

BERTHOUD GUN CLUB FISH SURVEY

by Beavers Fish Farm, Inc. 970-619-0244

INTRODUCTION: Beavers Fish Farm Inc., completed a fish collection at three lakes in Weld County to determine fish population densities, year class population, species identification. This process involved electrofish collection in each of the three sampled lakes. Each lake will be discussed separately below. Water temperatures range from 70-73 degrees in all three lakes. PH levels were between 7.6 and 7.8 for all three lakes.

PURPOSE: The purpose of this survey is to determine successful fish propagation per species, populations of forage tier one and tier two species and to help with insight on the best direction to take each lake for future stocking needs. In addition, to determine which species are doing best in each of the three lakes and what habitat can be added (if any) to help fish population growth/increased survival rates

OBJECTIVES: To improve the fishery and lesson the number of “trash fish” by population control.

RESULTS: The results are as follows, each lake is listed separately.

South Lake (south of the St. Vrain River)

Electrofishing began on September 5th, 2019 at 5pm and resumed September 8th at 7am. The results were as follows:

The following fish are forage/trash fish:

Gizzard Shad:

Fingerling Shad 1-4” 500+ observed in six hours survey time shows more than adequate population of forage for tier one predators.

5-8” Shad, 120+ observed in six hours survey time shows a slight over population of Shad above preferred food source size for tier one and tier two species.

8+” Shad, 60+ observed in six hours survey time shows adequate adult Shad to keep forage population sustained.

White Sucker Fish:

2 adults observed in six hours survey time shows no over population of White Suckers.

Common Carp:

25 observed in six hour survey time 14 removed, fish size range from 15-25”, no young fish were observed this could mean Carp populations are not reproducing enough to overtake the lake.

The following fish are considered tier two predators fish:

Yellow Perch:

4 observed in six hour survey time. Sizes between 7-9” no young of the fish were observed (1-4”) and no larger fish were observed. It is believed these fish were stocked and have not reproduced.

Black & White Crappie:

No Black Crappie were observed of any size during the six hour survey time. This could be due to not electrofishing where they were located or their populations are so low that none were found during the survey hours.

White Crappie only two observed 5-7" during the six hour survey time. This could be due to again low population of Crappie or we didn't cross a location where the fish were located during the survey hours.

Bluegill:

Young of the year Bluegill 1-3", 300+ observed during the six hour survey time. Shows adequate Bluegill reproduction.

3-5" Bluegill, 75+ observed during the six hour survey time. Shows healthy Bluegill population with plenty of reproductive adults.

5+" Bluegill, 20+ observed during the six hour survey time. Shows there is at least three year class fish in the lake which is healthy.

The following fish are considered tier one predators fish:

Chanel Catfish:

Only one Catfish was observed during the six hour survey. Shows most likely the conductivity of the water wouldn't allow us to bring the Catfish up from the bottom.

Largemouth Bass:

Limited number of small Largemouth Bass were observed during the six hour survey time. This could be due to one of three reasons; one, no reproduction, in my opinion this is not the case. Two, young of the year fish could be hidden in the cattails, in my opinion this is most likely. Or three, fry Bass could be competing with small Shad which is causing low survival rates.

Larger Bass were observed from 12-20 ½" with 12 fish being over 17". All fish were very fat and healthy. Bass populations seem adequate and reproduction is observed on a year by year basis.

Walleye:

Only one Walleye was observed during the six hour survey. Shows low Walleye population, no reproduction.

CONCLUSION: This lake seems to be fairly healthy and proves it can be sustainable fishery with the right fish. My suggested actions would include lessening the mid range Shad population using top predators like Walleye, Wipers, Tiger Muskies. Advantages of Wipers & Tiger Muskie is there would be no reproduction so as the forage population goes down those fish can be harvested at that time. Walleye's have a slight chance of reproduction and if used I suggest stocking either 6-8" fish in the fall or Fry in the spring after the Walleye eggs hatch. For the most part, the lake looks pretty good and don't see any other actions needed. I would suggest leaving this as a trophy bass lake along with another tier one predator (wiper, tiger musky, walleye).

Crappie Pond (north of St. Vrain, West lake)
Electrofishing began on September 8th, 2019 at 11am. The results were as follows:

The following fish are forage/trash fish:

Gizzard Shad:

Fingerling Shad 1-4" 200+ observed in two hours survey time shows more than adequate population of forage for tier one predators.

5-8" Shad 500+ observed in two hours survey time shows and over abundance of Gizzard Shad

Common Carp:

Minimal Carp were observed in two hour survey time, fish size range from 15-25", no young fish were observed this could mean Carp populations are not reproducing enough to overtake the lake.

The following fish are considered tier two predators fish:

Yellow Perch:

No Yellow Perch were observed in two hour survey time. Unsure weather Perch have been stocked here, though I believe they would do very well in this pond and may help keep the Shad population from over populating.

Black & White Crappie:

None were observed at all, considering this is called the Crappie pond we tried really hard to find them but with no success. I am assuming there are some in there due to what was stocked but none were found. I am unsure if predation has removed most of the fish or if we never crossed over the fish to bring them up, there was a lot of activity from Seagulls during collection time. May want to consider changing the name of the pond.

Bluegill:

Young of the year Bluegill 1-3", some observed during two hour survey time along the shoreline. Proving successful reproduction, no counts were taken on these fish.

3-5" Bluegill, 20+ observed during two hour survey time. Shows Bluegill populations are self-sustaining.

The following fish are considered tier one predators fish:

Chanel Catfish:

No Catfish was observed during two hour survey.

Largemouth Bass:

Substantial quantities of small Largemouth Bass were observed during two hour survey time. The young of the year fish prove 2019 was a successful spawn.

Larger Bass ranging from 8-19" were observed during two hour survey time. There were larger quantities showing more than adequate Bass populations along with yearly reproduction. The largest fish were between 17-19".

CONCLUSION: Based on our survey bass and bluegill seem to be reproducing well, this would be a good Crappie pond with added fish structure and possibly removing some of the Largemouth Bass to limit the predation on the Crappie. As stated above, I believe there are some Crappie in there and we electrofished areas where they should have showed up and didn't find any Crappies. Suggested actions would be either, leave the lake as a Bass pond or remove the Bass, add structure and add Crappie.

North Pond (north of St. Vrain East Lake)

Electrofishing began on September 8th, 2019 at 1 pm. The results were as follows:

The following fish are forage/trash fish:

Gizzard Shad:

Fairly large quantities of Gizzard Shad observed during three hour survey time.

Common Carp:

Large quantities of Carp were observed in three hour survey time, including young of the year fish showing are reproducing in this pond. Only 7 Carp were removed due to water clarity.

The following fish are considered tier two predators fish:

Yellow Perch:

No Yellow Perch were observed in three hour survey time.

Black & White Crappie:

6-8" Black Crappie 20+ were observed in three hour survey time. No young of the year fish were observed but the pond shows promise based on drop offs and structure in the pond. Water quality is an issue and will be discussed below.

Bluegill:

Fingerling Bluegill thousands observed in three hour survey time showing a successful spawn in 2019.

3-5" Bluegill 100+ observed in three hour survey time showing a sustainable Bluegill population even in poor water conditions.

The following fish are considered tier one predators fish:

Chanel Catfish:

3 Catfish 6-10lbs observed in three hour survey time, none were brought into the boat but looked healthy.

Largemouth Bass:

No were observed during three hour survey time.

Walleye:

No were observed during three hour survey time.

CONCLUSION: It was brought to my attention that there have been two substantial fish kills in this lake, one happening last fall and one this fall. The fish kills are due to low dissolved oxygen from algae blooms during the day. The oxygen in the water is used by the algae at night which causes the fish kills. The fish kills are noticed the following morning. So last fall, Damon and I walked the shoreline to see what fish were being killed. Fish that were noticed were Crappie, Walleye, Bass, some carp and large numbers of Gizzard Shad. The fish kill this year I personally did not survey. Based on our fish sample I would suggest working with a water quality expert to determine what is causing the large algae blooms. It sounds like this is already being taken care of by Dave Wilson. Based on structure and sampling this may be a lake best suited for Crappie, Catfish and Bluegill. With no tier one predators being observed other than Catfish it could be a good start on a successful Crappie pond.

If you have any questions about the survey or input on your fishing experiences at these ponds don't hesitate to call 970-6-19-0244 or email Rod rod@beaversfishfarm.com @ Beavers Fish Farm, Inc.

