

# Selenium and Westslope Cutthroat Trout

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## Species Information

**Common Name:** Westslope Cutthroat Trout  
**Genus:** *Oncorhynchus clarkii lewisi*

## Stressor Details

**Stressor Name:** Selenium  
**Units:** µg/g  
**Metric:** Whole body selenium concentration  
**Scale:** linear  
**Function Type:** continuous  
**Vital Rate/Process:** System capacity

## Life Stage & Context

**Life Stages:** Adults  
**Geography:** Alberta foothills watersheds, excluding National Parks  
**Activity:** All activities  
**Season:** All seasons

## Descriptions

### Function Derivation

Based on data from Yellowstone Cutthroat Trout; Empirical data; Correlative model; Published (peer-reviewed)

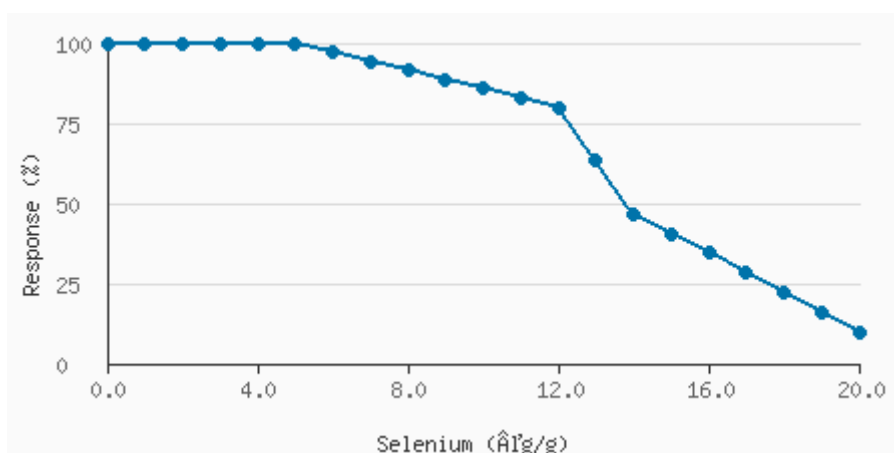
### Transferability of Function

This function was developed for and applied to Westslope Cutthroat Trout but was based on a population model for Yellowstone Cutthroat Trout (life history parameters measured in the Snake River). It should only be used on other subspecies of Cutthroat Trout with caution.

### Source of Stressor Data

Athabasca Rainbow Trout and Westslope Cutthroat Trout values at this time are set to 0 but it is our expectation that monitoring from industry will have taken place and whole-body tissue concentrations would be available.

## Stressor Response Data



Selenium ( $\mu\text{g/g}$ whole body)	Mean System Capacity (%)	SD	low.limit	up.limit
0	100	0	0	100
1	100	0	0	100
2	100	0	0	100
3	100	0	0	100
4	100	0	0	100
5	100	0	0	100
6	97.14284	0	0	100
7	94.2857	0	0	100
8	91.42856	0	0	100
9	88.57142	0	0	100
10	85.71428	0	0	100
11	82.85714	0	0	100
12	80	0	0	100
13	63.36	0	0	100
14	46.66	0	0	100
15	40.55	0	0	100
16	34.44	0	0	100
17	28.33	0	0	100
18	22.22	0	0	100
19	16.11	0	0	100
20	10	0	0	100

## Citations

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