

Length-weight relationship of *Cottus gobio*
from Slovenia, sampled from 26.05.2011 to 19.06.2024
(n = 1272, length range from 4.60 cm to 14.00 cm,
specimen condition: mixed)

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- Data source: BIOS, Fisheries Research Institute of Slovenia
- Analysed on: 08.04.2025
- Country: SVN
- Species: *Cottus gobio*
- Length type: TL (biometry_id = 76)
- Season: combined
- Sex: mixed
- Specimen condition: mixed
- Sampled from: 26.05.2011
- Sampled to: 19.06.2024
- n: 1272
- L min [cm]: 4.60
- L max [cm]: 14.00
- W min [g]: 1.10
- W max [g]: 42.00
- Data transformation: natural logarithm
- a: 0.0175275
- b: 2.8668840

Statistics - summary

Linear model:

```
##
## Call:
## lm(formula = ln_w_y ~ ln_l_x, data = data_clean)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -0.9105 -0.0770  0.0077  0.0940  0.9214
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  -4.0440     0.0767   -52.7   <2e-16 ***
## ln_l_x         2.8669     0.0328    87.3   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.146 on 1270 degrees of freedom
## Multiple R-squared:  0.857, Adjusted R-squared:  0.857
## F-statistic: 7.62e+03 on 1 and 1270 DF, p-value: <2e-16
```

ANOVA:

```
##              Df    Sum Sq    Mean Sq  F value Pr(>F)
## ln_l_x         1 162.98368 162.98368182 7623.182    0
## Residuals 1270  27.15261   0.02138001      NA     NA
```

Visualization

