

A DARLING IDEA TURNS 90 CELEBRATING NINE DECADES OF COOPERATIVE WILDLIFE RESEARCH

Ninety years ago, the United States was firmly in the grip of the Great Depression. Fifteen million people—nearly 25 percent of the workforce—were unemployed. The stock market struggled after the great crash in October 1929, with the Dow Jones Industrial Average reaching a low of 41.22 in July 1932. Nearly half of America’s banks had failed by 1933. Meanwhile, across the ocean, war clouds were gathering in Europe and Asia, ultimately leading to the outbreak of the Second World War in less than a decade.

During this economic and political turmoil, a cartoonist from Iowa took decisive steps to help ensure a bright future for North American wildlife. Jay “Ding” Darling, the cartoonist at the *Des Moines Register* newspaper and a member of the Boone and Crockett Club, was inspired to take action by the success of early Club efforts to promote the science-based management of wildlife resources and wildlife habitats. In 1932, Darling was already a household name across the country, with his political cartoons appearing in newspapers nationwide. He won a Pulitzer Prize in 1923 for his cartoon “In Good Old USA,” and many of his cartoons helped to promote the conservation of fish and wildlife resources.

A few decades earlier, member William T. Hornaday had expressed alarm in his classic 1913 book *Our Vanishing Wildlife* about the precipitous declines in many North American wildlife species. Hornaday notes the almost complete extirpation of whitetail deer in portions of

states such as Kansas and Illinois, the shocking decline in the numbers of elk and mule deer across the West, and the near-complete elimination of the American bison from the landscape. Even the common eastern grey squirrel had disappeared from large swathes of its former range, with Hornaday promoting a campaign among Boy Scouts and others to “save Silver-Tail.”

These declines led visionary leaders at the Boone and Crockett Club and other conservation organizations to sponsor investigations to identify steps that could reverse the declines in America’s iconic wildlife species. Aldo Leopold, a member whose research was supported by the Club, developed a set of science-based wildlife management principles expressed in his now-classic 1933 textbook *Game Management*. Leopold’s premise was simple: if we understand the specific needs and requirements of wildlife species, it should be possible to promote the increase of those species by taking steps to meet those needs. Leopold emphasized habitat requirements—the particular features in a landscape that wildlife use to live, obtain food, shelter, and water, and raise their young. Through simple field experiments, Leopold demonstrated that wildlife numbers would increase if key habitat features were created or enhanced. Wildlife managers needed a much more robust understanding of biology and habitat requirements for multiple wildlife species to apply these findings more broadly. A new field of scientific wildlife management was

developed to understand these needs. This field built on earlier scientific disciplines such as natural history, ecology, mammalogy, and botany but focused specifically on the practical needs of wildlife managers.

Darling’s brilliant idea recognized that such research was, by its very nature, interdisciplinary and would require close communication and collaboration between the researchers and the wildlife managers. He envisioned a cooperative research group housed at a practical, solutions-based college or university, working hand-in-hand with state and federal wildlife managers to address the most immediate and pressing needs in wildlife management.

Thus was born the first-ever Cooperative Wildlife Research Unit, housed at Iowa State University. Its operations were funded for the first three years by a tripartite agreement among Iowa State College (now Iowa State University), the Iowa Fish and Game Commission, and Darling himself. This first unit opened in 1932 with one scientist and his graduate students operating out of the basement of the Insectary

SCIENCE BLASTS



Jonathan R. Mawdsley
B&C PROFESSIONAL MEMBER
CHIEF OF THE COOPERATIVE
FISH AND WILDLIFE
RESEARCH UNITS

Building at Iowa State. This initial unit was so successful that in 1935, Darling persuaded Congress and President Roosevelt to expand the program nationwide, creating what is now known as the Cooperative Fish and Wildlife Research Unit Program.

The impacts of the Coop Unit Program (as it is known) on wildlife and fisheries management in North America are incalculable. Over the past 90 years, research programs at the individual units have spanned the full range of North American big game and wildlife species, with a particular focus on large ungulates (deer, elk, moose, pronghorn), waterfowl, and other hunted, trapped, fished, and otherwise harvested species. The vast majority of this research has been focused on habitat requirements and other aspects of wildlife biology that are directly relevant to management and has been undertaken in direct, close

Darling envisioned a cooperative research group housed at a practical, solutions-based college or university, working hand-in-hand with state and federal wildlife managers to address the most immediate and pressing needs in wildlife management.

collaboration with the state and federal fish and wildlife management agencies.

As we know now, Ding and Aldo Leopold and the Boone and Crockett Club leaders were on the right track. Many of our most iconic wildlife species have responded well to science-based management since the 1930s. Our forests and fields teem with deer, elk, moose, pronghorn, and other large wildlife. Our skies are filled with migratory birds, and the eastern gray squirrel and many other game species are no longer in danger of extirpation. The research studies conducted by Coop Unit scientists have helped bring about the remarkable rebound and recovery of many of our most iconic wildlife species over the twentieth century.

Ninety years on from the formation of the first Unit in 1932, the Coop Unit Program remains strong. True to Darling and Leopold's vision, the program's focus on habitat requirements and the recovery of key wildlife species remain central. Unlike most

university faculty research programs, the research questions addressed by Coop Unit Program scientists remain focused on addressing the most pressing needs of state and federal wildlife managers. There are currently 123 scientists at 42 units in 40 states. The Coop Unit Program is the single most productive program within the entire U. S. Geological Survey, currently training 640 graduate students. The program has produced 400 peer-reviewed scientific publications and 1,600 conference and workshop presentations in the last year alone.

And the program continues to grow. Recent years have seen the openings of new units in Nevada (2021) and Michigan (2022), with the exciting news that a new unit will open in Indiana in 2023. The program is actively replacing our scientific staff and faculty as turn-over occurs, hiring 38 new scientists in the past two years with another 21 positions to be hired soon. The new scientists are taking the program

in innovative and exciting new directions, using tools such as genomics, landscape-scale analysis, and computer modeling to help wildlife managers understand difficult and challenging real-world wildlife management situations.

The program's scientists are also involved in major wildlife issues, including the Western Migration Corridors Initiative, which seeks to map large ungulate movements across the entire West. In addition, they are involved in the Chronic Wasting Disease Research Consortium, which brings a wide range of scientific expertise to bear on this challenging disease that affects deer, elk, moose, and other species of the family Cervidae.

Ding Darling's legacy lives on in the work of the Coop Unit Program and its scientists. Because the program is based on collaborative partnerships, Coop Units are always ready to welcome new partners and new projects. ■



Learn more about current activities or to connect with a Unit near you.

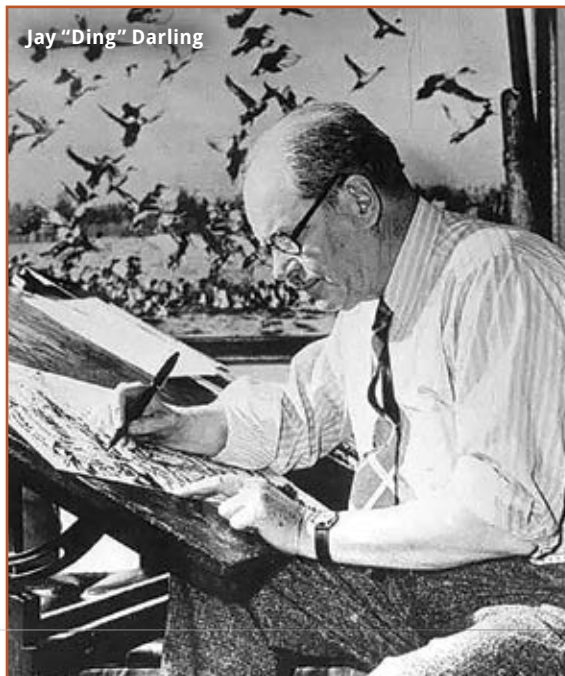


Learn more about the current Coop Unit scientists and their research.

Aldo Leopold



Jay "Ding" Darling



LEFT: Aldo Leopold, a member whose research was supported by the Club, developed a set of science-based wildlife management principles expressed in his now-classic 1933 textbook *Game Management*. RIGHT: Jay "Ding" Darling was inspired to take action by the success of early Club efforts to promote the science-based management of wildlife resources and wildlife habitats. The Iowa Digital Library has over 11,000 cartoons by Ding Darling in their online collection.

Learn more about Ding Darling, Aldo Leopold and other influential members by scanning the QR code on page 27 to read our Member Spotlights.