



Lake John

Updated: January 2022

FISH SURVEY AND MANAGEMENT DATA

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General Information: Lake John (565 acres) is a state wildlife area providing quality fishing for rainbow and Snake River cutthroat trout. For more information and current fishing conditions, this website is a good resource: http://www.lakejohnresort.com/fishing_report.htm

Location: Jackson County. From Walden, go 1/2 mile west on Hwy 14. Turn right onto CR 12W and go 5 miles. Take the right fork, staying on CR 12W. After 2 mi., take the right fork onto Rd. 7. Go 5 mi. to SWA.

Recreational Management: Colorado Parks and Wildlife

Fishery Management: Coldwater angling

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

Amenities

- Boat Ramps
- Restrooms
- Shade Shelters
- Picnic Tables
- Private Campground with Electrical Hookups and Dump Station
- Private Cabins
- Ice Fishing

Regulations

- Bag and **possession** limit for trout is 4
- Camping in established areas only
- Waterskiing and sailboards prohibited
- **No Live Fish** for bait

Previous Stocking

2021

434,844 total trout
Rainbow Trout
Cuttbow
Snake River Cutthroat

2020

410,000 total trout
Rainbow Trout
Cuttbow
Snake River Cutthroat

2019

390,116 total trout
Rainbow Trout
Cuttbow
Snake River Cutthroat

2018

410,229 total trout
Rainbow Trout
Cuttbow
Snake River Cutthroat

2017

427,574 total trout
Rainbow Trout
Cuttbow
Snake River Cutthroat

Sportfishing Notes

- Fish the edges of the weed beds as they develop in the summer. Fishing from shore gets harder later in the summer as shoreline vegetation can get thick and increasing water temperatures move fish to deeper/colder water.
- Post 2011 reclamation small prey fish (brook stickleback and fathead minnows) are currently abundant in Lake John and trout > 14" are keyed in on them as their primary forage.
- Try fishing minnow imitation patterns or rapalas and trolling just above the weed beds
- Fishing midges in early summer can be productive. Drop a midge fly pattern several feet below a float.
- When fishing through the ice, water depth is often more important than lure/bait selection.
- As temperatures warm in the summer, trolling in the deeper water is most effective.



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History

Lake John has been managed by Colorado Parks and Wildlife since the 1960's. Since then it has been managed as a put and grow trout fishery, meaning CPW stocks high numbers of trout, expecting anglers to regularly harvest them. Hence, there is no special size restrictive regulation at the lake. White and longnose suckers have been a challenge to trout management in the lake as they can achieve high density and size and compete with trout. The first reclamation was done in 1969 when the lake was treated with rotenone to remove all fish and a fresh start was made with newly planted trout.

Unfortunately, suckers made their way down the ditch feeding Lake John and repopulated the lake. Another reclamation was suggested, but opposition to the idea pushed the project back to 1993. Prior to the reclamation, a barrier was constructed on the inlet to prevent sucker re-establishment. Unfortunately, there was a structural failure with the barrier and white suckers re-colonized the lake.

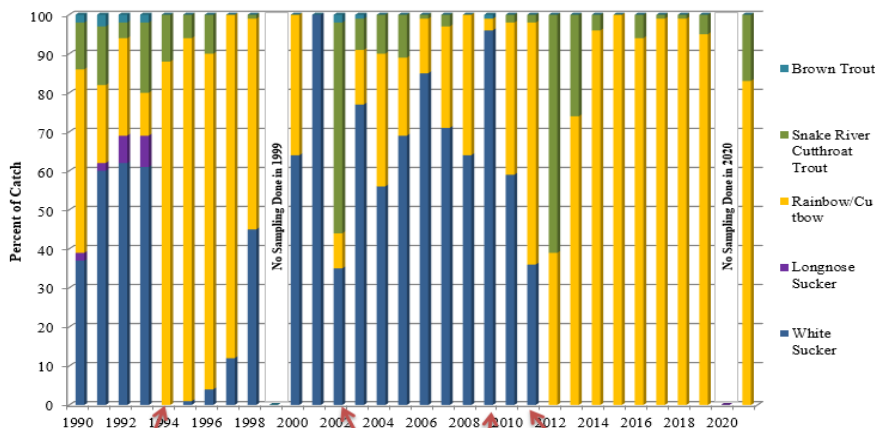
The fishery enjoyed six quality years before sucker composition was back over 50%. White sucker biomass dominated Lake John until August 2011. At that time another reclamation was undertaken with a highly improved barrier screen (below) in place to prevent re-colonization of the lake. Sampling since the 2011 reclamation has not documented any suckers in the lake, so it appears as though the reclamation and updated screen have been effective. As long as anglers follow the **no live fish regulation** in North Park and the screen continues to function properly, Lake John will remain sucker free for decades to come.



Brook stickleback and fathead minnows appear to have survived the reclamation, they were not stocked by CPW. Fathead Minnows are native to the North Platte River drainage, but Brook Stickleback are not; however, they are providing an abundant forage base for larger trout. Trout > 12" have keyed in on these small bodied fishes as their primary prey. CPW has been adjusting stocking rates since 2011 to find the new balance between predator and prey, i.e. trout and small bodied fish in Lake John, with the goal of providing

a lake where people can catch fish, but also maintain a quality component to the fishery.

Lake John: Sampled Species Composition by % of Catch



Lake John Reclamation Severe Winterkill Partial Winterkill Lake John Reclamation (2011)





Lake John

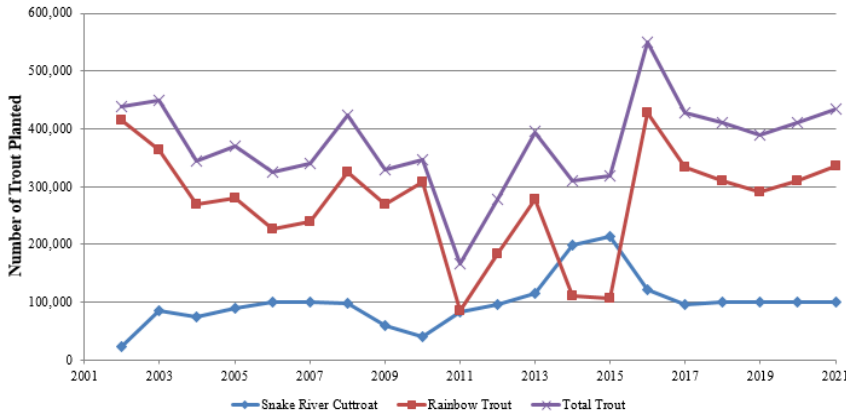
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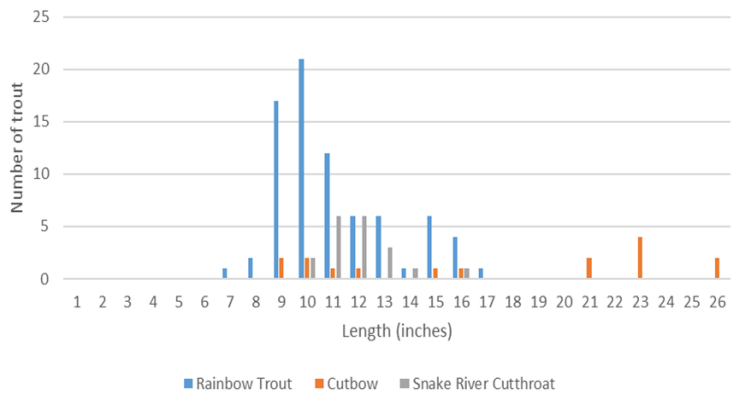
Trout Stocking
Lake John 2002-2021



The figure to the left shows trout stocking in Lake John from 2002-2021. Since 2012, CPW has stocked an average of 392,157 trout annually, with 434,844 trout stocked in 2021. Nearly all of the trout stocked in Lake John are sub-catchable trout (3-5” in length). A number of variables go into fish stocking at Lake John including: what species the hatchery has available, number of fish the hatchery can produce, condition of the fishery, etc.

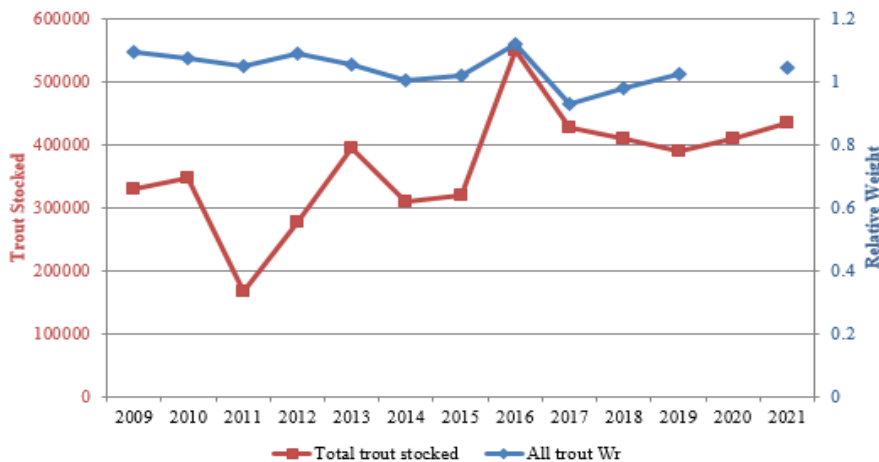
Fish grow rapidly due to the high productivity of the lake, with trout growing 5-8” over their first year in the lake. In the figure to the right, our 2021 sampling shows trout stocked in 2020 were 7-12” in length after one year in the lake. The range on this growth is due to different stocking dates throughout the summer and how long a fish has been in Lake John. Larger fish (> 14”) were from 2019 stocking events. The drop in cohort strength, fewer fish between 14-18” is due to a high number of those 2019 stocked fish being harvested or dying from incidental hooking mortality while being caught. Six trout greater than 20” were sampled as well, suggesting the quality component in Lake John is maintaining.

Lake John: 2021 Length Frequency



The figure at the bottom left shows average relative weight (Wr) of all trout sampled and total trout stocked in a given year. Wr is a body condition index or “plumpness” factor. Fat fish have a higher Wr value and skinny fish have a lower Wr value, with a fish in average condition having a value of 0.93. This shows the correlation between stocking and relative weight in Lake John. As more trout are stocked in the lake there is more competition for resources and relative weights decrease. For example, stocking numbers were increased in 2016 and sampling in 2017 showed a subsequent decreased relative weight as a result, highlighting the fact that you can not just simply stock more fish without having impacts on the fishery. Lake John fish are generally always in above average condition (0.93).

Lake John: Trout Stocking vs. Relative Weight



CPW will continue to monitor all of these variables to guide management of Lake John into the future to provide the best fishery possible and hopefully ensure we have high numbers of quality sized fish for anglers.



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Lake John Sampling Pictures

Top Left: 24" and 6 pound cutbow

Top Right: size structure of fish in Lake John, lines and text denote stocking cohorts/how many months that fish has lived in Lake John

Lower Left: 25.75" and 9 pound cutbow

Lower Right: 16" rainbow that died in gill net that had 10 stickleback in it's stomach, showing stickleback as valuable prey base



<u>Time Period</u>	<u>Trout</u>	<u>Suckers</u>
2012-2021	1.29	0
1997-2011	0.57	1.62

The table and figure to the right shows kilogram of fish per gill net hour from 1997 to 2021. No suckers have been caught since the 2011 reclamation at Lake John. In addition, CPW has documented that trout catch rates (kg/net hour) have doubled post-reclamation, highlighting the improved condition and trout carrying capacity in the lake following the removal of suckers.

Lake John: CPUE (kg/gill net hour)

