

Fish Dataset

- The data values in this example are measurements on 159 fish caught off the coast of Finland; this data set is available from the Data Archive of the *Journal of Statistics Education*.
- For each of the seven species (bream, parkki, pike, perch, roach, smelt, and whitefish), the weight, length, height, and width of each fish are tallied.
- Three different length measurements are recorded:
 - from the nose of the fish to the beginning of its tail (**length1**)
 - from the nose to the notch of its tail (**length2**)
 - from the nose to the end of its tail (**length3**).

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Several new variables are calculated to augment the input data. The relevant SAS DATA step code segment that generates these new variables is listed below.

```
weight3=weight**(1/3);  
if weight3 NE 0 then do;  
    height=htPct*length3/(weight3*100);  
    width=widthPct*length3/(weight3*100);  
    newLength1=length1/weight3;  
    newLength3=length3/weight3;  
    logLengthRatio=log(newLength3/newLength1);  
end;
```