

# 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

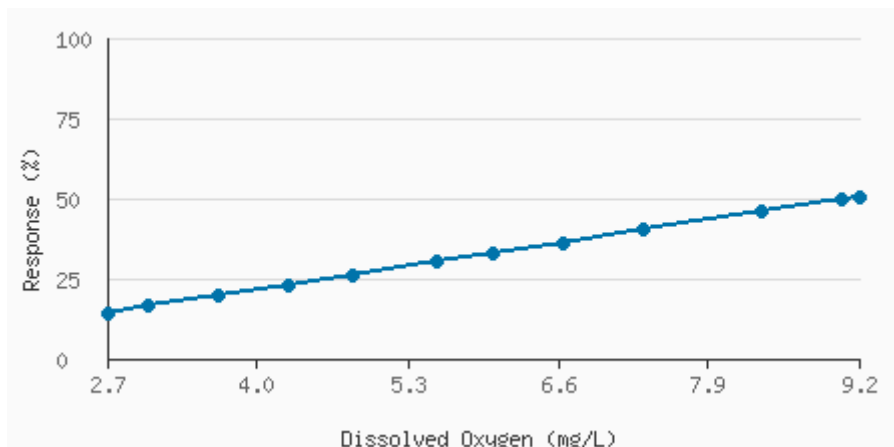
### Overview

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

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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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[https://www.for.gov.bc.ca/hfd/LIBRARY/FFIP/Bjornn\\_TC1991.pdf](https://www.for.gov.bc.ca/hfd/LIBRARY/FFIP/Bjornn_TC1991.pdf) -  
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