

## Park Rapids Winterkill Observations

2017-2018

Following are lakes where Park Rapids Area Fisheries staff found low dissolved oxygen (DO) measurements during 2017-2018 winter monitoring. Listed are the lowest DO levels observed during monitoring, species found during spring assessments, the estimated severity of winterkill, and miscellaneous comments about observations during assessments or restocking.

Lake	Lowest DO	Species found*	Severity	Comments
Hennepin	0.65 ppm	NPO, YEP, YEB, BLC, LMB, BLG	No winterkill	No further action needed
Hungryman	0.88 ppm	NOP, YEP, PMK, BLC, BLG, BLB, WHS	Heavy partial kill	Many dead LMB, BLC, BLG, PMK observed. No LMB netted. Investigate further for LMB or restock LMB.
Moran	0.51 ppm	NOP, YEP, PMK, BLG, BLC, LMB	Mild partial kill	Fair number of dead fish observed washed up on north shore. No further action needed
Portage	1.57 ppm	NOP, YEP, PMK, BLG, BLC, LMB, WAE, YEB	No winterkill	No further action needed
Robertson (Coon)	Unknown	BLC, BLG, NOP	Mild partial kill	BLG and large BLC observed dead. No further action needed

\*Species abbreviations:

BLC – Black crappie

BLG – Bluegill

LMB – Largemouth bass

NOP – Northern pike

PMK – Pumpkinseed sunfish

YEB – Yellow bullhead

YEP – Yellow perch

WAE – Walleye

WHS – White sucker

Additional information:

- Most lakes with low DO Levels experience partial fish kills.
- Abundance of some species may be lower because of the partial winterkill, but as a result, those species will have less competition for food and will probably grow faster and larger.
- Hungryman experienced the heaviest winterkill in the Park Rapids Fisheries work area. No LMB were observed in the 5 ice out trap nets. It would be recommended to further investigate for LMB or restock when LMB are available.