Fine Sediment and Chinook Salmon

Function Updated by sr_editor on Mon, 10/06/2025 - 03:57.

Species Information

Common Name: Chinook Salmon
Genus: Oncorhynchus tshawytscha

Stressor Details

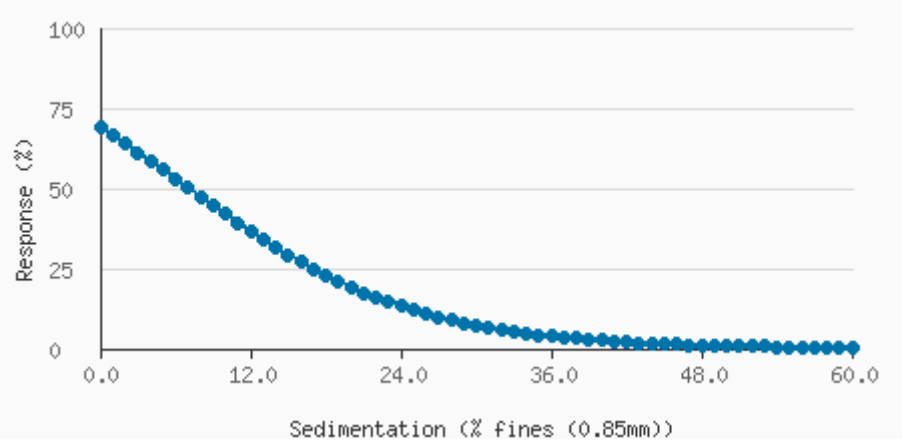
Stressor Name: Sedimentation
Units: % fines (0.85mm)
Metric: Fine sediments
Scale: linear
Function Type: continuous
Vital Rate/Process: Survivorship

Life Stage & Context

Life Stages: Juvenile
Geography: Pacific Northwest Freshwater Systems, USA
Activity: Incubation
Season: All seasons

Descriptions

Stressor Response Data



?PERCENT_FINES_0.85mm	Mean System Capacity (%)	SD	low.limit	up.limit
0	68.82	3.73	0	100
1	66.38	3.74	0	100
2	63.85	3.74	0	100
3	61.24	3.72	0	100
4	58.56	3.69	0	100
5	55.83	3.64	0	100
6	53.06	3.58	0	100
7	50.27	3.52	0	100
8	47.47	3.45	0	100
9	44.69	3.38	0	100

10	41.95	3.3	0	100
11	39.25	3.22	0	100
12	36.61	3.15	0	100
13	34.06	3.07	0	100
14	31.59	2.99	0	100
15	29.23	2.92	0	100
16	26.97	2.84	0	100
17	24.83	2.76	0	100
18	22.8	2.68	0	100
19	20.9	2.59	0	100
20	19.12	2.51	0	100
21	17.46	2.42	0	100
22	15.91	2.33	0	100
23	14.48	2.24	0	100
24	13.16	2.14	0	100
25	11.94	2.04	0	100
26	10.82	1.95	0	100
27	9.8	1.85	0	100
28	8.86	1.76	0	100
29	8.01	1.66	0	100
30	7.23	1.57	0	100
31	6.53	1.48	0	100
32	5.89	1.39	0	100
33	5.3	1.3	0	100
34	4.78	1.22	0	100
35	4.3	1.14	0	100
36	3.87	1.07	0	100
37	3.48	0.99	0	100
38	3.13	0.93	0	100
39	2.82	0.86	0	100
40	2.53	0.8	0	100
41	2.28	0.74	0	100
42	2.05	0.69	0	100
43	1.84	0.64	0	100
44	1.65	0.59	0	100
45	1.48	0.55	0	100
46	1.33	0.5	0	100
47	1.2	0.47	0	100
48	1.07	0.43	0	100
49	0.96	0.4	0	100
50	0.87	0.37	0	100
51	0.78	0.34	0	100

52	0.7	0.31	0	100
53	0.63	0.28	0	100
54	0.56	0.26	0	100
55	0.51	0.24	0	100
56	0.45	0.22	0	100
57	0.41	0.2	0	100
58	0.37	0.19	0	100
59	0.33	0.17	0	100
60	0.3	0.16	0	100

Citations

Jensen, D.W., Steel, E.A., Fullerton, A.H. and Pess, G.R., 2009. Impact of fine sediment on egg-to-fry survival of Pacific salmon: a meta-analysis of published studies. Reviews in Fisheries Science, 17(3), pp.348-359.