

**Celebrating 50 Years of Research and Education
September 20, 1947-September 20, 1997**

**Idaho Cooperative Fish and Wildlife Research Unit
College of Forestry, Wildlife and Range Sciences
University of Idaho
Moscow, Idaho**

Introduction

The Idaho Cooperative Wildlife Research Unit was authorized by Congress in September 1947 and the Idaho Cooperative Fishery Research Unit was authorized in 1963 with the University of Idaho, Idaho Department of Fish and Game, U.S. Fish and Wildlife Service, and Wildlife Management Institute as founding cooperators. The two Units were merged in 1985 to form the Idaho Cooperative Fish and Wildlife Research Unit. The Unit is located in northern Idaho with its coniferous forests, large lakes and rivers, river "breaks", and the Palouse Prairie agricultural lands. Research on fish and wildlife has been conducted by Unit personnel in all the varied habitats of Idaho and of surrounding states, and the northwest region: high desert, subalpine, irrigated agricultural lands, plains grasslands, cut-over forests, pristine wilderness, and the associated lakes and streams. Of wilderness, Idaho is second only to Alaska in total area, affording an almost unparalleled research opportunity. The Unit, located in the College of Forestry, Wildlife, and Range Sciences, has access to the University's 7,158 acre experimental forest, where studies in deer-proof exclosures have been carried out on a variety of problems, and Taylor Ranch, situated in the heart of the 4 million acre Frank Church Wilderness, and the site of world famous research on cougars by former Unit Leader Maurice Hornocker and his students. Close ties are maintained with other departments within the College, as well as with the College of Agriculture, the Water Resources Research Institute, and the Hornocker Wildlife Institute. For 50 years the Idaho Unit has carried out research to assist fish and wildlife managers in their efforts to better manage fish and wildlife resources in the Northwest. More than 100 fish and wildlife biologists received their graduate level training and education in the Unit and currently hold research and management positions in federal, state, tribal, and private

resource agencies, and research and teaching positions at universities across the country.

The U.S. Geological Survey, Biological Resources Division, Cooperative Research Unit program headquartered in Reston, VA. became the federal cooperator when research organizations were transferred out of the U.S. Fish and Wildlife Service in 1996.

The Cooperative Unit Program

Jay Norwood "Ding" Darling, cartoonist and political satirist for the Des Moines Register, Des Moines, Iowa "perceived a rapid climatic change that caused extended drought, a rapid agricultural change that eliminated the traditional availability of wildlife to every US citizen, and an absence of trained individuals in government to manage vast but declining renewable natural resources." He became Chairman of the Iowa Fish and Game Commission in the early 1930's. His recognition of the need for biological information, trained wildlife managers, and dissemination of information to management agencies to better manage the nation's wildlife, led to his negotiation of an agreement among the Iowa State College, the Iowa Fish and Game Commission, and himself to form and support the first cooperative wildlife research unit. Darling pledged \$3,000 of his personal funds to finance operations for each of three successive years. Dr. Paul Errington was selected as leader of the cooperative wildlife research unit, which was located at Iowa State College (Goforth 1994).

In 1934, Darling was appointed Director of the Bureau of Biological Survey, U.S. Department of Agriculture. The Bureau was later transferred to the Department of Interior and became the Bureau of Sport Fisheries and Wildlife, later renamed the U.S. Fish and Wildlife Service. Darling lobbied Congress for support of nationwide cooperative wildlife research units. By 1935-36, he had secured funding sufficient to place a federal biologist at Iowa and at eight other Cooperative Wildlife Research Units at state land-grant institutions throughout the nation. The Unit Leaders received regular academic appointments and had their own research and graduate student programs.

In 1960, Congress passed the Cooperative Units Act. This act authorized the program as a separate line item in the annual budget of the U.S. Fish and Wildlife Service. The act also included provision for proposed cooperative fishery units. All Units were transferred to the newly created Division of Cooperative Research on July 1, 1973. In 1993, the research functions of the Bureau of Land Management, the National Park Service, the Bureau of Reclamation and the U.S. Fish and Wildlife Service, including the unit program, became part of the National Biological Survey, later renamed the National Biological Service. In 1996, the National Biological Service, including the unit program, became the Biological Resources Division of the U.S. Geological Survey.

The University of Idaho

The University of Idaho Bulletin for 1909-1910 announced the creation of a new department within the College of Agriculture:

Beginning with the first semester of 1909-1910 there will be offered the first two years of a collegiate course in Forestry. The additional years will be added as soon as the demand for these on the part of the students may require it. A short course for forest rangers and other interested men who are unable to pursue a full college course will also be offered at such time of the year as will interfere least with the duties of their employment (Savage, 1985).

On September 1, 1909, Charles Houston Shattuck arrived to assume the duties of department head and faculty. In 1917, the University of Idaho School of Forestry was created with Francis Garner Miller appointed as the first Dean.

Wildlife and game training in the Department began in 1915, with one course in Game Management offered by Professor Watson. In the fall of 1937-38, Dr. A. B. Hatch and Dr. Howard Stough of the Zoology Department team taught a course in Game Management. By the mid-40's, Dr. Vernon Young, Professor of Range Management, was teaching a course in game management, and had developed the Range-Game Option under the Range Management Curriculum. In 1947, Ken Hungerford joined the faculty to teach the course in game management

under the Range-Game Option. Hungerford's arrival marked an addition to the school's curricular array.

Establishment of the Idaho Cooperative Wildlife Research Unit

Dr. Paul D. Dalke, Unit Leader	1947-1967
Dr. Ken Hungerford, Assistant Unit Leader	1947-1967
Dr. Thomas D. Burleigh, Ornithologist	1947-1958
Dr. Maurice Hornocker, Unit Leader	1968-1985
Dr. Elwood Bizeau, Assistant Unit Leader	1967-1985

The Idaho Cooperative Wildlife Research Unit was established within the University as part of the Forest, Wildlife and Range Experiment Station September 19, 1947. The Unit owes its creation to a decade of work on the part of Dean Dwight S. Jeffers and others to seek the inclusion of the state of Idaho in a bill before Congress authorizing the establishment of four new wildlife research units nationally. The cooperating agencies were the Idaho Department of Fish and Game, the Wildlife Management Institute, the Fish and Wildlife Service of the U.S. Department of Interior, and the University of Idaho. With the creation of the unit, the Range-Game option was renamed the Range-Wildlife Management option. In 1948-49, for the first time, ---"supported by the Staff of the Idaho Cooperative Wildlife Research Unit, training in Wildlife Management is offered leading to a Master's Degree."

The unit's first staff consisted of leader Paul D. Dalke, U.S. Fish and Wildlife Service biologist; Dr. Kenneth Hungerford, University of Idaho employee and instructor of wildlife management, was Assistant Leader; and Thomas D. Burleigh, U.S. Fish and Wildlife Service ornithologist. There was almost a complete lack of information about Idaho wildlife, thus early Unit projects emphasized studies on life histories and productivity of game birds and mammals. Dr. Thomas Burleigh, who was then completing his work on the *Birds of Georgia*, was assigned to the Idaho Unit to write a similar book on the birds of Idaho. *Birds of Idaho* was published in 1972 and served for twenty years as the definitive text on the distribution and abundance of Idaho's birds. Other early research projects assessed the effectiveness of various Fish and Game Department programs with Dr. Dalke and his students

studying the big game salting program in the Selway River regions and Dr. Hungerford and his students studying the effect of magpie egg predation on pheasant populations in southern Idaho. As a result of these studies, the salting program was ended and the bounty for magpies was no longer offered. These were just the first of many research projects conducted by Unit personnel, students, and cooperators whose results influenced wildlife policy.

The research emphasis began to change as basic life history information began to accumulate. Dr. Dalke began to emphasize wilderness research. As he and his students were conducting early research in Chamberlain Basin, they discovered Taylor Ranch. He was instrumental in helping the University acquire this property, which later became the keystone of the Wilderness Research Center. Dr. Kenneth Hungerford worked with microclimate variables in the early ruffed grouse research and continued with dew research and its implications for wildlife. He and his students also did early research on controlled burning to modify wildlife habitat. Dr. Hungerford was the first to put radio transmitters on deer, having collaborated with William Cochran on the first circuits developed for radio tracking.

Dr. Maurice Hornocker became Unit Leader in January, 1968, and initiated a period of large predator research. He took full advantage of Taylor Ranch, basing much of his early cougar research at the ranch. Dr. Elwood Bizeau joined the unit in 1967 as the first federal employee to serve as assistant unit leader. The research of Dr. Hornocker and his students was very visible, with numerous television specials and articles in the popular and scientific literature. Dr. Hornocker's work with big cats was an era of long-term studies with many of his students remaining at Idaho as research associates or instructors and his efforts were largely responsible for the change in legal status of this species from vermin to game animal. International research came into play during this time. Elwood Bizeau and Rod Drewien conducted studies on the whooping and sandhill cranes in Mexico and Canada. Dr. Hornocker conducted research in India, South America, and Central America, and Dr. Hungerford and his graduate students worked on caribou in the Northwest Territory and the Delta Waterfowl Research station in Manitoba. Dr. Hungerford also conducted forest animal damage research studies in forests of New Zealand and Taiwan.

Establishment of the Idaho Cooperative Fisheries Research Unit

Dr. Don Chapman, Unit Leader	1964-1973
Mr. Robert Thompson, Assistant Unit Leader	1964-1966
Dr. Ted Bjornn, Assistant Unit Leader	1966-1973
Dr. Ted Bjornn, Unit Leader	1973-1985
Dr. Robert White, Assistant Unit Leader	1974-1980
Dr. James Congleton, Assistant Unit Leader	1980-1985

The Cooperative Fishery Unit was authorized in 1963 and Dr. Don Chapman became the Unit Leader the following year. He had considerable experience as Director of Research of the Oregon Fish Commission and as a faculty member at Oregon State University. Dr. Chapman initiated research on socio-economic problems, life history studies, and anadromous fish. He, along with Dr. Bjornn and students, conducted research on the status of native cutthroat trout and of catch and release regulations to reduce fishing mortality. Dr. Chapman and assistant unit leaders Mr. Thompson and Dr. Bjornn were fully involved in the teaching process, advising students, leading seminars, and teaching graduate level courses.

Dr. Bjornn replaced Dr. Chapman as Fishery Unit Leader in 1973 when Dr. Chapman left to pursue private business interests. As Unit Leader, Dr. Bjornn continued studies on sediment transport in streams and its effect on fish, and studies of salmon and steelhead production in the Lemhi River that he started in 1962 while working for Idaho Department of Fish and Game. He and his students also continued on many aspects of native trout biology, including the impact of special angling regulations on the management of native cutthroat trout. The Idaho Department of Fish and Game adopted catch and release regulations for portions of the St. Joe and Lochsa Rivers, all of the Selway River, and on Kelly Creek. The trout populations rebounded and management of these blue ribbon trout streams has received national and international recognition.

Establishment of the Idaho Cooperative Fish and Wildlife Research Unit

Dr. Ted C. Bjornn, Acting Unit Leader	1985-1986
Dr. James L. Congleton, Research Scientist	1985-Present
Dr. J. Michael Scott, Unit Leader	1986-Present
Dr. Ted Bjornn, Research Scientist	1986-Present
Dr. R. Gerald Wright, Research Scientist	1996-Present

The Idaho Cooperative Wildlife Research Unit and the Idaho Cooperative Fisheries Research Unit were combined into one Unit in 1985. Dr. Ted Bjornn was Acting Unit Leader for one year. In 1986, Dr. J. Michael Scott was named Unit Leader. Dr. Scott has emphasized the problems of endangered species and biodiversity and the use of Genetic Analysis as a tool. Dr. Scott and his colleagues have helped shift the emphasis in wildlife biology from single species recovery program to one of ecosystem management. Dr. Bjornn continued studies of native trout biology and population dynamics, and began studies of adult salmon and steelhead passage at dams in the Columbia and Snake River. Dr. Congleton has focused on issues of fish health, with research on Bacterial Kidney Disease and Infectious Hematopoietic Necrosis control. In 1996, Dr. R. Gerald Wright joined the Unit, and he is continuing his work on wildlife practices in national parks.

Unit personnel teach six graduate level courses in fisheries and wildlife and one university-wide honors class in natural resources. Additionally they have presented invited lectures in classes throughout the College of Forestry and at neighboring Washington State University as well as at universities and colleges throughout the United States. Each has a number of graduate students working on varied projects, and a number of graduate students have been kept on staff as associates or scientists after they have completed their degrees. Also, a number of projects have several scientists assigned from cooperating agencies as well as the University staff. Currently, staff, students, and cooperators are conducting 59 research studies with over nine million dollars in support.

Establishment of the Cooperative Park Studies Unit

The Cooperative Park Studies Unit (CPSU) at the University of Idaho was established in 1979 through a joint agreement between the Pacific Northwest Region Office of the National Park Service (NPS) and the University of Idaho. From the outset, the CPSU was divided into two program areas, one devoted to biological studies under the direction of Dr. R. Gerald Wright, and one devoted to sociological studies under the direction of Dr. Gary E. Machlis. Both program areas had two primary focuses: 1) projects undertaken for parks primarily in the Pacific Northwest Region (the states of Idaho, Washington, and Oregon) and adjoining states; and 2) projects dealing with service-wide policy and resource problems. This national focus set the University of Idaho CPSU apart from all other CPSUs established by the NPS at universities around the country.

Throughout its 16-year history, the biological program has had three major areas of emphasis. The first is best termed extension and support for park resource management activities. Most of the smaller parks in the region have limited resource management expertise. The CPSU has provided guidance on resource management issues, facilitated contacts with other faculty to solve resource management problems, and developed appropriate resource monitoring and resource problem solving protocols. It has also conducted training workshops for park personnel on a variety of topics ranging from the capture and restraint of wild animals to increasing computer skills. These efforts, which often required daily continuous consultation with park managers, were a major distinction between the way CPSUs and Fish and Wildlife Service Cooperative Research Units operated at that time. For the past 10 years, the biology program has been involved in a national effort to construct computer bibliographic databases of resource information in parks. The CPSU is the recognized leader in this field, and has had or currently has contractual obligations with the NPS to develop park-specific databases for 75% of the parks in the country.

A second area of emphasis was biological research, funded primarily by the NPS. Over the years, this research has tended to focus on

ungulate control (Olympic, Yellowstone, Gettysburg), vegetation mapping (a variety of parks), fire management and the role of fire in semi-arid parks, and methods for the control of exotic plants in semi-arid parks. All of this work has been conducted with the help of graduate students, and the results have been published in refereed journals.

A third area of emphasis has been the interdisciplinary projects undertaken jointly by the sociology and biology programs. This grew from the many resource management problems have both biological and sociological roots.

The biological program of the CPSU was terminated in 1996 with the transfer of Dr. Wright to the Idaho Cooperative Fish and Wildlife Research Unit within the Biological Resources Division of USGS. The NPS continues to fund the sociological program of the CPSU at the University of Idaho.

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