Predicting bird classification by bone lenghts

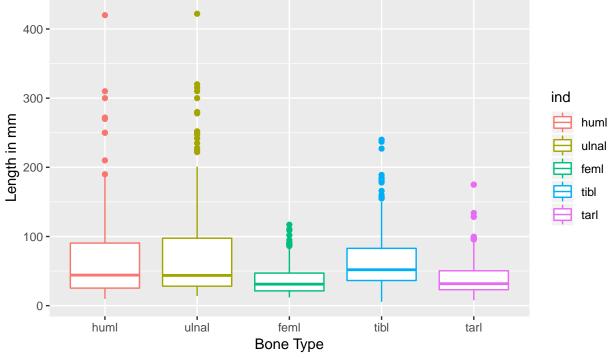
Jouke Profijt October 8, 2018

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Resutls

Boxplot for bone lenghts per bone in mm

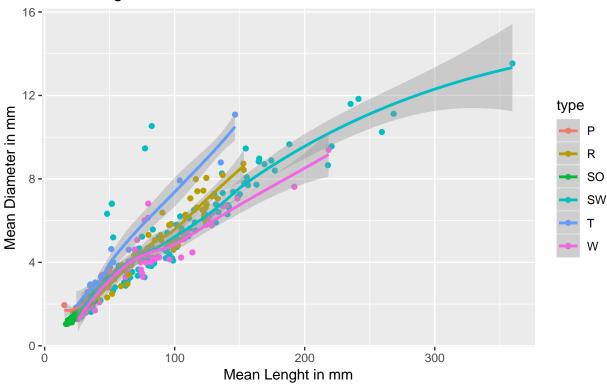
Variation between small and large bones.



Graph 1: Bone lengths

The Femuer as we can see in Graph 1 is the one of the smallest bones in all bird groups, 2nd to the Taesometatarsus. Because these 2 bones are so small there is not a lot of variation measurable between the diffrent bird groups and thus not that important for classification, that is why in this experiment there was chosen to leave these 2 bones out for classification.

mean lenght vs mean diameter For Humerus, Ulna and Tibiotarsus



graph 2: lenght vs diameter

graph 2 shows us that the total bone length for the Swimming Birds is quite a bit larger than the other birds. Also we can see that the Terrestrial birds have thicker bones than the rest of the birds but are stull quite small. the singing birds are overall very small ans should be easy to classify. The raptors and Wading birds are a bit average and could become diffcult to classify but the raptors are a bit thicker and the Wading birds are a bit smaller.