NAME: fishcatch
TYPE: Sample
SIZE: 159 observations, 8 variables

DESCRIPTIVE ABSTRACT:

159 fishes of 7 species are caught and measured. Altogether there are
8 variables. All the fishes are caught from the same lake
(Laengelmavesi) near Tampere in Finland.

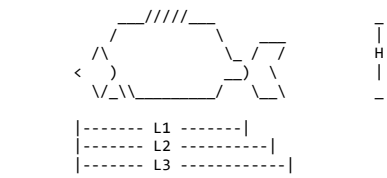
SOURCES:
Brofeldt, Pekka: Bidrag till kaennedom on fiskbestondet i vaera
sjoear. Laengelmaevesi. T.H.Jaervi: Finlands Fiskeriet Band 4,
Meddelanden utgivna av fiskerifoereningen i Finland.
Helsingfors 1917

VARIABLE DESCRIPTIONS:

1 Obs Observation number ranges from 1 to 159
2 Species (Numeric)

Code	Finnish	Swedish	English	Latin
1	Lahna	Braxen	Bream	Abramis brama
2	Siika	Iiden	Whitewish	Leusiscus idus
3	Saerki	Moerten	Roach	Leuciscus rutilus
4	Parkki	Bjoerknan	?	Abramis bjrkna
5	Norssi	Norssen	Smelt	Osmerus eperlanus
6	Hauki	Jaedda	Pike	Esox lucius
7	Ahven	Abborre	Perch	Perca fluviatilis

3 Weight Weight of the fish (in grams)
4 Length1 Length from the nose to the beginning of the tail (in cm)
5 Length2 Length from the nose to the notch of the tail (in cm)
6 Length3 Length from the nose to the end of the tail (in cm)
7 Height% Maximal height as % of Length3
8 Width% Maximal width as % of Length3
9 Sex 1 = male 0 = female



Values are aligned and delimited by blanks.
Missing values are denoted with NA.
There is one data line for each case.

SPECIAL NOTES:
I have usually calculated
Height = Height%*Length3/100
Widht = Widht%*Length3/100

PEDAGOGICAL NOTES:
I have mainly used only Species=7 (Perch) and here is some of the
models and test, we have used

Weight=a+b*(Length3*Height*Width)+epsilon
Ho: a=0;
Heteroscedastic case. Question: What is proper weighting,
if you use Length3 as a weighting variable.

Log(Weight)=a+b1*Length3+epsilon

Weight^(1/3)=a+b1*Length3+epsilon
(Given by Box-Cox-transformation)
Ho: a=0;

Log(Weight)=a+b1*Length3+b2*Height+b3*Width+epsilon
Ho: b1+b2+b3=3;
i.e. dimension of the fish = 3

Weight^(1/3)=a+b1*Length3+b2*Height+b3*Width+epsilon
(Given by Box-Cox-transformation)
Ho: a=0;

Weight=a*Length3^b1*Height^b2*Width^b3+epsilon
Nonlinear, heteroscedastic case.
What is proper weighting?

Is obs 143

143 7 840.0 32.5 35.0 37.3 30.8 20.9 0

an outlier? It had in its stomach 6 roach.

REFERENCES:
Brofeldt, Pekka: Bidrag till kaennedom on fiskbestondet i vaara
sjoear. Laengelmaevesi. T.H.Jaervi: Finlands Fiskeriet Band 4,
Meddelanden utgivna av fiskerifoereningen i Finland.
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