NARRATIVE REPORT ROUTING SLIP

| MARK TWAIN | PERIOD September - December 1963 |
|--|--|
| CFFICE OF THE CHIEF: Mr. Gillett | Mr. Ackerknecht |
| | Mr. Goldman |
| WILDLIFE MANAGEMENT: Mr. Webster | Mr. Stiles |
| RESCURCE MANAGEMENT: Mr. Stollberg | Mr. Tamba |
| or any of white head of the second se | Controlled States State |
| OPERATIONS: Mr. Huenecke | Mr. Regan |
| F IC USE: Mr. DuMont | Mr. Menson |

NARRATIVE REPORT MARK TWAIN NATIONAL WILDLIFE REFUGE

September, October, November, December
1963

DEPARTMENT OF THE INTERIOR
BUREAU OF SPORT FISHERIES & WILDLIFE
MARK TWAIN NATIONAL WILDLIFE REFUGE
QUINCY, ILLINOIS

EMPLOYEES

| Edward S. Crozier Refuge Manager |
|---|
| Edward A. Davis |
| Richard E. Toltzmann |
| Willis D. Vasse |
| Merle E. Austin Operator-General |
| Alice D. Burghart Clerk-Stenographer Resigned on November 1, 1963 |
| Mary L. Guida |
| Leroy Pentecost |

NARRATIVE REPORT

MARK TWAIN NATIONAL WILDLIFE REFUGE

ANNADA - DELAIR UNIT

September, October, November, December

1963

DEPARTMENT OF THE INTERIOR
BUREAU OF SPORT FISHERIES & WILDLIFE
MARK TWAIN NATIONAL WILDLIFE REFUGE
QUINCY, ILLINOIS

NARRATIVE REPORT

MARK TWAIN NATIONAL WILDLIFE REFUGE

ANNADA - DELAIR UNIT

September, October, November, December

1963

I. GENERAL

On December 10, 1963 the Migratory Bird Conservation Commission authorized the acquisition of two additional units to Mark Twain National Wildlife Refuge.

The DeLair Unit, located in Pike County, Illinois, is fifty miles south of the Gardner Unit. This area, protected from the Mississippi River by levee, is 1,738 acres of cropland, marsh, and water and is very well suited for refuge development. The area is bounded on the north by the Gulf Mobile & Ohio Railroad, on the west by the Mississippi River and the Pike Station State Refuge, on the east by the Sny River, and on the south by a private hunting club.

The physical location of this tract, plus the nature of the terrain and the location of the water areas, offers many advantages to waterfowl management.

During a normal growing season between 900 and 1000 acres can be farmed. Of this 1,000 acres, about 400 acres depends upon the length of time the 42" dewatering pump is run. This wet, low land provides excellent opportunity for production of moist soil crops. Seep water from the Mississippi River is thought to be sufficient to flood these low areas in the fall.

Scattered throughout the entire area are several permanent water areas: Upper Swan Lake - 30 acres, Lower Swan Lake - 50 acres, Futcher Pond - 30 acres, Flake Hole - 20 acres, wooded sloughs - 45 acres and 15 acres of scattered ponds in farm fields. All of these, except the five scattered ponds, are connected by a drainage system to the pumping station. Fy placing control structures in the drains, most of the ponds or lakes can be operated independently of the others.

A purchase agreement has been executed with the largest land owner for 1,166 acres. Engineering surveys are now underway on this tract. The owner of this tract originally owned 1,480 acres specifically for waterfowl hunting. He is retaining 314 acres, plus a huge lodge, tenant house, and outbuildings for his own use until his death, at which time the Bureau may accept a purchase agreement. At the present time he is constructing a duck pond on the portion he is retaining for his private hunting.

Only two other land owners are involved, and neither would seriously affect operation of the unit. However, both have been contacted, but we have not been notified of their feelings.

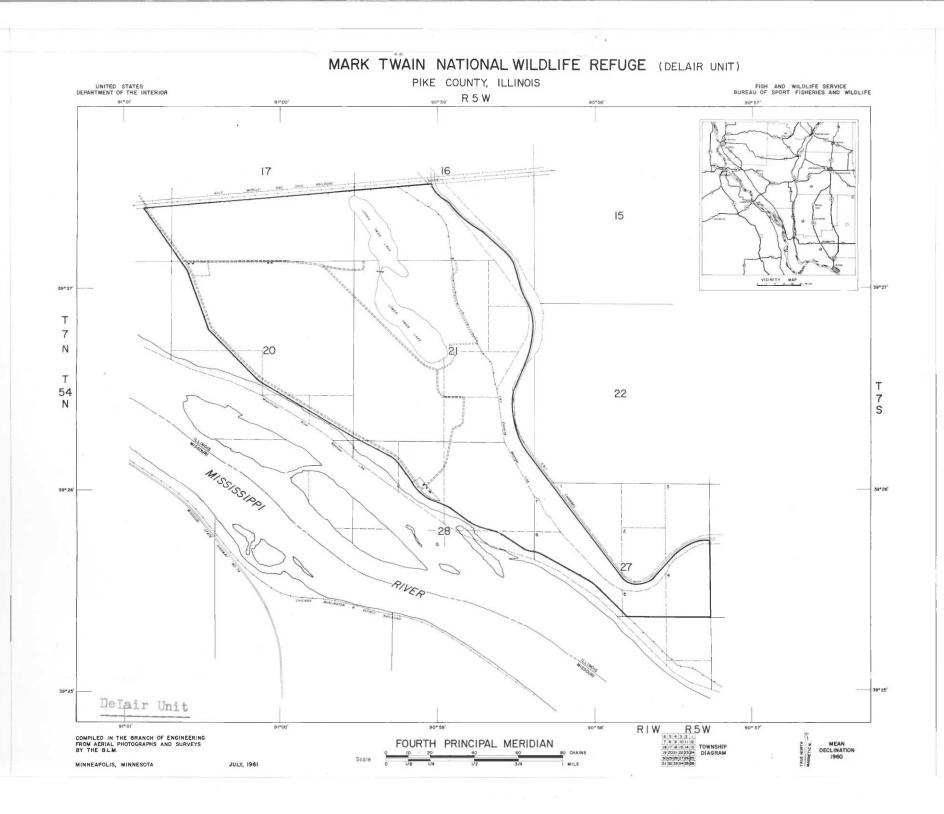
The Annada Unit, located in Pike County, Missouri, is approximately

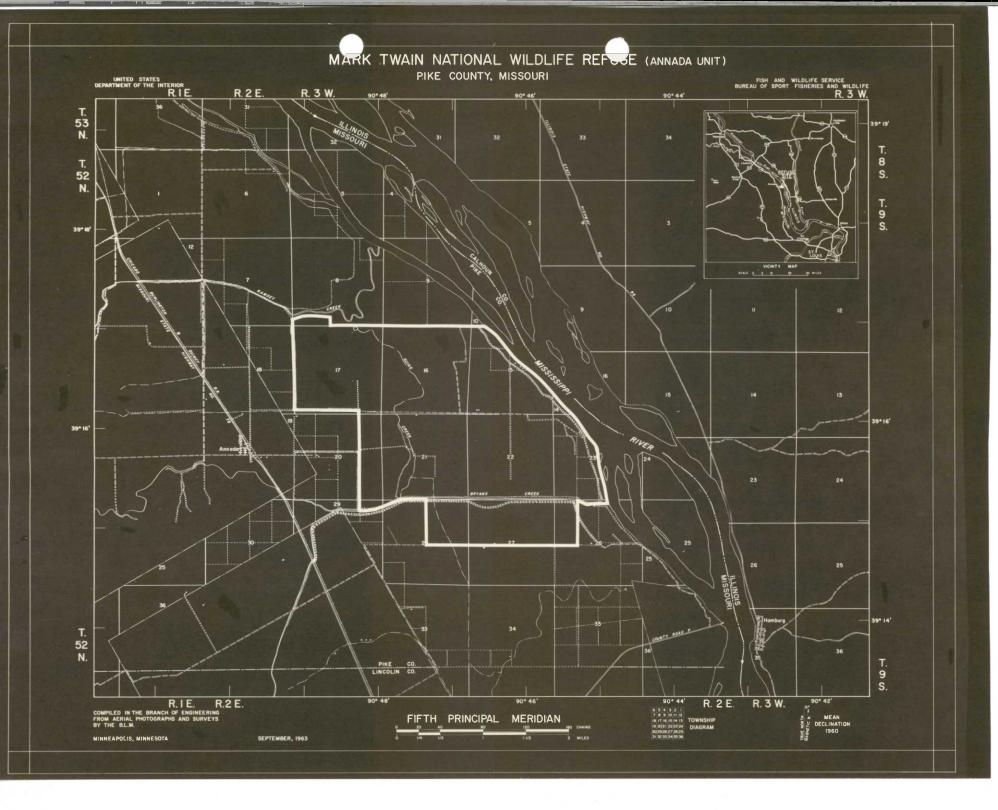
70 miles south of the Gardner Unit and 15 miles north of the Batchtown Unit. This area, a leveed annex of the Elsberry Drainage District, is 4,200 acres of cropland, timber, and a drainage system. It is 98% cropland which yielded up to 95 bushel of corn per acre this past year. It is excellent farm land capable of producing a profusion of waterfowl food.

This area offers a wonderful opportunity for goose management. It is entirely surrounded by levee with a single outlet. At the present time it is dependent upon the Elsberry Drainage District, but with the installation of our own pumping system, the area could be dewatered in the spring and partially flooded in the fall. Two water areas that have been removed could possibly be restored to furnish some permanent water for the area; however, this too may be dependent upon the installation of our own pumping station.

A purchase agreement has been accepted with the largest land owner for 2,000 acres more or less. Included is a modern ranch style home, a smaller tenant house, equipment building, two barns and miscellaneous other buildings. Many other land owners are involved, but only the two largest are necessary for the successful operation of the area as a refuge. Without the control of these two, little can be done on the development of water areas.

Following are page size maps of the proposed units.





NARRATIVE REPORT
HARK TWAIN NATIONAL WILDLIFE REFUGE
GARDNER UNIT
September, October, November, December
1963

DEPARTMENT OF THE INTERIOR EUREAU OF SPORT FISHERIES & WILDLIFE MARK TWAIN NATIONAL WILDLIFE REFUGE QUINCY, ILLINOIS

NARRATIVE REPORT MARK TWAIN NATIONAL WILDLIFE REFUGE GARDNER UNIT September, October, November, December 1963

I. GENERAL

A. Weather Conditions.

| | Snowfall | Precipitat This Month | Normal | Max. Temp. | Min. Temp. |
|--|--------------------|--------------------------|------------------------------|----------------------|------------------------|
| September October November December | 0 0 0 7•3 | 1.86 1.73 1.62 | 3.53 2.88 2.16 1.67 | 91 94 75 65 | 1.6 35 26 -11 |
| Total | 7.3 | 5.78 | 10.21 Extremes | 911 | -11 |
| Annual Total | 20.3 | 26.13 | 35.97 | | |

Temperature and precipitation data are obtained from records of A. H. Gibson, official weather observer for the Quincy area.

The weather for September was two degrees warmer than the normal average while rainfall was 1.67 inches below normal. October was a month of summer and was recorded as the warmest on record. It was also an unusually dry month with only 1.73 inches of rain. The first light frost came on October 28, or about 12 days later than average.

December was the coldest on record here. The month started with normal winter temperatures for the first two weeks then the big drop in temperature came with snow on December 13. Thereafter the cold spell continued except for a three day respite over Christmas. Temperatures were below zero during eight nights, reaching a low of 11 below zero.

B. Habitat Conditions.

1. Water

This is the first year that the Gardner Unit has not experienced some flooding for the Mississippi River remained near pool stage throughout the year. At the beginning of the period, it was 5'6", reaching a high of 5'8" on September 7, and again on November 24. However, during most of the period, it was around 5'4" which is unusually low.

Duck Lake, which is the only controllable water on the Gardner Unit, was not drawn down by our low-lift pumps, as we concen-

trated our wood duck trapping in and around Duck Lake and some water was required. However, through evaporation the water levels receded enough in July to allow us to seed about two acres of shoreline to Japanese Millet. The millet attained a good growth, and seed production was very good, but very little waterfowl utilization was realized as the river remained below pool stage and failed to flood.

The two artificial ponds located in Field No. 1 held water throughout the period. Duck use of the ponds was good, as they were used until freeze up as resting areas by mallards and wood ducks.

2. Food and Cover

Because there was no high water in the spring, farming operations got under way about three weeks to one month ahead of normal. The dry, warm weather this fall allowed the crops to mature early, and all harvesting was completed by the first week in November.

The refuge share of the crop, about 220 acres in all, has either been harvested or left standing in the field. Approximately 800 bushel of ear corn has been put in the new corn crib for next summer's wood duck banding operation. Some shelled corn, 450 bushel, is being stored in the equipment building. At the close of the period approximately 52 acres of corn remain standing which will be made available to northbound migrants in the spring. The remainder of the refuge corn share was shredded down following the close of the waterfowl season.

Production of the mast crop this year was not as good as in past years, except for pin oak production which was normal. Wood ducks and mallards made good use of the pin oak stands on the lower end of the unit.

II. WILDLIFE

A. Migratory Birds.

1. Waterfowl

Ducks

Duck use on the Gardner Unit was the best since the unit was established in 1958. A record peak of 47,700 was reached on December 14 just before freeze up. Normally the unit peak is reached two weeks earlier and has never been higher than 35,400, which was recorded in 1959.

Mallard day use was up 273,000 days from the same period last year. Wood duck use was also up 103,400 days over the same period. This is a considerable increase from the first year of record, 1958, when only 8,505 wood duck use days were recorded.

Figure I, which follows, shows a comparison of peak numbers and duck day use since 1958.

| DUCK DAY USE | PEAK NUMBER OF DUCKS |
|-------------------------------------|-------------------------------------|
| September - December GARDNER UNIT | September - December GARDNER UNIT |
| MARK TWAIN NATIONAL WILDLIFE REFUCE | MARK TWAIN NATIONAL WILDLIFE REFUGE |
| | 50,000 |
| | 20,040 |
| | |
| | 45,000 |
| 1,200,000 | |
| 1,200,000 | 40,000 |
| 1,100,000 | 40,000 |
| | |
| 1,000,000 | 35,000 |
| 900,000 | |
| 900,000 | 30,000 |
| 800,000 | |
| | |
| 700,000 | 25,000 |
| 600,000 | |
| 300,000 | 20,000 |
| 500,000 | |
| | |
| 1,00,000 | 15,000 |
| 300,000 | |
| | 10,000 |
| 200,000 | |
| 700 000 | |
| 100,000 | 5,000 |
| 58 59 60 61 62 63 | 58 59 60 61 62 63 |

We believe this increase in duck use is attributed to the above average corn crop this year, and the fact that the permittees finished picking and shredding their corn the first week of November before the start of our waterfowl build-up. Considerable field feeding was observed in all fields after the permittees moved off the island.

Mossey Lake, Upper Long Island Lake, Duck Lake, and Canton Chute were the most popular resting areas for both mallards and wood ducks.

The late fall and the presence of birds until the end of the period also played a large part in the increased duck day use. Even though the ice was thick enough to walk across east chute to the island by December 15, a hole remained open below a wing dam between LaGrange and Long Island, and mallards, common goldeneye, common mergansers, and wood ducks were still using the open water at the end of the period. A census taken December 31 showed 240 wood ducks to be present which is rather unusual, since this species does not usually spend the winter on the unit.

Geese

Canada geese day use was up to a total of 2,436 days. While this is not many, we hope it is the beginning of better utilization of the island by geese. We had about 50 geese present for seven weeks which is a good nucleus to begin with, and it is the first time any geese have stayed for any length of time.

After freeze up the captive goose flock was removed from the island to the mainland for the winter. We have only five pinioned geese left. Three of the eight that were present at the start of the summer have been flying about the refuge all fall, and we failed to catch them to clip their wings. At the close of the period the three flyers were still present.

2. Other Migratory Birds

Shorebirds

Greater and lesser yellow-legs were present for two weeks in October. Spotted, solitary, and least sandpiper were present throughout the month of September. Killdeer stayed with us until the weather turned cold the week of December 7.

Gulls

Few gulls were seen during the period. The peak number was only 50 on November 14. This may be due to the warm weather that prevailed throughout the fall.

Egrets and Herons

American egrets were present until November 14. Their peak number, during October, was about normal. Great blue herons were present for most of the period but left when Long Island Lake froze over. Little green herons were present through September and October, and two black-crowned night herons stayed with us for a week in September.

Doves

Few doves used the Gardner Unit. They peaked at 10 birds during September, and four were still with us at the close of the period. Dove hunting in this area was about average. No large migration was noted this fall, but a greater number of doves stayed around, possibly due to very warm weather.

B. Upland Game Birds.

The first sighting of bob-white quail since the winter of 1960 was made during October and November. Sixteen birds were seen.

C. Big Game Animals.

The white-tailed deer population on the Gardner Unit has increased considerably due to the lack of a spring flood which usually forces the herd off the islands. On evening jeep trips across Long Island, counts of 74, 99, 109, and 150 deer have been made. We have estimated the total unit population to be 275 deer. While the animals are in excellent condition at the present time, some control will be necessary next year if we have another year of low water.

Of the sixteen deer that were ear tagged in 1962, two were killed this past fall. One seven point buck was shot one-fourth mile from the refuge, north of Knapheide Landing. This deer was 5½ years old and had been removed from Soldiers Home Deer Park on November 5, 1962. It weighed 128 pounds at the time of tagging and 112 pounds field dressed. The other deer, a doe, was killed five miles southwest of the Batchtown Unit near the Winfield Lock and Dam. This is approximately 90 miles south of the Gardner Unit where the doe was tagged as a fawn on June 15, 1962.

D. Fur Animals, Predators, Rodents and Other Mammals.

Mink

Few mink are present on the Gardner Unit as no signs were noted during the period. One of the trappers who trapped along the east side of the refuge between Long Island, Flannigan and Shandrew Islands, says he only saw signs of one mink. The low population of mink may be due to high raccoon population.

Beaver

The beaver population remains at a high level. Several beaver lodges

are on the west side of the unit between LaGrange Island and Long Island where a great deal of corn was destroyed by beaver activity. One trapping permittee caught 38 beaver in Odell and Canton Chutes in 19 days of trapping before the big freeze came.

Muskrat

Muskrat are on the increase on the Gardner Unit. This increase is probably due to the fact that there was no flooding of the islands this year. Trapping permittee, Art Kuntz, caught 41 rats this year during the brief season.

Foxes

One den of foxes is located in the old house foundation in Field No. 2 where one litter was raised. Although foxes have been seen throughout the island, the population is estimated to be only 8 animals.

Skunks and Groundhogs

Skunks are on the increase as five were observed during the period. The total population is estimated at around 15. Groundhogs were seen throughout the period, and an estimated 25 are present.

Rabbits

The cottontail rabbit has returned to the island for the first time since 1960. However, the population is estimated to be only 20, as observations and signs are few.

Raccoon and Opossum

The number of opossums present is not too high, but some are seen wandering along the roads and fields.

The coon population has been very high the last three or four years. Trapping was initiated this year and 142 were taken by permittee Art Kuntz who trapped only the exterior boundaries along Odell and Canton Chutes. Two other trapping permittees, who were going to trap the interior of the refuge as soon as the duck season ended, failed in their efforts as the freeze up came soon after the duck season ended.

Squirrels

The squirrel population is in excellent condition and has reached a refuge high. On the squirrel hunter bag check forms, hunters reported killing 565 young to 317 adults with 76 unknowns. Last year, more hunters hunted longer and killed 201 young squirrels compared to 324 adults and 40 unknowns.

E. Hawks, Eagles, Owls, and Crows.

Hawks

Red-tailed hawks were present throughout the period, peaking at 18 birds the last week in September. Red-shouldered hawks were also present during the period. No large migration of hawks was noted this fall.

Eagles

One golden eagle was seen on October 4. This is the only one seen during the period. Bald eagles started arriving November 29, and by the close of the period, 42 were present. In three large cottonwood trees in Field No. 5, sixteen birds were seen, 10 of them resting in one tree. This year's peak number of 42 birds is 22 birds higher than last year, and 10 birds over the previous peak of 32 birds in 1960. A total of 91 bald eagles were seen during the period. Of these, 70 were adults and 21 immature.

Owls

Great horned owls were present throughout the period with about four present at the start, and eight present at the end of the period. Barred owls were also present during the period. They numbered 8 to 10 birds.

Crows

We started the period with about 40 crows. They peaked at 350 on November 7, and ended the period with 110 present.

G. Fish.

Sport fishing was allowed through September 30 of this period, but fishing was poor in Long Island Lake due to the low water and warm weather.

H. Reptiles.

Nothing to report.

III. REFUGE DEVELOPMENT AND MAINTENANCE

- A. Physical Development.
- Sloped 400 yards of bank and removed stumps along Long Island Lake and Field No. 7.
- Removed spoil bank along east side of Duck Lake and sloped bank.
- Filled low spots in Field No. 7 with dirt from spoil along Duck Lake.
- Made repairs to D-7 dozer blade and A frame.

- Leveled spoil bank around pond in lower end of Field No. 1.
- Eladed road going across island prior to the start of harvesting operations.
- Installed new 800 bushel corn crib for ear corn.
- Mowed weeds in goose pen and around equipment shed.

B. Plantings.

1. Cultivated Crops

Planting conditions were the best we have had on the Gardner Unit since the establishment of the refuge in 1958. Farming operations got underway about three weeks earlier than normal, and consequently, harvesting began in mid-September. Soybeans, 80 acres, averaged 30 bushel to the acre. Ten acres of beans were too weedy to combine, so they were left standing to be utilized by deer. In the evening, usually eight to ten deer can be seen enjoying this patch.

Corn picking was started the last week in September and was completed by the first week of November. The corn crop, 486 acres in all, averaged about 80 bushel per acre. Fifty acres of corn were left standing in the field. Twenty acres of buckwheat were also left in the field and should be utilized next spring when it is flooded.

One hundred acres of winter wheat were planted in Field No. 7 adjacent to the goose pen and Duck Lake. Moisture conditions were poor and growth was slow. If it isn't flooded out next spring, forty acres will be combined and the rest plowed under.

IV. RESOURCE MANAGEMENT

A. Fur Harvest.

Two trapping permits were issued for the Gardner Unit, one for the exterior boundary of the unit that started on November 20th and the other for the interior of the unit starting at the close of the duck season. The interior of the island was not trapped as the river and chutes froze over shortly after the close of the waterfowl season, and the trappers were unable to get to the island. The permittee trapping the exterior boundary had better success, and he removed 41 muskrats, 142 raccoon, and 38 beaver.

The refuge share was to be 25% of the muskrats and 50% of the mink. At the close of the period, eleven muskrats were sent to the Hudson Bay Company, Fur Sales Inc. in New York for sale as the refuge share.

V. FIELD INVESTIGATION OR APPLIED RESEARCH

A. Duck Banding.

The wood duck banding operation was considered quite successful. A total of 626 woodies were banded as compared to 13 banded in 1962 which was our previous high.

We believe that much of the improvement was due to the pre-baiting which was started in June although banding did not start until mid-July. All of the trapping was done on Duck Lake. Following is a break down of the birds banded. The blue-winged teal were banded incidental to the woodies.

| Wood Ducks | | Blue-Winged Teal | | |
|------------|---|------------------|--|--|
| 269 | Immature Males Immature Females Adult Males Adult Females | 134 | Immature Males Immature Females Adult Females Adult Males | |

VI. PUBLIC RELATIONS

A. Recreational Uses.

Recreational use of the Gardner Unit during the period consisted only of a few sport fishermen and squirrel hunters during the month of September. Visitor use days for the period totaled only 800 as the refuge is closed to all visitors after September 30.

B. Refuge Visitors.

| 10/2 | Harry E. Stiles | Refuge Inspection |
|-------|-------------------------------------|-----------------------|
| | Ass't Regional Supervisor | |
| 10/9 | Chuck Kniffin, GMA | Courtesy call |
| | St. Charles, Missouri | |
| 10/16 | Phil Rice | Duck Hunting Schedule |
| | Missouri Conservation Officer | |
| 11/18 | Dick Lutz | Public Shooting Area |
| | Illinois Area Game Biologist | |
| 11/19 | Jeb Kost | Courtesy call |
| | Illinois Department of Conservation | |
| 11/21 | Jim LaBuy | Courtesy call |
| | Illinois State Fisheries Biologist | |
| 11/29 | Wayne Chord, GMA | Courtesy call |
| - 4 | Sioux City, Iowa | |
| 12/4 | T. E. Musselman, Naturalist | Bird Banding |
| / | Quincy, Illinois | |
| 12/10 | Don Gray | Visit |
| | Manager, Upper Mississippi Refuge | |

In addition to the above, countless other people including hunters, permittees, interested visitors, State Warden Andrew and GMA Kennedy also visited the office.

C. Refuge Participation.

- 9/12 Crozier met with Illinois State Conservation Department personnel in regard to commercial fishing on Keithsburg Unit, hunting on Long Island Public Shooting Area, and zoning of Mississippi River.
- 9/16 Crozier and Toltzmann met with Iowa Conservation Commission personnel in Des Moines in regard to management on the Louisa Unit.
- 10/1 Crozier attended Ed Davis retirement ceremony in Grafton, Illinois.
- 10/3 Crozier and Toltzmann attended Sportmen's Club meeting at Burlington (Iowa) Ordnance Plant.
- 10/4 Crozier and Toltzmann met with personnel of the U. S. Corps of Engineers in Rock Island in regard to access to Big Timber Area and leases on Keithsburg Unit.
- 10/10 Crozier showed film and gave short talk to Payson, Illinois P.T.A. Forty-two present.
- 10/15 Crozier and Vasse gave slide talk and answered questions regarding future plans for Batchtown Unit at Batchtown Sportsmen's Club meeting. One hundred present.
- 10/16 Crozier and Vasse met with personnel of the U. S. Corps of Engineers in St. Louis in regard to leases on Calhoun-Batch-town Units.
- 10/21, Crozier attended meeting of the Ad Hoc Recreation and Water 22 Use Committee of the UMRCC at Rock Island.
- 10/23 Refuge staff meeting in Quincy Office.
- 11/17 Crozier presented slide talk to Quincy Area Veterinarian Association at Lincoln-Douglas Hotel. Twenty present.
- 11/19 Crozier, Toltzmann, and Vasse attended Communications Work-shop in Muscatine, Iowa.
- 12/6 Refuge staff meeting in Quincy, Illinois.
- 12/11 Crozier and Toltzmann met with personnel of U. S. Corps of Engineers in Rock Island in regard to new General Plan.

D. Hunting.

Squirrel hunting was again allowed on the Gardner Unit during the month

of September. A total of 195 squirrel permits were issued. Of these seventy-one returned their bag check sheets reporting a total of 821 man hours hunted with a harvest of 958 squirrels. Last year there were no unfortunate incidents; however, this year hunters are apparently beginning to feel that hunting on the refuge is more of a right than a privilege and are abusing it. Several refuge signs were shot up and one deer was killed on the first day. Both of these incidents were the result of hunters using .22 rifles; so in the future we may request that only shotguns be allowed.

The Illinois deer season was split covering two weekends. During the first half, November 8, 9, and 10, there were 87 deer killed in Adams County. The second half of the season, November 29, 30 and December 1, accounted for 45 deer. Last year, when the season ran for six consecutive days, ninety-nine deer were killed. While this year showed an increased kill, the State Conservation Department had hoped to kill 150 or more deer in the county.

Waterfowl hunting was very disappointing to the local wildfowlers. Hopes were high with the more liberal regulations and encouraging reports from the breeding grounds, but blue-bird weather conditions ruined such dreams.

During checks of 116 hunters in state registered blinds around the Gardner Unit, only 50 ducks were checked in the bag. Hunting in the Quincy Bay area was even less productive. On many days only one or two shots could be heard on both areas.

Mallards made up most of the bag, followed by wood ducks. Other species accounted for only a very small percentage of the total.

Only 3,780 man days of hunting were estimated for the Illinois side of Pool 21.

E. Violations.

The following violators were apprehended in Missouri by Manager Crozier and Operator-General Austin. Other apprehensions were made by State Conservation Inspector Andrews and U.S. GMA Kennedy.

| 11/30/63 | Louis Gille 648 Harrison Drive Quincy, Illinois | Using live decoys Hunting wild ducks during closed season | \$50.00 Fine w/\$11.00 costs State Court |
|----------|---|---|--|
| 11/30/63 | Thomas R. Lohmeyer 1527 South 5th Street Quincy, Illinois | Using live decoys Hunting wild ducks during closed season | \$50.00 Fine w/\$11.00 costs State Court |

F. Safety.

Two safety meetings were held in conjunction with the regular staff meetings. General safety discussions were held, and the following two films were shown "Safety Everywhere", and "Boating Safety".

An attempt was made to acquire an airhoat to make over to an ice boat to make access safer to the island, but at the present we are still walking on the ice, pushing a boat, and wearing life preservers. Future equipment acquisitions should include the purchase of an ice-air-boat.

Routine fire hazard inspections were made and all fire extinguishers were inspected.

From records available in this office, it appears that the Gardner Unit has 1,918 accident free days.

VII. OTHER ITEMS

A. Items of Interest.

On November 1, after a month's rest, Mrs. Alice Burghart resigned and resumed her career as a mother and home-maker. Mrs. Burghart had been Clerk-Stenographer on Mark Twain Refuge for exactly five years. On October 23 a farewell luncheon was given in her honor and a gift presented.

Mrs. Mary L. Guida was hired temporarily on October 8 to fill in while Mrs. Burghart was on sick leave and did such a fine job that she was given a permanent appointment on December 22, 1963. Mrs. Guida was actually reinstated as she has five years of previous Civil Service experience.

The booklets, "Ducks at a Distance", were immensely popular in this area. Over 1,000 were distributed in the Quincy area. Most of these were given to the post office who passed them out as they were selling duck stamps and regular postage stamps. The remainder were given to people who called for them at our office.

This report was written by Operator-General Merle Austin, edited by Refuge Manager Crozier and typed by Clerk-Stenographer Mrs. Mary L. Guida. The NR forms for the entire report were compiled by Merle Austin. Mrs. Mary L. Guida prepared all of the graphs.

B. Photographs.

Attached.

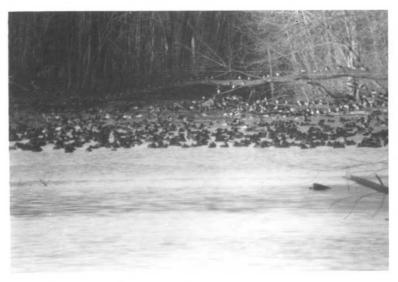


Refuge staff and local enforcement officers at farewell luncheon for Mrs. Alice Burghart. In the front row, left to right- Merle Austin, E. S. Crozier, Mary Guida, Alice Burghart, W. D. Vasse and R. E. Toltzmann. Back row - Illinois Conservation Inspector Bruce Andrews and USGMA Walbert Kennedy.

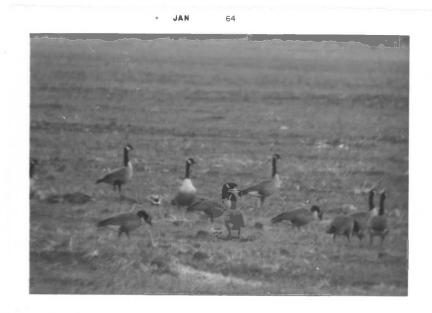
Mrs. E.S.C. R 30, Ex 2 Oct. 1963



This fawn, tagged with ear tag No. 36, was shot as a yearling doe near the Patchtown Unit, 90 miles south of the tagging site, on November 16; 1963. It had been tagged and photographed by Operator-General Austin on June 15, 1962.



Mallards and wood ducks resting in Upper Long Lake on the Gardner Unit. Note wood ducks resting on fallen trees. M.E.A. Nov. 1963



Part of the 50 Canada geese that used the Gardner Unit during the period. Here, a few mallards join them on the wheat browse in Field No. 7.

M.H.A. Nov. 1963

One of the many white-tailed deer on the Gardner Unit. This buck is typical but a few real trophies have also been observed.

H.L.A. R 42, Ex 15 Nov. 1963