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A REVIEW OF HISTORICAL FISH PLANTING IN KOOTENAI RIVER DRAINAGE, MONTANA

A report to Montana Department of

Fish, Wildlife and Parks

by

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Hutech NFR (Native Fish Research, Restoration, etc.)

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Introduction

Species of trout and char native to western Montana include the bull trout (Salvelinus confluentus), westslope cutthroat (Oncorhynchus clarki lewisi) and Columbia basin redband trout (O. mykiss subsp). Redband was thought native to the Kootenai River drainage downstream of a barrier located near the Idaho-Montana border. This barrier was thought to be Kootenai Falls located about five miles east of the town of Troy, Montana and about 20 miles upstream of the Idaho-Montana border. Recent (1980-1995) allozyme genetic analysis of 156 samples from 86 streams and 17 lakes throughout the Kootenai River drainage indicate that pure or hybridized redband populations occur in some waters between Kootenai Falls and Libby Dam. No evidence of redband was found in streams tributary to Kootenai River above Libby Dam. Further, redband, either pure or hybridized, were generally found in valley floor low gradient streams. Often the upper reaches of these same streams contained westslope cutthroat trout. Fish analyzed from five lakes in the Cabinet Wilderness were classified as redband trout hybridized with coastal rainbow trout (O. mykiss subsp) (four lakes) or Yellowstone cutthroat (O. clarki bouveri) (one lake).

The purpose of this review of historical records was to determine:

- 1. Are redband populations above Kootenai Falls native or of hatchery origin?
- 2. What species and where were hatchery fish planted before MFWP kept planting records (pre-1931)?
- 3. What effects did hatchery fish have on native fish especially the redband trout?

A previous historical review of old hatchery records for the years of 1948-1952 was done in 1993 by Joe Huston, Arthur Whitney and Emmett Colley. The latter two retired Montana Department of Fish, Wildlife and Parks (MFWP) employees, found numerous hatchery records stored at MFWP warehouses in Helena. Included were records from three hatcheries closed in the 1960s. These hatcheries were Emigrant, Hamilton and Libby. Also included were

Anaconda records from 1908 through the late 1960s and possibly records from Lewistown and Great Falls. Of major importance to this search were the Anaconda, Libby and Hamilton records. The other important hatchery located at Somers, still has most of its records including correspondence dating back to 1912. The Somers Hatchery started planting fish in 1913.

A search for the stored hatchery records resulted in finding that most had been hauled to the dump. Included were logs detailing daily activities by the hatchery workers, fish distribution records and of most importance "egg cards". Egg cards list the number and species of fish eggs received from a brood source and the same information on transfer of eggs from one hatchery to another hatchery. Photocopies of two cards are shown as Exhibit 1. These documents show that eyed rainbow trout were shipped from the Somers Hatchery to the Libby Hatchery.

The loss of the stored hatchery records was a major setback in determining the source of rainbow trout planted from the Libby Hatchery. The remaining sources and their relative value are described below. Of special interest was information pertaining to two people named Sam S. Drew and Kenneth G. Drew and the Rainbow Ranch and Kilbrennen Lake. The Drews were involved in several private fish hatcheries including Rainbow Ranch near Troy, the Yaak Pond used to rear rainbow trout eggs and Kilbrennen Lake spawn-taking operations.

Sources of Information

- 1. Interviews with people who knew or know of Lincoln County history with special emphasis on K.G. Drew, S.S. Drew, Rainbow Ranch and Kilbrennen Lake. People interviewed included Robert Mitchell (retired Mt. FWP), Emmett Colley (retired Mt. FWP), Bob Peck (Washington Dept. Game and Fish, Spokane area), Tim Vaughan (retired Avista Corp. biologist) and Lou Chappell (longtime Troy, Montana resident). These interviews yielded little information except L. Chappell pinpointed the location of the Rainbow Ranch private fish hatchery operated by K.G. Drew.
- 2. A search was made of historic water rights on 17 streams and five lakes on the Kootenai

STATE OF MONTANA DEPARTMENT OF FISH AND GAME

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Exhibit 1. Egg cards showing transfer of eyed rainbow trout eggs from the Somers Hatchery to the Libby Hatchery.

- River drainage downstream of Kootenai Falls. No records pertaining to fish hatcheries were found.
- 3. Lincoln County Library through Mark White of Canoe Gulch Ranger District provided an article entitled "Odyssey of Phillips Lake at Okaga" written by Alma Phillips in 1983. This story provided much information on a state fish hatchery on Cedar Creek west of Libby, Montana on Okaga Lake in the upper Yaak River and mentions K.G. Drew.
- 4. The Washington Department of Game and Fish, Spokane area, was asked if they had any information about K.G. Drew's hatchery located on the Little Spokane River. This hatchery was in operation at least into the mid-1960s. A Washington Department employee remembers that Drew advertised Montana black-spotted natives. The author and Tim Vaughan purchased rainbow trout eggs from the Drew hatchery in 1963 for imprinting in Noxon Rapids reservoir tributaries.
- 5. A report entitled "A History of Montana's Fisheries Division from 1890 to 1958" by Bill Alvord, 1991 was reviewed. Very little information of value about activities in Lincoln County is included in this report.
- 6. Hatchery log books and egg cards stored at the Jocko River Hatchery were reviewed. The State of Montana purchased this hatchery in March 1945, but did not take over the day-to-day operations until 1948. The old records were of no value to this report, but did raise some questions about its operations prior to 1948. There is some question as to whether the Drews were involved in its operation prior to 1945.
- 7. The Montana State Law Library was asked to determine if a law was on the books in the 1910s that allowed private individuals to set up hatcheries on barren lakes. The issue of small importance was raised by an article in the Eureka Journal newspaper, dated June 16, 1914. The private hatchery's place in early Fish & Game management is described later in this report.
- 8. The Flathead Lake Salmon Hatchery at Somers has correspondence files dating from

- 1912-19:50 and provides considerable information about hatchery operation. This hatchery also has card egg counts dating back to the late 1920s which are thought to be most complete from 1931-1945.
- 9. Most of the old records of Washoe Park Fish Hatchery at Anaconda were shipped to the Helena office for storage. However, one ledger book containing a description of yearly spawn-taking and egg shipments from 1922-1940s is still available at Anaconda. This ledger was reviewed for egg shipments to the Libby Hatchery.
- 10. Montana Fish & Game Department biennial reports were reviewed at the Montana Historical Society Library in Helena. Of major value were tables listing spawning operations by source and distribution of fish by hatchery. However, no mention is made of private fish hatcheries.
- 11. Mark White, a U.S. Forest Service historian stationed at the Canoe Gulch Ranger Station has been building a historical file on natural resources in northwest Montana. These files included newspaper clippings from Lincoln County newspapers published in the towns of Troy, Libby and Eureka. The clippings dating from 1890-1955 were reviewed and copies made of articles having any relation to fish.
- 12. University of Montana Wild Trout and Salmon Genetics Laboratory was asked to review the genetic structure of Kootenai River drainage redband rainbow to see if those found above Kootenai Falls had a common origin.
- 13. Libby Rod & Gun Club was asked if they had any old (1913-1930) meeting records.

 They did not. This Rod & Gun Club was founded in 1913 with the express purpose of stocking hatchery fish into local streams.
- 14. MT. FWP MRIS provided genetic analysis data on Kootenai River drainage fish populations.

Names of native trout in the 1900-1950 era were varied and many. As far as can be determined, Libby-Troy fishermen did not distinguish between native cutthroat and native rainbow. In fact, there was no distinction between Yellowstone and westslope cutthroat trout

by fishery professionals until the mid-1950s. Both cutthroats were classified as black-spotted natives. However, letters from 1913 found in the Somers Hatchery files indicate that the native trout of Kilbrennen Lake were classified as a variety of rainbow trout. These letters are included as exhibits in the Kilbrennen Lake discussion. Names commonly used for bull trout included silver trout, salmon trout, salmon, bull trout, char and Dolly Varden. Common names for cutthroat included black-spotted, red-belly, flats, mountain brook trout, speckled trout, brook trout and natives. Very, very seldom was the name cutthroat used.

A brief description of Montana hatcheries (1893-1960)

The U.S. Bureau of Fisheries, now the U.S. Fish & Wildlife Service, opened the first Montana fish hatchery in 1893. This unit located near Bozeman is still in operation in 1999. Species of fish planted from Bozeman included natives from Yellowstone Lake, grayling (Thymalus arcticus) from the Centennial Valley, rainbow from their McAllister field station and later brown trout (Salmo trutta) from the upper Madison River. Whether Bozeman planted eastern brook trout (Salvelinus fontinalis) is not known, but if they did, the fish probably came from Atlantic coast states. In-state sources of brook trout eggs may not have been available until private hatcheries started supplying the demand in the mid-1910s. They also arranged for 300 largemouth bass (Micropterus salmoides) to be planted in the Kootenai River in 1900 and Lake Blaine near Kalispell in about 1906. These bass were transported from Illinois to Libby in railroad cars equipped with an aeration system and fish held in milk cans. How often these fish cars from Bozeman or other places distributed fish in the Libby area was not determined since old records, if any exist, may be stored at Spearfish, South Dakota, or Washington, D.C.

The first State of Montana fish hatchery was built in 1907-08 in Anaconda while the second was located at Somers and began planting fish in 1913. Both these stations are still in operation, but are now named Washoe Park State Fish Hatchery and Flathead Lake Salmon Hatchery. By 1924, most of today's fish hatcheries were being built or were already in operation. Hatcheries going "on line" during 1920-1924 included Hamilton, Emigrant, Great

Falls, Big Timber and Lewistown. Other full-time hatcheries were put into operation by the State in 1945 (Arlee) and 1948 (Bluewater). The State also operated satellite stations. These stations were used at brood lakes to eye fish eggs for transport back to full-time hatcheries or to hatch and plant eyed eggs received from other stations.

Prior to about 1920, eggs collected at spawning locations were sent to a hatchery as green eggs. This practice resulted in heavy mortality. In about 1920, egg eyeing facilities were added to spawn-taking stations and the transport of eyed eggs reduced mortality rates. Eggeyeing facilities were added to Georgetown Lake, Lake Mary Ronan, Little Bitterroot Lake, Ashley Lake and probably others including Rogers Lake and possibly Kilbrennen Lake. Several satellite stations for hatching eyed eggs and planting fry were established throughout western Montana. Included were stations at Missoula in Greenough Park, Ovando, Station Creek near Polson, one near Kalispell, one near St. Ignatius (probably the present-day Harriman Trout Farm), one near Phillipsburg and Cedar Creek near Libby. All these satellite stations were abandoned for a variety of reasons by the late 1950s. The Cedar Creek station was closed when the Libby Hatchery, located on a spring about five miles east of Libby was built in 1931. The Libby Hatchery was closed in 1971 and converted to a field station for Corps of Engineers funded fishery research projects.

Sources of fish eggs for Montana's hatchery system were brood lakes, private in-state hatcheries, cooperative hatcheries, out-of-state private and state hatcheries and the federal government. Major brood lakes and species spawned included:

Georgetown Lake - Natives (Yellowstone cutthroat)
Grayling

Rainbow trout

Eastern Brook trout

Conley Lake - Eastern Brook trout

Lake Mary Ronan - Rainbow trout

Natives (Yellowstone cutthroat)

Bitterroot Lake - Rainbow trout

Natives (Yellowstone cutthroat)

Rogers Lake - Grayling

Ashley Lake - Natives (Yellowstone cutthroat)

Yellowstone Lake - Natives (Yellowstone cutthroat)

Madison River - Rainbow trout, brown trout

Willow Creek Reservoir - Rainbow trout, brown trout

Out-of-state sources included Pennsylvania for brook trout; Michigan, Wisconsin and Utah for rainbow trout. Private hatcheries that supplied Montana with rainbow trout included one at Lakeview, one at Armstad and K.G. Drew of Troy (Exhibit 2). Brook trout were provided by private hatcheries at Fish Lake near Stryker and Fish lakes near Woodworth. K.G. Drew was also involved in the Woodworth operation.

The state also had cooperative egg sources, i.e., some sort of agreement between a private operation and the state. Included in this type of arrangement were three located in the Troy area. These three were Alvord Lake, Yaak ponds and Kilbrennen Lake. The 1925-26 MFWP biennial report states that 20,000 rainbow trout eggs from Kilbrennen Lake were taken by Sam S. Drew.

Many of the private and co-op hatcheries appeared on natural water bodies, i.e., both Fish lakes, Yaak Pond, Kilbrennen and Alvord Lakes. A newspaper article (Exhibit 3) about Fish Lake near Stryker may explain how this occurred. The Montana Law Library was asked to ascertain if this type of law did exist. A review of Fish & Game laws in effect in 1913 indicated that the state could have authorized the establishment of cooperative hatcheries, (Exhibit 3). Sections 4, 24-29 address fish ponds and hatcheries.

In any event, the Stryker Fish Lake private hatchery is still in existence, owned by Mr. Ed Hines and known as Loon's Echo Resort. It is thought that Sam S. Drew's Yaak ponds were the forerunner of Phillips Lake at Okaga, now known as Okaga Lake. Okaga Lake is licensed as a private pond to the Estuary Corporation.

The "Rainbow Ranch" fish hatchery located near troy, may have been in operation from the mid-1920s through mid-1940s. This business involved three private lakes and two cooperative lakes. The three private lakes were Slee, Lower and Duck. The co-op lakes were

STATE OF MONTANA DEPARTMENT OF FISE AND GAME

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(Mail one card to shipper, one to Hel	lena office, retain	one for H	etchery files.)	

Exhibit 2. Egg card showing transfer of rainbow trout eggs from Rainbow Ranch to Somers Hatchery.

PLANTS FISH; SAYS FISHING IS HIS

hatchery has been established at Fish this as he followed them down and went lake, three miles from Stryker, by W. to work in the creek just a little above lake, three miles from Stryker, by w. them, which of course, spoiled the fish-ii. Schrader, who was formerly a ing. One of the fisherman went up traveling salesman of Spokane. A party where Mr. Schrader was working to of Whitefish fishermen went out to Fish see what he was doing, and was told lake last Eriday, and upon approaching that if he did not like it he could go the lake noticed a house built across the away as he. Mr. Schrader, would do road, which almost completely blocked, just as he pleased.

creek that emptied into the lake there. up.

WHITEFISH, Jone 5 -- A private fish | Mr. Schrader did not apparently like

There is a law that makes it possible The owner was at home and said his for private parties to secure a lake name was W. H. Schrader, and that he which has never had any fish in it for had a three years' lease on Fish lake three years, providing they hatch 500,and all the streams emptying into it, 1000 fish eggs each year, and stock the and that anyone coming there to fish lake with them. But it is not seen how was treapussing. Of course this was all i hir. Schrader can secure this lake that news to the fishermen, as they had none | way, as it has always been known as of them heard anything about a fish one of the best fishing places around hatchery being started there. Mr. these parts. The Whitefish sportsmen Schreder went on and told them that think it is an outrage und are looking he also had a sixty foot shore right all into the matter. Mr. Pordue has rearound the lake. The fishermen did ferred the subject to Sydney M. Logan, not take the hint to stay away, but went a Kalispell attorney, who is taking the on down to the other end of the lake matter up with the state game warden, and east their lines in the mouth of a and the Whitefish club is also taking it

Exhibit 3. Newspaper article from Eureka Journal, June 16, 1914 and Section 4 and Sections 24-29, Montana 1913 state law.

LAWS, RESOLUTIONS AND MEMORIALS

OF THE

STATE OF MONTANA

PASSED BY THE

THIRTEENTH REGULAR SESSION

OF THE

LEGISLATIVE ASSEMBLY

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HELD AT HELENA, THE SEAT OF GOVERNMENT OF SAID STATE, COMMENCING JANUARY 6, 1913, AND ENDING MARCH 6, 1913



Fees to be paid to credit of what-fund.

License not to be issued to whom.

Private ponds and lakes.

Owner to take out a license and furnish bond.

Reports required of such owners.

Owner, violating provisions of this section.

License to be issued to owner of private pond or lake.

Fre.

revoked for cause, it shall be the duty of the State Game Warden to refuse the same, and no license shall be issued to any person who has theretofore used any such license, or whose license has been revoked for

Section 4. If any person shall have or own a pond or lake, artificially created outside of the bed or course of a natural stream upon his own land, such person may have the right and authority, after stocking such lake with any number of fry, to catch fish therein for use or sale without any restriction whatever as to the manner of taking the same, or sale of fish therefrom; provided, further, that such owner shall take out a license. as provided for in this Section, and shall furnish a good and sufficient bond to the State of Montana in the sum of Two Hundred Dollars (\$200.00) conditioned that he will not sell fish caught in any public waters of the State. It shall be the duty of the owner of any such artificial pond or lake so licensed to report to the State Game Warden the quantity of fish, eggs and spawn taken from said lake or pond, and to whom said fish eggs and spawn were sold, every three months, commencing January first of each year. Any person violating the provisions of this Section, upon conviction. shall be fined in any sum not less than Twenty-five Dollars (\$25.00), nor more than Two Hundred Dollars (\$200.00), or by imprisonment in the County Jail not less than ten (10) days, nor more than ninety (90) days, or by both such fine and imprisonment.

It shall be the duty of the State Game Warden to issue to the owner of such artificial pond or lake, upon application and the payment of an annual license fee of Five Dollars (\$5.00), a license in substantially the following form:

Owner of Pond License.

No.

Office of The State Game Warden, Helena, Montana.

Form of ilcense.

I hereby certify that is the owner of an artificial lake or pond situated in County, Montana; that he has paid a license fee of Five Dollars (\$5.00), and is entitled for the period of one year from and after January 1. 19..... to take from said lake, fish and eggs or fry, and to sell the same in the open

market, and to ship the same to any point within the State.

Witness My Hand, the day and year first above written.

State Game Warden.

Such license, when issued, shall be in force during how long. the year for which it is issued, and until revoked for cause by the State Game Warden. Any license issued under this Section may be revoked at any time by the State Game Warden, should the person to whom the May be revoked same is issued be convicted of a violation of the Laws whom. of Montana with reference to protection of fish and game.

License in force

Section 5. It shall hereafter be unlawful for any one Amount of person to catch from the public waters of this State more than twenty-five (25) pounds of any of the game catch during fish herein mentioned in any one day (said weight to be computed after the cleaning of said fish), or more than ten or any such game fish which are less than six fish which may be caught in one inches in length in any one day. It is hereby declared day. to be the intention of this Act to provide that twenty- what shall confive (25) pounds of game fish over six inches in length, natitute a day's and ten fish less than six inches in length shall con- Limit of pounds stitute a day's fishing. And it shall be unlawful for of fish person may have in any one person to be in possession of more than fifty possession at any one time. (50) pounds of said game fish at any one time. Any person violating the provisions of this Section, upon conviction, shall be fined in any sum not less than Penalty for Twenty-five Dollars (\$25.00), nor more than Two Hun-provision of this dred Dollars (\$200.00), or by imprisonment in the County Jail not less than ten (10) days, nor more than ninety (90) days, or by both such fine and imprisonment.

person may any one day

Number of such

acction.

Section 6. No person or corporation, operating a Depositing sawsaw mill on or near any stream, pond, lake or river, dust, bark, anather, off, shall hereafter dump, drop, eart or deposit, or cause to ashes, etc., in or on bank or near be dumped, dropped, carted or deposited, sawdust, bark, stream. shavings, oil, ashes, cinders or debris in or near any such stream, pond, lake or river, or in such a manner or place as will likely result or cause the same to be carried into the waters of any such stream, pond, lake or river; and any person so doing shall be deemed guilty of a misdemennor, and upon conviction, punished

etc., forbidden.

tract may be given shall be required to give a good and sufficient bond, conditioned for the faithful performance and completion of such contract, the same to be approved by the Chairman, or some member of the Commission.

Fish commission to have general supervision of all hatcheries.

To appoint superintendents or directors.

Product to be used for what purpose.

Power and autimity of superintendents and directors.

Sainty of super-

Travellas -expenses.

How expenses of the board shall be paid.

Payment of salary of superintendent.

Other spinries and bills.

Purchase and selection of eggs.

Eggs from state waters.

Section 24. Said Commission shall have general supervision over all hatcheries in the State, and shall appoint and employ a Superintendent or Director of State Hatcheries, who shall act under the control of the State Board. The product of all State Hatcheries shall be used for the stocking of the lakes and streams of the State, and shall be for free distribution under the direction of said Board and the said superintendent or director.

Section 25. The said Superintendent or Director, by and with the consent of the Board, shall have the power and authority to employ such help as may be necessary in the operation of the state hatcheries, in the gathering of eggs, or the performance of any other work in connection with the propagation and distribution of fish and fry; and said Superintendent shall receive for his services the sum of Two Thousand Five Hundred Dollars (\$2500.00) a year, payable monthly, and reasonable traveling expenses, not to exceed Six Hundred Dollars (\$600.00) in any one year.

Section 26. All expenses of the members of the State Board of Fish Commissioners, while engaged in the work of the State, shall be paid by the State Treasurer, upon presentation of sworn account. The salary of the Superintendent or Director shall be paid without approval, and all other bills and salaries of employees, and expenses incurred in the conduct of the State hatcheries, shall be paid in due course after such bills been examined and approved by said Superintendent, and approved and allowed by the State Board of Examiners.

Section 27. The Superintendent shall have power, by and with the consent of the Board, to purchase so many eyed eggs from time to time as may be necessary in order to keep the hatcheries of the State supplied with eggs and in full operation; the quantity and kind or species of eggs to be determined by the superintendent; provided, however, that the Superintendent shall make every reasonable effort to collect sufficient eggs from the public streams or lakes of this State to supply said hatcheries, and for the purpose of so doing, shall have

the right and authority to build, equip and use fish traps and nots at any and all seasons of the year in all the public waters of the State.

Section 25. All moneys collected for licenses and all Moneys to be fines imposed and collected hereunder, shall be paid his and game to the State Treasurer, and shall be by him kept in a fund to be known as the State Game and Fish Fund.

Section 29. The State Game and Fish Warden is rish and game hereby empowered and directed to establish on the lish stations for shores of lakes and the banks of streams, at such neces- taking fish eggs. sary and suitable places as may be designated by the Director of the State Hatcheries, stations for the taking of the eggs of all game fish for the use of the State of Montaina.

In the order establishing such stations, it shall be the To establish and duty of the State Game Warden to designate in the or- of stations der the approximate boundaries of the station so established, not more than one half mile in length along the not to fish in
lianks of any stream, and not more than one half mile
tory. along the shore of any lake, and shall post notices in conspicuous places on or along said station, warning all persons not to fish in the designated territory for a length of time to be designated within the months hereinafter stated.

It shall also be the duty of any person in charge of Warnings to such egg-taking station, to warn all persons found fishin such territory ing within the limits of such designated territory, to beet persons. desist from fishing therein, and any person refusing to heed such warning, shall be deemed guilty of a misdemeanor, and may be immediately arrested by such person in charge of the station, or by any citizen, with Arrest and proor without a warrant, and immediately taken before a magistrate for trial and punishment; and such person, upon conviction thereof, shall be fined in any sum not less than Twenty-five Dollars (\$25.00), nor more than One Hundred Dollars (\$100.00), or by imprisonment in the County Jail not less than ten (10) days, nor more than twenty (20) days, or by both such fine and im- months during prisonment. Provided however, that the station for the for taking of eggs of Eastern Brook Trout shall only be he established. established during the months of October, November and December of each year, and stations for the taking of eggs of Grayling, Mountain, Rainbow or Steelhead Trout shall only be established during the months of March, April. May. June and July of each year.

Violating warn-

Alvord and Kilbrennen Lakes. Distribution records at the Anaconda Hatchery state that in 1926, 2,954,800 native eggs were shipped to Mr. Drew at Troy, Montana. The Anaconda records state that Drew at Troy, shipped Anaconda eastern brook trout in 1932. In 1934, Troy got 301,760 brown trout eggs from Anaconda. The 1935-36 MFWP Biennial Report states that Alvord Lake was taken over by the state for an eastern brook brood lake. These biennial reports also state that MFWP received brook trout eggs from Kilbrennen Lake and rainbow trout may be due to it being considered a co-op hatchery. Apparently co-op hatcheries were not licensed by the state and were not required to keep any records of egg-fish distribution. A quote from the 1921-22 Biennial Report, p. 20, stated "the output of such hatcheries is not known to this department". However, a review of the 1913 laws indicate that private pond owners were required to have a license, be bonded and make reports to the MFWP on a disposition of fish or fish eggs (Exhibit 3).

Size of fish distributed by hatcheries from the 1910s through the 1920s was almost entirely eyed eggs or early fry. The infrastructure to grow fish to a longer size was not developed until the 1920s and later. An article about the Cedar Creek (Libby) Hatchery appearing August 4, 1927 (Exhibit 4), stated that two rearing ponds three feet wide, 12 inches deep and 20 feet long would be built. These rearing ponds would be used to grow fish to a fingerling size. Fingerling size fish would survive much better when planted into streams and lakes. Another article published June 18, 1931, (Exhibit 4), stated it was now department policy to grow fish to a size longer than fingerling, before being planted.

The principle food fed to fish from the late 1910s-early 1950s was ground meat, primarily liver. Log books at the Arlee Hatchery clearly indicate a hatchery worker in the 1940s had to be a butcher. These log books describing daily activities, show that about one horse a week was slaughtered and fed to their fish. The author worked around a Colorado and Nevada hatchery in 1952-1954 and remembers grinding animal melts (liver, lung, spleens, etc.) to feed young fish and cooking carp-oatmeal for larger fish. Dry pellets were just becoming available.

Building Rearing Ponds at Hatchery

As a result of the recent meeting held in Libby, when the Libby Rod and Gun club entertained T. N. Marlawe and Robert H. Hill of the state fish and gane commission, word was received from Chairman Marlowe that the state commission would build rearing ponds at the Libby fish hatchery. This matter was gone into thoroughly at the meeting and it was unanimously agred that the ponds ought to be built. Workmen are now at work building the ponds and they will undoubtedly be finished this week

Two ponds will be built, three feet wide, 12 inches deep and 20 feet long. They will be built of lumber.

The commission has sent in a feed grinder which is operated by a gasoline engine. This already is in opemation. Ground liver is the food given the young trout, and this is being obtained from The Pioneer Meat company.

For those who are not informed it should be stated that rearing monds are used for the rearing of the fish until they obtain a size where they are clased as fingerlings, before being liberated. When small fry are liberated in the streams and lakes a large percentage of them fall prey to grown fish and are eaten. When not liberated until they are larger a much greater percentage of them survive to maturity.

In response to a request by President W. E. Dexter of the Rod and Gun club, about 50 men and Boy Scouts turned out and cleared the site for the rearing ponds, doing very good work.

The committee appointed to supervise this work was composed of A. M. Hoffman, W. F. Kienitz and W. J. Mandley.

The young front are now being fed in the troughs but are badly crowded and the ponds, when ready for use, wil he a great convenience. They are being fed every hour.

Some have wondered how the small fry are counted before being sent out over the state. They are not counted but are "measured out" by the quart. Someone, at some time, must have counted a quart of the small trout, and thus it is comparatively easy to arrive at a close commute of the number by measuring them out by the trust.

*(estimate of the number by measuring them out by the quart.)

Exhibit 4. Western News Article, August 4, 1927.

Season's Work Is Under Way At Hatchery

First Batch Consists of 500,000 Rainbow Troub and 1,100,000 Natives.

LIBBY PLANT HAS FINE FACILITIES

The senson's hatch at the Libby state fish hatchery is well under way. A visit to this attractive and efficient plant at this time will disclose much of interest.

Elmer Phillips, the young man in charge of the plant and who is developing it with much efficiency, says that he now has half a million rainbow trout in process of hatching. The young rainbows have all, hatched out but when we were at the hatchery the first of the week they were still carrying the egg sack. They looked mighty strong and vigorous and gave much promise of future sport for Montana fishermen.

"It would be hard to realize," said-Mr. Phillips, "the amount of actual meat or food value those thousands of little fish will eventually mean to Montana citizers." And indeed it would be. Thousands of them will grow to maturity and will be caught while other thousands will die before ever reaching sufficient size to entice a fisherman.

Mr. Phillips also has 1,100,000 native frout eggs in baskets and is taking diligiont care of them. They will enter the "eyeing out" process in about two-weeks and eventually will hatch out and be distributed in nearby streams and lakes. They must be handled with much care in their present state. They cannot stand too much bright sunlight, so the baskets containing them are kept carefully covered so as to reduce the light reaching them.

In July a shipment of about 25,000 Golden trout spawn from California will arrive at the hatchery. This is a new specie of trout for this district and they are being tried out as an experiment. They thrive best at high altitudes—from, four to eight thousand feet. Therefore when they reach the age for planting they will be put in two virgin lakes in the mountain tops here. Phillips says there are two lakes that have no fish in them at all and there ought to be nothing to molest the Golden trout while they are maturing.

The new hatchery shows every evidence of permanency; It is well and substantially built. It contains at this time 22 hatching troughs made of California redwood, firmly placed on a cement floor. Many windows give an abundance of light, Everything is spotlessly clean. At one end of the hatchery room there is another room of lesser size used as an office and workshop.

The water is piped from a large spring a distance of 1700 feet through a 10-inch wood pipe. It pours into the hatchery filling the 22 troughs and only a small part of the flow from the sprin; is used. The excess water is later to be used in a number of large rearing pends. These are to be planned out and built later, awaiting a visit of the state superintendent of fisheries who is expected here the last of this week.

The state fish and game commission has adopted the wise policy of holding frout fry until they attain a larger size, as by that means it has been well established that a much larger percentage of the fry grow to maturity. If they are released into streams when lingerings, thousands of them merely become food for larger fish. For this reason present plans contemplate the building of a number of large rearing ponds. Mr. Phillips was not ready to state just what would be done but said plans would be worked out when the superintendent arrives.

The hatchery plant includes a fine five room, modern cottage with full concrete basement and other modern conveniences. It provides very comfortable quarters for Mr. and Mrs. Phillips and their young son.

Recently work of a day or two was contributed by the county road crew with its equipment in pulling stumps and grading the land around the hatchery and cottage preparatory to seeding to grass. A lawn will be developed surrounding the cottage and grass will be seeded at the hatchery. This will be a big improvement and will add much to the matural beautiful setting of the hatchery. Fire Chief Hoffman has loaned a few lengths of old hose for Mr. Phillips to use in getting his lawn started until he can get pipes hid.

In this connection, Mr. Hoffman says it is planned to have a clean-up day soon at the hatchery, when Libby men will be asked to help clean up the site. More particulars of this affair will be announced later.

The present site is an ideal one. There is a great amount of room and what is better still there is an abundance of water. "I do not know what one would ask for as more ideal water for a hatchery," said Mr. Phillips. "The temperature of the water is good for hatching and at no time does it vary more than three degrees. This is unusual and is a valuable characteristic." The hatchery sits in a beautiful spot, with a lovely mountain-view, and surrounded with masses of trees and running water. The expectation is that it will eventually be developed into one of the larce hatcheries of the state. The site and the fine spring were the free gift of the J. Neils Lumber Company,

Distribution of fish to individual waters was generally carried out using one of two methods from the 1910s to the 1930s. Method one was to transport using a railroad car. Both the Federal hatchery at Bozeman and the State hatchery at Anaconda had Pullman cars outfitted with an aeration system so that fish held in milk cans could be transported long distances. These cans of fish were delivered to individuals, groups of people or organizations, that in turn put the fish in individual waters. Occasionally car attendants would plant the fish themselves. Another method was to have people pick up their requested fish at the hatchery.

An individual or organization had to make formal request for fish which was approved by either the hatchery foreman (hatchery manager in current terminology) or by the Superintendent of Elatcheries in Helena. Unfortunately, most of these requests and actions thereon no longer exist, and few records of where fish were planted prior to 1931 exist. The following letter (Exhibit 5) dated October 31, 1930, is the first "orders from headquarters" describing what records should be kept by each hatchery. These records are the basis for Montana's planting records that may be mostly accurate from 1931 forward. This 1930 letter was also the origin of each hatchery keeping track of fish eggs received or shipped out.

Review of newspaper clippings has revealed some planting records. These clippings are attached as Appendix A, but are summarized below. Often times, the newspaper articles did not list species of fish planted. However, an understanding of species available, size of fish planted (eyed eggs or fry through about 1925) and time of year planted, gives one a good chance of guessing the species. Fish planted in the spring-early summer, were generally brook trout, while those in summer-fall, were either rainbow trout or black-spotted natives. The Department Biennial Reports also list hatchery activities in the Lincoln County area. These few records plus the newspaper records are shown below by year starting with 1912. It is known that bass had been stocked as early as 1900 in Kootenai River and that the fish car from the Federal hatchery had been at Libby-Troy prior to 1912. After 1912 it is believed that most, but not all, fish planting was performed by the state.

The scant information listed in Table 1 provides some insight into early fish plantings.



BOREST N. 117.1., GYANG WALLES MELENA J. W. GARNEY, AMPT GAME WARREN

NATCHERY SUPERINTENDENTS

L. M. TREECS, AMACONDA, FIELD ADDISTANT, WINTERS SYMMOM

J. W. SCHOFFIELD, BIG THINGS: FIELD ADDISTANT, LANGES SYMMOM

L. F., HENDRICKS, SUPERINTE GARES FAMA, WARD SPRINGS

State of Montana

DEPARTMENT OF FISH AND GAME

COMMISSIONERS

T. N. MARLOWE, CHARLEMAN, MERCULA E. A. WILSON, LIVERSTON J. L. KELLY, ANACONDA G. T. BOYD, GREAT FALLS W. K. MOORE, SILLINGS

October 31, 1930

hr. A. L. Hatzick, Foreman, State Fish Hatchery, Somers, Montana.

bear Lar:

Due to the recent change in the personnel of our Department, and effective Hovember 1, 1930, the office and supervising work formerly handled by the two field assistants will be handled at this office. Dr. I. H. Treece is to be a general field man for the Department, whose chief cuty will be to work with you Hatchery foremen, and the different Hod and Gun Blubs, in an attempt to better our fish planting program, and secure better results from the number of fish planted. It is our intention along this line to get a map of the territory served by each hatchery, under which will be listed all data in connection with the planting, such as to species, natural food, temperatures, irrigating ditches, volume at different seasons, and protection from larger fish, wavers in each district suitable for planting the smaller finger-lings, water not suitable for this fish, but in which fish of a larger size would survive.

Tir. J. W. Johofield is to take charge of the Big Timber Hatchery with Ever Hoglund, as first assistant.

These changes make it imperative that all of the Matchery foremen assume more responsibility, especially in regard to the office, and the detail work of your station. It is my opinion that there is not enough importance laid upon the office work. The following is the outline I would like to see carried out, and feel positive that it will put the work on a more business like basis, and give your more satisfaction in knowing that accurate records are being kept of all your transactions. It will also give this office a permanent and accurate record of what is being done at the various Matcheries.

LOG RIPORT: This is, in my opinion, one of the most important records of all. I am having some forms printed upon which you can copy your log report each month, and mail to this office.

Exhibit 5. October 31, 1930

This report should carry in detail all of the transactions of your station; such as to the date eggs are received, loss, name of the shipper, condition upon arrival, date hatched, date of first feeding; and in short anything pertaining to the station. Many of these items may seem of little importance at the time, but are of great value in many instances when it becomes necessary to refer back for some information. It is a good idea to enter the date on the center of the page, and note in the margin any unusual entry. A permanent record book should be used for this report, and if you have none at your station, please advise me and I will get them here. It would be best to have these books of a standard size, but if you have one now, continue useing it, and advise me when it is filled.

THE TRANSCORPS SHARTS: Would like a record kept of the temperature both air and water, and a copy sent in each month with the Log report. This will be of value to yourself and of value in this office, in regard to alloting eggs to the different Hatcheries.

STOCK AND DISTRIBUTION REPORTS: These reports should be accurately kept and a copy of each sent to this office the end of each month.

REQUISITIONS, BILLS AID LTC.: It is necessary to send in a requisition for all material purchased. On this requisition please make a note of the firm from which the material may be purchased, and their quotations for this material, also state, where you think it necessary, what the material is to be used for.

I wish you would try to get these bills and reports into this office as soon after the first of the month as possible.

Yours very truly,

C. J. MacDeneld

N. F. HADIONALD, SUPERINDENT OF FIGHERIUS.

II:11:5

Most plants were made into streams near railroad stations and population centers. Improved roads in the 1920s widened the stocking circle to include lakes around Happy's Inn.

		Information Source			
Year	Species	Biennial Report	Newspaper		
1912	$\mathbf{R}\mathbf{b}^{1}$	None in Lincoln Co.			
	Yct	O'Brien Creek			
		Iron Creek			
		Lake Creek			
		Callahan Creek			
1913	EB	Lake Creek	185,000 fry mostly		
		Iron Creek	brook trout put into		
•		Gordon Creek	Libby area streams		
			including Swamp and		
			Duck Creek		
	Rb	Bull Lake	None		
	Yct	None	Flower, Parmenter		
			and Granite Creek		
1914	Rb	Nothing listed	87,000 Rb and		
	Eb	Nothing listed	24,000 Eb into Pipe,		
		•			
	Yct	Nothing listed	Bobtail, Granite,		
			Flower, Cedar		
			Swamp creeks		
			50,000 fry in Fisher		
			River tribs		
1915	Rb	Nothing listed	50,000 fry-eggs		
	Yct	Nothing listed	Probably brook		
	Eb	Nothing listed	trout-no streams		
1916	Rb	Nothing listed	Nothing		
	Yct	Nothing listed	120,000 fry into		
			Keeler, Callahan,		
		•	Lakes and O'Brien		
			creeks		
1917		Nothing listed	Nothing		
1918		Nothing listed	Nothing		
1919		Golden trout in Granite Lake	½ million fry		
1920		Nothing listed	Ten cans of Eb to		
			Troy area		

¹Abbreviations are: Rb-Rainbow trout, Yct-Yellowstone, cutthroat or black spotted native, Eb-Eastern brook trout.

1921		Nothing listed	Eb - 353,000 Native - 256,000
1922		Nothing listed	Rainbow - 40,000 planted in Libby, Swamp, Parmenter, Quartz, Bobtail, Pipe, Cedar creeks, Fisher River, Boot Jack, Horseshoe, Crystal Lakes
1923		Nothing listed	Nothing
1924		Nothing listed in Biennial See attached Somers 1924-1930 planting recordss	Nothing
1925	Yct	Nothing	Nothing
	Eb	Nothing	Nothing
	Rb	Nothing	Nothing
1926	Yct	441,000	441,000
	Eb	0	0
	Rb	0	0
1927	Yct	788,800	398,000 but no species listed- suspect Yct
	Eb	0	0
	Rb	0	Nothing
1928	Yct	867,500	Nothing
	Eb	0	Nothing
	Rb	0	Nothing
1929	Yct	989,587	See 1929
	Eb	· 0	newspaper
	Rb	507,920	articles
1930	Yct	?	Nothing
	Εb	· ?	Nothing
	Rb	115,636	Nothing

There are major discrepancies between fish distribution as listed in the biennial reports and newspaper accounts. The biennial reports include no fish distribution in 1914-1925 while numerous newspaper accounts exist. This apparent discrepancy is due to the fact that Montana did not have a fish hatchery in the Libby area until 1926. The 1926-1930 installation was located on Cedar Creek, and was a satellite station for the Somers Hatchery. The Cedar Creek station was replaced by the Libby Hatchery in 1931.

Another discrepancy is noted for numbers of fish distributed in 1927 per the biennial report and the newspaper report. It is suspected that the biennial report listing 788,800 is the number of eggs shipped to Cedar Creek from Anaconda, Somers or other sources, while the 398,000 is the number of fish actually planted. The difference between the two figures is the mortality while at Cedar Creek Hatchery of 390,800 eggs-fish or about 50 percent. These high mortality rates were common in the 1920s. In 1929 the biennial report states that total statewide egg-take for rainbow was 11,382,090 eggs of which 6,754,930 were planted.

Egg Sources

Sources of eggs for hatchery rearing and distribution is of vital importance in determining effects of hatcheries upon native fish. Sources of brook trout eggs used for planting in Montana waters were originally from the eastern seaboard states, mostly from private hatcheries in Pennsylvania. These eggs-fish were undoubtedly planted in selected state waters' both public and private, which were later used for egg collection. Brook trout spawning stations used for fish planting by the state included Alvord and Kilbrennen Lakes near Troy; Fish lakes near Stryker; Woodworth and Lake Mary Ronan near Proctor; Georgetown Lake near Anaconda and Conley Lake near Deerlodge. Kilbrennen, Fish lakes and Alvord through 1935, were either cooperatives or private hatcheries.

Almost all or all black-spotted native cutthroat planted in Montana waters dating from 1893 to about 1960 would have been Yellowstone cutthroat trout. The first state spawning station for these "natives" was Georgetown Lake. Egg collections were done annually from about 1910 to the early 1960s. Eggs of grayling, rainbow trout and brook trout were also collected throughout most of this 50+ year period. Other brood lakes for black-spotted cutthroat were Little Bitterroot Lake, Lake Mary Ronan and Ashley Lake near Kalispell. The state also received a considerable number of eggs from Yellowstone Lake via the federal government. Genetic purity of those black-spotted cutthroat is now considered questionable. Rainbow trout eggs were also being spawned at Georgetown Lake, Lake Mary Ronan and Little Bitterroot lakes, and the author personally observed Anaconda Hatchery personnel

mixing egg-sperm of the two species together at Georgetown Lake in 1959.

In 1959 the Hamilton Hatchery was closed and its cutthroat brood stock transferred to the Libby Hatchery. Progeny of this brood stock was the major source of cutthroat planted in the Kootenai system through 1970 when the Libby Hatchery was also closed. The history of the Hamilton brood stock raised some question about its genetic purity. The origin of the Hamilton cutthroat was Big Salmon Lake in the Bob Marshall Wilderness. Adult fish were caught by hook and line, heavily anesthetized, packed in moss and flown to the Ovando Fish Hatchery, revived and then trucked to Hamilton. Transfer of these adult, pre-spawning westslope cutthroat trout was done in early spring 1952. Recent genetic testing of cutthroat collected from Big Salmon Lake indicated they were pure westslope cutthroat trout. The question about genetic integrity while at Hamilton is considered true rumor that the Hamilton Hatchery manager mixed rainbow trout and westslope fry together on the premise he could later sort out the two species. In any event, the Hamilton-Libby brood stock should be considered as pure or nearly pure westslope cutthroat trout.

Some of the Lore Lake brood stock may also have been at Libby. The Lore Lake brood stock originated from 40-50 adult fish caught by hook and line from several east-side Hungry Horse Reservoir tributaries in 1954. These fish were transferred to the Creston National Fish Hatchery to be used as a westslope brood stock which fizzled out in the early 1960s. However, John Cox, foreman of the Somers Hatchery was given the eggs of 2-3 pairs which were then planted in Lore Lake, a valley floor lake northwest of Kalispell. This brood lake provided good numbers of westslope eggs for about 3-4 years in the mid 1960s before fizzling out. Genetic testing of fish from east-side Hungry Horse Reservoir tributaries in 1982-1988 indicated that most, including the ones from which fish were taken, were populated by pure westslope.

Origin of rainbow trout planted in western Montana and the Kootenai river drainage is considerably more muddled than cutthroat and brook trout. Historically rainbow trout were first planted in the Madison River, probably in the early 1880s. The federal hatchery at Bozeman was planting rainbow trout near the turn of the century and it is probable these fish

originated from the Madison River. Trades between states, private hatcheries and the federal hatcheries were common while Montana purchased considerable quantities of rainbow trout eggs from in-state and out-of-state sources.

In 1913 Montana purchased 3,000,000 brook trout eggs from a private hatchery in Pennsylvania, but 2,000,000 were traded to Michigan for a like number of rainbow eggs. Montana also received rainbow eggs from a Wild Rose Hatchery in Wisconsin and two hatcheries in Utah. The state also received eggs from private hatcheries located near Lakeview and Armstad, Montana. The Lakeview Hatchery was in the Centennial Valley while Armstad is now covered by Clark Canyon Reservoir. Montana apparently became self-sufficient in the late 1920s when in-state sources of rainbow trout became available. These sources were Georgetown Lake, Little Bitterroot Lake, Lake Mary Ronan, the Madison River above Hebgen Dam and Willow Creek Reservoir. It should be considered that all these rainbow were of coastal origin.

Correspondence from the Somers Hatchery files also show that Montana had a rainbow trout spawning station on Kilbrennen Lake, (Exhibit 6). This correspondence and newspaper clippings show that rainbow trout were spawned in 1913 and eggs sent to both the Somers and Anaconda hatcheries. The 1922 letter shows that rainbow were still being spawned, but that the lake was being used as a cooperative venture. The 1925 and 1932 newspaper clippings also indicate rainbow trout were being spawned under some cooperative agreement. The Yaak ponds mentioned in the 1932 clipping are thought to have been located on lower Windy Creek and essentially the forerunner of Lake Okaga in the Yaak valley. The author thinks it can be assumed that Kilbrennen Lake rainbow trout were spawned on an annual basis from 1913 through at least 1932. Unfortunately, except for 1913, no records have been found on the number of eggs collected or their destination. It is very likely that from 1913-1924 the eggs would have been sent to either Somers or Anaconda. Starting in 1925 eggs could have been shipped to the "Yaak ponds," Cedar Creek near Libby (1925-1930), or to Libby (1931-?) as well as other state hatcheries.

Planting records show rainbow trout from the Libby Hatchery were first planted in

April 9th, 1913

Mr. W. M. Bickford Missoula, Montana

Dear Judge Bickford:

"Harold writes that the fish are already stirring around yp in Lake Kilbrennen, but do not know what the chance would be for eggs. He or I will go up there with Ralston the deputy warden".

(The above is paragraph 3 of a letter written by H.D. Dean of Somers hatcery to W.M..Bickford)

April 16th 1913

U S Commissioner of Fisherms Washington D.C..

Sir:

I am sending today by express prepaid one small trout which I would like to have you identify for us, This fish is from Kilbrenne Lake about 12 miles from Troy in NW part of this state.

People claim there are large numbers there and we can soon determine as to that, as we are making it a spawning station. The lake is practically landlocked, as there is a slide of rock that prevents the fish from going out or in. The fish have been there as long as the lake has been known. We call them rainbows, but they do not look just right to the me. Your decision will be awaited with interest.

Yours truly

Exhibit 6. Letters and newspaper articles about Kilbrennen Lake, 1913 through 1932.

Repartment of Commerce Manager

BUREAU OF FISHERIES

"Commissioner of Figherist, Warnington, D. C." Assizingtan

April 24, 1913.

Mr. H. D. Dean,

Emperintendent Montana State Fisheries, Anaconda, Montana.

Sir:

Your letter of the 16th instant and the specimen of Lake Kilbrannen trout have been received. The trout was not in vary good condition but appears to be very interesting. In order to make a satisfactory identification of it, additional fresher material is desirable. If it is possible for you to secure further specimens of several sizes, preservative and receptable will be sent to you for that purpose. Any information that you can obtain regarding the habits of the fish and the size attained, as well regarding the physical condition of the lake, would be of value. At your earliest convenience, kindly advise the Bureau regarding this subject.

Respectfully,

Acting Commissioner.

April 28th, 1913.

U. E. Commissioner of Fisheries, Washington, D.C.

Eir: --

Replying to yours of April 24th, in regard to the fish in Lake Kilbrennen. I can get another supply of fish for you but do not think there is much difference in size. The people up there say that all the fish in the lake are of nearly the same size. Fe are watching it for the purpose of taking eggs and can probably tell more about it in the near future. If you will the preservative and receptuals, I will endeavor to send you some good specimens. I can probably send you some eyed eggs, if you mestre them. Quite a number of the fish are "pop-syed". Possibly because the lake is frozen over for such a long period. The ice was very heavy two weeks ago, when I was there, only a small place clear, near the cutlet. I am advised that the fish run down into the outlet at spawning time, in large numbers.

I will probably make another trip up there the last of this week and will try to collect all the information possible in regard to the lake.

Very truly.

VALUE IN HOLY TO LETTER HO......

Bepartment of Commerce and Malone

BUREAU OF FISHERIES

COMMISSIONER OF FISHERIES.
WASHINGTON, D. C."

Bashbugton

Eay 2, 1913.

Mr. H. D. Dean,

Supt. Montana State Fisheries,
Anaconda, Montana,

Sir:

In reply to your letter of April 28, you are informed that the fish referred to superficially resembles Salmo bouvieri of Waha Lake, Washington, but the number of scales in the lateral series indicates that it belongs to the Fainbow rather than to the Cut-throat series, to which S. bouvieri belongs. It is very likely an undescribed species or sub-species and further material is necessary for its determination. The Bureau is sending to you, by express, a 4 gallon tank containing formalin. Please add 12 quarts of water to the contents of the tank as received and forward to this office as many fish as the tank will hold without crowding. It is suggested that you include with the shipment a few of the "pop-eyed" fish.

Any information which you can furnish in regard to the habits of the fish, its size, environment and abundance, will be appreciated.

Respectfully.

Commissioner

NEWS HAPPENINGS AT TROY

The state batchery fish car arrived here Sunday and returned Monday night. They collected fish spawn from Lake Kilbrevnan for distribution throughout the state. They did not bring any fish eggs this time for distribution in the streams here, as was expected.

Ed Shand is at present working for the state hatchery people, who are engaged in collecting spawn from Lake Kilbreiman. This is an ideal place to collect spawn as the fish go down the creek which serves as an inlet to the subterraneau outlet proper, to spawn, and they are easily trapped and stripped of their eggs. The collector is expected here Thursday, most likely with the fish cur, to got another supply of aggs.

brygiled at it hun, boundy snied over one that construction will bogin as soon as the wagon roads are in condition for hear traffic, according to A. Dahl, of True, Mont., who recently ordered two hire tojacity, high-power automobiles from Spokano dealers, for use or stages between Troy and the minas. The two projecties adjoin and are about 10 miles from Tray. Both were formerly owned by the Greenough interests, of Spounds, but the Big Eight group was sold several weeks ago to Harry L. Day, president of the Federal Mining company, for \$50,000. The Greenoughe still retain the B. & B.

The Montana state fish car arrived Tuesday to collect spawn for the state hatchery near Kalispell. This spawn comes from Lake Kilbrenam eight miles north of here.

Exhibit 6. Newspaper articles pulibhed in the Western News: April 17, 1913 (top) April 24, 1913 (middle) and May 8, 1913 (bottom).

IN MORE THE COTTON MO.....

Bepartment of Commerce Michael

BUREAU OF FISHERIES

"COMMISSIONER OF FISHERIES,

antenfratas 🏗

May 2, 1913.

Mr. A. D. Dean,

Supt. Montana State Fisheries,
Anaconda, Montana.

Sir:

In reply to your letter of April 28, you are informed that the fish referred to superficially resembles Salmo bouvieri of Waha Lake, Washington, but the number of scales in the lateral series indicates that it belongs to the Fainbow rather than to the Cut-throat series, to which S. bouvieri belongs. It is very likely an undescribed species or sub-species and further resterial is necessary for its determination. The Bureau is sending to you, by express, a 4 gallon tank containing formalin. Please add 12 quarts of water to the contents of the tank as received and forward to this office as many fish as the tank will hold without crowding. It is suggested that you include with the shipment a few of the "pop-syed" fish.

Any information which you can furnish in regard to the habits of the fish, its size, environment and abundance, will be appreciated.

Respectfully,

Commissioner.

LINCOLN COUNTY MONTANA

GAME

IN the mountains and forests of Lincoln county the sportsman will find a large variety of game, both large and small, and the atreams furnish excellent fishing.

It is estimated that approximately 1,000 deer are killed in Lincoln county every year. They are found in all the timbered localities.

There are many Rocky Mountain goats in the Cabinet mountains.

Mountain sheep are still found in some localities.

Mountain lions are frequently killed.

Bear are fairly plentiful, mostly of the black variety, but there are some brown ones and occasionally a grizzly is killed.

Elk, caribes and moore are occasionally seen, but they are not plentiful.

There are numerous colonies of beavers on the streams since they have been afforded permanent protection.

The principal game birds are blue grouse, ruffed grouse, pinnated grouse and fool ners. Ducks are found in some localities.

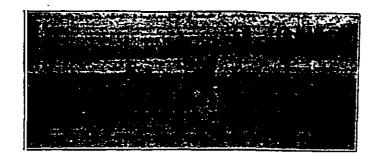
Trappers on the mountain streams catch lynx, wolves, marten, mink, otter, tunkrats and other fur-hearing animals.

11-24-1

11-26-1

1-27-1

34-36-1



That most my 9/1

find number of days, I made a trut there to see about them the as to be about them they dead the see about the see a truth of t

LINCOLN COUNTY
MONTANA

PIRE

THE chief joy of Lincaln county sportsmen is the trout fishinging, which could hardly be excelled. There are hundreds of lakes and streams in the county, practically all of which abound with trout.

At Granite lake two fishermen made a record of catching 1,000 trout in two hours.

The native trout are the Dolly Vardens and the black spotted, but there are a few other varieties that have been introduced here.

In the Kootenai river, in addition to the trout, there are sturgeon, ling and whitefish.

Sturgeon are only caught below Kootenai Falls, as they seem to be unable to get over the cataract there. They frequently attain a weight of several hundred pounds, and it is seldom that one is caught weighing less than fifty pounds.

The fresh water ling is one of the rare fish species of the world, but they are quite plentiful in the Kootenai river. They are a fine facel fish, but not much sought, after by fishermen, an they are not so gamey a fish as the trout.

Whitefish are quite plentiful, especially in the Kootenai river.

The Franch had to get a

brown in help me peut that seem

ling inverten the evaluation was no

mid It with a day all told come

red until se got thack, soled not

set a talk well you tolk before

you left as I thought you were

grane rut on he 4, he if you could

any thing about this week you would,

On with hay be pear him out of my

Friend West: --

I got some boxes or the materials for them, at Emmispell and think they will be much cheaper, although not so nicely made. I will make them to hold four jars. I tried two cans or jars from Lake Kilbrennen to the Flathead hatchery and the results seemed to be very much better that the carrying in water (RS Cans).

I do not just know about that word co-operate, but as I told you, I am willing to do anything satisfactory to you to help out in getting the eggs, especially the rainbows. The grayling eggs arrived all right and were nicely packed, but the eggs are pretty your. However, we are glad to get them.

Are you going to run the Blair station? If not, we will be glad to take it off your hands this season, but I suppose we should know at once. I ought to get out that carload down your way, but must get my bills up roady to mail to-morrow and am needed at Kalispell as soon as possible. We were two days late in getting back this time. Possibly may take out a carload this week yet, but will wire or phone you if I do., Cannot hardly notify all the applicants, as some of them want too much time, and that is want bothers.

Well must get these letters up town for the mail, so good day.

Very truly.

34

glase,

State Fish Commission

E. P. MATHEWSON. CHAIDMAN, AHACONDA GEO. E. DÖLL, SECHETARY, HEI MAA N. D. BALDWIN, RALMIPEL, W. M. BECKFORD, MISBOULA J. L. DUHART, STATE GAME WAI DEN, HELENA ana ang 9-13

HATCHERIES ANACONDA SORERS

H. D. DERN,

Somers,

of fish fry at-and, Hatchery:

B.S. Jant (Grosstown)

250,000.

E.13. 11

Home production

80,000.

R.B. 11

you.

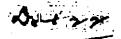
5-0,000.

R.B. n

Lake Kilbrannan

4000

Respit J. K. Healia



Anaconda Hatchery,

Report.	Sept. 2nd,	Sept.	Oct.	Bov.	Dec. Total
Grayling	8, 205, 550				3,305, 550
Eggs	2,000,000				1,000,000
Brook trout,	1,186,600				1,188,600
Hotives,	181,100		237,000		418,100
Rainhows	34,000		30,000	,	84,000
			•		4,874,250

Flathend Hutchery,

Whitefish	3,000,000				3,000,000
Brook trout	a 69, 500	a , 000	2,500	೯೧ ೦,	274,100
Matires,	€,500	111,500	464,500	172,500 65,500	020,500
Rainbews	a, 000	2,000	3,000	5,000	12,000
			• •	-	4,106,600

Making a grand total of amost 9,000,000 We have at this hatchery (Flathend) 25,000 or 30,000 fish yet

Expenditures to date (Dec. let) or all vouchers now in.

Anaconda

\$7013.70

Flatheid

\$3413.36

Does not include my salary, which

has not been included by the Board

Last Friday, received dota

of Examiners.

to obsek up books, from

That is reason for delay in report.

Respectfully Submitted,



J. H. BRUNSON SUPT, STATE FIRMERIES

STATE OF MONTANA

PEPARTMENT OF FISH AND GAME

HELENA, MONTANA June 24, 1922.

Mr. O. E. Johnston, Foreman Fisheries Station, Somers, Montana.

Dear Sir:

I have your letter dated June 23, and note what you have to say in general.

It is rather singular that of all the egg shipments made, those from your station seem to be the only one which are always uniformly bad. There is a reason for this, you simply wait until the eye spot is too well defined. I have repeatedly told you to pack your eggs for shipment as soon as the embryo would wiggle in the shell, then if the eggs are neglected while i enroute, there will be little if any loss.

Bad shipments are to be expected from men who have had but little experience in this work, but you have had more experience than any ran on the payroll excepting Er. Gorham, and naturally it is expected that you will do things better than the rest of us.

I understand that Mr. Drew has some hatched out rainbow which belong to us and which he suggests that he hold and plant back into Kilbrennan Lake. If this report is true, send Mr. Bossler there immediately with cans and have him bring the fry to the Somers station, since I never plant back any fish hatched from eggs in the same waters.

I also want to call your attention to the fact that the eggs from Ashley Lake should be in your station by this time. Under no circumstances is there going to be any excuse for them hatching at that lake this season, for I ordered all eggs to be brought in ahead of the season. There can be no excuses for both you and Mr. Melton have machines, besides there is a truck at the Somers station too.

I can no longer be expected to make excuses for any one, you have had more experience in this work than I have had, therefore it is up to you to use your own initiative in these matters. I will send you a knife and plate for your food chopper, but be very sure to take yours in to the Kalispell Mercantile Company and have them to ship it back to hhe factory and have it reground.

You are hereby instructed to move Mr. Matzick out of the office in the hatchery building, move your office in there and see to it that your office work is given more attention. The assistant foreman is supposed to do the office work, you, as foreman, are to see that it is properly done. This arrangement will give you more time for other work. You may likewise instruct Mr. Matzick to rent himself a house near the station. He will be used on detail work until such time as he prove efficient enough to be placed in charge of a station.

I want you to get busy of those bass, we simply must have them. You have



J. H. BRUNSON, SUPT. STATE FISHERIES

STATE OF MONTANA

DEPARTMENT OF FISH AND GAME

HELENA, MONTANA

O. E. J. #2.

I would suggest that you place Mr. Melton in charge of this bass collection work. He can catch both young fish and adults. I would also like to have a large number of adult sunfish. These fish can be caught and brought to the Somers station and there placed in the cement pond which you use for a settling tank, then be shipped out. I want you to make every possible effort to make this work a suncess this season, and I want you to count your fish, we can not stand for any count such as was made last season, the young bass were short in every instance when checked up.

I well realize that you have hard conditions to contend with up there, but, take my word for it, we have just as much grief at other places, and we have no hatchery which has a cold water supply and which can be depended upon such as you had at Leadville. We have grief at all our other stations, and it is up to each man in charge of the stations to overcome the grief to the best of his ability.

Tell Max I will write to him when I get time, but that he will not be stationed at Anaconda.

Yours very truly,

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PLANT MANY- FISH

Moniana has established a new record for planting game fish during the season just closed, according to the annual statement of A. C. Jackways, superintendent of the state hatcheries which asserts that 33,976,417 were released during 1925.

During the preceding year 24.871-098 fish were planted while in 1923 the number reached 18.642,620.

The figures show an increase of more than 100 per cent over 1923 and 60 per cent increase over 1924.

Fish were incubated at 14 stations with the exception of sunfish and bass, which were rescued in sloughs along the Flathead river.

Natire trout lead the list with a total of 17,911,140, grayling being second with 12,577,000. Other species planted include rainbow trout, sastern brook, salmon, Lochleven trout, sunfish and bass.

The fish planted during 1925 were incubated at the following stations with the exception of the sunfish and bass which are propagated and rescued from the sloughs along the Flathead river.
Anaconda 11,319,250
Missouls 3,382,840
Hamilton 1,928,000
Meadow Creek eggs jurnished
by the state and planted by
the state 5,261,896
Kilbrennan Lake co-operative
work with S. S. Drew20,000
Columbia Gardens co-operative
work with Butte ang-
lers 1,573,000
Big Timber 2,157,000
Emigrant 5, 216,600
Somers 3,987,870
Ovando 1,183,500
Lewistown 822,160
Red Lodge 975,902
Roman Lake 379,112
Great Falls
Total
Mr. and Mrs. F. E. Blackburn and

Mr. and Mrs. Frank Hendrickson were

here from Libby to spend Christmas

with the home folks.

Exhibit 6. Western News article, December 31, 1925.

27,631,886 Game Fish Liberated in Montana Water:

State Fish and Game Departmen Makes Excellent Showing in 1931— Big Timber Makes Record.

HELENA, Feb. 2-Montana's state fish and game department has made possible the batching, rearing and liberation of 27,631,886 game fish in waters of the Treasure state during the year just closed according to the annual report which appears in the February edition of Montana Wild Life, official publication of the department Statistics just completed show that there were 5,677,352 eggs on hand in the hatcheries on January 1, 1932. This total has been increased to 7,500,000 eggs by additions during January. Analysis of the year's work in the battery of 14 hatcheries operated by the state department, shows that the greatest liberation was made possible at the Big Titler hatchery, where total of 4,446,650 game fish were hatched and then liberated by speedy uxygen-equipped automobile brucks, The Ansounds hatchery was second with 4,142,788 liberated.

Fish liberated in Montana waters by cooperating hatcheries during 1931 total as follows: Butte Angler's club 232, 900 of which 672,000 were native blackspotted and 600,000 rainbow; believed (Continued on page 4)

MONTANA WATERS

(Continued from page 1)

Bureau of Fisheries, 732,900 blackspottel trout and the Yaak pond, operated by S. S. Drew, 20,000 rainbow.

During the year just closed, a total of 224,482 large mouth bass were liberated, 61 small mouth bass, 402,475 sunfish, 27,825 crappies, 7,325 catfish, 50,155 perch, 17,183,344 native black-spotted trout, 4,498,209 rainbow trout, 1,115,290 grayling, 870,222 Eastern Brook trout, 675,583 Chinook and Sockeye salmon, 1,680,215 loch leven, 875,000 whitefish and 25,700 California golden trout.

The summary of eggs on hand at the start of 1932 shows 738,062 native blackspotted, 558,492 rainbow, 35,478 eastern brook trout, 3,845,320 loch leven and 500,000 Lake Superior Whitefish. The Whitefish eggs, which were secured from Michigan through an exchange of eggs are at the Polson hatchery. These fish will be liberated in Flathead lake.

Exhibit 6. Western News article, February 4, 1932.

Kilbrennen Lake in 1945 and again in 1950. Cutthroat trout, probably Yellowstone, were planted in 1955 and 1956 and westslope cutthroat were planted in 1988. Recent genetic analysis of rainbow trout from Kilbrennen Creek below the lake and the lake proper, disclosed that most fish were redband-coastal rainbow cross's, with some fish containing westslope genes. The author believes the two rainbow trout plantings compromised the native redband rainbow. Planting of westslope in 1988 has also added to the hybrid mix, while Yellowstone cutthroat planted in 1955-1956, did not contribute to the gene pool.

Two private and/or co-op hatchery people appear to have been prominent in Montana fish hatchery history. These two people, apparently brothers, were Sam S. Drew and Kenneth G. Drew. Sam S. Drew is first mentioned in Somers Hatchery correspondence in 1913 as being at a hatchery near Buckeye, Washington. Sam's name next appears in the Kilbrennen Lake exhibit in 1925 and 1932. A letter from Kenneth F. MacDonald, Superintendent of State Fisheries to Eli Melton of Somers Hatchery dated December 11, 1932, informed Eli he would get 400,000 brook trout eggs from Alvord and Kilbrennen Lakes, but that Sam Drew would also send eggs to Libby, Great Falls and Lewistown first. Sam Drew worked for MFWP on the Madison River fish traps after WWII. Emmett Colley, retired MFWP, was working at the Emigrant Hatchery in the late 1940s and knew of Sam by reputation. Emmett's supervisor at Emigrant, George Miller and Sam Drew, did all the rainbow and brown trout spawning and egg distribution at the Madison River trap. Mr. Colley is not sure that all the eggs went to state or federal hatcheries.

Kenneth G. Drew's name first appeared in Kilbrennen Lake exhibit in 1922. A Drew located in Troy received 2,954,800 black-spotted natives from Anaconda Hatchery in 1926. Anaconda sent Drew at Troy, 301,760 brown trout eggs and 502,000 native eggs in 1934. A January 11, 1940 letter states that the Libby Hatchery was to get 50,000 mackinaw eggs from the Rainbow Ranch in Troy. A January 7, 1941 letter states that K.G. Drew was to provide the state with one million early rainbow eggs to be delivered in March. A February 18, 1941 letter from Rainbow Ranch to Somers, indicates early rainbow eggs were shipped and that Libby Hatchery had already received their early eggs.

It could not be determined when K.G. Drew's Rainbow Ranch was started or ended,

but it is likely sometime in the early 1930s through the 1940s. The Rainbow Ranch letterhead stationary first appears in the Somers' files in the late 1930s. This letterhead advertises black-spotted natives, brook trout and rainbow trout. Waters used by Drew's Rainbow Ranch included Slee, Lower and Duck Lakes located on private property near Alvord Lake. In addition to rearing his own fish, K.G. Drew apparently had co-op spawning stations on Alvord and Kilbrennen Lakes. Biennial reports state brook trout eggs being taken from both lakes as early as 1930 and that the state took over Alvord Lake in 1935. No mention was made about taking over Kilbrennen Lake although brook trout eggs were collected from both Alvord and Kilbrennen from 1935 through 1943. K.G. Drew was also a middleman brokering egg sales between different entities. Mr. Drew was associated with other private hatcheries in Montana including Fish Lake near Woodworth and probably Arlee before it was purchased by the MFWP in 1945. Elmer Phillips, founder of Okaga Lake in the Yaak valley, knew Drew and was a part owner with Drew of the Fish Lake Hatchery near Woodworth.

The available records indicate that cooperative hatcheries were a major source of brook and rainbow trout for the state from the 1910s to the late 1930s-40s.

Libby Hatcheries

The state-owned Libby Hatchery occupied two sites during its years of operation. The first site was on Cedar Creek about 2-3 miles above U.S. Highway #2. The Cedar Creek location was a satellite station used only during the spring-summer and early fall months, for the years 1925-1930. Construction of a new hatchery on Libby Creek was started in 1926, but never finished. The present site of the Libby field station was used as the Libby Hatchery from 1931 to 1970.

The 1925-1926 through 1943-1944 biennial reports include numbers of fish by species planted out of each state hatchery. These reports also include numbers of eggs collected by source. Old records located at the Somers and Anaconda hatcheries show egg shipments to other state hatcheries and these records are thought to be complete. Table 2 below shows the number of rainbow planted by Libby Hatchery versus number of rainbow eggs shipped to Libby for 1931-1939 by Somers and Anaconda. The Somers and Anaconda hatcheries were the principle rainbow trout egg sources for state hatcheries for many years prior to 1955.

Data listed in Table 2 show major differences between numbers of rainbow trout planted by the biennial report versus planting records. The author is inclined to believe the biennial report numbers are more correct than the planting recordss. Biennial reports were written every two years while the planting record numbers were garnered from hatchery records in 1975. The number of rainbow trout eggs shipped to Libby from Anaconda and Somers accounts for only about 42% of the number of fish planted by biennial reports and 72% by planting records.

Table 2. Number of rainbow trout planted by Libby Hatchery as reported in Biennial reports and fish planting records versus number of eggs received from Anaconda and Somers hatcheries, 1931-1939.

	Number Planted		Number Es	ggs Received
<u>Year</u>	Biennial Report	Fish Plant Records	Somers	Anaconda
1931	354,500	168,000	0	0
1932	353,700	117,000	250,000**	0
1933	417,300	106,000	0	0
1934	366,320	445,250*	0	0
1935	460,150	357,500	0	500,000
1936	463,000	480,000	0	726,000
1937	675,000	185,325*	0	
1938	226,986	144,700	104,720	0
1939	155,340	49,400**	92,928	0

^{*} Many of these fish were 4-7 inches long, and were holdovers from the previous year(s) eggs.

^{**} These eggs were from Wisconsin through Somers.

Table 3 below lists the number of cutthroat reported planted by biennial reports versus egg shipments to Libby by Somers and Anaconda. The data in Table 3 shows that eggs shipped to Libby were somewhat sufficient to account for the number of fish reported planted except for the years of 1933 and 1937. Two other sources of cutthroat trout existed in the 1930s which were Rainbow Ranch and Yellowstone Lake through the federal hatchery at Bozeman. The author assumes that if cutthroat records were somewhat correct, then rainbow trout records were also correct. The principle question is, where did the rainbow trout planted by Libby originate?

Table 3. Number of cutthroat trout planted by Libby Hatchery, 1931-1939 versus egg shipments to Libby from Anaconda and Somers.

	Number	Number Planted		ggs Received
Year	Biennial Report .	Fish Plant Records	Somers	Anaconda
1931	695,600	627,600	0	1,354,752
1932	1,332,525	943,025	0	1,503,360
1933	1,164,925	403,700	0	170,000
1934	427,300	785,700	0	916,000
1935	854,000	400,000	0	676,000
1936	569,500	767,700	0	865,000
1937	920,000	141,298	272,832	0
1938	144,800	291,184	405,504	• 0
1939	472,936	672,050	1,011,360	0
,				

Possible sources included a state rainbow spawning station on Lake Francis, a state station on the Madison River above Hebgen Reservoir and a federal station on the Madison River near Ennis. The Lake Francis operation existed for 4-5 years in the 1930s, but had

limited success. Egg cards for Lake Francis at Somers show no shipments to western Montana hatcheries. The state Madison River station was started in about 1935 and collected large numbers of rainbov, and brown trout. This spawning station, a satellite of Emigrant State Hatchery, was operated at least into the early 1950s. The federal hatchery at Bozeman operated spawning stations on the Madison River probably from the 1910s through about 1935 when the Ennis Hatchery was constructed.

The author's prime suspect for Libby rainbow eggs is Kilbrennen Lake and Rainbow Ranch at Troy, or eggs brokered by K.G. Drew from private hatcheries. Anaconda Hatchery records show they received rainbow eggs from K.G. Drew in the late 1930s. Exhibit 7 shows that K.G. Drew provided early rainbow eggs to Somers in 1940. The records also show that Rainbow Ranch sent brook trout eggs to Somers several times in the 1930s. These few records show that K.G. Drew was providing trout eggs to the state in the 1930s and 1940s. Any records of other transactions were probably lost when MFWP destroyed the old hatchery records.

Numbers of brook trout, rainbow trout and Yellowstone cutthroat planted in the Kootenai River drainage for the years of 1931-1960 are listed in Table 4. These numbers were obtained from fish planting records and are lower than biennial report numbers. However, biennial reports stopped listing number of eggs spawned and number of fish planted in the late 1940s.

Libby Hatchery

Size	Cutthroat	Rainhow	Brook
0-2"	6,330,506	1,249,688	4,089,120
2-8"	2,803,147	1,365,318	952,127
8" +	106,472	2,585	350
		Somers Hatchery	
0-2"	919,032	194,600	192,000
		Hamilton Hatchery	
0-2"	153,750		
		Great Falls Hatchery	
0-2"		12,500	
Totals	10,312,907	2,824,591	5,233,597

Somers Montana Dec. 1, 1939

John W. Schofield Supt. State Fisheries Helena, Montana

Dear John:

I would like to get a nice bunch of those early Rainbow. Up to 250,000, if you can spare them. We can get a nice size on those early Rainbow to plant in Bitter root and Lake Roman.

Yours vary truly.

Hatchery Foreman Somers Station

Exhibit 7. Letters between Somers and Helena about early rainbow trout eggs.

STATE OF MONTANA FISH AND GAME COMMISSION



MEMBERS

Q L. PRICE, CHAIRMAN LAUREL

MARRY E. LAY, LEWISTEWN

P. O. GUTENSONN, WHITERIGH

A. C. BAUMBARTMER, GREAT FALLE

Helena, Montana
December 15, 1939.

Mr. J. P. Shaehan, Foreman State Fish Extohery. Somers, Montana

Dear John:

We have instructed K. G. Drew of Troy, Montana to ship your station 250.000 early eyed Rainbow trout eggs, and same should arrive during January or February, 1940.

JESILO

JOHN W. SCHOFIELD SUPT. STATE FISHERIES

Very truly yours,

Effects of planted non-native brook trout on native species are easily determined. A majority of streams in the Kootenai River drainage contain brook trout usually in the lower gradient sections. These lower gradient sections are projected to have had native redband rainbow populations. Streams within the proposed redband historical range known by the author to have brook trout include:

- 1. Fisher River including its major tributaries, Wolf Creek, West Fork Fisher, East Fork Fisher River, Pleasant Valley Fisher River, Silver Butte Fisher River.
- 2. Libby Creek
- 3. Big Cherry
- 4. Granite Creek
- 5. Flower Creek
- 6. Parmenter
- 7. Pipe Creek
- 8. Bobtail Creek
- 9. O'Brien Creek
- 10. Yaak River and many of its tributaries
- 11. Pine Creek

Effects of planting large numbers of Yellowstone cutthroat throughout the drainage are thought to have been minimal and mostly a great waste of fish. Genetic analysis of fish from 86 streams and 17 lakes throughout the drainage, found no pure Yellowstone cutthroat populations. Three samples analyzed from Kootenai River each contained very small amounts of Yellowstone genetic material. The three areas from which fish were collected included the Kootenai River north of Rexford, downstream from Libby, but above Kootenai Falls and near Troy downstream of the falls. Boulder Creek was the only stream above Libby Dam containing trout with some Yellowstone cutthroat genes. It is strongly suspected that Boulder Lake, the headwater source, also has Yellowstone-westslope cutthroat hybrids.

Within the proposed redband range, Yellowstone cutthroat genetic material was found in one lake and three streams. These streams are East Fork Pipe Creek, upper O'Brien Creek

and Hellroaring Creek tributary to Yaak River. The one lake, Bramlett, is located in the West Fisher River drainage within the boundaries of the Cabinet Wilderness. Genetic analysis disclosed that fish from this lake are Yellowstone cutthroat x redband hybrids. Exhibit 8 describes the planting of three lakes within the Cabinet Wilderness in 1929. Note that the fish planted in Wanless Lake were called native brook trout. Genetic analysis of fish collected from Wanless Lake in 1988 describes them as being almost a 50-50 cross of Yellowstone and westslope cutthroat. This article also states two lakes in the West Fisher had also been planted earlier in 1929. Research by Mark White, U.S. Forest Service at Canoe Gulch Ranger Station has determined that Brannigan Lake is now named Bramlett Lake, Dwinelle Lake is now Upper Bramlett and Boyes Lake is Upper Geiger Lake. The author also deducts that Lower Geiger and Lower Bramlett had already been stocked with fish prior to 1929. A 1995 genetic survey of these lakes, Upper and Lower Bramlett and Geiger lakes, showed that Upper Bramlett was barren of fish, but that the two Geiger lakes contained redband x coastal rainbow hybrids.

Determining effects of planting rainbow trout, whether redband or coastal on native populations of redband or westslope cutthroat, are somewhat difficult. Did planting Kilbrennen Lake trout extend the range of redband rainbow trout? Four lakes in the Cabinet Wilderness were found to contain fish populations of redband x coastal rainbow hybrids and one of redband x Yellowstone cutthroat hybrids. This latter lake was Lower Bramlett Lake while the former four lakes were Upper and Lower Geiger and Upper and Lower Hanging Valley. The author believes that these lakes were void of fish and that their current populations are the result of fish planting which probably took place prior to 1930.

The Hanging Valley lakes are in the Flower Creek drainage. Genetic testing of fish collected from Flower Creek near the gauging station about six miles below the lakes, showed they were westslope cutthroat x coastal rainbow hybrids. If redband were the native fish in the headwater lakes, their genes should still be present in Flower Creek. Genetic testing has not been done in the West Fisher River drainage, but is scheduled for 1999. If outlet streams of the Geiger lakes, Bramlett lakes and the West Fisher contain significant amounts of redband genes, then redband may (should) be considered the native fish. It is predicted that genes of

Induction Conditions of Canta Canta

Carry Fish on Backs To Lake Wanless in Cabinet Mountains.

Last Sunday 10 member of the Labdry Rod and Gun Club packed ten
thousand native brook trout into Wanless lake, located in the Cabinat
mountains just south of Carney Peak.
In speaking of the trip Mr. Dexter,
president of the club, says: "Getting
out of bed at 3 o'clock Sunday
morning Mr. Dwinelle took the pack
train from Swamp Creek to the end
of the road on Trail Creek, where the
fish were transferred from the truck
to the horses and packed to the top
of the divide, where they were transferred into cans and carried on our
backs a distance of two miles into

Wanless lake is a barren body of water lying just over the Lincoln county line in Sanders county. It is a little larger than Granite lake and about three times as big as Geiger lake. There are no trails into the lake and was had to travel over the roughest country that I have ever seen. The scenery in this section of the county will surpass anything that lays ont of doors, and when you look from the press down into the lake you are reminded of the Garden of the Gods in Colorado. After lessying the summit we encountered tough going, the load into our shoes it was anything but pleasant. It took is two hours to go a mile, part of the way on our hands and knees and sometimes on our heads. The brush was thick in spots, and no place have I seer seen big-

There seems to be an abundance of feed for fish in this lake and no doubt in three years time there will be wonderful fishing. Considering the length of time the fish were in the cans and the rough handling we had exceptional luck and got into the lake with better than 80 per cent.

"With the planting of fish in Wanless Lake this makes the third lake the club has stocked this year. Dwinelle Lake, located above Brannigan Lake and Boyes Lake that lies just over the ridge from Gelger Lake, were stocked with Ralmbow trout about two months ago. We intend to ask the Fish and Gama Commission to close these lakes for a period of three years, which will give the fish a chance to spawn and assure us of a good increase. There are several

lakes that are yet to be stocked and it is the intention of the club to endeavor to do so next season. The stocking of these out of the way lakes has been made possible through the cooperation of the forest service and we are mighty grateful for their help."

Editors Note: The citizens in general certainly appreciate the good work the Libby Rod and Gun Club is doing to build up our game resources. Ever since its inception it has carried on a program that is bound to meet with success. Not content to rest on its laurels, the members are going shead building rearing ponds, planting fish, closing small feeder streams to fishing, and doing things that will assure good hunting and fishing for all time to come. They are to be congratulated on their splendid work.

Those making the trip Sunday and assisting with the planting of fish in Wanless Lake were, R. W. Smithberger, M. K. Kedzie, James Fitch, M. D. Rowland, J. K. Dwinnelle, Ed. Hendricks, Harvey Shelley, W. E. Dexter, Elmer Phillips, Jas. Emmons, Dexter Shaurette and E. M. Boyes.

Exhibit 8. Western News article, October 3, 1929, describing planting of high mountain lakes.

westslope cutthroat will be predominant.

Redband rainbow genes have never been found in stream populations above Libby Dam. This could easily change since it is known that redband have been and will be planted into Libby Reservoir. Only those streams with barriers preventing reservoir-origin spawning runs could maintain their pre-reservoir genetic structure. Those streams with barriers include Boulder Creek, Pinkham above Pinkham Falls, Ten Mile Creek above the falls and possibly Sutton and Cripple Horse Creeks that have falls below Libby Reservoir full pool elevation. Both Sutton Creek and Pinkham Creeks above the falls are populated by pure coastal rainbow trout and brook trout (Pinkham Creek).

To fully appreciate the potential effects on redband trout in waters below Libby Dam, one has to be familiar with what was planted post-1960. From 1960 through the present, cutthroat planted in the Kootenai River drainage have been pure or mostly pure westslope. Most post-1960 rainbow trout planted, originated from the Arlee strain of coastal rainbow. Between 1960 and 1972, Arlee rainbow were planted in both lakes and streams, most notably Fisher River and Pipe Creek. In 1972, Montana started phasing out planting hatchery fish in streams, but continued planting lakes. Post-1960, most rainbow have been planted in land-locked lakes with two notable exceptions, Loon Lake in the Pleasant Valley Fisher River and Howard Lake in the Libby Creek drainage. Coastal rainbow trout from these lakes are probably affecting redband trout in connected waters.

Genetic surveys in the South Fork Flathead River have found streams without headwater lakes, were generally populated by pure westslope cutthroat trout. Genetic surveys of stream systems within the redband range in the Kootenai River indicate the same is true for redband trout as well. Examples of this are Wolf Creek system, Callahan Creek and East Fork Yaak River. In the Wolf Creek system, only redbands have been found in Wolf Creek itself and five tributaries. Wolf Creek proper does support good numbers of brook trout. Callahan Creek is redband plus a small population of bull trout. The major threat to Callahan Creek is Idaho's Smith Lake which has in past years been planted with Henry's Lake cutthroat (Yellowstone) and westslope cutthroat. The East Fork Yaak River does contain some redband hybridized with westslope cutthroat trout. It is thought that the westslope genes originated

from Montana planting westslope in Mt. Henry Lake. This lake was considered void of fish until first planted in the late 1970s. Planting was terminated in the early 1990s and this lake should be fishless again. Fish downstream of this lake may eventually lose the westslope component.

The Yaak River downstream from the falls located above Windy Creek to Yaak Falls still has a redband component with some hybridized with coastal rainbow or westslope cutthroat. A major part of the river's fish population, is brook trout. Many of the Yaak River tributaries contain westslope cutthroat in the upper reaches, while the lower reaches have brook trout and hybridized redband, coastal rainbow or westslope cutthroat. Yaak River below Yaak Falls contains mostly pure redband.

Other major drainages considered within the aboriginal redband range include the Fisher River and its tributaries, the West Fork, East Fork, Silver Butte Fisher and Pleasant Valley Fisher. Redbands have been found in Fisher River, Pleasant Valley and Silver Butte. No genetic testing has been done in the East Fisher and West Fisher and inadequate sampling in the main Fisher, Pleasant Valley and Silver Butte. Effects of planting non-native fish cannot be determined until several more populations are analyzed.

Additional analysis of fish populations in Libby, Big Cherry and Quartz drainages are a prerequisite. Redband trout have been found in valley floor portions of these drainages. It is predicted that westslope cutthroat will be the predominant gene type in higher gradient tributaries.

Did Kilbrennen Lake redband influence rainbow trout stocking in Montana? Genetic analysis of rainbow trout in tributaries to Little Bitterroot Lake and Lake Mary Ronan have shown they were hybrids of coastal rainbow trout and redband rainbow trout. The 1922 letter from J.H. Bronson to O.E. Johnston in Exhibit 6, may explain how mixing of the two subspecies occurred. Upon reading this letter it should be clear that fish stocks from X lake were mixed into Y lake.

Rainbow trout eggs collected from Lake Mary Ronan and Little Bitterroot Lake were shipped to other state hatcheries. Included were Hamilton, Anaconda and Emigrant and possibly Great Falls, Lewiston and Big Timber. Extensive genetic testing would be required

of rainbow trout in many parts of Montana to determine the extent of redband influence. Montana Department of Fish, Wildlife and Parks has conducted intensive genetic surveys of fish in the North and South Fork Flathead River and lower Clark Fork River drainages. Only one lake, Lena Lake within the Bob Marshall Wilderness, was suspected of having rainbow trout influenced by redband.

Conclusion

- 1. Kilbrennen Lake redband rainbow trout were spawned and eggs used for planting by Montana's state hatchery system. Number of eggs taken, what years taken, by whom and where planted, is unknown at this time.
- 2. Planting of large numbers of black-spotted natives (Yellowstone cutthroat trout) from the early 1900s through the 1950s) had very little lasting influence on native fish in the Kootenai River drainage.
- 3. Planting of brook trout in many streams in the Kootenai River system has had major effects on redband. Available information indicates both redband and brook trout preferred habitats are similar and brook trout have replaced or successfully compete with the redband.
- 4. Quality of habitat preferred by redband has not been previously mentioned.

 Surely changed habitat in low gradient streams has reduced fish numbers and influenced brook trout success.
- 5. Hatchery plants of coastal rainbow trout in the Kootenai drainage have negatively influenced native trout.

Postscript

Newspaper articles not pertinent, but of interest, are attached to this report as Appendix B.

MORE TROUT PLANTED IN STREAMS NEAR LIBBY

native trant, were shipped to Libby came apparent that unless steps were tron the state hatchery at Somers, last Waltons would soon find their efforts Saturday, and were distributed among seriously retarded and stories of big creeks in this vicinity under the direct catches would amount to nothing more tion of the Libby Gun and Roll club than prevarientions. Three caus of the fish were deposited in | The Libby Can and Rod club was or-Flower crock, four caus in Carmenter ganized last spring, its ostensible purcreak and the remainder were con-pass being to provent the extermina-signed to Grante creek. Dr. Jones, N. tion of fish and game in this vicinity, Bolis and Scott Anderson superintended and, up-to-date, it has rendered invalthe transfers.

of fish having been deposited in these Stone is secretary, and the keys of the waters previous to this consignment, 30 cash has are outrested to Wyatt Paine, cause of which were enstorn trout. These Ed Swetnam is expense of the shooting shipments were made at the request of ground. The membership roll now the Libby Cun and Rod club, which posses of about 100 names. was granted the treat subject to the usual provision that it would be respon- Woody Williams overuntered a putr sible for their safe and reasonable discot large gray welves a short distance tribution among the creeks in this northeast of Linby, Sanday afternoon, variatity.

Large numbers of tront are being both of them.

Fifteen caus, or approximately \$0,000 (taken from cearby streams, and it bo-

nable service. John Kuklinski is presi-This was a delayed shipment, 60 cans dent of the organization and E. E.

guillist bun guitooth ai hobrownes hun

Western News article, November 13, 1913

Appendix A. Newspaper articles describing fish planting

FISH CAR IN LIBBY

111,000 Trout Put in the Streams in this Vicinity.—87,000 Rainboyr and 24,000 Brook

The state fish ear arrived in Libby Sunday morning and brought joy to the hearts of sportamen in this vicinity distributing that year cause of 111,000 young trong among the streams in this locality. The streams were stocked as follows:

Pipe and Bobtail creeks	S caus
Parmenter	
Gravite	8 raus .
Flower	à caus
Cedar	
Swamp	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	

Twenty-line cause of the Ash are rain bow trout and the balance brook front. These are the first brook front to be placed in the waters in this vicinity.

With the streams stocked as they now are, if proper core is taken by fishermen, there will be pleut; of good sport for years to come, and pleuty of excellent fish to feed the multitude.

Western News, May 28, 1914

# TROUT ARE DISTRIBUTED

The 50,000 trout fry that were delivered in Libby recently by the government fish car from Bozemon were distributed by the local forestry service. The fish were taken to the Fisher river and placed in the tributaries to that stream. The local forestry office has on several occasions in the past performed a similar service to this locality and is glad at all times to cooperate with the residents here or with any organization in the securing and distributing of the young trout.

Kalispell Times, December 2, 1914

# ROD AND CUN CLUB REPORT

Treasurer Paine-Submits His Annual Report to Club
Officers.

185,000 FRY DISTRIBUTED AROUND LIBBY LAST YEAR

Eistern Brook Trout Comprised Biggest Portion of This Number.

Through the efforts of several local enthusiasts the Libby Rod and Gun Club is making a very good record. It will be recalled that this organization was started last year and quite a large number of people subscribed to the membership, each paying \$1.00 for a card. The sum of \$89 was raised through this method and the money has been taken care of by the organization, as will be shown by the report of the treasurer, which is given below.

There is no other one organization of a similar nature which means more to this community than the Rod and Gun club. Aside from the pleasure which the members take in shooting, the great feature of the thing is the fact that through this organization the fishing streams are being stocked with trout. And no one will take issue with the statement that it is good sense to now begin stocking the fishing streams rather than to wait until they have become exhausted and then begin putting in new fish.

During 1913 the club put into several streams near Libby 186,000 fry. Eastern brook trout comprised the biggest portion of this number. Several instances indicate the remarkable growth these fish are making. - Judge Brown caught one in Swamp creek which had grown in the one season to six inches long and another one was caught in Donk creek, a tributary of Pipe creek, which had attained about the same growth. Both were eastern brook trout. So, it will be seen, that the idea of restocking these streams is meeting with splendid results and every encouragement should be given those who are taking care of the affairs of the club, to the end that they may continue the good work.

The initiation fee is \$1. This entitles the holder of a card to the rights of the club for a year. The club held a meeting the other evening and among other things agreed to offer two prizes this year for the biggest char and the biggest trout caught during the months of July and August. These prizes are only offered to members of the club and only to these who become members before July 1st. So, if you want to get your picture in the paper and notoriety as some fisherman, better get busy and give Westt Paine a dellar and join the family.

Following is the report of the club for the year:

Dishursements. To membership cards \$ 1.60 To rifle balls and traps 19,20 To freight on same...12.00 Livery hire and ice, distributing fish fry, 13,50 Livery bire and ice, distributing fish, fry . . 4.00 Livery hire and icu. distributing fish fry., 3.00 To bill of Fred Burlingham for supplies and labor on trap houser 6.35 Total disbursements, 1913..... \$59.65

Cash on hand \$29.35

Receipts for dishursements are attached to this report.

Yours very truly,

WYATT PAINE,

Treasurer.

Libby Herald, February 13, 1914

# Físh Commissioners Distribute Fry

The Montana Fish commissioners car arrived Wednesday morning from Sommers no train No. 48. The neal in charge of the car will distribute over 50,000 spawn in the local trout atreams.

Western News, April 29, 1915

# MORE FISH FOR STREAMS

The Libby Rod and Gun club last Thursday received another consignment of young trout from the batchery and immediately distributed them to the varieus effeams in the vicinity of Libby. The young fish came from the state batchery at Somers, the club having made application for them some time ago, and upon arriving here were at once taken charge of by club members, who had previously made arrangements for transporting them to the several trout streams.

This work of transplanting trout from the batcheries to Lincoln county streams constitutes the chief activity of the Libby Rod and Gun club, and the work has been kept up steadily since the club was first organized, a great many fish having been brought in. The club also expects a shipment soon from the government batchery at Bozeman, an application for the fish having been made several weeks ago.

Kalispell Times, May 5, 1915

# STATE FISH CAR AT TROY

State Game Warden Morgan Brought 120,000 Young Trout Here Monday.

State Game Warden Dave Morgan arrived here Tuesday morning in the Montana State Fish Hatchery car Thymallus with 120,000 native black spotted or cutthroat trout from the state hatchery at Somers. H. C. Weidner, W. F. Doonan, F. Papineau, J. P. Bartlett and Edward C. Scott immediately took charge of the young trout and saw to it that they were carefully deposited in Keeler, Callahan, Lake and O'Brien creeks.

Mr. Morgan was accompanied by Frank W. (Bennie) Harrison, Anaconda representative of the Butte Evening Post; Frank J. Trunk, capitalist of Anaconda, and Deputy Game Warden W. H. O'Donnell of Kalispell.

-About 1 o'clock Messrs. Morgan, Harrison, Trunk and a representative of the Echo motored out the Lake creek road to George Monio's farm, 10 miles south, in W. F. Doonan's seven passenger Studebaker, with Mr. Doonan at the wheel. The visitors marveled at the dense forests, grateful verdure, hay and grain fields. orchards, gardens and tidy farm homes on either side of the pretty stream, and they frequently commented favorably on the tuneful panorama, Mr. Harrison, at one point en route, exclaiming: "I have visited every corner of Montana but this is my first trip to this section, the most inviting and charming in every way in the state. What is Troy's altitude?" he asked. When told it was 1881 feet above sea level, he replied: 'Why, we of Anaconds are nigh on to 4000 feet nearer heaven than you Troyites."

Troy Echo, July 28, 1916

# ROD AND CUN CLUB ELECTS OFFICERS, BOLYARD PRESIDENT

Will Prepare for Active Senson, Planting Fish Fry and Protecting Game. Favors Local Fish Hatchery.

Election of Harry Bolyard as president and L. F. Vinal as secretary of the Libby Rod and Gun club featured the meeting of members of that organization at the Libby hotel Sunday afternoon. Mr. Bolyard's enthusiasm in all matters connected with-hunting an fishing, and the remarkably comprehensive knowledge he has gained of the country hereabouts in the comparatively short time he has lived here, made him the first choice of those present for this position.

The Libby Rod and Gun club was responsible, with the aid of Game Warden L. T. Hunter, for planting half a million-trout fry in the streams around this town last summer. . It is planned to go into the +business of keeping our fishing streams restocked on a still greater scale this year, giving particular attention to the matter of careful planting at points where they will have the best opportunities for growth. The organization will launch a campaign for additional members in a short time, and owing to the importance of the work it accomplishes, every sport lover in the community should join. The annual dues are one dollar a year,

Another action taken by the meeting was to instruct the secretary to take up with the state game and fish commission the matter of securing a fish hatchery on one-of-the streams in fhis vicinity. The idea was suggested by E. N. Alley, who pointed out the fact that this county, the finest game fish field in Montana, is entitled to the benefits of such a station, so that young fish would not have to be shipped long distances from other hatcheries in order to stock our streams.

Western News, April 2, 1920

W. F. Doonan received ten cans of Eastern brook trout from Game Warden L. T. Hunter and planted them in the local streams this week.

Western News, May 28, 1920

# LIBBY ROD AND GUN CLUB HAS 120 MEMBERS

The following statement of the forty five dollars was deposited in the condition of the Libby Rod and Gun First State Bank of Libby and two Club was furnished the Western dollars used for stamps and miscellews by L. F. Vinal; [1922] In the vening of March 21, 1922. In the vening of misceller of the Lib was made for membership, owing to by Rod and Gun Club was held for the hard rouse.
condition of the Libby Rod and Gun First State Bank of Libby and two
Club was furnished the Western dollars used for stamps and miscel-
News by L. P. Vinal: Recous expenses.
On the evening of March 21 1922 In the veni 1921 in solicitation
at 7:30 P. M., a meeting of the Did was made for membership owing to
by Rou and Gun Club was neighbor the hard, mes.
by Rod and Gun Club was held for the hard, these purpose of electing officers for the February and March 1922, the ensuing yebr and for the transmembers were solicited and a total
the ensuing vent and tor. the trans- members were sourcized and revious
action of such other business as amount to date of one hundred twenty, might come before it dollars has been collected Eat the
The present officers have been wetermentallers such which went
hold no office for the most two years, littles each holder to was receipt ato
While the club has had very little to membershin in the Libby Rod Fand
The present officers have been value of one tollard each which can holding office for the past two years titles each holder of a receipt to while the club has had very little to membership in the Libby Rod Fand work with during the past two years. Cun Club and also membership in the it-has made considerable headway in Montana State: Sportsmen's Association of the first and has a Montana State: Sportsmen's Association of the first and has a Montana State:
it-has-made considerable headway in Montana State: Sportsmen's Associa-
the distribution of fish fry and has Montana State Sportsmen's Associa-
the distribution of fish fry and has Montana State Sportsmen's Associa- take an active part in all matters from One half of Jeach membership
pertaining to the protection and live is remitted to the Association as:
propagation of wild life. As this a membership fee for the year 1922!
niceting Harry Bolyard was re-elected During the years 1920 Kandy 1921, as President of the club for the en- the following hish latery and fingers
as President of the club for the en- the following handstry and inner
shing your and s. K. Dwinene was impainted been distributed above the
same period Eastern : Repok Trout 18 19363 000
Owing to the value of Loon Lake Native Tront (1 7745 3 255 000
ncar the headwaters of Pipe Creek Rainbow Trout 11 14 40,000
which is a feeder for Pipe Creek, the Total Total 549,000;
Libby Rod and Gun Club have gone These have been a planted una the
suing your and J. K. Dwinelle was lings have been distributed by the elected Secretary-Treasurer for the same period.  Owing to the value of Loon Lake near the headwaters of Pipe Creek the Libby Rod and Gun Club have sone to the headwaters of Pipe Creek the Libby Rod and Gun Club have sone to the headwaters of Pipe Creek the Libby Rod and Gun Club have sone to cord as being in favor of closing following waters: Libby Creek to the libby Rod and Sun Club have sone following waters: Libby Creek Swamp Creek Parmy there Creek.
to sit district, poor personal property productions
ict to its confluence with Pipe Creek, Quarez Creck, Bobtail Creek, Pipe
The Club clieve believes that a larg- Creek, Cedar Creek, Fisher River, or bounty should be paid for mount Lake Leone, Boot Jack Lake, Horse,
tain lion in view of the fact That Ishoe Lake and Crystal Take and
they are one of the most destructive The following is a financial state- animals against wild life which we ment to date:
animals against wild life; which we ment to date:
have. The bounty now paid is in Cash on hand March 28, 1920 \$28.05 adequate and makes no inducement Membership sees, year 1920 2845.00
adequate and makes no inducement Memebership lees, year 1920 145.00
whitever for hunters to kill or cap- Nembership leet, year 1942 100 00
ture these animals. It is not be to date the transport
whethere for hunters to kill or cap Membership fees, year 1922 ture these animals. It is not believed that a large enough bounty would be placed upon these animals to make it a paying job to hunt Expense for distribution of fish \$25.00 nowever, is in favor of a bounty of Printing and stationery 11.50 them for the bounty alone. The club, Books not less than twenty are dollars per Wild Rice 26.19 need to be paid when the animals Express on Wild Rice 3.66 are killed or upon proper certificate Telegrams and miscellaneous
to make it a paying job to hunt Expense for distribution of fish \$25.00
however is in favor of a bounty of Frinting and stationers 11.50
them for the bounty alone. The chub, Books
not less than twenty-five dollars per Wild Ribe
head to be paid when the animals Express on Wild Rice
from the purchaser that they ware Expenses
of Montana. Membership fee, 1922, to
The second of the following in States Constitution & Secretary
Troasurer for the wast two years uon, 120 members 60.00
was read and accepted. The report Total disbursements. \$141.62
Troasurer for the rist two years ion, 120 members 60.00 was read and accepted. The report Total disbursements \$141.62 follows:  "In the year 1920 forty-seven mem 51.43.
bers were solicited. Of this amount L. F. VINAL, Secy. Treas.
AT PROPERTY AT PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE PROPERTY AND ADDRESS OF THE PROPERTY ADDRESS OF THE

Western News, March 22, 1922

# LIBBY FISH HATCHERY DISTRIBUTES 441,300 FRY

til Melton, who had been in
charge of the Libby fish hatch-
ery, left the first of the week
for, Lake Ronan, after finishing the
season's work here. Before icaving
he submitted to the Libby Rod and
Gun Club, D. A. Coffin, secretary, the
following report as to the distribution
of iry from the hatchery:
Tibling appels 51 000

or and another successivers.	
Libby creek	51,000
Pleasant Valley Fisher	20,000
Upper Swamp creek	20,000
Doty Spring creek	
West Fisher	
Lower Swamp-creek	28,000
Pipe creek	
East Fisher	28,000
Boblail creek	28,000
Big Spring (Near Maize's)	
Behnke Spring creek	8,500
Quartz creek	
Cedar creek	
Geo. W. McGlenn (Eureka)	
B. P. Mooney (Eureka)	
Silver Butte Fisher	
Poor Man creek	
Fourth of July creek	

441.300

In the report Mr. Melton said: "I wish to thank your club and the people of Libby for their kind cooperation in making the hatchery a success, and our stay here a very pleasant one, also wish to thank Mr. Blew for the use of his caus in making the distribution of fry." In this connection Libby people wish to state that they for it. Melton a very competent are official and one with a pleasure to work.

Libby Times, July 29, 1926

# 398,600 Trout Distributed by Libby Hatchery

•
George A. Lloyd, who has had
charge of the Libby fish hatchery
during the past summer, closed the
hatchery for the season Monday and left for his home in Missoula. Be-
lest for his home in Missoula. Be-
tore tenving, in response to a request
of the Western News, he submitted
a report regarding the work done by
the hatchery this season. The fol- lowing table gives the number of
lowing table gives the number of
trout fry hatched, the date of deliv-
ery, to whom delivered, and where
pinced.
Oct. 3A. M. Hoffman,
Hoffman Slough 15.000
Hoffman Slough
tan Creek 30 nnn
Oct. 5.—E. M. Boyes, Pipe Creek 30,000 Oct. 6.—E. M. Boyes, Quartz
Creek
Oct. 6.—E. M. Boyes, Quartz
Creek 30 000
Oct. G.—E. M. Boyes, Par-
menter Creek
Oct. 7.—E. M. Boyes, Flow-
er Creck
Oct. 8.—E. M. Boyes, Libby
Creek
Oct 10.—E. M. Boyes, Gran-
ite Creck
Oct. 10.—E. M. Boyes, Fish-
- Pives 40.000
er River 40,000 Oct. 10.—E. M. Boyes, Pleas-
ant Valley Fisher 40,000
Oct. 12.—J. K. Dwinelle, East
Fisher
Ginnis Creek
One 15 W T Townsond T-
Oct. 15H. J. Townsend, La- von Lake 44.800
YOU LUKE 44,000
Total 398,600
.1 O LAIL

Western News, October 20, 1927

# Native Upland Game Bird,

Upland Game Birds-Open season one day only. September 17. excepting Lincoln county, where the open mason is from September 17 to 20, both dates inclusive. Bag limit to be three birds per day and the posmossion limit six birds after the first day.

Chinese Pheasants—Open season October 29- to November 12, both dates inclusive. Hunting permitted, Local Hatchery To Be One all day Sundays and Armistice Day; no hunting before 12:00 boon other days. Bag limit to be three cocks per day and the possession limit six nocks after the first day.

partridges,

# Local CCC Worker

Denald C. Becker, a CCC worker man, were in Libby last week disonal forest fire near Kilbrennan local fish problems with sportsmen.

In were in Libby last week disonated in the customer with sportsmen.

Mr. Schofield stated that within the was struck on the head by a fall-

## \$12,161 To Be Spent On Lincoln County Roads

The Western News received tele- are prior to August 10. trams from Senators B. K. Wheeler and J. E. Murray yesterday stating advanced fry. Lat the WPA project to construct. Kilprennan memstruct and improve bridges on minty owned roads throughout amooin county has received presiroads throughout central approval for an allotment of two inch.
42,181,00. The message further Rainboy 142,181,00. states that the project is now eligi- mon, two inch. to for operation at the discretion of Walf creek - 25 Souph E. Parker, state WPA ad- Brook, advanced fry. increator.

### Largest Sommunity Fair in Offing

According to members of the committees appointed to take care of me Community Fair things are comor along in unusually fine shape. Pipe creek—2,000 Native, five trangements are being made for inch.

arger and better displays and the Granite creek—2,000 Native, five storest of more residents is be-inch. The Lions club will have charge inch.

The Lions club will have charge inch.

The parade and they promise to year to be staged in this thrades ever to be staged in this try. The fire department is expected to participate in the parade which fish were planted this year, is well as many other organizations. The above listed nine give examples

# Chinese Pheasant Season 672,000 Fish Are Planted In Dictrict

of Largest in State," Schofield.

# No open season on Hungarian FOUR LARGE, NEW REARING PONDS

John Schofield, superintendent of Killed at Forest Fire State fisheries from Helena, and John Sheean. Somers fish hatchery

me was struck on the head by a fallone year the local hatchery will
me snag.
Becker was a native of Mount
Vernon, Ohio and was reported to
the group of loop, from the local

President Switzer and, "On behalf of the Linky Pedestrand, Con the-

camp sent to help fight fires caused half of the Libby Rod and Gun club by the recent lightening storms. I wish to thank Mr. Schofield for omp sent to help light fires caused had of the Libby Rod and Gun club by the recent lightening storms. I wish to thank Mr. Schofield for The body was taken directly to the many things he has done for Spokane.

Saturday night another CCC enthankful for the help he has given toblee, Larry Mazarokos, was killed us in the completion of our fish a similar mishap at Friest River.

In order to give the sportsmen an idea of what the fish hatchery is doing for them the following table is given. Bear in mind that the following figures are for 1939 and

Loon lake-45,000 Eastern Brook.

Kilbrennan lake-50,000 Eastern Brook, advanced fry.

Thompson lakes-12,000 Native.

Rainbow lake-21,000 Silver Sal-

25,000 Eaestern

Lake creek-60.000 Natives, fry. Quartz creek-10,000 Native, fry Libby creek-56,000 Native, fry Plants made after August 10 are as follows:

Thompson lakes-4,000 Native, five inch.

Pipe creek-2,000 Native, five

On our way home from our trip along the Great Northern we heard many complaints from the miners and settlers on Wolff creek and Pisher rivers of the wholesale slaughter of treat by use of giant powder by the diago labororading the read. In many places we saw dead fish laying on the bottom of the streams which we were satisfied were killed by this means. Our officers of the law should keep a weather eye on those violators of the law for it will only be a short time before those streams will be cleaned out.

Kalispell Interlake, August 24, 1894

# CAUGHT MANY TROUT

Bringing put with them about 300 good-sized tront, Messes, W. S. Fleek, Rossbaugh, A. L. Thompson, F. P. Haynes, Jes. Shaurette and a representative of the Western News returned Treaday Ironi & trip to Silver Butto Fisher mesh, in the extreme southern fact of the county. They report the attenual in that part of the county are still a hifle too high for the best fishing, but nevertheless they caught a large number of trout and saw much game, especially deer and phessants. They were gang for four days.

Western News, July 13, 1911

# WOODPICKER IN TROUT

Thos. Fleetwood was in from his ranch on Pip: creek Tuesday and while heregovered a fich story that is one of the most interesting that has been contributed this season. He states that while fishing to Pips creek last Sunday.

O. E. Sworden landed a Dolly Varden trout, or char, that measured 27 inches in length and weighed six and a half pounds. There is nothing surprising about this, of course, but when the fish was cut open the surprise came, for inside the trout was found a full grown woodpecker.

The theory advanced by the interested parties is that the woodpecker probably got close to the water in looking for food or drink and was grabbed by the troot. Here is also a tip to local fishermen on what to use for heit. Western News, June 11, 1912

Appendix B. Newspaper clippings of general interest

W. H. Gruham, W. W. Warwick, E. M. Brown, C. M. Oowell, W. S. Fleck and Dorr Skeels ment a couple of days at Howard lake last week and ranght, about 200 trout for the national highway banquet. Another party that, fished at the lake was compared of D.-W. Good, Wratte Paine and N. Boleus, and thus also made a good catch.

Western News, June 27, 1912

A party, consisting of Messra, Bud Wood, Drs. Chas. P. and W. H. Brench, Pred French, Gordon and Frankie and their families celebrated a very same Fourth by taking a trip up the Callaban creek eight miles and extracting therefrom a mess of fish equalling 400 trout all told. Bud is authority for the statement that he caught but ten, the rest being caught by the other gentlemen named. Bud is a better ball player it seems.

Eighly-five- men following the honorable calling of floating- logs down the river, commonly known by the homely appellation of "river piga," helped Troy celebrate the Fourth in their own fashion said style consisting of trying to put the thirst parlors out of business by buying at retail the many beverages, and, suffering the consequences thereby. They came from the camps of the Bonners Perry Lumber, company who are maintaining headquarters here while the drive is going through.

Western News, July 4, 1912

P. S. Rose and L. J. Dercein returned last Friday from Loon lake, about 23 miles north, of Libby, where they spent a day, in fishing for trout. They secured all the fish they could carry home in their baskets, some of the trout being quite large. This lake is reached by a trail which was constructed by the forestry service last year.

Western News, July 11, 1912

# Make the Fishing Good

Libby sportsmen are beginning to take an interest in the matter of having the numerous lakes in the county stocked with trout and it is to be hoped that something along this line can be accomplished soon. There are many lakes in the county, usually high up in the mountains, that have no fish in them for the reason that water falls prevent the fish from reaching them. In all the lakes that the fish can reach the fishing is good, but the number of this class of lakes is somewhat limited as compared to those that are fishless.

Once one of these lakes is stocked with trout the fish will increase rapidly, and by this method it would be easy to make of this county a paradise for fishermen for all time to come. To be sure, the fishing in Lincoln county is good as it is, but as the county settles up the fish will be caught out unless something is done to stock up the lakes.

Western News, August 1, 1912

# Fishing

Fredrick went a fishing,
Threw out all his lines
But all the fish that Freddic caught
Were filled with German mines.

Mr. and Mrs. H. E. Robiuson and Mr. and Mrs. M. D. Rowland made a fishing trip to Pipe creek Monday and in two bones fishing managed to book a magnificent catch of over 150 trout.

C. C. Rice and L. H. Quay made a trip to Loon lake Sunday returning Monday evening with over 100 trout measuring from 12 to 18 in ches in length. Libby Times, June 2, 1915

### This is Some Trout Story.

Judge M. J. Brown, chief justice of the supreme court of Swamp creek and of Lincoln county's dominions south of Wolf creak was in Libby last week marketing some of his thoroughbred cattle. Incidentaly, he's getting twelve and a half cepts a pound for his meat by the caream, which may be in part some of the reason why some of the are complaining about the high cost of living. However, that's another story.

· Judge Brown tells of the growth of trout in Swamp creek. It's a: corking good story, and undoubtedly true, for he has a reputation extending over a long period of peaceful years of being about the best fish story teller in these parts, According to his story the fry which the Montana state hatchery put into Swamp creek this, last spring have grown to be over three inches ion. It will be remembered that these were eastern brook trout and that about 60,000 of them were brought to Libby and dumped into four of the local trout streams. Of this amount about 15,000 were put into Swamp creek.

The marking of the eastern brook trout of course precludes any mistake being made by the judge, and for the reason, further, that this was the first consignment ever put "into Swamp creek." He says he was fishing some few days before coming to Libby and caught several of the little fellows and of course put them back again, as they are too small to use yet. He was very much surprised to find that in the short space of one short season they had grown to such a size. Accounting for this he modestly affirms that it is because of the superior qualities of the Swamp creek section and says he serioulsy questions whether any of the other streams into which these fry have been placed can make such a fine showing for growth.

This challenge is given those. living on other streams and until successfully contested Judge Brown! claims the honor for his particular part of Lincoln county for the best record in growing eastern brook trout.

Lincoln County Herald, October 10, 1915

# HE BLEY UP DAM

Herman Bockman visited the dam belonging to the Morning Mining company on O'Callaghan creek near Troy and demolished it, int Monday. This dam was locat ed about three miles from the mouth of one of the best trout steams in the country. At the time it was constructed the fish runways not built and efforts on the part of the game warden to have one constructed were without avail. Representation has been made to the mining company at various times but the plea was ignored, which resulted in the complete demolition of the dam by the warden.

# WILL REBUILD THE DAM

Wallace Bros, team and ontfit arrived Monday from Spokane and proceeded out to the Troy mines where they will at once begin work on the road between Troy and the mines The work will be rushed as last as possible so as to permit the hauling in of the necessary machinery and other equipment to the mines at an early date. Great improvement will be made in and around the mines this season, which means employment to a great many men and teams. The dam on Callaban creek will be rebuilt and a power plant installed to furnish light and power at the mines. Troy Ecbo.

It will be remembered that Deputy Game Warden Herman Bockman blew this dam out a few weeks ago because the owners did not put in a fish ladder after being requested to do so by the game warden.

Western News, March 25, 1915

Western News, April 28, 1915

# Catching Big

# Lake Trout

Kootensi lake tront are coming up the Kootensi river and going up into the tributary creeks, due to the present high water and spawning season. Lake trout weighing from two to four pounds are being caught and a good many local fishermaan are out after the gamey fish.

Charley Jonhson caught a big one last Sunday, which weighed two and a quarter pounds and several others have caught as big fish during the past week. Western News, April 15, 1915

E. L. Murray, the Texas oil lease man who is here this week with his wife and small child, went fishing on Bobtail creek Tuesday and came home with a nice meas of trout and char-

Western News, April 23, 1920

# This Fisherman Catches Big Ones

Libby sportsmen may brag about "The biggest fish I ever caught," but they are not in the same class with Lew Throop, for Lew really goes out and takes the big ones now and then.

Mr. and Mrs. Throop were in Libby Tuesday from their place on the Kootenai, west of the city. At that time they told of a lot of sport Lew had had when he recently hauled in a 40-lb, sturgeon from the Kootenai. The big fish was taken in the canyon of the river, just a short distance above the Throop place.

And Mrs. Throop also had a note

And Mrs. Throop also had h note to add. "I was sitting in the house," said she, "looking out over the lake wheo I saw a deer swimming across the lake. It was unburried and swimming slowly and when it reached the opposite shore, made its way leisurely up the hillside, pausing now and then to look around, and then disappeared into the timber. It was a beautiful sight," said Mrs. Throop. There is so much to hold one's interest in this lovely mountain country."

mountain country."

The sturgeon is now on display at the Pioneer Meat Co. The fish is still alive and will be kept at that place of business for the next two or three days.

Western News, March 27, 1941