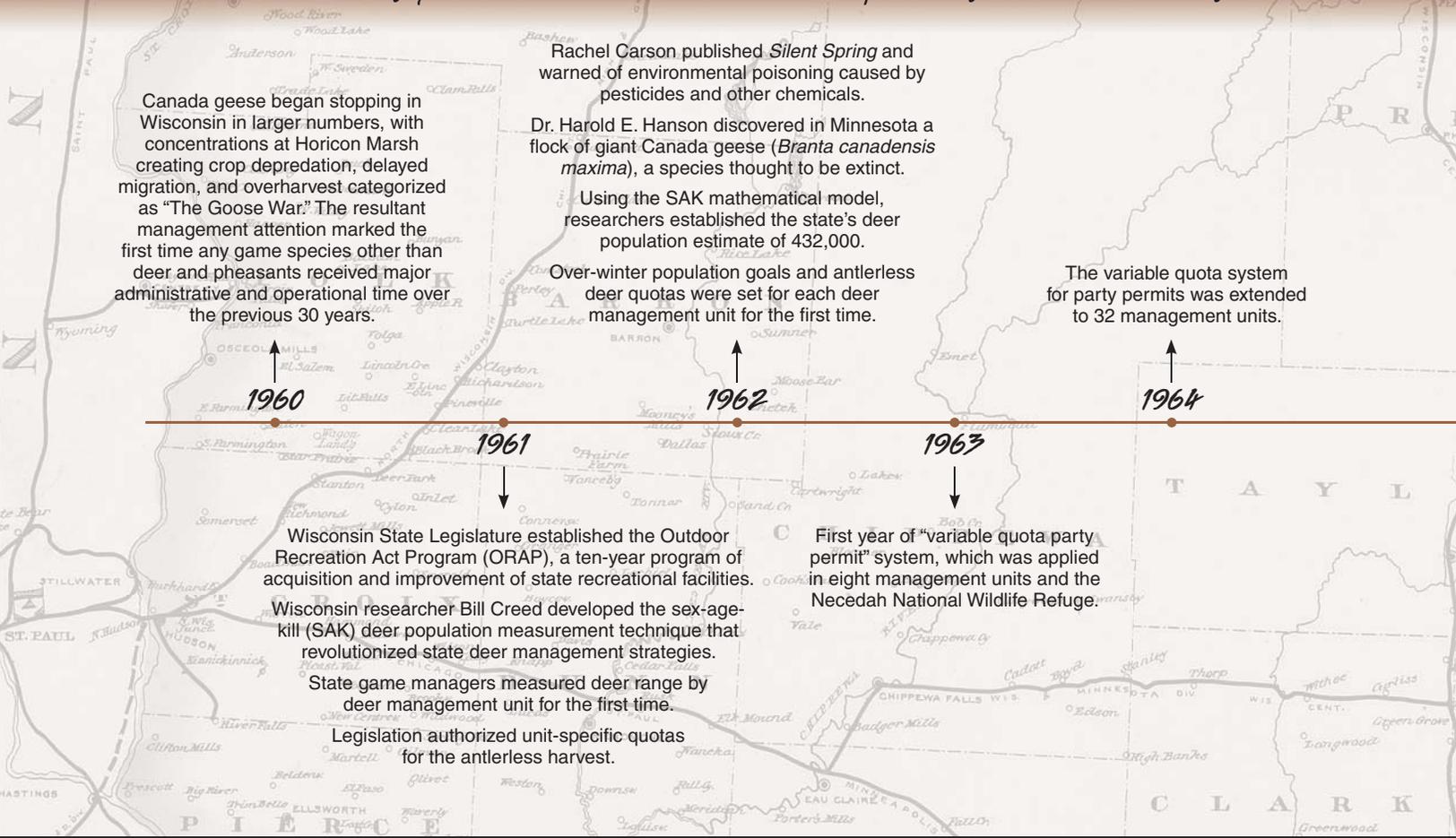


*In an address to a meeting of the National Wildlife Federation on May 14, 1960, former WCD director Ernie Swift warned that conservation was facing big challenges in the future.*

*Photo: Banding geese at Horicon Marsh, July 1955.*



## Selected Chronology of Conservation Events Impacting Wildlife Management

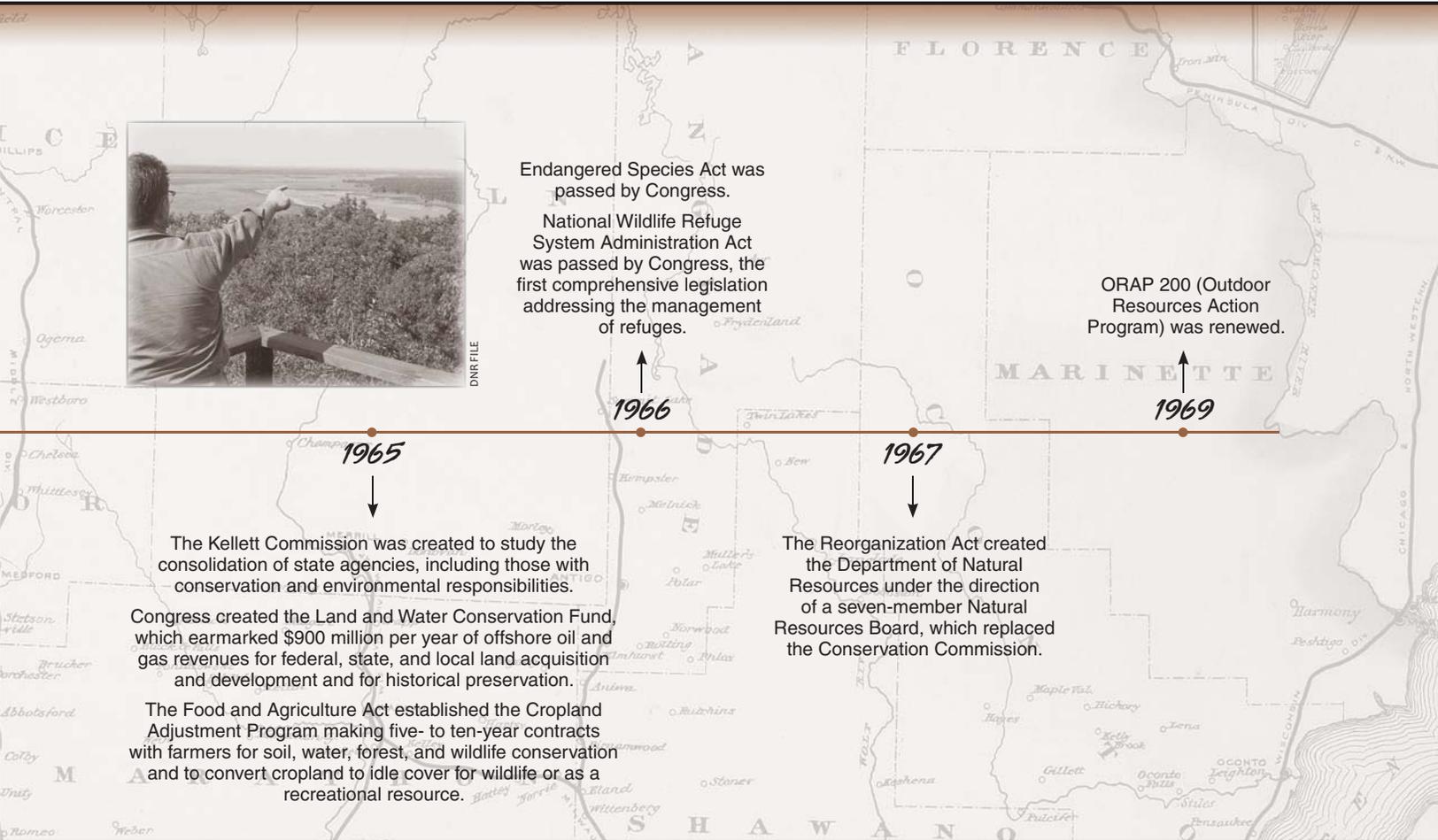


### Historical Overview



DNR FILE

- The year 1960 ended on a high note for the country when John F. Kennedy was elected president by beating Vice President Richard Nixon. The Camelot image of his presidency elevated American spirits despite cold-war tensions with Russia and its leader Khrushchev. Civil rights clashes and advancements would bookmark the decade.
- Alan B. Shepard, Jr. became the first American in space during a 15-minute sub-orbital capsule flight in 1961. Astronaut John H. Glenn, Jr. became the first American to orbit the earth in 1962. The Cuban missile crisis also occurred in 1962.
- The year 1963 brought us the touch-tone telephone, ZIP codes, and the instant replay. Civil rights leader Martin Luther King, Jr. led his "I have a Dream" march in Washington, D.C. on August 28, 1963. Kennedy's assassination by Lee Harvey Oswald on November 22, 1963, shocked the world, and Lyndon B. Johnson assumed the office.
- The Beatles arrived in the U.S. for the first time in 1964, and Martin Luther King, Jr. was awarded the Nobel Peace Prize that same year. At 35, he was the youngest laureate ever chosen for the honor. An overwhelming majority elected Johnson president on November 3, 1964. A U.S. destroyer was reportedly attacked off the coast of Vietnam in early 1964. When U.S. aircraft responded, a war began that would turn many Americans away from the nation's traditional war policies.



- President Johnson's inaugural speech called for the creation of the Great Society in 1965. On March 25, 1966, rallies in seven cities in the U.S. and Europe protested the war in Vietnam.
- A new generation of outspoken individuals surfaced by the end of the decade. Woodstock attracted 300,000 and left an indelible mark on society of music-loving, pot-smoking hippies. Riots and police brutality during the 1968 Democratic Convention in Chicago were watched by a stunned nation. Bobby Kennedy and Martin Luther King were killed that same year. Richard Nixon was elected president in 1969.
- Three governors served in Wisconsin during the decade: Gaylord A. Nelson, 1959-63; John W. Reynolds, 1963-65; and Warren P. Knowles, 1965-71.
- By 1970, Wisconsin's population exceeded four million, and the U.S. population was over 200 million.



## The Gamekeepers



DNR FILE



Governor Gaylord Nelson  
(1959–1963).

In an address to a meeting of the National Wildlife Federation on May 14, 1960, former WCD director Ernie Swift warned that conservation was facing big challenges in the future. He used the opportunity to quote the organization's founder, Jay "Ding" Darling, with the following: "The greatest menace to conservation is the Republicans and Democrats." Fortunately for conservation legislation during the decade, three-term Arizona Congressman Stewart Udall was appointed secretary of the interior in January 1961. Udall strongly supported national conservation efforts throughout his eight-year term and pushed for key environmental laws including the Wilderness Act of 1964, the Land and Water Conservation Act of 1965, the Solid Waste Disposal Act of 1965, the Endangered Species Preservation Act of 1966, the National Trail System Act of 1968, and the Wild and Scenic Rivers Act of 1968. He also provided the momentum for the Clean Air, Water Quality and Clean Water Restoration Acts and Amendments that followed in 1970.

In Wisconsin, Governor Gaylord Nelson authorized the diversion of eight million acres of unneeded cropland in 1961 to other uses under a new government initiative entitled the Feed Grain Program. In 1965, under the Food and Agricultural Act, the Agricultural Stabilization and Conservation Service offered five- and ten-year contracts to landowners to receive payments for not growing crops. The resultant gain in wildlife habitat was similar to the Soil Bank Program of the previous decade for providing consecutive years of undisturbed cover, vital for ground nesting species like the ring-necked pheasant.

The Wisconsin Legislature passed a monumental land acquisition-funding source for the DNR by passage of the Outdoor Recreation Act Program (ORAP) on September 1, 1961. Using an ingenious one-cent-per-pack tax on cigarettes as a base, about \$10 million would be generated over its ten-year life. Harold "Bud" Jordahl, former WCD game manager and now a recreation specialist for the newly created Department of Resource Development, helped conceptualize the new land acquisition program and drafted the legislation.

Conservation lost a national leader when Jay Norwood "Ding" Darling died in Des Moines, Iowa, on February 12, 1962. His syndicated cartoons had won the Pulitzer Prize in 1924 and 1942. He led the Bureau of Biological Survey (precursor to the U.S. Fish and Wildlife Service) in 1934 and was credited for creating the federal Duck Stamp Program. Darling's vision stimulated the creation of the General Wildlife Federation, forerunner of the National Wildlife Federation, with Darling serving as its first president. His leadership also started the Izaak Walton League in Iowa where he served on the Iowa Conservation Commission.

A significant discovery was made in 1962 when Dr. Harold E. Hanson of the Illinois Natural History Survey weighed and examined several hundred Canada geese of a wintering population at Rochester, Minnesota, and discovered the flock was *Branta canadensis maxima* (giant Canada geese), thought to be extinct as early as 1950. Shortly thereafter, a small wintering flock was discovered using the Rock Prairie in southeastern Wisconsin.

The National Wildlife Refuge System Administration Act was passed in 1966, providing new guidance for administering federal refuges and requiring that proposed uses on refuges be compatible with refuge purposes.

With support from the International Association of Fish and Wildlife Agencies, the Bureau of Sport Fisheries and Wildlife established funds for accelerated research on migratory shore and upland game birds in July 1967. It represented the first major federal effort to study and manage a major wildlife group beyond ducks and geese.

Section 111.70 of the state statutes passed in 1963 creating union election procedures and fact-finding standards bolstering the Wisconsin State Employees Union (WSEU). The law expanded public employee bargaining rights and promoted unionism in state service. Many natural resources specialists including game managers and fisheries personnel became affiliated with the Wisconsin Association of Science Professionals, an affiliate of WSEU.

The Executive Branch Reorganization Act of 1967 had the greatest impact on the Wisconsin Conservation Department (WCD) since the state agency was formed 40 years before. The Act consolidated more than 100 state agencies into 32 including combining the Department of Resource Development with the WCD into one “super agency” named the Department of Natural Resources.

## **WCD Progress**

The decade started off routinely for Wisconsin conservation, but it wouldn't end that way. In the early 1960s, the Conservation Commission addressed policy and administrative rules much as it had since 1927. Six advisory committees provided the commission with counsel on special activities. The committees included research, forestry, forest pests, recreational industry, Great Lakes commercial fishery, and the executive council of the Conservation Congress.

The agency was running smoothly. Director L.P. Voigt led the department throughout the decade and seemed to be in good standing with the commission. Two assistant administrators aided Voigt. George Sprecher was in charge of “Wildlife and Services” including Game Management, Fish Management, Law Enforcement, Information and Education, Engineering, and Finance. Chief state forester John Beale directed Forest Management, Forest Protection, Parks and Recreation, as well as Research and Planning.

The WCD's two main offices located on Atwood Avenue and Pennsylvania Avenue on the east side of Madison were combined into one office in 1963 at the Hill Farms State Office Building located on the west side of town just off University Avenue. As the administration continued to grow, some offices spilled over to an apartment building across the street.

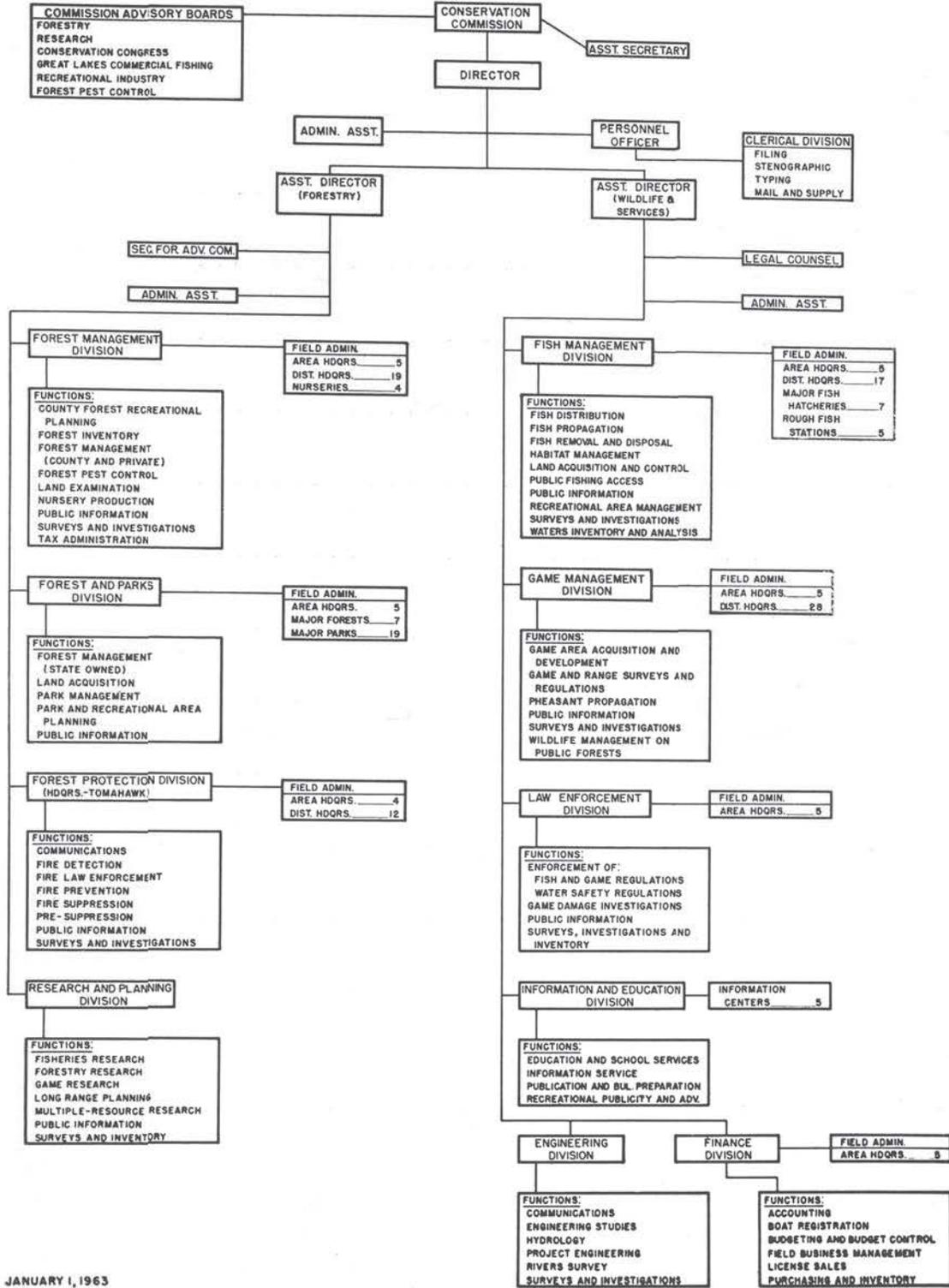
The department's field offices were located in five administrative areas: Northwest Area at Spooner, Northeast Area at Woodruff, West Central Area at Black River Falls, East Central Area at Oshkosh, and Southern Area at Madison. Fish, game, forestry, and law enforcement had one supervisor in charge of their respective programs stationed at each area headquarters. District offices within each area were not uniform and varied by function. For example, the Forestry Bureau included 18 district offices, and the Game Management Bureau included 27 district offices.

The agency grew to over 2,000 workers by 1969. Hunting participation also increased throughout the decade with over 425,000 deer licenses, about 400,000 small game licenses, and more than 200,000 sports licenses issued at the end of the decade. The Conservation Fund exceeded \$16 million in Fiscal Year 1960–61, and the total department budget was about \$25 million. By 1969, the fund had sky rocketed to \$78 million, and the total annual department budget (bolstered by combining state agencies) surpassed \$118 million.

Land acquisition by the agency virtually exploded as a result of the new ORAP funding. The department set an all-time record for any state agency by purchasing 52,000 acres in the 1960–62 biennium. A real estate function was created in 1967 that evolved into the Bureau of Real Estate in 1968. This new office relieved all functions of land record-keeping chores and consolidated all agency land acquisition operations. The department's fee title ownership grew from just over 570,000 acres in 1960 to more than 829,000 acres by 1969.



# WISCONSIN CONSERVATION DEPARTMENT BASIC ORGANIZATION CHART



JANUARY 1, 1963

Wisconsin Conservation Department Organization Chart, 1962.

At the beginning of the decade, five superintendents still directed Fish Management, Game Management, Forests and Parks, Forest Management, and Information and Education. A comptroller, chief clerk, chief engineer, chief ranger, and chief warden still directed their respective activities. Emil Kaminski continued as chief legal counsel. He had a number of assistants throughout the decade, including attorneys Ed Main and James Kurtz.

### Forests and Parks

The forests and parks function continued to grow significantly throughout the 1960s. A new “state recreation area” category was added to the program in 1961 enabling certain areas to control user numbers and the types of recreation allowed. In 1964, the Forests and Parks Division was reorganized with all forest functions placed in the Forest Management Division and park functions placed in the Parks and Recreation Division. Northern state forests and nurseries were assigned to the Forest Management Division. Recreational forests in the southern part of the state, including Kettle Moraine and Point Beach, remained in the new Parks and Recreation Division.

Paying extra fees for using public land was not a popular concept, but in 1962 a law passed requiring a state park sticker for each vehicle entering state parks, for a fee of \$0.50 per day or \$2 per year. The entrance fee objective was to enable Parks to generate half of their operational budget. The Legislature matched this amount, and the combination of funds paid for the entire State Parks and Recreation Division budget. New ORAP funding stimulated the establishment of 13 new state parks by 1969.

### Forest Protection

The chief state forester now supervised two divisions: Forest Management and Forest Protection. This decade brought about some of the biggest changes in fire protection since the late 1930s and early 1940s. Innovative technology introduced a fire simulator that greatly improved program training abilities and the expertise of those using it. Techniques for fighting crown fires evolved along with expanded use of aircraft for fire detection and suppression purposes.

In 1967, trains were the leading cause of wildfires for the sixth year in a row, causing 856 individual fires (39.7% of all fires). That same year, a forestry degree was required for filling forest ranger positions for the first time in the profession's history. The fire control network of telephone lines peaked at 1,914 miles by 1968, the second largest telephone system in the state. However, improved usage of radio communications including use by volunteer fire departments later led to abandonment of the telephone network.

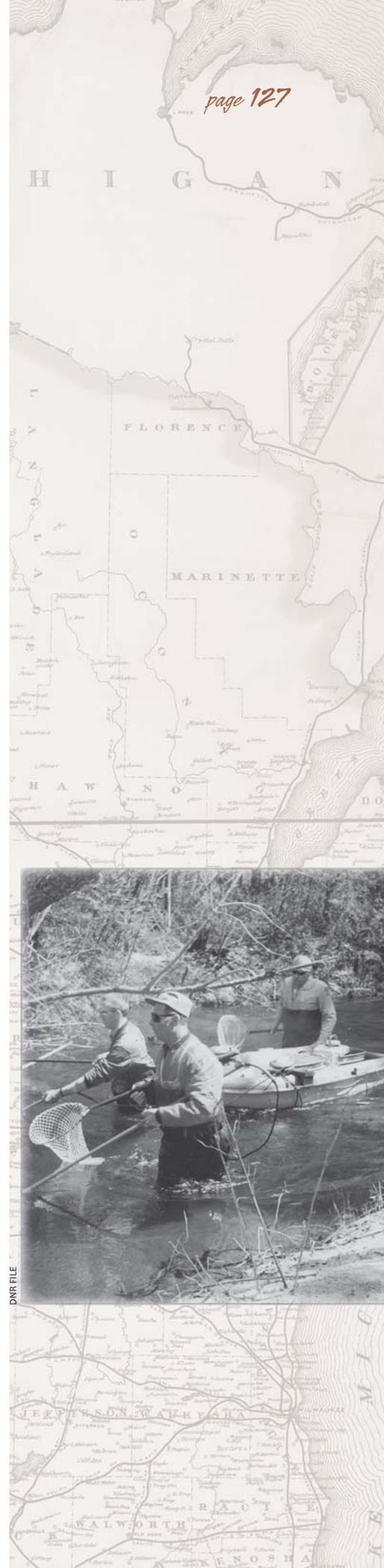
Nineteen sixty-nine was memorable for fire protection personnel because wet conditions restricted wild fires to the lowest acreage recorded since 1950. Snow on the ground on December 7 continued those favorable conditions well into the new year.

### Fisheries

The Fish Management Division emphasized trout production from over 30 hatcheries throughout the decade. Over 80 million fish including fry were produced and distributed in most years, including over two million trout. ORAP boosted land acquisition with over 200 miles of stream and lake frontage protected in just the first two years of the program. Rough fish control, hatchery operations, commercial fishery, and state property management were program mainstays. The fish management budget exceeded \$2.3 million in 1964-65 and was the largest of any in the department.

### Law Enforcement

The Law Enforcement Division was composed of about 130 wardens in the 1960s. A new “motorized toboggan” (first name used for the snowmobile) was proposed as a useful new tool for the field warden in 1963. Pollution laws were added to warden duties for enforcement in 1965. Drug abuse training was implemented at the end of the decade in response to increasing illegal drug use on state property.



## The Gamekeepers

### Information and Education

The Information and Education (I&E) Division was becoming more active nationally as well as within Wisconsin school systems in promoting conservation education. The Game Management Division turned over the Poynette wildlife exhibit and picnic grounds to I&E in 1960 as a money savings effort. With the help of game farm workers, they converted an old sheep barn to contain a wildlife museum on the ground floor. The second floor became a lecture hall that soon became the site of in-service training for department personnel.

### Research and Planning

A new Research and Planning Division was established in 1961. The research function that had been an integral part of the Game Management Division for more than 30 years was placed in the new division that now would provide fish, wildlife, and forestry research services. Cooperative research projects continued in the new division and involved several University of Wisconsin campuses, Lakes States Experimental Station, and other agencies.

The research portion of the new division evolved into the following structure:

- **Administration Section** consisting of the division chief, an assistant division chief, and a secretary
- **Fish Research Section** divided into a cold water unit and warm water unit and consisting of ten biologists serving under two group leaders
- **Game Research Section** divided into four units (farm game and range, forest game, wetlands game, and game pathology) and consisting of 11 biologists, two group leaders, and one chief game biologist.
- **Forestry Research Section** consisting of six principle fields of study: forest insect control, forest disease control, forest soils, forest genetics, *silviculture* and management, and forest economics. The bulk of the research was performed under a long-standing cooperative agreement with the University of Wisconsin Agricultural Experimental Station and with the U.S. Forest Service's Lake States Forest Experimental Station.
- **Technical Services Section** responsible for all fish and wildlife surveys and associated biometrics and consisting of two biologists. Roadside brush right-of-way studies along with the biologist in charge were added to this section after the initial organization was completed.

The planning function of the new division was intended to provide improved coordination with regional planning commissions and other agencies cooperating on a "State Recreation Plan." One person was designated "department planner" in charge of long-range planning for the agency. Each division within the department designated a division planner to form the planning team working on county, regional, and state planning efforts.

### Uniforms

Khaki shirts and pants with a black tie became the unofficial uniform of fish managers, game managers, foresters, and conservation aids in the 1960s. An arm patch with the embroidered WCD logo with the forest, fish, or game management title underneath was displayed on the left shoulder. The uniform was intended for easy recognition of WCD employees engaged in frequent public contact activities, but it was commonly worn for other work, especially when employees were involved in law enforcement.

### Conservation Congress

The Conservation Congress started off the decade under the leadership of Glen Garlock along with vice-chair Ed Keip and secretary-treasurer John Cross. The 1961 public hearing attendance was the second highest in 13 years at 8,851. Motor trolling, goose hunting, and trout seasons were the dominant discussion topics. Mrs. Elsie Wood from Polk County became the second woman delegate in the organization's history.

*Silviculture*  
The art and science of  
cultivating a forest.



Arm patch used on Wisconsin Conservation Department uniforms.

The Conservation Congress organization celebrated its 30th anniversary in 1964. John Cross then became chairman and provided firm direction for its members and regular cooperation with the WCD. Former assemblyman Robert Thompson was vice-chair and brought political savvy to their meetings. The organization operated reasonably well using the system that had been in place during the better part of its existence. The five delegates (three regular members and two alternates) elected from each county represented local public opinion. The county delegates met after the spring fish and game hearings in various districts to examine and discuss the hearing results and take positions on new proposals (resolutions) initiated at the county level.

An annual two-day statewide meeting was held to review the county hearing results and recommendations from the district meetings. Various group meetings were conducted the first day of the session, and all 360 delegates would assemble the second day with each county delegation sitting together under a sign displaying the county name.

Study committees continued to be the core operational vehicle for the organization. They met in advance of the statewide meeting to examine issues, deal with hundreds of annual regulations proposals, assemble facts, and recommend positions to the Conservation Congress Executive Council. At the statewide meeting, some of the study committees met once more before the opening ceremonies to develop their final recommendations.

The Executive Council, composed of a chair, vice-chair, secretary-treasurer, and chairs of the various study committees, also met the first day of the statewide meeting. Typically, they would arrange for WCD speakers to address any pending major issues before reviewing the hearing result, laboriously wading through numerous resolutions (often 50 or more), debating issues, and adopting a position on every proposal. The council position sometimes didn't agree with the public hearing voting results, which would stir controversy when it was presented the next day.

The opening ceremony started with a prayer. The opening remarks by the chair included meeting procedures, introduction of dignitaries present, greetings by the community host, and a guest speaker. The guest speaker was typically a ranking politician or the WCD director. The meeting chair used a strict code of conduct governed by Robert's Rules of Order in directing the delegates through an agenda of hearing proposals and each county resolution that received local support. The agenda was long and replete with numerous discussions and debates, many voiced with emotion.

The second day of the statewide meeting was an exciting event. The audience often exceeded 400 and was quite noisy as they were assembling. WCD staff consisting of administrators, attorneys, conservation wardens, fish managers, game managers, research biologists, and various guests observed from the back of the room. The news media was always well represented with local and regional reporters. Politicians also took advantage of the opportunity to be seen by this important segment of their constituency.

Kenneth Behgin, former WCD warden, wrote a brief history of the organization for the 1964 agenda pamphlet. He cited Aldo Leopold, Bill Grimmer, and Harley MacKenzie as the originators of the idea to create the Conservation Congress in 1934. He noted their strong support to keep conservation separate from the Legislature. He also pointed out the strong differences of opinion that surfaced over the one-buck law and the merits of shooting does, submitting that the final results were an improved deer hunting season.

The theme of the 30th anniversary celebration was positive and upbeat, and Behgin's message also noted proud accomplishments, including increasing the forestry mill tax, supporting license fees, endorsing felony charges for deliberate setting of forest fires, and converting CCC camps to youth camps. On a personal note, he chastised the Conservation Congress for not recognizing that bow and arrow hunting was good for recreation, conservation, and the economy.

Deer population estimate technology and antlerless harvest quotas would evolve during the decade and become the focus for endless arguments between the Conservation Congress and the agency. As always, the department's credibility was called into question repeatedly as sportsmen challenged deer population estimates, over-winter goals, harvest recommendations, and any aspect of management involving numbers.



**Kellett Commission**

Governor Warren Knowles initiated a major reorganization of state agencies in 1965. As part of the Water Quality Resources Act, a “Temporary Commission on the Reorganization of the Executive Branch” was created to consider the consolidation of state agencies including those with conservation and environmental responsibilities. The 18-member commission was led by William Kellett, a recently retired executive of the Kimberly Clark Company. The commission became known as the “Kellett Commission.”

The Kellett Commission took two years to complete the task. One of its recommendations was to combine the WCD with the Department of Resource Development, which had water pollution, drinking water, and air pollution controls. The new agency would be called the Department of Natural Resources and would also receive Public Service Commission Chapter 30 permit jurisdiction (protecting public rights on waterways and wetlands). This proposal drew immediate opposition from state hunters and anglers concerned that their traditional programs would be de-emphasized. Other bureaucratic programs to be added to this new “super agency” (their former titles or affiliations are shown in parentheses) included the following:

- Division of Land Resources (Board of Commissioners of Public Lands)
- Natural Beauty Council (Wisconsin Council on Natural Beauty)
- Natural Resources Council of State Agencies (committee)
- Recreation Council (State Recreation Committee)
- Scientific Areas Preservation Council (State Board for the Preservation of Scientific Areas)
- Artificial Lake Creation (committee within the State Soil and Water Conservation Service)
- Conservation Youth Camps (within Public Welfare)
- State Geographic Board functions
- Staff services for the Great Lakes Compact Commission

Some 400 sportsmen groups attended a “red-shirt” rally (named after early deer hunter clothing color requirements) at the state capital in February 1967 to oppose the Kellett Commission recommendations. WCD personnel helped organize the state-wide protest and participated in the rally. That action led to a legislative investigation of the state employees involved because some legislators charged that it was illegal lobbying. State employee participation was found to be legitimate.

The Conservation Congress, led by its chair, John Cross, and vice-chair, Robert Thompson, joined in the fray and vehemently opposed the reorganization. Thompson said at the time, “Pollution and Resource Development Departments serve different masters, and anybody who wants to maintain the integrity of fish, game, and forestry in Wisconsin must fight the Kellett-Knowles plan.” The public vote at fish and game hearings held in each county on April 10, 1967, almost unanimously opposed the Kellett proposal.

The Wisconsin Wildlife Federation, led by its president and longtime WCD ally Leo Roethe, also joined the protest. Roethe, an experienced businessman and politically savvy conservationist, appointed a committee to work out a compromise with the governor’s office rather than simply protesting. His approach likely had influence on the outcome.

A legislative conference committee finally was convened to address the major points of disagreement and produce a more favorable bill. Despite the controversy and huge opposition, Governor Warren P. Knowles signed the Reorganization Act into law on July 12, 1967. The law was enacted August 1, 1967, consolidating or eliminating many state agencies. In the text of the new law, a Public Intervener was created as a means of oversight for the public. A new Department of Natural Resources (DNR) came into being with the following simple law text:

*15.34 There is created a department of natural resources under the direction and supervision of the Natural Resources Board.*



*Governor Warren Knowles  
(1965–1971).*

While the Natural Resources Board was created in the law, the governor didn't appoint its members until July 1, 1968. The seven-person Natural Resources Board replaced the old six-person Conservation Commission and served staggered six-year terms. It was composed of three former Resource Development commissioners and four former WCD commissioners:

*15.01 "Board" means a part-time body functioning as the policy-making unit for a department or independent agency or a part-time body with policy-making or quasi-judicial powers....*

*15.05b If a department is under the direction and supervision of a board, the board shall appoint a secretary to serve at the pleasure of the board, outside the classified service. In such departments, the powers and duties of the board shall be regulatory, advisory and policy-making, and not administrative. All of the administrative powers and duties of the department are vested in the secretary, to be administered by him or her under the direction of the board.*

A vital principle imparted in the original law creating the Wisconsin Conservation Department was that the agency director was delegated the authority to administer personnel and programs necessary to manage the natural resources of the state within the law framework. The board's charge was to establish policy, approve administrative rules, and supervise the agency's director. That meant the board was to avoid meddling in department administrative or operational matters. Because history had shown that principle to be sound, it was duplicated in the new law.



PHOTOS: DNR FILE

## New Conservation Era

The DNR administration was much larger than the former WCD. The size increase required moving the staff from Hill Farms to the nearby Pyare Square Building on University Avenue in October 1969. The unusual white, round 12-story building was distinctive, and the image was soon associated with the DNR.

The Kellett reorganization had a dramatic impact on the DNR's structure and its personnel. Initially, the agency formed into three divisions in 1968: Conservation, Land Resources, and Resource Development. However, six divisions were created just one year later:

1. Environmental Protection
2. Fish, Game, and Enforcement
3. Forestry and Recreation
4. Services
5. Trust, Lands, and Investments
6. Tourism and Information

*Left: Wisconsin Conservation Commission and WCD director L.P. Voigt (standing, back right), 1961.*

*Right: Wisconsin Natural Resources Board and DNR secretary Voigt (standing, back left), 1970.*



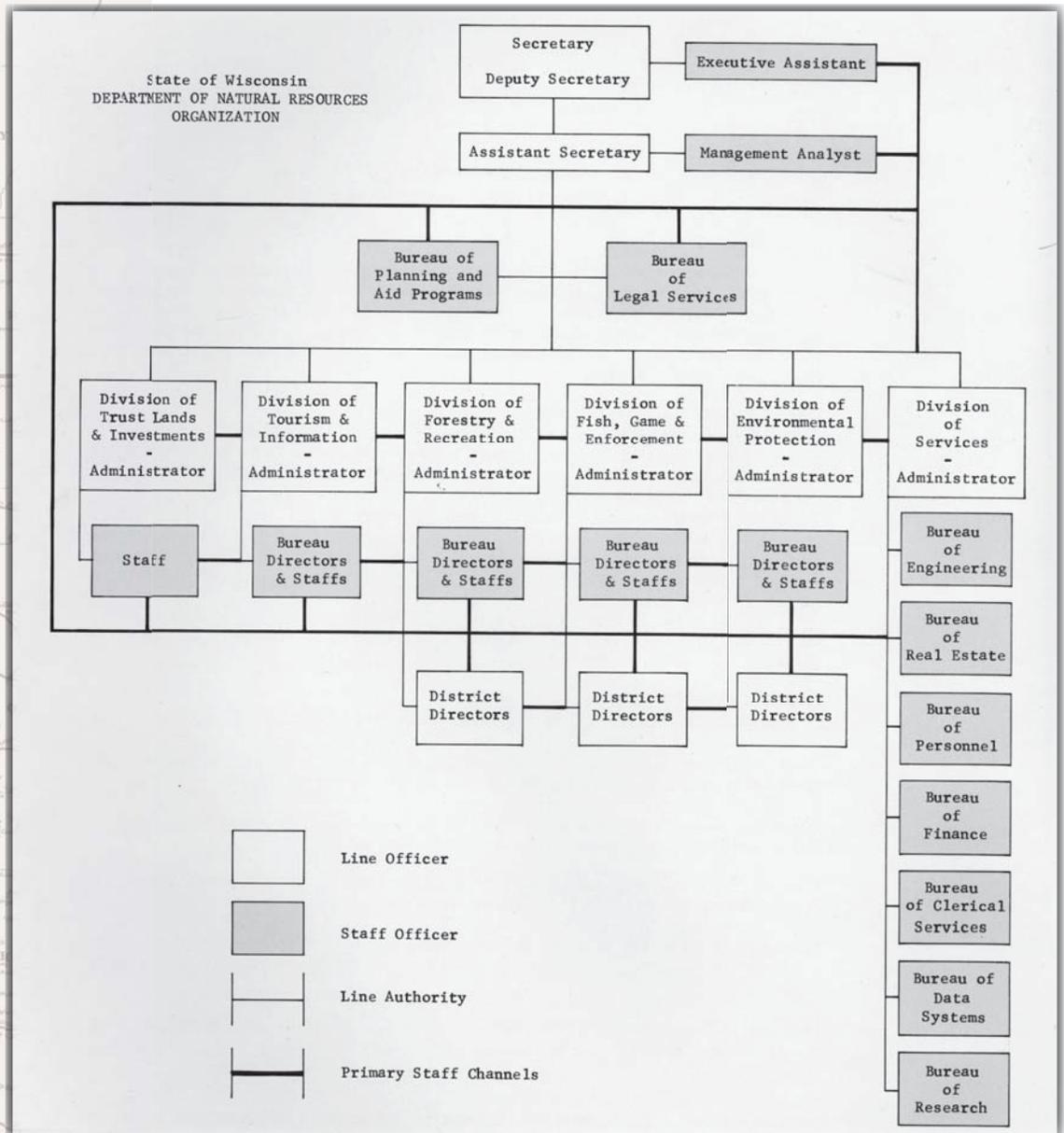
## The Gamekeepers

The field organization changed correspondingly with the central office. The most significant change was the creation of six districts in 1968:

1. Southern
2. Southeast
3. Lake Michigan
4. West Central
5. North Central
6. Northwest

New offices were established, promotions occurred, and field stations experienced a shuffle of personnel as the bureaucracy adjusted to the new organization.

The decade ended on a positive note through the efforts of Leo Roethe, then president of NASCO Industries. Roethe, president of the Wisconsin Wildlife Federation, headed up Governor Nelson's ORAP Task Force to determine if the program should continue beyond 1969. Roethe's report was enthusiastically supportive of continued ORAP funding. Governor Knowles signed ORAP 200 into law on January 12, 1970, despite opposition from some legislators who thought the state owned enough land. Combining \$100 million from the original bill with \$100 million needed to fund municipal sewage treatment facilities created the ORAP 200 title.



Organization chart of the State of Wisconsin Department of Natural Resources, 1967-1969.

## Game Management Division

The Game Management Division leadership experienced considerable change as the agency itself was changing. It started off the decade under J.R. Smith assisted by Frank King. Others on staff included John Keener, Ralph Hovind, Otis Bersing, Norval Barger, Art Doll, Francis Cramer, Bud Jordahl, William Field, and Walter Scott. The 1960–61 Game Management Division budget was about \$1.6 million. By 1969, an entirely new staff was in place, and the budget exceeded \$3 million.

Numerous changes impacted the division. Bud Jordahl left the Game Management Division later in 1960 to work for the Department of Resource Development. Ralph Hovind joined Jordahl the following year, and Walter Scott was promoted to the Secretary's Office. Art Doll joined the staff from the Research and Planning Division in 1962 but left the next year. Fred Zimmerman transferred from that same division in 1963.

Smith reorganized his staff on January 14, 1963, creating four new positions, which revealed the workload facing his administration:

- **Administrative Assistant** – The new assistant was John M. Keener, and his personal staff consisted of two game managers and an accountant. The duties included supervision and coordination of the Pittman-Robertson and Dingell-Johnson federal aid programs and all Game Management Division land acquisition activities. Keener also acted as divisional representative on agricultural conservation programs, the Soil Bank Program, and related interagency programs.

Keener supervised an accountant who was primarily responsible for federal aid reimbursements. The accountant also acted as an administrative assistant in Keener's absence.

The section was responsible for annual game regulation changes, closed areas, refuges, and miscellaneous regulations including Conservation Congress proposals. The preparation of all regulation pamphlets was included in these responsibilities along with other game publications and Information and Education duties.

Norval Barger was one of the game managers assigned to Keener. His primary responsibility was to coordinate all land acquisition transactions for both the fish and the game programs. Collateral duties included preparing the public hunting and fishing grounds news releases, county and state maps, and project brochures.

The second game manager assigned to Keener was Otis Bersing. In addition to supervising a statistical clerk, Mary Grubb, his primary duties involved tabulating annual administrative statistical reports, surveys, and forest game data as well as maintaining permanent division records. He also supervised the administrative processing of Horicon managed hunt reservations.

- **Game Management Land Appraiser** – William "Billy" Field, former conservation warden and supervisor of Game and Fur Farms on the Game Management Division staff since 1947, filled this new position. His primary duty was game management land acquisition; he also supervised "trainee appraiser" Fred Zimmerman. (Billy Field developed extraordinary expertise as an appraiser of complex property, usually involving controversy or very expensive improvements. His appraisal talent combined with quick verbal skills and humor made him a very visible leader in the profession.)
- **Staff Assistant** – Former game manager and forest game group leader Art Doll joined the staff in 1962 and was assigned this nebulous title. The position would commonly be called "big game supervisor."

His primary duty was to coordinate the statewide deer program, including tabulating and reporting deer registration. Other duties included coordinating



## The Gamekeepers

Game Management Division participation in department, regional, and state planning work as well as handling annual surveys and game harvest data. He left the position shortly thereafter to become a planning analyst.

- **Game Biologist** – George Hartman, longtime area game biologist at Black River Falls, filled this position. His primary duty was to coordinate wildlife research projects, but he also assisted Art Doll with deer program responsibilities and survey coordination. He became big game supervisor upon Doll's departure in 1963.

By 1964, there were 128 permanent employees on the Game Management Division staff organized into five areas and 27 districts. The nine personnel in administration, five area game supervisors, 32 field game managers, and nine assistant game managers are shown in Appendix J along with research staff. The 73 other nonsupervisory workers (mostly conservation aids) were not identified in the staff directory. J.R. Smith considered the district game manager "the key man for the game management program."

The long-range plan of the division was as follows:

- Acquire lands suitable for game management purposes.
- Manage all land acquired for game management purposes on an intensive basis.
- Continue and intensify cooperative management programs on public forest areas.
- Encourage management on private lands for wildlife.
- Dovetail management programs into the broader land water-use programs of the flyways, the state, and the nation.
- Encourage other groups and agencies to actively participate in sound cooperative wildlife management efforts.

The following list of functions outlines what the division did to accomplish the long-range plan:

- Recommend proposed hunting and trapping regulations to the Conservation Commission based on scientific field investigations and surveys.
- Develop a statewide system of public hunting grounds leased and owned by the state.
- Conduct a game habitat improvement program on lands owned and leased by the state, on other public lands by cooperative agreement, and on private lands by extension services given to schools, conservation clubs, farmers, and by cooperation with the U.S. Soil Conservation Service, county agents, and the agricultural conservation program.
- Conduct wildlife research programs involving game survey and census of forest, wetland, and farm game as well as wildlife pathology.
- Operate the State Experimental Game and Fur Farm at Poynette involving the propagation of native and exotic species of birds, research of animal habits and foods, disease prevention and control, maintenance of wildlife exhibits, and assistance to commercial game and fur breeders.
- Conduct a winter feeding program and cooperate with participating groups and individuals in this program.
- Maintain records of game harvests showing quantity and location of game animals (mammals), upland birds, waterfowl, and bountied animal yield, as well as maintaining complete historical summaries showing kill trends and seasons.
- Administer the licensed shooting preserve and dog field trial programs.
- Supervise the bird and animal farm, fur farm, and beaver control programs.
- Issue permits for bird banding, scientific collection, and miscellaneous activities for animals held in captivity for noncommercial purposes.
- Develop interdivisional and interagency cooperation and cooperative programs.



PHOTOS: DNR FILE

*Banding geese at Horicon Marsh, 1955.*

Under Smith, the top program priority was land acquisition. Managing state-owned wildlife areas, pheasant stocking, conducting game surveys, conducting research, setting regulations, and encouraging private game management (captive wildlife licenses) were considered core activities. In writing about the long-term opportunities for major game species, Smith said that deer, ruffed grouse, rabbits, and squirrels were “our bread and butter species” and that turkeys and Canada geese were “glamour species.” He projected a good prospect except for pheasants, which were declining because of habitat losses. Prairie chickens probably could be retained, but they were not considered an important huntable species. He noted that sharp-tailed grouse offered somewhat better hunting opportunities.

On June 10, 1965, Smith initiated the first game management effort for preparing development and maintenance plans using a standardized form. This two-page form (G-458) was a ridiculously simple format when compared to the 30- and 40-page document required in later years. The rationale for the new planning effort was based on the large number of wildlife areas that had been acquired and the anticipated increase in management activities. Smith justified the new planning effort by stating, “These plans will have considerable value in arranging fieldwork in the districts and will aid the area and Madison headquarters in planning, budgeting, reporting, and meeting unexpected requests for information from the commission, Legislature, federal agencies, and individuals.”

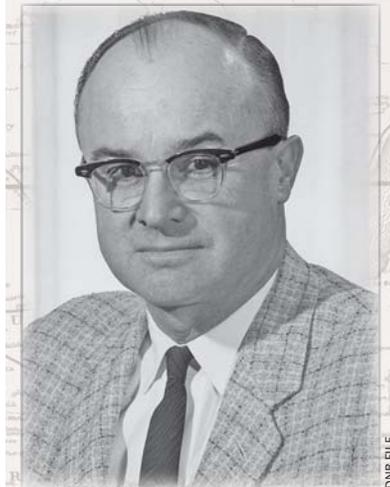
The 1967 Kellett reorganization changed the wildlife management function as significantly as it did the rest of the agency. Field positions were relocated to fit the new administrative structure. Although program leaders repeatedly assured personnel that no forced moves were to occur, many received the option of moving to one of two locations.

Most significantly, when the old titles of Fish Management Division, Game Management Division, and Law Enforcement Division changed to bureau designations, they were reorganized under a single “division administrator” based upon their commonality of function. J.R. Smith was promoted as an acting assistant for the Conservation Division in 1967 and became the division administrator when the division title changed to Fish, Game and Enforcement Division in 1968. Frank King was appointed as acting Game Management Bureau director when Smith was promoted and served in that capacity until 1969. He decided to pass up the opportunity to compete for the bureau director position at that time. John M. Keener was promoted to become the new bureau director in 1969, and King was reinstated as the assistant.

The bureau structure remained relatively unchanged in the new organization, with a seven-member administrative staff composed of the director, an assistant director, one land acquisition and regulations chief, one supervisor of big game management, one extension specialist, one game farm and shooting preserve section chief, and one game manager assistant.

Bureau communications to field personnel changed considerably in that communications now “technically” involved the division administrator, district directors, and area supervisors. Direct field contact was allowed on informational matters, but any topic precipitating workload needed to follow proper channels. While the first year following reorganization was a period of trial and error, eventually communication between the field and central office staff became routine.

Game managers were very uneasy about the new organization because their supervisors at the area, district, and division levels were not usually from the wildlife program. The short, direct communications channel they enjoyed over the previous 20 years to and from the Game Management Division staff had been very efficient and imparted a strong sense of autonomy for everyone in the program. The new channels appeared to destroy that communications network and force game personnel to receive direction from people outside their parent program.



*Frank King served as acting Game Management Division director from 1967 to 1969.*



## The Gamekeepers

### Game Management Operations

Game management work continued to be oriented to public lands during the 1960s and included the following major activities:

- Food patches
- Trail seeding
- Fencing
- Firebreaks
- Prescribed burning
- Pheasant stocking
- Tree and shrub planting
- Boundary posting
- Litter pickup
- Access roads
- Parking lots
- Level ditching
- Dikes
- Water level control
- Timber sales
- Wildlife surveys
- Landowner relations

Additional work was generated for game personnel by expanding land acquisition activities. Landowner contacts, acquisition negotiations, appraisal reports, compiling comparable sales, courthouse record searches, optioning procedures, and numerous record-keeping tasks coupled with increasing office-related responsibilities severely tested a manager's ability to get everything done.

Office-related work activities continued to increase and required game managers to spend more time away from the field. A sample of correspondence from the decade revealed the type of activities that were generating paperwork and time commitments for the staff:

- Leave slip authorization procedures
- Time reports
- Wetland evaluation forms and instructions
- Snowmobiles on Scientific Areas
- Prairie grouse lease file preparation
- Revised game research personnel supervision procedures
- Land appraisal report procedures
- Pipeline and underground cable easement forms
- Flowage easement legal opinion
- Central office land acquisition procedures
- Falconry permits
- Driver training mandates
- County forest law special use areas
- Landowner liability
- Cost accounting records and procedures
- Game surveys
- Equipment maintenance records
- Wildlife observations
- Public hunting grounds damage reports
- Tree and shrub orders

Increased pay benefits in the early 1960s required the game staff to work four hours on the sixth day (Saturday). This requirement ceased about 1968 as part of the negotiated state employees union contract. While no overtime pay was authorized, workers were entitled to "comp time," that is, comparable time off for each hour authorized by supervisors beyond the 40-hour workweek. Most wildlife management employees commonly worked extra time without asking for comp time.

### Public Hunting Grounds

The tremendous growth of the public hunting grounds system (called wildlife areas in the 1960s) was truly a remarkable accomplishment for the relatively small group of game managers responsible for building the program. Managers often expressed



COURTESY OF DNR CREX MEADOWS

Game aids Harold Graf and Richard Pratt seed millet, June 1963.

the opinion that buying land was the most satisfying accomplishment of their careers because it left a permanent mark of their passing.

Game managers learned on the job how to appraise land, examine courthouse records, evaluate comparable sales, prepare appraisal reports, and negotiate with land-owners. They took on these highly technical, time-consuming procedures on top of their normal duties. Formal training using special real-estate schooling was instituted in the 1960s as the appraisal process began to mirror the professional standard used in the private sector.

Cliff Germain, the Waterford game manager in charge of Racine and Kenosha counties, put the scope of acquisition work assignments in perspective in 1962 when he observed, “To acquire one parcel of land requires an average of ten personal visits by the negotiator over a period of from one to four years.” Because some *in-holdings* were sold to other private parties without the knowledge that the WCD was interested, a department policy was established requiring all WCD property managers to contact every landowner at least once each year.

Most game managers spent less than 10% of their time on land acquisition. Some, like Paul Kennedy (Jefferson and Walworth counties) and Allen McVey (Racine and Kenosha counties) spent about half their total work time on this activity and bought a significant amount of land in the process. Lewis Meyers out of the Boscobel office used easements to place permanent protection on several thousand acres of wetlands and acquired perpetual hunting rights for very little cost. It was the largest easement program accomplishment ever recorded by the DNR.

The U.S. Fish and Wildlife Service (FWS) policy changed during this time period so game managers were no longer required to appraise all individual tracts proposed for purchase. The FWS still had to approve any new project proposal (i.e., new wildlife areas) and the range of values established by a “schedule.” They also retained a very rigorous annual review of all Pittman-Robertson–funded programs like land acquisition and wildlife research.

Wisconsin game managers received their early real estate training through practical experience. They called on veterans Billy Field or Fred Zimmerman in the central office for guidance or when special problems surfaced. Sometime after about 1965, formal real estate classes were required for most managers buying land. The classes were two-weeks long, were very intensive, and thoroughly exposed students to the technical aspects of the trade.

Once the game manager learned basic real estate methodology, all that remained was to appraise the land and establish a schedule of values. The appraisal process consisted of assigning land values based upon comparable sales obtained from the county courthouse. Averaging these sales produced a range of prices paid for different land types. Table 14 shows the schedule of land values in 1964 (note the low values).

**Table 14.** Schedule of land values in 1964.

Type	Value per acre
Agricultural cropland, grade 1	\$130–\$140
Agricultural cropland, grade 2	\$110–\$130
Grass and pasture	\$40–\$50
Timber	\$25–\$30
Timber-grazed	\$40
Marsh	\$20
Hay, wild	\$55
Brush	\$20

The manager’s appraisal skill was tested when the landowner finally agreed to sell. He inspected the land and identified the land type by acreage. Using an aerial photograph, he carefully drew lines around the various land types and then used a dot grid to determine the exact acreage involved. Once the acreage was known, he simply multiplied the acreage by the value he thought appropriate.

*In-holdings*

Private lands within the boundaries of a state land acquisition project.



DNR FILE

## The Gamekeepers

At the start of the decade, statewide wildlife areas included 256 projects containing about 196,000 state-owned acres and 305,000 acres under annual lease. The Outdoor Recreation Act Program (ORAP) provided a timely stimulus to land purchasing, with the Game Management Division picking up 36,000 acres in 1961 alone. State ownership increased to include 280 projects and about 312,000 acres by 1969.

Leasing began to fade as urban sprawl began changing the rural landscape and as more state land was acquired. Land leased for public hunting grounds declined to 291,535 acres by 1964 and to about 165,000 acres by 1969.

The number and type of work projects that took place on state-owned wildlife areas reflected growing overhead for managing land and an increasing workload for field personnel. Major waterfowl flowage developments were accelerated, and large projects were completed at Grand River Marsh, Eldorado Marsh, Germania Marsh, Prince's Point, and Theresa Marsh.

Workload growth throughout the 1960s was a management concern, but administrators were confident that continued growth could be achieved by shifting priorities and modest increases in the work force.

### Development and Maintenance

A snapshot of a few years of game management work demonstrated that a large, labor-intensive land management program had developed. In the 1960–62 biennium, game food and cover received emphasis with over 1.7 million trees and shrubs planted by field personnel as well as by cooperating schools, clubs, the U.S. Soil Conservation Service, and various individuals. Other work included the following:

- Over 4,000 acres of food patches installed
- 600 miles of trails seeded
- 73 miles of new firebreaks constructed
- 34,000 acres burned by controlled fire (prescribed burning)
- 3,700 acres of clearings completed
- 70 miles of new access roads constructed
- 170,000 feet of dikes and level ditches installed
- 7,000 acres of new flowages constructed
- 116 new parking lots created

In Fiscal Year 1965–66, game managers were working on 203 properties of which 289,000 acres were leased and 299,000 acres were state owned. Management of these lands included the following accomplishments:

- 35 miles of new fencing installed
- 3,600 acres of food patches planted
- 725 miles of trails seeded
- 9,000 acres treated with prescribed burning
- 35 miles of new firebreaks
- 3,000 acres of flowages constructed
- 3,000 acres of land cleared
- 60 miles of access road built
- 245 new parking areas provided
- 26 miles of level ditching completed

The 1967–69 biennium revealed yet another impressive list of accomplishments:

- 6,000 acres of land clearing
- 130,000 feet of dike construction
- 113 miles of dike maintenance
- 10 miles of level ditching
- 26 miles of fencing
- 5,000 acres of flowages
- 72 new parking areas
- 231 potholes created
- 28,000 acres of sharecropping
- 2,500 miles of trail development



DNR FILE

The initial ORAP impact stimulated the creation of 22 new wildlife projects between 1960 and 1965, adding more acquisition, development, and maintenance activities to the program workload. Only five projects were established from 1966 through 1969, probably indicating that landowner negotiations were getting more difficult. It was also likely game managers were spending less time on this activity because funding was fading and reorganization was diverting their work to other priorities.

Numerous other land responsibilities continued to build the workload for game managers and conservation aids throughout the 1960s. Expanding projects included sharecropping, pothole construction, land use permits, fence construction, fence removal, sign posting, litter pickup, weed control, timber sales, and emergency browse cutting.

### Game Farm

The Poynette Game Farm was still a program mainstay, but the staff had been reduced from 55 to 30 at the start of the decade, including the elimination of the staff pathologist and reduction in wildlife exhibit tours. Shifts in program emphasis further reduced the staff to 24 by the end of the decade.

The primary game farm goal was now providing day-old chick pheasants to private cooperators and mature pheasants to public hunting grounds. The reduced staff and budget led to a reduction in day-old-chick production from about 185,000 in 1960 to 130,000 in 1969. However, adult pheasant releases were increased from about 30,000 to 50,000 in response to the increased amount of public land.

### Other Wildlife Programs

**Artificial Feeding.** Winter feeding had been an annual workload since the Game Division had been established in 1928. Large-scale artificial feeding for small game ended during the 1959–60 winter. Research findings led game management in a new direction. Game managers now used agricultural food patches, shrub plantings, timber stand improvement, and emergency deer browse cuttings to provide more natural feed for wildlife and avoid unnatural wildlife concentrations.

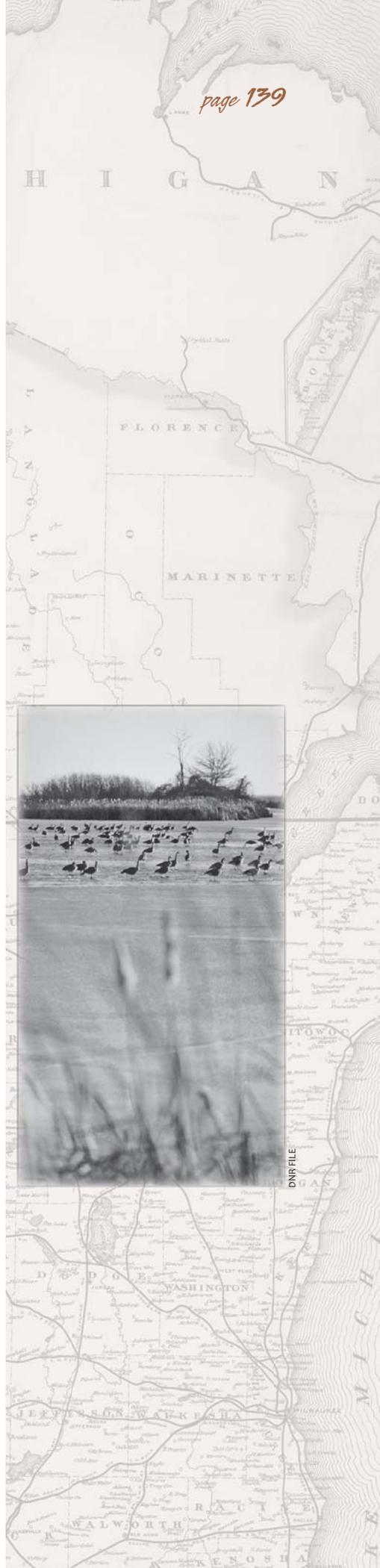
**Refuges and Closed Areas.** Refuges had a similar history to winter feeding, peaking in 1939 when about 1,000,000 acres were dedicated to seasonal closed areas or year-round refuges. Only about 29,000 acres of refuges remained by 1960.

Research was again responsible for most of the change in program direction although the labor and cost of posting these areas were also factors. Closed areas and refuges were proven to be important for waterfowl but valueless for other small game protection. Deer closed areas were found to be counter-productive as deer concentrations soon damaged range and contributed to population decline. Only about 8,000 acres of these protected areas remained by 1969.

**Wildlife Damage.** Deer and bear damage remained program constants throughout the 1960s but were at very low levels. Slightly more than \$27,000 was paid for deer damage on 170 complaints, and about \$5,000 was paid for 74 bear damage complaints in Fiscal Year 1960. The statutory limit of \$40,000 annually established for the program in 1949 remained adequate throughout the decade. Canada goose damage was added in the 1967–69 biennium because of increases in geese at Horicon Marsh, but only about \$8,600 was paid out on 48 claims during this period.

**Captive Wildlife.** The administration of captive wildlife licensing (game farms, shooting preserves, fur farms, and deer farms) also continued as a program staple. The agency issued 1,698 licenses in 1960 with game bird/animal farms (727) and muskrat farms (327) the most popular. Acreage providing wildlife habitat was thought to be the best public benefit of these programs.

In 1966, muskrat farms had the largest captive wildlife licensing acreage total with 53,164 acres. Deer farms contained about 11,000 acres, beaver farms and game farms had about 8,000 acres each, and shooting preserves had over 46,000 acres. The 1969–70 license number and acreage totals were relatively unchanged.



## The Gamekeepers

**Bounties.** State bounties had been repealed from state law in 1868, 1879, and 1930 but were reinstated each time. Bounties were repealed for good in 1957. In 1965, the WCD offered cost sharing for conservation-related projects if the counties would use their bounty funds to match it. Despite this incentive, about half of the counties continued to pay bounties (without state cost-sharing).

Counties who chose to fund conservation projects in lieu of bounties gained considerable benefits over the next decade. The statewide budget for such projects was \$185,000 per year. Projects submitted by participating counties included tree and shrub plantings, flowages, erosion control, rifle range construction, boat docks, and a variety of other projects that improved fish and wildlife habitat as well as provided public recreation benefits.

### Wildlife Research

At the start of the decade, wildlife research projects were categorized in five groups: game and range, forest game, wetlands game, farm game, and wildlife pathology. James Hale was the Wildlife Research Section chief within the Division of Research and Planning. He supervised three group leaders and 11 biologists. Twenty-one research projects were underway, and some additional studies were carried out in cooperation with the University of Wisconsin System.

The volume of research publications during the 1960s became the highest in agency history. A sampling of technical and semi-technical writing of the period on wildlife revealed 38 topics on deer, 33 on pheasants, and 16 on ducks and woodcock, or 87 wildlife-related publications.

### Wildlife Surveys

Monitoring game harvest trends continued to be a program staple and was now reliable enough for sportsmen to take regular notice. Game managers participated in many of the surveys and relayed research results to the public, which contributed to improving the public's opinion of the profession.

The improved survey system designed by researcher Donald R. Thompson used mailed questionnaires to randomly selected hunting license holders in each county. The number of questionnaires sent in each county was proportional to the number of licenses sold. Sample harvest estimates were expanded to estimate the total harvest by species. About 45% of the questionnaires were returned from the single mailing that was used. Deer harvest records were taken from registration data. Waterfowl harvest records were from federal administrative reports.

Game managers collected much of the data in the "game and range" category, but researchers developed and evaluated it for the Game Management Division. Within the Research and Planning Division, Thompson remained in charge of survey design and use. This huge data collection effort included the following:

- Pheasant and ruffed grouse brood observations
- Winter pheasant observations
- Ruffed grouse inventory
- Deer browse and pellet group surveys
- Deer season checks (car counts, registration, aging, etc.)
- Bobwhite quail surveys
- Cottontail rabbit surveys
- Fall collection of quail wings
- Muskrat house counts
- Rural mail carrier surveys (pheasant, deer, sharp-tailed grouse, and Hungarian partridge observations)
- Mourning dove and woodcock inventories
- Mast and berry surveys
- Crop reports



*Don Thompson signs a consent form for a wildlife management history project.*

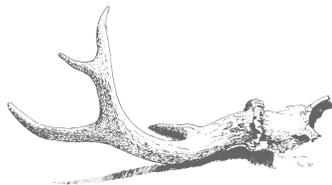
- Goose breeding surveys
- Waterfowl production reports
- Waterfowl breeding surveys
- Winter waterfowl inventory
- Woodcock banding reports
- Wood duck house counts
- Wetland inventory
- Game harvest questionnaire

### Program Scope

Almost every species getting attention at the time generated necessary research because so little was known nationally about wildlife. Formal research projects included food habits, population distribution, harvest trends, disease investigations, wetland habitat, forest habitat, farm game habitat, and unlimited species information, to name only a few. Important projects that could not be pursued by WCD research were passed on to other agencies if possible.

Early 1960s research findings went directly to game managers, and most results stimulated a growing, more sophisticated game management profession:

- Potholes were created by blasting with ammonium nitrate and fuel oil mixtures to enhance waterfowl breeding.
- Aerial photography was used to document vegetation changes and measure deer habitat.
- The effectiveness of pheasant stocking by sportsmen clubs was documented.
- Wetlands were discovered to be vital to pheasant winter survival.
- Field edges were found to be important to ruffed grouse and other species.



### Deer Research

This decade would mark the start of Wisconsin's modern deer management program and rapidly move its standing among wildlife professionals as one of best in the nation. John Keener on the Game Management Bureau staff actively promoted using deer management unit boundaries, which were initiated in 1959 as the new uniform method for tracking deer populations. Art Doll, forest game group leader in the Wildlife Research Section, came up with an innovation that made Keener's promotion even more meaningful. He knew that quantifying deer on a lump sum basis was always going to be second-guessed by the deer hunter. He also knew game managers would gain more credibility with the public if they could actually measure local deer populations in each deer management unit. A solution materialized when he discovered that deer range could be seen on aerial photographs and that a simple system could be used to measure it.

On March 21, 1961, game managers received the assignment to measure deer range for each deer management unit in the state. An overlay grid was provided with instructions for applying it to aerial photographs of each unit. The game manager determined what "points" on the grid fell on habitat that was judged to be deer range. The results were sent to Art Doll, who collated the data to quantify the square miles of deer habitat in each management unit statewide.

Another innovation evolved later in 1961 that would further revolutionize deer management in Wisconsin. Researcher Bill Creed examined techniques for back dating buck numbers from deer of known age using a population modeling system being utilized in New York (C.W. Severinghaus and Hugh Maguire 1955) and Michigan. Combining this knowledge with calculated adult deer sex ratios from yearling bucks



## The Gamekeepers

and does, Creed modified the system into what Eberhardt had entitled a “Sex-Age-Kill” formula (SAK) for estimating the deer population. The SAK formula was based upon a very simple population model:

$$\text{Bucks} + \text{Does} + \text{Fawns} = \text{Population}$$

However, the ingredients of the model requires a little mental aptitude to follow the mathematics involved:

$$\text{Bucks} = \text{Buck Harvest} / \text{Harvest Rate}$$

The harvest rate is the average yearling buck percent (total mortality) x buck recovery rate (BRR, proportion of bucks accounted for in the registered kill).

The WCD used a five-year-average yearling buck percentage as a measure of total mortality. Not all bucks that die are legally registered. The proportion recovered by legal kill (BRR) varies from 90% in heavily harvested farm counties to as low as 60% in the most lightly harvested northern units. BRR is scaled to total mortality rates.

$$\text{Does} = \text{Bucks} \times \text{Adult Sex Ratio (ASR)}$$

$$\text{ASR} = \text{Yearling Buck Percent} \times \text{Yearling Doe Percent} \times \text{Primary Sex Ratio (PSR)}$$

The ASR is calculated by dividing the yearling percentages with a minor correction for the PSR. The PSR assumes yearlings are recruited at the same rate as fetal sex ratio, which seems to average about 110 males per 100 females.

$$\text{Fawns} = \text{Does} \times \text{Fawns Per Doe (F/D)}$$

F/D comes from summer deer observations in forested regions. In the farm region, the F/D ratio is based on *recruitment* as shown by yearling doe percentages.

Deer researcher Keith McCaffery explained it better for the layman:

*Like boy and girl humans, deer are born in about equal numbers (50:50). Deer aging surveys indicate that adult bucks die about twice as fast as adult does. That being the case, the pre-hunt adult sex ratio will be about two does per buck. Typically, each doe brings about one fawn into the fall herd. As a result, for every antlered buck in mid-September, four other deer exist.*

*What does this mean? Well, if all the adult bucks were shot in the fall season and registered, you could multiply the total number registered by five and calculate the pre-hunt herd. However, if only about 50% of the adult bucks are harvested, you multiply the buck harvest by 10 to calculate the pre-hunt herd. In essence, the SAK calculates this multiplier for each deer management unit every year using up-dated mortality and recruitment information.*

The SAK mathematical model used a combination of the number of deer being registered and aged by deer management unit, a good history of fawns-per-doe ratios, and deer pellet surveys, which enabled researchers to produce what was considered the most scientific deer population estimate in the United States in 1962: 432,000.

By early 1962, Creed and Doll facilitated a statewide effort with game managers to identify the last critical building block for a new deer management system: *over-winter deer population goals for each deer management unit*. When the goals were determined, Wisconsin finally had a definable management target that people could relate to when determining harvest objectives. Now all they needed was a harvest method for achieving those goals.

Discussions between research, game management, law enforcement, and the Conservation Congress were long and heated. The shortcomings of the party permit system had hunters disillusioned, but some began to recognize that unit-specific control was the key to success. The long series of discussions led to the conclusion that the goal was to assign deer harvest quotas based upon the over-winter goals desired for each deer management unit. In other words, the harvest quota would “vary” each year. Thus, a “variable quota” system evolved, first applied to the 1963 season.



DNR FILE

### Recruitment

Number of newborn animals (e.g., fawns) surviving to fall.

### Relict openings

Herbaceous openings within a forest caused by historic human activity (logging camps, old farmsteads) or by fire, frost pockets, or other environmental factors, in contrast to openings recently constructed for wildlife benefit.

### Edge effect

The interface of two habitats such as upland and lowland forests, forests and grasslands, or young and old forests.



*By early 1962, Creed and Poll facilitated a statewide effort with game managers to identify the last critical building block for a new deer management system: over-winter deer population goals for each deer management unit.*

Another significant research finding of the decade resulted from a summer deer range study that examined the role of aspen, oak, and *relict openings* in deer survival. Keith McCaffery, who had started as a wildlife biologist at Black River Falls when the project was initiated in 1963, headed up the project when he transferred to Rhineland in 1964. The study, written by McCaffery and Bill Creed, was published in 1969 under the title of *Significance of Forest Openings to Deer in Northern Wisconsin* (Technical Bulletin 44). The revealed findings expanded the forest habitat management program beyond its winter deer yard focus.

The study not only revealed the importance of forest openings for deer but also a longtime conflict between foresters and game managers. Foresters saw openings as a great opportunity to plant trees and expand fiber production goals. Game managers saw openings as a wildlife habitat feature that provided *edge effect*.

The reluctance of the administration to publish early findings of openings value was reflected by a yearlong delay in the 1967 publication of a *Conservation Bulletin* article entitled “Bargain Openings,” by Keith McCaffery. With clear evidence that openings were extremely important for maintaining a healthy deer herd, a new forest management direction had been identified.

### Pheasant Research

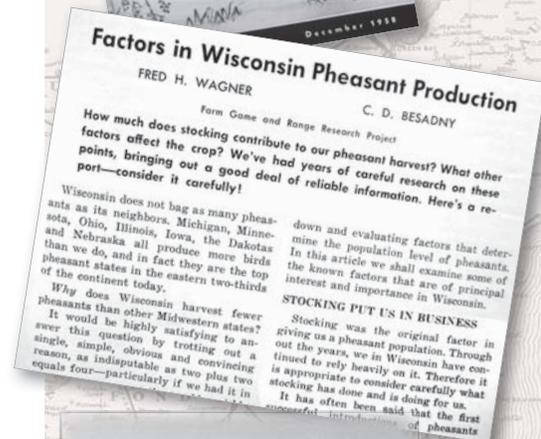
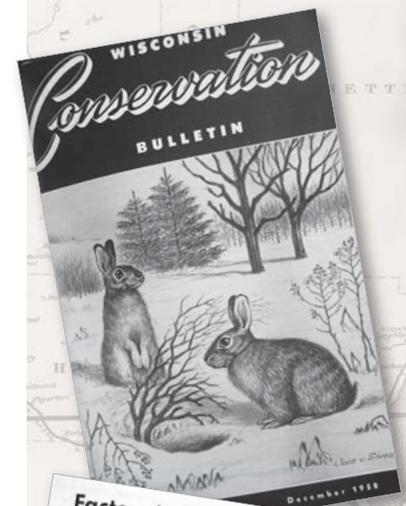
The pheasant population continued to challenge researchers and game managers in Wisconsin. While the Soil Bank Program of the 1950s produced a tremendous amount of nesting cover and subsequent boost in the wild pheasant population, it was far short of gains observed in Iowa and South Dakota where cover conditions seemed vastly inferior to Wisconsin.

In December 1958, Fred Wagner and Carroll Besadny co-wrote a *Conservation Bulletin* article entitled “Factors in Wisconsin Pheasant Production” that effectively summarized pheasant research findings to date. Wagner was the senior author and produced the bulk of the study. Besadny’s primary role was data collection from the day-old-chick cooperative program. Wagner and Besadny cited the stocking program as the activity that “put us in business.” Their historical findings were that pheasant hunting had peaked in 1942 when hunters took home 750,000 roosters, far more than the number stocked. Into the 1950s, some 400,000 hunters killed about 500,000 rooster pheasants each year.

The Wagner-Besadny study examined the stocking program and determined that the normal recovery rate on stocked birds was roughly half of the roosters stocked and that the closer the birds were released to the hunting season, the higher the return rate. Analysis of cooperative club pheasant releases produced the same results. Another part of the study looked at the percent of stocked birds in the fall kill. This study found that the percentage was smallest in southeastern counties, confirming that these counties had the highest population of native pheasants.

The most relevant part of the pheasant study was Wagner’s assessment and description of pheasant habitat—it was the first time it was described in the literature:

*The general picture of good pheasant range, then, is open country that is flat to gently rolling. Soils are usually very fertile, and much or most of the land is under plow. Often, but not always, there is some type of wetland or lowland in the form of marshes, streams, drainage ditches, or irrigation. Rough or hilly country, woodland, poor soils, and uncultivated land are usually not part of first-rate pheasant range in any but very small amounts.*



DNR FILE

## The Gamekeepers

George V. Burger completed the first comprehensive look at the 30-year-old licensed shooting preserve program to evaluate its effectiveness and determine how significant the pheasant kill was on wild populations. His findings were published in 1962 as *Licensed Shooting Preserves in Wisconsin* (Technical Bulletin 24). The report was positive for license-holders in that Burger discovered only about half of the released birds were shot and only about 13% of those killed were actually wild pheasants. Shooting preserves were obviously contributing half their released stock to the wild.

Game manager turned researcher Ed Frank continued the pheasant habitat work with another project in 1962 on the Waterloo Wildlife Area located in Dodge and Jefferson counties (southeastern Wisconsin). The study focus was to establish and manipulate dense nesting cover to improve pheasant nesting success and increase native populations. Researcher Gene Woehler joined Frank and initiated the first department study of warm season grasses.

To help pheasant over-winter survival on the Waterloo project, a series of food patches consisting of corn and sorghum were planted throughout the area. Additionally, deciduous trees and conifers were planted along fence lines to provide travel lanes. An intensive rooster pheasant stocking program was conducted each fall and monitored using daily bag checks each year of the project's existence.

In 1963, Fred Wagner and Carroll Besadny completed their evaluation of the day-old-chick program and reported their findings in Technical Bulletin 28, *An Evaluation of Pheasant Stocking through the Day-Old-Chick Program in Wisconsin*. The findings were not very favorable nor were they surprising. The pheasant survival rates were minimal, and the report recommended cutting back or eliminating the program in the future.

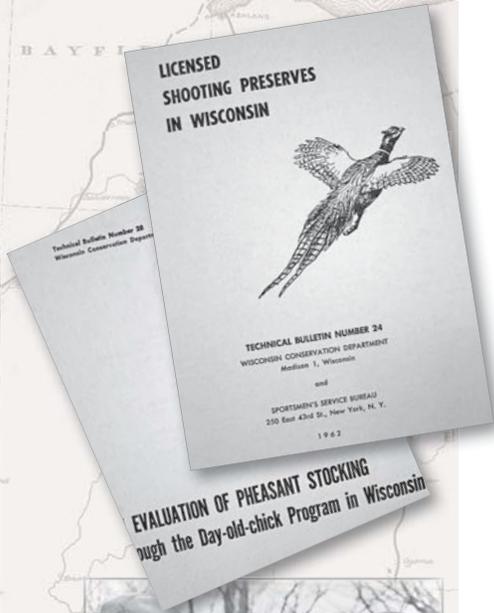
John Gates' habitat work in Fond du Lac, Green Lake, and Dodge counties (east central Wisconsin) was finally completed about 1968. While working for the department, he also worked part-time on his Ph.D. in the Department of Wildlife Ecology at the University of Wisconsin, submitting a three-volume thesis of over 1,000 pages entitled *The Ecology of a Wisconsin Pheasant Population*. Shortly thereafter, Gates left the DNR and accepted a teaching position at the University of South Dakota.

Gates remained true to his professional commitments to Wisconsin through a series of briefings and documents about his findings into the 1970s. One discovery highlight was the critical value of secure, undisturbed winter cover to pheasant survival. He also documented nesting and brood rearing data that would assist game managers in the years ahead, but the two studies, *Seasonal Movement, Winter Habitat Use, and Population Distribution of an East Central Wisconsin Pheasant Population* (Technical Bulletin 76, by John Gates and James Hale) and *Reproduction of an East Central Wisconsin Pheasant Population* (Technical Bulletin 85, by Gates and Hale) would not be published until after Gates' untimely death in 1974.

Other research projects materialized on the Waterloo Wildlife Area in the late 1960s. Bob Dumke studied hen pheasants to learn more about nesting preferences and survival. LeRoy Peterson initiated investigations of red-tailed hawks and great horned owls while Chuck Pils studied red foxes to get a better handle on predator impacts on pheasants. Working on the same area enabled them to help each other when needed, and they did so quite frequently.

Game technician Reynold Zeller operated the heavy equipment and provided the mechanical expertise on the Waterloo project. Uniquely, the work activities there often combined the talents of personnel in the area, including game managers and game technicians, when doing large-scale work like prescribed burning and nest searching. This cooperation provided interface between the two programs and enabled wildlife management personnel to obtain an experience rarely available to them.

The puzzling part of the Waterloo study was when researchers compared Wisconsin pheasant habitat to Minnesota, Iowa, and Illinois where higher densities of pheasants were found. In those states, up to 90% of the habitat was under plow, yet that didn't seem to suppress those populations. On the other hand, in Wisconsin, higher densities were associated with large marsh areas. While the answer was not readily available, one thing was very clear for Wisconsin: The greatest threat to good pheasant hunting was marsh drainage.



Pheasant research in the 1960s was at an all-time high. Carroll Besadny (left) and John Gates (right).



Chuck Pils studied red foxes and predator impacts on pheasants.

PHOTOS: DNR FILE

Game Management Bureau director J.R. Smith had immediately followed up early research findings with a policy decision to accelerate land acquisition of wetlands over the next ten years. He thought the data were clear about the role of stocking strictly for the hunter's gun. He recognized that the state could not purchase all of the lands needed for pheasant production and appealed to private citizens to help, especially by participating in the Agricultural Conservation Program (ACP practices) offered by the Agricultural Stabilization and Conservation Service.

### **Waterfowl Research**

In 1964, researchers Larry Jahn and Dick Hunt completed and published Technical Bulletin 33, *Duck and Coot Ecology and Management in Wisconsin*, the most definitive waterfowl management publication of the century. This research effort was a continuation of several consecutive waterfowl projects initiated in 1940. Wildlife biologists would be guided by this research into the next century.

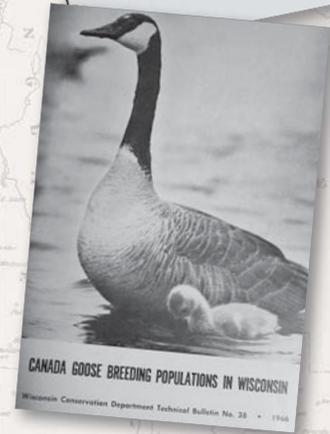
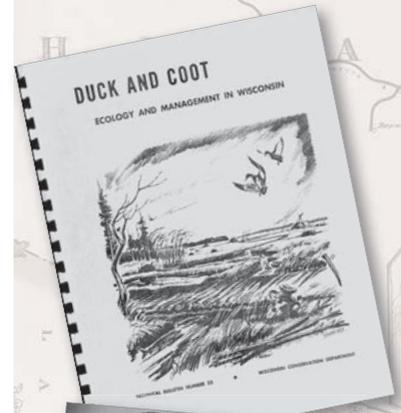
Hunt and Jahn also published Technical Bulletin 38, *Canada Goose Breeding Populations in Wisconsin*, in 1966. Larry Jahn had left the department to work for the Wildlife Management Institute in 1959 but still collaborated with Hunt to publish work initiated in the 1950s. He would also have a hand in establishing many important national wildlife management policies affecting Wisconsin over the next 25 years.

### **Sandhill Research Project**

The 9,150-acre Sandhill Wildlife Area acquired in 1962 from Wallace Grange offered a unique opportunity for research because it consisted of a rich mixture of habitat completely surrounded by a deer-proof fence. Additionally, it had gated access and office facilities that made controlling public entry and data collection easy. The existing road and trail system facilitated management as well as offered the public excellent access for wildlife recreation.

The property was under the supervision of a game manager who also managed the Wood County Public Hunting Grounds and the huge 100,000-acre Meadow Valley Wildlife Area adjoining the Necedah National Wildlife Area in central Wisconsin. The first manager in charge of the operation was Oswald Matteson.

Jim Hale directed wildlife research, and forest game group leader Bill Creed developed the first research plan for the area. John Kubisiak joined the research team in September 1962. Although forest game research was not active at Sandhill until after July 1966, Kubisiak would spend the rest of his career at the facility studying deer, ruffed grouse, wild turkeys, and wildlife habitat. His work had significant impact on Wisconsin wildlife management and was recognized nationally.



*Wallace and Hazel Grange signed the warranty deed on 23 January 1962, officially conveying ownership of the Sandhill Game Farm to the State of Wisconsin. Left to right: Bob Smith, Superintendent of Game Management, Wisconsin Conservation Department; Les Voigt, Wisconsin Conservation Department Director; Governor Gaylord Nelson; Wallace and Hazel Grange.*



PHOTOS: DNR FILE

## The Gamekeepers

Deer harvest was the early research and game management focus in 1963. Throughout the 1960s, experimental hunts were conducted each fall to learn more about the new variable quota system, deer behavior, hunter behavior, and deer inventory skills. Deer registration, aging, helicopter surveys, and trail counts were used to determine pre- and post-hunt deer populations. Hunting methods including shotguns, rifles, and bows were studied along the way, and research results at Sandhill influenced wildlife management and regulatory decisions into the next decade.

### Roadside Brush Research

In the early 1960s, highway departments of several states including Wisconsin experimented with ways to both beautify roadsides and reduce the high costs of labor-intensive roadside maintenance. These experiments coupled with natural resource agencies' interest in improving wildlife habitat led Wisconsin and other states to examine alternatives for cover adjoining state highway systems. Researcher Allan Rusch would spend almost his entire career studying such alternatives.

In 1965, private industries joined with several state agencies including the WCD, county highway departments, and the Wisconsin State Highway Commission to launch a Selective Brush Management Program, which proved moderately successful over time. The program established a uniform policy to remove tall trees, undesirable woody vegetation, and noxious weeds in favor of desirable shrubs like juniper, dogwood, hazel, and sumac. In some cases, foresters and game managers planted conifers and shrubs to stimulate reestablishment of these cover types.

### Other Research

Additional findings reported in 1965 continued to add to the game manager's toolbox for improving conditions for wildlife. Fertilizing former marsh hayfields improved the height and density of nesting cover. Twenty years of share-trapping muskrats at Horicon Marsh generated \$217,000 in revenue for the state. It also substantiated that muskrats need to be harvested annually to minimize property damage and avoid wasteful population crashes caused by disease and starvation.

Hungarian partridge offered an alternative to pheasant hunting, and between 1963 and 1966, researchers experimented with wild-trapped stock obtained from South Dakota and Saskatchewan. After 1966, wild birds were trapped in Marathon County and released elsewhere in southeastern Wisconsin. The project was terminated in 1969 because reintroductions were only marginally successful.

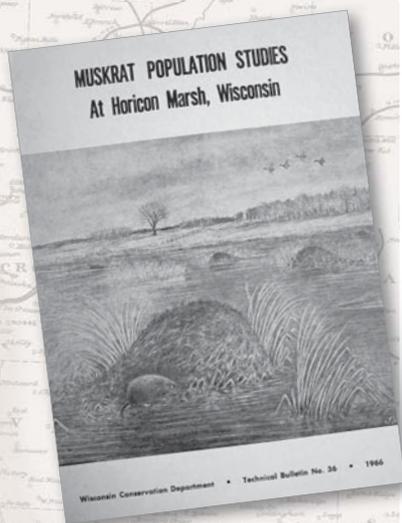
Other wildlife research published during the 1960s included *Muskrat Population Studies at Horicon Marsh* (Technical Bulletin 36) and *Pothole Blasting for Wildlife* (WCD Publication 352), both by Harold Mathiak. The latter publication stimulated game managers and the private sector to blast thousands of potholes in Wisconsin marshes. It may not have greatly improved breeding pair territorial sites for ducks, but it did provide spectacular explosions and excellent publicity for habitat improvement activities.

### Species Management

Despite the information about wildlife and habitat being documented in Wisconsin and across the United States, a huge amount of information was still missing on game species, and the information gap on nongame birds and mammals was even more pronounced. Since major funding sources were from hunters and anglers, the priorities for the game-oriented research program were not likely to change in the foreseeable future.

Wildlife research over the previous 20 years had greatly improved the scientific end of wildlife management. Sound data on wildlife species biology, their habits, and habitat needs enabled game managers to improve wildlife populations and regulate their use in a reasonable manner. The supportive bureaucracy was improving as well. Increasing budgets, effective administrative systems, and an efficient chain-of-command were getting work done on the land and providing an improved level of public service.

Identifying clear, quantifiable objectives for various species was still not possible, and the management focus at the time was simply "more is better." Deer research, however, produced the very tools the game manager needed to measure deer



populations. This expertise coupled with later technology would advance the profession to a higher level of proficiency.

Deer management activities attracted considerable public attention, generated the most revenue for fish, game, and enforcement programs, and remained one of the most controversial natural resource issues in the state. Other game species, including pheasants, ducks, geese, and turkeys, were still receiving significant attention but at a lower interest level. Furbearers also remained a low level activity but were getting more attention because anti-hunting and anti-trapping movements were beginning to surface nationwide.



## Deer Management

Deer management activities included deer yards, northern range improvement, car kill monitoring, research needs identification, and harvest goals, which were dominant in year-round discussions. The most important objective was to establish the ability to control the antlerless portion of the herd. The party permit system was known to be seriously flawed as well as unpopular. Its shortcomings stimulated research to improve techniques for harvesting the reproductive segment of the deer herd.

Area warden Allan D. Galston's February 25, 1960, memoranda to chief warden Hadland probably reflected the views of many field wardens:

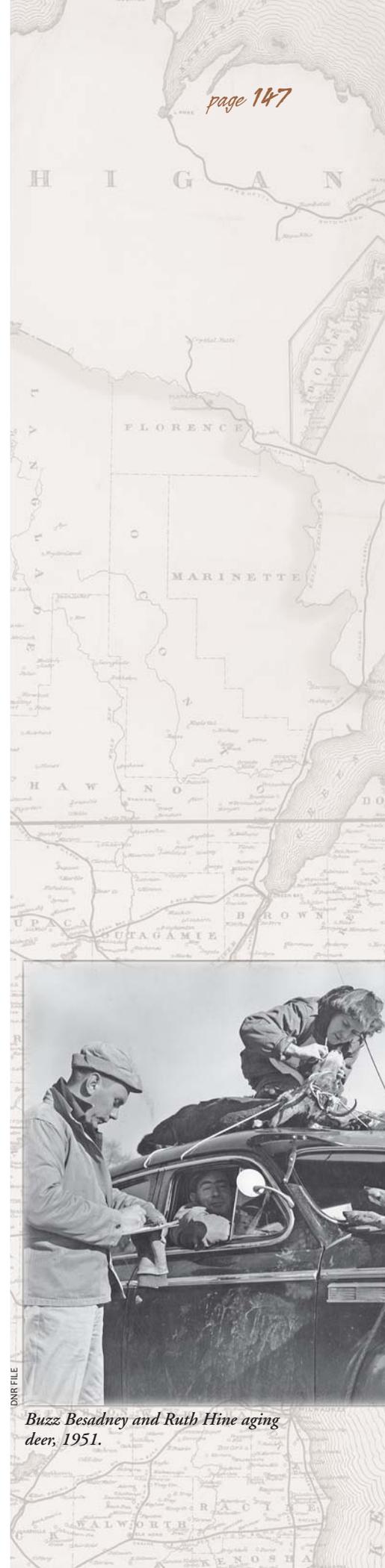
*The 1959 deer season considerably reduced the desired breeding population.... liberal seasons are not now acceptable and probably will not be acceptable for at least several years. The Law Enforcement personnel of this Area [Oshkosh] further feel that we should have buck-only seasons, and when the deer herd reaches the saturation point, any-deer seasons rather than party permit seasons should be used to reduce the herd to the desired size. It is our feeling that the public feels the same way and that the party permit definitely is not a proper management tool.*

The basic 1960 gun deer season was a menagerie of harvest strategies. A nine-day spike buck (antler not less than three inches in length) and party permit season applied to counties north of State Highway 29 including Madeline Island (largest of the Apostle Islands). A nine-day, spike-buck season was in effect south of State Highway 29 including the Necedah National Wildlife Refuge. A split season of a two-day either-sex (any deer) season followed by a seven-day spike-buck season was held in the Mississippi River Zone (eight counties).

Other deer season combinations in 1960 included a three-day, either-sex season applied to Jefferson, Walworth, Kenosha, Racine, and Waukesha counties (south-east block) and a 44-day, either-sex season on the rest of the Apostle Islands. A third consecutive, shotgun-only, either-sex season was held for two days on the Horicon National Wildlife Refuge to test hunting by permit. Over 330,000 gun hunters killed 61,005 deer, including 25,515 by party permit.

Public complaints following the 1960 deer season prompted Conservation Commission chairman Arthur R. MacArthur to write a very strong letter to complainants defending the present deer management policy (Appendix K). A copy of the letter was sent to all field personnel. The letter provided an excellent historical review in addition to explaining the agency's position.

Warden views had strong influence over public opinion because their profession was still thought of as the primary "caretaker" of the state's natural resources. The warden's skeptical view of both researchers and game managers continued from the previous decade and was reflected at a joint law enforcement/game manager meeting when one warden remarked, "We don't need college graduates, we want guys with common sense." Further, field wardens were not shy about sharing their opinions with the public or the news media.



Buzz Besadney and Ruth Hine aging deer, 1951.

## The Gamekeepers

Warden opinions combined with sportsmen and a vocal Conservation Congress resulted in the department and the Legislature receiving voluminous public objections to the party permit system. Anxious for a solution, the WCD introduced legislation early in 1961 to establish the authority to limit the number of permits they could issue for any one area. The Legislature amended it to abolish the party permit and prohibit the new permit system from going into effect until 1963.

Rather than pursuing either-sex deer hunting options, the department inexplicably recommended a nine-day, buck-only season for the fall of 1961. This sudden switch to conservative thinking produced an article of ridicule by Mel Ellis, the highly regarded outdoor writer for the *Milwaukee Journal*, in which he wrote, "Betting on which way the Wisconsin Conservation Department is likely to jump is like trying to make book on a Mexican jumping bean.... Nobody knows today what the department will recommend tomorrow."

The legislative moratorium on the party permit in 1961 and 1962 produced a conservative spike-buck season framework for most of the state and a two-day, either-sex season for the southeast block. The seasons produced a meager November deer gun kill of 38,772 in 1961 and 45,835 in 1962. The real management breakthrough occurred in 1963 when the "variable quota party permit system" was implemented. This system addressed the key hunter distribution problem created by the party permit. It allowed groups of four or more to kill a deer of either sex in specific areas. The 1963 experiment was applied to eight management units and the Necedah National Wildlife Refuge.

Most northern and central counties had the usual nine-day, spike-buck season. An Eastern Zone of seven counties had a two-day, either-sex season. The Mississippi River Zone (all or parts of ten counties) had a two-day, either-sex season followed by a seven-day, spike-buck season. The Southern Zone (11 counties) had a two-day, either-sex season. Sandhill, Necedah, and the Apostle Islands had their own special seasons. A total of 65,020 deer were killed in 1963, including 4,513 party permit deer.

The 1964 season expanded the variable quota to 32 management units with some southern counties using a three-day either-sex season and the Mississippi River Zone using a three-day, either-sex and seven-day, spike-buck season. The harvest increased to 93,445 with 19,557 taken by party permit. From this point on, the variable quota methodology provided reasonable harvest stability, and hunter confidence in the agency increased.

Game manager Otis Bersing updated *A Century of Wisconsin Deer*, published by the WCD in 1956. Bersing's second edition included harvest statistics through 1964 but wasn't published until 1966. The department continued to publish annual deer kill reports containing detailed information about harvest history.



Otis Bersing.

Left: Don Johnson (top left) conducting a deer registration audit in 1969.  
Right: Counting stubs turned in by successful hunters during the 1968 deer hunting season.



The 1965 gun deer season expanded the variable quota to 45 deer management units and a subsequent harvest of 98,745 deer. Deer hunting license sales exceeded 400,000 for the first time. The deer harvest exceeded 100,000 in 1966, 1967, and 1968. Ironically, the success was so good that hunters thought such harvest levels could not be sustained without hurting the herd. Hunter confidence weakened, and the biologically determined quotas were “politically” reduced through negotiations with the Conservation Congress, a trend that would continue in the future.

A succession of severe winters from 1965 through the early 1970s also impacted the herd. The combined result of gun seasons and winter losses reduced the harvest to 98,008 in 1969. While complaints about permit levels continued from the Conservation Congress, more hunters bought deer licenses as gun hunting participation exceeded 500,000 for the first time in program history.

**Car-deer Collisions.** The growing trend of car-killed deer escalated alarmingly in the 1960s and became a factor to be considered more seriously when debating the wisdom of supporting a larger deer herd. The numbers of dead deer picked up by wardens leaped from 4,483 in 1962 to more than 12,000 in 1967. It stabilized at the 1967 level through the end of the decade.

**Newspaper Audit.** The credibility of the department’s harvest figures remained a serious detractor for public acceptability of Wisconsin’s deer program. That perpetual complaint peaked in 1968 after three years of high deer kill reports. Don Johnson, outdoor writer for the *Milwaukee Sentinel*, conducted an audit of the deer registration data in 1968 that should have satisfied hunter complaints in perpetuity.

Johnson, like Gordon MacQuarrie before him, had become a highly visible and credible outdoor writer since joining the *Milwaukee Sentinel* staff in 1962. His writing style was popular with Wisconsinites, and his in-depth reporting was thorough and unbiased. Because factual conclusions usually favored WCD programs, he sometimes was accused of being on the agency’s payroll. Most people, however, respected his work and read his weekly column with regularity.

Johnson’s audit was painstaking and labor intensive. He sampled randomly chosen envelopes containing blood-soaked deer registration stubs that were collected in all six DNR administrative districts. He counted each stub in the selected envelope to verify the department’s tally for various deer management units with some envelopes containing several thousand registration stubs. Further, he randomly selected hunter names and addresses shown on the stub and personally contacted hundreds of individuals to verify the information recorded on the registration stub.

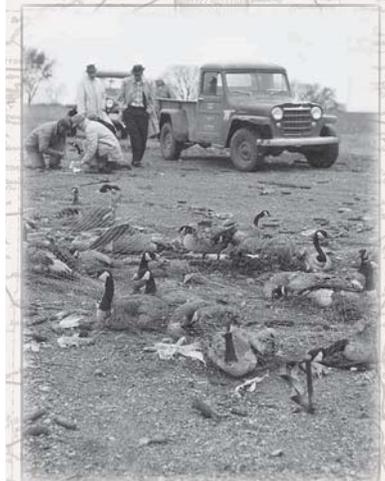
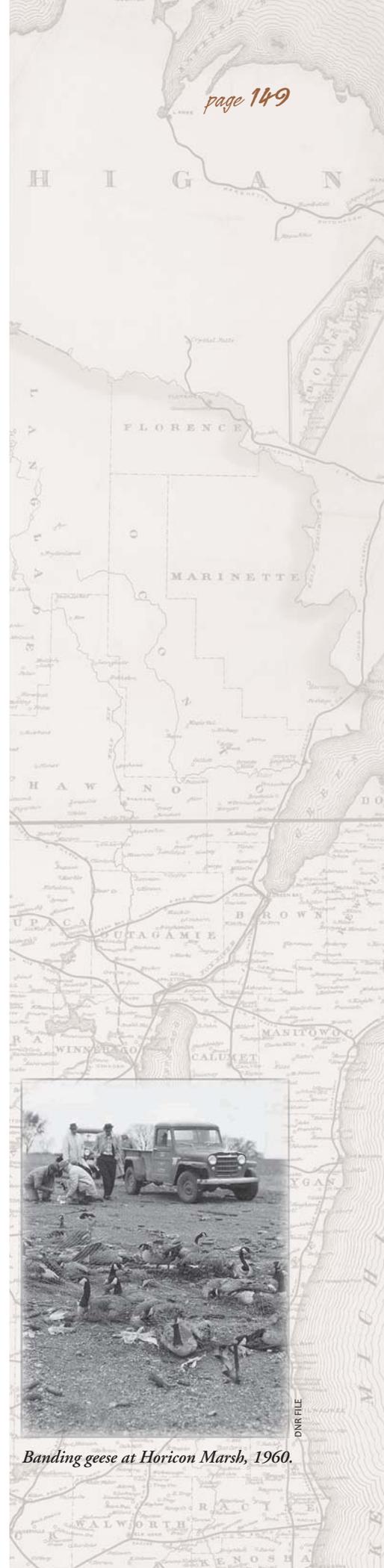
The results of Johnson’s findings were exonerating for the DNR. He found the agency’s tally to be very accurate. Only a few deer registration stubs contained errors. Most of the inaccurate stubs were found to be erroneous information purposely entered by the deer hunter and were turned over to conservation wardens for investigation. Some of those resulted in citations being issued for law violation.

Johnson’s Herculean effort helped produce a higher level of deer program credibility with the public... but it wouldn’t last very long.

### **Canada Goose Management**

The Mississippi Valley population (MVP) of Canada geese was about 260,000 in 1960 but ballooned to over 500,000 by 1969. MVP geese using Wisconsin rose from a peak of 29,725 in 1953 to over 100,000 in the early 1960s and 150,000 by 1969. Harvest quotas for Wisconsin first initiated by the FWS in 1959 were 7,000 in 1960. The quota gradually increased to 12,000 by 1964 and continued to rise as the years progressed.

The MVP buildup in the state and concentrations at Horicon Marsh induced the department to continue a controlled hunting program that started in 1954 to avoid poor hunter behavior common in the shooting lines along refuge boundaries. Permits restricted hunters to about 100 numbered blinds located on uplands adjoining the east and west boundary of the Horicon National Wildlife Refuge. A variety of



*Banding geese at Horicon Marsh, 1960.*

DNR FILE



*Left: Applying leg bands to geese at Horicon Marsh.*

*Right: Release of Canada geese.*



PHOTOS: DNR FILE

other restrictions, including number of trips, hunters per blind, and six-shell limits, were also utilized to improve the quality of the Horicon Marsh hunt. The program was very successful and continued through 1964 when cost and manpower shortages ended the program.

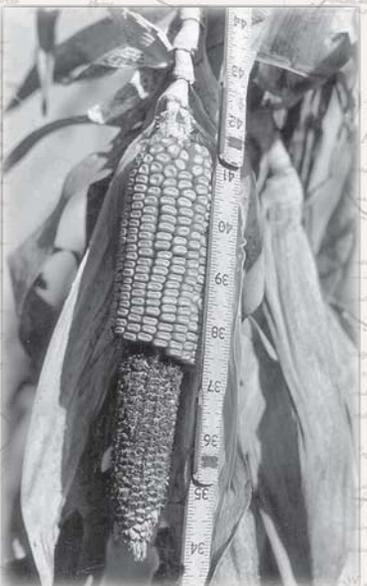
The first so-called "Goose War" occurred during this time period. Southern states felt Wisconsin was holding geese too long into the hunting season and insisted the state embark on a harassment program to haze geese and cause them to migrate further. The department staff backed by the Natural Resources Board refused to cooperate. The U.S. Fish and Wildlife Service (FWS) tried on their own to move geese off the Horicon Marsh National Wildlife Refuge with limited success.

To ease the crop damage caused by Canada geese concentrating on Horicon Marsh and provide more equitable hunting opportunities, a system of "goose satellite areas" was established in the 1960s. Habitat management favoring geese including dikes, dams, flowages, row crops, and refuges were established at wildlife areas including Amsterdam Sloughs, Brillion, Collins Marsh, Crex Meadows, Dike 17, Eldorado, Fish Lake, Grand River Marsh, Greenwood, Killsnake, Mead, Meadow Valley, Mud Lake, Navarino, Powell Marsh, Sandhill, Sheboygan Marsh, Theresa Marsh, and White River Marsh. The management goal was to accommodate about 150,000 Canada geese scattered across the state.

The basic Canada goose hunting season in the early 1960s was about two months long with a daily bag limit of two except in a special Horicon Zone surrounding the Horicon National Wildlife Refuge where the daily bag limit of Canada geese was one. Goose hunting in this zone had to be from blinds spaced 200 yards apart with no more than three hunters per blind. Hunting hours opened at varying times in the zone: 7 a.m. in 1962, 9 a.m. from 1963 to 1966, and regular waterfowl hunting hours thereafter. Hunting hours closed at 2 p.m. daily from 1961 to 1963 and at 4 p.m. from 1964 to 1966 before regular waterfowl hunting hours were reinstated.

In 1965, to manage crop depredations on private lands surrounding the Horicon National Wildlife Refuge, the department attempted to attract geese away from farm fields by feeding over 500 tons of corn at various strategic locations. Geese used the corn, but late rains caused wet conditions that delayed normal harvest on private lands. The result was that the geese moved to these lands when the state corn was gone. In December, the Legislature passed a law to pay farmers for crop damage caused by ducks and geese.

Federal and state employees attempted to haze geese off the Horicon National Wildlife Refuge in 1966 to try sending them south earlier than normal. Strong public objections forced the state to withdraw from this activity, but the FWS continued to haze geese up to ten days before the goose season opening. When the hunting season opened that fall, birds were highly vulnerable, and over 30,000 were killed in just two and one-half days. The season was quickly closed.



*Browse line on ears of corn by geese at Horicon Marsh.*

DNR FILE



PHOTOS: DNR FILE

Left: Cars line up for goose hunting blind registration at Horicon Marsh.

Right: Canada geese in field near west side checking station at Horicon Marsh.

Goose hunting regulations in 1967 through 1969 created a smaller area within the Horicon Zone in the immediate vicinity of the Horicon National Refuge called the Horicon Intensive Management Zone. The blind restriction applied only to this special area with a two person per blind occupation limit. However, permits and tags applied statewide in 1967 and 1968, and all goose hunters had to mail a permit card within 12 hours of killing a Canada goose. In 1969, tags were only required in the Horicon Zone.

During the latter part of the decade, the season length was about 40 days in most of the state but only 16 days in the Horicon Zone. The statewide Canada goose daily bag limit was one per day with a possession limit of two. The season limit was one Canada goose in the Horicon Zone. While goose hunting was providing unique hunting recreation opportunities, the war wasn't over. Controversy continued into the next decade.

### Duck Management

Continental duck numbers dropped from a 1957 peak of 120 million to an all-time low of 77 million in 1961. Low water and poor habitat conditions had dramatic impact on production everywhere. Duck hunters had to suffer through low three- and four-bird bag limits throughout the 1960s but enjoyed simple one-page, pocket-fold regulations each year. Special season closures affected canvasback and redhead shooting, but these restrictions were mitigated with more liberal bag limits on *scamp*. Duck identification began to receive more educational attention through department talks and regulation pamphlets.

As a result of FWS interest in land acquisition in duck producing states, determining duck production capabilities became a new priority activity in Wisconsin. A complete survey of waterfowl breeding was conducted in the state in 1965 and 1966, with duck densities found to be averaging three ducks per two miles of habitat. Species composition consisted of 40% blue-winged teal, 30% mallards, 10% wood ducks, and the remainder a mix of other species.

### Pheasant Management

The Poynette Game Farm experienced personnel reductions from 55 in 1950 to 30 by 1960. Budget restrictions and shifting program emphasis moved the game management program away from artificial propagation toward more habitat-based activities.

Fall adult pheasant releases varied from about 30,000 to 70,000 annually during the 1960s. The cooperative egg program that had provided fertile eggs to 4-H, FFA, and conservation clubs since 1928 was terminated in 1967 because of its ineffectiveness. The day-old-chick cooperator program involved some 200 clubs releasing close to 200,000 eight-to-twenty-week-old pheasants each year. Research indicated that hen releases from this program were not surviving, so only roosters were provided to the cooperators after 1962.

*Scamp*  
Bluebill ducks.



## The Gamekeepers

The ongoing pheasant study by researcher John Gates in east central Wisconsin and the study by Edward Frank and Eugene Woehler on the Waterloo Wildlife Area were designed to find out more about the type of habitat needed to increase pheasant production in the wild and to identify other factors suppressing the population.

### Wild Turkey Management

Game management interest in reestablishing a wild turkey population had not diminished. Despite setbacks caused by poor game farm stock and blackhead disease introduced because of exposure to pen-raised pheasants at Poynette, the turkey reintroduction effort started in central Wisconsin was slowly building the population to numbers above 1,000 birds, a level at which game managers felt a limited season could be established.

A new technique of live trapping from one area and releasing in a new area was tried in December 1966 when eight hens and four toms were trapped at Meadow Valley and released in Crawford County. The genetic stock of these birds was "Merriam," a strain of wild turkeys originally obtained from northern New Mexico. While some birds survived in Crawford County for a few years, the prospects were not very promising that the population would hang on, let alone increase.

New Mexico indicated an interest in receiving ruffed grouse from Wisconsin in 1967, so an exchange program was worked out. Wisconsin received 15 Merriam-strain turkeys and released them in Wyalusing State Park in Grant County. Observations over the next several years followed the same pattern as the Meadow Valley flock; small numbers of birds gradually showed up in new areas. However, the wild turkey population remained low in Grant County. While a successful introduction program was bringing an extirpated species back in a few areas, a future hunting season did not appear likely in southwestern Wisconsin.

A hunting season did take place in the Meadow Valley-Necedah area. The first season on turkeys was conducted by permit in the spring of 1966. While only 20 birds were taken, the hunting quality was attractive enough to repeat the spring season in 1967 and 1968, each producing a small harvest (29 total). While the hunt was judged to be successful, its limited scope was not encouraging enough to experiment further in this area of the state.

*Spring gobbler hunts were held at Meadow Valley Wildlife Area and Necedah National Wildlife refuge during 1966-68. About 20 gobblers were harvested each year.*



LEFT: D THOMPSON, RIGHT: D TVEDT

## Dove Hunting

Agency interest in hunting mourning doves was instilled by John Keener because he frequently hunted doves in Illinois and other states and touted their attributes to anyone who would listen. Since the dove was hunted in most states south of Wisconsin, and they were obviously enjoying migrants produced in this state, pursuing a hunting season seemed logical.

The Game Management Bureau proposed establishing a 20-day experimental mourning dove hunting season in 1968 for south central Wisconsin. Reaction from the Conservation Congress and the hunting community was mixed but mostly negative. The biology of the proposal was thought to be sound, but the public image of hunters blasting tiny songbirds was devastating. The proposal was defeated at public hearings.

## Fisher Management

Wild fishers had been successfully reintroduced in the Nicolet National Forest in northeastern Wisconsin during the previous decade, so an effort to reintroduce them in the Chequamegon National Forest in northwestern Wisconsin was undertaken in 1966. The U.S. Forest Service and the WCD cooperated in the effort to trap wild fishers in the Superior National Forest by private contractors for \$50 per animal. Thirty-one fishers were eventually released in a 200,000-acre fisher management area where dry-land trapping of other species was permanently closed to prevent inadvertent trapping of fishers. A similar 120,000-acre fisher management zone was also in place in the Nicolet National Forest.

## Muskrat Management

The share-trapping program at Horicon Marsh continued through the decade although trapper interest continued at a low rate (5–18 permits) because fur prices averaged a little more than one dollar per muskrat. The annual harvest ranged from 1,500 to a high close to 15,000. The resultant waterfowl habitat improvements and steady revenue warranted continuing the program.

## Public Image

Getting blasted by the public over Canada geese, deer, or what have you had game managers convinced the public in this state were just cantankerous and that those in other states must have a better client. Jack O'Connor, a famous national outdoor writer at the time, would have disagreed. He wrote the following in a letter to the editor of the *Idaho Tribune*, published on January 13, 1967:

*I see by the Tribune of January 9 that Governor Don Samuelson says that he got more criticism of the state game department than he has of any other department. I've got news for Big Don. If he fired every member of the department and staffed it with St. Peter, the Angel Gabriel, Sir Isaac Walton, Nimrod, Princess Diana, Daniel Boone, and Charles Darwin, he'd still get more criticism of the game department than any other.*

*In my day, I have been to a fair number of states, and I have yet to be in one where the game department was not under fire, where there was not a strong movement underway to get rid of the director, to hang the biologists, to have the head of the law enforcement division torn asunder by wild horses, and the chairman of the commission beheaded, drawn and quartered, and his head exhibited in front of the state capitol on a pike.*

The game management program had come along way under Smith's leadership. Significant acreage had been purchased for the program, and game managers were improving their land management skills. Field personnel knew or knew of John Keener, but they didn't know his leadership style or the vision he had for the program. They would soon find out.



Bernie Bradle (retired DNR wildlife manager) with first fisher caught accidentally by a predator trapper during the winter of 1957-58 in Forest County, Wisconsin.



A fisher kit found stranded in a mud puddle provided some of the first evidence of reproduction in the newly introduced fisher population. May, 1962, Nicolet National Forest.

PHOTOS: DNR FILE