Table 10. Decision rules for macroinvertebrate assemblages in rivers, as in Table 5.

Metric	Prairie Rivers (2)	Northern Forest Rivers (1)	
BCG Level 2	N=0	N=7	
Total taxa	> 35 - 45	> 35 - 45	
Att 1+2 taxa	> 2 - 5	> 1 - 4	
Att 1+2+3 % taxa	> 20 - 30%	> 20 - 30%	
Att 1+2+3 % Ind	> 10 - 20%	> 10 - 20%	
Att 5 % Ind	< 7 - 13%	< 7 - 13%	
Sensitive EPT taxa	> 6 - 10	> 6 - 10	
BCG Level 3	N=6	N=15	
		Alt 1	**Alt 2**
Total taxa	> 25 - 35	> 20 - 30	> 40 - 50
Att 1+2+3 % taxa	> 10 - 20%	> 15 - 25%	> 7 - 13%
Att 1+2+3 % Ind	> 3 - 7%	> 7 - 13%	> 3 - 7%
Att 5 % Ind	< 15 - 25%	< 35 - 45%	= alt 1[1]
Att 5 Dom	< 10 - 20%	< 25 - 35%	= alt 1[1]
Sensitive EPT taxa	> 2 - 5	> 2 - 5	= alt 1[1]
BCG Level 4	N=19	N=6	
Total taxa	> 16 - 24	> 16 - 24	
Att 1+2+3 % taxa	> 3 - 7%	> 7 - 13%	
Att 1+2+3 % Ind	present	> 3 - 7%	
Att 5 % Ind	< 45 - 55%	< 45 - 55%	
Att 5 Dom	< 35 - 45%	< 35 - 45%	
Sensitive EPT taxa	present	present	
BCG Level 5	N=4	N=0	
Total taxa	> 16 - 24	> 16 - 24	
Att 5 % taxa	< 35 - 45%	< 35 - 45%	
Att 5 Dom	< 65 - 75	< 65 - 75	
BCG Level 6 (no rules)	N=0	N=0	

[2] "= alt 1" the rule is the same as given under Alt 1 for this metric

Table 11. Decision rules for macroinvertebrate assemblages in riffle-run habitat, as in Table 5.

Metric	5 Southern riffle-run		3 Northern forest riffle-run	
BCG Level 2	N=0		N=2	
Total taxa	> 35 - 45		> 35 - 45	
Att 1+2 taxa	> 2 - 5		> 2 - 5	
Att 1+2+3 % taxa	> 45 - 55%		> 45 - 55%	
Att 1+2+3 % Ind	> 25 - 35%		> 25 - 35%	
Att 5 % Ind	< 3 - 7%		< 7 - 13%	
Sensitive EPT taxa	> 11-16		> 9 - 14	
BCG Level 3	N=8		N=17	
	Alt 1	**Alt 2**	**Alt 1**	**Alt 2**
Total taxa	> 25 - 35	> 40 - 50	> 25 - 35	> 40 - 50
Att 1+2+3 % taxa	> 15 - 25%	> 7 - 13%	> 15 - 25%	> 10 - 20%
Att 1+2+3 % Ind	> 10 - 20%	> 3 - 7%	> 7 - 13%	> 3 - 7%
Att 4 Dom			< 20 - 30%	= alt 1[1]
Att 5 % Ind	< 15 - 25%	= alt 1[1]		
Att 5 Dom	< 7 - 13%	= alt 1[1]	< 30 - 40%	= alt 1[1]
Sensitive EPT taxa	> 2 - 5	= alt 1[1]	> 2 - 5	= alt 1[1]
BCG Level 4	N=19		N=9	
	Alt 1	**Alt 2**		
Total taxa	> 16 - 24	> 25 - 35	> 16 - 24	
Att 1+2+3 % taxa	> 3 - 7%	present	> 7 - 13%	
Att 1+2+3 % Ind	> 3 - 7%	present	present	
Att 5 % Ind	< 30 - 40%	< 35 - 45%	< 30 - 40%	
Att 5 Dom	< 15 - 25%	= alt 1[1]	< 20 - 30%	
Sensitive EPT	present	= alt 1[1]	present	
BCG Level 5	N=20		N=2	
	Alt 1	**Alt 2**	**Alt 1**	**Alt 2**
Total taxa	> 11 - 16	> 16 - 24	> 11 - 16	> 16 - 24
Att 2+3+4 % taxa	n/a	> 45 - 55%		
Att 5 % taxa	< 35 - 45%	n/a	< 35 - 45%	< 45 - 55%
Att 5 Dom	< 55 - 65%	n/a	< 55 - 65%	= alt 1[1]
BCG Level 6 (no rules)	N=0		N=0	

[2] **"= alt 1" the rule is the same as given under Alt 1 for this metric**

Table 12. Decision rules for macroinvertebrate assemblages in glide-pool habitat, as in Table 5.

Metric	7 Prairie glide-pool		6 Southern forest glide-pool		4 Northern Forest glide-Pool
BCG Level 2	N=0		N=0		N=5
Total taxa	> 25 - 35		> 25 - 35		> 20 - 30
Att 1+2 taxa	present		present		present
Att 1+2+3 % taxa	> 25 - 35%		> 25 - 35%		> 25 - 35%
Att 1+2+3 % Ind	> 15 - 25%		> 15 - 25%		> 15 - 25%
Att 4 Dom	< 10 - 20%		< 10 - 20%		< 10 - 20%
Att 5 % Ind	< 15 - 25%		< 15 - 25%		< 15 - 25%
Sensitive EPT taxa	> 6-10		> 6-10		> 6-10
BCG Level 3	N=3		N=5		N=13
	Alt 1	**Alt 2**	**Alt 1**	**Alt 2**	
Total taxa	> 25 - 35	> 40 - 50	> 14 - 22	> 25 - 35	> 16 - 24
Att 1+2+3 % taxa	> 10 - 20%	= alt 1[1]	> 10 - 20%	> 7 - 13%	> 10 - 20%
Att 1+2+3 % Ind	> 3 - 7%	present	> 3 - 7%	present	> 3 - 7%
Att 4 Dom			< 45 - 55%	= alt 1[1]	
Att 5 % Ind	< 30 - 40%	= alt 1[1]	< 15 - 25%	= alt 1[1]	< 25 - 35%
Att 5 Dom	< 10 - 20%	= alt 1[1]	< 10 - 20%	= alt 1[1]	< 15 - 25%
Sensitive EPT taxa	> 2 - 5	= alt 1[1]	present	= alt 1[1]	> 2 - 5
BCG Level 4	N=19		N=18		N=12
Total taxa	> 16 - 24		> 14 - 22		> 16 - 24
Att 1+2+3 % taxa	> 3 - 7%		> 0 - 4%		> 3 - 7%
Att 1+2+3 % Ind	present		> 0 - 2%		present
Att 5 % taxa			< 20 - 30%		
Att 5 % Ind	< 35 - 45%		< 30 - 40%		< 25 - 35%
Att 5 Dom	< 20 - 30%		< 15 - 25%		< 20 - 30%
BCG Level 5	N=26		N=13		N=2
Total taxa	> 12-20		> 11 - 16		> 11 - 16
Att 5 % taxa	< 50 - 60%		< 55 - 65%		< 35 - 45%
Att 5 Dom	< 45 - 55%		< 55 - 65%		< 55 - 65%
BCG Level 6 (no rules)	N=5		N=1		N=3

[2] "= alt 1" the rule is the same as given under Alt 1 for this metric

Table 13. Decision rules for macroinvertebrate assemblages in cold and cool waters. Modified from Gerritsen and Stamp (2013). Minnesota sites only

Metric	9 Southern Coldwater		8 Northern Cold-cool	
BCG Level 2	N=1		N=16	
Total taxa	> 11 - 16		> 16 - 24	
Att 1+2 taxa			> 2 - 5	
Att 1+2 % taxa	> 7 - 13%			
Att 1+2 % ind			> 4 - 10%	
Att 1+2+3 % taxa	> 25 - 35%		> 25 - 35%	
Att 1+2+3 % Ind	> 25 - 35%		> 25 - 35%	
Att 5 Dom	< 3 - 7%			
Sensitive EPT % Ind	> 7 - 13%		> 7 - 13%	
BCG Level 3	N=17		N=10	
	Alt 1	**Alt 2**	**Alt 1**	**Alt 2**
Total taxa	> 11 - 16	= alt 1[1]	> 16 - 24	= alt 1[1]
Att 1+2 taxa			present	n/a
Att 1+2+3 % taxa	> 15 - 25%	> 35 - 45%	> 15 - 25%	= alt 1[1]
Att 1+2+3 % Ind	> 7 - 13%	> 3 - 7%	> 7 - 13%	> 35 - 45%
Att 4 Dom	< 45 - 55%	= alt 1[1]		
Att 5 % Ind	< 15 - 25%	= alt 1[1]		
Att 5 Dom			< 7 - 13%	= alt 1[1]
Sensitive EPT % taxa	> 7 - 13%	= alt 1[1]	> 7 - 13%	= alt 1[1]
BCG Level 4	N=20		N=4	
Total taxa	> 6 - 10		> 11 - 16	
Att 1+2+3 % taxa	> 7 - 13%		> 7 - 13%	
Att 1+2+3 % Ind	> 3 - 7%		present	
Att 5 % Ind	< 35 - 45%		< 55 - 65%	
Sensitive EPT	present		present	
BCG Level 5	N=5		N=4	
Total taxa	> 6 - 10		> 11 - 16	
Att 5 % taxa	< 55 - 65%			
Att 5 Dom			< 55 - 65%	
BCG Level 5	N=0		N=0	

[2] **"= alt 1" the rule is the same as given under Alt 1 for this metric**