

TWENTIETH  
**Biennial Report**

of the

**FISH and GAME  
DEPARTMENT**



of the

**STATE OF IDAHO**  
1943 - 1944

**JAMES O. BECK**  
Director



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STATE OF IDAHO  
DEPARTMENT OF FISH AND GAME  
BOISE

To His Excellency, Charles C. Gossett,  
Governor,

and Members of the  
Senate and House of Representatives  
of the State of Idaho:

The twentieth biennial report of the Fish and Game  
Department is submitted herewith. The report covers the  
period January 1, 1943 to December 31, 1944.

Respectfully yours,

ALTON R. HOWELL, Commission Chairman

JAMES O. BECK, Department Director



### ACKNOWLEDGEMENT

The fish and game department gratefully acknowledges the co-operation of the people of Idaho, both as individuals and as members of sportsmen's organizations. Their aid has been generous. Their help is an essential contribution to the conservation of wildlife.



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**PERSONNEL**

**The Commission**

Alton R. Howell, Chairman.....Idaho Falls  
 C. J. Westcott, Secretary.....Boise  
 A. L. Trada.....Coeur d'Alene  
 Walter Fiscus.....Potlatch  
 George E. Booth.....Burley  
 \*Paul Thoman.....Twin Falls

\*Appointed in December, 1944 to succeed Booth.

**The Department**

James O. Beck, Director

*Burton Perrine, Fish Culturist	C. G. d'Easum,
A. N. Miller, Chief Clerk	Information Supervisor
Elwood Grimes, Biologist	E. O. Bailey,
Herman Koppes,	Fisheries Supervisor
Range Examiner	B. D. Ainsworth,
John J. Boyle, Supervisor of	Fisheries Supervisor
Federal Aid Projects	Frank Oster, Engineer

**Clerical Force**

Fay Bussard, License Examiner	Ross Dimmick, Office Clerk
*Marian Orr Carstens,	Shirley Clark, Secretary
Voucher Examiner	Anna Mastro, Secretary
Dorothy Oellien,	*Billie Hanses, Secretary
Voucher Examiner	*Dorothy Schubert, Secretary
*Helen Carney, Secretary	

**Conservation Officers**

**Chief**

J. M. Wilkins, District One.....Coeur d'Alene  
 Harry V. Palmer, District Two.....Culdesac  
 John W. Smith, District Three.....Boise  
 Marshall Edson, District Four.....Jerome  
 O. R. Christenson, District Five.....Idaho Falls  
 \*John J. Delo, District Four.....Shoshone  
 \*Lee Clark, District Four.....Challis

### First Grade

Melvin Barrus, Blackfoot	Lester Hendrickson, Challis
T. D. Biladeau, More's Creek	Hawley, Hill, Burley
Wm. Lee Black, Mountain Home	LaVarr Jacklin, Cascade
Virgil Borden, St. Maries	E. L. Keppner, Soda Springs
Alonzo Brown, Hagerman	Ray Kernan, Lewiston
*C. L. Buffaloe, Naples	Stanley Larson, Malad
Fred M. Clark, New Meadows	Albert Lyle, Mackay
John S. Costello, Sandpoint	*George Lowe, Kooskia
Grover Davis, Filer	P. J. McDermott, Jr., Pocatello
Charles Dickinson, Fairfield	T. J. Mizer, Hailey
Albert Dickson, Dubois	Glen Richardson, Salmon
J. B. F. Dillon, Weiser	Ivol Sies, Ashton
Hale Ebling, Troy	Ross Spalding, Grandview
Charles Gallaher, Grangeville	George Staudt, Kellogg
Nolen Whittemore, Rexburg	*Ralph Walker, Nampa

### Second Grade

Joel C. Reynolds, Kuna  
\*Olie D. White, Orofino

### Patrolmen

Tom Hawes, Preston	Philo Smith, Kamiah
Gean Walker, Driggs	Burt Trueblood, Wilder
Alfred Clark, Emmett	

### Fish Hatchery Superintendents

B. D. Ainsworth, Ashton	L. W. Gaver, Grangeville
Harvey Albrethsen, Caldwell	Frank Gaver, Mullan
E. O. Bailey, Eagle	Roscoe Hix, (Assistant) Ashton
Clarence Bess, Hay Spur	Wm. D. Kelley, Boyd Creek
John Bilow, Fernwood	Charles Neider, (Assistant) American Falls
Alan J. Clark, Clark Fork	Chas. Sherwood, American Falls
J. E. Clark, Coeur d'Alene	W. F. McCool, Sandpoint
John M. Coleman, Mackay	
Emery Gilroy, Evergreen	
*I. J. Wetherbee, American Falls Fish Distributor	

### State Bird Farms

Homer Woody, Superintendent, Lapwai	William Gnemi, Superintendent, Jerome
Clarence White, Packer, Selway Falls Herman Anderson, Carpenter, Hagerman	

\*—Resigned during biennium.



**IN THE ARMED FORCES**

**Tom Boray, Draftsman, Boise.**

**Murvl Crook, Conservation Officer, Pierce.**

**W. R. Horning, Conservation Officer, Montpelier.**

**Leland T. Hunt, Assistant Supt., Coeur d'Alene Hatchery.**

**Frank R. Keough, Conservation Officer, St. Maries.**

**Vernon B. Rich, Conservation Officer, Ashton.**

**E. B. Scholes, Conservation Officer, Preston.**

**Wesley Shaw, Conservation Officer, Driggs.**

**Wendell Twitchell, Conservation Officer, Soda Springs**

**Tim Vaughan, Biologist, Boise.**

# THE COMMISSION

Administration of fish and game resources in Idaho is in charge of a five-man Commission which was established by the people through initiative act in 1938. The Commission sets the policies. Management is carried on by the Fish and Game Department under the executive authority of the director, who is appointed by the Commission. The Commission also appoints a fish culturist, who manages fish production with the advice of the director. All other regular employees are selected by civil service regulations adopted by an advisory committee.

The Commission is a board of directors considering problems of the state as a whole. For purposes of their appointment by the Governor for terms of six years' each, the state is divided into five districts as follows:

District No. 1—Boundary, Bonner, Kootenai, Shoshone, and Benewah counties;

District No. 2—Latah, Clearwater, Nez Perce, Lewis, and Idaho counties;

District No. 3—Ada, Adams, Boise, Canyon, Elmore, Gem, Owyhee, Payette, Valley, and Washington counties;

District No. 4—Camas, Gooding, Twin Falls, Cassia, Jerome, Blaine, Lincoln, Butte, Minidoka, Lemhi, and Custer counties;

District No. 5—Clark, Fremont, Madison, Teton, Jefferson, Bonneville, Bingham, Bannock, Power, Oneida, Caribou, Franklin, and Bear Lake counties.

## NEW MEMBER APPOINTED

Alton Howell of Idaho Falls was chairman of the Commission in 1943 and 1944. C. J. Westcott of Boise was secretary during both years. Other members serving during the biennium were A. L. Trada of Coeur d'Alene, Walter Fiscus of Potlatch, and George E. Booth of Burley. Terms of Howell and Booth expired in December, 1944. The Governor re-appointed Howell for a six-year term. Booth was succeeded by Paul Thoman of Twin Falls, who was appointed for a six-year term.

The Commission meets quarterly. A major matter at most meetings is the setting of seasons on fish, game, and fur. Authority to establish seasons and bag limits and to make other regulations for the orderly use and protection of wildlife is granted the Commission by law. Before seasons are established each year public hearings are

conducted. Judgment of conservation officers and sportsmen is invited. Any interested person may make suggestions. During the two years just concluded the Commission profited by earlier experience so that dates for fishing and hunting in 1944 corresponded closely with those of 1943. Minor changes are made from year to year and will continue to be made as conditions justify, but the pattern is shaping into definite form. There will be fewer alterations as time advances and experience proves what course is best. The Commission is charged with the responsibility not only of providing fishing and hunting today, but of guarding wildlife for the future. In some instances these two aspects have come into conflict, but in the main there has been unity. Whenever there has been a question of a short period of sport today that might endanger a species, the perpetuation of wildlife has come first. For example, the Commission maintained a closed season on sagehen in 1944 after permitting a few days of hunting in 1943. Another example was the two-deer hunt on Middle Fork of Salmon River. The herd appeared to be sufficiently reduced after several years of double hunting so there was no special hunt in 1944.

#### **TWO MEETINGS IN NORTH**

One Commission meeting each year was conducted at a point other than Boise, the state capital and department headquarters. In June, 1943, the Commission held a traveling meeting at Wallace, Coeur d'Alene, and Sandpoint. In October, 1944, there was a session at Lewiston.

Early in 1943 the legislature granted authority to conduct stated Boise meetings outside the state house. Department headquarters were moved to Sixth and Bannock streets and the Commission has since conducted its business there. Efforts are being made to obtain other quarters with more storage space and adjacent warehouse.

#### **EXPANSION NECESSARY**

The Commission has accepted the necessity for trimming department work because of war, and, with the director, has made adjustments accordingly. It is the resolve of the Commission, however, that fish and game resources shall not be permitted to decline even though the job is harder than ever. A vigorous post-war program has been outlined, but that will not be enough. Fish and game crops that will do the most good in the immediate post-war months must be started now. Preparation for the tremendous return to outdoor recreation should be made before the crowd arrives. The Game Department is concerned that this preparation proceed. The Fish and Game Department has funds in the treasury and in war bonds. The Commission believes that judicious spending of part of this money before the end of the war will do much to relieve the shock of post-war readjustment.



## FISHERIES DIVISION

Production of game fish in state hatcheries was maintained at a fairly high figure during the biennium in the face of many difficulties. Figures in the accompanying tabulation of plantings show that number of fish released in lakes and streams is nearly equal to the plantings of the previous two years. This is a matter of satisfaction to fish supervisors and hatchery superintendents who were obliged to carry on with scant extra help and shortage of materials. Little new construction was possible.

Plantings were kept up by increased individual effort, ingenuity in using old equipment, and by favorable take of spawn in 1944 which provided nearly all the eggs the department could handle.

In order to keep up with a great increase in fishing that has already begun and which will reach a peak immediately after the war, the department plans expansion of its hatcheries and development of new sites. These developments are being pushed as fast as limited crews can get at them.

### KAMLOOP SHOWS PROMISE

One of the notable facts of 1944 was the success of kamloop plantings in northern lakes. The trout brought from Canada and raised to yearlings before release in Pend d'Oreille lake in 1942, attained a weight of 20 pounds. Many excellent fish were caught. It is expected that enough eggs to make a substantial plant will be obtained in 1945. The kamloop program is one that is calculated to benefit fishing in several parts of Idaho. It ties in nicely with establishment of blueback cycles in lakes as the kamloop feeds on blueback.

The department has lacked enough tank trucks to give proper distribution to its fish. Purchase of at least half a dozen small tanks that will ride in pickups is one of the first matters listed for 1945. Designs have been prepared. With the portable tanks handy to almost all hatcheries fish can be liberated when they are ready, and without interrupting the planting schedule at some other hatchery. The large tanks now in use will be kept busy, also.

### FISHING IMPROVES

Improvement in fishing was noted in many parts of the state. The 1944 season was good. It followed a winter of light snow. Streams were running clear long before their usual time. Fish catches were accordingly heavy.

In the fall of 1944 Burton Perrine, fish culturist, resigned to enter private business. I. J. Wetherbee, fish distributor, resigned later

to associate with Perrine. Pending further action, E. O. Bailey, superintendent of the Eagle hatchery, and B. D. Ainsworth, superintendent of Ashton hatchery, are supervising fish production for the state. Bailey has charge of northern and western hatcheries. Ainsworth is supervisor for the south-central and eastern areas.

#### AMERICAN FALLS

Output of brood stock eggs would be much greater if one of the ponds was raised to 10 feet of water. At present there is only five feet. The increase would provide more insect feed for the fish. Planting fish from the American Falls hatchery in Bear Lake and Franklin counties is expensive and hard on the fish. Many trips are longer than 300 miles per day. A hatchery in the Franklin-Bear Lake territory would improve the transportation situation and help to meet the growing demand for fish.

#### ASHTON

There was heavy production during the 1944 season. In addition to the output of rainbow, cutthroat, and eastern brook, the hatchery hatched and raised 1,500,000 blueback salmon. Most of these "silvers" were planted in American Falls reservoir, but some were released in the Island Park reservoir and forebay of the Ashton power dam as an experiment, both as to introduction of a new species to the waters and to determine whether the silvers would increase the size of trout already inhabiting the waters. It will be necessary to continue the plants for four years to complete the cycle.

Numbers of eastern brook should be increased. The request for brookies has nearly doubled in the past two years and we expect to double the spawn take in the fall of 1945.

A lot of small streams that were of no value for fishing have been made into good fishing spots by the planting of beaver. They have built dams and provided good habitat for trout. Rivers and most smaller streams have produced good fishing all season. Island Park reservoir proved quite good. Many fish five pounds and larger were caught.

The natural rearing pond on Teton creek grew large trout. Several other similar rearing ponds have been surveyed and will be ready to use in 1945. Cutthroat were planted in the Teton ponds as fry and there was a nice bunch of three and four-inch fish to release in the fall.

#### BOYD CREEK

This hatchery in the Kooskia area planted more than a million fish in 1944, an increase of half a million over the previous year. Listed among improvements are baskets that took the place of hatch-

ing trays. Fry were held in the baskets until they were feeding in good shape. Then they were let down into the troughs. It is believed that a large part of the increase can be credited to this system.

A settling tank is needed to reduce silt that comes down the creek with each heavy rain. More water is needed for the power plant.

Fishing was described as good in tributaries of the Selway and in the Lochsa river. Planting of trout by plane in the Moose creek district is proposed.

A cold storage unit and a fish truck are needed.

#### **CLARK FORK**

A 12-inch pipe 580 feet long was laid to supply water for concrete pools and raceways. A new arch raceway 380 feet long, 18 feet wide and three feet deep was excavated. Hatchery grounds were fenced with barb wire. Sixty trough screens, eight pool screens, and 40 trough shades were built. The hatchery needs a cold storage unit and a room for preparation of food. A log and earth dam at the supply reservoir needs repair or rebuilding.

Snowfall was light during the winter of 1943-44. As a consequence streams became low early in the summer. Some dried up entirely. However, lake and river fishing was satisfactory during most of the season.

#### **COEUR D'ALENE**

Reports from the Coeur d'Alene area are that lake fishing was the best in years. Planting of blueback in Coeur d'Alene lake has started to show excellent results. A few large trout from Hayden lake were also reported. Stream fishing did not compare with the lake fishing. Little North Fork of Coeur d'Alene river and feeder streams, when planted, showed small trout in abundance as far as the headwaters. Other planted streams showed a scarcity of trout of any size. The run of spawners at Wolf Lodge in 1944 was the greatest since the trap was put in. Approximately 5,000 spawners were trapped compared with less than 300 the first year the trap was installed.

An adequate fish trap is needed on Mica creek. Three dirt rearing ponds on the Rusho property near Spirit Lake were acquired by the department in 1944 and will be used for raising kamloop trout.

#### **EVERGREEN**

The hatchery at Evergreen on Weiser river north of Council was not operated in 1943. Activity was resumed in 1944 with substantial success in number of trout raised and stocked. The plant is operated

only in summer months and is closed during the winter. All buildings are old. It is recommended that six rearing ponds, small hatchery, and a residence be constructed at a new site on the Evergreen grounds.

#### **EAGLE**

Tonnage of fish was increased by converting a bass pond into a rainbow pond. Hatchery capacity was increased by 12 troughs. Production was disrupted to some degree by a flood during the spring of 1943. Boise river overflowed its banks. Hatchery grounds were covered by water. E. O. Bailey, superintendent, moved 400,000 fish to other hatcheries. Some were planted in drain ditches. Finally he was obliged to move himself. The flood subsided in a few days and no permanent damage was done. More rearing ponds are needed.

#### **FERNWOOD**

In the Fernwood area which comprises the St. Joe and St. Maries watersheds, fishing has declined. Steady planting will be required over a period of years. Low water and high temperature in 1944 were unfavorable to fishing. This factor, combined with the fact that creel checks by the superintendent averaged one cutthroat to eight rainbow, suggests that the St. Maries river is adapted best to rainbow.

Fernwood property consists of 12 cement ponds, a cold storage unit, and a pipeline. A small hatchery is needed. It should be constructed as soon as materials and labor can be had. Old dirt ponds where waste water now runs could be repaired for use as winter holding ponds for a large number of trout. Living quarters for the superintendent should be provided at the site.

#### **GRANGEVILLE**

According to road checks and reports of fishermen, fishing has improved in this district the last five years. Streams furnish smaller fish than the numerous lakes. About 100 lakes are stocked with trout from the Grangeville hatchery.

Construction of rearing ponds on Lindsey creek near Lewiston would improve fisheries in this district. The ponds should be operated in winter. Trout could be moved to Grangeville and Boyd Creek hatcheries in the spring. A spawn-taking station at Skookumchuck creek could furnish fish for the Lindsey creek ponds.

Water supply at the hatchery could be improved by cleaning the creek bed and catching the flow of other springs. Construction

of a one-mile power line and purchase of a grinder would make the food problem much easier and help in the production of more fish. There are lakes in the area suitable for stocking by plane.

#### **HAGERMAN BASS FARM**

Eleven rearing and brood stock ponds for bass were completed in 1941. Two more ponds were added the following year. In 1943 the production was 138,000 bass, of which 110,000 were largemouth and 28,000 were smallmouth. There was also a substantial production of bluegill. In 1944 the bass farm planted 47,000 largemouth bass. Plans are now being made to build raceways and rearing ponds for trout. Bass production will continue. It is believed practical to expand the farm for trout raising as all facilities in the state will be required to meet demands for that fish. Other improvements scheduled include completion of the house, repair of dikes, a hatchery building, and cold storage plant.

#### **HAY SPUR**

This hatchery serves the Wood river drainage and adjoining areas. Fishing conditions in 1944 were said to be good in Big and Little Wood rivers and Fish creek. Silver creek was average. Higher mountain streams were good.

An aeration device was installed at the hatchery. The spring was housed to stop growth of moss. Level of the water was raised for more pressure.

Proposed improvements include additional rearing ponds, cleaning of the brood fish pond, piping of Loving creek for additional water, and construction of nine inside cement vats and an incubator of two million capacity.

#### **HENRY'S LAKE**

A cement trap was built in Targhee creek. Work was started on a pipe line to supply more water. The job is not complete. Suggested improvements include a seven million capacity drip incubator, fish trap on Hatchery creek with cement ladder from lake, house for extra help, garage, and hydro-electric plant.

#### **McCALL**

Fishing conditions in the counties that the McCall hatchery covers were improved in 1943 and 1944. People of the McCall area fished some lakes steadily with the result that fish in such lakes as Granite and Boulder are decreasing in size and number. Most lakes and streams in Adams county are good fishing. The area from Cascade to Stibnite should be planted with a lot of trout. Fishing was better in Payette lake than it has been in years. Legal size fish are

being stocked and are beginning to show up. However there are many predatory squawfish.

Planting of fish by plane in high lakes is very efficient. The pipe line from the lake to the hatchery was repaired in 1944. The McCall hatchery needs more cement rearing ponds, a two-door garage, and living quarters for an assistant superintendent.

#### **MACKAY**

Mackay reservoir was heavily fished and continued to produce splendid catches.

Proposed improvements include construction of seven inside cement vats and incubators with three million capacity, additional rearing ponds, installation of a hydro-electric unit, and alteration of the cold storage unit so it will be automatic. Repair of the hatchery foundation is required.

#### **MULLAN**

Settling ponds on two creeks above the hatchery should be constructed to improve the water supply. A rearing pond on Coeur d'Alene river and another on the St. Joe river drainage would be helpful in producing more fish.

#### **SANDPOINT**

There has been a fair take of fish from Pend 'Oreille lake, ranging up to 20 pounds. Catch of the average size has been greater per fisherman than in recent years. In Priest lake cutthroat fishing was satisfactory during the spring and early summer. After the middle of August fishermen started catching blueback 10 to 13 inches long.

A 12-inch pipe line 3,000 feet long was installed at the hatchery. An earth and wood dam was built to pick up other springs. One of the large rearing ponds was improved. New traps and racks were built for the Granite creek spawn-taking station. They will be installed for the next run of cutthroat.

The hatchery needs new windows and a small fish tank for planting purposes. Improvement should be made on the rearing ponds and hatchery water system.

#### **TWIN FALLS**

Several hatching baskets and trays were made. All old trays and baskets were repaired and painted. There is no spawn-taking station in the area, but if Salmon reservoir continues to improve it may be possible to take eggs there in a year or two.

A small fish tank suitable for hauling on a pickup would enable the hatchery to plant its fish to better advantage. The road to the hatchery should be graded and surfaced.

## SUMMARY OF FISH PLANTED—1943

Hatchery	Species	Number	Total
American Falls...	Rainbow .....	671,910	1,950,710
	Cutthroat .....	1,098,250	
	Eastern Brook .....	179,500	
	Blueback Salmon .....	1,050	
Ashton.....	Rainbow .....	1,012,169	2,016,109
	Cutthroat .....	659,976	
	Eastern Brook .....	343,964	
Boyd Creek.....	Rainbow .....	79,000	342,300
	Cutthroat .....	210,800	
	Eastern Brook .....	25,000	
	Steelhead .....	14,000	
	German Brown .....	13,500	
Clark Fork.....	Rainbow .....	214,660	782,236
	Cutthroat .....	281,764	
	Eastern Brook .....	21,952	
	Kamloop Rainbow .....	13,860	
	Blueback Salmon .....	250,000	
Coeur d'Alene.....	Rainbow .....	60,800	971,884
	Cutthroat .....	911,084	
Eagle.....	Rainbow .....	1,725,300	1,877,950
	Eastern Brook .....	152,650	
Evergreen.....	Rainbow .....	44,000	137,900
	Cutthroat .....	93,900	
Grangeville.....	Rainbow .....	327,076	805,244
	Cutthroat .....	412,224	
	Eastern Brook .....	65,944	
Hagerman, Bass.....	Largemouth Bass .....	110,130	138,380
	Smallmouth Bass .....	28,250	
Hagerman, U.S.F.W.S.....	Rainbow .....	2,440,446	2,932,962
	Eastern Brook .....	323,900	
	Blackspots .....	168,000	
	Graylings .....	616	
Hayspur.....	Rainbow .....	758,915	1,242,675
	Eastern Brook .....	67,760	
	Cutthroat .....	416,000	

## SUMMARY OF FISH PLANTED—1943

Hatchery	Species	Number	Total
Henry's Lake.....	Cutthroat .....	1,665,000	1,665,000
Laketown,	Rainbow .....	506,825	
Utah, U. S.....	Blackspots .....	55,000	561,825
Mackay.....	Rainbow .....	872,914	
	Cutthroat .....	69,746	
	Eastern Brook .....	78,680	1,021,340
McCall.....	Rainbow .....	230,620	
	Cutthroat .....	476,816	
	Eastern Brook .....	34,000	
	Kamloop Rainbow .....	1,300	742,736
Mullan.....	Rainbow .....	314,300	
	Cutthroat .....	115,127	429,427
Sandpoint.....	Rainbow .....	174,591	
	Cutthroat .....	938,178	
	Kamloop Rainbow .....	15,154	
	Whitefish .....	2,029,131	3,157,054
Twin Falls.....	Rainbow .....	581,630	
	Cutthroat .....	17,340	
	Kamloop Rainbow .....	33,800	632,770
Warm River.....	Rainbow .....	574,800	
	Cutthroat .....	591,184	1,165,984
			<b>22,574,486</b>
	*Salvaged fish		155,400
	<b>TOTAL PLANTED—1943</b>		<b>22,729,886</b>



## SUMMARY OF FISH PLANTED—1944

Hatchery	Species	Number	Total
American Falls	Rainbow .....	1,025,835	
	Cutthroat .....	1,014,800	
	Blueback Salmon .....	200,000	
	German Brown .....	15,960	
	Perch .....	36,000	2,292,595
Ashton	Rainbow .....	1,350,240	
	Cutthroat .....	1,531,424	
	Eastern Brook .....	166,028	
	Blueback Salmon .....	1,528,016	4,575,708
Boyd Creek	Rainbow .....	150,200	
	Cutthroat .....	572,600	
	Eastern Brook .....	241,400	
	German Brown .....	177,600	1,141,800
Clarks Fork	Rainbow .....	21,648	
	Cutthroat .....	720,000	741,648
Coeur d'Alene	Cutthroat .....	441,858	441,858
Eagle	Rainbow .....	2,102,000	
	Cutthroat .....	100,000	
	Eastern Brook .....	30,000	
	Blackspots .....	100,000	2,332,000
Evergreen	Rainbow .....	530,670	
	Cutthroat .....	196,400	727,070
Fernwood	Cutthroat .....	644,024	644,024
Grangeville	Rainbow .....	270,000	
	Cutthroat .....	232,030	
	Blackspots .....	497,022	999,052
Hagerman, Bass	Largemouth Bass .....	47,600	
	Bluegill .....	5,100	
	Bullhead Catfish .....	20,500	73,200
Hagerman, U.S.F.W.S.	Rainbow .....	1,528,470	
	Eastern Brook .....	136,746	
	Blueback Salmon .....	346,548	
	Graylings .....	50,888	
	Blackspots .....	215,225	2,277,877

## SUMMARY OF FISH PLANTED—1944

Hatchery	Species	Number	Total
Hayspur.....	Rainbow .....	912,440	
	Cutthroat .....	123,250	
	Blueback Salmon .....	348,050	1,383,740
Henry's Lake.....	Cutthroat .....	2,062,000	2,062,000
Mackay.....	Rainbow .....	828,616	
	Cutthroat .....	150,494	979,110
McCall.....	Rainbow .....	922,060	
	Eastern Brook .....	81,600	
	Blueback Salmon .....	980,500	1,984,160
Mullan.....	Rainbow .....	410,176	
	Cutthroat .....	389,960	800,136
Sandpoint.....	Rainbow .....	47,244	
	Cutthroat .....	1,001,932	
	Whitefish .....	3,285,000	4,334,176
Twin Falls.....	Rainbow .....	1,033,852	
	Eastern Brook .....	213,270	
	Blueback Salmon .....	199,380	
	*Perch .....	234,000	
	*Crappie .....	1,250	1,681,752
TOTAL FISH PLANTED—1944			29,471,906

**SUMMARY OF FISH PLANTED BY SPECIES—1943**

Rainbow .....	10,589,956
Cutthroat .....	7,957,389
Eastern Brook .....	1,293,350
Blueback Salmon .....	251,050
Steelhead .....	14,000
Blackspots .....	223,000
German Brown .....	13,500
Kamloop Rainbow .....	64,114
Largemouth Bass .....	110,130
Smallmouth Bass .....	28,250
Whitefish .....	2,029,131
Graylings .....	616
	<hr/>
	22,574,486
*Sunfish .....	1,000
*Perch .....	93,500
*Bullhead Catfish .....	18,400
*Crappies .....	37,500
*Bass and Perch .....	5,000
	<hr/>
* Salvaged	
TOTAL .....	22,729,886

**SUMMARY OF FISH PLANTED BY SPECIES—1944**

Rainbow .....	11,133,451
Cutthroat .....	9,344,372
Eastern Brook .....	869,044
Blueback Salmon .....	3,602,494
German Brown .....	193,560
*Perch .....	270,000
Blackspots .....	648,647
Largemouth Bass .....	47,600
Bluegill .....	5,100
Catfish .....	20,500
Graylings .....	50,888
Whitefish .....	3,285,000
*Crappie .....	1,250
	<hr/>
TOTAL .....	29,471,906

**TOTAL FISH PLANTED IN BIENNIUM**

1943 .....	22,729,886
1944 .....	29,471,906
	<hr/>
	52,201,792

\*Salvaged

## NON-GAME FISH REMOVAL PROGRAM

A non-game fish removal program has been carried on primarily to reduce the population of carp, suckers, squawfish and chubs detrimental to game fish and to control the common bullhead which has become too numerous in lakes and reservoirs in certain sections of Idaho.

Bullheads and tench have contributed to the war effort by furnishing a valuable food for human use. Carp, suckers and chubs have been utilized for food mainly on the Pacific coast and supplied feed for state, federal and commercial fish hatcheries and fur farms. Processing of rough fish into fish meal for use at the state bird farm has also been of value.

The major part of the seining and trapping has been done by commercial fishermen under permit. In addition, state crews have operated seines and traps.

Blue lake, near Lewiston, was poisoned with derris root in the spring of 1944 by department personnel. This operation disposed of undesirable fish so that it could be restocked.

### Improvements

In 1943 an ice plant at St. Maries was purchased and remodeled by the department. In 1944 this building was enlarged and new cement floor space with a drain built. This plant is used by commercial fishermen for boxing and icing fish.

Fifty bullhead traps and material for seventy more was furnished and charged out to the fishermen at St. Maries.

In September, 1943 a squawfish trap was built by the department on the St. Maries river near Lotus and operated by commercial fishermen.

A steam pressure cooker and meat grinder has been placed at the Lapwai game farm for processing rough fish from the Lewiston Dam fish ladder.

The trap on the Payette river above the main Payette lakes has been completely rebuilt and remodeled. The present trap is finger type which should prove more successful than the one formerly used.

On Lake Fork creek the trap was repaired and a new holding box built.

Both traps at Payette lakes serve the purpose of removing squawfish and suckers that run up the streams to spawn.

A trap of concrete construction and cabin has been completed

on the Blackfoot river near Soda Springs. This trap will serve the dual purpose of furnishing cutthroat trout spawn and catching rough fish which now run up the Blackfoot river.

#### Proposed Expansion

Issuance of additional permits is desired to further the removal program. Plans are being made to enlarge the program in north Idaho for the removal of tench and squawfish.

It is planned to install a steam pressure cooker, already purchased, at the American Falls hatchery for processing rough fish for trout food.

Processing of fish meal for use at the bird farms and further experimentation on processing a type of fish meal more suitable for fish food is also planned.

#### NON-GAME FISH SUMMARY

1943

Species	Pounds	Amount	Royalty
Carp .....	102,214	\$ 4,561.63	\$ 684.36
Filleted Carp .....	577	127.25	127.25
Suckers .....	204,132	5,466.17	676.89
Carp, Suckers and Scrap .....	118,844	2,817.25	460.32
Dressed Bullheads .....	183,230	46,644.53	12,594.35
Round Bullheads .....	67,539	8,644.25	2,334.03
Smoked Bullheads—880½ Doz. 100 Pkgs.		739.30	199.61
Dressed Tench .....	2,452	378.30	98.15
Round Tench .....	125,969	9,897.50	1,484.03
Smoked Tench .....	413	123.90	18.56
		\$79,400.08	\$18,677.55

1944

January 1—December 1

(Subject to Outstanding Reports and Accounts)

Species	Pounds	Amount	Royalty
Carp .....	148,605	\$ 3,358.14	\$ 479.10
Suckers .....	172,743	3,978.96	559.10
Suckers and Squawfish .....	12,000	.....	.....
Chubs .....	200	12.00	1.44
Dressed Bullheads .....	175,953	42,121.01	8,424.25
Round Bullheads .....	1,865	204.50	40.90
Dressed Tench .....	1,534	124.60	18.68
Round Tench .....	10,964	810.92	121.62
		\$50,610.13	\$9,645.09

## NON-GAME FISH SUMMARY

(Subject to Outstanding Reports and Accounts)  
January 1, 1943—December 1, 1944)

Species	Pounds	Amount	Royalty
Carp .....	250,819	\$ 7,919.77	\$ 1,163.46
Filleted Carp .....	577	127.25	127.26
Carp, Suckers and Scrap .....	118,844	2,817.25	460.32
Suckers .....	376,875	9,445.13	1,235.99
Suckers and Squawfish .....	12,000	.....	.....
Chubs .....	200	12.00	1.44
Dressed Bullheads .....	359,183	88,765.54	21,018.60
Round Bullheads .....	69,440	8,848.75	2,374.93
Smoked Bullheads—880½ Doz. 100 Pkgs.		739.30	199.61
Dressed Tench .....	3,986	502.90	116.83
Round Tench .....	136,933	10,708.42	1,605.65
Smoked Tench .....	413	123.90	18.56
<b>TOTAL ALL SPECIES</b> .....	<b>1,329,234</b>	<b>\$130,010.21</b>	<b>\$28,322.64</b>

880½ Doz.  
100 Pkgs.

## BIG GAME

Big game winter ranges during the year 1943-44 and up to the present in the current winter season have been given a partial rest from overuse by the mild seasons enjoyed during the past biennium.

Lack of deep snow and an effort by the department through the use of airplane salting above the winter ranges has tended to relieve winter range congestion. Winter ranges showing improvement are the Selway, the Payette, Soldier Mountain, the Minidoka, the Pocatello, and a slight amount on the Middle Fork of the Salmon River. However, none of the winter ranges have improved sufficiently that one heavy-snow winter will not drop them back to their former overused condition.

### More Hunters in Field

Hunting for the past two seasons has shown an increase in the number of big game hunters, with a decrease in the hunter kill. The decreased kill may be attributed to mild seasons with the game animals more scattered and staying on higher ranges out of reach of the hunter. Looking into the future, this is an ideal condition providing mild seasons continue. With a small winter loss and a small hunter kill, a much larger increase may be expected in game numbers. Statistics prove that big game hunting in Idaho increased over 50% soon after World War I, and big game hunting is expected to increase from 30% to 50% after termination of the present conflict. Under present favorable conditions and with proper game management, Idaho will have sufficient big game to provide much needed recreation for the boys returning from overseas.

The use of airplanes for transporting hunters to isolated back areas and for removing their kills from these areas has definitely been on the increase in the last two years. From a hunter standpoint this is a definite aid to hunting. It enables the hunter to camp in the heart of the big game country in from one to four hours from home. Present costs are high, but when the hunter considers the time saved and the high percentage of successful kills, the amount is not excessive. Small back-country landing fields built for Forest Service fire fighting are used as landing strips. In some instances comfortable hunting lodges are located near these fields where the sportsmen may live in luxury while they go about the arduous task of stalking their kill. At others, the flying services have temporary base camps set up where the hunter may stay during his hunt.

### Closer Check Advisable

From a game management standpoint, the use of airplanes for travel to and from the hunting grounds is not objectionable. Road

and pack string hunting tend to limit hunting to the perimeter of an isolated herd. By the use of airplanes landing in the middle of these herds, there is a tendency to keep the animals scattered over a wider area and not driven into one central location where congestion would otherwise result.

There is one condition that must be watched from a game management standpoint, however. With a resultant higher percentage of kill, a closer check will have to be made on herd numbers, and where the need arises, some areas will have to be closed to hunting completely and others will have to enjoy shorter seasons. These closures may be necessary around heavily hunted dude ranch and landing strip areas. This will work hardships on some individuals who have large investments, but the lean will have to be taken with the fat whenever conditions warrant. With increased airplane use by hunters, game department officials will have to become more air-minded, and as in the present trend in salt distribution, will have to take to the air for patrol and management studies in isolated areas.

#### **Game Kills Mount**

Games kills over the state for the fall of 1943 were: 11,095 deer; 2,398 elk; 700 antelope; 23 goat; and 61 bear. During the 1944 season game kills were: 13,982 deer; 2,874 elk; 1,470 antelope; 33 goat; and 118 bear. Principal increases noted were in the deer kill on the Minidoka, the elk kill in the Selway-Lochsa, and the antelope kill on the Big Lost River areas.

Extensive range examination and game management work has been done on several of the main winter ranges throughout the state in the last two years. The limiting factor to increasing game numbers in Idaho is game winter range; hence considerable work has been concentrated on available winter forage.

The ranges requiring the most study have been the Selway elk winter range, the South Fork of the Payette deer range, the Minidoka Forest deer herd, the Middle Fork of the Salmon deer herd, the Pocatello elk herd, and the Fremont County elk and moose herds. In some of these areas extensive management plans are operating at the present time, and in others plans are completed and will be in operation at an early date.

#### **Payette Range Still Scant**

The South Fork of the Payette River deer range has been given a partial rest from heavy use during the last winter with a small increase noted in the available forage. This increase still is not sufficient to feed the animals in a heavy winter. During the summers 1940-1942 a heavy infestation of grasshoppers defoliated the



bitterbrush on this range and a resultant loss of 43% of these shrubs which are the primary winter forage decreased the winter carrying capacity by nearly 50%. Range study plots are now in operation on the range to study future gains or losses in vegetative cover.

#### **Elk Range Better**

The Pocatello elk range was in better condition during the past season than in any one of the last five years. Depredations on farm crops adjoining the area were, however, at a high level also. These depredations do not seem to be directly traceable to range forage conditions. The tendency seems to be more for a change of diet than to a lack of available range forage. An attempt was made to count the elk numbers by airplane in the spring of 1944. Light snowfall and unfavorable conditions hampered these efforts with only a partial count being obtained. Extensive range management plans are nearing completion and will be in operation shortly. A foot count was made of the deer numbers with a total of 1,050 deer found in the area.

#### **Fremont Elk Studied**

On the Fremont county elk herd an attempt has been made in the past to create a drift of elk from the Yellowstone herd into the Sand Creek area of Fremont county. This has been done through the closure of certain areas to hunting and by the proper distribution of salt. From present indications some success has been attained in creating this drift. It was thought that a sizeable drift may be built up to extend on to the desert country north of the sand dunes and into the junipers north of St. Anthony. This area and the surrounding desert country at one time in the early days provided winter range for a sizeable elk herd. A count of the Fremont county moose herd numbers is badly needed at once to ascertain if moose numbers are sufficient to justify a special hunt. The winter moose range is becoming spotty with overuse. This survey cannot be made until snow equipment is purchased to facilitate travel for such long distances. Available cabins in the area are too scattered for snowshoe coverage of the area.

#### **Salt for Middle Fork**

A range reconnaissance trip for the Middle Fork of the Salmon River deer herd during November of 1944 indicated some slight improvement in parts of the winter range. However, the range is still below the carrying capacity needed for this herd. A heavy winter loss may occur at any time. Plans have been made to drop salt above the winter range during the current winter. This will hold the deer back from an early January migration to lower ranges. Extensive management work will be done on this herd in the next biennium. The Owyhee county antelope herd is primarily a migrant herd revolving from Oregon and Nevada in the winter to Idaho in the sum-

mer. There is a small resident herd in Idaho all year. Limited study has shown a heavy loss of fawns from predation. More work will be concentrated on this study in 1945.

#### **Antelope Hunt Successful**

A very successful hunt was held on the Big Lost River antelope herd during September of 1944. Studies after the hunt show the kill not in excess of the increase for a herd of this size. Rocky Mountain sheep bands have increased slightly in the past two years with two small additional bands being seen for the first time. Continued closed seasons especially on ewes and lambs, proper salting, and predator control may eventually build these bands into hunting size.

Special hunts were conducted during 1943 on ten different areas throughout the state. In 1944 only six special hunts were held. The primary purpose of a special hunt is to relieve congestion on an area where a limited number of animals must be removed. With an open hunt being held in these areas, it would usually amount to elimination of the herd in one year. The 1944 take from special hunts amounted to 4,066 deer; 127 elk; and 1,470 antelope. The Soldier Mountain special deer hunts should be eliminated and a short season hunt held in the areas for the next few years. At present the hunts do not fill and, therefore, there is no need for a special hunt.

Salt purchases in 1943 were 129 tons. Purchase of 150 tons was made in 1944. Distribution is carried on through the combined efforts of the Game Department and Forest Service. Airplane salting is becoming more popular from year to year. This method is much more economical, and a better distribution of game is obtained. Salt management plans for the entire state are being compiled by the Boise office for future study toward improvement of the program. The present tendency is to place salt too near roads and heavily hunted areas, rather than where it will be of more use to the animals for a longer period. Hence, the trend toward airplane salting.

#### **Plane Salting Effective**

Airplane salting was used very successfully in the Selway in the spring of 1943 and again in 1944 to move the elk to higher ranges off the winter range. In 1943 two tons of salt were dropped with such excellent results that in 1944 seven and one-half tons were dropped. Airplane salting costs approximately 4 cents per pound compared to 8 cents per pound for packing salt.

Game feeding has been unnecessary during the winter of 1943-44 and so far in the winter of 1944-45. Game winter losses were negligible in 1943-44 and should not be heavy anywhere in the state this winter unless a heavy snow falls on the South Fork of the Payette

River watershed. The kill on this herd has been less than the increase for the last two seasons, with a resultant pyramiding of game numbers. Under these conditions longer hunting seasons should be enjoyed until the desired numbers of game animals are removed.

### Compulsory Report Sought

Legislation should be enacted by the 28th session of the legislature requiring all big game license holders to submit a statement of their big game kills to the Fish and Game Department at the end of the hunting season. This legislation is working effectively at the present time in several western states. It is impossible to manage game on a sustained basis unless an accurate check can be obtained on the yearly hunter kill. Also, license holders receiving permits on special hunts should be required by law to check in at regularly located checking stations provided on special hunts.

Also for proper game management, all former legislation relating to creation of game preserves and bird sanctuaries should be repealed. Repealing of these statutes would make it possible for the commission to open and close areas for preserves as the need arises. At the present time several game preserves in the state have served the purpose for which they were intended and now are a hindrance to proper game management. Others that are still operative could be closed on the same boundaries by commission order. This would eliminate much conflict which exists at present between legislative closures and commission orders.

## PREDATOR CONTROL

Predatory animal control during the past biennium was handled co-operatively by the U. S. Fish and Wildlife service, the predatory animal control boards, and the Idaho Fish and Game department.

During the fiscal year 1943-44 an extensive survey was carried on by the Fish and Game departments of the eleven western states to ascertain facts concerning the number of predators taken, the moneys expended by the various organizations, the methods of take, and the cost per predator in each of the states. Results of this survey show that in Idaho a total of \$116,881.56 was expended in the state by federal and state agencies and livestock associations. For this expenditure 17,183 predators were taken, 16,496 of which were coyotes, at an average cost of \$6.80 per predator.

In 1943 the Idaho Fish and Game Department appropriated \$6,000.00 for use by the Fish and Wildlife service south of the Salmon river. In addition \$2,900.00 for fur taken by the federal trappers was

returned to them from the revolving fund, making a total of \$8,900. In 1944 \$6,000 was again appropriated for use by the Fish and Wildlife service, but due to an attorney general's ruling that the Fish and Game department was limited to the expenditure of \$6,000 annually in this revolving fund only \$6,086.31 was actually spent by the Fish and Wildlife this year. A request is being made to the legislature to clarify this statute.

The two chief conservation officers north of the Salmon river have had direct supervision of the expenditure of money within their districts and while \$2,000 was allocated to each for control in 1943, only \$585 was expended in District No. 1 and \$710 in District No. 2. Two hundred and forty three predators were taken in District No. 1 and 658 in District No. 2.

Money was not available in the predator fund to start work prior to January 1, 1945 in these districts because of the attorney general's ruling, but the chief conservation officers now have \$1,500 allotted to each district and trappers are working. The chief conservation officers have set areas in their districts and are permitted to hire trappers on a monthly wage basis or allow them to keep their fur with a supplemental salary for working in game areas.

In 1943 the State Fish and Game department spent for predator control approximately 7½ cents for every big game animal in the state.

During the year 1943 the department paid \$1,120 in bounties on magpie heads at the rate of 2 cents and 3 cents depending on the time of year. For this amount 37,333 magpies were exterminated. In 1944 a total of 53,976 magpies were taken at a cost of \$1,619.27. The decrease in payments from the previous biennium is believed caused by the employment of many boys in industry and on farms who previously had leisure for magpie control. In addition to the program of direct payment for magpie heads turned in, the conservation officers in each area carried on trapping and poisoning programs.

## GAME BIRDS

Reports from the field indicate that the Chinese pheasant, the Hungarian partridge, and the sagehen are definitely on the decrease in Idaho. Blue grouse have decreased in certain sections almost to an extermination point. In a few sections of the state they have increased. Ruffed grouse have shown a definite increase in most of their habitat.

A successful sagehen hunt was held in the more thickly populated sections of the state during the 1943 season. Reports from conservation officers indicated that this hunt was beneficial in spreading the birds. The hatch was not large enough in the 1944 season to war-

rant an open season. The production in Owyhee county was entirely satisfactory and a fair reproduction was reported in eastern Idaho, but the Arco-Carey section and the Fairfield section reported a sharp decrease in the number of birds.

#### Partridge Decrease

In southwestern Idaho a very heavy population of Hungarian partridge during the 1942 season disappeared almost entirely before the 1943 hunt. The season was closed in 1943 and again in 1944. The brood stock is now building up but it is questionable whether or not there will be a sufficient population to afford a hunt in 1945. The Hungarian partridge population in northern and central Idaho has remained constant and in the eastern section of the state an increase has been noted.

Plantings of chukar partridge are now showing up in the Montour-Horseshoe Bend hills, the Lost River valley, and in the Upper Snake River bottom. The increase has been greater in the Montour-Horseshoe Bend section. A few breeders were retained for a 1944 hatch at both the Jerome and Lapwai farms and 170 were liberated in one plant in the Riggins district from the Lapwai farm this fall. One hundred and twenty five were released in the Cassia and Jerome sections from the Jerome farm. One hundred and fifty were retained at the Lapwai Game Farm for 1945 breeders and 275 were held at the Jerome Game Farm for the same purpose. After these breeders have produced one clutch of eggs, they will be released in one plant in each district to hatch a later clutch. Extra attention is being given to the chukar planting areas in an effort to keep predator loss at a minimum.

The bobwhite quail population is still at a low ebb but both mountain and valley quail have shown an increase in their reproduction cycle.

#### Weather Hits Pheasants

With our present re-stocking program it is quite obvious that we are losing ground right along in our Chinese pheasant population. Natural propagation has not fared well the past two seasons. Late wet springs and freezing weather have caused heavy mortality. The war demand has changed the farmer's crops from grain, hay, and corn to beans, potatoes and sugar beets. Clean cultivation and fence-row burning has decreased the natural cover. The old straw stack is practically a thing of the past. Modern machinery scatters the straw and waste grain upon the ground and when heavy snows come, feed and cover are not available. The power mowing machine also takes a heavy toll of the setting hens while nesting.

Other methods will have to be adopted if the pheasant popula-

tion is to be maintained or increased. It is an established fact that pheasants costing from 45c to 86c per bird cannot be released in the field for immediate shooting. It is absolutely impossible to plant enough hand-released birds to make any appreciable difference in the face of Idaho's heavy hunting pressure. The department is contemplating holding a large percentage of hen pheasants on bird refuges until after the shooting season in 1945, and releasing them previous to the next year's breeding season.

#### **Habitat First Consideration**

A survey will be made before next year's release to find suitable bird habitat. Pheasants require large areas of rough weeds, sweet clover, corn and grain ground. Habitat is always the deciding factor in permanent game supply. It is more practical for the hunter to move to the habitat of game than to attempt to create artificial habitat at great expense in unsuitable game areas.

● Migratory waterfowl under the jurisdiction of the federal government have continued to increase even with larger bag limits, extended seasons, and extended shooting times. The extended seasons and hours have decreased farm depredations to a considerable extent.

#### **BIRD FARMS**

Labor conditions have been unsatisfactory and it is difficult to obtain competent help for our bird farms. The feed formulas were changed by governmental regulation and the decrease in the protein content of the mashes has made it difficult to raise the quantity of birds or keep up the standard of quality. Fish meal was obtained from the rough fish gathered by the department and this relieved the protein situation to some extent at the Jerome farm.

A new brooder house has been constructed at the Lapwai farm and if electric covers can be secured, it will be in full operation for the 1945 season. Other construction on both farms has been limited to repairs and maintenance of the present facilities.

As is the accustomed practice all brood stock from both farms has been distributed in the field to nest and raise a later group of poults.

This department is indebted to the extension division of the University of Idaho and the Idaho Egg Producers Association for assistance given in revising our food formulas to meet the war emergency.

The number of birds raised and planted by each hatchery is shown in the following tabulation by counties:

**PHEASANT PLANTINGS BY COUNTIES AND DISTRICTS**

**From Jerome Game Farm**

**1 9 4 3**

**1 9 4 4**

District and County	Brood Stock	Young Birds	Brood Stock	Young Birds
Ada .....		1,400	105	1,200
Adams .....		250	75	510
Boise .....		275		200
Canyon .....		1,200	75	1,190
Elmore .....		660	52	410
Gem .....		800	75	960
Owyhee .....		300	50	405
Payette .....		400	75	750
Valley .....		200		115
Washington .....		1,215	100	935
Camas .....				
Gooding .....				
Twin Falls .....	245	2,250	350	1,905
Cassia .....	150	750	150*	1,250
Jerome .....		437	400*	800
Blaine .....				
Lincoln .....		700		1,325
Butte .....	135	700	170	500
Minidoka .....	150	750	150	1,250
Lemhi .....		600		
Custer .....	120	600		300
Clark .....				
Fremont .....	60	500	60	500
Madison .....	60	500	55	500
Teton .....				
Jefferson .....	90	500	50	600
Bonneville .....	105	750	90	1,125
Bingham .....		750	60	800
Bannock .....	195	1,050	65	1,200
Power .....	60	500	50	615
Oneida .....	150	900	57	800
Caribou .....	150	500	58	550
Franklin .....	150	900	58	900
Bear Lake .....	200	500	57	500
<b>Total liberated</b> .....	<b>2,020</b>	<b>20,837</b>	<b>2,487</b>	<b>22,095</b>

\* 125 of these were chukars

**Pheasants Retained for 1945 Breeders**

Chinese brood stock—hens .....	2,000
Chinese brood stock—cocks .....	430
Chukar brood stock—total .....	275
	2,705

**PHEASANT PLANTINGS BY COUNTIES AND DISTRICTS**  
**From Lapwai Game Farm**

District and County	1943		1944	
	Brood Stock	Young Birds	Brood Stock	Young Birds
Boundary .....	228	600	92	875
Bonner .....	228	525	91	875
Kootenai .....	190	1,313	176	650
Shoshone .....	140	650	91	650
Benewah .....	140	950	91	750
Latah .....		747	106	875
Clearwater .....		500		500
Nez Perce .....		1,007		880
Lewis .....		775	150	737
*Idaho .....		1,000	200	800
Total liberated .....	926	8,067	997	7,592
Young birds to be released after hunting season.....				250
			Total	7,842

**Pheasants Retained for 1945 Breeders**

Chinese brood stock—hens.....	900
Chinese brood stock—cocks.....	200
Chukar brood stock—total.....	150
	1,250

Birds livetrapped during 1943 in state .....	1,218
Birds livetrapped during 1944 in state .....	1,200
	2,418

\* 170 Chukar partridge liberated.



## WILDLIFE RESTORATION DIVISION

In 1937, congress passed a bill known as the Pittman-Robertson act, providing for federal aid to the states in wildlife restoration. Under the terms of this act, congress appropriates annually an amount not to exceed the total revenue from the 10 per cent excise tax on arms and ammunition. Each state was required to match such federal funds in an amount of 25 per cent to avail itself of the appropriation. On March 4, 1939, the Idaho State Legislature passed an enabling act authorizing the fish and game department to participate in this program.

### Federal Funds Received

Federal funds are allocated on the basis of the relative land areas of the state as compared to the total land area of the United States and the total number of fishing and hunting licenses sold by the state as compared to the total number of licenses sold throughout the United States. These funds must be expended by the state within a period of two years from the beginning of the federal fiscal year in which allocations were made. Any unobligated balances remaining in the fund at the end of the two-year period revert to the United States Fish and Wildlife Service for use in administering the migratory bird conservation program.

Funds may be expended under rules and regulations established by the Secretary of the Interior for the restoration of native game species, which may include general surveys of game conditions, research projects, acquisition and development of lands. None of these funds can be expended in the development of the state's fisheries program.

Federal funds allocated to date are as follows: 1938, \$17,840.74; 1939, \$28,060.09; 1940, \$48,742.02; 1941, \$52,386.41; 1942, \$23,019.47; 1943, \$15,592.72; 1944, \$12,579.23; 1945, \$17,211.58 or a total of \$215,432.26. With the addition of 25% state matching money or \$71,810.75, there has been available from both Pittman-Robertson and state funds a total of \$287,243.01 for wildlife restoration purposes.

### Civil Service Adopted

In 1940 the state Fish and Game Commission placed this division under civil service and appointments were made from the register in accordance with established regulations on personnel. At the present time a supervisor and secretary are employed half-time in carrying forward Pittman-Robertson projects and half-time pay is received by them directly from game department funds for super-

vision of construction and purchase of materials, purchase of lands, and the state beaver program.

Funds received by this division from federal appropriations for Pittman-Robertson work decreased about two-thirds the past two years and full-time supervision was not deemed essential by the commission.

Work has been varied. It has consisted of securing information on game birds, big game, and fur bearers. Environmental conditions have been improved by the purchase of winter range lands for big game, nesting areas for game birds as well as migratory birds, fencing to exclude stock, and planting of food plants, shrubs, and trees. Buildings on lands purchased were reconstructed and improved to be used as headquarters by men employed as conservation officers by the fish and game department. Beaver, pheasant and antelope were livetrapped and transplanted. Elk were transplanted from Jackson Hole, Wyoming, to the Owyhee desert.

#### **Winter Range Is Key**

Idaho has an abundance of summer range, as have most other states, but lacks winter range for all types of big game. For this reason we have endeavored during this biennium and previous years to make these projects paramount.

In Benewah county we have purchased 4,847 acres of land, leased 1,440 from the county, 1,280 from the state, and 500 from private individuals in one block for winter deer range.

In Boise county three areas were purchased to augment elk and deer winter range, furnish hay for emergency feeding and provide line cabins for conservation officers. Between More's creek and the Boise river we purchased 2,546 acres and leased an additional 520 acres from the state. This is known as the Boise County refuge.

#### **Payette Herd Protected**

On the Payette River we purchased the Pine Flat ranch south of Lowman consisting of 160 acres, which is known as the Pine Flat refuge. On this same river about 20 miles north of Lowman, where the Bear Valley elk herd winters, we acquired the Marvin E. Hornbeck ranch consisting of 140 acres, half of which is hay land. This is known as the Warm Creek refuge.

All of the above will be fenced to exclude stock grazing as soon as material and labor are available.

At North Lake near Mude Lake in Jefferson county we purchased 1,473 acres of land for an antelope, pheasant and migratory bird refuge. This land was purchased previous to this biennium, but

fencing, construction of house, garage and drilling of well were just recently completed.

#### **Large Refuge in North**

In Boundary county what is known as the North Idaho Bird refuge consisting of 801 acres was purchased in 1942 and construction of a 475-foot earthen dam with a 12-foot cement core wall, cement overflow tower and fish trap was just recently finished and the area fenced. Other improvements consisting of a dwelling, garage, pump house, hayshed, etc., are contemplated for 1945.

Two bird trapping projects were completed in Nez Perce county. Fifteen hundred birds were trapped in 1943 and 1200 in 1944. The trapping was done in the Lewiston Orchard Bird preserve and 2200 pheasant taken were transplanted to other sections of Nez Perce and surrounding counties with the exception of some cocks that were transferred to the Lapwai Game Farm to improve the wild strain in brood stock. Approximately 500 Hungarian partridges included in the number given were transplanted in Camas, Caribou and Bonneville counties.

#### **Many Beaver Transplanted**

Beaver livetrapping and transplanting was carried on as in the past years. During this biennium 1,436 beaver were removed from areas of complaint near farm lands, canals, ditches, and creek areas to the heads of streams where their endeavors would benefit both soil and water conservation and by propagation build themselves into a fur resource of considerable value. During the period from 1939 to 1944 we have removed under livetrapping and transplanting projects 6,243 beaver with an approximate loss of 3% by trap kill and transportation. Beaver will make no effort to re-establish themselves after September in new surroundings, but will make every effort to return to the stream from which they have been removed. For this reason it is necessary to steel trap and pelt after that time.

#### **BEAVER TRAPPING AND PELTING**

Since 1928 when the first beaver plant was made and through successive plantings from 1939 to date, coupled with management plans set up by the commission, beaver have made rapid strides in establishing themselves as a valuable fur resource. Conservation officers in the fall of 1939 estimated the beaver population at 12,000 for all five districts of the state. In December, 1944, these same officers estimated the population to be 44,900.

The 1941 session of the Idaho state legislature passed a bill providing for the protection of beaver and set up under the act various classes of trappers or caretakers and the percentage or commissions

to be paid by the department for services. Under this act two classes of trappers or caretakers are granted allotments by the department. A Class A permit is being granted farmers, landowners, and ditch companies to remove beaver from owned and leased lands. These permittees are paid  $66\frac{2}{3}\%$  of the revenue derived from the sale of fur. A Class B permit is granted trappers who live in, but do not own an area and are citizens of the state and of the United States. These trappers are paid 50% of the receipts.

Permits are given only in areas where damage is apparent and no beaver are being removed from headwaters of streams except where a drift to lower land is noticeable or mountain roads, logging roads, or trails are being damaged.

Idaho controls the take by setting up a number of allotments in each district of the state, each allotment being for a specified number of beaver. A drawing is held for an allotment when more than one applicant applies for the same area.

#### Trappers Receive Share

All pelts are sold by the department on the Seattle Fur Exchange and both classes of trappers are sent a receipt showing the prices received for each individual pelt along with a check for his share of the proceeds upon conclusion of the sale.

Since 1939 when 720 beaver were pelted the number necessary to pelt has increased each year. In 1944 seven thousand six hundred and eighty beaver were pelted by 366 Class A trappers and 96 Class B trappers. The total sale value of pelts was \$200,881.00.

Trappers received .....	\$104,348.37
State received .....	88,525.83
Sales commission .....	8,006.80

During the period from 1939 to December 31, 1944, 25,916 beavers were pelted and sold for \$448,867.11.

Trappers received .....	\$219,991.12
State received .....	215,522.91
Sales commission .....	13,353.08

When requested, special beaver permits are furnished canal and ditch companies. These permits allow holder to destroy (if necessary), pelt, or livetrapped beaver at any time they believe canals, etc., might be damaged by the presence of beaver.

During the summer months; namely, June, July, August and September we carry forward in conjunction with the above permits our livetrapping and transplanting program. This type of permit is issued to avoid damage to canals or ditches if our trappers are unable to give immediate assistance in the area.

**Federal Aid Finances**

Received for Federal Aid projects from	
1939-1944 (Pittman-Robertson) .....	\$215,432.26
Received from State of Idaho .....	71,810.75
	\$287,243.01
Total receipts .....	\$287,243.01
Expenditures and allocations .....	\$266,906.49
Balance in fund unexpended for year 1945 .....	20,336.52
	\$287,243.01

Under supervision of this division the following land purchases were consummated and improvements completed with game department funds.

**HENRY'S LAKE HATCHERY:** Five thousand feet of 8 inch wooden pipe was installed to augment the present water supply that was inadequate due to partial drying up of springs.

**TARGHEE FISH TRAP:** A concrete trap 20 foot x 30 foot with head walls was constructed on Targhee Creek which is a tributary of Henry's lake. This is the first trap built within the state completely housed so that weather conditions would not interfere with spawntaking operations and it likewise protects fish from poachers after they enter the trap.

**BLACKFOOT TRAP:** This trap is on the Blackfoot river near the highway leading from Soda Springs to Idaho Falls and was constructed for two purposes—to control the trash fish running from the Blackfoot reservoir up the river and for spawntaking. The trap section is 20 foot x 30 foot with piers and racks running across the river a distance of approximately 150 feet.

**HAYSPUR FISH HATCHERY:** To increase the water and assure a constant water supply a cement penstock 8 foot x 30 foot was constructed over the old and a newly developed spring. The old

earthen pond was filled with dirt to force water into the new penstock. Muskrats on two occasions cut through the bank of this pond and caused considerable damage. The work recently completed should avoid further trouble. It also increased the former water supply about 100 inches.

**SANDPOINT HATCHERY:** The former 8 inch water line at this hatchery rotted out last year and a new 3,000 foot 12 inch wooden line was installed to replace it. Two new springs were developed and connected to the new line to increase the former supply. Others can be developed as needed and this larger line is of sufficient size to carry them.

**MACKAY FISH HATCHERY:** At the time this hatchery was erected near the spring from which water is secured, the land was public domain. Several years ago the 40 acres upon which the buildings and spring are located was secured by the land department. We recently acquired title to this 40 acres by purchase from the State Land Board.

**FERNWOOD REARING PONDS:** To increase the pond space and secure land upon which to construct a road from the main highway 160 acres of cut-over timber land was acquired. A 12 foot x 14 foot cold storage unit was constructed about a half-mile from our property at the terminus of the power line. It was so constructed it can be moved to the property as soon as materials for power line extensions are available.

**BENEWAH COUNTY:** At St. Maries two city lots were purchased and a cold storage unit 20 foot x 32 foot was constructed for the storage and marketing of rough fish taken from nearby lakes and for manufacture of the artificial ice necessary in shipment of fish.

**BOISE COUNTY:** Six acres of land were purchased for conservation officer headquarters near Lowman. A 22 foot x 26 foot frame building for a residence and a 22 foot x 36 foot hayshed for winter storage of hay were constructed. Water was also developed and piped to the dwelling.

**JEROME GAME FARM:** Four new covered type pens 40 foot x 160 foot were constructed and repairs made to those now in use.

**LAPWAI GAME FARM:** A frame brooder house with cement foundation and floor was erected. The building was 20 foot x 88 foot with an 8-foot wall and was completely wired for lights. Plug-in boxes were installed for brooder connections. Twenty-two pens of

cover type, to be used in connection with the brooder house were also constructed each of which was 8 foot wide and 96 foot long.

**SURVEYING AND MAPPING:** During the biennium all lands owned by the department have been surveyed and tracings made. All improvements on the lands are shown as is the former cost and present worth. Blueprints will be made from the tracings and bound copies of ownership will be available for use by each commissioner and the department. As other acquisitions or projects are completed additional plats will be inserted to keep these books current.

## INFORMATION SERVICE

Conservation education is being given more thought throughout the country. Schools in several states teach conservation as a part of the regular course of study. In Idaho there is no such subject in the general program, but great interest is shown by students and instructors in all matters pertaining to wildlife.

Motion pictures have been shown by the game department to school pupils in all parts of the state. Without exception the faculties have been co-operative not only in giving time for the shows and talks but in following up with occasional instruction that will certainly be important to the future of wildlife. It has been evident that many schools use the book "Wildlife of Idaho" to good advantage. This illustrated book of Idaho fish and game was published three years ago by the commission and has been distributed free to all public schools in Idaho. While it is true that most of the young people see the department films and read the book for entertainment, it is apparent by the frequency of questions, both in person and by mail, that students are getting the fundamentals of conservation. This education is an important phase of the job of perpetuating fish and game for the future.

The department had expected to begin publication of a periodical during the biennium. This was not done because of unfavorable conditions. Several states that had been publishing magazines were obliged to abandon or reduce them. The time was not ripe for Idaho to launch into a field where veterans were becoming casualties. However, more mimeographed material was compiled and distributed to interested sportsmen and department personnel. An illustrated periodical is included in post-war plans.

News releases were sent regularly to all newspapers of Idaho. Papers and news services gave generous use of space in using these stories which were of great value in advising the public of seasons, bag limits, and other essential information. It is the policy of the

department to prevent violations due to ignorance of the law by giving wide publicity to regulations. In that regard 125,000 copies of fish and game pamphlets were distributed by conservation officers and license vendors. Twenty thousand big game maps of the state were given circulation the same way. Several thousand cards telling duck regulations and time tables were also distributed.

Radio stations co-operated in presenting news items pertinent to wildlife. Facts were supplied by the department for regularly broadcast sport programs.

Exhibits at state fairs were not prepared except at the Eastern Idaho State Fair at Blackfoot where facilities and materials were suitable. At other fairs there were obstacles that discouraged such activity. If conditions are eased next fall efforts will be made to have department displays at all major fairs.

Motion pictures were shown not only in schools but to numerous civic and service clubs and to sportsmen's organizations. The film library includes: Trout Culture, Big Game, Pheasant Farming, Mountain Sheep, Elk Counting by Plane, Beaver Livetrapping, Fishing for Blueback, Camera Hunting, Stalking Big Game, and Idaho Fishing. All are 16 mm. and in color. Several hundred feet of film has been made showing proper equipment for big game hunting and care of meat. The department furnished 600 feet of film to the U. S. forest service for a picture about forest fire control.

The number of persons hunting and fishing in Idaho increased in 1943 and again in 1944. Inquiries from out-of-state sportsmen increased in proportion. Flow of tourists was limited by travel difficulties but a great many persons who expressed an interest in Idaho will come here to hunt and fish at the earliest opportunity after the war. The fish and game department is well aware of the fact and is co-operating with national publicity outlets to the end that accurate information is presented in an attractive manner and that proper enjoyment of recreation is not displaced by destructive exploitation.

## IMPROVEMENT PROGRAM

The department has detailed plans for the expenditure of \$1,153,863 for post-war improvements. At the present time sufficient plans and estimates have been built up by field men to keep the department busy over a period of six years.

Financially the fish and game department is in excellent condition to initiate such development. It has, as of late 1944, a treasury surplus of \$107,000 in cash and \$400,000 in United States bonds, making a total of \$507,000. Annual revenue amounts to more than \$500,000,



none of which is received by taxation. All the money is derived from sale of licenses, fines, confiscated game and equipment, beaver pelts, and predator furs. Revenue is steadily increasing.

Number of persons fishing and hunting is also increasing. Every cent of construction outlined will play a valuable part in keeping the supply of wildlife up to the demand.

For convenience in tabulation the construction and improvements have been listed in three general classifications by each of the five fish and game districts. District One is the Panhandle. District Two is north-central Idaho. District Three comprises western counties south of Salmon river. District Four is south-central Idaho; and District Five is eastern Idaho.

Projects outlined under the heading of fisheries include new hatcheries, improvement of hatcheries, spawn-taking stations and fish traps, improvement of channels, construction of rearing ponds, installation of fish screens in ditches, building of fish ladders, and development of recreational reservoirs.

Administration and game management covers such things as patrol cabins, game bird farms, conservation officer headquarters, emergency game feeding stations, garage and machine shop, checking stations, and magpie traps.

Pittman-Robertson projects are those activities the state may conduct with federal funds. As outlined they include bird propagation areas, big game propagation areas, migratory waterfowl production areas, and research on predatory and fur-bearing animals. It is expected that the research on these and other subjects can be carried on in co-operation with the University of Idaho.

To conduct its post-war program the department will be required to purchase approximately \$40,000 worth of heavy machinery.

Plans are in such a state of development that work can begin as promptly as there are tools and men. Some projects are considered more essential than others. Priority will be given in the order of importance to the immediate future.

Proposed expenditures by districts follow:

**CONSTRUCTION AND IMPROVEMENTS****District No. 1**

Fisheries .....	\$197,698.50	
Admin. & Game Mgmt. ....	47,734.00	
Pittman-Robertson .....	26,000.00	\$271,432.50

**District No. 2**

Fisheries .....	\$ 55,955.40	
Admin. & Game Mgmt. ....	69,818.12	
Pittman-Robertson .....	20,000.00	\$145,773.52

**District No. 3**

Fisheries .....	\$ 50,161.10	
Admin. & Game Mgmt. ....	85,840.11	
Pittman-Robertson .....	69,000.00	\$205,001.21

**District No. 4**

*Fisheries .....	\$206,733.54	
Admin. & Game Mgmt. ....	26,798.58	
Pittman-Robertson .....	69,000.00	\$302,532.12

**District No. 5**

Fisheries .....	\$ 96,120.45	
Admin. & Game Mgmt. ....	13,903.29	
Pittman-Robertson .....	60,000.00	\$170,023.74

**Statewide**

Pittman-Robertson .....	\$ 7,100.00	
Equipment-Contr., Etc. ....	52,000.00	\$ 59,100.00
		<hr/>
		\$1,153,863.09

\* Includes \$100,000 Hagerman hatchery which will produce fish for many parts of the state.

**ARRESTS**

Officers made 405 arrests for violation of game laws in 1943 and 362 arrests in 1944. In 1943 the arrests for most frequent offenses were listed as follows: Fishing without license, 71; fishing in closed waters, 59; illegal possession of big game, 32; hunting with improper license, 24; violation of migratory bird regulations, 36.

In 1944 the principal violations were: Fishing without license or with improper license, 73; fishing in closed waters, 50; hunting with improper license, 36; violation of migratory bird regulations, 45; illegal killing or possession of big game, 31.

During the biennium there was one conviction for polluting a stream and one conviction for dynamiting fish.

## DETAIL OF CASH RECEIPTS

Jan. 1, 1943 to Dec. 31, 1943

GAME FUND	1942 Issue			1943 Issue			Total
	No.	Amount	No.	Amount	No.	Amount	
<b>Licenses &amp; Permits</b>							
Resident Hunting & Fishing	7,467	\$14,187.30	108,158	\$205,490.70	115,620	\$219,678.00	
Non-Resident Hunting & Fishing	25	1,187.50	127	6,032.50	152	7,220.00	
Non-Resident Bird	141	1,339.50	523	4,968.50	664	6,308.00	
Non-Resident Fishing	221	1,049.75	3,498	16,615.50	3,719	17,665.25	
Non-Resident 10-Day Fishing	934	1,774.60	7,407	14,073.30	8,341	15,847.90	
Resident Whitefish	18	24.70	24	45.60	37	70.30	
Alien Fishing	4	38.00	21	199.50	25	237.50	
Non-Resident Gun	3	5.70	21	39.90	24	45.60	
Resident Trapper	515	2,446.25	760	3,610.00	1,275	6,056.25	
Non-Resident Trapper	4	95.00	5	118.75	9	213.75	
Shipping Permits	1,013	405.20	668	267.20	1,681	672.40	
Deer Tags	8,273	7,859.35	41,149	39,091.55	49,422	46,950.90	
Elk Tags	2,235	2,123.25	9,391	8,921.45	11,626	11,044.70	
Goat Tags	89	84.55	55	522.50	144	607.05	
Antelope Tags			1,000	950.00	1,000	950.00	
Taxidermist			13	130.00	13	130.00	
Private Pond			16	160.00	16	160.00	
Fur Farms	1	5.00	49	260.00	50	265.00	
Ling & Whitefish Dealers	1	10.00	4	40.00	5	50.00	
Fur Buyers			85	255.00	85	255.00	
Selway Elk	61	61.00	797	797.00	858	858.00	
Lost River Antelope			1,000	8,000.00	1,000	3,000.00	
Albion Deer			300	900.00	300	900.00	
Minidoka Deer			2,500	7,500.00	2,500	7,500.00	
Rock Creek Deer			1,000	3,000.00	1,000	3,000.00	

.....	1,000	5,000.00	1,000	5,000.00	3,000.00
Soldier Mountain No. 2 .....	200	600.00	200	600.00	600.00
Soldier Mountain No. 1 .....	579	1,737.00	579	1,737.00	1,737.00
Soldier Mountain Elk .....	100	500.00	100	500.00	500.00
Boise County Elk .....	50	250.00	50	250.00	250.00
Valley County Elk .....	50	250.00	50	250.00	250.00
Elmore County Elk .....	50	250.00	50	250.00	250.00
Pocatello Elk .....	100	500.00	100	500.00	500.00
Commission Saved .....		379.20			530.25
		<b>\$321,455.15</b>		<b>\$321,455.15</b>	<b>\$354,302.85</b>
Total Licenses & Permits .....		193.06		193.06	201.06
Collection on Return Checks .....		16.40		16.40	16.40
Excise Tax .....		79.99		79.99	79.99
Refunds .....		2,192.29		2,192.29	2,192.29
Miscellaneous Sales .....		18,040.84		18,040.84	18,040.84
Royalty & Trash Fish Sales .....		155,200.32		155,200.32	
Beaver Pelts .....	6,567	<b>-76,057.68</b>			
Less Paid to Trappers (Beaver Suspense) .....		79,142.64		79,142.64	79,142.64
Fines .....	<b>392</b>	<b>8,783.20</b>		<b>8,783.20</b>	<b>8,783.20</b>
Confiscations .....	93	409.90		409.90	409.90
Less Returned Checks .....		<b>\$32,855.70</b>		<b>\$430,313.47</b>	<b>\$463,169.17</b>
Game Fund Receipts .....		<b>\$32,855.70</b>		193.06	193.06
<b>BEAVER SUSPENSE FUND:</b>				<b>\$430,120.41</b>	<b>\$462,976.11</b>
Trapper's Share Pelts Sold .....					76,057.68
<b>GAME WARDENS' P. A. FUND:</b>					2,925.84
Predator Pelts Sold .....					
<b>WILDLIFE RESTORATION FUND:</b>					
Federal Refunds .....					
<b>TOTAL RECEIPTS—1943</b>					<b>34,338.97</b>