Rempel et al. 2012: Depth and Chinook HSI (Raleigh)

Function Updated by stobias on Mon, 12/23/2024 - 17:53.

Species Information

Common Name: Chinook Salmon
Genus: Oncorhynchus tshawytscha

Stressor Details

Stressor Name: Depth
Units: m
Metric: Water depth
Scale: linear
Function Type: continuous

Life Stage & Context

Life Stages: Fry

Descriptions

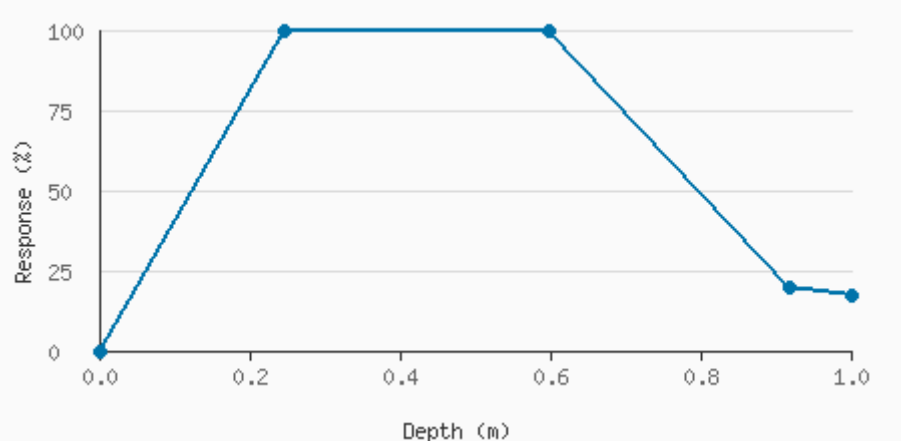
Overview

> A wide range of depths were suitable for 0+ stream/ocean-type Chinook Salmon captured in spring. The wide depth suitability may be reflective of both shallow water use by stream-type fry and a broader distribution of migrating ocean-type fish. Depth suitability for Fraser gravel reach fish is similar to the WUP curve for Chinook fry, except that suitability declines past 80 cm for Fraser fish.

Function Derivation

> expert opinion

Stressor Response Data



Stressor (X)	Mean System Capacity (%)	SD	low.limit	up.limit
0.03	0.00	0.00	0.00	0.00
0.27	100.00	0.00	100.00	100.00
0.61	100.00	0.00	100.00	100.00
0.92	19.67	0.00	19.67	19.67
1.00	17.05	0.00	17.05	17.05

Citations

Rempel, L. L., Healey, K., & Lewis, F. J. A. (2012). Lower Fraser River juvenile fish habitat suitability criteria. Ecosystem Management Branch, Fisheries and Oceans Canada.

Raleigh, R.F., Miller, W.J., and Nelson, P.C. 1986. Habitat suitability index models and instream flow suitability curves: Chinook salmon. US Fish Wildl. Serv. Biol. Rep. 82/10.122. 64 p.

References

Rempel et al. 2012 - https://www.ecofishresearch.com/wp-content/uploads/2016/09/346413.pdf

Raleigh et al. 1986 - https://apps.dtic.mil/sti/tr/pdf/ADA322912.pdf