

Length-weight relationship of *Barbus balcanicus*
from Slovenia, sampled from 20.04.2010 to 23.09.2024
(n = 7919, length range from 2.30 cm to 43.60 cm,
specimen condition: mixed)

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- Data source: BIOS, Fisheries Research Institute of Slovenia
- Analysed on: 25.11.2024
- Country: SVN
- Species: *Barbus balcanicus*
- Length type: TL (biometry_id = 76)
- Season: combined
- Sex: mixed
- Specimen condition: mixed
- Sampled from: 20.04.2010
- Sampled to: 23.09.2024
- n: 7919
- L min [cm]: 2.30
- L max [cm]: 43.60
- W min [g]: 0.10
- W max [g]: 1159.00
- Data transformation: natural logarithm
- a: 0.0103059
- b: 3.0287684

Statistics - summary

Linear model:

```
##
## Call:
## lm(formula = ln_w_y ~ ln_l_x, data = data_clean)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.8371 -0.0723 -0.0041  0.0676  0.8943
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  -4.5750     0.0135   -339    <2e-16 ***
## ln_l_x         3.0288     0.0053    572    <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.134 on 7917 degrees of freedom
## Multiple R-squared:  0.976, Adjusted R-squared:  0.976
## F-statistic: 3.27e+05 on 1 and 7917 DF, p-value: <2e-16
```

ANOVA:

```
##              Df    Sum Sq    Mean Sq  F value Pr(>F)
## ln_l_x         1 5889.8320  5.889832e+03 326827.4      0
## Residuals 7917  142.6741  1.802123e-02      NA      NA
```

Visualization

