



SPECIAL ISSUE: PREDATION

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The History of Federal and Cooperative Animal Damage Control

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Introduction

The predecessor of the Wildlife Services program within the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, was founded by C. Hart Merriam in 1885 with a Congressional appropriation of \$5,000. These funds were used to organize a Section of Economic Ornithology as part of the Entomology Division of USDA. Merriam immediately hired longtime friend A. K. Fisher to be his assistant and the two shared a clerk. The new Section proved to be so popular with farmers and politicians that the Congress created a separate Division of Economic Ornithology and Mammalogy in 1886. The Commissioner of Agriculture stated that the principal effort of the Division would be to educate farmers about birds and mammals affecting their interests, so that destruction of useful species might be prevented. One of the first publications dealt with the introduction of the English sparrow into the United States.

Merriam and his assistants began to collect data on the geographic distribution of various birds and mammals of economic importance. "Economic" was gradually dropped from the organization's title, and in about 1890, the title of the Division was changed to the Division of Ornithology and Mammalogy. Early studies detailed the life histories and impacts of jack rabbits, ground squirrels of the Mississippi Valley, and pocket gophers. In addition, field experiments on the control of prairie dogs in Texas and New Mexico were initiated. Merriam and others soon promoted another change in the title of the Division

to the Biological Survey, arguing that the name was more apt, and in 1896, the Division was renamed. In 1905, the name was changed again to the Bureau of Biological Survey and this title remained as long as the program was with the Department of Agriculture.

Merriam's dedication to field surveys never wavered, even though it brought him into constant conflict with various Congressmen who did not see the practical value of investigating animals in Canada and Mexico. Merriam insisted that the information was needed to help the farmers in the United States. Nevertheless, his agency was known by some as the "Bureau of Extravagant Mammalogy," and in 1907, several Congressmen attempted to abolish the Bureau's appropriation. In the end, the effort failed, thanks in part to President Theodore Roosevelt. Roosevelt expressed his pleasure at the outcome with a characteristic note to Merriam that read "Bully for the Biological Survey."

The Early Twentieth Century

By 1900, livestock interests throughout the West were lobbying against the collection of grazing fees on national forest land and other public domains heavily populated with wolves and coyotes. Between 1905 and 1907, the Forest Service and the Biological Survey both investigated predator/livestock problems, and each had publications that described approved and familiar methods of shooting, trapping, poisoning, the development of den hunting, and wire-fencing to manage predation.

Operational rodent control began in 1913, in order to manage plague on a few national forests in California. The following year, the first of many hundred

cooperative agreements with Land Grant Colleges and Universities was signed by the president of the New Mexico College of Agriculture and Mechanic Arts and the Secretary of the Department of Agriculture.

Congress finally appropriated a small amount in 1914 for experiments and demonstrations to control predatory animals. The following year, the first sizeable appropriation was made (\$125,000), and the language of the Act called for direct participation by the Biological Survey. This action ended the Forest Service's Predator Control Program. Within the Bureau of Biological Survey, ten districts were formed as Arizona/New Mexico, Colorado, Idaho, Oregon, Montana/North Dakota, Nevada, California, Texas, Utah, and Wyoming/South Dakota.

In 1916, a rising epidemic of rabies in wild animals, particularly in coyotes, increased the appropriation by \$75,000. This increased the number of Government hunters primarily in the hardest hit areas of northern California, Oregon, Nevada, and Idaho. Also for the first time, funding for rabies work and predator control exceeded that spent for "food studies." Stanley P. Young wrote, "After a few preliminary contacts with J. Stokley Ligon, mainly through correspondence, I was asked to go to work as a Government hunter in Arizona with a grand salary of \$75 a month. This magnificent salary meant that you had to board and take care of your other requisites, such as upkeep of saddle and pack horses, but I was able to do this with cooperators aiding at times because \$75 was a lot of money in those days. By the time the employment date came around, on October 1, 1917, I was sent a sack of wolf traps, formula for making wolf scent and stake pins, together with a little

packet of official stationery with instructions therein one of which read: 'A man who does his duty well is the man who serves his country best, especially so when the world is being devastated by war (World War 1). Be a clean hunter, keep a clean trapping kit, and leave a clean record. It will be honor to yourself and a credit to your country. To delay reports interferes with all accounts and delays your own pay.'" The instructions went on to inform the hunter how to keep furs and scalps. In 1920, all restrictions were "officially" dropped for work to be done only on national forests and public domain.

Beginning about 1920, tremendous rabbit populations erupted throughout the West, and the Biological Survey coordinated poisoning campaigns and drives. Interest in rabbit control also was stimulated by a commercial demand for rabbit skins for felt hats and other products. In Wyoming, farmers and ranchers sold 100,000 skins, netting them \$12,000-15,000. One year, the Idaho ADC program killed 600,000 rabbits and sold 61,000 pounds of skins.

The placing of toxicants had become a fine art for both predators and rodents, and in 1920, a laboratory for experimentation with toxicants was established in Albuquerque, New Mexico. It was called the Eradication Methods Laboratory and was under the direction of Stanley E. Piper. In 1921, it was moved to Denver, Colorado, and in 1928, it was renamed the Control Methods Research Laboratory. In 1940, the Control Methods Research Laboratory was combined with the Division of Food Studies to become the Branch of Wildlife Research. The research facility at Denver was called the Denver Wildlife Research Laboratory. In 1959, it was renamed the Denver Wildlife Research Center. In 1997, after the transfer of the ADC program from the Fish and Wildlife Service to the USDA, the Center was moved to the campus of Colorado State University and renamed the National Wildlife Research Center.

For many years, strychnine had been used as a means of controlling wolves and coyotes. The common practice was to salt any carcass found on the range with raw strychnine. Coyotes and wolves soon learned to avoid the treated carcasses, and so the strychnine was put in tallow baits and these were inserted into a carcass. This practice was soon aban-

doned in favor of small baits known as "drop baits" placed around a carcass or a draw station. Research later developed methods for putting toxicant into capsules and tablets that would hide the bitter taste of strychnine. Beside strychnine, work was done with thallium sulfate mostly in bird control. For raven control, treated corn was placed on platforms 14 feet tall which afforded the only vantage point for miles.

The Office of Ornithology and Mammalogy within the Bureau of Biological Survey was upgraded to a division in 1928, and the name was changed to the Division of Economic Investigations. But a year later, the name was changed again to the Division of Predatory Animal and Rodent Control. In the Appropriations Act for the Department of Agriculture in that year, Congress called for an investigation as to the feasibility of a definite predatory animal control program over a certain period which would likewise assure a definite amount for expenditures for each succeeding year and upon which to base more efficient control work. The investigation was made, and a report recommending a cooperative program to cover a 10-year period was submitted to the 70th Congress. A number of bills were introduced in both Houses of the 71st Congress to authorize the institution of the 10-year plan. After full Congressional hearings on the matter, the bill that was passed by Congress and signed by the President became known as the National Animal Damage Control Act of March 2, 1931 (Public Law 776).

In the late 1920s and early 1930s, employees of the division would go into communities experiencing problems and organize rodent control campaigns. These campaigns would involve the farmers and ranchers of the area, and also there would be a place set up for mixing bait. Because not all projects were large enough to justify setting up facilities to mix bait, a number of mixing stations were established around the country in locations such as Medford, Oregon, and McCannon, Idaho. The latter was moved to Pocatello and in 1934, Congress approved funds to buy property at Pocatello, build a bait mixing plant, and operate it in cooperation with the Pocatello Chamber of Commerce. In 1936, the mixing plant was completed and the Pocatello Supply Depot was

opened for business and remains an important part of the Wildlife Services program.

In 1934, the Division of Predatory Animal and Rodent Control was combined with law enforcement to form the Division of Game Management with a Section of Predator and Rodent Control. However, only four years later, the Section was again separated and named the Division of Predator and Rodent Control. In 1939, the Bureau of Biological Survey of USDA and the Bureau of Fisheries in the Department of Commerce were transferred to the Department of the Interior to form the Fish and Wildlife Service.

The Mid-Twentieth Century

In the fall of 1941, the Humane Fur Getter, later renamed the Humane Coyote Getter, became operationally used in Wyoming, Colorado, New Mexico, and on a wildlife research project in Texas. The following year, this tool became operational West wide. The coyote getter was especially valuable in freezing weather that impeded other control efforts. From the beginning, there was concern throughout the Fish and Wildlife Service about the hazard of this device. Reflecting this concern, an agreement and release form was developed, which required the signatures of the landowner and the agent of the Fish and Wildlife Service, as well as the signature of a third party witness. A form very much like the original is still used by the Wildlife Services operational program, but now it is called Agreement for the Control of Animal Damage on Private Property.

In August of 1945, the Fish and Wildlife Service announced the discovery and demonstration of a new rodenticide known as compound 1080 (sodium monofluoroacetate). Later that year, a policy statement was issued on its use. Unlike strychnine, 1080 is tasteless, soluble in water, and could be applied to bait more easily, and it only took a small amount to be effective.

In 1946, Assistant District Agent, J. R. Alcorn of Fallon, Nevada, published an article in the May issue of the *Journal of Mammalogy* that described decoying coyotes. Shortly thereafter, predator calling became widely used by the ADC program. Mr. Alcorn also described how to use a howl or a siren to locate coyotes before using the call.

Also in the 1940s, research also was being conducted on thallium sulfate and compound 1080 for coyote control. By 1948, Compound 1080 was being used on a limited basis for coyote control. A year later, Weldon B. Robinson published an article that described the use of thallium and Compound 1080 impregnated stations in coyote control. Robinson reported that while both poisons were equally effective, Compound 1080 was preferable because it was cheaper, more readily available, somewhat more selective, and easier to apply.

The use of aircraft in predator control by private individuals dates back to the 1930s. However, the Fish and Wildlife Service did not start using them until the late 1940s, primarily to distribute strychnine drop baits. It soon became apparent that an airplane could be used effectively to shoot coyotes from the air, and their use has evolved from that time. Today's Wildlife Services program often employs the Aviat Husky or less frequently, the Piper PA-18 Super Cub. Both aircraft have a modified shooting window, extended wings fitted with drooped wing tips, and oversized props and tires. Some have larger horse powered engines to cope with the higher altitudes of the inter-mountain West.

In 1948, the Division was renamed the Branch of Predator and Rodent Control. Reflecting a worldwide shortage of cereal foods, Congress created the Clean Grain Program, and appropriated \$1,000,000 to USDA to combine forces with USDI on rat control. This funding resulted in a significant expansion in the program, and helped to establish ADC efforts in the eastern United States.

Transformation of the Program in the 1960s-1970s

In 1963, because of concerns expressed by environmental organizations, Secretary of the Interior Stewart Udall appointed an Advisory Group on Wildlife and Game Management to review the activities of the Branch of Predator and Rodent Control. This group was chaired by Starker Leopold, a professor at the University of California. The review, titled, "Predator and Rodent Control in the United States" and better known as the Leopold Report, was delivered to Secretary Udall in 1964. There were six recommendations: (a) appoint an advisory board; (b) reassess the goals of the predator and rodent program; (c)

revise the predator and rodent control guidelines; (d) amplify the research program; (e) establish legal control over the use of certain pesticides; (f) change the name of the organization.

On June 16, 1965, Secretary Udall adopted the report. He changed the name of the Branch to the Division of Wildlife Services and created two branches within the Division, the Branch of Wildlife Enhancement and the Branch of Pesticide Monitoring and Surveillance. Jack Berryman, a professor at Utah State University and a former Fish and Wildlife Service employee, was named Chief of the Division. These changes were insufficient to quell the controversy surrounding the program, and on March 16, 1971, the Defenders of Wildlife and the Sierra Club sued the Department of the Interior demanding an end to the use of toxicants in predator control. A month later, the Humane Society of the United States filed a similar lawsuit. The Department of Interior reacted by forming an Advisory Committee on Predator Control, better known as the Cain Committee. The committee report was rapidly prepared, and critical of the ADC program. As a result, President Nixon signed Executive Order 11643 banning the use of toxicants for the control of predators by a Federal program or on Federal lands. The United States Environmental Protection Agency then canceled the registrations for Compound 1080, strychnine, and sodium cyanide.

To offset the loss of the toxicants, several feasibility studies using helicopters were initiated. The best known of these was conducted on the Bridger National Forest in Wyoming, and it showed that the helicopter could be used effectively, particularly in the mountains and in areas with dense cover where fixed-wing aircraft were ineffective. The helicopter remains an important tool for the Wildlife Services program in the West. The most commonly used are the Bell 47 (Soloy Conversion), the Bell Jet Ranger, and the Hughes 500.

The Division of Wildlife Services was dissolved in 1975. The Enhancement and Pesticide Branches were moved to another Fish and Wildlife Service division, and the branch of Animal Damage Control was reduced to a Washington, D.C. office. Nonetheless, President Ford amended Executive Order 11643 to allow the experimental use of sodium cyanide in the M-44 device for one year. The following year, Ford

amended the order again to allow for the operational use of sodium cyanide.

In 1978, again reflecting controversy generated by the environmental community, Interior Secretary Cecil Andrus appointed an Animal Damage Control Policy Study Committee to review the ADC program. This resulted in a policy statement by Andrus on November 8, 1979, which stopped the practice of den hunting of predators and discontinued research on the use of Compound 1080. However, at a breakfast prior to a predator control symposium in Austin, Texas, Guy Connolly provided the Secretary with data that he said had not been given to him before, and during his talk at the symposium, he reversed his ruling on 1080 research for predator control. In 1981, Interior Secretary James Watt rescinded the Andrus policy statement and on January 27, 1982, President Reagan issued Executive Order 12342, revoking Executive Order 11643 and the two amendments by President Ford.

Return to the USDA and Conclusion

On December 19, 1985, Congress amended the appropriation bill for FY 1986 to transfer the Animal Damage Control program from the U. S. Fish and Wildlife Service to the Animal and Plant Health Inspection Service of USDA. On March 1, 1986, this transfer officially took place. On August 1, 1997, the name of the ADC program was changed to Wildlife Services. Today, the Wildlife Services program remains dedicated to the protection of American agriculture, the protection of human health and safety, and the resolution of other human wildlife conflicts. Wildlife damage management has become an inexorable component of modern wildlife and wildland conservation. Despite continuing reservations expressed by animal rights and environmental activists, the increasing need for sound, safe, efficient, and economical damage management is apparent everywhere. The Wildlife Services program is involved in a greater variety of wildlife issues than at any time in the history of the agency, and reflecting its historical commitment to research, the Wildlife Services National Wildlife Research Center has become the leading wildlife damage and disease research and development laboratory in the world.