Blue Mesa Reservoir

FISH SURVEY AND MANAGEMENT INFORMATION
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General Information: Blue Mesa Reservoir, a 9000 acre storage reservoir, offers good fishing for kokanee salmon, brown trout, rainbow trout, and lake trout. Blue Mesa Reservoir is located within Curecanti National Recreation Area.

Location: Gunnison County. Gunnison River inlet to Blue Mesa Reservoir is located 5 miles west of Gunnison. For map of Blue Mesa Reservoir and Curecanti: CNRA Map

Recreational Management: National Park Service

Fishery Management: Coldwater angling for kokanee and rainbow, brown, and lake trout.

Purchase a Fishing License: http://cpw.state.co.us/buyapply/Pages/Fishing.aspx

Amenities
- 9000 surface acre reservoir can be accessed by boaters from two marinas, five developed boat ramps, and several additional access points
- 96 miles of shoreline is available for shore anglers.
- Campground facilities and restrooms are available at several locations.

WARNING!!!
Prevent the Spread of Zebra Mussels and other Aquatic Nuisance Species
- Clean, drain, and dry your boat after each use.
- Blue Mesa Reservoir requires mandatory inspections before launching. See CNRA web site for more info.
- Find additional local fishing info and a list of fishing guides at: Gunnison - Crested Butte/Activities

Regulations
- Ice fishing shelters must be portable
- Kokanee snagging permitted November 1-December 31
- Bag and possession for lake trout is unlimited for lake trout up to 32 inches, one fish over 32 inches
- Bag limit for kokanee is 5 fish and possession is 10 fish
- Bag limit for cutthroat, brook, brown, and rainbow trout is 4 fish with possession limits of 8 fish

Previous Stocking

2017
- 77,000 ten inch (catchable) rainbow trout
- 26,000 three inch rainbow trout
- 3.6 million fingerling kokanee

2018
- 77,000 ten inch (catchable) rainbow trout
- 26,000 three inch rainbow trout
- 3.6 million fingerling kokanee

Sportfishing Notes

Kokanee Salmon
- Kokanee catch majority of summer boat angler catch

Rainbow Trout
- Rainbow trout predominate shore angler catch.

Brown Trout
- Brown trout add a significant catch for boat and shore anglers and ice fishing anglers.

Lake Trout
- Lake trout provide trophy opportunity with fish up to 50 pounds caught. Lake trout catch best in spring and ice fishing seasons.

Yellow Perch
- Perch provide additional opportunities, especially in summer and ice fishing seasons.
Figure 1. Blue Mesa Reservoir kokanee catch rates (creel survey last completed in 2012) compared with previous year estimated open water fish abundance (primarily kokanee). Kokanee stocking rate was doubled in late 1990's and increased by 500,000 in 2009, creating a bump in abundance. Sonar estimates did a good job of predicting following year kokanee catch rates most years although did not explain bump in catch rates in 2011 and 2012.

Figure 2. Blue Mesa Reservoir kokanee stocking totals by location 1965-2019. Stocking has been increased to offset increased predation within Blue Mesa Reservoir.
**Blue Mesa Reservoir**

**CREEL SURVEY INFORMATION**

**Figure 3.** Boat angler catch by species for May-October surveys 2000-2012.

**Figure 4.** Bank angler catch by species for May-October surveys 2000-2012.
**Figure 5.** Winter angler catch by species in 2004, 2006, and 2012 at Blue Mesa Reservoir. Most of catch was by ice anglers (8,910 fish) followed by boat anglers (3,871 fish) and bank anglers (1,282 fish).

**Figure 6.** Species targeting by anglers at Blue Mesa Reservoir during January through April (left table) and May through October 2012 (right table). Anglers with a response of Any/All Species were not specifically targeting a single species or were fishing for whatever they happened to catch.
**Figure 7.** Length frequency for harvested fish checked during creel survey interviews at Blue Mesa Reservoir, January—October 2012. Lengths were measured or reported for 10,398 fish from 6,161 anglers.
Blue Mesa Reservoir
PERCH SAMPLING INFORMATION

Table 1. Summer shoreline electrofishing survey 2016 entire reservoir (perch monitoring sites).

<table>
<thead>
<tr>
<th>Fish Species (sportfish listed in order of abundance)</th>
<th># Caught</th>
<th>Average Length in inches</th>
<th>Length Range in inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown trout</td>
<td>255</td>
<td>13.5</td>
<td>4.0–21.5</td>
</tr>
<tr>
<td>Kokanee salmon</td>
<td>3</td>
<td>11.6</td>
<td>11.1–11.8</td>
</tr>
<tr>
<td>Rainbow trout</td>
<td>170</td>
<td>12.8</td>
<td>4.3–19.5</td>
</tr>
<tr>
<td>Yellow perch</td>
<td>2784</td>
<td>4.0</td>
<td>1.9–9.5</td>
</tr>
<tr>
<td>Fathead minnow</td>
<td>1</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Longnose sucker</td>
<td>22</td>
<td>8.3</td>
<td>5.0–15.5</td>
</tr>
<tr>
<td>White sucker</td>
<td>429</td>
<td>10.2</td>
<td>3.0–18.1</td>
</tr>
</tbody>
</table>

Figure 8. BMR Lake Trout removal totals 2009-2016, Above (*includes lake trout captured during summer sampling).

Figure 9. Summer lake trout sampling population estimates (SPIN sampling) 2011-2016.
Blue Mesa Reservoir
LAKE TROUT SAMPLING INFORMATION

Table 2. Gill net survey data for fall season 2017. Net data is from 1.75 square inch mesh nets (8'X200'). 429 lake trout 26 inches in length and smaller were removed to reduce predation on stocked kokanee. Fall netting not completed in 2018.

<table>
<thead>
<tr>
<th>Fish Species (sportfish listed in order of abundance)</th>
<th># Caught</th>
<th>Average Length (Range) in inches</th>
<th>Average Weight in pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>lake trout</td>
<td>456</td>
<td>20.9 (13.2—39.5)</td>
<td>3.3</td>
</tr>
<tr>
<td>brown trout</td>
<td>301</td>
<td>15.5 (8.7—21.1)</td>
<td>1.3</td>
</tr>
<tr>
<td>kokanee salmon</td>
<td>101</td>
<td>17 (13.7—19.6)</td>
<td>1.2</td>
</tr>
<tr>
<td>rainbow trout</td>
<td>13</td>
<td>14.7 (9.7—18.2)</td>
<td>1.6</td>
</tr>
<tr>
<td>yellow perch</td>
<td>6</td>
<td>11.8 (11.3—12.6)</td>
<td>.9</td>
</tr>
<tr>
<td>longnose sucker</td>
<td>337</td>
<td>14.8 (10.6—19.6)</td>
<td></td>
</tr>
<tr>
<td>white sucker</td>
<td>538</td>
<td>15.7 (12.2—20.8)</td>
<td></td>
</tr>
</tbody>
</table>

Blue Mesa Fall Lake Trout Removal and Catch per Unit Effort 2009-2017

Figure 10. BMR lake trout removal totals 2009-2017 (above)

Figure 11. Summer lake trout sampling (SPIN) population estimates 2011-2018 (right) for trout greater than 275 mm (light gray bars) and 400 mm (dark gray bars).
For more info please see:
BMR SPIN 2018
Lake trout sampling fact sheet
## Management Notes

Kokanee populations have rebounded well from lows seen after 2013, where poor reservoir habitat conditions likely impacted kokanee survival. Kokanee catch rates and kokanee egg takes (for restocking purposes) in recent years have been good with record kokanee egg takes in 2016 and 2017. The 2018 sonar survey estimated August open water fish abundance of about 450,000 fish (primarily kokanee), which should result in good kokanee catch rates in 2019.

Blue Mesa Reservoir habitat conditions were generally good in 2014 through 2017, but the 2018 drought did see some development of a warm temperature / low oxygen squeeze in the Cebolla Basin. In 2018, the Iola Basin was shallow and warm in late summer. The Cebolla Basin did have a several week time period in late August and early September when oxygen levels dropped in deeper, colder portions of the basin. Although warmer temperatures existed in well-oxygenated portions of the Cebolla Basin, no fish kills were observed. Conditions and habitat in the Sapinero basin were much better, with cool, well oxygenated water available in a larger portion of the water column.

Gill lice, after first being detected in Blue Mesa Reservoir in 2015, have continued to increase in both incidence and burden in kokanee. Gill lice infection rates were likely higher due to drought conditions in 2018. Although gill lice were not documented to significantly impact kokanee populations within Blue Mesa Reservoir or the survival of kokanee that had entered the Roaring Judy Kokanee Spawntake Facility in 2018, there is potential for population level impacts as has been seen at other Colorado reservoirs in recent years.

Lake trout suppression work has been ongoing since 2009, with an average of about 1200 lake trout removed annually (lake trout over 27 inches in length are released to maintain trophy lake trout opportunities). This work has been completed to supplement angler lake trout harvest to reduce predation on kokanee and is intended to maintain kokanee angler catch rates and kokanee egg supplies as well as to maintain a forage base for trophy lake trout. 2018 SPIN results estimated reduced numbers of piscivorous lake trout but also indicted that a large number of smaller lake trout will soon shift to piscivory and be at a more catchable size for anglers. Additional assessment work is underway to assess lake trout population and predation levels and to make recommendations for maintaining proper balance through angler harvest and lake trout suppression work, if necessary, in future years.

![Gill Lice Burden Diagram](image)

### Figure 12. Migrating kokanee lice burden during kokanee spawntake, 2016 - 2018.

<table>
<thead>
<tr>
<th>Year</th>
<th>Prevalence</th>
<th>Mean ± SE</th>
<th>Avg. for + fish</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>9%</td>
<td>1.1 ± 0.1</td>
<td>1.2 lice</td>
</tr>
<tr>
<td>2017</td>
<td>68%</td>
<td>1.58 ± 0.09</td>
<td>2.3 lice</td>
</tr>
<tr>
<td>2018</td>
<td>97%</td>
<td>9.17 ± 0.32</td>
<td>9.4 lice</td>
</tr>
</tbody>
</table>