Title of Database: Abalone data

5. Number of Instances: 4177  
6. Number of Attributes: 8

-- Test set performance (final 1044 examples, first 3133 used for training)

Data set treated as a 3-category classification problem (grouping ring classes 1-8, 9 and 10, and 11 on).

4. Relevant Information Paragraph:

Predicting the age of abalone from physical measurements. The age of abalone is determined by cutting the shell through the cone, staining it, and counting the number of rings through a microscope. Other measurements are used to predict the age. Further information, such as weather patterns and location may solve the problem. Continuous values have been scaled for use with an ANN (by dividing by 200).

7. Attribute information:

Given is the attribute name, attribute type, the measurement unit and a

brief description. The number of rings is the value to predict: either

as a continuous value or as a classification problem.

Name Data Type Meas. Description

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Sex nominal M, F, and I (infant)

Length continuous mm Longest shell measurement

Diameter continuous mm perpendicular to length

Height continuous mm with meat in shell

Whole weight continuous grams whole abalone

Shucked weight continuous grams weight of meat

Viscera weight continuous grams gut weight (after bleeding)

Shell weight continuous grams after being dried

Rings integer +1.5 gives the age in years

Statistics for numeric domains:

Length Diam Height Whole Shucked Viscera Shell Rings

Min 0.075 0.055 0.000 0.002 0.001 0.001 0.002 1

Max 0.815 0.650 1.130 2.826 1.488 0.760 1.005 29

Mean 0.524 0.408 0.140 0.829 0.359 0.181 0.239 9.934

SD 0.120 0.099 0.042 0.490 0.222 0.110 0.139 3.224

Correl 0.557 0.575 0.557 0.540 0.421 0.504 0.628 1.0

9. Class Distribution:

Class Examples

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1 1

2 1

3 15

4 57

5 115

6 259

7 391

8 568

9 689

10 634

11 487

12 267

13 203

14 126

15 103

16 67

17 58

18 42

19 32

20 26

21 14

22 6

23 9

24 2

25 1

26 1

27 2

29 1

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Total 4177