6.1/2/1895-96



BIENNIAL REPORT

OF THE

STATE FISH COMMISSIONER

OF THE

STATE OF COLORADO

FOR THE

Years 1895 and 1896



DENVER, COLORADO
THE SMITH-BROOKS PRINTING CO., STATE PRINTERS
1897

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REPORT

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STATE FISH COMMISSIONER

OF COLORADO.

TO HIS EXCELLENCY.

ALBERT W. McINTIRE,

GOVERNOR OF THE STATE OF COLORADO.

Sir—I have the honor to submit my report for the years 1895 and 1896, including the departments of fish culture and the game and fish wardens.

I found upon succeeding to the office of State Fish Commissioner a meagre and insufficient appropriation to carry on the work at the several state hatcheries. In making the needed appropriations the legislature did not contemplate that there was a period of four months overlapping from the outgoing administration, the expenses of which had to be borne by the appropriation to the incoming office holder, and in this particular instance the bills of expense were based upon the assumption of an ample fund being available to pay them. As near as I could learn. there was about three thousand two hundred dollars (\$3,200) of such claims against the state fish and game department the day I assumed the duties of office, there being a single item of expense for the purchase of eastern trout eggs for the year 1895 of nine hundred dollars (\$900), and an express bill of one hundred and nineteen dollars (\$119) on the same. This, and other items, all added to defeat the evident intent of the legislature to properly provide for the expenditures of the incoming office holder.

Another difficulty was encountered in three of the regular state hatcheries. I found that although an ample and proper provision had been made for needed improvements at the several stations for the years 1893 and 1894, and for their future usefulness, by a liberal appropriation from the ninth general assembly, that no such improvements were made, everything was in a filthy and deplorable condition and out of repair. I at once had such improvements made as to enable a moderate amount of work being done. In view of the insufficient means at my disposal, I closed the Twin Lakes station and confined the work to such places as could be run to advantage. I am not in favor of an effort to run a multiplicity of state fish hatcheries; a much better result can be obtained by one or two good establishments, with a concentration of the labor employed. The state does not own at present one really good location; it is handicapped by a partial ownership of several very poor ones. I have found the results of the past twenty months devoted to fish culture most unsatisfactory. There is more encouragement for the future, from the fact that at several of the hatcheries a fairly good stock of breeding fish have been grown to a size where they are available to obtain the needed eggs for incubation.

GAME WARDENS.

The department of game and fish protection has been fraught with such hampering conditions as to call for an abolition of the office if better means can not be provided for the proper enforcement of our laws. The experiment of trying to get deputies to bear their own traveling expenses and accomplish anything like beneficial results has been tried, and I am free to say is a flat failure. The amount provided for in the act which creates the office is not excessive and would be sufficient to do satisfactory and commendable work, and I still maintain that the force in the employ of the state, which the act provides, is enough to afford proper protection were they given the use of the fund that the law intended they should have.

From September, 1895, to February, 1896, all funds for either salaries or expenses of both fish and game departments were withheld by the state auditor pending a decision of the state supreme court. This was most unfortunate, since it happened at a time when funds were most needed. The entire state press lost no opportunity to denounce the glaring inefficiency of this unfavored branch of fish and game, no censure was too severe, yet the real cause was easily ascertained by inquiry at the state house. This aggravating condition of af-

fairs (lack of needed expenses) still continues, and the odium which attaches in consequence to the head of the department is such as to deter him from ever again seeking to serve his state as its game and fish warden.

In furtherance of the state's game and fish interests for the future, my conclusions are that the public are in earnest and demand that proper means be provided; that such additions to our existing laws be made as experience has shown to be necessary; that the value which attaches to game and fish preservation is of enough importance to merit a liberal allowance by appropriation to enable those charged with the execution of the laws to effect their enforcement; that the care and preservation of our forests be added to the duties of game and fish wardens. I do not favor the proposed delegating of all the duties of the fish, forestry and game departments upon the several county sheriffs, unless a change is made in their compensation as to fees and mileage, and that a limit be placed upon their expenditures.

Indians and skin hunters and those who still persist in killing for the profits which the market affords, continue to create a demand for game law enforcement. The methods of game destruction now employed by the Indians are such as to result in entire extermination of our deer and elk in a very few years if they are permitted to pursue them. They are by far the worst hide hunters in our state. I would favor an absolute prohibition against the dealing in or traffic in game hides, tanned or untanned, better by far waste the few hides taken from lawfully killed game than to permit a market for the sale of skins.

The disarming of the Indians upon the part of the federal government would put an end to their annual work of game slaughter. They are now fed and cared for by the government and there is no real need of their being permitted to prey upon our state game.

In event of our state passing a protective law on elk or deer for a term of years, as our neighboring state of Utah has done, it will be interesting to know how the alleged Indian rights are regarded.

Very truly,

GORDON LAND, State Fish Commissioner.

Denver, Colorado, December 14, 1896.

FISH CULTURE.

DENVER HATCHERY-DISTRIBUTION OF TROUT, 1895.

April 22—Platte river, near Buffalo, two cans adult California trout (males).

April 24—Exchanged for black bass to stock lower Gunnison and Grand rivers, 100 old (males) California trout, 500 two-year-old California trout, 400 California fry, 1,000 in all.

There being no fish of the bass or perch family in the Colorado or its tributaries, this exchange for a like number was believed to be advantageous.

May 2—Estabrook station, South Park railroad, 800 yearling Rainbow trout.

May 2—Bailey's station for Deer creek, 450 yearling Rainbow trout.

June 21—Pine Grove for Elk creek, 300 brook trout fry, 75 California yearling trout.

June 7—Loveland, placed in reservoir as an experiment 250 yearling California trout.

July 19—Westcliff for Texas creek, 225 yearling Rainbow trout, 500 brook trout fry.

June 13—Lawson, for streams in Middle park, 150 California yearling trout, 500 California trout fry, 500 brook trout fry.

May 31—Morrison, for Bear creek, 2,000 California trout.

July 22—Loveland, for lake near headwaters South Poudre, 300 yearling Rainbow trout.

June 4—Trinidad, for Purgatoire creek, 4,000 California trout.

July 9—Boulder, for North Boulder creek, 150 yearling California trout, 500 California trout fry, 500 brook trout fry.

July 14—For headwaters of Republican river, 150 yearling California trout, 500 California trout fry, 500 brook trout fry.

September 10—For Cottonwood lake, near Buena Vista, 350 California yearling trout.

September 10—For South Platte river, 200 yearling California trout, 500 California trout fry, 500 brook trout fry.

LA PLATA COUNTY HATCHERY-DISTRIBUTION OF TROUT, 1895.

May 10-7,500 brook trout, streams near hatchery.

May 19-7,500 brook trout, Hermosa creek.

May 21-12,000 brook trout, Florida river.

May 30-20,000 brook trout, Pine river.

June 12—12,000 brook trout, Hermosa park.

GUNNISON HATCHERY-DISTRIBUTION OF TROUT, 1895.

May 27—Delivered to Heider & Hartman 50,000 trout fry, account of share of eggs hatched at this station, per agreement with former Fish Commissioner.

June 10-8,000 brook trout, Tomichi creek.

July 3-8,000 brook trout, Ohio creek.

July 5—8,000 brook trout, Crested Butte.

July 14-3,000 brook trout, Gunnison river.

July 15—4,000 brook trout, Gunnison river.

October 16—3,000 brook trout, East river.

November 16—3,000 brook trout, West creek, near Pittsburg.

July 10-8,000 brook trout, Lake San Cristobal.

TWIN LAKES HATCHERY—DISTRIBUTION OF TROUT (NATIVES), 1895.

August 12—5,000 native trout, in Lower Twin Lake.

August 12—10,000 native trout, in Half Moon creek.

August 12—10,000 native trout in Lake Fork Arkansas river.

August 12—25,000 native trout, in Lake creek, near hatchery.

August 12—10,000 native trout shipped to Buena Vista and placed in Cottonwood lake.

The distribution for 1895 was of such fish as were left over from the stock of my predecessor.

DENVER HATCHERY-DISTRIBUTION OF TROUT, 1896.

May 5—Trinidad, Colo., for Purgatoire creek, 2 cans brook trout, six cans California trout.

May 7—Glenwood Springs, for Cañon and Grizzly creeks, six cans California fry.

May 9—Pine Grove, Colo., for Elk creek, six cans California fry.

May 12—Idaho Springs, for Bear creek, eight cans California fry.

May 13—Estabrook, Colo., for Craig creek and Platte river, two cans brook trout, four cans California fry.

May 15—Ramah, Colo., for Horse creek, four cans California fry.

May 20—Villa Grove, Colo., for Saguache creek, six cans California fry.

May 26—Leadville, for headwaters Arkansas river, two cans brook trout, six cans California fry.

June 1—Boulder, Colo., for Upper Boulder creek, five cans California fry.

June 3—Slaghts' station, for Platte river, three cans brook trout, three cans California fry.

June 10—Shipped to Bailey's station, for Deer creek, three cans California fry, three cans brook trout.

June 12—Idaho Springs, for Echo lake and Chicago creek, eight cans California fry.

June 18—Longmont, Colo., for South St. Vrain, six cans California fry.

June 23—Shipped to stock headwaters of the Republican river, four cans California fry.

June 24—Cotopaxi, Colo., for streams in Wet Mountain valley, two cans brook trout, four cans California fry.

June 27—Boulder, Colo., for North Boulder creek, six cans California fry.

June 29—Glenwood Springs, for Grizzly and Mitchell creeks, six cans California fry.

July 1—Lawson, Colo., for Grand lake and Grand river, Middle park, four cans California fry.

July 7—Silver Plume, Colo., for Clear creek, six cans California fry.

July 9—Cassell's, Colo., for Platte river, three cans California fry, three cans brook trout fry.

July 11—Jefferson, Colo., for Jefferson lake, four cans California fry, four cans brook trout fry.

July 14—La Veta, Colo., for Cuchara creek, six cans California fry.

July 19—Wagon Wheel Gap, for Bellows creek, four cans California fry.

July 21—Alma, Colo., for Lake Minnehaha, six cans California fry.

July 22—Los Pinos, Colo., for Elk creek, three cans California fry, three cans brook trout fry.

August 3—Buena Vista, Colo., for Cottonwood lake, four cans California fry.

August 3—Aspen, Colo., for Castle, Maroon and Roaring Fork creeks, four cans California fry.

August 7—Fort Collins, Colo., for Poudre river, six cans California fry.

September 13—Shipped to Ridgway, Colo., for public streams near by, four cans California fry.

GUNNISON HATCHERY-DISTRIBUTION OF TROUT, 1896.

One hundred thousand brook trout were placed in the various tributary streams and in the Gunnison river. Also, 20,000 Rainbow trout, during the season of 1896.

There are now in the troughs at this station about 275,000 brook trout eggs, December 14, 1896.

LA PLATA COUNTY HATCHERY.

Distribution from this station for 1896 was entirely local, and owing to poor water, very small and unworthy of note.

The superintendent informs me, under date of November 30, 1896, that he has about 250,000 eggs of the brook trout in the troughs and may possibly get 25,000 more. He also reports that the eggs are in no better condition than last year, which was very bad.

The quality of the water here is not fit for trout culture.

REMARKS UPON THE SEVERAL STATE FISH HATCHERIES.

DOUGLAS COUNTY LOCATION.

I found upon assuming the duties of office that the state had not acquired the proper location at this place, only having a small portion of the water supply and less than half of the property, yet the price paid appears to have been \$300, the amount agreed upon to purchase the whole forty (40) acres. In consequence of this poor water supply and the evident buncoing of the state out of a really good hatchery location, I have not tried to build upon or improve it.

LA PLATA HATCHERY.

I would advocate the abandonment of this station, experience having shown that such water is not suitable for the proper incubation of trout eggs. Its known liability to floods and other natural disadvantages being so marked as to justify the statement that its selection was an error of judgment. The expense of its maintenance should not be continued.

TWIN LAKES HATCHERY.

I would favor the closing of this station. Malicious persons have twice blown up, with giant powder, the screen at the outlet of the lakes, which was needed during the breeding season to secure spawning fish. No better place can be had in the state for the successful growing of our native trout. Money was appropriated by the ninth general assembly to improve this station, but it was wasted at Aspen and elsewhere.

GUNNISON HATCHERY.

This station needs better facilities to make it what it should be, a really good summer and winter hatchery. To do this a larger and better water supply should be brought in from the river and the hatching trough and pond capacity increased. The location is central and has all the needed natural advantages to afford excellent results. With a moderate outlay, great numbers of trout can be turned out annually. This season, 1896-1897, the hatching troughs are full of trout eggs.

ESTIMATE

OF

FUNDS NEEDED FOR FISH CULTURE

FOR THE YEARS 1897-1898.

DENVER HATCHERY, 1897.

State superintendent's salary\$1,000.00	
Assistant superintendent's salary 600.00	
Fish commissioner's salary 500.00	
Fish commissioner's expenses	
Improvements needed at hatchery for water supply and	
hatching troughs. 1,500.00	
Expenses, extra labor, fish food, fuel and horse feed 700.00	
Expense of distribution of fish to public waters 500.00	
Total	\$5,300.00
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DENVER HATCHERY, 1898.	
State superintendent's salary\$1,000.00	
Assistant superintendent's salary	
State fish commissioner's salary	
State fish commissioner's expenses. 500.00	
Expenses, extra labor, fish food, fuel and horse feed 700.00	
Expense of distribution of fish to public waters 500.00	
Expense of distribution of fish to public waters 500.00	
Total	\$3,800.00
GUNNISON HATCHERY, 1897.	
Superintendent's salary\$ 900.00	
Improvements to make a forty-trough hatchery 1,000.00	
Improvements on ponds and water supply 500.00	
Total	\$2,400,00

GUNNISON HATCHERY, 1898.

Superintendent's salary\$	900.00	
Expenses, labor, fuel, etc	500.00	
Assistant labor to care for ponds and water supply	600.00	
Total		\$2,000.00

DOUGLAS COUNTY LOCATION.

This property can be improved with funds furnished Denver hatchery, and should be run in connection with same force.

ESTIMATE

FOR

STATE FISH AND GAME WARDEN.

FUNDS NEEDED FOR 1897-1898.

Salary state warden, 1897. \$ 700.00 Salary three deputies, 1897. 3,600.00	
Total	\$4,300.00
1898.	
Salary state warden	
Salary three deputies	
Total	\$4,300.00
1897.	
Contingent and necessary expenses	\$2,000.00
1898.	
Contingent and necessary expenses	\$2,000.00

FISH AND GAME WARDENS.

The work of the wardens during the past two years has been rendered less effective by failure to obtain from the state funds for actual expenses while engaged in the performance of their duties and for a period of four months not even their salaries. Yet, notwithstanding the many difficulties encountered, the fact of their having placed a check upon game law violations and added more than \$2,000 in the way of fines and sales from confiscated game, to the various county fish and game funds, is much to their credit. I am confident that with the fund allowed by law for their necessary expenses at their disposal, they could and would have made game law violations hazardous and of extremely rare occurrence.

Changes should be made in our present game laws to prevent the marketing of game brought here from other states at any season of the year. This would aid in the better enforcement of our own law at all times. Our existing laws are among the best in force in any state, and only need available money to enable the wardens to act promptly.

GORDON LAND, State Fish Commissioner and Game Warden.