Varmints and Victims: Predator Control in the American West. Frank Van Nuys. 2015. University Press of Kansas, Lawrence, Kansas, USA. 338 pages. \$29.95 (hardcover). ISBN: 978-0-7006-2131-6.

Having recently retired after 30+ years working in the field of human-wildlife conflicts, including predator conflicts with livestock, I looked forward to reading *Varmints and Victims: Predator Control in the American West* by Frank Van Nuys. As a wildlife biologist with an interest in the history of wildlife management in North America, I was further intrigued by the subject matter selected by Van Nuys.

In the book's introduction, Van Nuys explains how the issue of mountain lion (*Puma concolor*) management in his home state of South Dakota sparked his interest in further exploring the history of predators and their management in the American West. Van Nuys is not a biologist, but as a professor of history, he seemed well suited to his intended task. He focuses his historical review on the predator-control policies and practices that have been directed toward gray wolves (*Canis lupus*), coyotes (*C. latrans*), mountain lions, and grizzly bears (*Ursus arctos*).

The beginning chapters of the book explain how Old World attitudes toward predators were brought into the American West with the early explorers and settlers during the 1800s. Those attitudes included the need to eliminate the "bad" animals (predators) in order to protect the "good" animals (people, livestock, and game animals). Attitudes turned to action with the establishment of bounties and the widespread use of poisons in order to eliminate predators.

Van Nuys describes the period between 1915-1930 as the "golden age" of predator control. It was during those years when recently established state game commissions focused management actions toward the suppression of predators in order to protect favored game animals. During the same period, the federal government became more heavily involved with predator control. The federal agency that took the lead with predator control was the U.S. Department of Agriculture's (USDA) Bureau of Biological Survey (BBS), which was established in the late 1880s. The efforts of the BBS, which was later transferred to the Department of Interior and became the U.S. Fish and Wildlife Service (USFWS), were primarily focused on reducing the negative economic impacts of predation on livestock and to protect other commodities that were important for the nation's food supply. Reductions of predator populations also were undertaken by the recently established National Park Service (NPS) and the U.S. Forest Service (FS) in order to protect the "good" animals from the "bad" ones.

It was also during this "golden age" when biologists, primarily from academia, began to question the actions taken by state and federal agencies toward predators. While the vision of predator control was clear within the livestock industry and hunting community (i.e., to eradicate all predators), the vision was perceived to be blurred within state and federal agencies, particularly within the BBS. Were their intended

actions toward predator eradication or predator control? That same question continues to be asked today.

Critics of predator control, including the American Society of Mammologists, also questioned the scientific validity of the BBS actions. It was during this time that Aldo Leopold, formerly a wolf hunter with the U.S. Forest Service, recognized the ecological role and value of predators. Leopold's "land ethic" and continued research by other biologists (e.g., Olaus Murie, Adolph Murie, and Paul Errington) were catalysts for how predators were being perceived within the fledging field of modern wildlife management.

Van Nuys recounts how America's environmental awakening during the 1960s, an expanding human population that was losing its connection to agriculture, the Sagebrush Rebellion of the late 1970s, and the Wise Use movement of the 1980s created a challenging mixture of science, politics, and emotion all focused on predator control. Agency reforms were undertaken during those three decades, which included more scientific study on the ecology of predators and improvements in the methods used to manage predator damage. Also, in 1985, the USFWS's Animal Damage Control program was transferred back to the USDA where federal involvement in predator control first began with the establishment of the BBS. Management actions for predators continued, but contrary to the critics of predator control, those actions focused on controlling damage caused by predators rather than predator eradication.

Regulatory actions taken by Congress—most notably the passage of the Endangered Species Act (ESA) of 1973—plus the principles of modern wildlife management helped to bring the issue of predator control full circle. The book provides an excellent summary of the reintroduction efforts undertaken for the gray wolf and the Mexican wolf (*C. lupus baileyi*) and the species recovery efforts for the grizzly bear, all under the authority of the ESA. Predators were restored to their historic ranges by the USFWS, NPS, and the FS, the same agencies that years ago conducted management actions in order to protect the "good" animals from the "bad" animals.

I enjoyed reading Varmints and Victims because the book provides a historic overview beyond simply predator control. It traces the rich history of how modern wildlife management has evolved over the past 100+ years. I highly recommend this book to those interested in the many issues and facets of predator control and to those interested in the learning of the many challenges faced by wildlife agencies that manage charismatic species like predators. The author provides a quote by renowned wolf ecologist L. David Mech that helps illustrate not only the scientific challenges, but more importantly the social challenges for the management of all predators: "If we carefully regulate wolf populations instead of overprotecting them, we can prevent a second wave of wolf hysteria, a backlash that could lead once again to persecution."-Phil Mastrangelo, State Director (retired), U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, 3235 Crested Drive North, Mandan, North Dakota 58554, USA.