

Mean Annual Discharge and Chinook Salmon

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Function Updated by jrosenfeld on Tue, 02/24/2026 - 21:21.

Species Information

Common Name: Chinook Salmon
Genus: *Oncorhynchus tshawytscha*

Stressor Details

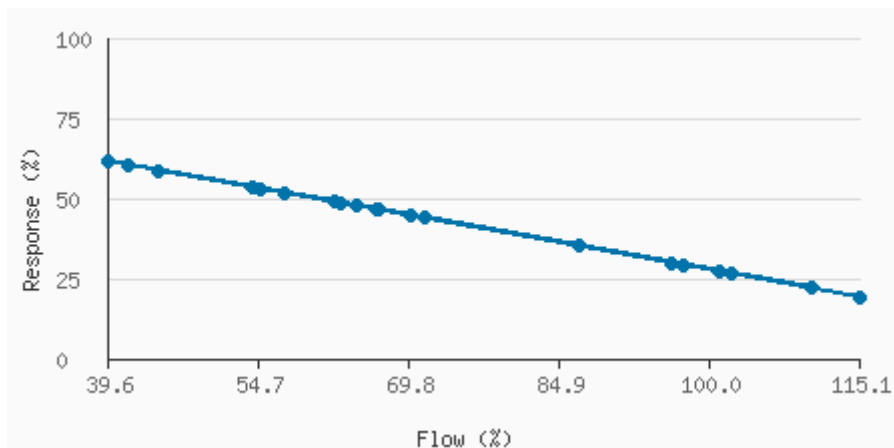
Stressor Name: Flow
Units: %
Metric: Mean Annual Discharge (MAD)
Scale: linear
Function Type: continuous
Vital Rate/Process: Residual recruits (Ricker stock-recruit curve)

Life Stage & Context

Life Stages: Juvenile
Geography: Chena River, Alaska, USA
Season: Apr-Sept

Descriptions

Stressor Response Data



?PERCENT_MAD	Mean System Capacity (%)	SD	low.limit	up.limit
66.68255208	46.4477708	0	0	100
64.72916667	47.5416667	0	0	100
63.07109375	48.4701875	0	0	100
70.16354167	44.4984167	0	0	100
115.1127604	19.3268542	0	0	100
54.22864583	53.4219583	0	0	100
96.32265625	29.8493125	0	0	100
57.36041667	51.6681667	0	0	100
102.4018229	26.4449792	0	0	100
55.05755208	52.9577708	0	0	100
44.74140625	58.7348125	0	0	100

62.38854167	48.8524167	0	0	100
41.60963542	60.4886042	0	0	100
110.3174479	22.0122292	0	0	100
66.93984375	46.3036875	0	0	100
97.42786458	29.2303958	0	0	100
101.0200521	27.2187708	0	0	100
39.58333333	61.6233333	0	0	100
87.01953125	35.0590625	0	0	100
71.453125	43.77625	0	0	100

Citations

Neuswanger, J.R., Wipfli, M.S., Evenson, M.J., Hughes, N.F., and Rosenberger, A.E. Low productivity of Chinook salmon strongly correlates with high summer stream discharge in two Alaskan rivers in the Yukon drainage. *Can. J. Fish. Aquat. Sci.* 72: 1125–1137 (2015) [dx.doi.org/10.1139/cjfas-2014-0498](https://doi.org/10.1139/cjfas-2014-0498)