

Appendix D

Table D–1. Power of Blue Sucker-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0502	0.0516	0.0539
z1,gt	.0505	.0541	.0601
z2,gg	.0506	.0545	.0610
z2,go	.0509	.0571	.0676
z2,seg5,go	.0504	.0530	.0572
z2,seg6,gg	.0505	.0543	.0605
z2,seg6,go	.0504	.0530	.0572
z3,gg	.0548	.0922	.1667
z3,go	.0544	.0879	.1539
z3,gt	.0605	.1514	.3435
z3,seg7,gg	.0511	.0590	.0724
z3,seg7,go	.0546	.0902	.1609
z3,seg7,gt	.0518	.0646	.0874
z3,sf,go	.0516	.0632	.0836
z3,sf,gt	.0560	.1036	.2011
z3,ss,go	.0540	.0837	.1417
z3,ss,gt	.0539	.0835	.1412
z4,gg	.0539	.0831	.1400
z4,go	.0535	.0798	.1301
z4,gt	.0587	.1318	.2860
z4,seg10,go	.0506	.0549	.0620
z4,seg10,gt	.0516	.0626	.0820
z4,seg13,gg	.0511	.0590	.0726
z4,seg13,go	.0515	.0622	.0810
z4,seg13,gt	.0517	.0639	.0854
z4,seg14,gg	.0504	.0534	.0583
z4,seg14,go	.0526	.0714	.1061
z4,seg14,gt	.0527	.0727	.1099
z4,seg8,gg	.0550	.0932	.1698
z4,seg8,go	.0546	.0902	.1609
z4,seg8,gt	.0541	.0848	.1448
z4,seg9,gg	.0513	.0605	.0764
z4,seg9,go	.0507	.0556	.0637
z4,seg9,gt	.0540	.0844	.1437
z4,sf,go	.0513	.0601	.0754
z4,sf,gt	.0549	.0932	.1697
z4,ss,go	.0540	.0837	.1417
z4,ss,gt	.0533	.0774	.1233

Table D-2. Power of Blue Sucker-Adult at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0505	0.0541	0.0601
z2,gg	.0506	.0545	.0610
z2,go	.0509	.0571	.0676
z2,seg5,go	.0504	.0530	.0572
z2,seg6,gg	.0505	.0543	.0605
z2,seg6,go	.0504	.0530	.0572
z2,sf,go	.0509	.0571	.0676
z3,gg	.0547	.0905	.1619
z3,go	.0532	.0768	.1216
z3,gt	.0596	.1418	.3157
z3,seg7,gg	.0512	.0593	.0733
z3,seg7,go	.0537	.0811	.1340
z3,seg7,gt	.0519	.0655	.0897
z3,sf,go	.0514	.0609	.0776
z3,sf,gt	.0558	.1016	.1950
z3,ss,go	.0527	.0721	.1080
z3,ss,gt	.0533	.0780	.1249
z4,gg	.0537	.0815	.1352
z4,go	.0526	.0715	.1064
z4,gt	.0579	.1236	.2616
z4,seg10,go	.0506	.0549	.0620
z4,seg10,gt	.0512	.0595	.0737
z4,seg13,gg	.0504	.0531	.0574
z4,seg13,go	.0511	.0586	.0715
z4,seg13,gt	.0515	.0623	.0811
z4,seg14,gg	.0508	.0562	.0652
z4,seg14,go	.0516	.0627	.0823
z4,seg14,gt	.0525	.0709	.1047
z4,seg8,gg	.0512	.0598	.0747
z4,seg8,go	.0547	.0906	.1621
z4,seg8,gt	.0541	.0848	.1449
z4,seg9,gg	.0551	.0942	.1728
z4,seg9,go	.0505	.0542	.0603
z4,seg9,gt	.0536	.0809	.1335
z4,sf,go	.0511	.0586	.0714
z4,sf,gt	.0548	.0915	.1646
z4,ss,go	.0527	.0721	.1080
z4,ss,gt	.0527	.0723	.1088

Table D-3. Power of Blue Sucker-Juvenile at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0502	0.0516	0.0539
z3,gg	.0525	.0707	.1041
z3,go	.0549	.0931	.1694
z3,gt	.0551	.0945	.1737
z3,seg7,gg	.0502	.0516	.0537
z3,seg7,go	.0506	.0544	.0608
z3,seg7,gt	.0506	.0545	.0610
z3,sf,go	.0511	.0587	.0716
z3,sf,gt	.0526	.0717	.1070
z3,ss,go	.0526	.0717	.1071
z3,ss,gt	.0521	.0675	.0952
z4,gg	.0522	.0683	.0976
z4,go	.0538	.0826	.1385
z4,gt	.0542	.0859	.1481
z4,seg10,gt	.0502	.0517	.0540
z4,seg13,gg	.0502	.0514	.0534
z4,seg13,go	.0505	.0536	.0588
z4,seg13,gt	.0504	.0531	.0575
z4,seg14,gg	.0502	.0516	.0537
z4,seg14,go	.0510	.0575	.0687
z4,seg14,gt	.0508	.0563	.0655
z4,seg8,gg	.0509	.0568	.0667
z4,seg8,go	.0503	.0519	.0547
z4,seg8,gt	.0507	.0559	.0644
z4,seg9,gg	.0511	.0590	.0724
z4,seg9,go	.0509	.0568	.0668
z4,seg9,gt	.0515	.0617	.0796
z4,sf,go	.0507	.0557	.0641
z4,sf,gt	.0522	.0676	.0955
z4,ss,go	.0526	.0717	.1071
z4,ss,gt	.0517	.0635	.0844

Table D-4. Power of Pallid Sturgeon-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0514	0.0612	0.0782
z1,gt	.0529	.0743	.1142
z1,sf,gt	.0522	.0682	.0973
z1,ss,gt	.0504	.0533	.0581
z2,gg	.0515	.0619	.0800
z2,go	.0516	.0625	.0817
z2,gt	.0525	.0709	.1047
z2,seg5,gg	.0513	.0602	.0756
z2,seg5,go	.0518	.0645	.0870
z2,seg5,gt	.0515	.0617	.0796
z2,seg6,gg	.0502	.0514	.0534
z2,seg6,gt	.0511	.0585	.0711
z2,sf,go	.0504	.0535	.0584
z2,sf,gt	.0519	.0655	.0898
z2,ss,go	.0507	.0551	.0626
z2,ss,gt	.0505	.0536	.0588
z3,gg	.0530	.0747	.1156
z3,go	.0513	.0606	.0766
z3,gt	.0519	.0651	.0886
z3,seg7,gt	.0504	.0531	.0574
z3,sf,go	.0510	.0580	.0700
z3,sf,gt	.0512	.0593	.0733
z3,ss,gt	.0506	.0545	.0610
z4,gg	.0527	.0724	.1091
z4,go	.0511	.0590	.0724
z4,gt	.0515	.0624	.0814
z4,seg10,go	.0504	.0534	.0581
z4,seg10,gt	.0504	.0534	.0581
z4,seg13,gg	.0508	.0565	.0659
z4,seg13,go	.0505	.0539	.0596
z4,seg13,gt	.0507	.0551	.0625
z4,seg14,gg	.0502	.0513	.0531
z4,seg14,go	.0501	.0506	.0515
z4,seg14,gt	.0503	.0525	.0560
z4,seg8,gg	.0505	.0542	.0603
z4,seg8,go	.0505	.0540	.0596
z4,seg8,gt	.0504	.0530	.0573
z4,seg9,gg	.0510	.0577	.0692
z4,seg9,go	.0503	.0521	.0550
z4,seg9,gt	.0504	.0532	.0577
z4,sf,go	.0509	.0568	.0669
z4,sf,gt	.0509	.0574	.0682
z4,ss,go	.0502	.0518	.0544
z4,ss,gt	.0505	.0538	.0592

Table D-5. Power of Pallid Sturgeon-Adult at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0501	0.0510	0.0524
z2,gg	.0505	.0539	.0595
z2,seg6,gg	.0504	.0532	.0577
z3,gg	.0509	.0575	.0686
z3,go	.0503	.0524	.0559
z3,gt	.0501	.0507	.0517
z4,gg	.0508	.0562	.0652
z4,go	.0503	.0524	.0559
z4,gt	.0501	.0506	.0515
z4,seg13,gg	.0503	.0521	.0550
z4,seg13,gt	.0502	.0513	.0532
z4,seg8,gg	.0504	.0529	.0570
z4,seg9,gg	.0502	.0515	.0536
z4,seg9,go	.0503	.0524	.0558
z4,seg9,gt	.0500	.0503	.0507

Table D–6. Power of Pallid Sturgeon-Juvenile at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0514	0.0612	0.0782
z1,gt	.0526	.0716	.1067
z1,sf,gt	.0519	.0657	.0903
z1,ss,gt	.0504	.0533	.0581
z2,gg	.0514	.0608	.0772
z2,go	.0516	.0625	.0817
z2,gt	.0525	.0709	.1047
z2,seg5,gg	.0513	.0602	.0756
z2,seg5,go	.0518	.0645	.0870
z2,seg5,gt	.0515	.0617	.0796
z2,seg6,gg	.0500	.0504	.0509
z2,seg6,gt	.0511	.0585	.0711
z2,sf,go	.0504	.0535	.0584
z2,sf,gt	.0519	.0655	.0898
z2,ss,go	.0507	.0551	.0626
z2,ss,gt	.0505	.0536	.0588
z3,gg	.0514	.0612	.0784
z3,go	.0512	.0595	.0737
z3,gt	.0519	.0650	.0884
z3,seg7,gt	.0504	.0531	.0574
z3,sf,go	.0510	.0580	.0700
z3,sf,gt	.0512	.0593	.0733
z3,ss,go	.0502	.0513	.0532
z3,ss,gt	.0506	.0544	.0607
z4,gg	.0514	.0611	.0780
z4,go	.0510	.0581	.0701
z4,gt	.0515	.0622	.0809
z4,seg10,go	.0504	.0534	.0581
z4,seg10,gt	.0504	.0534	.0581
z4,seg13,gg	.0505	.0538	.0594
z4,seg13,go	.0505	.0539	.0596
z4,seg13,gt	.0506	.0544	.0607
z4,seg14,gg	.0502	.0513	.0531
z4,seg14,go	.0501	.0506	.0515
z4,seg14,gt	.0503	.0525	.0560
z4,seg8,gg	.0502	.0513	.0531
z4,seg8,go	.0505	.0540	.0596
z4,seg8,gt	.0504	.0530	.0573
z4,seg9,gg	.0505	.0540	.0598
z4,seg9,go	.0502	.0515	.0537
z4,seg9,gt	.0504	.0532	.0577
z4,sf,go	.0509	.0568	.0669
z4,sf,gt	.0509	.0574	.0682
z4,ss,go	.0502	.0513	.0532
z4,ss,gt	.0505	.0536	.0588

Table D-7. Power of Sand Shiner-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0502	0.0516	0.0539
z2,gb	.0505	.0540	.0598
z2,gm	.0538	.0825	.1380
z2,seg5,gb	.0504	.0533	.0580
z2,seg5,gm	.0515	.0620	.0803
z2,seg6,gb	.0514	.0611	.0780
z2,seg6,gm	.0536	.0802	.1314
z3,gb	.0604	.1505	.3411
z3,gm	.0532	.0766	.1209
z3,seg7,gb	.0516	.0625	.0818
z3,seg7,gm	.0520	.0661	.0913
z4,gb	.0588	.1323	.2875
z4,gm	.0518	.0645	.0871
z4,seg10,gb	.0506	.0546	.0611
z4,seg10,gm	.0516	.0626	.0820
z4,seg13,gb	.0517	.0637	.0850
z4,seg13,gm	.0502	.0514	.0534
z4,seg14,gb	.0507	.0556	.0638
z4,seg14,gm	.0502	.0514	.0534
z4,seg8,gb	.0528	.0730	.1107
z4,seg8,gm	.0507	.0555	.0634
z4,seg9,gb	.0530	.0751	.1166
z4,seg9,gm	.0512	.0594	.0735

Table D–8. Power of Sauger-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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,gb	0.0518	0.0645	0.0870
z1,gm	.0528	.0734	.1117
z1,go	.0513	.0606	.0766
z1,gt	.0547	.0907	.1623
z1,sf,gt	.0532	.0764	.1205
z1,ss,gt	.0514	.0616	.0792
z2,gg	.0547	.0911	.1637
z2,go	.0526	.0717	.1069
z2,gt	.0572	.1162	.2392
z2,seg5,gg	.0513	.0604	.0762
z2,seg5,go	.0507	.0555	.0634
z2,seg5,gt	.0520	.0661	.0914
z2,seg6,gg	.0570	.1141	.2327
z2,seg6,go	.0516	.0631	.0834
z2,seg6,gt	.0548	.0922	.1667
z2,sf,go	.0530	.0751	.1166
z2,sf,gt	.0535	.0799	.1305
z2,ss,go	.0508	.0565	.0661
z2,ss,gt	.0545	.0886	.1562
z3,gb	.0776	.3594	.7827
z3,gg	.0576	.1195	.2491
z3,gm	.0519	.0654	.0895
z3,go	.0513	.0606	.0765
z3,gt	.0516	.0630	.0831
z3,seg7,gb	.0510	.0583	.0706
z3,seg7,gg	.0507	.0553	.0629
z3,seg7,gm	.0505	.0541	.0601
z3,seg7,go	.0503	.0526	.0563
z3,seg7,gt	.0509	.0574	.0684
z3,sf,go	.0507	.0556	.0636
z3,sf,gt	.0508	.0567	.0664
z3,ss,go	.0504	.0529	.0570
z3,ss,gt	.0509	.0569	.0670
z4,gg	.0562	.1061	.2085
z4,gm	.0522	.0683	.0976
z4,go	.0510	.0576	.0689
z4,gt	.0514	.0609	.0773
z4,seg10,gm	.0504	.0529	.0570
z4,seg10,go	.0502	.0517	.0540
z4,seg13,gg	.0516	.0626	.0821
z4,seg13,go	.0502	.0513	.0530
z4,seg13,gt	.0508	.0561	.0651
z4,seg14,gg	.0511	.0584	.0710
z4,seg14,gm	.0505	.0538	.0592

Table D–8. Power of Sauger-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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,go	0.0504	0.0530	0.0571
z4,seg14,gt	.0509	.0570	.0672
z4,seg8,gg	.0522	.0677	.0958
z4,seg8,gm	.0506	.0546	.0611
z4,seg8,go	.0507	.0556	.0637
z4,seg8,gt	.0507	.0552	.0626
z4,seg9,gg	.0521	.0669	.0936
z4,seg9,gm	.0501	.0506	.0515
z4,seg9,gt	.0502	.0514	.0534
z4,sf,go	.0505	.0540	.0598
z4,sf,gt	.0508	.0559	.0646
z4,ss,go	.0504	.0529	.0570
z4,ss,gt	.0506	.0548	.0617

Table D–9. Power of Sauger-Adult at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 years.

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

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,gm	0.0510	0.0577	0.0690
z1,gt	.0545	.0885	.1557
z1,sf,gt	.0530	.0747	.1155
z1,ss,gt	.0514	.0616	.0792
z2,gg	.0547	.0911	.1637
z2,go	.0518	.0646	.0873
z2,gt	.0572	.1162	.2392
z2,seg5,gg	.0513	.0604	.0762
z2,seg5,go	.0545	.0886	.1562
z2,seg5,gt	.0520	.0661	.0914
z2,seg6,gg	.0570	.1141	.2327
z2,seg6,go	.0510	.0582	.0704
z2,seg6,gt	.0548	.0922	.1667
z2,sf,go	.0518	.0645	.0870
z2,sf,gt	.0535	.0799	.1305
z2,ss,go	.0509	.0570	.0672
z2,ss,gt	.0545	.0886	.1562
z3,gg	.0574	.1183	.2455
z3,go	.0513	.0606	.0768
z3,gt	.0521	.0674	.0950
z3,seg7,gg	.0507	.0553	.0629
z3,seg7,go	.0503	.0521	.0550
z3,seg7,gt	.0509	.0574	.0684
z3,sf,go	.0509	.0574	.0683
z3,sf,gt	.0510	.0583	.0707
z3,ss,go	.0505	.0537	.0589
z3,ss,gt	.0513	.0602	.0756
z4,gg	.0562	.1051	.2056
z4,gt	.0512	.0596	.0740
z4,seg13,gg	.0515	.0623	.0811
z4,seg13,gt	.0506	.0549	.0619
z4,seg14,gg	.0511	.0584	.0710
z4,seg14,gt	.0508	.0560	.0647
z4,seg8,gg	.0522	.0677	.0958
z4,seg8,gt	.0507	.0552	.0626
z4,seg9,gg	.0521	.0669	.0936
z4,seg9,gt	.0502	.0514	.0534
z4,sf,gt	.0506	.0549	.0620
z4,ss,gt	.0506	.0548	.0617

Table D–10. Power of Sauger-Juvenile at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0518	0.0645	0.0870
z1,gm	.0531	.0757	.1185
z1,go	.0509	.0572	.0678
z2,gb	.0506	.0546	.0611
z2,gm	.0505	.0537	.0590
z2,go	.0532	.0768	.1215
z2,seg5,go	.0503	.0526	.0563
z2,seg6,gb	.0504	.0533	.0580
z2,seg6,gm	.0505	.0535	.0586
z2,seg6,go	.0524	.0701	.1024
z2,sf,go	.0523	.0686	.0982
z2,ss,go	.0507	.0552	.0628
z3,gb	.0776	.3594	.7827
z3,gm	.0519	.0654	.0895
z3,go	.0508	.0566	.0662
z3,seg7,gb	.0510	.0583	.0706
z3,seg7,gm	.0505	.0541	.0601
z3,seg7,go	.0502	.0517	.0542
z3,sf,go	.0506	.0547	.0615
z3,ss,go	.0503	.0521	.0551
z4,gb	.0712	.2800	.6541
z4,gm	.0521	.0674	.0949
z4,go	.0507	.0552	.0627
z4,seg10,gm	.0502	.0513	.0531
z4,seg13,gm	.0504	.0533	.0579
z4,seg13,go	.0501	.0511	.0526
z4,seg14,gm	.0502	.0517	.0540
z4,seg14,go	.0502	.0518	.0543
z4,seg8,gb	.0505	.0536	.0588
z4,seg8,gm	.0504	.0534	.0583
z4,seg8,go	.0505	.0538	.0593
z4,seg9,gb	.0518	.0642	.0862
z4,seg9,gm	.0501	.0511	.0526
z4,sf,go	.0712	.2800	.6541
z4,ss,go	.0503	.0521	.0551

Table D-11. Power of Shovelnose Sturgeon-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0531	0.0759	0.1190
z1,gt	.0560	.1036	.2010
z1,sf,gt	.0544	.0881	.1547
z1,ss,gt	.0520	.0666	.0929
z2,gg	.0571	.1148	.2349
z2,go	.0569	.1126	.2285
z2,gt	.0621	.1697	.3954
z2,seg5,gg	.0559	.1026	.1981
z2,seg5,gt	.0576	.1196	.2495
z2,seg6,gg	.0512	.0592	.0730
z2,seg6,go	.0543	.0871	.1515
z2,seg6,gt	.0500	.0504	.0509
z2,sf,go	.0513	.0606	.0765
z2,sf,gt	.0548	.0921	.1664
z2,ss,go	.0554	.0975	.1826
z2,ss,gt	.0575	.1185	.2462
z3,gg	.0989	.5933	.9630
z3,go	.1112	.6981	.9880
z3,gt	.0847	.4437	.8756
z3,seg7,gg	.0522	.0677	.0960
z3,seg7,go	.0510	.0578	.0693
z3,seg7,gt	.0614	.1619	.3736
z3,sf,go	.0796	.3830	.8128
z3,sf,gt	.0701	.2658	.6262
z3,ss,go	.0670	.2280	.5441
z3,ss,gt	.0605	.1512	.3429
z4,gg	.0881	.4825	.9063
z4,go	.1023	.6252	.9729
z4,gt	.0766	.3469	.7653
z4,seg10,go	.0564	.1075	.2130
z4,seg10,gt	.0573	.1165	.2400
z4,seg13,gg	.0548	.0922	.1668
z4,seg13,go	.0704	.2697	.6339
z4,seg13,gt	.0603	.1498	.3388
z4,seg14,gg	.0621	.1701	.3963
z4,seg14,go	.0567	.1107	.2225
z4,seg14,gt	.0569	.1127	.2286
z4,seg8,gg	.0552	.0960	.1783
z4,seg8,go	.0545	.0889	.1570
z4,seg8,gt	.0515	.0621	.0805
z4,seg9,gg	.0616	.1643	.3803
z4,seg9,go	.0563	.1066	.2103
z4,seg9,gt	.0533	.0781	.1253
z4,sf,go	.0768	.3495	.7689
z4,sf,gt	.0655	.2103	.5018
z4,ss,go	.0670	.2280	.5441
z4,ss,gt	.0578	.1217	.2557

Table D-12. Power of Shovelnose Sturgeon-Adult at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0513	0.0600	0.0751
z1,gt	.0537	.0816	.1356
z1,sf,gt	.0531	.0761	.1196
z1,ss,gt	.0506	.0544	.0607
z2,gg	.0564	.1071	.2117
z2,go	.0569	.1126	.2285
z2,gt	.0621	.1697	.3954
z2,seg5,gg	.0553	.0962	.1789
z2,seg5,gt	.0576	.1196	.2495
z2,seg6,gg	.0511	.0586	.0715
z2,seg6,go	.0543	.0871	.1515
z2,seg6,gt	.0541	.0849	.1451
z2,sf,go	.0513	.0606	.0765
z2,sf,gt	.0548	.0921	.1664
z2,ss,go	.0554	.0975	.1826
z2,ss,gt	.0575	.1185	.2462
z3,gg	.0910	.5142	.9267
z3,go	.0822	.4141	.8474
z3,gt	.0783	.3677	.7937
z3,seg7,gg	.0518	.0643	.0866
z3,seg7,go	.0507	.0555	.0635
z3,seg7,gt	.0580	.1238	.2621
z3,sf,go	.0645	.1983	.4716
z3,sf,gt	.0679	.2393	.5699
z3,ss,go	.0606	.1522	.3458
z3,ss,gt	.0578	.1220	.2567
z4,gg	.0823	.4152	.8485
z4,go	.0771	.3532	.7741
z4,gt	.0720	.2899	.6726
z4,seg10,go	.0543	.0872	.1519
z4,seg10,gt	.0543	.0866	.1502
z4,seg13,gg	.0549	.0922	.1669
z4,seg13,go	.0618	.1658	.3845
z4,seg13,gt	.0577	.1207	.2527
z4,seg14,gg	.0620	.1683	.3914
z4,seg14,go	.0549	.0926	.1679
z4,seg14,gt	.0555	.0984	.1853
z4,seg8,gg	.0551	.0948	.1747
z4,seg8,go	.0535	.0795	.1294
z4,seg8,gt	.0511	.0589	.0723
z4,seg9,gg	.0602	.1483	.3345
z4,seg9,go	.0522	.0682	.0971
z4,seg9,gt	.0521	.0672	.0944
z4,sf,go	.0628	.1775	.4169
z4,sf,gt	.0642	.1944	.4615
z4,ss,go	.0606	.1522	.3458
z4,ss,gt	.0558	.1012	.1939

Table D-13. Power of Shovelnose Sturgeon-Juvenile at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0526	0.0712	0.1055
z1,gt	.0545	.0886	.1561
z1,sf,gt	.0529	.0737	.1126
z1,ss,gt	.0517	.0640	.0858
z2,gg	.0510	.0576	.0688
z2,seg5,gg	.0509	.0569	.0671
z2,seg6,gg	.0501	.0508	.0519
z3,gg	.1053	.6516	.9794
z3,go	.1232	.7780	.9961
z3,gt	.0810	.4004	.8327
z3,seg7,gg	.0521	.0670	.0938
z3,seg7,go	.0513	.0601	.0755
z3,seg7,gt	.0608	.1554	.3551
z3,sf,go	.0868	.4672	.8949
z3,sf,gt	.0674	.2330	.5556
z3,ss,go	.0687	.2484	.5898
z3,ss,gt	.0604	.1506	.3412
z4,gg	.0928	.5332	.9372
z4,go	.1124	.7078	.9893
z4,gt	.0737	.3102	.7083
z4,seg10,go	.0578	.1220	.2566
z4,seg10,gt	.0571	.1146	.2343
z4,seg13,gg	.0542	.0863	.1493
z4,seg13,go	.0652	.2066	.4927
z4,seg13,gt	.0601	.1476	.3324
z4,seg14,gg	.0582	.1259	.2683
z4,seg14,go	.0574	.1182	.2453
z4,seg14,gt	.0573	.1173	.2424
z4,seg8,gg	.0546	.0903	.1611
z4,seg8,go	.0538	.0826	.1383
z4,seg8,gt	.0518	.0648	.0880
z4,seg9,gg	.0619	.1676	.3894
z4,seg9,go	.0621	.1698	.3957
z4,seg9,gt	.0538	.0823	.1374
z4,sf,go	.0829	.4221	.8554
z4,sf,gt	.0633	.1835	.4329
z4,ss,go	.0687	.2484	.5898
z4,ss,gt	.0578	.1218	.2561

Table D-14. Power of Sicklefin Chub-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 years.

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

Model type	Annual population decrease		
	1 percent	3 percent	5 percent
z1,go	0.0583	0.1276	0.2733
z3,gm	.0507	.0557	.0641
z3,go	.0597	.1422	.3169
z3,seg7,go	.0502	.0517	.0542
z3,sf,go	.0560	.1032	.1999
z3,ss,go	.0527	.0720	.1078
z4,gm	.0507	.0557	.0641
z4,go	.0583	.1269	.2715
z4,seg10,go	.0530	.0755	.1176
z4,seg13,gm	.0503	.0525	.0560
z4,seg13,go	.0519	.0654	.0895
z4,seg14,gm	.0511	.0590	.0726
z4,seg14,go	.0562	.1058	.2077
z4,seg8,go	.0510	.0581	.0702
z4,seg9,go	.0503	.0523	.0554
z4,sf,go	.0551	.0942	.1729
z4,ss,go	.0527	.0720	.1078

Table D-15. Power of Speckled Chub-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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	0.0530	0.0754	0.1176
z3,gm	.0535	.0794	.1291
z3,go	.0642	.1948	.4626
z3,seg7,go	.0502	.0517	.0542
z3,sf,go	.0560	.1040	.2023
z3,ss,go	.0551	.0942	.1728
z4,gb	.0526	.0710	.1051
z4,gm	.0530	.0748	.1156
z4,go	.0619	.1676	.3896
z4,seg10,gm	.0512	.0594	.0736
z4,seg10,go	.0531	.0758	.1187
z4,seg13,gb	.0504	.0533	.0579
z4,seg13,gm	.0506	.0544	.0607
z4,seg13,go	.0542	.0863	.1493
z4,seg14,gb	.0507	.0553	.0630
z4,seg14,gm	.0514	.0615	.0792
z4,seg14,go	.0529	.0740	.1134
z4,seg8,go	.0529	.0745	.1148
z4,seg9,gm	.0509	.0567	.0666
z4,seg9,go	.0516	.0631	.0834
z4,sf,go	.0552	.0958	.1777
z4,ss,go	.0551	.0942	.1728

Table D–16. Power of Sturgeon Chub-All at different annual population decreases for a sampling level of 12 bends and 8 subsamples for 10 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,gm	0.0505	0.0543	0.0604
z1,go	.0507	.0558	.0644
z3,go	.9239	1.0000	1.0000
z3,seg7,go	1.0000	1.0000	1.0000
z3,sf,go	.9018	1.0000	1.0000
z3,ss,go	.2214	.9870	1.0000
z4,go	.8523	1.0000	1.0000
z4,seg10,go	.7658	1.0000	1.0000
z4,seg13,go	.5451	1.0000	1.0000
z4,seg14,go	.5236	1.0000	1.0000
z4,seg8,go	.8810	1.0000	1.0000
z4,seg9,go	.0869	.4691	.8964
z4,sf,go	.8145	1.0000	1.0000
z4,ss,go	.2214	.9870	1.0000

