Submission sheet Assignment III TASK 1: k-Means No as there is one of the state o

Corresponds (more or less) to the three expected species?

No as there is only 1 sample in one cluster

Number of records in each cluster: 1) 193 2) 106 3) 1

TASK 2: preprocessing

Is it better to rescale before or after detecting and filtering out the outliers? Rescale after filtering out out outliers

Corresponds (more or less) to the three expected species? \Box YES \Box NO -> Yes

Number of records in each cluster: 1) 98 2) 95 3) 92

Coordinates of the three centroids:

PW PL SW SL 1) 0.0566 0.0652 0.0847 0.0784 2) 0.066 0.050 0.0122 0.0210 0.0559 3) 0.0528 0.0608 0.0626

TASK 3: choice of k

Which K corresponds to the best clustering? (using the Davies-Boulding index).

k=2 -> score: 0.3639

TASK 4: Hierarchical clustering

Using SingleLink, how many records are included in each of the two top clusters?

Cluster 1: 187

Cluster 2: 98

Which approaches produce a (more or less) correct clustering corresponding to the three species, if any?

SingleLink: No -> since individual points get added to the big clusters at later stages

CompleteLink: Yes, there are 3 distinct clusters which are merged in the last 2 steps

AverageLink: Yes, there are 3 distinct clusters which are merged in the last 2 steps

TASK 5: DB-Scan

How many clusters does DB-SCAN find with eps=1, min_samples=5?
Can you give a value for epsilon leading to two clusters (plus noise)?
K-DISTANCES:
Which K did you use? 5
According to the k-distances plot, what value(s) of epsilon would you consider as a parameter to DB-Scan and why?
From the k-distance plot, the "ellbow" occurs at around 0.02