## **Prey Physiological Delay**

Covariates	AICc	delAICc	AICc.Weight
8. Hake Biomass	560.47	0	0.52
14. All Chinook Smolts, Hake biomass	563.52	3.05	0.11
7. All Chinook Smolts	563.64	3.17	0.11
4. Hatchery Chinook Smolts	563.74	3.27	0.1
2. Location Only	565.7	5.23	0.04
12. Chinook escapement, Hake biomass	566.76	6.29	0.02
29. Hake and Herring interaction	567.05	6.58	0.02
23. Harbor seal population, Hake biomass	567.57	7.1	0.01
16. Herring Biomass, All Chinook Smolts, Hake biomass	567.82	7.35	0.01
10. Herring Biomass, Hake Biomass	568.72	8.25	0.01
19. Harbor Seal population	569.01	8.54	0.01
25.Harbor Seal population, Herring biomass, Hake biomass	569.67	9.2	0.01
13. Chinook escapments, All Chinook Smolts	569.69	9.21	0.01
15. Chinook escapement, All Chinook Smolts, Hake biomass	569.84	9.37	0
5. Herring Biomass	570.16	9.69	0
11. Herring Biomass, All Chinook Smolts	570.49	10.02	0
22.Harbor Seal population, All Chinook Smolts	570.64	10.17	0
28. Harbor Seal population, All Chinook Smolts, Hake biomass	570.7	10.23	0
3. Wild Chinook Smolts	571.11	10.64	0
30. Hake and Herring interaction, All Chinook Smolts	571.47	10.99	0
6. Chinook Escapements	571.51	11.04	0
18. Herring biomass, Hake biomass, Chinook escapement	572.96	12.49	0

27. Harbor Seal population, Chinook escapement, Hake biomass	573.89	13.42	0
20. Harbor Seal population, Herring biomass	574.92	14.44	0
21. Harbor Seal population, Chinook escapement	575.25	14.78	0
9. Herring Biomass, Chinook escapements	576.27	15.79	0
26.Harbor Seal population, Herring biomass, All Chinook Smolts	576.45	15.97	0
17. Chinook escapement, All Chinook Smolts, herring biomass	576.55	16.08	0
1. Null	579.69	19.22	0
24. Harbor Seal population, Herring biomass, Chinook escapement	581.17	20.7	0

## 1-year Ecological Delay

Covariates	AICc	delAICc	AICc.Weight
7. All Chinook Smolts	568.28	0	0.38
14. All Chinook Smolts, Hake biomass	571.11	2.82	0.09
13. Chinook escapments, All Chinook Smolts	571.26	2.97	0.09
11. Herring Biomass, All Chinook Smolts	574.77	6.49	0.02
15. Chinook escapement, All Chinook Smolts, Hake biomass	575.2	6.92	0.01
22. Harbor Seal population, All Chinook Smolts	575.26	6.97	0.01
16. Herring Biomass, All Chinook Smolts, Hake biomass	575.99	7.71	0.01
8. Hake Biomass	577.54	9.25	0
17. Chinook escapement, All Chinook Smolts, herring biomass	577.7	9.41	0
28. Harbor Seal population, All Chinook Smolts, Hake biomass	577.72	9.43	0
10. Herring Biomass, Hake Biomass	580.24	11.95	0
30. Hake and Herring interaction, All Chinook Smolts	580.66	12.37	0
26.Harbor Seal population, Herring biomass, All Chinook Smolts	580.83	12.54	0
5. Herring Biomass	581.65	13.37	0
23. Harbor seal population, Hake biomass	582.72	14.43	0
12. Chinook escapement, Hake biomass	583.58	15.29	0
3. Wild Chinook Smolts	585.03	16.75	0
19. Harbor Seal population	585.11	16.82	0
2. Location Only	585.89	17.61	0
9. Herring Biomass, Chinook escapements	586.74	18.45	0
20. Harbor Seal population, Herring biomass	587.9	19.62	0

	20.09	0
29. Hake and Herring interaction 588.37		0
18. Herring biomass, Hake biomass, Chinook escapement 588.41	20.12	0
27. Harbor Seal population, Chinook escapement, Hake biomass 588.86	20.58	0
21. Harbor Seal population, Chinook escapement 590.9	22.61	0
6. Chinook Escapements 591.25	22.96	0
24. Harbor Seal population, Herring biomass, Chinook escapement 592.89	24.61	0
1. Null 597.74	29.45	0

## **Environment Physiological Delay**

Covariates	AICc	delAICc	AICc.Weight
19. Upwelling (Summer)	757.59	0	0.62
33. Columbia Discharge High, Upwelling (Summer)	760.2	2.61	0.17
34. SST (Summer), Upwelling (Summer)	762.38	4.78	0.06
22. Upwelling (Summer), MEI	763.42	5.83	0.03
35. SST (Summer), Upwelling (Summer), Columbia Discharge High	763.83	6.24	0.03
21. Upwelling (Summer), NPGO	763.84	6.25	0.03
20. Upwelling (Summer), PDO	764.23	6.64	0.02
2. Location	765.09	7.49	0.01
4. NPGO	766.31	8.72	0.01
24. Columbia Discharge High, Location	766.66	9.07	0.01
23. Upwelling (Summer), NPGO, Upwelling (Spring)	768.3	10.7	0
26. Columbia Discharge High, NPGO	768.34	10.74	0
5. MEI	768.61	11.02	0
6. Upwelling (Spring)	769.98	12.39	0
27. Columbia Discharge High, MEI	770.95	13.36	0
11. SST (Summer)	771.51	13.91	0
3. PDO	771.56	13.97	0
13. SST (Summer), NPGO	772.15	14.56	0
28. Upwelling (Spring)	772.42	14.83	0
10. MEI, Upwelling (Spring)	772.55	14.96	0
7. NPGO,PDO	772.93	15.33	0
32. Columbia Discharge High, SST (Summer)	772.95	15.36	0
9. NPGO, Upwelling (Spring)	773.26	15.67	0

25. Columbia Discharge High, PDO	773.37	15.78	0
14. SST (Summer), MEI	774.78	17.19	0
8. PDO, Upwelling (Spring)	775.31	17.72	0
30. Columbia Discharge High, NPGO, Upwelling (Spring)	775.81	18.22	0
31. Columbia Discharge High, MEI, Upwelling (Spring)	775.81	18.22	0
15. SST (Summer), Upwelling (Spring)	776.43	18.83	0
12. SST (Summer), PDO	777.97	20.37	0
29. Columbia Discharge High, PDO, Upwelling (Spring)	778.51	20.92	0
18. SST (Summer), MEI, Upwelling (Spring)	778.86	21.27	0
17. SST (Summer), NPGO, Upwelling (Spring)	779.38	21.78	0
16. SST (Summer), PDO, Upwelling (Spring)	781.76	24.17	0
1. Null	787.38	29.79	0

## 1-year Environmental Delay

Covariates	AICc	delAICc	AICc.Weight
11. SST (Summer)	750.71	0	0.55
15. SST (Summer), Upwelling (Spring)	752.76	2.05	0.2
14. SST (Summer), MEI	754.19	3.48	0.1
32. Columbia Discharge High, SST (Summer)	754.68	3.98	0.08
12. SST (Summer), PDO	756.64	5.93	0.03
13. SST (Summer), NPGO	757.51	6.8	0.02
16. SST (Summer), PDO, Upwelling (Spring)	758.98	8.27	0.01
18. SST (Summer), MEI, Upwelling (Spring)	759.02	8.31	0.01
34. SST (Summer), Upwelling (Summer)	759.57	8.87	0.01
17. SST (Summer), NPGO, Upwelling (Spring)	759.71	9	0.01
35. SST (Summer), Upwelling (Summer), Columbia Discharge High	763.4	12.7	0
5. MEI	763.71	13	0
2. Location	765.09	14.38	0
6. Upwelling (Spring)	765.73	15.02	0
27. Columbia Discharge High, MEI	766.63	15.93	0
10. MEI, Upwelling (Spring)	769.87	19.16	0
24. Columbia Discharge High, Location	769.93	19.22	0
3. PDO	770.3	19.6	0
4. NPGO	770.36	19.65	0
28. Upwelling (Spring)	770.55	19.84	0
9. NPGO, Upwelling (Spring)	770.62	19.92	0
8. PDO, Upwelling (Spring)	772.08	21.37	0
22. Upwelling (Summer), MEI	772.77	22.07	0

31. Columbia Discharge High, MEI, Upwelling (Spring)	773.39	22.69	0
19. Upwelling (Summer)	774.13	23.42	0
25. Columbia Discharge High, PDO	774.84	24.13	0
26. Columbia Discharge High, NPGO	775.21	24.51	0
30. Columbia Discharge High, NPGO, Upwelling (Spring)	775.45	24.74	0
7. NPGO,PDO	776.33	25.62	0
29. Columbia Discharge High, PDO, Upwelling (Spring)	776.77	26.06	0
21. Upwelling (Summer), NPGO	778.59	27.88	0
33. Columbia Discharge High, Upwelling (Summer)	778.97	28.26	0
23. Upwelling (Summer), NPGO, Upwelling (Spring)	779.27	28.56	0
20. Upwelling (Summer), PDO	779.36	28.65	0
1. Null	787.38	36.67	0