

Dissolved Oxygen and Steelhead Trout Embryo

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Species Information

Common Name: Steelhead Trout

Genus: *Oncorhynchus mykiss*

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: Egg

Geography: Lincoln County, Oregon

Season: Emergence

Descriptions

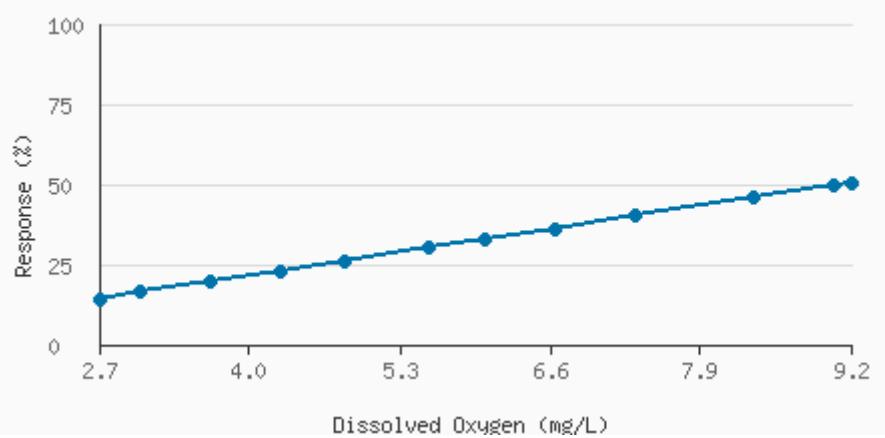
Overview

Relation between dissolved oxygen concentration and survival of steelhead embryos in natural redds.

Function Derivation

field study

Stressor Response Data



Stressor (X)	Mean System Capacity (%)	SD	low.limit	up.limit
2.65	14.08	7.8	0	100
3	16.36	5.52	0	100
3.62	19.78	12.36	0	100
4.22	23.02	9.13	0	100
4.79	26.06	13.32	0	100

5.51	30.05	9.32	0	100
6	32.91	13.89	0	100
6.61	36.14	10.65	0	100
7.31	40.14	14.84	0	100
8.34	45.84	13.51	0	100
9.04	49.65	11.98	0	100
9.18	50.41	11.03	0	100

Citations

Bjornn, T. C., & Reiser, D. W. (1991). Habitat requirements of salmonids in streams. American Fisheries Society Special Publication, 19(837), 105. Coble, D. W. (1961). Influence of water exchange and dissolved oxygen in redds on survival of steelhead trout embryos. Transactions of the American Fisheries Society, 90(4), 469-474.

References

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