Colorado River, Pumphouse-Radium

FISHERY MANAGEMENT REPORT
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General Information: Beginning with Gore Canyon, the Colorado River offers many miles of public access downstream of Kremmling. The Pumphouse recreation area, and other locations downstream from that point, are very popular launching points for floating the river by both anglers and other recreational boaters.

Location: West of Kremmling, accessed from Grand County road 1.

Recreational Management: Bureau of Land Management. Use fees apply at developed recreational sites.

Amenities and General Info.
- BLM recreation areas at Pumphouse and Radium offer camping, boat ramps, and pit toilets. New public boat ramps at State Bridge and Two Bridges have expanded access and trip possibilities. Privately owned Rancho Del Rio offers similar facilities.

Regulations
- The bag and possession limit for trout is two fish. Standard regulations apply otherwise.

NEW FOR 2016
GOLD MEDAL WATER
In the spring of 2016, CPW added Gold Medal designation to 24 miles of the Colorado River, from Canyon Creek at the mouth of Gore Canyon (just upstream of Pumphouse), downstream to the confluence with Rock Creek near McCoy.

Previous Stocking
This reach of the Colorado River is mostly managed as a wild, self-sustaining sport fishery. However, we have stocked Whirling Disease-resistant rainbows on two occasions recently to introduce the genetics for disease resistance into the rainbow population:
- In July 2015, 187,000 rainbow fingerlings (2” average) were stocked, half from the Radium boat ramp and half at Pumphouse.
- In October 2017, 51,000 rainbow fingerlings (3.5” average) were again divided between these two boat ramps.

Sportfishing Notes
- One of the largest trout rivers in the state, this reach of river offers a wide diversity of habitat to fish.
- Float fishing is highly popular, although wading is productive as well, especially at lower flows, and for those willing to hike to more secluded locations.
- Large populations of the giant stonefly *Pteronarctys californica* inhabit this reach and can produce spectacular fishing. Because this species has a multi-year life cycle in its larval form, nymphs of this species are present virtually year-round and fishing with large salmonfly nymphs can be productive nearly any time.
- In addition to the stoneflies there are many other prey items available to trout including caddis, mayflies, and an assortment of forage fish. Streamer fishing can be productive.
The information contained in this report was obtained from a 2-mile long survey station which ends at the Radium bridge (above). The Radium hot spring is at middle right and the Sheephorn Creek confluence is at middle left. This reach of river contains a wide variety of habitat (canyon-type water with large boulders, large riffles, deep pools, long runs, braided channel) and is considered to be a good representation of the river in this area.

Sampling on this reach of river is accomplished using two 16-foot electrofishing rafts such as the one pictured above. There is a generator and control box on the boat behind the rower, and a livewell in front of the rower. A fiberglass boom extending from the bow holds an electrode in the water. The netters capture the stunned fish and place them in the livewell. Fish are weighed, measured, marked, and released. At a later date the survey is repeated. The proportion of marked fish in the second sample yields the statistics necessary to estimate population parameters. Because of the size of this reach of river, two boats working in tandem on opposite sides of the river are necessary. Surveys are completed in spring (see table at right).

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<th>Dates of surveys</th>
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<tr>
<td>4/30 &amp; 5/5, 2010</td>
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<td>4/25 &amp; 28, 2011</td>
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<td>4/26 &amp; 30, 2012</td>
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<td>4/30 &amp; 5/2, 2013</td>
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<td>4/20 &amp; 23, 2015</td>
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This reach hosts a healthy population of mountain whitefish, however the numbers captured are too low to generate a valid population estimate.

Population estimates are displayed at left. The reach was not surveyed in 2014 and 2016. Rainbow trout estimates have been highly variable. This is most likely a function of the timing of our surveys, which take place immediately prior to or during rainbow spawning activity. There is a lot of movement among rainbow trout as they prepare to spawn so the variability in these estimates is probably due to these movements affecting our catch rates. The average contribution of rainbows to these estimates has been 13.8% of total trout biomass, 15.3% of trout >14”, and 10.8% of trout >6” per mile. These percentages are probably a more accurate reflection of the contribution of rainbows to the total trout population than the individual estimates from any given year.

Brown trout population estimates have been more consistent, and show a general upward trend since 2010. The 2017 estimates yielded increases in all brown trout population parameters since 2010. Biomass had increased by 59%, quality trout (those greater than 14” in length) had increased by 72%, and fish per mile had increased by 65%. Reasons for these increases are unknown, other than the fact that this has been a relatively drought-free period of time, with some years of extremely high runoff (2011 and 2014). Only one year, 2012, had particularly low flows as a result of poor snowpack that year. It is possible that the trends that we are observing in this reach are a long-term positive response to good water years, and that these population parameters may decline significantly as a result of a prolonged drought if one should occur.

The consistently excellent quality of these estimates led to the designation by CPW of this section of the Colorado as a Gold Medal fishery in 2016. The minimum biological criteria for Gold Medal designation is at least 60 lbs./acre biomass and 12 fish per acre greater than 14”. The Gold Medal designation extends from the confluence with Canyon Creek (at the mouth of Gore Canyon) to the confluence with Rock Creek near McCoy.

In 2017 we captured the largest rainbow trout to date on this reach, measuring 30” and weighing 13.6 lbs.
The largest brown trout that we have captured on the Radium reach, measuring 30” and 12.5 lbs.

This brown trout had recently eaten a pair of sculpin, one of which was a ripe female nearly ready to spawn.

The size distribution in inches of all brown trout captured on the past four survey occasions is shown at right. The size structure of this population has been consistently excellent, with 14” usually being the most common size captured. This is rare for brown trout populations in this area. The largest source of variation appears to be the number of juvenile fish (<10”) that we capture, with large numbers appearing in the sample in 2012 and 2017 and minimal numbers in 2013 and 2015.

The most important factor supporting the excellent brown trout fishery here is the large population of aquatic insects, in particular the *Pteronarcyss californica* stonefly pictured below. These nymphs are available year-round as a forage source. Recent years have seen excellent hatches of adults, usually around Memorial Day. In addition to insects, there are multiple fish species that larger brown trout prey on, including mottled sculpin, dace and mountain whitefish.