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

Function Updated by stobias on Mon, 12/23/2024 - 17:42.

Species Information

Common Name: Chinook Salmon
Genus: Oncorhynchus tshawytscha

Stressor Details

Stressor Name: Velocity
Units: m/s
Metric: Flow velocity
Scale: linear
Function Type: continuous

Life Stage & Context

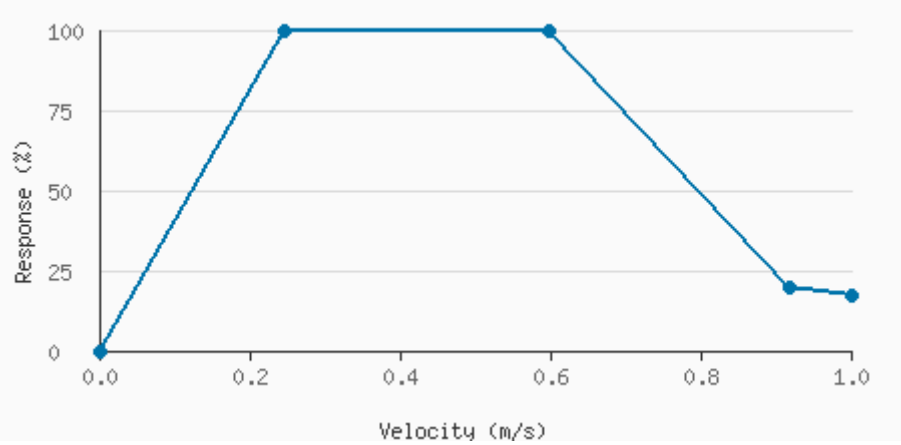
Life Stages: Fry

Descriptions

Overview

> Suitable velocity for Fraser fish is also similar to the WUP curve and identifies low-velocity habitat up to 35 cm/s as highly suitable. Maximum suitability extends to lower velocities for Fraser fish (5 cm/s) compared to the WUP curve.

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