

Blue Mesa Reservoir

FISH SURVEY AND MANAGEMENT INFORMATION Dan Brauch - Aquatic Biologist (Gunnison) dan.brauch@state.co.us / 970-641-7070 Updated February 2023

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: <u>CNRA Map</u>

Recreational Management: National Park Service

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

Purchase a Fishing License: <u>https://cpw.state.co.us/buyapply/pages/fishing.aspx</u>

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: <u>https://gunnisoncrestedbutte.</u> <u>com/visit/trip-</u> <u>planning/things-to-</u> <u>do/fishing/</u>

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

2021

118,000 catchable rainbow trout

132,600 subcatchable rainbow trout

3.0 million fingerling kokanee

2022

112,700 catchable rainbow trout 69,500 subcatchable rainbow trout 2.5 million fincerling belonge

3.5 million fingerling kokanee

<u>Sportfishing Notes</u>

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.

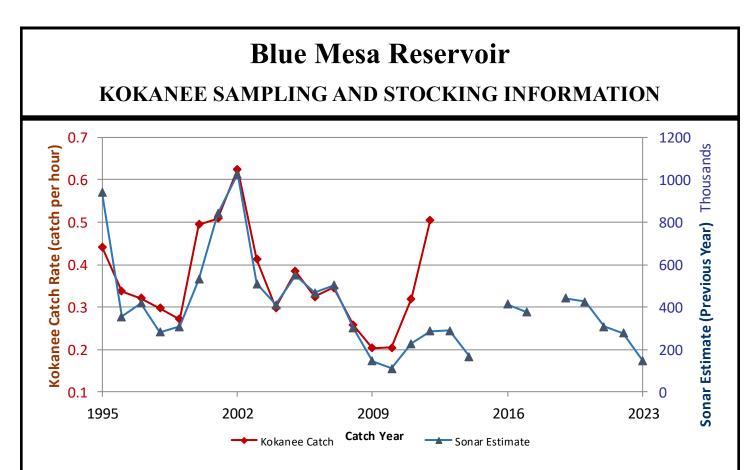


Figure 1. May through October kokanee catch rates (full summer creel survey last completed in 2012) compared with previous year estimated open water fish abundance (primarily kokanee). Kokanee stocking rate was doubled in late 1990's and increased by 500,000 in 2009, creating a bump in abundance.

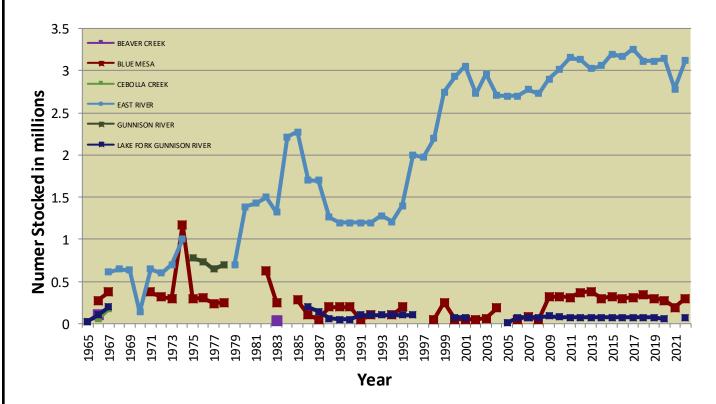
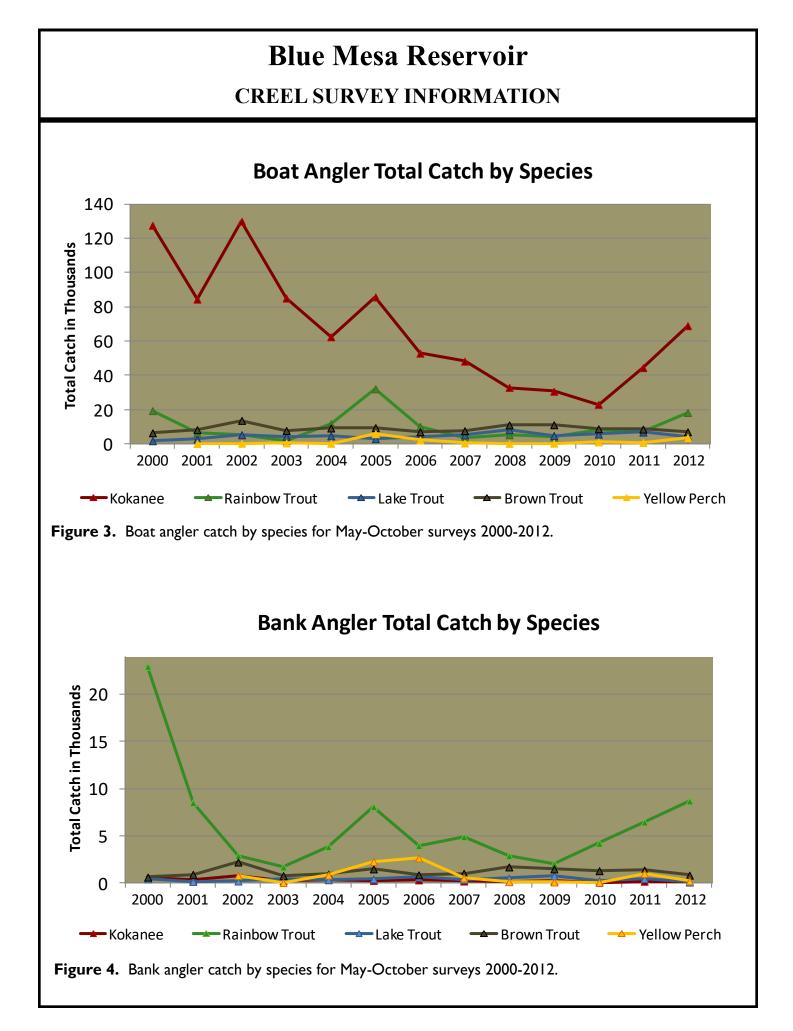


Figure 2. Blue Mesa Reservoir kokanee stocking totals by location 1965-2022. Stocking has been increased to offset increased predation within Blue Mesa Reservoir. 2021 stocking numbers lower based on reduced kokanee egg availability.



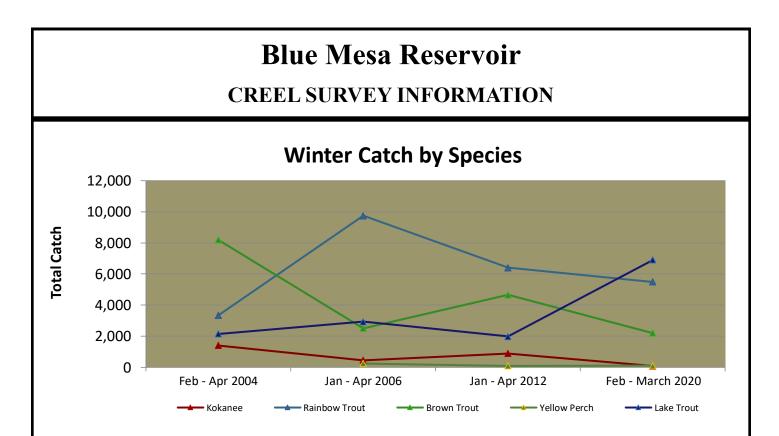
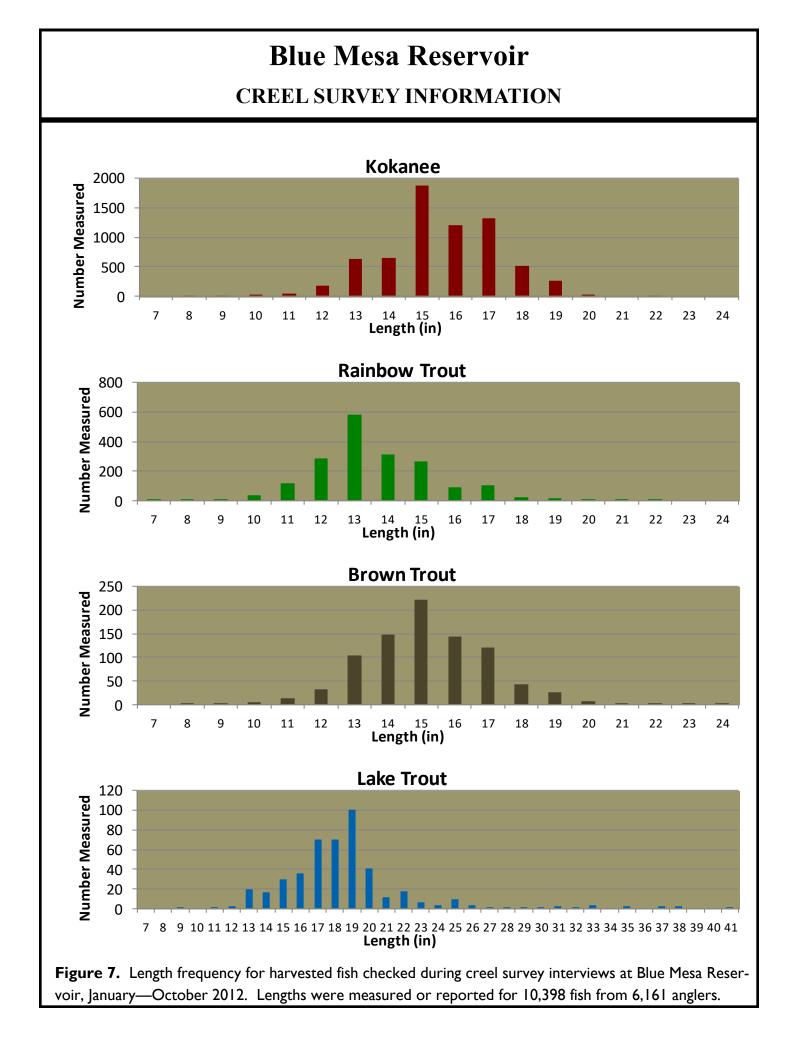


Figure 5. Winter angler catch by species in 2004, 2006, 2012, and 2020 at Blue Mesa Reservoir. 2020 estimates from ice anglers only, 2006 and 2012 include boat and bank anglers later in winter, and in 2004 the majority of anglers were boat anglers.

SPECIES TARGETED BY ICE, BOAT OR BANK ANGLERS								
Species	Ice	Ice Bank						
Kokanee Salmon	١%	0%	32%					
Brown Trout	0%	5%	8%					
Rainbow Trout	2%	7%	0%					
Lake Trout	27%	23%	18%					
Yellow Perch	١%	0%	0%					
Any / All Species	69 %	64%	42%					

SPECIES TARGETED BY BOAT OR BANK ANGLERS							
Species	Bank	Boat					
Kokanee Salmon	۱%	73%					
Brown Trout	2%	2%					
Rainbow Trout	7%	۱%					
Lake Trout	5%	4%					
Yellow Perch	0%	0%					
Any / All Species	85%	20%					

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.

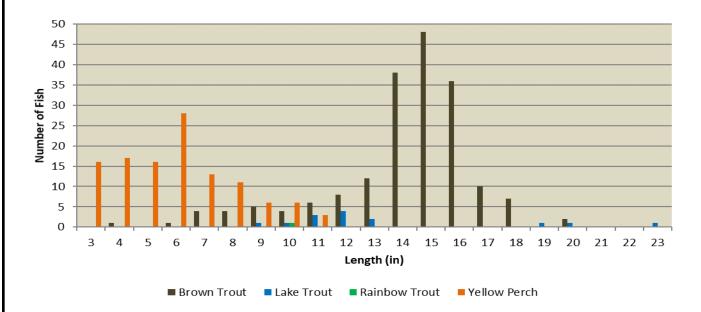


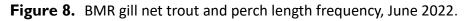
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STANDARD SAMPLING INFORMATION

Table 1. 2022 summer reservoir-wide standard coldwater gill net survey results with percent of fish captured that fall within various size structure categories for each species. Stock is considered mature fish generally available to gear, Quality is a size that anglers like to catch, Preferred is size anglers prefer to catch, while Memorable is the size of fish that anglers would remember catching.

Species	Number Caught	% Stock	% Quality	% Preferred	% Memorable	CPUE	Mean Length (in.)	Length Range (in.)
Crayfish	3					.03	3.2	3.0 – 3.5
Kokanee	4	50		50		.04	11.2	6.9 – 15.7
Longnose sucker	260					2.54	11.8	4.5 – 16.9
Brown trout	186	21	72	7		1.82	14.7	4.7 – 20.8
Lake Trout	14	67	33				14.0	9.3 – 23.9
Rainbow trout	1	100				.14	10.1	10.1
White sucker	146	13	44	19	24	1.43	12.9	1.1 – 23.9
Yellow Perch	116	67	22	11		1.13	6.4	3.4 – 11.5





Blue Mesa Reservoir LAKE TROUT SAMPLING INFORMATION

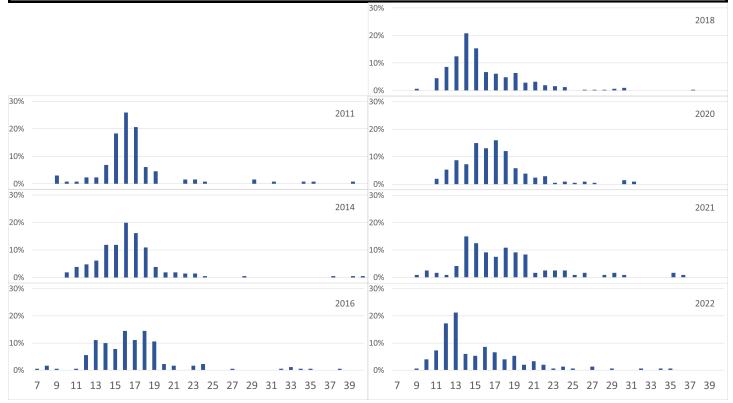


Figure 10. Length-frequency distributions (1 inch size bins) as percent of catch for lake trout captured during consecutive SPIN surveys on Blue Mesa Reservoir, 2011-2022.

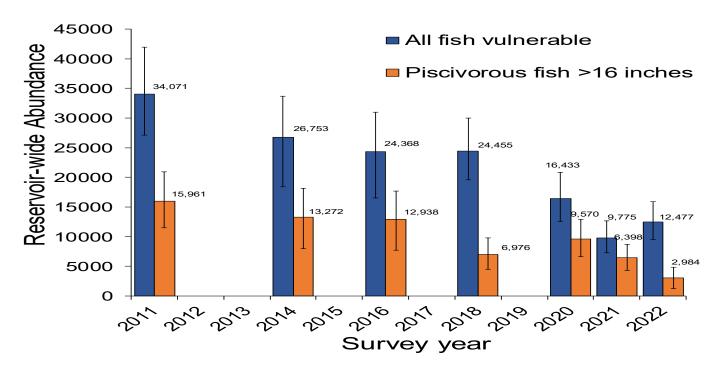


Figure 11 (below). Summer lake trout sampling (SPIN) population estimates 2011-2022 (right) for trout greater than 275 mm (blue bars) and 400 mm (orange bars). For more info please see: Lake trout sampling fact sheet

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FISH SAMPLING INFORMATION

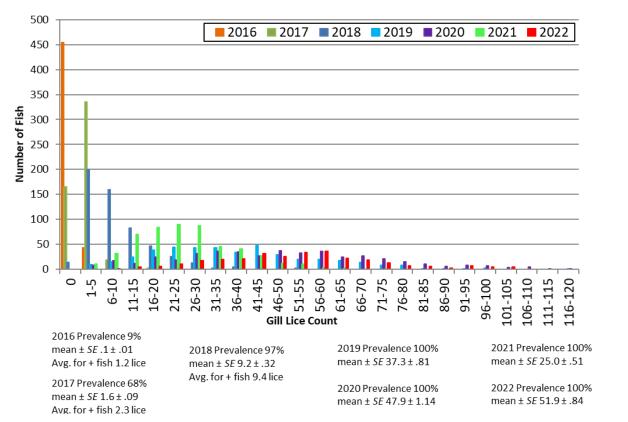


Figure 12. Migrating kokanee lice burden during kokanee spawntake, 2016 - 2022.

Management Notes — After several years of drought condition, Blue Mesa Reservoir began the year with record low drought related storage levels. Reservoir conditions were monitored in 2022 by National Park Service (NPS) and Colorado Parks and Wildlife and did document degraded conditions and low oxygen levels in portions of the reservoir late in the season. Research and monitoring is being conducted by the United States Geological Survey and NPS to learn more about algae blooms and their effect on habitat within the reservoir. This work should provide additional insight into what conditions may lead to increased algae blooms which have been more prevalent in recent years.

Temperatures were warm enough in the Iola Basin to exceed the preferred temperature for lake trout, but otherwise were suitable for trout and salmon while the lower basins provided better habitat conditions for all coldwater fish species. The 2022 lake trout population survey (SPIN survey) did document the expected westward shift of lake trout in Blue Mesa into the Cebolla and Sapinero Basins, as they moved to deeper areas of the reservoir to find more suitable habitat. This survey is an important monitoring tool to help formulate recommendations for lake trout management. The survey did document that lake trout numbers are currently at a more preferable level, so recommendations were made to not hold a lake trout harvest incentive tournament in 2023. (Similarly, there was not a tournament held in 2022). The 2022 survey did document abundant small lake trout, so continued harvest of small lake trout by anglers is recommended to keep the lake trout population at target levels.

Gill lice burdens on migrating kokanee in 2022 did return to levels seen previously in 2020, although total gill lice burdens were slightly higher (52 gill lice per fish). Gill lice continue to be a concern with kokanee and may be impacting the population at some level within Blue Mesa Reservoir. Once kokanee mature and enter the spawning run, however, they appear to be able to handle the level of gill lice infections with mortality of kokanee within the kokanee spawning facility remaining at acceptable levels.

Kokanee abundance remains low at Blue Mesa Reservoir as documented by continuing summer sonar surveys and monitoring of the kokanee fall migration. Kokanee survival has likely been effected by low reservoir storage and continued drought related impacts. These conditions have led to degraded reservoir conditions in some portions of the reservoir and have likely led to increased predation levels as fish are more crowded into remaining acceptable habitats. With lower kokanee abundance, it is expected that kokanee angling opportunities and kokanee eggtake potential will be below average in 2023.

Although beginning the year at very low reservoir levels, some improvement was seen in 2022, with storage about 12 feet higher going into 2023 as compared to 2022. With good snowpack levels to date in 2023 it is hoped that reservoir conditions will continue to improve.

Opportunities for trout fishing continue to be good at Blue Mesa Reservoir for brown, lake, and rainbow trout. Brown trout numbers appear to be up with quality sized brown trout abundant. Lake trout trophy fishing opportunities continue to be good, while opportunities continue for catch of small lake trout. Rainbow trout continue to be stocked at a catchable size to maintain fishing opportunities with many rainbows growing well after being stocked within the reservoir.