Bjornn & Reiser 1991: Oxygen Concentration and Food Conversion Ratio in Coho Salmon

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Species Information

Common Name: Coho Salmon
Genus: Oncorhynchus kisutch

Stressor Details

Stressor Name: Dissolved Oxygen
Units: mg/L
Metric: Dissolved Oxygen Concentration
Scale: linear
Function Type: continuous
Vital Rate/Process: Growth

Life Stage & Context

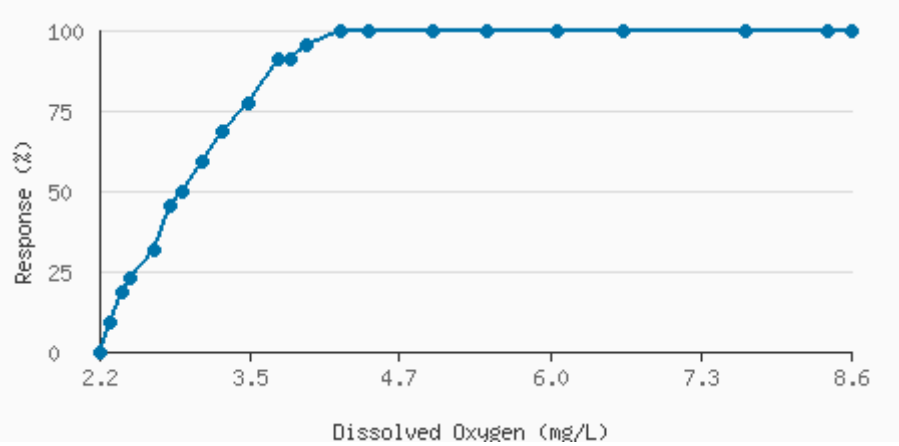
Life Stages: Fry

Descriptions

Overview

> Food conversion ratio (weight gained by fish/weight of food consumed) for frequently fed age-0 coho salmon in relation to dissolved oxygen concentration. A food conversion ratio of zero (not a negative ratio) has been assigned to each group of fish that lost weight. fitted

Stressor Response Data



Stressor (X)	Mean System Capacity (%)	SD	low.limit	up.limit
2.19	0	0	0	100
2.28	9.09	9.09	0	100
2.39	18.18	18.18	0	100
2.46	22.73	9.09	0	100
2.65	31.82	22.73	0	100
2.79	45.45	22.73	0	100

2.89	50	27.27	0	100
2.89	50	27.27	0	100
3.07	59.09	36.36	0	100
3.23	68.18	31.82	0	100
3.46	77.27	40.91	0	100
3.71	90.91	27.27	0	100
3.81	90.91	27.27	0	100
3.95	95.45	31.82	0	100
4.24	100	36.36	0	100
4.47	100	22.73	0	100
5.02	100	22.73	0	100
5.48	100	13.64	0	100
6.06	100	13.64	0	100
6.62	100	13.64	0	100
7.66	100	18.18	0	100
8.36	100	13.64	0	100
8.55	100	13.64	0	100

Citations

Bjornn, T. C., & Reiser, D. W. (1991). Habitat requirements of salmonids in streams. American Fisheries Society Special Publication, 19(837), 119. Herrmann, R. B., Warren, C. E., & Doudoroff, P. (1962). Influence of oxygen concentration on the growth of juvenile coho salmon. Transactions of the American Fisheries Society, 91(2), 155-167.

References

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