

*By 1940, the Civilian Conservation Corps and the Works Progress Administration had employed thousands of young men on a variety of conservation and forest management projects such as reforestation, fire prevention and suppression, erosion control, and construction of state parks.*

*Photo: Legislative inspection of Horicon Marsh, May 1939.*

Although the CCC and WPA programs ended in 1944, the Wisconsin Conservation Department (WCD) grew in size by the end of the decade, and conservation programs became bigger and better. The agency was still led by a director appointed by a five-person unpaid Conservation Commission. Division superintendents had direct line authority over field personnel, but no uniform system was in place for stationing personnel in the field. Programs were hampered by the lack of funds and manpower during the war. Many experienced WCD employees served overseas; WCD records indicated that 278 men were in the service of their country on March 31, 1944. Nineteen men from the Game Management Division served, and two—Elton Bussewitz and Earl T. Mitchell—were killed in action. At war's end, many veterans returned to their old jobs, and the WCD was able to expand programs once again. WCD Progress Department leadership fluctuated during the decade. WCD director Harley MacKenzie tangled with the Conservation Commission over ethics issues and resigned in 1942. E. J. Vanderwall became director but didn't last very long. He got caught shooting ducks after hours by game manager Ben Hubbard and resigned as director in 1946. Assistant director Ernie Swift became the new WCD director in 1947. He appointed George Spracher (fisheries) and H. T. J. Cramer (forestry) as assistant directors on January 30, 1948. The department listed attorneys on staff for the first time in 1949. A. J. Smith was chief legal counsel. Emil Kominski was Smith's assistant and became chief when Smith retired in 1949. Forests and Parks, the forests and parks program, grew from 21 parks and eight state forests in 1940 to 27 parks, two Natural Areas (a new classification created in 1947), and eight state forests by 1950. Importantly, a State Parks Act created in 1947 established a formal state park policy and a dependable funding source. Parks funding changed from fish and game license revenue to the state's general fund. Tree nursery production distributed over 70 million trees annually, and new conservation programs materialized to expand production further. Fire protection was now organized into ten districts and had become very effective in preventing and suppressing large-scale wildfires. Fisheries Fish Management Division activities

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making conservation education mandatory. Fishs in Planning Conservation Learning Experience (1945) and Game Conservation Education in Wisconsin Schools (August 1949). The Conservation Bulletin expanded its mailing list to more than 25,000, which included every school in the state. A WCD Fishing column was offered to newspapers in 1946, and most were using it by the end of the decade. Law Enforcement Conservation Warden's continued to be the mainstay for field conservation work with 82 full-time wardens on staff. Game and game inspection of deer, quiver, bear, and other animal damage control. The Wisconsin Game and Deer Act of 1945 provided for northern wardens on an experimental basis in 1945. Despite the war and budget restrictions, the force averaged a team of 104 and increased to 100 by 1950. Chief warden Burton Egan had a life-enjoying heart attack while inspecting deer in a storage locker. December 9, 1940. A. V. Robinson took his place but resigned in 1947. George Haudawa was his replacement. Budget and Staff By 1950, more than \$56 million poured into the WCD, supported account as over one million antlers and more than half million numbers brought in for participation in their sport. The WCD staff expanded to 795 permanent and 287 seasonal employees to meet the new and old challenges.

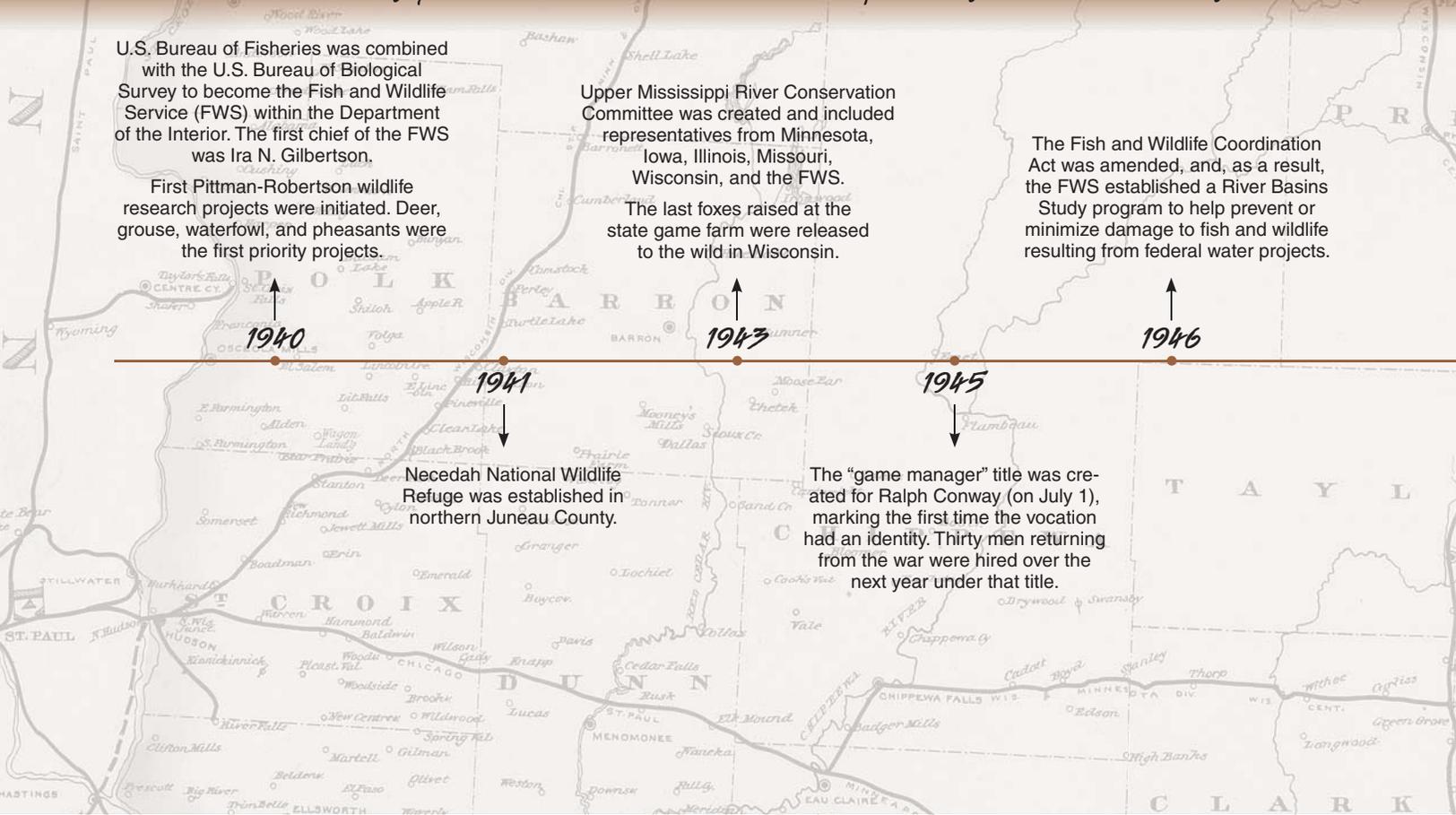
Conservation Congress The Conservation Congress, the citizen fish and game committee system created in the previous decade, advised the Conservation Commission, was functional but still advising its administration. The first constitutional amendments of its executive committee were adopted on March 17, 1940, and a secretary position was created the next year. The office of vice chairman was created in June 1948. BANCROFT established a "Code of Procedure" that would guide its administration into the next millennium. Coordinating Wisconsin activities of the Conservation Congress and processing licenses, expenses vouchers for meals, mileage and lodging, and other administrative matters for the WCD staff. The initial work was assigned to W. T. Calhoun, the superintendent of the information and education division, still reached around rough game fish stock, producing since 1937, and auction and release one billion mark cooperation create Mississippi River Committee composed of representatives from Minnesota, Iowa, Wisconsin, and the U.S. Fish and Wildlife Service. From 1946, emphasis on stock trout, including near extinction of the decade. Information and Education division initiated cooperation with the state department of Education in an effort to infuse current information into the school system. The new educational publications were distributed to the school system in support of making conservation education mandatory. Fishs in Planning Conservation Learning Experience (1945) and Game Conservation Education in Wisconsin Schools (August 1949). The Conservation Bulletin expanded its mailing list to more than 25,000, which included every school in the state. A WCD Fishing column was offered to newspapers in 1946, and most were using it by the end of the decade. Law Enforcement Conservation Warden's continued to be the mainstay for field conservation work with 82 full-time wardens on staff. Game and game inspection of deer, quiver, bear, and other animal damage control. The Wisconsin Game and Deer Act of 1945 provided for northern wardens on an experimental basis in 1945. Despite the war and budget restrictions, the force averaged a team of 104 and increased to 100 by 1950. Chief warden Burton Egan had a life-enjoying heart attack while inspecting deer in a storage locker. December 9, 1940. A. V. Robinson took his place but resigned in 1947. George Haudawa was his replacement. Budget and Staff By 1950, more than \$56 million poured into the WCD, supported account as over one million antlers and more than half million numbers brought in for participation in their sport. The WCD staff expanded to 795 permanent and 287 seasonal employees to meet the new and old challenges.



## Chapter 3

### The Game Managers, 1940-1950

# Selected Chronology of Conservation Events Impacting Wildlife Management

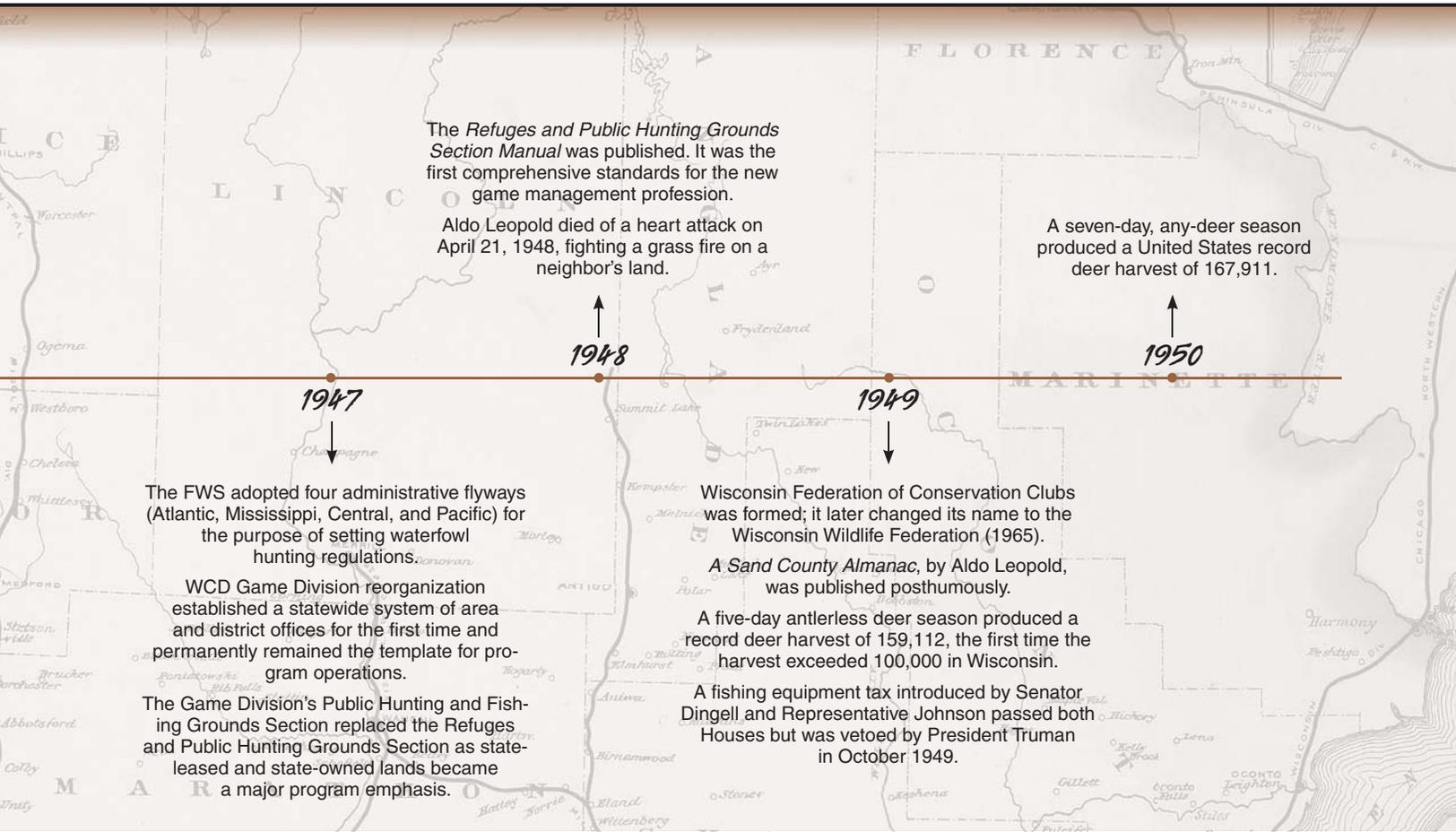


## Historical Overview



DNR FILE

- In 1940, President Roosevelt was elected to an unprecedented third term. The year started off with excitement as penicillin was invented, the first electron microscope was demonstrated, and the first successful helicopter flight occurred. Other innovations included the discovery of plutonium (1941), the "electronic brain" (automatic computer, 1942), and jet aircraft (1942). The decade was also filled with tragedy as war broke out again, baseball greats Lou Gehrig and Babe Ruth died, infantile paralysis killed hundreds, and Mahatma Gandhi was assassinated.
- The Japanese bombed Pearl Harbor on December 7, 1941. Britain and the United States declared war on Japan on December 8, and World War II dominated the country's attention. Manpower demands, economic restrictions, war atrocities, and the every-day stress of making ends meet had a suppressing effect on everyone, but life went on.
- The seemingly innocent but very anthropomorphic Walt Disney movie "Bambi" was released in 1942. It was an extremely popular film that would have a lasting impact on people's protective views of wildlife, especially about the pursuit of white-tailed deer with guns.
- Franklin D. Roosevelt died in office in 1945 and was succeeded by Harry S. Truman. The United States dropped atomic bombs on Hiroshima on August 6 and on Nagasaki on August 9, 1946. Japan surrendered on August 14, 1946 to end World War II, which culminated with the peace treaty signed in Paris in 1947.



- Everything was booming after the war. Home construction, industrial growth, expanding agriculture, and a dramatic increase in the highway system were accompanied by a corresponding increase in tourism and outdoor recreational pursuits. Rapidly expanding development also decreased wildlife habitat as marsh drainage, over-grazed woodlots, fence-line habitat destruction, expanding chemical use, forest fragmentation, and human intrusion took its toll.
- New septic system technology enabled development to virtually explode into rural areas, permanently altering the landscape more than any other technology to date. The automobile and rapidly expanding paved road systems opened up huge wilderness areas to year-round recreational use. Gas filling stations sprung up all over the country.
- The war had facilitated telecommunication advancements but had set back television and worldwide telephone use. In 1948, Bell Laboratories invented the transistor that enabled smaller and more efficient equipment to be made. The same year, scientists at Manchester University in Britain invented storage computers.
- Harry Truman was elected president in 1948. Wisconsin celebrated its state centennial.
- Three governors served Wisconsin during the decade: Julius P. Heil, 1939–43; Walter S. Goodland, 1943–47; and Oscar Rennebohm, 1947–51. Orland S. Loomis was elected in 1943 but died prior to his inauguration.
- In 1950, North Korea invaded South Korea. Wisconsin's population was 3,434,575, and the U.S. population had passed 150 million.

## The Gamekeepers

By 1940, the Civilian Conservation Corps and the Works Progress Administration had employed thousands of young men on a variety of conservation and forest management projects such as reforestation, fire prevention and suppression, erosion control, and construction of state parks. Although the CCC and WPA programs ended in 1941, the Wisconsin Conservation Department (WCD) grew in size by the end of the decade, and conservation programs became bigger and better. The agency was still led by a director appointed by a six-person, unpaid Conservation Commission. Division superintendents had direct *line authority* over field personnel, but no uniform system was in place for stationing personnel in the field.

Programs were hampered by the lack of funds and manpower during the war. Many experienced WCD employees served overseas; WCD records indicated that 278 men were in the service of their country on March 31, 1944. Nineteen men from the Game Management Division served, and two (Elton Bussewitz and Earl T. Mitchell) were killed in action. At war's end, many veterans returned to their old jobs, and the WCD was able to expand programs once again.

### WCD Progress

Department leadership fluctuated during the decade. WCD director Harley MacKenzie tangled with the Conservation Commission over ethics issues and resigned in 1942. E.J. Vanderwall became director but didn't lead very long. He got caught shooting ducks after hours by game manager Ben Hubbard and resigned as director in 1946. Assistant director Ernie Swift became the new WCD director in 1947. He appointed George Sprecher (fisheries) and H.T.J. Cramer (forestry) as assistant directors on January 30, 1948.

The department listed attorneys on staff for the first time in 1945. A.H. Smith was chief legal counsel. Emil Kominski was Smith's assistant and became chief when Smith retired in 1949.

### Forests and Parks

The forests and parks program grew from 21 parks and eight state forests in 1940 to 27 parks, two Natural Areas (a new classification created in 1947), and eight state forests by 1950. Importantly, a State Parks Act created in 1947 established a formal state park policy and a dependable funding source. Parks funding changed from fish and game license revenue to the state's general fund.

Tree nursery production distributed over 30 million trees annually, and new conservation programs materialized to expand production further. Fire protection was now organized into ten districts and had become very effective in preventing and suppressing large-scale wildfires.

### Fisheries

Fish Management Division activities still revolved around fish hatchery production, rough fish removal, and game fish stocking. Hatcheries had been producing 17 species of fish since 1937, and annual fish production and release was up around the one *billion* mark. Intergovernmental cooperation created the Upper Mississippi River Conservation Committee in 1943, which was composed of representatives from Minnesota, Iowa, Illinois, Missouri, Wisconsin, and the U.S. Fish and Wildlife Service.

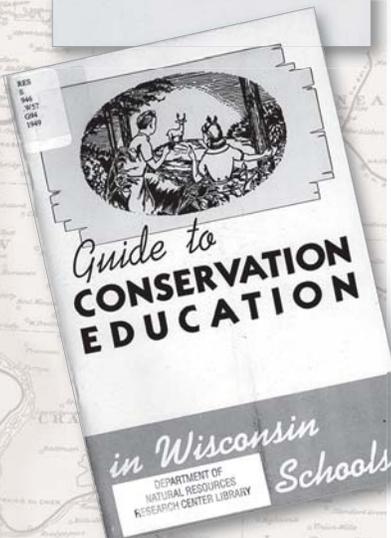
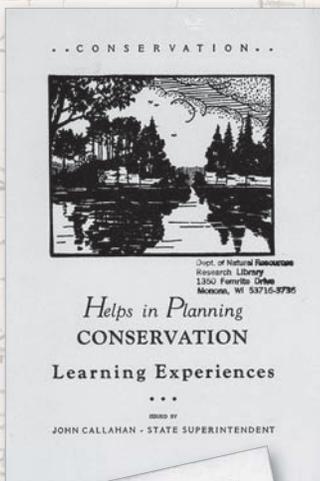
Fish research findings in 1946 increased the department's emphasis on stocking legal-sized trout. Invading sea lampreys, however, reduced the lake trout population in Lake Michigan to near extirpation by the end of the decade.

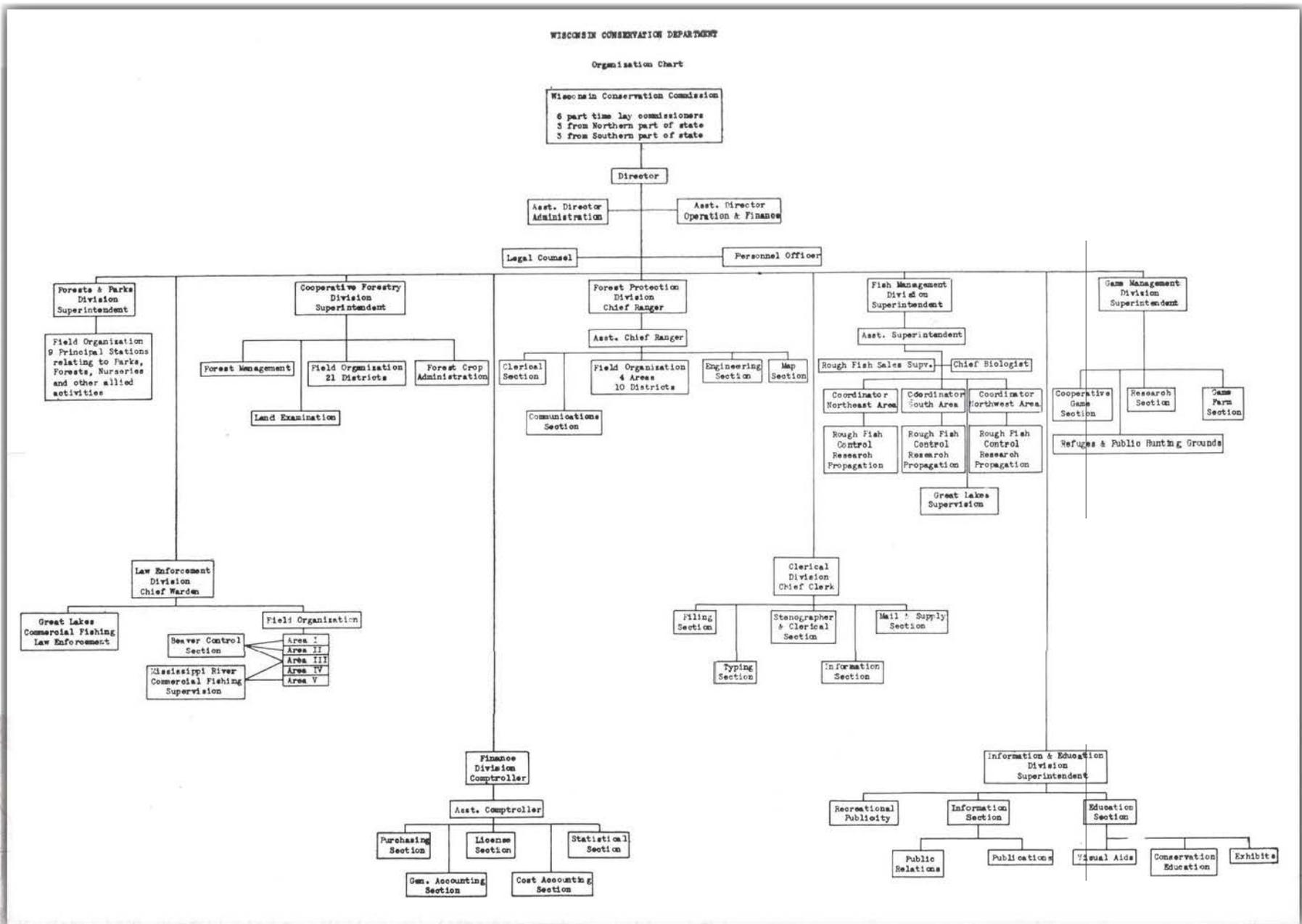
### Information and Education

The Information and Education Division initiated cooperation with the state Department of Education in an effort to infuse current conservation information into the school system. Two new educational publications were distributed to the school system in support of the 1935 law making conservation education mandatory: *Helps in Planning Conservation Learning Experiences* (July 1943) and *Guide to Conservation Education in Wisconsin Schools* (August 1949).

#### *Line authority*

*The ability to direct work activities of subordinates without going through other staff or management.*





Organization chart of the Wisconsin Conservation Commission, 1947-1948.



department liaison. Later in the 1940s, Russell Neugebauer (Game Management Division) served for a short time before being replaced by Herbert Lemke (Information and Education Division).

The annual spring meetings drew several thousand sportsmen, an unprecedented number of participants for fish and game hearings in the United States. War-induced budget constraints restricted the 1945 meetings to the district level (no statewide meeting). The decade became a contentious period as sportsmen refused to believe that the one-buck law wasn't working and that they needed to shoot does. Despite strong speeches promoting antlerless hunting by Aldo Leopold and a first-hand look at deer yard starvation, the Conservation Congress remained divided on this issue for some time.

New WCD director Ernie Swift thought it was time to expand the Conservation Congress role in conservation. Soon after he became director in November 1947, he said, "[The Conservation Congress] should be broadened to take in forestry problems and consider many other natural resources like commercial fishing, protection of watersheds, and soil erosion." In 1948, Conservation Congress study committees were created for deer, waterfowl, and fur-bearing animals. Eight other committees existed on legislation, upland game, warm water fish, trout, ice fishing, water resources, education, and organizational rules (rules and resolutions).

Citizen participation got a boost in December 1948 when one of the Conservation Congress members, Les Woerpel, who was also the president of the Portage County Sportsmen's Club, announced to the executive council that 45 organizations with a membership of 20,000 were interested in forming the Wisconsin Federation of Conservation Clubs. The organization became official in 1949 and later changed its name to the Wisconsin Wildlife Federation.

### **Game Management Division**

The 1940s were instrumental in shaping the game management profession into a form recognized 50 years later as the core game management system. The State Game Farm, public lands acquisition, wildlife research, and a rapidly emerging deer management policy were the essential parts of this fledgling profession. Research was beginning to accumulate sound scientific information about the needs of wildlife and provide new direction for management. It was the creation of a field management system of game managers, however, that set the stage for tremendous accomplishments over the next six decades.

Game superintendent William Grimmer was still in charge; his title became commonly referred to as "chief of game management" during this period. The Game Board appointed by WCD director MacKenzie the previous decade still provided guidance for game propagation and distribution, as well as serving to advise Grimmer on general game management policy matters.

In addition to game farm supervisor H.B. Kellogg, six other staff members were located at the game farm in the early 1940s: B.A. Barger, assistant manager; Dr. T.T. Chaddock, chief pathologist; Dr. R.M. Scott, assistant pathologist; Frederick E.W. Adler, chemist; and Therman Deerwester and Harold Shine, who worked in the Refuges and Public Hunting Grounds Section.

Five biologists assigned to Pittman-Robertson projects were located at various field locations in 1940 and included Wallace Grange (rehired to study grouse), W.S. Feeney (deer), Ralph Hopkins (deer), Frederick R. Zimmerman (waterfowl), and Irven Buss (pheasant).

The Cooperative Game Management Section under Walter Scott in the central office in Madison was responsible for most of the duties that did not relate to the game farm or public hunting grounds administration. He received staff assistance in 1941 when Earl Loyster and Frank King were hired. Norval Barger was added to the central office staff in 1943.

During the war, the Game Management Division had to adjust its staff continually as men left for the Armed Forces. Frank King left for the army late in 1941. Ralph Conway joined the army on October 17, 1942. Wallace Grange joined the navy early



## The Gamekeepers

in 1943. Walter Scott enlisted in the navy in October 1943, requiring reorganization of the Cooperative Game Management Section. Scott's replacement was Fred Zimmerman, formerly assigned to the waterfowl research project.

Field operations were based out of Poynette but shifted to the central office in Madison after the war ended. Game farm supervisor H.B. Kellogg left the agency in October 1944 and was replaced by former conservation warden William Ozburn. In 1946, a new Wildlife Research Section was created, and Ralph Conway headed up a greatly expanded public lands section (formerly Refuges and Public Hunting Grounds). The Game Management Division was organized into four sections:

Poynette Game Farm – *William Ozburn, supervisor*

Public Hunting and Fishing Grounds – *Ralph Conway, supervisor*

Cooperative Game Management – *Walter E. Scott, supervisor*

Wildlife Research – *Irven O. Buss, supervisor*

Early in the decade, the Game Management Division staff included 20 permanent employees (Appendix C) and a total of 70 employees, most of whom were conservation aids working at the State Game Farm and not identified in the WCD personnel directory. By 1950, the staff had expanded to 151 permanent employees, including 56 in the field. Game Management Division disbursements for the Fiscal Year ending June 30, 1943, were \$195,622.77, and by the end of the decade annual disbursements exceeded \$1.2 million.

### Hunting Regulations

The WCD conducted spring hearings in each Wisconsin county on proposed fish and game regulations, which was unique in the nation and very effective for obtaining citizen views of natural resources and law enforcement needs. Rules were published in summary pamphlets and distributed through WCD offices and license outlets to reach sport participants.

A combined hunting and trapping pamphlet was printed from 1940 through 1945. The trapping pamphlet was printed separately thereafter. Early pamphlet formats were voluminous, containing up to 80 pages. By 1949, the pamphlet summary was on one page, but it was a fold-out, two feet long. Regulations produced in the 1940s included the following:

- Albino deer protected (1940)
- Elimination of fox bounties (1941)
- Back tags required for deer hunting (1942)
- Raccoon carcass tags required (1943)
- Fifty cents from each deer license sold segregated for deer yard purchasing and winter feeding of deer (1943)
- Shooting from vehicles authorized by permit (1945)
- Red clothing required for deer hunting (1945)
- Statewide any-deer season, the first since 1919 (1950)

### Game Farm

In 1941, the Poynette Experimental Game and Fur Farm, directed by H.B. Kellogg, served as the headquarters for any statewide activity in the Game Management Division. The game farm staff was often called upon for public speaking engagements and to assist in any field activity needing extra labor.

Game bird stocking on public land in 1941 was impressive and included 17,956 mature ring-necked pheasants, 2,845 chukar partridges, 316 Reeves pheasants, 30 Hungarian partridges, and 375 bobwhite quail. More than 141,000 day-old pheasant chicks and 43,000 pheasant eggs were provided to private cooperators. The pheasant stocking volume increased throughout the decade as more lands were purchased or leased for public hunting. By the 1949 season, 39,555 mature pheasants had been stocked, and the annual harvest was consistently over 500,000 roosters. While the egg program had dwindled to 10,585, the more popular day-old-chick program had



Ralph Conway was the WCD's first game manager by title in 1945.



blossomed to 199,830. The latter program gave many sportsmen clubs their primary conservation purpose and was the “glue” that held them together.

The game farm continued to experiment with propagation techniques for numerous species to thoroughly examine future hunting opportunities from captive-bred stock. Since there were 18 sub-species of the ring-necked pheasant found in Asia and Eastern Europe, the breeding possibilities seemed endless:

- Pheasant varieties included ring-necked, black-necked, Mongolian, Mongolian cross, mutant, Lady Amherst, golden, black-throated golden (mutation of golden), Formosan, versicolor (Japanese green versicolor), Reeves, cheer, peacock (six species), blood, eared, crested fireback, ocellated, impeyan, white-wattled, long-tailed (eight species), and Argus.
- Kaleege birds, another pheasant breed, included black-breasted, blue, silver, Hainan silver, Edwards, imperial, Swinhoe’s, Bell’s, Nepal, lined, white-crested, and black-backed breeds.
- Guinea fowl varieties included pearl, silver-winged, white, lavender, royal purple, and Lukan purple.

Chukar partridge and bobwhite quail experiments were reasonably successful and led to statewide releases. Duck propagation experiments with mallard, wood duck, and Mandarin ducks ended in failure. Numerous other failed experiments involved valley quail, sooty grouse, spruce grouse, ptarmigan, white and blue peafowl, Mikado, koklass, satyr tragopan, and four species of junglefowl.

Fox and raccoon stocking was still ongoing to reestablish wild populations. Only red foxes were released statewide with a total of 54 stocked between 1940 and the last release in 1943. An assessment of annual fox harvest reports demonstrated that the statewide take was consistently over 25,000 animals each year. It confirmed that the meager stocking by the game farm staff was no longer necessary.

Raccoon stocking included black, gray, and cross varieties. Raised at the game farm until they could take care of themselves, raccoons were released in small numbers in every county of the state. Many counties received six to eight animals per year while others received from 20 to 30. The numbers were arbitrary and likely determined by conversations between the game farm superintendent and officers of the Wisconsin Raccoon and Fox and Hunting Association:

<b>1940-41</b> – 1,018	<b>1945-46</b> – 1,047
<b>1941-42</b> – 1,140	<b>1946-47</b> – 1,081
<b>1942-43</b> – 849	<b>1947-48</b> – 1,349
<b>1943-44</b> – 649	<b>1948-49</b> – 958
<b>1944-45</b> – 1,486	

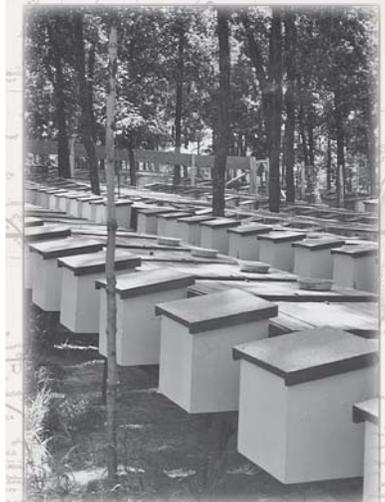
One of the most unusual game farm staff activity involved capturing rabbits, squirrels, and pheasants in Milwaukee County where property damage was a concern and releasing them in various counties (Table 8). That practice continued into the next decade.

**Table 8.** *Milwaukee County capture and release results, 1945–1950.*

<b>Year</b>	<b>Rabbits</b>	<b>Squirrels</b>	<b>Pheasants</b>
1945–46	0	0	1,219
1946–47	146	44	541
1947–48	445	5	1,012
1948–49	268	12	412
1949–50	48	18	0

The game farm crew took on another unusual and labor-intensive task in the winter of 1945–46 when deer concentrations and vegetation damage became acute on the Barksdale Powder Plant in Bayfield County. The crew put together several deer traps and hauled them to the site. They ultimately trapped and relocated 296 deer.

*Poynette Experiential Game and Fur Farm. Top to bottom: pheasant propagation, mink houses, and raccoon feeding.*



PHOTOS: DNR FILE

## The Gamekeepers

The diagnostic lab at the game farm continued to be extraordinarily active in supporting the private game and fur farm industry by treating and examining birds and mammals. The logistics involved in diagnostic work and experiments presented a staggering workload. The numbers of specimens processed and reported sometimes exceeded 30,000. Lab experiments included the following:

- Pheasant fertility testing
- Blue grouse propagation
- Ptarmigan propagation
- Pheasant cannibalism control
- Guinea fowl experimentation
- Exotic game stocking
- Mink distemper control
- Pheasant repellants (seed treated to be unpalatable to pheasants)
- Deer repellants
- Parasite and blackhead disease control
- Mink range management
- Tapeworm treatment
- Fox stomach analysis
- Game bird food analysis

Dr. T.T. Chaddock initiated the pheasant repellant experiments in 1941 using red lead oxide. He applied the chemical to corn seed in an attempt to discourage pheasants from eating the seeds soon after planting. The results were successful enough to expand the study to a large number of farms in southeastern Wisconsin in 1943. When more than 80% of the farmers reported success, the WCD adopted a policy of giving red lead to public hunting grounds lease participants, a policy that continued for the next 25 years.

A new pheasant release technique was tested in 1947 using wire pens and small shelters scattered around the state at various public hunting grounds. Pheasants were confined for a few days to acclimate to the area, and then the “gentle release pen” was opened to allow the birds to leave and return at will. Food and water were provided for up to 15 days depending on how long the birds were using the pens. The practice proved too labor intensive, and release survival wasn’t much better than direct releases. It ended after a one-year trial.

The wildlife exhibit, which developed when the game farm was moved to Poynette in 1934, was proving to be very popular with the public. About 75,000 people visited the facility annually by the early 1940s. Visitor levels exceeded 100,000 per year by 1950. Wildlife exhibits at schools, local events, county fairs, and the state fair also gained in popularity and were thought to be a very effective educational tool for the entire department.



*Pathologists at Poynette sometimes examined more than 30,000 animal specimens annually.*

## Refuges and Public Hunting Grounds

Ralph Conway still directed the Refuges and Public Hunting Grounds Section at the Poyette field headquarters before he left for the army in 1942. Leased and fee title (state purchased) land for public hunting had grown from one property (Deansville Marsh) to four and contained more than 24,000 acres in 1940. The program originators likely had no idea how explosive the program would be over the next decade. Southern Wisconsin hunter complaints about not having a place to hunt ended very quickly.

By the end of 1941, federal ownership was on the rise as the 40,500-acre Necedah National Wildlife Refuge was established in northern Juneau County. The surrounding Central Wisconsin Conservation Area was leased from the federal government by the state and contained 120,000 acres. Elsewhere, ten public hunting grounds totaling 31,498 acres were leased or purchased. Horicon Marsh Wildlife Area included only 1,000 state-owned acres (of a 7,500-acre goal), but a much larger area was identified for purchase. Following 20 years of promotion by conservationists led by the Izaak Walton League, a 15,000-acre Horicon National Wildlife Refuge was created by Congress on July 16, 1941, adjoining the north boundary of the state wildlife area. The combined state and federal area would later become recognized worldwide as a birding paradise and major migratory bird rest area.

The war had a suppressing effect on state land buying, but federal Pittman-Robertson funding allowed the Game Management Division to add more properties and acreage to its program each year. Deer yard acquisition became recognized as a new responsibility with the 1943 passage of a law that segregated \$0.50 of each deer license for winter deer feed and the purchase of land containing wintering deer concentrations. Both practices continued for ten years.

Land acquisition in the division continued its phenomenal growth pattern for the rest of the decade. Forty new public hunting grounds were established on 134,202 acres by July 1947. By June 30, 1948, the total acreage of land owned or leased by the state was 193,011 (fee title portion was 40,840). By June 30, 1950, one hundred hunting properties covering 283,483 were owned or leased under the program, including 24,012 acres of deer yards.

Refuges were an essential complement to public hunting grounds but began to drop in importance after 1945. The game refuge total peaked in 1940 with 230 refuges on 464,624 acres. Seasonal closed areas for deer began to decline because food sources in those areas were being overbrowsed. Waterfowl refuge acreage remained established on 120,000 acres. The game refuge total slipped to 220 in 1941 on about 375,000 acres. Additionally, 135,000 acres of closed areas were created, primarily to protect deer. By 1950, the number of refuges had been reduced to 146 on 57,842 acres, and closed areas covered about 100,000 acres.

## Cooperative Game Management

The Cooperative Game Management Section, led by Walter Scott, included Pittman-Robertson (P-R) research and regional wildlife development project coordination, commercial game licensing, winter feeding, small game damage complaints, bounty payments, game harvest compilations, migratory bird banding data, preparation of annual game questionnaires (rule changes), game literature distribution, bird banding/scientific collector permit processing, and cooperation with other agencies.

The P-R coordination activity expanded with the increased number of research projects and justified the establishment of a permanent staff position in 1947. The P-R budget increased from a meager \$23,739.07 in federal funds in the 1938 inauguration year to \$272,372 in 1950. The required 25% state funding match added to this budget and had the effect of quadrupling the state's investment.

Commercial game operations received regular attention and were still considered an important part of game management for public benefit. By the end of 1950, WCD licensing included 307 game farms, 481 fur farms, 46 deer farms, and 68 shooting preserves.

Winter feeding continued to be a management staple under the supervision of conservation wardens in the field until 1949 (Table 9), when the responsibility was

### *Living Standards*

The average income in the United States in 1940 was \$1,740 per year. A new house averaged \$3,850, the average car cost \$700, gas was 10 cents per gallon, and tuition at Harvard University was \$420 for the year. Food prices were rising and of concern across the nation: sugar, 59 cents for 10 pounds; vitamin D milk, 49 cents per gallon; ground coffee, 40 cents per pound; eggs, 19 cents per dozen; and fresh baked bread, 8 cents per loaf.

Those born before 1945 experienced life without television, penicillin, polio shots, frozen foods, Xerox, plastic contact lenses, Frisbees, and the Pill. Folks of this era hadn't heard of FM radio, tape decks, electronic typewriters, artificial hearts, word processors, or yogurt. They lived before radar, credit cards, split atoms, laser beams, and ballpoint pens. They didn't have pantyhose, dishwashers, clothes dryers, electric blankets, air conditioners, or drip-dry clothes.

"Made in Japan," meant junk. Five and 10-cent stores sold items for five and 10 cents. Ice cream cones cost a nickel, and sodas and sundaes cost a dime. One nickel is all that was needed to ride a streetcar, make a phone call, buy a Pepsi, or buy enough stamps to mail one letter and two postcards. Humans had yet to walk on the moon.

## The Gamekeepers

transferred to Forest Protection because of their superior manpower and equipment. The game bird and deer feeding operations results through the 1940s were a unique success story involving outstanding communications, extraordinary logistics, and superb coordination.

The logistics involving small game feeding were equally as impressive (Table 10). Over 100 cooperating sportsmen clubs maintained over 5,000 feeding stations for helping game birds get through the winter. Annual costs for corn and grit varied from \$3,000 to about \$7,000 per year.

Small game and beaver damage complaints had been increasing steadily and reached 314 complaints by 1942. Field coordination was still done by conservation wardens, but central office assistance was needed to obtain and distribute claim payments. About 850 pounds of red lead was distributed to farmers in 1944 to protect corn seedlings from pheasant depredation (this practice continued into the 1960s).

Bounty payments also continued through the 1940s. The list of bountied animals included coyote, wolf, bobcat, lynx, red fox, and gray fox. More information was being accumulated by research about the value of predators, but the popular view of getting rid of them remained. Bounty payments were \$17,530 during the 1940–41 period. The volume increased considerably in Fiscal Year 1947–48 when 57,323 animals were bountied for \$330,080, an amount exceeding the entire law enforcement payroll.

**Table 9.** Winter deer feeding (tons), 1940–1950.

Year	Hay	Grain	Concentrate	Total
1940–41	20	—	21	41
1941–42	3	—	7	10
1942–43	25	—	22	47
1943–44	107	58	106	271
1944–45	202	110	173	485
1945–46	377	35	355	767
1946–47	282	—	175	457
1947–48	492	3	491	986
1948–49	521	—	393	914
1949–50	625	—	362	987

**Table 10.** Small game feeding (tons), 1940–1950.

Year	Corn	Grit	Total
1940–41	323	—	323
1941–42	227	—	227
1942–43	235	—	235
1943–44	277	—	237
1944–45	193	1	194
1945–46	83	—	83
1946–47	100	1	101
1947–48	75	1	76
1948–49	87	1	88
1949–50	89	1	90

*Winter feeding was a labor intensive effort for wardens in the 1940s.*



PHOTOS: DNR FILE

## *Cooperative Game Management Staffing and Duties*

Walter Scott supervised the Cooperative Game Management Section, with assistance from Earl Loyster and Frank King, who were hired in 1941. Loyster assisted on Pittman-Robertson research projects for waterfowl, pheasants, food habits, and Horicon Marsh. King assisted on deer, quail, and grouse projects. Both men were also directed to:

- Answer routine queries for information,
- Order and facilitate delivery of supplies and equipment,
- Read weekly, monthly, and quarterly reports,
- Be familiar with field activities,
- Assist on project fieldwork when needed,
- Prepare project revisions and renewals.

Other staff duties relieved Scott of significant overhead from his own responsibilities and were delegated as follows:

### **Earl Loyster:**

- Winter game bird feeding activities
- Poynette Game Farm museum
- Small game damage
- General letters for information

### **Frank King:**

- Deer food preparation and emergency feeding
- Raccoon and squirrel house building and distribution
- Game statistical recording and interpretation
- Pittman-Robertson statistics and reimbursement vouchers
- Payroll submission
- General questionnaires
- Up-to-date equipment inventory

In 1943, the section staff included Scott, Loyster, and Norval Barger, who had joined the staff that year and worked out of the central office. Following Scott's enlistment in the navy in late 1943, Fred Zimmerman was appointed supervisor of the section.

Section duties were as follows:

### **Fred R. Zimmerman:**

- Supervise all operations of the section
- Handle personnel matters, budgets, etc.
- Handle all acquisition activities
- Complete final research reports and have them printed
- Handle all Fish and Wildlife Service federal aid matters
- Check research reports
- Compile and coordinate statistics
- Assist on game congress (Conservation Congress)
- Handle all waterfowl projects including correspondence

### **Earl Loyster:**

- Supervise winter deer feeding including feed distribution
- Supervise winter bird feeding (purchase/distribution)
- Handle damage complaints for small mammals and birds
- Assist on game congress preparations
- Handle archery deer registration and necessary reports
- Handle correspondence, especially letters about your duties
- Miscellaneous duties as assigned

### **Norval R. Barger:**

- Handle federal aid reimbursement vouchers and project amendments
- Handle all research project office assistance
- Handle compilation of statistics on questionnaires and reports
- Assist on game congress preparation
- Handle general correspondence and bird banding
- Miscellaneous duties as assigned

Walter Scott resumed his supervisory duties after the war.



## The Gamekeepers

### Wildlife Research

The research projects initiated in 1940 on deer, grouse, waterfowl, pheasants, quail, and Horicon Marsh restoration produced large amounts of new information and directly influenced Bill Grimmer to alter and improve the game program. The original grouse, waterfowl, and pheasant projects were interrupted by the war but were back on line in 1946 when a new Wildlife Research Section was formed within the Game Management Division under Irven Buss. A muskrat management research project by Wayne Truax was also started in 1946. Steven Richards initiated a fox research project in 1947, and the muskrat project was renamed furbearer research project because beaver and other furbearers were added to the study over time. The grouse research project was reactivated with Bill Feeney appointed acting leader. In 1948, James Hale became the grouse research project leader.

### Island Study

Chambers Island off Door County attracted a unique study because of an incredible deer density and the resultant range damage. In 1945, it was thought that upwards of 500 deer were using the 3,000-acre island. A deer-browse line had been visible for as long as the Island's light-keeper could remember. No brush existed, and artificial deer feeding had taken place since about 1910. Although local hunters thought there were only a few deer on the island, a special October hunt that fall accounted for at least 250 deer. The study continued for several years.

### Waterfowl Studies

Initial Pittman-Robertson waterfowl research in 1940 focused on ducks at Horicon Marsh. Biologist Fred Zimmerman conducted research on wetland habitat and breeding population census techniques. The war curtailed the study until 1946 when Ralph "Hoppy" Hopkins became project leader. Hopkins designed a broad-based, fact-finding series of studies that included habitat, breeding populations, banding, migration, harvest, and wintering aspects.

The Canada goose population was relatively small because the fall migrants out of Manitoba and Ontario overflowed Wisconsin on their way to southern wintering habitat. Fall hunting was provided primarily by two small flocks of geese using the Rock Prairie in Walworth County and Mecan Springs in Waushara County. Canada goose numbers were so low in 1946 that the hunting season was closed on geese throughout the entire Mississippi Flyway.

Illinois was managing Canada goose concentrations by land purchasing and management practices that contributed to improvements in both hunting and management expertise in the Mississippi River corridor. The large Horseshoe Lake Refuge in the southern part of Illinois, however, was attracting too much hunting pressure, and in the late 1940s, Illinois acquired the Union County State Fish and Wildlife Area near the Horseshoe Lake Refuge to provide winter sanctuary and food for geese. In 1947, Congress established the Crab Orchard National Wildlife Refuge, north of Horseshoe Lake. Both areas soon attracted large flocks of Canada geese in the fall.

Union County State Fish and Wildlife Area employed some innovative management techniques, later employed in Wisconsin:

- Deep wells were drilled and water pumped into low areas for roosting and drinking.
- Corn was grown in the refuge but harvested and stored in bins so it could be later fed daily to geese in open fields, which effectively held geese in the refuge to help control the kill.
- Green browse experiments showed ladino clover to have a high palatability, yield, and nutrient control as well as the ability to resprout after heavy grazing.
- Long, narrow openings in timber acreage were planted to crops and contained spaced hunting blinds for quality hunting opportunities.

*The U.S. Fish and Wildlife Service adopted four administrative flyways (Atlantic, Mississippi, Central, and Pacific) for the purpose of setting waterfowl hunting regulations in 1947. The need for coordinating management and research for migratory birds was discussed by waterfowl biologists extensively through 1948 but would not be resolved until early in the next decade.*



## Ring-necked Pheasant Study

Pheasant research began in 1939 with a trapping and banding study at Nevin Marsh located near the Madison field office (Nevin Fish Hatchery). The study was also interrupted by the war but eventually was completed by about 1949. Fred Wagner, a Ph.D. candidate at the University of Wisconsin, and Harry Stanz were hired and led the program into the next decade.

University of Wisconsin graduate Cyril Kabat started work for the WCD in 1946 on the pheasant research project and advanced to replace Irven Buss as the research director in 1948. Donald R. Thompson began working on the pheasant project in 1947. Both men had studied under Leopold and remained in research their entire careers.

## Quail Studies

In 1948, Don Thompson took over the quail research that had been ongoing near Prairie du Sac since Paul Errington initiated it in 1929. A WCD quail research project had also started in Dunn County in 1935. Combined with the 1929 study initiated by Errington, it represented the most continuous database on quail in the United States. The primary activities were surveying the population and measuring habitat conditions. Quail were observed to be disappearing from the landscape as hedgerow cover and other wildlife habitat were being removed for agricultural purposes.

## The Capercaillie Caper

A unique project stocking capercaillie and black grouse was launched in 1949 under biologist Jim Hale. The capercaillie is a large European grouse (the turkey-sized male is in the 11–15 pound range), at the time thought by the U.S. Fish and Wildlife Service (FWS) to be compatible to northern Wisconsin conditions. Dr. Gardiner Bump of the FWS was credited with doing the early study and promotion of the bird's potential. Black grouse are similar in size to ruffed grouse. Several attempts had been made to establish both species in the United States, including a release of 201 of them on Grand Island in Lake Superior early in the century. All releases ended in failure.

Sixty birds were obtained from northern Europe in 1949 at a cost of \$7,954.50. Seventeen of them died of disease or accidents in captivity. Outer Island, a 10,000-acre chunk of the Apostle Island chain in Lake Superior, was chosen as a release site because of its remoteness and favorable habitat conditions. Twenty-six capercaillie and nine black grouse were released that year. Four more of each species were released on the island in 1950.

John M. Keener became the capercaillie research project leader in 1950 (Keener led the Game Management Division later in his career), but did not have nature on his side for this project. The fox and coyote populations happened to be quite high at the time the birds were released. After two years lapsed, not one capercaillie or black grouse could be found. A female spotted in September 1950 was the last evidence of capercaillie seen in Wisconsin. Foxes and coyotes appeared to be quite healthy!

## Deer Research

The deer research project was probably the most important project initiated by the WCD during the 1940s. Leader Bill Feeny directed the project and was assisted by Burton Dahlberg and Ralph Guettinger. Over the project's lifetime, which extended from 1940 to 1953, 47 individuals produced data on every aspect of the whitetail from reproduction to habitat management (Appendix D). Feeny resigned under pressure in 1949 because of his difficulties in reporting study results and was replaced by Dahlberg.

Deer research was administered out of a small office on the second floor of the Pioneer State Bank in Ladysmith. Almost any topic that related to deer was funneled through this office. Angry citizens, legislators, Conservation Congress delegates, newspaper and radio reporters, photographers, and WCD staff directed a barrage of inquiries at these few individuals. Answering countless correspondence, conducting deer yard tours, and appearing at numerous contentious public meetings were constant challenges for the three biologists running the entire program.

## *The Big Blow*

One of the most catastrophic natural events of the century to date took place on Armistice Day, November 11, 1940, when the temperature dropped from a shirt-sleeve 50 degrees to below freezing in less than two hours. Coupled with high winds topping 50 miles per hour, many Mississippi River duck hunters were trapped on the river and were not prepared for freezing temperatures. When it was over, 63 hunters had lost their lives, frozen or drowned.

Many stories about the "Big Blow" surfaced over the years that followed. One such story involved Earl Loyster, who later became employed as a game aid with the WCD in July 1941. He survived after wading through ice-filled waters and staggering to a nearby cabin. Fortunately, someone was home, and the resident quickly got Earl out of his wet clothes and wrapped in layers of blankets, positioning him as close to a blazing fireplace as possible.

After a short rest sitting by the fire, they were startled by a thundering explosion and flying splinters of wood. No one was injured, but Earl recalled that they were "almost scared to death!" What happened was that the rescuer had placed Earl's recently misfired shotgun in the corner of the room. As the gun thawed out, the firing pin released and the exploding shell blew a hole in the cabin's ceiling.

## The Gamekeepers

WCD personnel assigned to the deer project examined every deer yard known to exist (819) and recorded tens of thousands of observations on conditions and deer use. Food habits, deer weights, mortality factors, *natality factors*, summer range, winter range, artificial feeding, carrying capacity, regulations, management strategies, and every major topic thought to be influential to deer populations were studied. It was the most thorough study of whitetails in the United States.

### Coordination Project

The mix of federal projects, rigid federal accountability standards, and the increase in number of Pittman-Robertson-funded projects led Grimmer to create a coordination project on July 1, 1946. Two objectives were identified: (1) to provide organized supervision by technically trained personnel in an ever-expanding program and (2) to provide a competent administrative assistant to relieve the coordinator (wildlife research chief) of the many administrative details involved in the federal aid program. The assistant had the following responsibilities:

- Furnish monthly reports to the FWS regional office on the Wisconsin federal aid program
- Process semi-annual reimbursement claims
- Prepare project amendments
- Write miscellaneous correspondence
- Submit financial records and payrolls
- Relieve the coordinator of any work connected with land acquisition or development

### Leopold's Influence

The experience and knowledge assembled in the 1940s through an expanding research program was essential to the development of one of the finest game management programs in the United States. Aldo Leopold played a major role in producing this success story. His *Game Management* textbook and his classes at the University of Wisconsin produced technically trained individuals all over the country. Leopold's graduate students became leaders in the Wisconsin Conservation Department and advanced the agency with their own thoughts and ideas. Students hired by the WCD included James Hale, Harry Stroebe, Ruth Hine, Armin Schwengel, Donald R. Thompson, Cyril Kabat, Robert Wendt, Irven Buss, Frederick Hamerstrom, and Francis Hamerstrom.

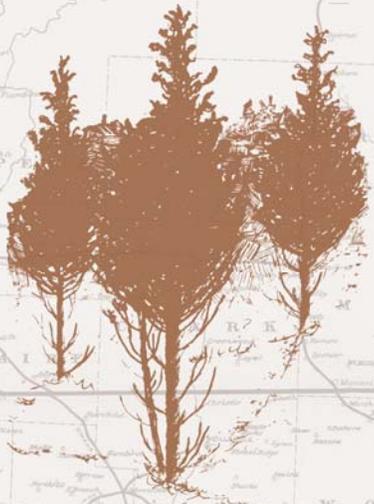
Just before his death in 1948, Leopold noted, "Two decades of game research have exhausted the easy pickings.... The thing for us to do now is what science always does in the same predicament—start over and dig deeper."

### Game Manager Emerges

Just prior to the start of the decade, Aldo Leopold and others provided guidance on the essential qualifications of a wildlife manager, a new profession he was promoting. He thought the wildlife manager was an important ingredient to the conservation effort and drafted standards for the necessary professional skills (described at the end of Chapter 2). The following quote, which comes from the standards, provides a core descriptor of the wildlife management professional:

*The basic skill of the wildlife manager is to diagnose the landscape, to discern and predict trends in its biotic community, and to modify them where necessary in the interest of conservation.*

The WCD was slow to react to Leopold's council to hire professional wildlife managers, primarily because these trained individuals were just starting to be produced by the university system (Leopold's students included), and the war was absorbing many of them. The end of the war marked the beginning of a new, identifiable profession, but the state agency wasn't prepared to launch the talent Leopold envisioned. The focus of the WCD was on huntable species of wildlife, so it stood to reason that the "game manager" title seemed more appropriate. It also represented the most



*Natality factor*  
Anything that affects the birth  
of an animal.

significant labor addition in the division's history for many years to come. The Game Management Division hired 30 men returning from the war in 1945 and 1946.

This hiring activity was a milestone for the game management profession. After returning from the army, Ralph Conway resumed his position as supervisor of Refuges and Public Hunting Grounds and was assigned the first game manager title on July 1, 1945. Conway applied the new state classification series to all of the men staffing the new Public Hunting and Fishing Grounds Section. The title would stick and be applied to manager-level employees for the next 30 years.

Up until 1946, the college graduate was a rare commodity in the division field ranks. Many of the laborers at the game farm had not even graduated from high school. The few in the WCD with college degrees were biologists, chemists, pathologists, or administrators. At war's end, however, the *Conservation Bulletin* noted that there was an influx of engineers, biologists, foresters, "game men," and surveyors with college degrees who chose to work in conservation.

Many game managers came out of the wildlife research ranks during the late 1940s hiring period. Research project leaders turned managers included Fred Zimmerman, Burt Dahlberg, Ralph Hopkins, Bernie Bradle, Wayne Truax, Bob Wendt, and John Keener. Project assistants turned manager included Ralph Hovind, Frank King, Harry Stroebel, Jim Bell, Armin Schwengel, and Cliff Germain.

## Reorganization

The 1947 WCD personnel directory (Appendix E) identified all permanent staff and reflected the newly reorganized Game Management Division. Ralph Conway left his position directing the Public Hunting and Fishing Grounds Section for a new Post Office career on April 5, 1947. H.T.J. Cramer replaced him until advancing to assistant conservation director in August. J.R. Smith replaced Cramer as section chief in November. Research head Irven Buss resigned in 1948 to join the wildlife faculty at Washington State University and was replaced by pheasant biologist Cyril Kabat.

Early in 1947, the state was divided into two administrative areas east and west of U.S. Highway 51. The western half of the state (Area I) was supervised by Therman Deerwester, and the eastern half (Area II) was supervised by Harold Shine. Later that year, 16 districts were created within the two areas, and district game managers were appointed for the first time. Appendix F lists the game management personnel following the 1947 reorganization of the division.

Three administrative areas were created in 1948. Area I included 20 northern counties supervised by Ralph Hovind. Area II included 25 southeast counties supervised by Shine. Area III included 26 southwest counties supervised by Deerwester. An activity progress report filed on January 30, 1948, noted that Earl Loyster, Frank King, and Harry Stroebel had been appointed as "regional *wildlife* managers" in southern Wisconsin, the first time that title was ever used in the WCD (the title was not used by the WCD after this entry).

The division was reorganized again in 1949, but it would take a year to implement the new structure. This time, five administrative areas and 16 districts were created for better representation in the field and to make sure that closer contact could be maintained with local game problems. The game areas were numbered and organized as follows:

**Area I** – *Spooner*

**Area II** – *Woodruff*

**Area III** – *Black River Falls*

**Area IV** – *Oshkosh*

**Area V** – *Madison*

Generating policy occupied an increasing amount of time for Game Management Division superintendent Grimmer. A sampling of correspondence from 1940 to 1950 under his signature revealed topics that demonstrated the wide variety of administrative tasks building in the profession:



## The Gamekeepers

- Quarantining animals and birds
- Charging for distemper vaccine for mink
- Leave of absences
- Commission matters
- General staff instructions
- Boat purchasing
- Price setting for hay stumpage
- Public relations work by field
- Personnel appointments
- Accounting procedures

Correspondence from Grimmer's staff was even more revealing of the growing administrative overhead facing game managers:

- Pollution surveys
- Expense vouchers
- Poynette mess hall use
- Engineering project assignments
- Deadlines
- Recording options
- Damage claims
- Wildlife feeding
- News releases
- Reports
- Submitting land descriptions
- Mailing leases
- Warden credentials
- Field trials
- Area meetings
- Purchasing procedures
- Leasing procedures
- Itineraries
- Appointments
- Publications

At the end of the decade, less than a dozen categories encapsulated the entire Game Management Division program:

- Hunting and trapping regulations
- Propagation and stocking
- Game, deer, and fur farms
- Land leases and purchasing
- Surveys and investigations
- Habitat development
- Winter feeding
- Harvest reports
- Shooting preserves
- Game research
- Publications

Game research expanded in scope and became a major program for determining division policy direction. Interestingly, while deer management was occupying considerably more time and was the only topic steeped in annual controversy, none of the numerous administrative reports from the decade identified "deer management" as a major program.

### Habitat Management

In 1940, a Pittman-Robertson development project was begun at Horicon Marsh to increase its potential use as a waterfowl area. The project discovered a natural tool that had dramatic impact on wetlands: the muskrat, a voracious consumer of wetland vegetation and extremely prolific in reproduction, represented a potential mechanism for creating and maintaining open water areas for waterfowl.

Trapping was an easy way to harvest muskrats and thereby control their numbers, but using the regular season framework was inadequate because trapping pressure wasn't uniform, certain areas tended to be over-trapped, and the reported harvest accuracy was suspect. Further, as the muskrat population increased, so did trapping pressure, and the competition led to conflicts for trapper territories including fisticuffs and trap theft. While fur prices seemed minor at a dollar or two, the thousands of muskrats in the harvest represented a significant revenue source.

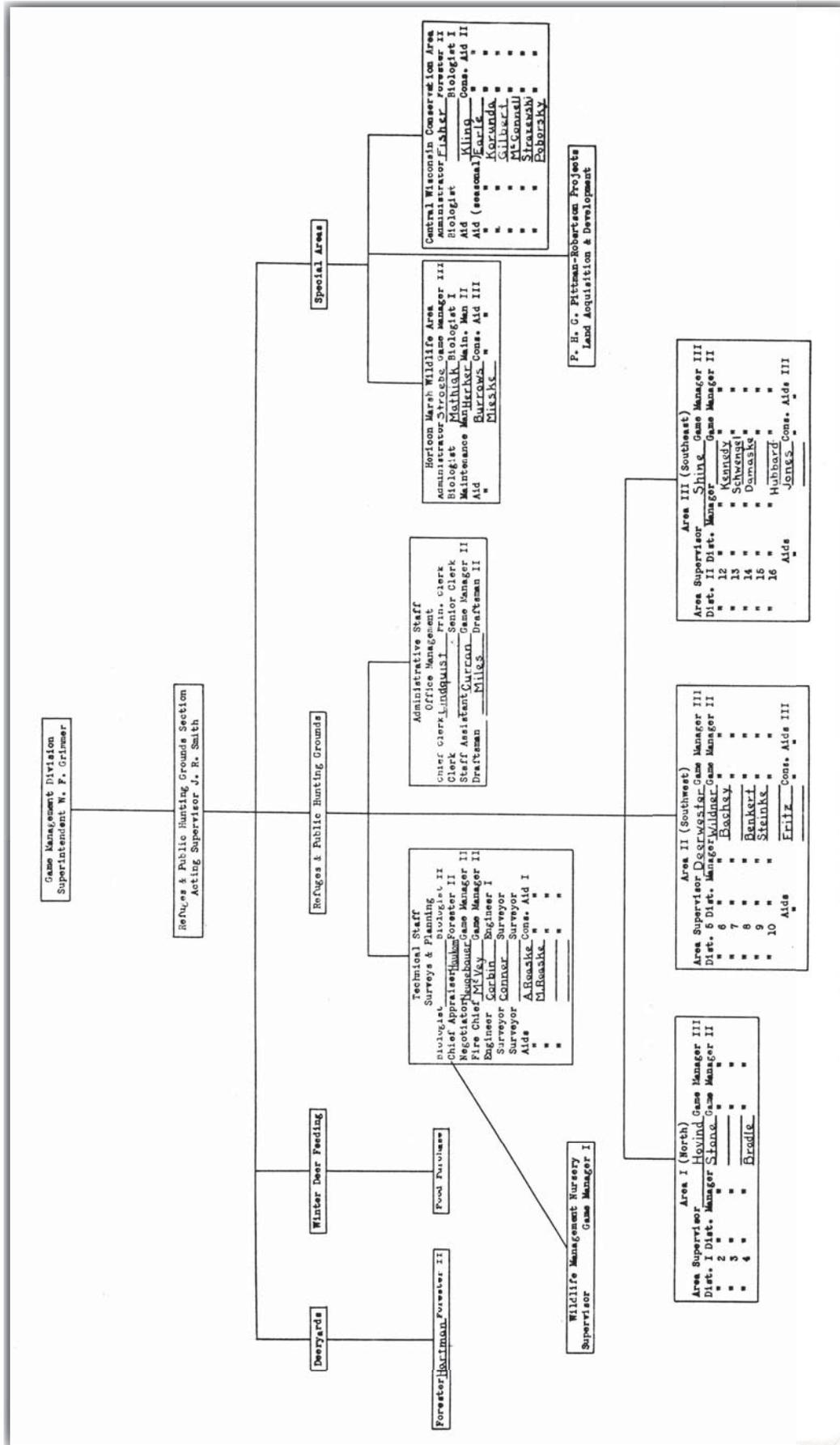
The WCD obtained the statutory authority to control trapping participation on Horicon Marsh by establishing the area as a fur farm by statute (s. 29.571, *Wis. Stats.*). Additionally, the agency established clear authority for collecting revenue as follows:

*All proceeds derived from the fur farm on the Horicon marsh and all other income from said state property shall be paid, within one week after receipt, into the Conservation Fund of the state treasury.*

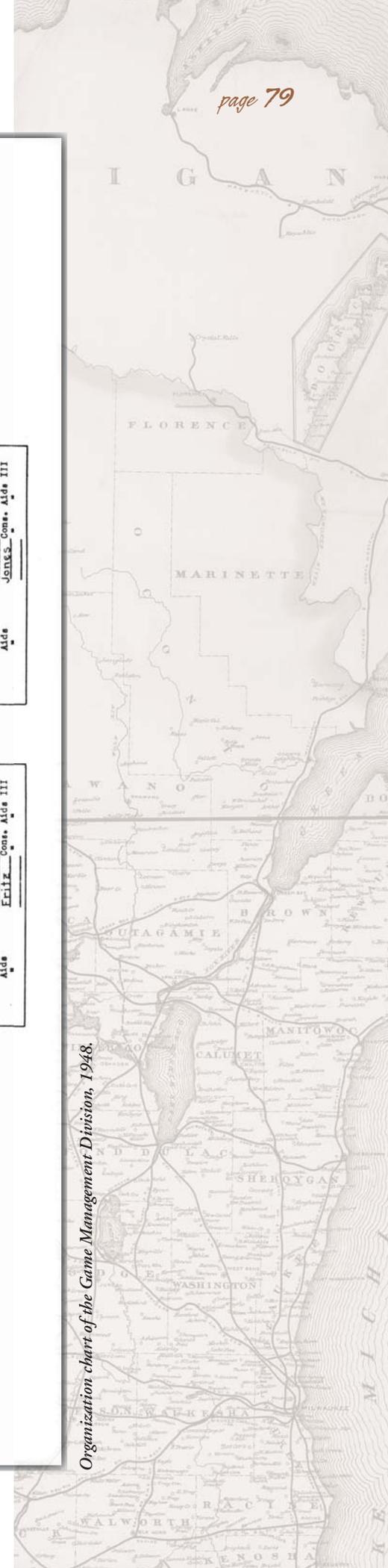


DNR FILE





Organization chart of the Game Management Division, 1948.



## The Gamekeepers

A number of definable trapping units in the marsh (up to 56) were established and advertised for sealed cash bids for each, and the WCD awarded exclusive trapping rights to the highest bidder. At times, a share of the fur to be sold served as payment to the WCD. While not all units received bids from year to year, the system proved extremely effective for manipulating the muskrat population and generated a steady source of revenue for the state (Table 11).

**Table 11.** *Horicon Marsh muskrat trapping experiment.*

Season	Length (days)	Muskrats	Trappers	Fur Price
1943-44	45	5,149	48	Unknown
1944-45	80	4,378	26	Unknown
1945-46	48	1,016	28	\$2.28
1946-47	81	8,243	32	\$1.66
1947-48	Unknown	9,535	34	\$2.30
1948-49	69	24,654	32	\$1.45
1949-50	81	29,678	31	\$1.09

Other habitat management projects were established during the decade, including a woodlot project initiated in 1948 that was a ground-breaking effort designed to restore and improve wildlife habitat conditions. It represented a departure from species-oriented research and launched a new direction for game management. The townships of Lima, Plymouth, and Porter in Rock County were the recipients of 546,000 trees on 1,281 acres of land, along with protective fencing and refuges over the five-year life of the project. Game manager Les Neustadter coordinated the project and provided a unique link for research to get ideas applied directly to the land. Landowners signed five-year leases to participate in the program, and most continued planting trees and shrubs on their own after the project ended.

In 1948 and 1949, the department expanded its wildlife food and cover improvement efforts dramatically by joining with the U.S. Soil Conservation Service project to improve farmland conservation. Trees and shrubs, including white and Norway pine, white and Norway spruce, red and white cedar, elm, red and silver maple, high bush cranberry, black cherry, chokecherry, chokeberry, grape, multi-flora rose, and wild rose, were planted in 32 counties.

The three regional wildlife managers (Stroebe, southwest; Loyster, southeast central; and King, east) spearheaded the work under the direction of biologist Fred Zimmerman. Their objective was to encourage landowners to plant trees and shrubs to restore wildlife habitat. WCD crews planted more than 200,000 trees and shrubs in 1949 alone.

## Management Guidelines

The 1948 Game Management Division staff produced a 205-page *Refuges and Public Hunting and Fishing Grounds Section* manual. This document was a notable accomplishment for the administration and was invaluable for guiding the reorganized division. Because the field force of game managers was composed mostly of new, inexperienced personnel, the manual was well timed.

The public hunting and fishing grounds manual organized the material using a system of four digit numbers, which likely was adopted from the military and brought into the agency by war veterans. This system was remarkably similar to a department manual code developed many years later. Eight main topics were presented in the manual:

- 1000 – Policy and Objectives
- 2000 – Organization and Personnel
- 3000 – Lands, Building and Equipment
- 4000 – Finance
- 5000 – Administrative Procedure
- 6000 – General Operating Procedure
- 7000 – Field Management Practices
- 8000 – Special Areas



*Tree and shrub planting was the first major statewide wildlife habitat project.*

The foreword section of the manual set the tone for the program and gave insight into the thinking of the times:

*We should be proud that we are able to be part of a program which is as farsighted and progressive as our present one. Our state Legislature with the encouragement of the Conservation Commission has given us the opportunity to institute a program which will receive the attention of the whole nation.*

*Not only do we have the right to lease public hunting and fishing areas for the public, but we are also able to purchase areas and improve the habitat thereon. This is a challenge to us and we should make the most of it. Our game management plans should be sound and practical and our erosion control measures and stream improvement programs must be carefully exercised.*

*We should always bear in mind the thought that we should make our restoration projects practical so that any farmer or landowner will be able to include any of the measures we advocate in his regular program of good land and water use. Any program can succeed if the participants have a keen and inquiring interest.*

*This section has a serious responsibility to the sportsmen and to the state as a whole. The steps we take must lead to a better use of our lands and streams. To a large extent, the future of our wildlife is in your care. Its proper management will mean that generations to come will have a better land in which to live.*

Each game manager and game research personnel received a numbered, inventoried copy of the handbook to ensure that everyone received the information and to facilitate notification of new material. The “purpose and use” statement in the beginning of the manual delivered a simple and very clear message to the individual possessing it:

*This is your manual. Its success will depend on the amount of use you make of it. No manual is ever perfect, and it is not thought that this one is such. The value of a manual will best be shown by the flow of suggestions and additions. As each man uses it he should from time to time be able to suggest new methods or additions which simplify our work and thereby improve our manual.*

The manual was updated periodically through the next decade and served to guide the profession for the next 20 years before being replaced by other written instructions. The document contained 130 pages of instructions, 58 pages of forms, 14 pages of useful tables, and a bibliography listing 50 fish and wildlife books available at local libraries.

### Game Harvest Trends

The annual game harvest report initiated the previous decade using mail postcards completed by license holders continued to be the primary indicator of game population levels. Except for some limited field observations, this survey was the only information available to game managers for knowing what was going on in the wild. Appendix G shows harvest totals in 1940 and 1950 for game other than white-tailed deer.

Cottontail rabbit, gray squirrel, and fox squirrel continued to be the top harvest species. Low population cycles resulted in periodic closed seasons on ruffed grouse, sharp-tailed grouse, prairie chicken, and quail. Duck hunting was gaining in popularity, but goose hunting participation was very low.

Fur prices varied, which influenced trapping participation: \$0.15 per opossum, \$0.42 per gray fox, \$0.49 per skunk, \$0.86 per badger, \$1.09 per muskrat, \$25.40 per otter, and \$46 per beaver.

A small elk herd in Oneida and Vilas counties was thought to number about 30 animals in 1943. Disease and poaching decimated the population during the decade. Poachers were reported to have killed the last four elk thought to be alive in 1948, but later records proved that observation false.



## The Deer Wars

The deer herd grew throughout the decade because of mild winters and conservative forked-horn buck harvest limits. Wardens continued to report deer starvation and overbrowsing in deer yards. Minnesota and Michigan deer populations followed the same pattern as Wisconsin. Of special note, while still using the buck-deer hunting framework, Michigan's camp deer license was changed to authorize the killing of a deer of either sex by the state's 1941 Legislature.

Special Pittman-Robertson-funded research studies were initiated by the WCD to get a handle on these escalating problems. A nine-person deer committee led by Aldo Leopold was also appointed by the Conservation Commission to give an unbiased, outside-the-agency look at program progress. While deer management controversy had surfaced five years earlier, this decade of vehement public debate rose to a crescendo of disagreements that became known as "The Deer Wars."

WCD researchers documented continuing overbrowsing by deer in 1940, 1941, and 1942. They reported that cedar, one of the most palatable foods for deer, was browsed as high as a deer could reach in more than 90% of the deer yards. Balsam, a starvation food not eaten by deer until more nourishing foods became scarce, was browsed conspicuously in most deer yards and cleaned out completely in a significant number of them. The number of starved deer found dead in the woods was increasing.

The evidence of the severity of deer overpopulation was strong enough to cause the department to recommend a nine-day antlerless season for 1943, but the commission rejected it. An alternative "split season" (four-days, forked-horn buck with the antler fork over one inch in length; three-day closure; four-days, antlerless deer or deer with antler not exceeding one inch in length) was recommended and approved for public hearing.

In the early 1940s, the *Badger Sportsman* newsletter series (not to be confused with the *Badger Sportsman* hunting and fishing magazine established in 1943 at Redgranite, Wisconsin) continued lambasting the WCD deer program. Combined with Conservation Congress debates and Save the Deer organization publicity, the public was bombarded with what the agency judged as very distorted information. The WCD used the *Conservation Bulletin* to counter this barrage of propaganda. Three articles were published in August 1943 to present the facts on past history and the ramifications of too many deer:

- Aldo Leopold's article "Deer Irruptions" told of Arizona's Kaibab deer herd and clearly identified dangerous deer herd growth stages that matched Wisconsin's situation.
- Researcher Bill Feeney wrote an eight-page summary of his Pittman-Robertson deer project entitled "Wisconsin Deer Today and Tomorrow," which documented overbrowsed deer habitat conditions, deer starvation observations, and the ineffectiveness of winter feeding, and it presented an evaluation of management alternatives.
- Aldo Leopold published the deer committee report that had been presented to the Conservation Commission. This report covered the current deer yard situation, starvation trends, a remedy (reduce the herd), forest damage, steps to creating a good deer program, and the committee vote on the key elements of the report.

At a later Conservation Commission meeting in 1943, warden Chauncy Weitz suggested a limited doe season in one northern Wisconsin township and was booed by the attending audience, mostly Conservation Congress delegates. One commissioner, however, was most appreciative and praised the warden for having the courage to speak out. That commissioner was Aldo Leopold, who had just been appointed to the commission in July.

At one of the public hearings in Jackson County, forester Stan DeBoer gave a factual presentation appealing for support of the proposed season. DeBoer was originally from Massachusetts and had been schooled at the North American School of Conservation. His remarks drew a response from one local hunter who declared, "We don't need no book-learnin' Easterner to tell us how to hunt our deer! Any man who would shoot a doe would hit a woman!"



Deer researcher Bill Feeney.

The Legislature joined in the fray, passing a joint resolution opposing the WCD's proposed deer season. The core of the resolution stated, "[We are] opposing the proposed slaughter of deer in this state and directing the Conservation Commission to carry out an adequate deer feeding program in periods of emergency." The Legislature's resolution also reiterated support for the one-buck law:

*This Legislature recommends that the conservation commission adhere to and reaffirm the traditional and successful policy and law of this state governing the killing of mature male deer unless any order by the conservation commission authorizing the killing of deer of either sex is first approved by the county board of any county affected by such order, before such order becomes effective in such county.*

Despite considerable public and legislative opposition, the commission listened to the biologist's appeal for herd reduction. They approved the split season proposal (four-day forked-horn buck/four-day antlerless) for the fall of 1943. The odd eight-day season divided by a three-day rest period accounted for a record harvest of 128,296 deer. While Leopold and the department were elated, the response from the public was far from supportive.

After the 1943 hunt, several newspapers proclaimed an overkill and declared that "the Flambeau River ran red with the blood of white-tailed deer." Several northern newspapers and the *Badger Sportsman* newsletter seemed to relish beating up on the WCD and its employees, especially when it involved popular deer-related stories. When deer researcher Burt Dahlberg came down with the flu and could not lead a scheduled tour of the browsed-out Flag Deer Yard the next day, the Ashland newspaper featured a front-page headline that read "Deer Scarce, Dahlberg Ill!"

Leopold followed up the 1943 deer season with an article of his own for state newspapers entitled "What Next in Deer Policy," published in the *Conservation Bulletin* in June 1944. In the article, he cited the experiences of Michigan, Arizona, and Pennsylvania, which indicated that Wisconsin needed to continue the higher deer harvest to get the herd back to carrying capacity of 200,000 deer. Leopold observed that "herd reduction is like paying the national debt. No one wants to do it now... If there is any one thing that is known beyond all doubt it is this: the longer the reduction is postponed, the lower will be the ultimate level at which equilibrium with winter food is reestablished."

Assistant WCD director Ernie Swift thought that the lack of hunter education was part of the problem for the resistance to more liberal deer seasons in Wisconsin. In the fall of 1944, he initiated a series of monthly *Conservation Bulletin* articles entitled "Let's Examine the Record" to improve public understanding of deer management. The articles presented a thorough review of the program's history leading up to the current overbrowsed range conditions, using a variety of authors with differing opinions.

The high 1943 harvest had most hunters and the Conservation Congress convinced that it would be a good number of years before the herd would recover from such a devastating season. However, in 1944, several western and southern agricultural counties, including Buffalo, Dane, Grant, Iowa, La Crosse, Richland, and Trempealeau, supported the state's first "any deer" (any age, either sex) season. For the rest of the state, a restrictive forked-horn buck season was restored and remained in effect at various lengths through 1948 (legal deer = antlered deer with antler growth off the main stem one inch in length or greater).

The buck-only deer harvests over the next four years did little to reduce deer population growth. The kill trend, however, reflected increasing deer numbers and hunter participation. Table 12 summarizes hunter numbers (deer tags sold) and kill estimates.

**Table 12.** Gun deer harvest, 1944–1947.

Year	Harvest	Season Length	No. Open Counties	Tags Sold
1944	28,537	6 Days	41	127,643
1945	37,527	5 Days	41	133,548
1946	55,276	9 Days	42	201,061
1947	53,520	9 Days	41	222,935



## The Gamekeepers

The WCD recommended a four-day “any deer” season in 1946 in an effort to get control over the increasing deer herd. The Conservation Congress vehemently opposed the season proposal in favor of the standard buck-only season. On July 24, the Conservation Commission postponed the herd reduction attempt by a 5-1 vote, keeping the nine-day buck-only framework.

Leopold expressed his disappointment with the commission by writing a *Conservation Bulletin* article in August of 1946 entitled “The Deer Dilemma.” The article reemphasized that the deer herd was too large and must be reduced. He also noted that controlled shooting of does was needed but that the WCD lacked the legal authority for such a regulation.

Leopold noted his view of public opinion in the same article: “I’m sure of this: Public understanding of the deer problem is growing rapidly. Many members of the Conservation Congress were almost apologetic when they presented their demands of their local constituents for a bucks-as-usual season in 1946.”

Leopold’s article went further about citizen views: “It remains a conspicuous fact, however, that most citizen attitudes are governed by emotion, not fact, and by the short view, rather than the long view, of conservation problems.” He concluded the article with yet another appeal for deer herd reduction by saying, “Now that the die is cast, my hope is that the Legislature will authorize and the public will support a controlled reduction in 1947. As for this coming winter, I can only say, let us pray.”

Support from the U.S. Fish and Wildlife Service enabled the WCD to experiment with controlled hunting concepts on the 32,000-acre Necedah National Wildlife Refuge in the fall of 1946. The gun hunt was the first hunting allowed in the refuge since 1939. Only 3,000 antlerless permits were issued, and 2,226 hunters participated during the regular nine-day state season. An almost unbelievable 1,637 antlerless deer were killed, or 32 deer per square mile. Three out of four hunters were successful.

Deer starvation was still prevalent during the 1946–47 winter even though conditions were not severe. The department argued for a five-day any-deer season for 1947, but the Conservation Congress prevailed again at the commission meeting with the usual buck season framework because “this was what state hunters want.”

The Necedah Refuge hunt was scheduled again in 1947, but the special season was held after the regular statewide season closed. The December 6–14 framework attracted over 19,000 applications for 6,000 permits and accounted for 1,518 deer killed.

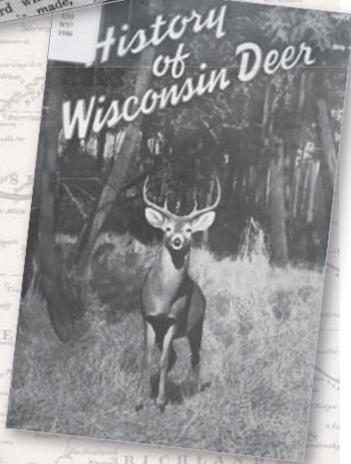
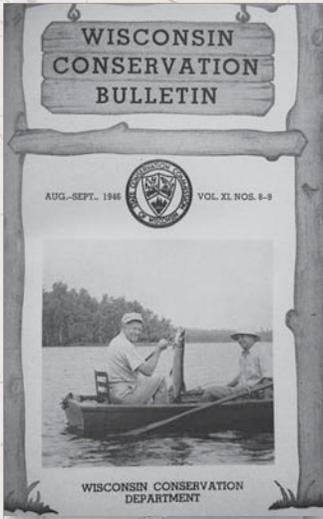
### Getting the Facts

Throughout this period, deer research intensified, and the department looked for ways to convince a skeptical public that harvesting a certain number of antlerless deer was justified. Biologists were aware that over eight million acres of the state were closed to deer hunting in 1943, and five central counties including Jackson County (known as the “deer hunting capital of Wisconsin”) did not participate in the antlerless portion of the season. A three-day walk in several deer yards in Jackson County with Conservation Congress delegates convinced many that deer numbers were too high.

In 1944, the Conservation Commission instructed the department to survey as much deer range as possible to get a handle on what was really going on with the deer herd. More than 100 wardens, forest rangers, foresters, and biologists participated in one of the most intensive surveys ever conducted by a state agency. A WCD Deer Research Committee chaired by forestry supervisor H.T.J. Cramer and composed of researchers and representatives from the divisions participating in the survey compiled and analyzed the results.

An interim report by Leopold’s deer committee in May 1945 compiled the WCD’s research results gathered in 2,432 man-days of effort covering 8,555 miles on foot, which resulted in 706 reports on 475 deer yards. The primary recommendation was that antlerless deer must be harvested in overbrowsed areas or starvation would take the surplus.

In March 1946, Ernie Swift published *A History of Wisconsin Deer*, a classic review of deer management in the state to date. Swift called the whitetail “conservation’s problem child” and noted that the subject created “seemingly endless controversy among Wisconsin’s citizens.” The book documented deer history from settlement



through Pittman-Robertson research findings of the 1940s. He appealed to sportsmen to unite with the WCD to properly control high deer numbers.

Deer range surveys in the winters of 1945–46 by the WCD reported a grim view of range conditions. The field task was monumental as 819 deer yards were sampled. The deer committee report documented that northern Wisconsin deer yards were 36% completely browsed out, 41% were in fair to poor condition, and only 23% were in good to fair condition. Even more alarming, range conditions were bad in central Wisconsin, with 41% completely browsed out, 27% in fair to poor condition, and 32% in good to fair condition.

The WCD research data presented to the Conservation Commission in 1946 revealed an entirely different ramification of a large deer herd: deer were thought to be inflicting serious economic damage to the forestry industry. The evidence of this impact, however, was only conjecture and needed to be substantiated. The concern led the commission to authorize and fund a survey of deer damage to forest reproduction.

The U.S. Fish and Wildlife Service estimated deer numbers in the Midwest in 1947 and revealed them for the first time in the public record on December 31, 1947. They indicated Wisconsin had 791,000 deer, second only to Michigan's 872,700—rounding the figure only to the nearest hundred made the estimate appear more accurate than it really was.

Foresters and game managers implemented forest reproduction surveys in 1947 and 1948 and published the 1947 survey results in the *Conservation Bulletin* under the title of “The Deer Damage to Forest Reproduction Survey.” The final report, published in 1948 as *Wisconsin's Deer Damage to Forest Reproduction Survey—Final Report* (WCD Publication 347), covered the examination of more than 500,000 acres of forest in central Wisconsin. It clearly demonstrated serious loss to valuable commercial timber and accelerating losses of important deer browse. At the same time, survey participants found one gun-killed deer for every 76 acres, projected to represent 6,614 illegal deer for the total area.

Probably the most convincing survey of deer from a hunter's perspective took place in Jackson County on Sunday, April 4, 1948. Four WCD employees from the Black River Falls office met with 16 representatives from eight sportsmen clubs to conduct a dead-deer *transect*. After an all-day walk in a portion of one township, all dead deer found were tallied. The tally was combined with dead deer found by 14 WCD employees and one local sportsman four days earlier, with the following results:

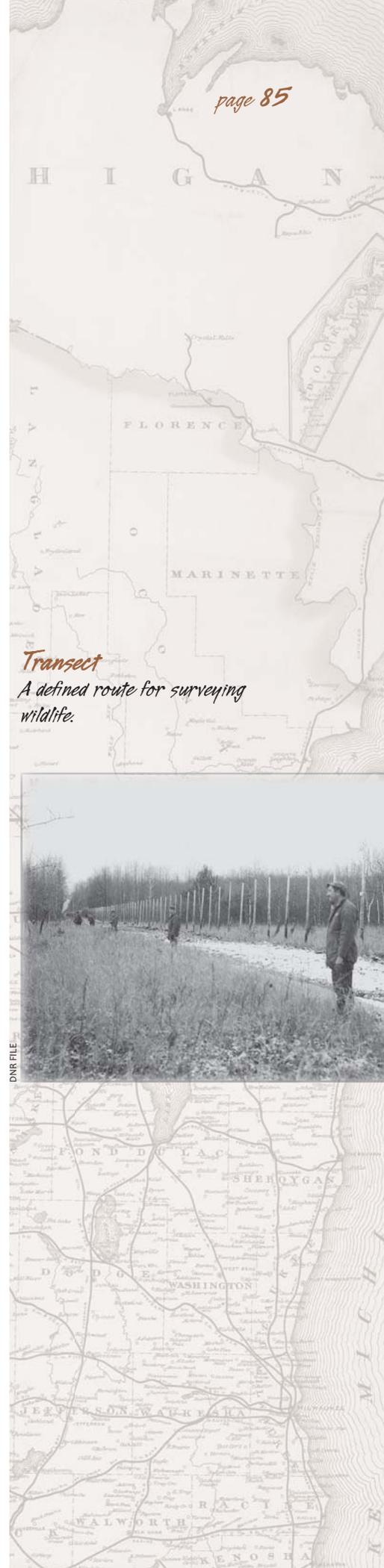
- One deer carcass was found for every 12-1/3 acres.
- Starvation or pneumonia had killed one deer for every 25-1/2 acres.
- One deer per 28-1/3 acres had been shot illegally in 1947.

Deer yard tours conducted with Conservation Congress delegates and the news media were also very effective in educating sportsmen and the public about worsening conditions throughout the state. Pictures of starving fawns and browse lines appeared in most newspapers often enough that a groundswell of support for a liberal season finally materialized.

Game manager Otis Bersing sent out a special hunter questionnaire in early 1947 to evaluate the 1946 deer harvest. One of the questions was “Do you favor a deer season allowing the shooting of any deer?” Of the 10,000 inquiries, 5,479 were returned. Two-thirds of the respondents answered “yes” to the question, with the majority in 58 counties favoring an “any deer” season. Two counties, Brown and Manitowoc, had a tie vote. Only 11 northern counties opposed the season.

Leopold was still chastising deer hunters for not coming to grips with the burgeoning deer herd when he spoke at the twelfth North American Wildlife Conference in 1947:

*Two decades of experience show that sportsmen in most states lack the foresight and courage to forego easy hunting now for the sake of permanence and quality in the future big-game crop. Like the timber barons and the livestock kings of unhappy memory, deer hunters are quite content to clip coupons paid out of capital account. The present forage and the future forest are the capital from which coupons now too often are paid.*



*Transect*  
A defined route for surveying wildlife.

## The Gamekeepers

H.T.J. Cramer, representing the WCD, presented a paper entitled “Harvest of Deer in Wisconsin” at the 13th North American Wildlife Conference held in St. Louis, Missouri in March 1948. He reviewed the entire history of deer herd growth and controversial agency attempts to wrestle deer management control away from politics and popular opinion. Speaking of the future outlook for Wisconsin, he said:

*Frankly, I don't know. The Wisconsin Conservation Department will insist that in order to save the deer herd in the state, it must be severely reduced. That will, as in the past, appear paradoxical to many dyed-in-the-wool deer savers. They will, also as in the past, frantically look around for a way out, any old way: haul feed, cut timber and brush, plow large plots in the woods and seed them to winter grain.*

Coupled with the support by the Conservation Congress's own deer committee findings, the department attempted to establish a seven-day antlerless hunting season for the fall of 1948. The Conservation Commission approved it, but the governor vetoed the rule by executive order. A nine-day forked-horn buck season took place instead.

With the only weapon in its arsenal being uncontrolled *either-sex deer hunting*, the department continued to discuss controlled hunting methods but leaned toward a statewide antlerless hunt for 1949. In January, Conservation Commission chair Charles P. Smith wrote an article in the *Conservation Bulletin* appealing to the public to join forces to support controlled hunting legislation. Smith also cautioned people that they could not expect continued hunting and fishing in the midst of increased pressure and increased civilization unless the following occurred:

1. Fishing and hunting is put more on a sporting basis than on a meat basis.
2. Regulation and restrictions on game hunting is increased.
3. Greater emphasis is put on habitat improvement.

By the spring of 1949, survey reports documented clear signs of further deer range deterioration. Although the mild winter produced no appreciable winter loss of deer, the department again attempted to establish an antlerless season. After much heated debate, the Conservation Congress chose to recommend a nine-day forked-horn buck season, anticipating that pending legislation would establish hunter control authority (i.e. the ability for the state to direct hunters into select areas) for additional special hunts. The legislation failed.

The Conservation Commission—without hunter control authority and aware of the Conservation Congress's deer committee position—authorized a five-day antlerless and spike buck (fork less than two inches in length) season for November 19–23. The 1949 harvest was a record 159,112 deer.

Harsh conditions during the winter of 1949–50 produced deer starvation across northern Wisconsin. Between 15,000 and 20,000 deer were estimated to have been lost, and poor winter food conditions remained a problem. The Conservation Congress recommended a forked-horn buck season again but was still hoping that controlled hunting authority would pass the Legislature, allowing application to critical areas that fall. Once again, the controlled hunting legislation failed, so the Conservation Congress endorsed an antlerless season as their second choice.

While WCD game managers recommended a nine-day either-sex deer hunting season with Conservation Congress support, the commission authorized a seven-day any-deer season for 1950. The season results surprised even the biologists when the recorded kill set the *United States harvest record* of 167,911 deer. Total deer tag sales also established a record at 312,570 with hunter success almost 50%.

### Bows and Arrows

Throughout the decade, archery deer hunting was growing in popularity, but no special license was required. A regular deer hunting license allowed the license holder to kill one forked-horn buck with a bow or a gun. The 1940 archery season expanded to 38 counties. It was also the first year that albino deer received protection from hunting

*Either-sex hunt*  
Deer hunting seasons in which the legal bag limit is a male or female deer (buck or doe) of any age. Also known as any-deer hunt.



because white deer were rare and exciting to see for tourists and hunters alike. The season framework for bow hunting in 1940 was October 1–31, and five deer were killed.

As experience grew with the bow, the season length was extended, more counties participated, and more rules were created. Bear were added as legal game for archers in 1942 with a season bag limit of one. In 1943, the deer bag limit changed to one deer of any age or sex. The bag limit on bear was removed in 1945, enabling archers to kill as many as they wanted.

By 1949, all counties were open, and the season limit was one deer of any age or sex. About 12,000 archers killed a record 551 deer in a 45-day season conducted from September 24 to November 7. All counties were also open in 1950, and bowhunters killed 383 deer. The bear harvest was not known but likely was less than 100.

### A Growing Tradition

Hunters throughout the Midwest were now participating in deer hunting like never before. Their enthusiasm before, during, and after the hunt demonstrated not only their dedication to hunting whitetails but also a growing fall tradition that was extremely pleasurable, challenging, and exciting. The resultant emotional tie to their sport became very evident at public meetings.

Deer hunting camps—whether in tents, cabins, or motels—were an essential part of this tradition. The camaraderie experienced in camp added immeasurably to the deer hunting event. Good food, drink, and stories added a dimension to hunting that seemed to introduce a level of hunting devotion unique to deer hunting. Father and son bond-building was part of the new equation, attracting so many new young hunters that entire schools closed because of the fall event.

The tradition was a good thing for the sport, but it had a downside. Hunter enjoyment remained focused on “the big buck” and a mindset that shooting does robbed them of future bucks. Thanks to the Walt Disney film, images of shooting “Bambi” added to this seemingly repulsive act of killing antlerless deer. This attitude was effusive in the hunting fraternity as well as with the non-hunting public and would have long-lasting impacts on progressive game management.

As the hunting and fishing participation rate increased during this decade, so did crowding and competition. Bad behavior began to creep into these outdoor sports as a result. Arguments ensued as individuals found others in “their spot.” Duck hunters increased their tendency to shoot beyond the effective killing range of their shotshells to beat the guy in the adjoining blind. Deer hunters, restricted to buck-only limits, commonly shot anything they saw, and dead antlerless deer were left in the woods in increasing numbers.

The WCD and the Conservation Congress began talking about this poor sportsmanship, but nothing materialized beyond behavior advice (the sportsman’s creed) in the news media and regulations pamphlets. Outdoor writers chastised the public once in a while in the coming years, but it would be some time before anything concrete would materialize to change this increasing trend.

Leopold suggested that the “gadgeteer” (sporting goods dealer) deserved a large share of the blame for bad hunter behavior. The easier gadgets made it for the participant, the less skill was needed for success. As bigger and better gadgets flooded the market, Leopold thought that outdoor recreation’s “essentially primitive” and “atavistic” values were destroyed. He called that cultural value “split-rail” and considered it an essential ingredient for outdoor pursuits:

*If we regard outdoor sports as a field of conflict between an immensely vigorous process of mechanization and a wholly static condition, then the outlook for cultural values is indeed dark. But why can not our concept of sport grow with the same vigor as our list of gadgets? Perhaps the salvation of cultural value lies in seizing the offensive. I, for one, believe the time is ripe. Sportsmen can determine for themselves the shape of things to come.*

