



# Cache la Poudre River Canyon

## FISH SURVEY AND MANAGEMENT INFORMATION

Kurt Davies - Aquatic Biologist (Fort Collins)

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**General Information:** The Upper Poudre River is a designated wild and scenic river that provides excellent trout fishing opportunities for brown, rainbow and cutthroat trout. Public access is generally good..

**Location:** Larimer County. Poudre River canyon begins NW of Fort Collins 1 mi. west of Hwy 287 and Hwy 14 (Ted's Place). Over 50 miles of public river from the mouth of the canyon to Rocky Mountain National Park. Poudre River Map and Access Information

**Recreational Management:** U.S Forest Service, CDOW, City of Fort Collins

**Primary Management:** Coldwater angling

**Purchase a Fishing License:** <http://wildlife.state.co.us/ShopDOW/AppsAndLicenses/>

### Amenities

- Many USFS campgrounds with various facilities.
- Picnic areas
- Several boat launch sites
- State Wildlife Areas
- Guided wade or float fishing available from several local guide services.
- Rental cabins are available from various entities along the river.  
[http://visit.ftcollins.com/lo\\_dging](http://visit.ftcollins.com/lo_dging)

### Previous Stocking

#### 2010

Rainbow Trout

#### 2009

Rainbow Trout

#### 2008

Rainbow Trout

### Regulations

**Confluence of N. Fork to Upper Boundary of Gateway Park, Pingree Park Road/Bridge to W boundary of Hombre Ranch (below Rustic),**

**Black Hollow Creek to Upper Boundary of Big Bend C.G.**

- Artificial flies and lures only.
- All trout must be returned to the water immediately.

**Joe Wright Creek to Rocky Mountain National Park:**

- Artificial flies and lures only.
- Bag and possession limit for trout is 2.

**Rocky Mountain National Park:**

- Closed to fishing

### Sportfishing Notes

#### **Brown Trout**

- Entirely naturally reproducing in the Poudre
- Spawn in mid October through November
- Target larger fish in heavy cover, deep pools or overhanging banks

#### **Rainbow Trout**

- Stocked fish maintain the population in the Poudre
- Spawn in mid April through mid May
- Whirling disease resistant fish are currently being introduced in the river in an attempt to restore wild rainbow populations



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### Management

The Poudre River is managed to provide the best coldwater angling possibilities. Prior to human arrival in the area, the only trout in the Poudre were cutthroat trout. In the late 1800's, non-native rainbow and brown trout were introduced to the river. These became reproducing wild populations. The rainbow trout out-competed the cutthroat and dominated the river system.

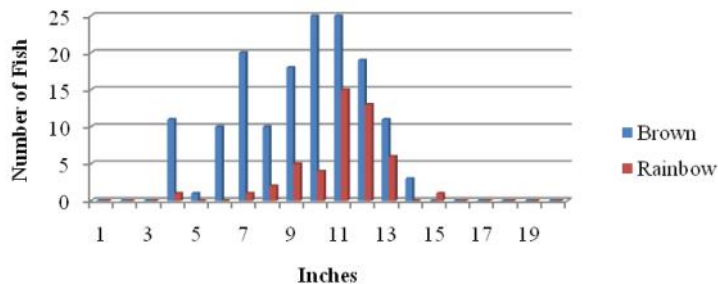
In the 1990's, whirling disease decimated the wild-spawning rainbow trout and the river has become a brown trout dominated system. Rainbow trout are still planted in the river at a catchable size but very little natural reproduction is seen.

Sampling is done annually on six different sites from the mouth of the canyon upstream. The river is electrofished in the fall, when water levels have dropped, to get an efficient capture.



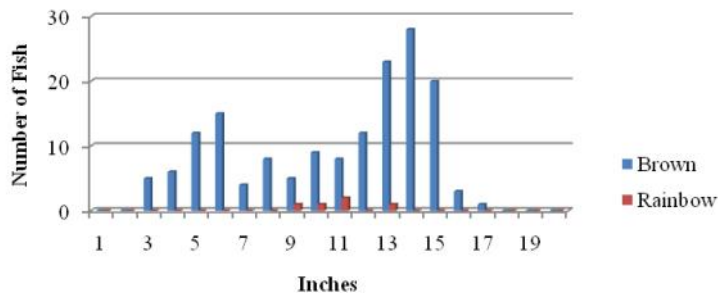
**Length Frequency For Sampled Trout  
2010**

**Poudre River at Kelly Flats**



**Length-Frequency for Sampled Trout  
2010**

**Poudre River below Hatchery**



The graphs on this page show two separate sites with different regulations. Both are length-frequency histograms of brown and rainbow trout that show the number of fish in each size class. Keep in mind when looking at these graphs, that the effectiveness of electrofishing gear in sampling a population decreases with fish less than 5 inches. This means that there are likely many more fish in the smallest size classes than the graphs show.

The graph on the top is from a site at the Kelly Flats campground. General statewide regulations apply here and anglers can use any legal method (no live minnows) and keep 4 trout. The lower graph is data from a site called Pasquinel's Cabin, located just below the hatchery. This site is catch and release with flies and lures only.

The graphs show some of the differences between the sites. There is very limited rainbow trout reproduction at Kelly Flats, these are the smaller fish you see. The majority of the rainbows in the 9-13 inch size are the result of hatchery plants. No rainbows are planted at Pasquinel's. The size structure between the two is different with more fish overall at Kelly Flats, but a higher number of larger fish in the catch and release section. For more information, look at the differences in fish/mile on the table below.



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Site	Year	Species Caught	% catch	#/mile	lbs/acre	Average Weight(lbs)	Year	Species Caught	% catch	#/mile	lbs/acre	Average Weight(lbs)	Year	Species Caught	% catch	#/mile	lbs/acre	Average Weight(lbs)
Bliss	2010	Brown	92%	690	119	0.71	2009	Brown	100%	607	80	0.77	2008	Brown	98%	807	84	0.77
		Rainbow	7%	51	9	0.44		Rainbow	2%	13	1	0.5		Rainbow	2%	13	1	0.5
		Cutthroat	1%	6	1	0.23		Cutthroat	1%	6	na	na		Cutthroat	1%	6	na	na
		Whitefish	na	na	na	na												
Pasquinel's	2010	Brown	95%	587	84	0.64	2009	Brown	97%	553	57	0.72	2008	Brown	95%	697	64	0.65
		Whitefish	na	na	na	na		Whitefish	1%	5	na	na		Rainbow	2%	5	1	na
		Cutthroat	1%	5	1	1.55		Cutthroat	1%	5	na	na		Whitefish	1%	na	na	na
		Rainbow	4%	24	3	0.33		Rainbow	1%	5	na	na		Cutthroat	1%	5	1	na
Black Hollow	2010	Brown	41%	578	122	0.38	2009	Brown	100%	988	73	0.35	2008	Brown	98%	1463	65	0.36
		Rainbow	59%	838	177	0.23						Rainbow		2%	24	2	0.67	
												Cutthroat		1%	8	na	na	
Indian Meadows	2010	Brown	90%	719	138	0.47	2009	Brown	95%	1404	128	0.48	2008	Brown	97%	2052	171	0.43
		Rainbow	10%	73	14	0.35		Rainbow	5%	119	10	0.43		Rainbow	3%	46	6	0.67
								Whitefish	na	na	na	na		Longnose Dace	na	na	na	na
								Longnose Dace	na	na	na	na						
Firelane	2010	Brown	94%	742	39	0.39	2009	Brown	100%	1030	54	0.39	2008	Brown	95%	1633	74	0.34
		Rainbow	6%	42	2	0.33						Rainbow		4%	21	4	0.5	
												Whitefish		1%	63	1	0.33	
Kelly Flats	2010	Brown	74%	1463	87	0.34	2009	Brown	76%	1734	113	0.37	2008	Brown	76%	2086	118	0.32
		Rainbow	26%	486	39	0.45		Rainbow	24%	539	39	0.41		Rainbow	24%	610	35	0.33
		Longnose Dace	na	na	na	na		Longnose Dace	na	na	na	na		Longnose Dace	na	na	na	na
Gateway	2010	Brown	95%	1246	286	0.26	2009	Brown	98%	876	62	0.31	2008	Brown	79%	902	62	0.3
		Rainbow	4%	12	3	0.67		Rainbow	2%	19	2	0.5		Rainbow	19%	219	8	0.16
		Longnose Dace	na	na	na	na		Longnose Dace	na	na	na	na		Longnose Dace	1%	12	na	na
		Longnose Sucker	1%	12	3	0.33								Longnose Sucker	1%	12	1	0.33
Martinez Park	2010	Brown	42%	458	38	0.7	2009	Brown	98%	1557	64	0.32	2008	Brown	98%	1750	79	0.35
		Rainbow	57%	664	16	0.21		Rainbow	1%	8	1	1		Rainbow	na	na	na	na
		Longnose Dace	na	na	na	na		Whitefish	na	na	na	na		Longnose Dace	na	na	na	na
		White Sucker	100%	9	1	1.25		Longnose Dace	na	na	na	na		Longnose Sucker	1%	18	na	na
		Largemouth Bass	na	na	na	na		Longnose Sucker	na	na	na	na		White Sucker	na	na	na	na
								White Sucker	na	na	na	na						
					Largemouth Bass	1%	8	na	na									

This chart is a summary of our annual survey data for the Poudre River for the last three years. The sites are listed from higher in the drainage to lower. 2008 was a particularly good year for sampling the river. The flows in the river were very low when we were performing our sample and the weather favored good sampling conditions overall. As a result, these numbers are somewhat higher than the subsequent years and probably represent a more accurate assessment of the population at that time. Conversely, the flows were high for the 2009 sampling and weather was not ideal. The slight downward trend for that year then is not surprising and the population estimates are probably not as ideal as the previous year.

An "na" in a column means that the species was not caught in significant numbers at a particular station to make an estimate of their population (usually one or two individuals) or they were not effectively sampled by our methods to provide a population estimate (dace are too small and there are typically too many). The estimates provided are for fish in the population over six inches. The sampling gear that we use is not designed for estimating populations of fish less than this size.

This data is good for looking at general trends between years and especially comparing differences between sites in the same year. Higher pounds/acre can show you the differences in productivity between sites and dividing the number of fish/mile by the pounds/acre can give you an idea of the differences in size of fish in each of the reaches.

A couple things worth noting are the significant higher numbers of rainbow trout in the Black Hollow and Martinez Park sections. The Black Hollow section is part of a study to investigate competition issues related to stocking rainbow trout. Many rainbows were stocked into this section as part of the study. This is described on the next page. Rainbow trout were planted in the Martinez Park site for the first time in many years to assess survival and recreation possibilities. Sampling in 2011 will show the effectiveness of this effort.





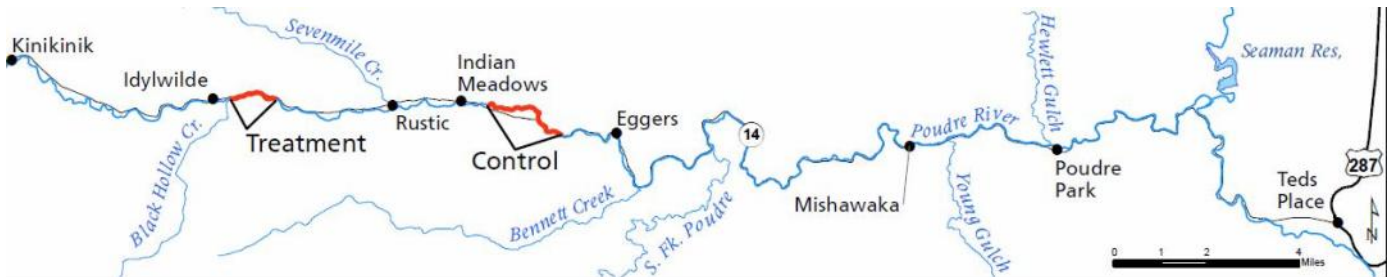
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### Brown Trout Relocation Project



In August of 2010 a cooperative research project between Colorado State University and the Colorado Division of Wildlife was implemented on the Poudre River. The study was undertaken by PhD candidate Eric Fetherman to analyze the factors affecting the reestablishment of wild rainbow trout populations in waters where whirling disease had previously decimated those populations. The discovery of a whirling disease resistant strain of rainbow trout by DOW researcher George Schisler called the Hofer strain provided hope that wild spawning rainbows could be returned to many of Colorado's rivers.

When the introduction of whirling disease in the 1980's began to significantly decrease rainbow trout numbers, brown trout present in these systems took over and filled the open niches. As the DOW began to stock the hofer strain, there was little success in establishing a rainbow population that would mature to reproduce. This brown trout study was designed to look at the interactions between brown trout and Hofers including potential for competition, predation, emigration, survival and growth.

Two sections of catch and release water were designated for the study, eliminating human removal variables. In one 0.6 mile section above Black Hollow, brown trout were removed by electrofishing and relocated below the narrows. Into this section, 2000 hofer strain rainbows were introduced. Six miles below, at Indian Meadows, another 0.6 mile section was designated and 2000 rainbows were stocked into the river with the already present brown trout as a control. Above and below both sections, a pair of antennae were placed along the river bed.



All of the rainbows and hundreds of browns above and below the sections were tagged with a PIT tag. Hundreds of browns within the control section were also tagged. These tags are 32 mm long, are injected within the body cavity of the fish and act as a passive (no batteries needed) radio tag. This means when the tag passes over an antenna, that antenna picks up the signal for that unique fish. This is the same type of technology you see in a store that has merchandise tagged to prevent theft. The antennae in the river allow us to monitor the movement of fish into or out of the sections as well as get data on individual fish when we capture them in other surveys.

Several electrofishing assessments have been done to monitor the growth and survival in the sections and so far the results look positive. Browns have moved into the removal section and the composition there is approximately 63% / 37% rainbows to browns. In the control section, the composition is 55% / 45% rainbows to browns. The historic ratio of rainbows to browns in the Poudre was 60/40, rainbows to browns. There have been over a million data points collected by fish movement over the antennae and this data is still being analyzed.