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# BIENNIAL REPORT

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OF THE

# State Game and Fish Commissioner

OF THE

## STATE OF COLORADO

For the Years 1911-1912

JAMES A. SHINN, Commissioner



DENVER, COLORADO  
THE SMITH-BROOKS PRINTING CO., STATE PRINTERS  
1912

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STATE OF COLORADO  
DEPARTMENT OF GAME AND FISH

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James A. Shinn, Denver,  
*Commissioner*

Rudolph Borchardt, Denver,  
*Deputy Commissioner*

R. L. Spargur, Denver,  
*Chief Clerk*

W. P. Hummel, Denver,  
*Special Chief Game Warden*

S. S. Poe, Greeley,  
*Chief Game Warden, First District*

W. E. Campbell, Alamosa,  
*Chief Game Warden, Second District*

C. L. Gilmer, Glenwood Springs,  
*Chief Game Warden, Third District*

R. E. Norvell, Hayden,  
*Chief Game Warden, Fourth District*

J. L. Gray, Fort Collins,  
*Chief Game Warden, Fifth District*

W. E. Patrick, Denver,  
*General Superintendent Fish Hatcheries*

Charles A. Ribbing,  
*Superintendent Denver Hatchery*

S. E. Thompson,  
*Superintendent Glenwood Hatchery*

T. J. Thompson,  
*Superintendent Gunnison Hatchery*

John P. Bengard,  
*Superintendent Del Norte Hatchery*

Thomas L. Hamor,  
*Superintendent La Plata Hatchery*

Charles Dowdell,  
*Superintendent Grand County Hatchery*

L. B. Crawford,  
*Superintendent Routt County Hatchery*

John F. Gamsby,  
*Superintendent Emerald Lakes Hatchery*

S. E. Land,  
*Superintendent Marvins Hatchery*

G. H. Thomson,  
*Superintendent Estes Park Hatchery*

LETTER OF TRANSMITTAL

DEPARTMENT OF GAME AND FISH

Denver, Colorado, December 1, 1912.

To His Excellency,  
JOHN F. SHAFROTH,  
Governor of State of Colorado.

Dear Sir: As provided by law, I herewith submit my biennial report of the work I have done during the years 1911 and 1912. In this report I have endeavored to show what has been accomplished by the Game and Fish Department during the biennial period ending November 30, 1912, together with statements showing money received and amount expended by the department; also recommendations for changes in some of our laws, and for future work and improvements.

I desire in particular to call your attention to the number of young trout fry planted during the biennial period—over twenty-two and half million; this being about eight million more fish than have ever been planted before during any one biennial period in the history of the department.

I appreciate very much the kind consideration and assistance that I have received from you. I have tried to maintain a high efficiency in the organization of the department, and the work I have done will very materially assist my successor in accomplishing great results in the future. There has been no friction in the department during this period, and each and every one of the employes has endeavored to do his duty to the best interest of the state.

Respectfully submitted,

JAMES A. SHINN,  
Commissioner.

BIENNIAL REPORT  
OF THE  
State Game and Fish Commissioner

Since the passage of our first game and fish laws, which were drawn up by Hon. D. C. Beaman, of Denver, about the year 1899, wonderful progress has been made. There have been many changes from time to time; in fact, there has never been a legislative session in Colorado but what it has made more or less changes in the laws. When I took charge of the department, in April, 1911, I was familiar with its workings, having been connected with it as deputy commissioner during the two previous years, and wherever it was possible I have endeavored to make improvements during this administration.

We do not by any means pretend that our laws are perfect; it may be many years before we can make claim to anything like perfection; but during the past two years a great number of our natural, as well as artificial, lakes, together with thousands of miles of our mountain streams, have been stocked with rainbow and brook trout, neither of which is a native of our waters. Many of our streams were fairly stocked with what is known as the native trout. Today this department has nine operative fish hatcheries in different parts of the state, that are supplied with eggs taken from the streams and lakes by experienced men, and placed in the hatcheries in various seasons of the year.

Our law provides for only five chief game wardens, the state being divided into five districts, with a chief game warden at the head of each district. There being sixty-two counties in the state, it necessarily follows that each chief game warden has a great many counties in his district, over which he must travel in his efforts to protect the game and fish. There is hardly a county in the state where a first-class game warden could not be kept busy year in and year out protecting the game and fish of that single county. So that it will readily be seen that, when a single warden is expected to properly look after the interest of the game and fish in all the way from eight and ten to eighteen and twenty counties, he must necessarily pay attention to the more important cases brought to his knowledge and does not have time to take care of all of the smaller matters. Under the law, the Commissioner is authorized to appoint, under pay, with the approval of the Governor, as many as twenty deputy game wardens, if the Commissioner has the money in his game fund to pay them for

their services. On account of not having sufficient revenue, I cannot assure these men that they will hold their positions the year around, and I cannot get the best men available, for the reason that they will not leave good positions and steady employment to take the position as deputy game warden for a few months at a time. Notwithstanding this, a number of good men have been secured to act as deputy game wardens, and have rendered invaluable service to the state in the care of its game and fish. Where such good men have been secured, it has been my aim to keep them on the year around. Good game wardens are hard to secure, as not everyone will make a good game warden, and politics should be left out of that part of the business. Generally, when you get a good game warden, he does not suit the politicians in his part of the state, and the Commissioner is asked to put some man under pay as game warden, in order to pay some political debt. This is always detrimental to the protection of the game and fish of the state.

I am a strong advocate of advertising the resources of our state, and I have tried to do my part by sending an exhibit of over four hundred trout to the land show held at Kansas City last February. This exhibit attracted a great deal of attention and was one of the main features of the show. While it is true that the Missouri water was not very conducive to the health of our trout, we succeeded in keeping most of them alive until the end of the show. I am told that this was the first effort ever made to send live trout in large quantities outside of our state. We were assisted in this work by our Chamber of Commerce, the Denver Union Water Company, the Telephone Company, the larger merchants of our city, and the different railroad companies, as there were no available funds which we could use for this purpose.

I also succeeded in getting two very important conventions to meet in Colorado. With the assistance of D. C. Beaman and W. L. May, of Denver, we secured the convention of the American Fisheries Society early in September. This society is composed of the best scientific fish-culturists in the United States and Canada. We also secured the convention of the United States Game and Fish Commissioners, held in Denver just preceding the other convention. I believe that these two conventions were of incalculable benefit, not only to the State of Colorado, but to all of the western states, as there were many valuable papers read and lectures given on subjects of vital interest to the propagation of fish and the preservation of game.

#### ELK

There is no doubt in my mind but what the increase in elk has been very material since the close of the open season on elk about twelve years ago. Large bands of them are seen in Routt County especially, and it has been reported that there are prob-

ably 2,500 elk in Routt, Moffat, Rio Blanco, and Grand Counties. Large bands of elk have been observed from time to time in other parts of the state. There is a band at the head-waters of the North Fork of the Gunnison River, where it is reported there are from 200 to 250. A large band is reported at the head-waters of the South Fork of the Rio Grande in Mineral County—probably 200 in this vicinity. There is also quite a number found in La Plata County. All of these bands are being protected by the people in their respective localities. If these animals are allowed to go unmolested for a few years longer, a marked increase in their number will result.

#### DEER

The entire State of Colorado is the home of various kinds of game animals, especially the deer. If these animals are left to themselves, they will increase and spread out over more country very rapidly; and so, if we are just a little careful of our game now, we shall not only have game in years to come, but, by continually passing wise laws, we can preserve our game for all time. The time was in Colorado when deer were so plentiful that it seemed almost impossible for them to be killed off; but with the increase in population, and the more general settling-up of our state, the deer have been killed until now they must be carefully protected, or they will meet the fate of the buffalo and become entirely extinct.

I believe it would be wise to close the season on deer for a period of not less than six years, which would insure a great increase of our deer in that time. I have had reports from game wardens from all parts of the state, which have confirmed my belief that we should have a closed season on deer for a time. It is hard to estimate the number of deer killed in the state during the open season, as we can only get a record of the number shipped over the railroads adjacent to the hunting-grounds; but I believe there were 50 per cent less deer killed in the state during the year 1912 than in previous years. Probably not over 400 were killed during the open season of 1912, while it is estimated there were from 700 to 800 killed during the year 1911.

#### MOUNTAIN SHEEP

The mountain sheep have been protected for the past twenty-four years, and are increasing very rapidly in various parts of the state. They have been seen in quite large bands from many of the railroad lines that pass through the Rocky Mountains. There is a large band of mountain sheep in several counties—namely, Chaffee, Teller, Clear Creek, Gunnison, Pitkin, Garfield, Routt, Larimer, Grand, and Ouray; also quite a large band in Estes Park. Many sportsmen have suggested that we declare an open season on mountain sheep, but I shall leave that to the judgment of the lawmakers.

## ANTELOPE

The antelope, which seems to be a native of the plains, is already under protection; but it seems almost impossible to protect these animals, as the country is being taken up by the homesteader, and it will be only a short time before there will be no range for these beautiful animals, unless the state should conclude to secure a piece of land with grass and water, and use it as a game preserve. Complaints are coming into the department from the farmers in the eastern part of the state, that the antelopes are breaking into their wheat fields and truck patches, causing considerable damage. With all of this to contend with, it must be said to the credit of the farmers that they object to having these animals killed by the "pot-hunter."

## GAME BIRDS

The department has spent a great deal of money in stocking the state with various kinds of game birds, such as the Mongolian and ring-neck pheasants, the crested quail, bob-white quail, and Hungarian partridges. Nearly all of these birds can be seen within forty minutes' ride from the State Capitol on any of the trolley lines leading out of Denver. We have a large pheasantry located at the state fish hatchery near Denver, where the birds are reared, and many hundreds of eggs are sent out each year to various parts of the state, where they are hatched under the common domestic hen. However, this plan has not proved as much of a success in stocking the state with pheasants as I should have liked, as these birds are very hard to raise. Reports we have received from parties inexperienced in the raising of pheasants have not been very favorable. I am now endeavoring to raise these birds at our pheasantry and distribute them in different parts of the state. This year I purchased fifty pairs of ring-neck pheasants in Oregon, and shall endeavor to raise a large number of them next year and have them for distribution over different parts of the state; the birds hatched and those sent out from the hatchery remaining the property of the state. These birds are already numbered by the thousands, and in the near future, with proper care and protection, we hope to be able to have an open season on all of the various kinds of birds mentioned.

Grouse, like the deer, are not increasing to any noticeable extent, and I believe that the season for killing the same should be shortened. Instead of the season being opened on the 15th day of August, the open season should not begin until the first day of September and should close October 10.

## INDIANS

We have had very little trouble in regard to the Indians killing our deer. However, we have had complaints from Rio Blanco,



La Plata, and Dolores Counties of the Indians slaughtering the deer, and I have sent wardens to investigate these matters, and have tried to prevent it as much as possible. But we have found very few deer being killed. I believe the Indian agents should use more care in seeing that the Indians are kept on their reservations.

FINES AND CONVICTIONS

The law makes it the duty of every sheriff and constable to enforce it in their respective counties, and gives them full power and authority, with or without a warrant, to arrest any person whom they have reason to believe guilty of its violation. In some of the counties the sheriffs have been of great assistance to us in enforcing the law, but, as a general rule, it is hard to get these officers to carry out the true intent of the law and arrest one of their own citizens when found violating the law. It is also difficult to get the district attorneys to take the proper action in some cases, and we have even had a case where the district attorney, while he was supposed to prosecute, defended the violators. On the whole, however, we have had the co-operation of these officers. In some cases the justices of the peace have taken it upon themselves to impose a fine for a violation of the law, and then to remit the fine. Our law strictly prohibits this, and provides that, when a fine has once been assessed or rendered, it shall not be suspended, reduced, or remitted otherwise than as expressly provided by law. As I understand it, the only way a fine can be remitted, after it has once been assessed, is through the pardoning board or the Governor. However, in spite of these difficulties, there were 106 convictions secured for violations during the biennial period, as follows:

Dynamiting fish .....	2
Fishing out of season.....	4
Hunting without a license.....	40
Having venison in possession.....	2
Hunting on private property without permission.....	5
Having fish in possession unlawfully.....	3
Fishing for trout at night.....	1
Killing antelope .....	7
Killing deer out of season.....	14
Killing game birds out of season.....	12
Killing game birds unlawfully.....	9
Seining without permit .....	3
Non-resident fishing without license.....	2
Killing song birds without permit.....	2

NUMBER OF HUNTING AND FISHING LICENSES ISSUED  
DURING THE YEAR 1911

Counties	Resident Hunting	Non- Resident Hunting	Combination Hunting and Fishing	Bird Hunting	Non- Resident Fishing
Commissioner's office .....	2,636	15	15	8	172
Adams .....	173	..	..	..	..
Arapahoe .....	245	..	..	..	..
Archuleta .....	92	..	..	..	..
Bent .....	239	..	..	..	..
Boulder .....	863	..	..	..	..
Baca .....	12	..	..	..	..
Cheyenne .....	17	..	..	..	..
Crowley .....	64	..	..	..	..
Custer .....	172	..	..	..	1
Chaffee .....	612	..	..	..	10
Costilla .....	143	1	..	..	2
Clear Creek .....	238	..	..	..	..
Conejos .....	502	..	..	..	29
Denver .....	3,735	..	..	..	..
Delta .....	649	..	..	..	..
Dolores .....	46	..	..	..	2
Douglas .....	117	..	..	..	..
Elbert .....	34	..	..	..	..
El Paso .....	855	7	..	..	47
Eagle .....	388	1	..	..	10
Fremont .....	1,646	1	..	..	5
Gunnison .....	739	5	..	..	39
Garfield .....	939	7	..	..	20
Gilpin .....	165	..	..	..	..
Grand .....	228	..	..	..	7
Hinsdale .....	50	..	..	..	5
Huerfano .....	733	5	..	..	..
Jefferson .....	229	..	..	..	..
Jackson .....	117	..	..	..	..
Kiowa .....	39	..	..	..	..
Kit Carson .....	39	..	..	1	..
Lincoln .....	34	..	..	..	..
Lake .....	418	..	..	..	1
Larimer .....	1,263	1	..	1	22
Logan .....	488	..	..	..	..
Las Animas .....	941	3	..	..	3

NUMBER OF HUNTING AND FISHING LICENSES ISSUED  
DURING THE YEAR 1911—Concluded

Counties	Resident Hunting	Non- Resident Hunting	Combination Hunting and Fishing	Bird Hunting	Non- Resident Fishing
La Plata .....	482	..	..	..	6
Montrose .....	561	..	..	..	..
Mineral .....	283	1	..	..	51
Montezuma .....	117	..	..	..	..
Morgan .....	390	1	..	..	..
Mesa .....	684	1	..	..	2
Moffat .....	176	1	1	..	4
Ouray .....	264	..	..	..	..
Otero .....	775	..	..	..	..
Phillips .....	107	..	..	..	..
Prowers .....	366	..	..	..	..
Pueblo .....	2,122	..	..	..	5
Pitkin .....	328	1	..	2	6
Park .....	199	..	..	..	..
Rio Grande .....	411	..	..	..	..
Routt .....	564	3	..	..	5
Rio Blanco .....	416	2	..	..	29
Summit .....	141	..	..	..	..
Sedgwick .....	125	..	..	..	..
San Juan .....	96	..	..	..	..
San Miguel .....	191	..	..	..	..
Saguache .....	338	..	..	..	..
Teller .....	467	..	..	..	..
Weld .....	912	..	..	..	..
Washington .....	15	..	..	..	..
Yuma .....	52	..	..	..	..
Totals .....	30,484	56	16	14	483

NUMBER OF HUNTING AND FISHING LICENSES ISSUED  
DURING THE YEAR 1912

Counties	Resident Hunting	Non- Resident Hunting	Combination Hunting and Fishing	Bird Hunting	Non- Resident Fishing
Commissioner's office .....	5,033	18	11	19	146
Archuleta .....	97	..	..	..	..
Arapahoe .....	212	..	..	..	..
Adams .....	173	..	..	..	..
Baca .....	15	..	..	..	..
Boulder .....	892	..	..	..	1
Bent .....	163	..	..	..	..
Conejos .....	499	..	..	..	14
Costilla .....	140	..	..	..	..
Crowley .....	65	..	..	..	..
Custer .....	180	..	..	..	..
Cheyenne .....	10	..	..	..	..
Clear Creek .....	210	..	..	..	..
Chaffee .....	535	..	..	..	10
Douglas .....	62	..	..	..	1
Dolores .....	45	..	..	..	1
Denver .....	1,179	..	..	..	..
Delta .....	871	..	..	..	3
El Paso .....	896	4	..	..	24
Eagle .....	356	..	..	..	9
Elbert .....	33	..	..	..	..
Fremont .....	1,648	4	..	..	5
Grand .....	220	..	..	..	20
Gunnison .....	775	5	..	..	48
Garfield .....	880	15	..	..	19
Gilpin .....	169	..	..	..	..
Hinsdale .....	10	..	..	..	..
Huerfano .....	680	2	..	..	..
Jackson .....	142	..	..	..	..
Jefferson .....	202	..	..	..	..
Kit Carson .....	15	..	..	8	..
Kiowa .....	22	..	..	..	..
Las Animas .....	805	2	..	..	..
La Plata .....	484	..	..	..	7
Larimer .....	1,179	..	..	..	12
Lake .....	382	..	..	..	1
Logan .....	442	..	..	..	..

NUMBER OF HUNTING AND FISHING LICENSES ISSUED  
DURING THE YEAR 1912—Concluded

Counties	Resident Hunting	Non- Resident Hunting	Combination Hunting and Fishing	Bird Hunting	Non- Resident Fishing
Lincoln .....	41	..	..	..	..
Montezuma .....	147	2	..	..	..
Mineral .....	221	3	..	..	40
Morgan .....	384	..	..	..	..
Mesa .....	986	..	..	..	..
Montrose .....	672	..	..	..	2
Ouray .....	237	1	..	..	..
Otero .....	594	..	..	..	..
Pueblo .....	2,034	2	..	..	..
Prowers .....	257	..	..	..	2
Pitkin .....	306	..	..	..	4
Park .....	114	..	..	..	..
Phillips .....	55	..	..	..	..
Routt .....	377	3	..	..	14
Rio Grande .....	389	..	..	..	2
Rio Blanco .....	319	1	..	..	3
Saguache .....	389	..	..	..	2
San Miguel .....	33	..	..	..	..
Sedgwick .....	111	..	..	..	..
San Juan .....	98	..	..	..	..
Summit .....	165	..	..	..	3
Teller .....	481	..	..	..	..
Weld .....	851	..	..	..	2
Washington .....	18	..	..	..	..
Yuma .....	35	..	..	..	..
Moffat .....	139	..	..	..	..
Totals .....	29,174	62	11	27	395

The State of Colorado has devoted a great deal of time and money to the rearing of the trout, especially the native black spotted mountain trout. Much attention has also been given to the introduction of the brook trout of the East and the California rainbow trout.

In the year 1882 brook trout were hatched and distributed in a small way, and in 1886 the eggs of the McCloud River rainbow trout from California were secured and hatched in what is known as our Denver Hatchery. These fish were introduced in the Platte and Gunnison Rivers. A few years later the fish found in Twin Lakes near Leadville were hatched and distributed in almost all of the streams and mountain lakes of our state. Since that time the collection of eggs of the native trout, by what is known as "field work," has extended to nearly every part of the state, taking in from eight to ten large lakes or reservoirs.

With the improved methods of taking and handling spawn of the native trout, we now collect from ten to fifteen million eggs annually. This method is known as the collection and shipping of "green" eggs taken from the wild trout. The eggs we take from the rainbow and brook trout are handled in the same way when taken green, as we have no substations large enough to eye eggs before transporting them to the hatcheries.

The state now has five operative trout hatcheries, located as follows: Denver, Steamboat Springs, Del Norte, Durango, and Glenwood Springs. Besides, we are operating the Estes Park Hatchery, the Pitkin Hatchery, and the Marvine Hatchery, and are using the government hatchery at Grand Lake to make one hatch of fish each year; also the Emerald Lakes Hatchery. This is ample to stock all of the streams of the commonwealth and to improve legitimate angling for all time to come. The matter of operating the hatcheries by the collection of eggs from wild trout and the distribution of the fish has become a very important branch of the Game and Fish Department. Fish hatcheries are expensive things to operate, and even fair fish-culturists are scarce for the stations already in commission.

Believing in economy, efficiency, and the enlargement of field work incident to the propagation of the trout, I am encouraging the sportsmen's associations to build club hatcheries at their own expense, along the most important streams of the state; also nursery or retaining ponds. During the past two years a considerable number of such club hatcheries have been built by these fish and game associations. The method provides that the state furnish the eggs from its field stations, and the state pays the expense of a man to supervise their hatcheries and the distribution of the fish in the public waters.

In this way people find that they can have all the fish they want in their district by co-operative work without so much legislative fish culture, which entails such a heavy expense, and in this way state fish culture does not engender so much unwar-

ranted criticism from the people thinking they are not getting their share of the fish in their respective localities. Not only this, but the individual becomes personally interested in the protection which is incident to propagation. This method I believe is assisting in making Colorado, not only the "playground of America," but one of the most famous sections in the Union for trout fishing in inland waters, both in the way of sport and as a food product.

Realizing the trouble and expense incurred in securing sufficient eggs to fill the hatcheries, soon after my advent into office I took steps to establish field stations by securing lakes that were stocked with the various kinds of trout for the purpose of making permanent spawning stations. I secured these by leases running from three to twenty years, and have been restocking these lakes and reservoirs with a view to having sufficient spawning stations, where we can take all the eggs we need for filling our hatcheries. We now have field stations at Electra Lakes, near Durango; Grand Mesa and Cottonwood Lakes, on the western slope; Marvine and Trappers' Lakes, near Buford; Clear Creek Reservoir, near Granite; Wood's Lake, near Marble; Borns' Lake, near Pagosa Springs; Swank's Lake, near Lake City; Echo Lake, near Idaho Springs; Russell's Lake, near Trinidad; Columbine Lake, near Grand Lake. We have also planted some fry in Trout Lake, near Telluride, for the purpose of making this a spawning station.

I have also systematized the taking of spawn by keeping a record in our office of the time of the year the fish spawn in the different altitudes, which is of very material service to us in knowing the time to send our men out to the different field stations for the purpose of securing eggs. If these field stations are kept well restocked, it will be only a few years before Colorado will have some of the greatest trout spawning stations in the United States.

In order to fill up our hatcheries and replenish our fish supply in the waters of Colorado, last summer I took up the matter of securing some native trout eggs from Yellowstone Lake with the government officials at Washington, and through the kindness of the Bureau of Fisheries I secured about two and half million eyed native trout eggs from Yellowstone Park. These were brought down and placed in our hatcheries, and the fry planted in the stream in different parts of the state.

I have also contracted for about two million eastern brook trout eggs from the East, which will be delivered some time during the present month. This will about fill up all of our hatcheries for the winter hatch, so that we shall have a large number of fish fry to be planted in the streams and lakes of the state in the early spring.

## DISTRIBUTION OF THE TROUT

By handling the three different varieties of trout—with the rainbow spawning in the spring, the natives spawning in early summer, and the eastern brook spawning in the late fall or early winter months—we have both a summer and a winter hatch, thus keeping our hatcheries, where the water is suitable, in operation the year around. This is why we are able to distribute annually from ten to fifteen million advanced fed fry in the public waters of the state; and, under our careful supervision, by using nursery ponds wherever it is possible, they do not die after being turned loose, but are able to “rustle for themselves.” It is true that many of these young fish are destroyed by their natural enemies, such as aquatic insects and animals; but their worst enemies are the larger trout, from fingerlings up to adult fish. All species of trout are voracious and cannibals.

Retaining-ponds for trout fry along the important streams of the state are a desirable feature of fish-culture work. In this matter I have co-operated with the officials of several of the railroads and have succeeded in having a few such retaining-ponds established. The lack of funds has prevented us from doing more along this line, but the different railroads are co-operating with us in establishing rearing-ponds along the streams, where the young trout are kept for several months, until they are amply able to take care of themselves, before being turned out into the streams.

I appreciate very much the assistance the different railroads have rendered us in the way of furnishing transportation for our men while collecting spawn and transporting our fish eggs and fry. This has been of incalculable benefit to the department, as without this assistance we should have been very badly handicapped in accomplishing this important branch of the state's work with the revenue that is collected under the present law; and I hope for a continuance of these friendly relations with the railroads.

## APPROPRIATIONS

The Seventeenth General Assembly appropriated \$10,000 for purchasing additional lands and water for the purpose of enlarging and improving the State Fish Hatchery near Denver. This money, however, was not available until the fall of 1911; but, contracts having been made by the former Commissioner, in accordance therewith I purchased about eight acres of land, adjoining the hatchery grounds at Denver on the south and west, in order to get additional water, at a cost of \$2,500, and proceeded to construct a pipe line from the extreme west end of this ground to a new hatching-house, which was built at a cost of \$4,000, the pipe line costing \$1,000. I also built a new superintendent's residence, at



a cost of \$2,000, so that we now have comfortable quarters for our superintendent of the Denver Hatchery, and a new hatchery, with a capacity of about three million eggs. I have not abandoned the old hatchery at Denver, which can still be used in case of emergency, so that we can now take care of from three to five million eggs at one time at the Denver Hatchery; and, being able to make three hatches of fish each year at this place, we are able to hatch in the neighborhood of ten million fish fry here annually. We now have one of the best fish-hatching plants in the country at our Denver Hatchery, it being a credit to the state and one of which we may well feel proud.

I have also erected a game park, enclosing about four acres of land with three-inch iron posts set in concrete, with woven wire fence seven feet high, in which we now have three deer and two antelope. I have constructed new pheasant pens inside of this enclosure, making the park a suitable place for keeping wild game animals and for the rearing of pheasants. I have also set out trees and shrubbery; constructed driveways, seeding part of the ground down in grass, making a lawn; installed a pumping plant, known as the Kewanee water system, for irrigation to take care of same; and in a few years expect to have this one of the most attractive spots in the state.

There was also appropriated by the last legislature \$250 in addition to the \$2,000 appropriated by the Seventeenth General Assembly, for the completion of the residence at the fish hatchery at Glenwood Springs, to repair the hatchery buildings at that place, and to improve and beautify the grounds, and improve the roads leading thereto. Of this amount I used \$1,999.98 in building an addition to the superintendent's residence, making some improvements to the ponds, hatchery, and grounds, so that we now have a very good hatchery at this point and very comfortable quarters for our superintendent. This hatchery has a capacity of about two million eggs at each hatch, and, if we can secure the eggs, we are able to make three hatches each year, turning out from five to six million fish fry annually from the Glenwood Hatchery.

On account of being unable to do much with the old hatchery at Sulphur Springs, having to make our hatch of fish for the Grand County supply each year at the old government hatchery at Grand Lake, I have abandoned the hatchery at Sulphur Springs, moving the troughs and what material we could use to the Denver Hatchery, and using these troughs in the old hatchery building at Denver. We have never been able to make more than one hatch of fish each year at Grand Lake; so that, if we are to have a hatchery for Grand County, a new location should be selected, and if we can find suitable water, proper appropriation should be made by the legislature for purchasing a new site, and erecting a new hatchery and a superintendent's residence. However, I believe that, if the legislature will give us the necessary

funds for running what hatcheries we have to their fullest capacity, we can accomplish more, and be able to distribute more fish in the streams of the state, than if we had more hatcheries. Every new hatchery built, unless we can find suitable water so that we can make from two to three hatches of fish each year, is an additional expense to the state, as we are compelled to keep a superintendent the year around to take care of the hatchery; whereas, if this additional expense was allowed for running what hatcheries we have, a great deal more can be accomplished in the way of stocking our streams and lakes with fish.

For the past four or five years the department has been unable to do very much in the way of hatching fish at the old hatchery located near Gunnison, on account of the poor condition of the building and the poor water supply. We have been able to use this hatchery only for holding our fish while making the distribution, and have been paying a yearly rental for the use of a private hatchery, located near Pitkin, for hatching our fish. This private hatchery now belongs to Mr. R. L. McKnight, who last summer constructed a new hatchery building, with a capacity of about two million eggs. He has a very good water supply, having both warm and cold springs, with an abundance of water, so that the temperature of the water can be regulated and three hatches of fish can be made at this point each year. Our legislature should take some action toward giving us a suitable hatchery on the western slope, either by purchasing the new Pitkin Hatchery and site from Mr. McKnight, or by making the necessary appropriation for the purchase of a new site, and the erection of a new hatchery and superintendent's residence, for the Gunnison country. I have practically abandoned the old Gunnison Hatchery. I believe that, if we are to have a hatchery for the Gunnison country, a new site should be located, as we have always had trouble with the water supply for the Gunnison Hatchery, having to take it either direct from the Gunnison River, which is too cold during the greater part of the year for hatching fish, or from the city water supply, which has proved very satisfactory.

In April of this year, at the solicitation of the Estes Park Protective and Improvement Association, we made arrangements to take over their fish hatchery, grounds, and land, at a rental of 96 dollars per year, the state to operate the same. This is a splendid hatchery, both the hatchery and the superintendent's residence being built of concrete, and has a capacity of about eight hundred thousand to one million eggs, and two hatches of fish can be made each year. This contract runs for a period of three years from April 1, 1912; but I presume the association would be willing to extend the time indefinitely, should the state not conclude to purchase the same outright. There being no appropriation for this work, the expense of rental and maintenance has been paid out of our Game Cash Fund. The cost of

operating this hatchery, for salary of superintendent and maintenance, is about \$100 per month.

The total amount appropriated by the last legislature and available for the various branches of the work—salaries, maintenance of hatcheries, etc.—for the years 1911 and 1912, not including the amount appropriated for improvements at the Denver and Glenwood Fish Hatcheries, was \$64,450. Of this amount I have used \$62,100.67, leaving a balance of \$2,349.33.

Details of appropriations and expenditures are as follows:

STATE GAME AND FISH COMMISSIONER—SALARY FUND.

By appropriation .....	\$3,600.00
Commissioner .....	3,600.00

STATE GAME AND FISH COMMISSIONER—TRAVELING EXPENSE.

By appropriation .....	\$1,200.00
Commissioner .....	723.30

Balance .....	\$ 476.70
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DEPUTY STATE GAME AND FISH COMMISSIONER—SALARY FUND.

By appropriation .....	\$3,000.00
Deputy Commissioner .....	3,000.00

DEPUTY STATE GAME AND FISH COMMISSIONER—TRAVELING EXPENSE.

By appropriation .....	\$1,000.00
Deputy Commissioner .....	482.75

Balance .....	\$ 517.25
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CLERK AND STENOGRAPHER—SALARY FUND.

By appropriation .....	\$1,200.00
Clerk .....	1,200.00

STATE SUPERINTENDENT FISH HATCHERIES—SALARY FUND.

By appropriation .....	\$1,200.00
Superintendent .....	1,200.00

## STATE SUPERINTENDENT FISH HATCHERIES—TRAVELING EXPENSE.

By appropriation .....	\$1,000.00	
Superintendent .....	800.00	
		_____
Balance .....		\$ 200.00

## SUPERINTENDENT DENVER HATCHERY—SALARY FUND.

By appropriation .....	\$1,200.00
Superintendent .....	1,200.00

## MAINTENANCE DENVER HATCHERY.

By appropriation .....	\$1,800.00
To maintenance .....	1,792.58
	_____
Balance .....	\$ 7.42

## SUPERINTENDENT EMERALD LAKES—SALARY FUND.

By appropriation .....	\$1,800.00
Superintendent .....	1,800.00

## MAINTENANCE EMERALD LAKES.

By appropriation .....	\$1,800.00
To maintenance .....	1,789.25
	_____
Balance .....	\$ 10.75

## SUPERINTENDENT GLENWOOD HATCHERY—SALARY FUND.

By appropriation .....	\$1,800.00
Superintendent .....	1,800.00

## MAINTENANCE GLENWOOD HATCHERY.

By appropriation .....	\$1,800.00
To maintenance .....	1,799.44
	_____
Balance .....	\$ .66

## SUPERINTENDENT GRAND COUNTY HATCHERY—SALARY FUND.

By appropriation .....	\$1,800.00
Superintendent .....	1,800.00

MAINTENANCE GRAND COUNTY HATCHERY.

By appropriation .....	\$1,800.00	
To maintenance .....	1,783.58	
		_____
Balance .....		\$ 16.42

SUPERINTENDENT GUNNISON HATCHERY—SALARY FUND.

By appropriation .....	\$1,800.00
Superintendent .....	1,800.00

MAINTENANCE GUNNISON HATCHERY.

By appropriation .....	\$1,800.00	
To maintenance .....	1,791.79	
		_____
Balance .....		\$ 8.21

SUPERINTENDENT LA PLATA HATCHERY—SALARY FUND.

By appropriation .....	\$1,800.00
Superintendent .....	1,800.00

MAINTENANCE LA PLATA HATCHERY.

By appropriation .....	\$1,800.00	
To maintenance .....	1,796.23	
		_____
Balance .....		\$ 3.77

SUPERINTENDENT ROUTT COUNTY HATCHERY—SALARY FUND.

By appropriation .....	\$1,800.00
Superintendent .....	1,800.00

MAINTENANCE ROUTT COUNTY HATCHERY.

By appropriation .....	\$1,800.00	
To maintenance .....	1,795.40	
		_____
Balance .....		\$ 4.60

SUPERINTENDENT DEL NORTE HATCHERY—SALARY FUND.

By appropriation .....	\$1,800.00
Superintendent .....	1,800.00

## MAINTENANCE DEL NORTE HATCHERY.

By appropriation .....	\$1,800.00	
To maintenance .....	1,798.83	
		<hr/>
Balance .....		\$ 1.14

## SUPERINTENDENT MARVINE HATCHERY—SALARY FUND.

By appropriation .....	\$1,425.00
Superintendent .....	1,425.00

## MAINTENANCE MARVINE HATCHERY.

By appropriation .....	\$ 1,425.00	
To maintenance .....	1,423.69	
		<hr/>
Balance .....		\$ 1.31

## COLLECTING SPAWN AND DISTRIBUTING FRY FUND.

By appropriation .....	\$ 2,600.00	
To collecting spawn and distributing fish.....	2,599.85	
		<hr/>
Balance .....		\$ .15

## CHIEF GAME WARDENS' SALARY FUND (5).

By appropriation .....	\$9,000.00
Chief Game Wardens.....	9,000.00

## CHIEF GAME WARDENS' TRAVELING EXPENSE FUND.

By appropriation .....	\$3,000.00	
To expenses .....	2,898.20	
		<hr/>
Balance .....		\$ 101.80

## SPECIAL GAME WARDEN'S SALARY FUND.

By appropriation .....	\$1,200.00
To Special Game Warden.....	1,200.00

## SPECIAL GAME WARDEN'S TRAVELING EXPENSE FUND.

By appropriation .....	\$ 600.00	
To Special Game Warden.....	599.65	
		<hr/>
Balance .....		\$ .35

## DETAILED REPORTS OF RECEIPTS

FROM DECEMBER 1, 1910, TO NOVEMBER 30, 1912.

Received from County Recorders, resident hunting licenses....	\$38,903.60
Resident hunting licenses issued by Commissioner's office.....	7,019.00
Non-resident general hunting and bird licenses issued.....	1,473.00
Non-resident fishing licenses issued.....	1,601.00
Lakes, parks and renewals of same.....	895.00
Preserves and renewals of same.....	205.00
Importers' licenses .....	750.00
Guide licenses .....	115.00
Permits to seine for suckers, carp and squawfish.....	58.00
Taxidermists' licenses .....	235.00
Transportation permits .....	316.00
Specimen tags .....	59.00
Importation certificates .....	78.00
Seizures and sale of game and fish.....	671.55
Received from fines imposed on violators.....	933.29
Received from beaver permits issued.....	153.00
Miscellaneous, storage permits, etc.....	264.41
Total receipts .....	\$53,729.85

## DISBURSEMENTS FROM GAME CASH FUND

Amount on hand in State Treasury, December 1, 1910, to credit of Game Cash Fund.....	\$ 716.00
Amount deposited with State Treasurer during biennial period	53,729.84
	<hr/>
	\$54,445.84
Paid Deputy Game Wardens.....	19,278.86
Paid for fish eggs.....	2,806.52
Printing and stationery .....	1,191.40
Office expense, including clerical help.....	3,155.93
Estes Park Hatchery .....	916.00
Denver Hatchery .....	4,087.96
Gunnison Hatchery .....	696.11
Glenwood Hatchery .....	781.64
Marvine Hatchery .....	33.14
La Plata Hatchery .....	479.85
Del Norte Hatchery .....	36.00
Routt County Hatchery .....	95.85
Boulder Hatchery .....	162.00
Cottonwood Lakes .....	113.60
Collecting spawn and distributing fish.....	5,564.26
Paid for fish.....	127.50
Game birds .....	366.00
Feeding wild game birds and game animals.....	146.65
Pasture for horses .....	234.00
Fish cans, cases and tank.....	214.00
Shipping and crating wild game animals.....	102.50
Game Wardens' traveling expenses.....	101.40
Rebate to county clerk .....	18.00
Attorney's fees .....	50.00
Sheriff's fees .....	26.55
Taxidermy work .....	88.00
Screen wire for fish trays.....	12.88
	<hr/>
	\$50,886.60
Balance in treasury to credit of Game Cash Fund.....	\$ 3,559.24



DISTRIBUTION OF YOUNG TROUT DURING THE YEAR  
1911

From Denver Hatchery—		
Brook trout .....	913,000	
Rainbow trout .....	315,100	
Native trout .....	187,000	
		1,415,100
From Durango Hatchery—		
Brook trout .....	827,000	
Rainbow trout .....	171,000	
Native trout .....	251,000	
		1,249,000
From Del Norte Hatchery—		
Brook trout .....	890,000	
Native trout .....	605,000	
		1,495,000
From Glenwood Hatchery—		
Brook trout .....	721,000	
Native trout .....	1,098,000	
Rainbow trout .....	144,000	
		1,963,000
From Gunnison Hatchery—		
Brook trout .....	260,000	
Rainbow trout .....	155,000	
Native trout .....	130,000	
		545,000
From Grand County Hatchery—		
Native trout .....	605,000	
		605,000
From Routt County Hatchery—		
Brook trout .....	1,040,000	
Rainbow trout .....	35,000	
Native trout .....	665,000	
		1,740,000

From Emerald Lakes Hatchery—	
Native trout .....	618,000
	<hr/>
	618,000
From Marvine Hatchery—	
Native trout .....	319,000
	<hr/>
	319,000
From Molina Hatchery—	
Native trout .....	350,000
	<hr/>
	350,000
From Boulder Hatchery—	
Brook trout .....	200,000
	<hr/>
	200,000
From Estes Park Hatchery—	
Brook trout .....	488,849
Native trout .....	167,811
Rainbow trout .....	107,619
	<hr/>
	764,279
	<hr/>
Grand total .....	11,263,379
Total number brook trout distributed.....	5,339,849
Total number rainbow trout distributed.....	1,881,719
Total number native trout distributed.....	4,041,811
	<hr/>
Total trout distributed during 1911.....	11,263,379

#### DISTRIBUTION OF YOUNG TROUT DURING THE YEAR 1912

From Denver Hatchery—	
Brook trout .....	754,000
Rainbow trout .....	1,000,000
Native trout .....	822,000
	<hr/>
	2,576,000
From Durango Hatchery—	
Brook trout .....	710,000
Rainbow trout .....	645,000
	<hr/>
	1,355,000

From Del Norte Hatchery.....		
Brook trout .....	545,000	
Native trout .....	531,000	
	<hr/>	1,076,000
From Gunnison Hatchery—		
Brook trout .....	455,000	
Rainbow trout .....	290,000	
Native trout .....	285,000	
	<hr/>	1,030,000
Glenwood Hatchery—		
Brook trout .....	801,000	
Native trout .....	827,000	
	<hr/>	1,628,000
From Grand County Hatchery—		
Native trout .....	460,000	
	<hr/>	460,000
From Emerald Lakes Hatchery—		
Native trout .....	520,000	
	<hr/>	520,000
From Estes Park Hatchery—		
Brook trout .....	280,000	
Rainbow trout .....	40,000	
Native trout .....	300,000	
	<hr/>	620,000
From Boulder Hatchery—		
Brook trout .....	300,000	
	<hr/>	300,000
Molina Hatchery—		
Native trout .....	440,000	
	<hr/>	440,000
From Marvine Hatchery—		
Native trout .....	200,000	
	<hr/>	200,000

## From Routt County Hatchery—

Brook trout .....	555,000	
Native trout .....	520,000	
		<hr/>
		1,075,000
		<hr/>
Grand total .....		11,280,000
Total number of brook trout distributed.....	4,400,000	
Total number of rainbow trout distributed.....	1,975,000	
Total number of native trout distributed.....	4,905,000	
		<hr/>
Total number distributed during 1912.....		11,280,000
Total number distributed during 1911.....		11,263,379
		<hr/>
Total number distributed during biennial period.....		22,543,379

## RECOMMENDATIONS

I would recommend a combination hunting and fishing license, as there seems to be no good reason why adults who care to fish should not pay a license. At present nine states in the northern and Rocky Mountain region have adopted a fishing license for hook-and-line fishing, either for residents or for non-residents. The object of a fee is not to prohibit fishing, but to require those who enjoy the privilege to contribute something toward the maintenance of the work of fish propagation.

I believe that it is no more than fair that the fisherman should contribute something for his pleasure, and it is manifestly unjust that the sportsmen should be taxed for hunting and compelled to pay the burden of stocking the public waters, for which the fishermen contribute nothing.

In the State of Idaho a fish license law was passed in the year 1903. The total receipts from this source amounted to \$14,105. In 1909, when the fishing and hunting combination license law was in effect, the receipts from that source amounted to \$44,555; and in 1910 the revenue increased to \$52,351. The combination license of Idaho is one dollar for residents and two dollars for non-residents. This is considered enough to produce ample funds to meet the present needs, and does not work a hardship on anyone who wants to fish.

The nine states that have adopted hook-and-line licenses are: Arkansas, Idaho, Minnesota, Montana, Nebraska, Oregon, South Dakota, Wisconsin, and Wyoming.

There is no reason why Colorado should not stand in the front of other states in the economical administration of its Game and Fish Department, and all who are interested in the successful operation of this important branch of the state's service should assist us in helping to make the game and fish protection fund a self-supporting measure, which will make the system more popular, and increase the funds for both propagation and protection.

## SCREENING DITCHES

Screening irrigating ditches, for the protection of fish from the intake of ditches and canals, is an important matter. At the meeting of the American Fisheries Society held last September in Denver the following resolutions were adopted:

"The Society deplores the large and increasing destruction of valuable food and game fish in ditches of irrigation systems. Recognizing the recent and future great increase in irrigation projects of our nation, and the certainty that this loss will be largely augmented thereby, we urge upon the attention of state officials and legislative bodies, in regions where irrigation is practiced, that they spread knowledge of the means by which said loss may be averted, and provide by a statute for the in-

roduction of such apparatus at the intake of ditches and canals that the descent of fish into these artificial channels may be prevented.

"We deem this of great importance, not only that the sources devoted by the state and nation to the propagation and culture of fish should bring adequate returns, but also that so attractive a feature of outdoor recreation and sport, also so valuable a food material, may be conserved for the people for its proper use."

Many complaints come to this office from the people regarding the loss of fish from this cause. Under the direction of the United States Commissioner of Fish and Fish Culture, at Washington, D. C., Dr. David Starr Jordan investigated these conditions in Colorado, and reported as follows:

"The open ditches are a menace to the cause of fish culture. Great numbers of trout, in many cases thousands of them, pass into these irrigation ditches and are left to perish in the fields. The destruction of trout by this agency is far greater than all the others combined, and it is going on in almost every irrigating ditch in Colorado."

I would recommend that the legislature authorize the Department to put in suitable screens at the intake of irrigating ditches and canals, at the expense of the state. We shall have ample means to do this work, providing we get a combination hunting and fishing license law.

At the solicitation of F. W. Chambers, game and fish warden of the State of Utah, last winter I visited his state for the purpose examining a screen that was in operation, not only in the State of Utah, but also in Idaho. This device is an undershot water wheel, protected from debris by a revolving screen, which seems to automatically clean itself. I induced the inventor, Mr. H. B. Johnston, to set up one of these screens for examination out at Washington Park during the American Fisheries Society's convention, held here early in September of this year. This screen was in successful operation, and was visited by hundreds of people, and by all that saw it it was pronounced one of the best devices for that work they had ever seen. I have also invited Mr. Johnson to bring his screen to Denver this winter and have it placed in operation, so that the members of the legislature may be able to see it in operation.

#### STATE GAME REFUGES FOR BREEDING AND PROTECTING GAME AND GAME BIRDS

The people of the State of Colorado have just begun to wake up to the fact that one of their greatest assets today is their game and fish, good roads, and mountain scenery. Game constitutes an asset to the people of the state. The value of game and game birds can be expressed not only in terms of money, as an article

of food to the aggregate value of many thousands of dollars, but as supplying a means of healthful recreation in field and forest.

The plan I wish to submit, and to have the people of the state adopt, is to set aside several thousand acres of forest land as a reserve for the propagation and protection of game and game birds, as an adjunct to the natural increase in different parts of the state, to be known as a State Game Reserve or Park, the same as the famous Yellowstone National Park in Wyoming.

In this large reserve a number of game animals are to be turned loose, so they will increase naturally, and in time can be set free or transferred to various points throughout the state. What many states in the Union have done in establishing game refuges, Colorado should do. The results attained so far have been very encouraging and such preserves are no longer an experiment. In the State of Pennsylvania game preserves of 244,200 acres have been set aside. Deer imported from other states and placed in these preserves have thrived and multiplied, so that localities in which they were formerly plentiful, but where they had been exterminated, are again populated with these beautiful creatures of the forest.

To my mind, this system of the propagation of game in its natural habitat and environment, under absolutely natural conditions, with protection from hunters and predatory animals, is infinitely superior to any plan which involves the breeding of game in confinement.

The "More Game" movement is growing in importance in all states from Maine to California and from Florida to Alaska, and in this movement the federal government has taken an active part. Fifty-six great national game reserves have been set aside for the conservation of game.

State game refuges are necessary to supplement the reservation system. The leaders in this movement are Massachusetts, New York, New Jersey, Illinois, Missouri, and California. California has naturalized the Mexican wild turkey. Massachusetts has made important improvements in rearing wild game birds, showing that game-bird refuges are growing in importance. In Indiana the state may post the land and waters, by agreement with the owner, that no shooting or fishing will be permitted by him. Colorado has been successful in the maintenance of the mountain sheep. The mule deer of the Rockies should receive as much attention before it is too late.

However, I find that section 25 of our Constitution provides that the General Assembly shall not pass local or special laws for the protection of game or fish, but our laws must as nearly as possible be drawn to meet the necessities of the entire state and of every part thereof. It seems to me that we could overcome this by making a game refuge of the whole state, as regards game quadrupeds and birds, but subject to certain regulations as to the open seasons.

After careful investigation, and at the suggestion of many sportsmen from all parts of the state, I would recommend that we close the season on deer-hunting for a period of not less than six years, for reasons before mentioned.

I would recommend that the open season on ducks and other water fowls be changed to read from September 15 to April 1 of the following year.

I would recommend that we have an appropriation of \$5,000 for the purpose of building a fence around the eight acres of land purchased at the Denver Hatchery; also, for fixing up the ponds at the fish hatchery, so that we can stock them with black bass, croppies, perch, and other fish suitable for reservoirs and the warm waters of the streams of the valleys and plains, thereby adding to the food supply that will become quite an industry in the future of our state. We have a great many calls for these kinds of fish for this purpose.

I also recommend that the legislature appropriate \$3,500 for the purpose of securing and breeding all kinds of game birds suitable for propagation in our state. It has been proved that the Mongolian and ring-neck pheasants are well adapted to this state and that they can be successfully reared in captivity.

I would also recommend that rabbits be put on the protected list of our game, and that the season be closed on the same in this state from February 1 to September 30, giving us an open season of four months—from October 1 to January 31. I do this not only for the protection of the rabbits, but in order to protect the birds of our state, as a great many people go out in the summer and kill the birds and, when apprehended by the game warden, claim they are hunting for rabbits.

The following is an estimate of the amount of money which it is necessary to appropriate to carry on the different branches of the Game and Fish Department for the next biennial period, under the law now in effect, for salaries and expenses, and our present operation of the fish hatcheries, not including any of the special appropriations I have recommended:

Game and Fish Commissioner, salary.....	\$ 4,000.00
Game and Fish Commissioner, traveling expenses.....	1,200.00
Deputy Commissioner, salary .....	3,000.00
Deputy Commissioner, traveling expenses.....	960.00
Clerk and Stenographer.....	3,000.00
Chief Game Wardens, salaries for five.....	12,000.00
Chief Game Wardens, traveling expenses.....	4,800.00
General Superintendent Fish Hatcheries.....	3,000.00
General Superintendent Fish Hatcheries, traveling expenses.....	1,000.00
Salary of Superintendent, Denver Hatchery.....	1,200.00
Salary of Superintendent, Glenwood Hatchery.....	1,200.00



Salary of Superintendent, Routt County Hatchery.....	1,200.00
Salary of Superintendent, Del Norte Hatchery.....	1,200.00
Salary of Superintendent, La Plata Hatchery.....	1,200.00
Salary of Superintendent, Gunnison Hatchery.....	1,200.00
Salary of Superintendent, Grand County Hatchery.....	1,200.00
Salary of Superintendent, Emerald Lakes Hatchery.....	1,200.00
Salary of Superintendent, Marvine Hatchery.....	1,200.00
For maintenance, Denver Hatchery .....	3,000.00
For maintenance, Glenwood Hatchery .....	2,100.00
For maintenance, Routt County Hatchery.....	1,800.00
For maintenance, Del Norte Hatchery.....	1,800.00
For maintenance, La Plata Hatchery .....	1,800.00
For maintenance, Gunnison Hatchery.....	1,800.00
For maintenance, Grand County Hatchery.....	1,500.00
For maintenance, Emerald Lakes.....	1,200.00
For maintenance, Marvine Hatchery .....	1,200.00
Collecting spawn .....	2,000.00
Distributing fish .....	1,000.00
Chief Special Game Warden for Denver, salary.....	1,200.00
Chief Special Game Warden for Denver, traveling expenses.....	950.00

Respectfully submitted,

JAMES A. SHINN,  
State Game and Fish Commissioner.