbied successfully for the Pittman-Robertson Act (1937) that funded wildlife research and habitat restoration.60

IRA N. GABRIELSON

Another committed promoter of the refuge effort, Ira Noel Gabrielson, directed the Bureau of Biological Survey from 1935 to 1940 and its successor, the Fish and Wildlife Service, until 1946. Gabrielson (1889–1977), an Iowa farm boy, graduated from Morningside College in 1912. He liked science but planned to major in chemistry so he would not have to do biological drawings. When a professor noticed his photographs of birds and his impressive knowledge about them, Gabrielson decided to switch to biology. He left a position as a high school biology teacher to start a career in wildlife management in 1915. He authored books on wildlife conservation, botany, wildlife refuges, and birds of Oregon and coauthored Birds of Alaska. His early government work consisted primarily of economic ornithology and rodent control.61 Beginning in the 1930s he worked to expand the national wildlife refuge complex for migratory birds, moose, and Kodiak bears.

Gabrielson held membership in Boone and Crockett and the Audubon Society and, accordingly, practiced an enlightened form of utilitarianism. A classic example of his thinking appeared in his book on wildlife conservation: “If this country continues depleting the soil, destroying the forests, and wasting the animal and plant life, it will, in time, become a poverty-stricken land inhabited by a constantly decreasing population facing a hopeless future. Such a fate has overtaken other lands with the exhaustion of their resources. It can well happen here.”62 A strong believer in predator control during his first two decades at the Bureau of Biological Survey, he resigned from the American Society of Mammalogists in 1931 to protest its criticism of the bureau’s predator policy. His respect for the mounting scientific evidence persuaded him to reverse his position during his tenure as BBS director.63

Gabrielson made numerous trips to Alaska and monitored its wildlife issues. In 1941 he effected the designation of the Kodiak and Kenai wildlife refuges. Upon retirement in 1946 he accepted the presidency of the Wildlife Management Institute, until that time closely related to the sporting arms industry. He maintained independence from the industry and earned wide respect within the national environmental community. Presiding over the institute until 1970, he
A national leader in wildlife conservation both within and outside government, Gabrielson secured protective status for the Kodiak National Wildlife Refuge and Kenai National Moose Range.
chaired its board until his death in 1977. Like Grinnell in the 1920s and 1930s, Gabrielson played a prominent and active part in the 1950s and 1960s, bridging the gap between hunting and nonhunting groups. He became an increasingly knowledgeable and influential voice in wildlife and habitat conservation. People who met him liked his friendly, down-to-earth manner; he claimed to have climbed “more mountains than any other fat man.” Those who knew him regarded him as a highly competent naturalist and a man of integrity. He became the “Grand Old Man of Conservation” of the postwar era.

Before the turn of the century the Bureau of Biological Survey had been primarily a research agency, concentrating on the effects of birds and mammals on agriculture. The passage of wildlife protection laws, from the Lacey Act of 1900 to the Alaska Game Law in 1925, gave the bureau law enforcement jurisdiction over nearly all Alaskan land mammals and birds. Through the bureau and the Fish and Wildlife Service, federal officials managed the wildlife until the state assumed control in 1960. The service retained responsibility for migratory birds and for millions of acres of national wildlife refuges created between 1903 and the passage of the Alaska National Interest Lands Conservation Act in 1980. Merriam, Nelson, and Gabrielson personified the evolution of wildlife protection values among government officials from the 1880s to the 1940s. All worked for conservation of species excepting a few predators. All believed firmly in wildlife management by government experts. Gabrielson in particular labored for a complex of wildlife refuges, thereby achieving a measure of ecosystem preservation. In lobbying for Alaskan game protection the three relied on interest groups, often led by the Boone and Crockett Club to which all belonged as members. They believed in science as a wildlife management tool and a basis for settling disputes. As directors of the leading wildlife management agency, they possessed considerable power to conduct research and formulate environmental policy. But they avoided honest examination of predator-prey relationships because of pressure exerted by the livestock industry on their parent Agriculture Department. They cared most about game mammals and birds and felt closest to outdoor sporting and nature groups. As utilitarians responsible for sustainable production of game and fur, they seldom made reference to aesthetic or spiritual values of wildlife, much less species rights. Yet Nelson and Gabrielson, at least, valued ecological integrity and some species of wildlife on their own terms. All three admired the grizzly bear and worked to protect it. They all employed the science available to wildlife management in their time. Hand in glove, they and their nongovernmental Boone and Crockett colleagues and similar allies contributed directly to the evolution of Alaskan conservation practices and prepared the way for subsequent, more preservationist values in all 50 states.