clustering method	purity method	penalization				
		0	0.25	0.5	1	2
single	max	300	293	1	1	1
	threshold	300	300	300	289	1
	entropy	300	293	1	1	1
	gini-simpson	300	300	293	1	1
complete	max	284	255	22	4	4
	threshold	300	300	24	24	24
	entropy	300	197	81	34	10
	gini-simpson	300	298	197	64	16
average	max	296	230	45	8	8
	threshold	264	264	136	8	8
	entropy	300	291	85	8	8
	gini-simpson	300	296	291	56	8
median	max	289	201	3	1	1
	threshold	300	300	254	254	1
	entropy	300	264	3	1	1
	gini-simpson	300	264	243	3	1
ward.D	max	292	100	64	32	12
	threshold	300	72	72	7	7
	entropy	300	177	100	32	10
	gini-simpson	300	292	177	64	32
ward.D2	max	283	241	54	54	6
	threshold	300	289	71	6	6
	entropy	300	241	84	38	11
	gini-simpson	300	262	241	50	22

Table 1: Comparison of number of optimal clusters found by 6 clustering (single/minimal, complete/maximal, average and median linkage and two implementations of Ward method) and 4 purity methods (maximum, threshold, entropy and gini-simpson index). The repeated optimal number of clusters for different penalizations of purity suggest that the purity surface is stable with significant peak. The single/minimal linkage method seems to fail in finding a reasonable optimal number of clusters and while median seems to extract a three clusters, closer inspection of purity curves shows only a small peak and otherwise a similar monotone surface as the single linkage method.