Embeddedness and Steelhead Fry Density (Winter)

Downloaded on: 2026-11-20, From: https://mjbayly.com/stressor-response/embeddedness-and-steelhead-fry-density-winter
Function Updated by stobias on Tue, 11/19/2024 - 22:10.

Species Information

Common Name: Steelhead Trout
Genus: Oncorhynchus mykiss

Stressor Details

Stressor Name: Sedimentation
Units: % of cobbles and boulders embedded by added fine sediment
Metric: Fine Sediment
Scale: linear
Function Type: continuous
Vital Rate/Process: Density

Life Stage & Context

Life Stages: Fry
Season: Winter

Descriptions

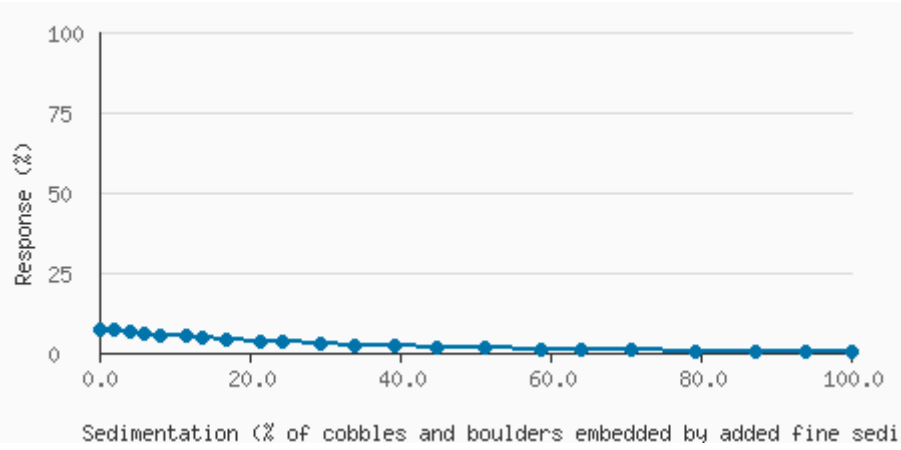
Overview

> Densities of age 0 steelhead trout remaining in laboratory stream channels after 5 d during winter and summer tests to evaluate the effects of sedimentation. The channels had alternative pool-riffle configurations; fine sediments (

Function Derivation

> laboratory experiment

Stressor Response Data



Stressor (X)	Mean System Capacity (%)	SD	low.limit	up.limit
0.00	7.38	0.00	7.38	7.38
1.87	6.99	0.00	6.99	6.99
4.12	6.52	0.00	6.52	6.52
5.99	6.03	0.00	6.03	6.03
8.24	5.58	0.00	5.58	5.58

11.61	5.02	0.00	5.02	5.02
13.86	4.66	0.00	4.66	4.66
16.85	4.19	0.00	4.19	4.19
21.35	3.65	0.00	3.65	3.65
24.34	3.24	0.00	3.24	3.24
29.59	2.72	0.00	2.72	2.72
34.08	2.32	0.00	2.32	2.32
39.33	1.94	0.00	1.94	1.94
44.94	1.56	0.00	1.56	1.56
51.31	1.29	0.00	1.29	1.29
58.80	0.99	0.00	0.99	0.99
64.04	0.84	0.00	0.84	0.84
70.79	0.66	0.00	0.66	0.66
79.40	0.48	0.00	0.48	0.48
87.27	0.39	0.00	0.39	0.39
94.01	0.25	0.00	0.25	0.25
100.00	0.21	0.00	0.21	0.21

Citations

Bjornn, T. C., & Reiser, D. W. (1991). Habitat requirements of salmonids in streams. American Fisheries Society Special Publication, 19(837), 104.

References

https://www.for.gov.bc.ca/hfd/LIBRARY/FFIP/Bjornn_TC1991.pdf -
https://www.for.gov.bc.ca/hfd/LIBRARY/FFIP/Bjornn_TC1991.pdf