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A STUDY OF:

Perca flavescens

Submitted to:
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Perca flavescens, otherwise known as the yellow perch, is a small shallow-water fish found in lakes, ponds and slow moving streams. They are recognized by the six to nine blackish bars on the sides of their body. The lakes studied at U.N.D.E.R.C. included Bergner, Long and Morris. Bolger Bog was also included.

The food types preyed on by perch include small fish, insects, crayfish, snails, scuds, midge fly larvae, mayflies, Cladocera, Ostracods, and Chironomid larvae. At the end of the first year, Odonata and Ephemeroptera are added to the list. Of the fish studied, these food types were the most common found.

As the perch prey on the organisms listed above, the perch themselves are preyed upon by waterbirds and other fish. Some of the common waterbirds are the gulls, mergancers, loons, and kingfishers. Fish which prey on the perch include Sunfish, Bass, Walleye, Northern Pike, Muskies, Lake Trout and other Perch.

Perch are shallow-water fish and are usually found in water up to thirty feet deep. They prefer clear bottoms, spending the day in deeper water and the night in the shallows. Open lakes must have moderate vegetation for perch to thrive. The numbers of perch decrease with an increase in turbidity or vegetation.

In Bergner, there is a low pH, hardness, alkalinity and color. This provides a good environment for perch. There is moderate vegetation present and a relatively clear bottom. The drainage of Bergner occurs through Firestone and into Tenderfoot Creek. The perch caught in Bergner were relatively

small, suggesting large predation, or high perch population. The main predators on Bergner are the loons which are always present on its surface.

The main factors for the survival of perch in Long Lake, seem to be the moderate color and vegetation. Also there seems to be a low prey-predator ratio present. Since Long Lake is a seepage lake, it is really not a suitable lake for perch since they need some water movement.

Morris Lake contained large perch. The reason for their size is due to the heavy predation by Northern Pike. As a result, only perch large enough can survive. Morris drains into Tenderfoot Creek which makes for a suitable environment for perch.

No perch were found in Bolger Bog for it is not a suitable environment. The color is too high and the only drainage is due to seepage.

According to Scott and Crossman, there are certain averages that a perch should follow:

AGE	FORK LENGTH	WEIGHT
0+	36mm	0.02oz
1+	77mm	0.19oz
2+	158mm	2.3oz
3+	172mm	3.0oz
4+	182mm	3.8oz
5+	202mm	4.5oz
6+*	216mm	6.0oz
7+*	209mm	5.0oz
8+*	257mm	10.9oz

*The last three items in the list, comprise the average life expectancy of perch.

The perch caught in Bergner had an average fork length of 77mm and weight of 0.16-0.17oz. Thus from the chart it can be determined that those perch caught are not doing as

well as expected. At 77mm, a perch should weigh 0.19oz. Those around 151mm only weighed 1.05oz which again is low.

In Long Lake, perch at 226mm, 228mm, 250mm and 259mm weighed 4.4oz, 4.6-5.6oz, 4.8oz and 6.7oz respectively. From this data, the perch in Long Lake seem to be faring a little better than those in Bergner.

In Morris, the perch caught had a fork length of 265mm and weight of 9.1oz. This one fish would suggest that the population as a whole were doing well, however it might not be the case. The perch in Morris were caught by lures, thus a representative sample could not be obtained.

Recommendations for a better perch population in these lakes are variable. In Morris, the northern pike need to be removed in order for the perch to thrive. In Bergner, bass might be introduced to prey upon the perch. As a result, the perch that survived would have more food and they would be bigger.

Generally, a high perch population stunts the growth of most perch in that population. The spawning season for perch is from March to May. This could be one reason why so many one year olds were caught(see graph), in Bergner.

Ages were determined for the perch caught and are entered in the chart below:

SIZE (fork length)	AGE	LAKE
125mm	4+	Long
220mm	4+	Long
240mm	6+	Long
260mm	4+	Morris
67mm	1+	Bergner
225mm	5+	Long
255mm	4+	Long
96mm	1+	Bergner
105mm	1+	Bergner
63mm	1+	Bergner
102mm	1+	Bergner

SIZE (fork length)	AGE	LAKE
72mm	1+	Bergner
70mm	1+	Bergner
70mm	1+	Bergner
103mm	2+	Bergner
73mm	1+	Bergner
112mm	2+	Bergner
76mm	1+	Bergner
75mm	1+	Bergner
100mm	1+	Bergner

From the chart, the perch in Bergner are near average size for their age. In Long Lake, only the larger fish, 4-6+ out compete the small fish for food. From the chart, the perch in Long Lake are doing a little better than average. The one perch caught in Morris was 4+ in age. Its length for that age was much greater than the average. Again, only the large perch can survive the threat of the northern pike.

Perch caught in
Bergen Lake