

# 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

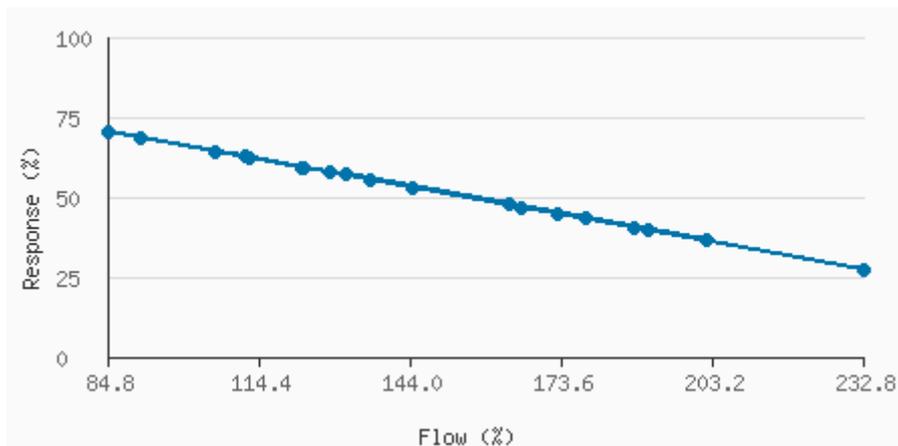
**Stressor Name:** Flow  
**Units:** %  
**Metric:** Mean Annual Discharge (MAD)  
**Scale:** linear  
**Function Type:** continuous  
**Vital Rate/Process:** Residual recruits (Ricker stock-recruit curve)

## Life Stage & Context

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

## Descriptions

## Stressor Response Data



?PERCENT_MAD	Mean System Capacity (%)	SD	low.limit	up.limit
136.2997658	55.4730679	0	0	100
112.412178	62.4004684	0	0	100
163.4660422	47.5948478	0	0	100
178.4543326	43.2482435	0	0	100
123.4192037	59.2084309	0	0	100
187.8220141	40.5316159	0	0	100
131.381733	56.8992974	0	0	100
202.1077283	36.3887588	0	0	100
105.8548009	64.3021077	0	0	100
111.9437939	62.5362998	0	0	100
122.9508197	59.3442623	0	0	100

84.77751756	70.4145199	0	0	100
232.7868852	27.4918033	0	0	100
144.4964871	53.0960187	0	0	100
190.6323185	39.7166276	0	0	100
173.0679157	44.8103044	0	0	100
91.10070258	68.5807963	0	0	100
166.0421546	46.8477752	0	0	100
128.5714286	57.7142857	0	0	100

## Citations

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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)