

McGann, A., and B. Strecker. 2022. Zooplankton recovery from a whole-lake disturbance: Examining roles of abiotic factors, biotic interactions, and traits. *Ecosphere*.

Appendix S1

Table S1: Data on fish stocking density and dates (Washington Department of Fish and Wildlife, unpublished). Stocked species included Rainbow Trout (*Oncorhynchus mykiss*), Westslope Cutthroat Trout (*O. clarki lewisi*), Golden Trout (*O. aquabonita*), Tiger Trout (*Salmo trutta* × *Salvelinus fontinalis*), Brook Trout (*Salvelinus fontinalis*), Brown Trout (*Salmo trutta*), and Kokanee (landlocked *O. nerka*).

	Density of fry stocked (fish/ha)			Date stocked		
	2014	2015	2016	2014	2015	2016
Reference						
Amber	163	231	163	5/1/2014	5/1/2015	5/1/2016
Bayley	44	30	30	5/8/2014	6/10/2015	6/8/2016
Big Twin	152	152	173	6/1/2014	5/29/2015	6/13/2016
Browns	103	137	137	10/23/2014	10/27/2015	10/21/2016
Cedar	353	353	353	5/8/2014	5/22/2015	6/3/2016
Dry Falls	301	183	185	5/13/2014	4/8/2015	4/12/2016
Lost	549	523	384	6/4/2014	5/11/2015	5/17/2016
2014 Rotenone						
Lower Hampton	0	761	743	na	4/6/2015	4/12/2016
McDowell	0	37	0	na	6/10/2015	na
Upper Hampton	0	781	778	na	4/8/2015	4/12/2016
Widgeon	0	490	496	na	3/31/2015	3/21/2016
2015 Rotenone						
Badger	0	0	1217	na	na	5/1/2016
No Name	692	0	961	10/23/2014	na	6/7/2016
Rat	418	0	694	5/13/2014	na	5/23/2016

Table S2. Sampling collection, where numbers indicate the number of trips per month in each lake.

	<u>2014</u>			<u>2015</u>									<u>2016</u>									Total								
	Month	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1		2	3	4	5	6	7	8	9
Reference																														
Amber	1	1	1	1	1	1			1	1		1	1	1	1		1					1	1	1		1	1	1		19
Bayley	1	1	1	1	1					1	1	1	1	1	1	1	1						1	1	1	1	1	1		19
Big Twin		1	1	1	1	1			1		1	1	1	1	1	1		1						1		1	1		16	
Browns	1	1	1	1	1						1	1	1	1										1	1	1	1		13	
Cedar	1	1	1	1	1					1	1	1	1	1	1	1	1						1	1	1	1	1		19	
Dry Falls		1	1	1	1				1	1	1	1	1	1	1	1	1	1	1					1		1	1	1	18	
Lost		1	1	1	1	1					1	1	1	1	1	1										1	1		13	
<i>sub-total</i>	<i>4</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>3</i>			<i>3</i>	<i>4</i>	<i>6</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>6</i>	<i>5</i>	<i>4</i>	<i>2</i>			<i>1</i>	<i>3</i>	<i>3</i>	<i>5</i>	<i>4</i>	<i>7</i>	<i>7</i>	<i>1</i>	117	
2014																														
Rotenone																														
Lower Hampton		1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1					1		1		1	23	
McDowell	1	1	1	1	3	2				1	1	1	1	1	1	1	1						1		1	1		20		
Upper Hampton		1	1	1	3	1	1		1	1	1	1	1	1	1	1	1	1	1				1		1		1	22		
Widgeon		1	1	1	3				1	1	1	1	1	1	1	1	1	1								1	1	18		
<i>sub-total</i>	<i>1</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>12</i>	<i>4</i>	<i>2</i>	<i>1</i>	<i>3</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>3</i>	<i>2</i>			<i>3</i>		<i>4</i>	<i>1</i>	<i>3</i>	83		
2015																														
Rotenone																														
Badger												1	1	1	1	1	1		1		1	1	1		1	1	1	13		
No Name													1	1	1	1	1				1		1	1	1	1		10		
Rat												1	1	1	1								1		1	1		7		
<i>sub-total</i>		<i>1</i>										<i>1</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>3</i>	<i>2</i>		<i>1</i>		<i>1</i>	<i>2</i>	<i>1</i>	<i>2</i>	<i>2</i>	<i>3</i>	<i>3</i>	31		
total	5	12	11	11	19	7	2	1	6	8	10	12	14	14	13	12	10	5	3		2	5	4	10	6	14	11	4	230	

Table S3: Rotenone application details (Washington Department of Fish and Wildlife, unpublished).

Treatment	Lake	Rotenone Date	Method	Powder applied (kg)	Liquid applied (L)	Final concentration (ppm)
2014	Lower Hampton	10/8/14	boat	2038.2	5.5	3.6
Rotenone	McDowell	10/21/14	aerial	8.9	48.0	3.7
	Upper Hampton	10/8/14	boat	3623.0	7.4	3.6
	Widgeon	10/7/14	aerial	0.0	53.5	4.0
2015	Badger	10/30/15	boat	28225.9	19.8	2.0
Rotenone	No Name	10/27/15	aerial	0.0	94.0	4.0
	Rat	10/20/15	boat	14637.4	5.3	3.9

Table S4: Water chemistry meters used for each sampling trip: 1= YSI ProPlus (PSU), 2= YSI Pro-DSS (Spokane County), 3= Unknown meter used, 4=WDFW District 1 Hydrolab, 5= YSI 6820 V2 (Grant County)

Month	<u>2014</u>					<u>2015</u>									<u>2016</u>													
	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9
Reference																												
Amber		1	1	1	2			2	2		2	1	2	2		2				2	2	2		2	1	1		
Bayley	4	1		1	4				4	4	4	4	4	4	4	4					4	4	4		4	4	1	
Big Twin		5		5	5	5		5		5		1	1	1	5		5						5			1		
Browns		1	1	4	4					4	4	4	4										4	4	4	1		
Cedar	4	1		1	4				4	4	4	4	4	4	4	4					4	4	4	4	4	1		
Dry Falls		5	5	5	5			5	5	5	5	5	5	5	5	5	5	5					5		5	5	5	
Lost		5	5	5	5	5				5		1	1	1	5											1		
2014																												
Rotenone																												
Lower Hampton		5	5	5	5,5,5	5	5	5	5		5	5	5	5	5	5		5					5				5	
McDowell		1	1		4,3,3	4			4	4	4	4	4	4	4	4							4		4	1		
Upper Hampton		5	5,5	5	5,5,5	5	5		5	5	5	5	5	5	5	5	5	5	5				5				5	
Widgeon			5	5	5,5,5			5	5	5	5	5		5	5	5	5	5										
2015																												
Rotenone																												
Badger												1	2	2	2	2		2		2	2	2		2	1	1		
No Name												4	4	4	4	4					4		4	4	4	1		
Rat												1	1	1	5								5		1	1		

Table S5: Sample lake coordinates.

Lake Reference	County	Latitude (°N)	Longitude (°W)
Amber	Spokane	47.348380	-117.711330
Bayley	Stevens	48.420110	-117.662630
Big Twin	Okanogan	48.445885	-120.194531
Browns	Pend Oreille	48.438240	-117.196100
Cedar	Stevens	48.942410	-117.591960
Dry Falls	Grant	47.604991	-119.363733
Lost	Okanogan	48.849483	-119.052110
2014 Rotenone			
Lower Hampton	Grant	46.928557	-119.222513
McDowell	Stevens	48.468850	-117.681400
Upper Hampton	Grant	46.929015	-119.229928
Widgeon	Grant	46.938729	-119.224900
2015 Rotenone			
Badger	Spokane	47.350827	-117.628971
No Name	Pend Oreille	48.296771	-117.136221
Rat	Okanogan	48.180743	-119.801692