

Appendix E

Table E–1. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; go, gear-otter trawl; gt, gear-trammel net; gg, gear-gill net; seg, segment; sf, season-fish community; ss, season-sturgeon]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,go	0.0510	0.0567	0.0637
z1,gt	.0526	.0675	.0878
z2,gg	.0528	.0692	.0917
z2,go	.0544	.0814	.1206
z2,seg5,go	.0518	.0624	.0762
z2,seg6,gg	.0527	.0683	.0895
z2,seg6,go	.0518	.0623	.0761
z3,gg	.0754	.2939	.6090
z3,go	.0728	.2651	.5549
z3,gt	.1101	.6421	.9559
z3,seg7,gg	.0555	.0908	.1438
z3,seg7,go	.0744	.2830	.5890
z3,seg7,gt	.0589	.1206	.2195
z3,sf,go	.0581	.1126	.1989
z3,sf,gt	.0821	.3693	.7294
z3,ss,go	.0704	.2382	.5000
z3,ss,gt	.0702	.2369	.4973
z4,gg	.0700	.2344	.4919
z4,go	.0680	.2122	.4433
z4,gt	.0986	.5414	.9033
z4,seg10,go	.0530	.0710	.0958
z4,seg10,gt	.0578	.1098	.1919
z4,seg13,gg	.0556	.0911	.1446
z4,seg13,go	.0575	.1076	.1862
z4,seg13,gt	.0585	.1165	.2090
z4,seg14,gg	.0521	.0644	.0808
z4,seg14,go	.0630	.1601	.3196
z4,seg14,gt	.0638	.1683	.3397
z4,seg8,gg	.0762	.3030	.6250
z4,seg8,go	.0743	.2816	.5864
z4,seg8,gt	.0710	.2456	.5155
z4,seg9,gg	.0565	.0986	.1634
z4,seg9,go	.0534	.0740	.1029
z4,seg9,gt	.0708	.2432	.5105
z4,sf,go	.0562	.0962	.1575
z4,sf,gt	.0759	.3005	.6209
z4,ss,go	.0704	.2382	.5000
z4,ss,gt	.0666	.1974	.4093

Table E–2. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; gt, gear-trammel net; gg, gear-gill net; go, gear-otter trawl; seg, segment; sf, season-fish community; ss, season-sturgeon]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,gt	0.0526	0.0675	0.0878
z2,gg	.0528	.0692	.0917
z2,go	.0544	.0814	.1206
z2,seg5,go	.0518	.0624	.0762
z2,seg6,gg	.0527	.0683	.0895
z2,seg6,go	.0518	.0623	.0761
z2,sf,go	.0544	.0814	.1206
z3,gg	.0744	.2831	.5892
z3,go	.0662	.1933	.3998
z3,gt	.1045	.5951	.9350
z3,seg7,gg	.0558	.0926	.1484
z3,seg7,go	.0689	.2225	.4660
z3,seg7,gt	.0595	.1255	.2319
z3,sf,go	.0567	.1006	.1684
z3,sf,gt	.0809	.3562	.7107
z3,ss,go	.0634	.1641	.3293
z3,ss,gt	.0669	.2007	.4171
z4,gg	.0690	.2236	.4687
z4,go	.0630	.1604	.3202
z4,gt	.0938	.4945	.8680
z4,seg10,go	.0530	.0710	.0958
z4,seg10,gt	.0558	.0932	.1499
z4,seg13,gg	.0538	.0769	.1099
z4,seg13,go	.0553	.0888	.1389
z4,seg13,gt	.0575	.1078	.1867
z4,seg14,gg	.0519	.0628	.0772
z4,seg14,go	.0578	.1102	.1928
z4,seg14,gt	.0627	.1572	.3123
z4,seg8,gg	.0768	.3096	.6365
z4,seg8,go	.0745	.2844	.5916
z4,seg8,gt	.0711	.2460	.5162
z4,seg9,gg	.0561	.0952	.1549
z4,seg9,go	.0526	.0679	.0886
z4,seg9,gt	.0687	.2203	.4613
z4,sf,go	.0553	.0885	.1382
z4,sf,gt	.0749	.2892	.6006
z4,ss,go	.0634	.1641	.3293
z4,ss,gt	.0636	.1656	.3331

Table E-3. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; go, gear-otter trawl; gg, gear-gill net; gt, gear-trammel net; seg, segment; sf, season-fish community; ss, season-sturgeon]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,go	0.0510	0.0567	0.0637
z3,gg	.0626	.1555	.3080
z3,go	.0759	.2995	.6191
z3,gt	.0767	.3091	.6359
z3,seg7,gg	.0510	.0563	.0630
z3,seg7,go	.0527	.0688	.0907
z3,seg7,gt	.0528	.0691	.0914
z3,sf,go	.0553	.0888	.1389
z3,sf,gt	.0632	.1616	.3233
z3,ss,go	.0632	.1620	.3241
z3,ss,gt	.0606	.1367	.2606
z4,gg	.0612	.1416	.2731
z4,go	.0697	.2307	.4841
z4,gt	.0716	.2521	.5288
z4,seg10,gt	.0510	.0567	.0639
z4,seg13,gg	.0509	.0557	.0617
z4,seg13,go	.0522	.0652	.0826
z4,seg13,gt	.0519	.0629	.0773
z4,seg14,gg	.0510	.0563	.0631
z4,seg14,go	.0546	.0834	.1257
z4,seg14,gt	.0539	.0775	.1113
z4,seg8,gg	.0542	.0798	.1167
z4,seg8,go	.0512	.0579	.0664
z4,seg8,gt	.0536	.0754	.1061
z4,seg9,gg	.0555	.0908	.1437
z4,seg9,go	.0542	.0800	.1172
z4,seg9,gt	.0572	.1047	.1789
z4,sf,go	.0535	.0748	.1048
z4,sf,gt	.0607	.1373	.2621
z4,ss,go	.0632	.1620	.3241
z4,ss,gt	.0583	.1143	.2034

Table E-4. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; go, gear-otter trawl; gt, gear-trammel net; sf, season-fish community; ss, season-sturgeon; gg, gear-gill net; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,go	0.0569	0.1022	0.1724
z1,gt	.0647	.1778	.3629
z1,sf,gt	.0612	.1417	.2733
z1,ss,gt	.0521	.0640	.0799
z2,gg	.0573	.1055	.1810
z2,go	.0577	.1089	.1897
z2,gt	.0627	.1569	.3114
z2,seg5,gg	.0563	.0972	.1598
z2,seg5,go	.0588	.1197	.2172
z2,seg5,gt	.0572	.1047	.1788
z2,seg6,gg	.0509	.0557	.0617
z2,seg6,gt	.0552	.0881	.1370
z2,sf,go	.0521	.0645	.0809
z2,sf,gt	.0595	.1255	.2321
z2,ss,go	.0532	.0720	.0982
z2,ss,gt	.0522	.0652	.0826
z3,gg	.0650	.1805	.3693
z3,go	.0565	.0986	.1634
z3,gt	.0592	.1228	.2252
z3,seg7,gt	.0519	.0627	.0769
z3,sf,go	.0549	.0858	.1315
z3,sf,gt	.0557	.0923	.1475
z3,ss,gt	.0528	.0691	.0915
z4,gg	.0636	.1662	.3347
z4,go	.0555	.0905	.1431
z4,gt	.0521	.0640	.0799
z4,seg10,go	.0521	.0640	.0799
z4,seg10,gt	.0521	.0641	.0800
z4,seg13,gg	.0540	.0783	.1133
z4,seg13,go	.0524	.0666	.0856
z4,seg13,gt	.0532	.0719	.0980
z4,seg14,gg	.0508	.0552	.0606
z4,seg14,go	.0504	.0526	.0552
z4,seg14,gt	.0515	.0602	.0714
z4,seg8,gg	.0526	.0680	.0889
z4,seg8,go	.0524	.0667	.0859
z4,seg8,gt	.0519	.0625	.0764
z4,seg9,gg	.0548	.0846	.1285
z4,seg9,go	.0513	.0585	.0677
z4,seg9,gt	.0520	.0632	.0780
z4,sf,go	.0542	.0799	.1171
z4,sf,gt	.0545	.0824	.1232
z4,ss,go	.0511	.0575	.0656
z4,ss,gt	.0523	.0659	.0841

Table E-5. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; gt, gear-trammel net; gg, gear-gill net; seg, segment; go, gear-otter trawl]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,gt	0.0506	0.0541	0.0584
z2,gg	.0524	.0665	.0854
z2,seg6,gg	.0520	.0632	.0780
z3,gg	.0546	.0831	.1249
z3,go	.0515	.0600	.0709
z3,gt	.0504	.0528	.0557
z4,gg	.0538	.0767	.1094
z4,go	.0515	.0600	.0709
z4,gt	.0504	.0526	.0552
z4,seg13,gg	.0513	.0585	.0676
z4,seg13,gt	.0508	.0554	.0612
z4,seg8,gg	.0518	.0620	.0753
z4,seg9,gg	.0509	.0561	.0625
z4,seg9,go	.0515	.0599	.0707
z4,seg9,gt	.0502	.0512	.0525

Table E-6. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; go, gear-otter trawl; gt, gear-trammel net; sf, season-fish community; ss, season-sturgeon; gg, gear-gill net; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,go	0.0569	0.1022	0.1724
z1,gt	.0632	.1615	.3230
z1,sf,gt	.0596	.1270	.2357
z1,ss,gt	.0521	.0640	.0799
z2,gg	.0566	.1000	.1669
z2,go	.0577	.1089	.1897
z2,gt	.0627	.1569	.3114
z2,seg5,gg	.0563	.0972	.1598
z2,seg5,go	.0588	.1197	.2172
z2,seg5,gt	.0572	.1047	.1788
z2,seg6,gg	.0502	.0515	.0530
z2,seg6,gt	.0552	.0881	.1370
z2,sf,go	.0521	.0645	.0809
z2,sf,gt	.0595	.1255	.2321
z2,ss,go	.0532	.0720	.0982
z2,ss,gt	.0522	.0652	.0826
z3,gg	.0569	.1021	.1724
z3,go	.0558	.0929	.1491
z3,gt	.0591	.1224	.2241
z3,seg7,gt	.0519	.0627	.0769
z3,sf,go	.0549	.0858	.1315
z3,sf,gt	.0557	.0923	.1475
z3,ss,go	.0508	.0554	.0612
z3,ss,gt	.0527	.0686	.0902
z4,gg	.0568	.1014	.1704
z4,go	.0550	.0860	.1321
z4,gt	.0574	.1071	.1849
z4,seg10,go	.0521	.0640	.0799
z4,seg10,gt	.0521	.0641	.0800
z4,seg13,gg	.0524	.0663	.0849
z4,seg13,go	.0524	.0666	.0856
z4,seg13,gt	.0527	.0686	.0903
z4,seg14,gg	.0508	.0552	.0606
z4,seg14,go	.0504	.0526	.0552
z4,seg14,gt	.0515	.0602	.0714
z4,seg8,gg	.0508	.0552	.0606
z4,seg8,go	.0524	.0667	.0859
z4,seg8,gt	.0519	.0625	.0764
z4,seg9,gg	.0525	.0671	.0868
z4,seg9,go	.0510	.0562	.0628
z4,seg9,gt	.0520	.0632	.0780
z4,sf,go	.0542	.0799	.1171
z4,sf,gt	.0545	.0824	.1232
z4,ss,go	.0508	.0554	.0612
z4,ss,gt	.0522	.0651	.0824

Table E-7. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; gm, gear-mini fyke net; gb, gear-beach seine; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1, gm	0.0510	0.0567	0.0638
z2, gb	.0525	.0670	.0866
z2, gm	.0697	.2304	.4834
z2, seg5, gb	.0521	.0639	.0795
z2, seg5, gm	.0574	.1064	.1831
z2, seg6, gb	.0568	.1019	.1717
z2, seg6, gm	.0684	.2166	.4531
z3, gb	.1097	.6386	.9545
z3, gm	.0661	.1919	.3964
z3, seg7, gb	.0577	.1095	.1910
z3, seg7, gm	.0599	.1292	.2414
z4, gb	.0990	.5447	.9056
z4, gm	.0589	.1198	.2175
z4, seg10, gb	.0528	.0695	.0923
z4, seg10, gm	.0578	.1100	.1923
z4, seg13, gb	.0584	.1160	.2077
z4, seg13, gm	.0509	.0558	.0620
z4, seg14, gb	.0535	.0743	.1036
z4, seg14, gm	.0509	.0558	.0620
z4, seg8, gb	.0641	.1707	.3456
z4, seg8, gm	.0534	.0737	.1021
z4, seg9, gb	.0653	.1836	.3768
z4, seg9, gm	.0558	.0929	.1490

Table E–8. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; gb, gear-beach seine; gm, gear-mini fyke net; go, gear-otter trawl; gt, gear-trammel net; sf, season-fish community; ss, season-sturgeon; gg, gear-gill net; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z 1,gb	0.0589	0.1201	0.2181
z1,gm	.0643	.1730	.3511
z1,go	.0565	.0990	.1645
z1,gt	.0745	.2847	.5922
z1,sf,gt	.0661	.1923	.3973
z1,ss,gt	.0571	.1043	.1778
z2,gg	.0748	.2878	.5980
z2,go	.0632	.1616	.3232
z2,gt	.0895	.4501	.8267
z2,seg5,gg	.0564	.0982	.1623
z2,seg5,go	.0534	.0735	.1017
z2,seg5,gt	.0598	.1289	.2408
z2,seg6,gg	.0886	.4396	.8156
z2,seg6,go	.0580	.1124	.1986
z2,seg6,gt	.0754	.2947	.6105
z2,sf,go	.0653	.1831	.3755
z2,sf,gt	.0681	.2138	.4468
z2,ss,go	.0540	.0786	.1139
z2,ss,gt	.0733	.2712	.5667
z3,gb	.2398	.9882	1.0000
z3,gg	.0914	.4700	.8462
z3,gm	.0594	.1247	.2300
z3,go	.0565	.0985	.1632
z3,gt	.0579	.1116	.1963
z3,seg7,gb	.0551	.0873	.1352
z3,seg7,gg	.0533	.0727	.0999
z3,seg7,gm	.0526	.0676	.0880
z3,seg7,go	.0516	.0609	.0729
z3,seg7,gt	.0546	.0830	.1245
z3,sf,go	.0534	.0739	.1027
z3,sf,gt	.0541	.0791	.1150
z3,ss,go	.0518	.0620	.0754
z3,ss,gt	.0542	.0801	.1175
z4,gg	.0836	.3856	.7516
z4,gm	.0612	.1416	.2731
z4,go	.0547	.0836	.1261
z4,gt	.0566	.1001	.1672
z4,seg10,gm	.0518	.0620	.0753
z4,seg10,go	.0510	.0567	.0639
z4,seg13,gg	.0578	.1100	.1925
z4,seg13,go	.0508	.0551	.0604
z4,seg13,gt	.0538	.0767	.1094
z4,seg14,gg	.0552	.0880	.1368
z4,seg14,gm	.0523	.0659	.0841
z4,seg14,go	.0518	.0622	.0759

Table E–8. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.—Continued

[z, zone; gb, gear-beach seine; gm, gear-mini fyke net; go, gear-otter trawl; gt, gear-trammel net; sf, season-fish community; ss, season-sturgeon; gg, gear-gill net; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z4,seg14,gt	0 .0543	0 .0807	0 .1190
z4,seg8,gg	.0609	.1386	.2655
z4,seg8,gm	.0528	.0694	.0922
z4,seg8,go	.0535	.0742	.1033
z4,seg8,gt	.0532	.0721	.0985
z4,seg9,gg	.0604	.1341	.2538
z4,seg9,gm	.0504	.0525	.0551
z4,seg9,gt	.0509	.0558	.0619
z4,sf,go	.0525	.0669	.0864
z4,sf,gt	.0537	.0757	.1070
z4,ss,go	.0518	.0620	.0754
z4,ss,gt	.0529	.0703	.0942

Table E-9. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; gb, gear-beach seine; gm, gear-mini fyke net; go, gear-otter trawl; gt, gear-trammel net; sf, season-fish community; ss, season-sturgeon; gg, gear-gill net; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1, gm	0.0547	0.0842	0.1275
z1, gt	.0732	.2701	.5646
z1, sf, gt	.0651	.1814	.3714
z1, ss, gt	.0571	.1043	.1778
z2, gg	.0748	.2878	.5980
z2, go	.0589	.1202	.2186
z2, gt	.0895	.4501	.8267
z2, seg5, gg	.0564	.0982	.1623
z2, seg5, go	.0553	.0887	.1387
z2, seg5, gt	.0598	.1289	.2408
z2, seg6, gg	.0886	.4396	.8156
z2, seg6, go	.0550	.0866	.1335
z2, seg6, gt	.0754	.2947	.6105
z2, sf, go	.0588	.1197	.2173
z2, sf, gt	.0681	.2138	.4468
z2, ss, go	.0543	.0807	.1189
z2, ss, gt	.0733	.2712	.5667
z3, gg	.0907	.4626	.8391
z3, go	.0565	.0989	.1642
z3, gt	.0606	.1361	.2591
z3, seg7, gg	.0533	.0727	.0999
z3, seg7, go	.0513	.0585	.0678
z3, seg7, gt	.0546	.0830	.1245
z3, sf, go	.0545	.0827	.1238
z3, sf, gt	.0551	.0871	.1346
z3, ss, go	.0523	.0653	.0827
z3, ss, gt	.0562	.0967	.1587
z4, gg	.0830	.3794	.7433
z4, gt	.0559	.0935	.1505
z4, seg13, gg	.0576	.1081	.1876
z4, seg13, gt	.0530	.0709	.0955
z4, seg14, gg	.0552	.0880	.1368
z4, seg14, gt	.0537	.0759	.1075
z4, seg8, gg	.0609	.1386	.2655
z4, seg8, gt	.0532	.0721	.0985
z4, seg9, gg	.0604	.1341	.2538
z4, seg9, gt	.0509	.0558	.0619
z4, sf, gt	.0530	.0709	.0957
z4, ss, gt	.0529	.0703	.0942

Table E-10. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; gb, gear-beach seine; gm, gear-mini fyke net; go, gear-otter trawl; seg, segment; sf, season-fish community; ss, season-sturgeon]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1.gb	0.0589	0.1201	0.2181
z1.gm	.0657	.1879	.3869
z1.go	.0545	.0820	.1221
z2.gb	.0528	.0694	.0921
z2.gm	.0523	.0656	.0834
z2.go	.0662	.1934	.4001
z2,seg5,go	.0516	.0607	.0726
z2,seg6,gb	.0520	.0638	.0794
z2,seg6,gm	.0522	.0649	.0819
z2,seg6,go	.0622	.1521	.2996
z2,sf,go	.0613	.1433	.2772
z2,ss,go	.0532	.0725	.0993
z3.gb	.2398	.9882	1.0000
z3.gm	.0594	.1248	.2302
z3.go	.0540	.0787	.1140
z3,seg7,gb	.0551	.0873	.1352
z3,seg7,gm	.0526	.0676	.0880
z3,seg7,go	.0511	.0571	.0647
z3,sf,go	.0529	.0699	.0934
z3,ss,go	.0513	.0587	.0680
z4.gb	.1884	.9503	.9999
z4.gm	.0606	.1360	.2587
z4.go	.0532	.0722	.0987
z4,seg10,gm	.0508	.0553	.0608
z4,seg13,gm	.0520	.0636	.0790
z4,seg13,go	.0507	.0544	.0589
z4,seg14,gm	.0510	.0569	.0642
z4,seg14,go	.0511	.0572	.0649
z4,seg8,gb	.0523	.0653	.0827
z4,seg8,gm	.0521	.0644	.0807
z4,seg8,go	.0524	.0660	.0843
z4,seg9,gb	.0587	.1184	.2139
z4,seg9,gm	.0507	.0544	.0589
z4,sf,go	.0522	.0651	.0824
z4,ss,go	.0513	.0587	.0680

Table E-11. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; go, gear-otter trawl; gt, gear-trammel net; sf, season-fish community; ss, season-sturgeon; gg, gear-gill net; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,go	0.0658	0.1891	0.3899
z1,gt	.0822	.3701	.7306
z1,sf,gt	.0731	.2689	.5621
z1,ss,gt	.0602	.1324	.2497
z2,gg	.0888	.4422	.8185
z2,go	.0874	.4278	.8029
z2,gt	.1211	.7215	.9797
z2,seg5,gg	.0818	.3656	.7241
z2,seg5,gt	.0916	.4720	.8481
z2,seg6,gg	.0557	.0919	.1465
z2,seg6,go	.0724	.2607	.5461
z2,seg6,gt	.0502	.0515	.0531
z2,sf,go	.0565	.0987	.1636
z2,sf,gt	.0754	.2940	.6091
z2,ss,go	.0786	.3299	.6703
z2,ss,gt	.0910	.4652	.8417
z3,gg	.4150	.9999	1.0000
z3,go	.5096	1.0000	1.0000
z3,gt	.2981	.9979	1.0000
z3,seg7,gg	.0609	.1389	.2662
z3,seg7,go	.0548	.0848	.1290
z3,seg7,gt	.1167	.6912	.9721
z3,sf,go	.2558	.9925	1.0000
z3,sf,gt	.1794	.9367	.9997
z3,ss,go	.1562	.8831	.9985
z3,ss,gt	.1101	.6417	.9557
z4,gg	.3270	.9991	1.0000
z4,go	.4421	1.0000	1.0000
z4,gt	.2314	.9850	1.0000
z4,seg10,go	.0847	.3979	.7672
z4,seg10,gt	.0900	.4548	.8313
z4,seg13,gg	.0756	.2962	.6130
z4,seg13,go	.1823	.9414	.9998
z4,seg13,gt	.1094	.6364	.9536
z4,seg14,gg	.1219	.7262	.9807
z4,seg14,go	.0864	.4162	.7896
z4,seg14,gt	.0876	.4291	.8043
z4,seg8,gg	.0778	.3218	.6570
z4,seg8,go	.0735	.2730	.5702
z4,seg8,gt	.0574	.1066	.1838
z4,seg9,gg	.1184	.7034	.9753
z4,seg9,go	.0840	.3903	.7577
z4,seg9,gt	.0671	.2022	.4204
z4,sf,go	.2333	.9858	1.0000
z4,sf,gt	.1454	.8460	.9966
z4,ss,go	.1562	.8831	.9985
z4,ss,gt	.0927	.4834	.8584

Table E-12. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; go, gear-otter trawl; gt, gear-trammel net; sf, season-fish community; ss, season-sturgeon; gg, gear-gill net; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,go	0.0562	0.0960	0.1569
z1,gt	.0692	.2250	.4717
z1,sf,gt	.0659	.1904	.3928
z1,ss,gt	.0527	.0686	.0904
z2,gg	.0843	.3934	.7616
z2,go	.0874	.4278	.8029
z2,gt	.1211	.7215	.9797
z2,seg5,gg	.0780	.3232	.6593
z2,seg5,gt	.0916	.4720	.8481
z2,seg6,gg	.0553	.0891	.1395
z2,seg6,go	.0724	.2607	.5461
z2,seg6,gt	.0711	.2463	.5169
z2,sf,go	.0565	.0987	.1636
z2,sf,gt	.0754	.2940	.6091
z2,ss,go	.0786	.3299	.6703
z2,ss,gt	.0910	.4652	.8417
z3,gg	.3510	.9996	1.0000
z3,go	.2770	.9960	1.0000
z3,gt	.2452	.9899	1.0000
z3,seg7,gg	.0588	.1193	.2161
z3,seg7,go	.0534	.0739	.1026
z3,seg7,gt	.0941	.4971	.8701
z3,sf,go	.1381	.8152	.9942
z3,sf,gt	.1630	.9022	.9991
z3,ss,go	.1107	.6466	.9576
z3,ss,gt	.0929	.4851	.8599
z4,gg	.2783	.9961	1.0000
z4,go	.2355	.9867	1.0000
z4,gt	.1945	.9579	.9999
z4,seg10,go	.0726	.2626	.5498
z4,seg10,gt	.0722	.2589	.5425
z4,seg13,gg	.0756	.2964	.6134
z4,seg13,go	.1190	.7072	.9763
z4,seg13,gt	.0923	.4785	.8540
z4,seg14,gg	.1208	.7195	.9792
z4,seg14,go	.0757	.2973	.6151
z4,seg14,gt	.0791	.3360	.6800
z4,seg8,gg	.0771	.3139	.6438
z4,seg8,go	.0679	.2114	.4413
z4,seg8,gt	.0555	.0904	.1428
z4,seg9,gg	.1089	.6316	.9516
z4,seg9,go	.0611	.1410	.2714
z4,seg9,gt	.0605	.1351	.2566
z4,sf,go	.1257	.7503	.9855
z4,sf,gt	.1358	.8043	.9931
z4,ss,go	.1107	.6466	.9576
z4,ss,gt	.0807	.3538	.7073

Table E-13. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; go, gear-otter trawl; gt, gear-trammel net; sf, season-fish community; ss, season-sturgeon; gg, gear-gill net; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,go	0.0630	0.1595	0.3178
z1,gt	.0733	.2708	.5660
z1,sf,gt	.0645	.1749	.3559
z1,ss,gt	.0586	.1176	.2117
z2,gg	.0547	.0837	.1264
z2,seg5,gg	.0543	.0806	.1187
z2,seg6,gg	.0505	.0532	.0565
z3,gg	.4662	1.0000	1.0000
z3,go	.5933	1.0000	1.0000
z3,gt	.2675	.9947	1.0000
z3,seg7,gg	.0604	.1345	.2548
z3,seg7,go	.0563	.0968	.1588
z3,seg7,gt	.1128	.6627	.9633
z3,sf,go	.3154	.9987	1.0000
z3,sf,gt	.1591	.8917	.9988
z3,ss,go	.1687	.9157	.9994
z3,ss,gt	.1097	.6389	.9546
z4,gg	.3660	.9997	1.0000
z4,go	.5192	1.0000	1.0000
z4,gt	.2074	.9706	1.0000
z4,seg10,go	.0933	.4884	.8627
z4,seg10,gt	.0889	.4430	.8192
z4,seg13,gg	.0721	.2569	.5384
z4,seg13,go	.1435	.8383	.9961
z4,seg13,gt	.1081	.6258	.9492
z4,seg14,gg	.0956	.5115	.8815
z4,seg14,go	.0908	.4635	.8400
z4,seg14,gt	.0903	.4577	.8343
z4,seg8,gg	.0744	.2834	.5896
z4,seg8,go	.0697	.2312	.4851
z4,seg8,gt	.0591	.1219	.2228
z4,seg9,gg	.1204	.7166	.9785
z4,seg9,go	.1214	.7231	.9801
z4,seg9,gt	.0695	.2291	.4804
z4,sf,go	.2830	.9966	1.0000
z4,sf,gt	.1293	.7707	.9888
z4,ss,go	.1687	.9157	.9994
z4,ss,gt	.0928	.4842	.8591

Table E-14. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; go, gear-otter trawl; gt, gear-trammel net; sf, season-fish community; ss, season-sturgeon; gg, gear-gill net; seg, segment]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,go	0.0966	0.5212	0.8890
z3,gm	.0535	.0747	.1046
z3,go	.1048	.5973	.9360
z3,seg7,go	.0511	.0571	.0647
z3,sf,go	.0818	.3666	.7257
z3,ss,go	.0634	.1635	.3280
z4,gm	.0535	.0747	.1046
z4,go	.0958	.5137	.8834
z4,seg10,go	.0655	.1860	.3826
z4,seg13,gm	.0516	.0603	.0717
z4,seg13,go	.0594	.1250	.2307
z4,seg14,gm	.0556	.0911	.1447
z4,seg14,go	.0835	.3846	.7502
z4,seg8,go	.0550	.0863	.1328
z4,seg9,go	.0514	.0593	.0694
z4,sf,go	.0766	.3077	.6333
z4,ss,go	.0634	.1635	.3280

Table E–15. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; gb, gear-beach seine; gm, gear-mini fyke net; go, gear-otter trawl; seg, segment; sf, season-fish community; ss, season-sturgeon]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z3,gb	0.0654	0.1848	0.3796
z3,gm	.0678	.2100	.4382
z3,go	.1359	.8051	.9931
z3,seg7,go	.0511	.0571	.0647
z3,sf,go	.0823	.3720	.7332
z3,ss,go	.0766	.3075	.6330
z4,gb	.0628	.1577	.3134
z4,gm	.0650	.1805	.3694
z4,go	.1198	.7127	.9777
z4,seg10,gm	.0558	.0931	.1494
z4,seg10,go	.0658	.1883	.3879
z4,seg13,gb	.0520	.0636	.0790
z4,seg13,gm	.0527	.0688	.0907
z4,seg13,go	.0719	.2557	.5361
z4,seg14,gb	.0533	.0730	.1005
z4,seg14,gm	.0571	.1042	.1775
z4,seg14,go	.0646	.1759	.3584
z4,seg8,go	.0649	.1792	.3662
z4,seg9,gm	.0542	.0796	.1164
z4,seg9,go	.0580	.1124	.1986
z4,sf,go	.0775	.3183	.6513
z4,ss,go	.0766	.3075	.6330

Table E-16. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 20 years.

[z, zone; gm, gear-mini fyke net; go, gear-otter trawl; seg, segment; sf, season-fish community; ss, season-sturgeon]

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,gm	0.0526	0.0681	0.0892
z1,go	.0536	.0754	.1063
z3,go	1.0000	1.0000	1.0000
z3,seg7,go	1.0000	1.0000	1.0000
z3,sf,go	1.0000	1.0000	1.0000
z3,ss,go	.9373	1.0000	1.0000
z4,go	1.0000	1.0000	1.0000
z4,seg10,go	1.0000	1.0000	1.0000
z4,seg13,go	1.0000	1.0000	1.0000
z4,seg14,go	1.0000	1.0000	1.0000
z4,seg8,go	1.0000	1.0000	1.0000
z4,seg9,go	.3179	.9988	1.0000
z4,sf,go	1.0000	1.0000	1.0000
z4,ss,go	.9373	1.0000	1.0000