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Functional Plant Biology

Supplementary Material

Stomatal size and density trade-off varies with leaf phenology and species shade tolerance in a South Asian moist tropical forest

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Supplementary materials

Trade-off between stomatal density and guard-cell length varies with leaf phenology and species shade tolerance in a South Asian moist tropical forest

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Table S1. Independent sample t-test results showing difference in stomatal traits among trees of different phenological groups in a moist tropical forest of Bangladesh.

Stomatal traits	Phenological groups	N	Mean	Std. Deviation	Std. Error Mean	Mean difference	t	df	Sig. (2-tailed)
Stomatal density	Evergreen	37	491.24	150.69	24.77	145.03	4.18	73	p < 0.001
	Deciduous	38	346.21	149.69	24.28				
Guard-cell length	Evergreen	37	17.24	3.06	0.50	0.40	0.52	73	p =0.61
	Deciduous	38	16.84	3.55	0.58				

Table S2. Analysis of variance (ANOVA) results showing difference in stomatal traits among trees of different functional groups in a moist tropical forest of Bangladesh.

		Sum of Squares	df	Mean Square	F	Sig.
Stomatal density	Between Groups	42544.06	2	21272.03	0.77	0.47
	Within Groups	1998351.62	72	27754.88		
	Total	2040895.68	74			
Guard-cell length	Between Groups	68.35	2	34.18	3.33	0.04
	Within Groups	737.99	72	10.25		
	Total	806.34	74			

Table S3. Maximum theoretical stomatal conductance (g_{max}) values for all stomatal complex measured in this study.

Local name	Scientific name	Leaf Sample	Stomatal complex	GCL (μm)	GCW (μm)	SD	Max pore area m^2	pd	g_{Max}
Buti awal	<i>Elaeocarpus tectorius</i>	1	1	22.72	3.297	332	2.02608E-10	0.000003297	4.70023395
			2	20.288	3.285	332	1.61554E-10	0.000003285	4.09874454
			3	21.608	5.716	332	1.8326E-10	0.000005716	3.81888115
			4	17.726	3.183	332	1.23328E-10	0.000003183	3.49511894
			5	19.827	3.668	332	1.54296E-10	0.000003668	3.88068109
		2	1	18.153	3.525	344	1.29341E-10	0.000003525	3.63633899
			2	15.837	4.11	344	9.84431E-11	0.00000411	2.917959
			3	20.232	3.516	344	1.60664E-10	0.000003516	4.16622181
			4	18.536	3.106	344	1.34856E-10	0.000003106	3.84982215
			5	23.796	2.637	344	2.22253E-10	0.000002637	5.36348584
Belphoi	<i>Vitex peduncularis</i>	1	1	11.901	1.566	512	5.55913E-11	0.000001566	3.87168371
			2	10.876	1.706	512	4.64278E-11	0.000001706	3.41262052
			3	11.981	1.547	512	5.63412E-11	0.000001547	3.91174911
			4	13.577	1.863	512	7.23515E-11	0.000001863	4.38099579

			5	13.292	1.513	512	6.93458E-11	0.00000151 3	4.43900612
		2	1	13.813	1.754	508	7.48886E-11	0.00000175 4	4.48869109
			2	11.591	1.804	508	5.27329E-11	0.00000180 4	3.61475623
			3	11.975	1.598	508	5.62847E-11	0.00000159 8	3.85488527
			4	11.591	2.253	508	5.27329E-11	0.00000225 3	3.42792065
			5	12.843	1.439	508	6.474E-11	0.00000143 9	4.26691928
Dumur	<i>Ficus racemosa</i>	1	1	13.155	2.417	316	6.79237E-11	0.00000241 7	2.45490917
			2	15.318	2.148	316	9.20966E-11	0.00000214 8	3.03741516
			3	13.777	2.243	316	7.44987E-11	0.00000224 3	2.6459218
			4	13.249	2.664	316	6.88979E-11	0.00000266 4	2.41575491
			5	13.31	2.612	316	6.95338E-11	0.00000261 2	2.4424736
		2	1	15.443	2.148	308	9.36059E-11	0.00000214 8	2.98955764
			2	12.675	3.693	308	6.30573E-11	0.00000369 3	2.01230411
			3	13.195	1.873	308	6.83374E-11	0.00000187 3	2.54391029
			4	14.238	2.199	308	7.95679E-11	0.00000219 9	2.69664137
			5	14.247	1.775	308	7.96685E-11	0.00000177 5	2.81688615

Garjan	<i>Dipterocarpus turbinatus</i>	1	1	15.552	2.41	284	9.49319E-11	0.00000241	2.71400748
			2	14.747	2.181	284	8.53585E-11	0.00000218 1	2.59940634
			3	15.716	2.485	284	9.69446E-11	0.00000248 5	2.73049428
			4	15.432	2.363	284	9.34725E-11	0.00000236 3	2.70006532
			5	15.007	2.331	284	8.83949E-11	0.00000233 1	2.61755843
		2	1	15.108	2.016	360	8.95888E-11	0.00000201 6	3.44655434
			2	14.592	2.06	360	8.35736E-11	0.00000206	3.29186346
			3	14.494	2.352	360	8.24548E-11	0.00000235 2	3.17357604
			4	13.433	2.53	360	7.08249E-11	0.00000253	2.83812619
			5	16.611	1.724	360	1.08301E-10	0.00000172 4	3.9599757
Jaam	<i>Syzygium cumini</i>	1	1	14.082	2.56	708	7.78338E-11	0.00000256	5.90332937
			2	17.026	2.365	708	1.1378E-10	0.00000236 5	7.57857236
			3	14.855	3.049	708	8.66134E-11	0.00000304 9	6.03524655
			4	15.956	2.951	708	9.99281E-11	0.00000295 1	6.66042477
			5	14.784	2.549	708	8.57874E-11	0.00000254 9	6.27749274
		2	1	15.776	2.36	720	9.76863E-11	0.00000236	7.0328712
			2	15.818	2.089	720	9.82071E-11	0.00000208 9	7.23148646
			3	14.313	2.329	720	8.04083E-11	0.00000232 9	6.26400212

			4	14.244	2.556	720	7.96349E-11	0.00000255 6	6.0918636
			5	15.089	2.137	720	8.93636E-11	0.00000213 7	6.80353948
Kakra	<i>Aporosa dioica</i>	1	1	22.075	3.578	288	1.91267E-10	0.00000357 8	3.86782254
			2	18.681	2.377	288	1.36975E-10	0.00000237 7	3.44029147
			3	20.453	2.857	288	1.64193E-10	0.00000285 7	3.69915565
			4	19.824	3.626	288	1.54249E-10	0.00000362 6	3.37539976
			5	20.936	3.394	288	1.72039E-10	0.00000339 4	3.66810529
		2	1	19.404	3.301	296	1.47782E-10	0.00000330 1	3.45554965
			2	19.649	3.43	296	1.51538E-10	0.00000343	3.4778679
			3	17.829	1.865	296	1.24765E-10	0.00000186 5	3.49038992
			4	20.092	2.377	296	1.58448E-10	0.00000237 7	3.85338746
			5	17.723	2.782	296	1.23286E-10	0.00000278 2	3.21447057
Khami	<i>Lithocarpus elegans</i>	1	1	13.866	1.992	644	7.54644E-11	0.00000199 2	5.57587091
			2	12.778	2.181	644	6.40863E-11	0.00000218 1	4.94703554
			3	14.16	3.806	644	7.86984E-11	0.00000380 6	4.82930366
			4	14.432	2.719	644	8.17509E-11	0.00000271 9	5.45424097

			5	13.138	3.394	644	6.77483E-11	0.00000339 4	4.53831649
		2	1	10.837	1.871	672	4.60954E-11	0.00000187 1	4.3661656
			2	10.815	1.993	672	4.59085E-11	0.00000199 3	4.28875153
			3	12.907	2.986	672	6.53868E-11	0.00000298 6	4.81202223
			4	14.288	3.908	672	8.01277E-11	0.00000390 8	5.05579393
			5	14.023	4.21	672	7.7183E-11	0.00000421	4.80709585
Hargoja	<i>Dillenia pentagyna</i>	1	1	21.329	2.623	236	1.78559E-10	0.00000262 3	3.23897301
			2	18.844	2.534	236	1.39375E-10	0.00000253 4	2.81390535
			3	19.442	3.902	236	1.48362E-10	0.00000390 2	2.64880197
			4	20.996	2.094	236	1.73027E-10	0.00000209 4	3.30158785
			5	21.982	2.597	236	1.89659E-10	0.00000259 7	3.36211513
		2	1	18.442	3.497	256	1.33492E-10	0.00000349 7	2.76603341
			2	17.003	2.903	256	1.13473E-10	0.00000290 3	2.616565
			3	17.865	2.778	256	1.2527E-10	0.00000277 8	2.8081608
			4	16.855	3.039	256	1.11506E-10	0.00000303 9	2.56004187
			5	19.456	3.373	256	1.48575E-10	0.00000337 3	2.98323952

Lodh	<i>Symplocos racemosa</i>	1	1	20.809	5.691	436	1.69958E-10	0.00000569 1	4.77750826
			2	18.243	3.908	436	1.30627E-10	0.00000390 8	4.51106565
			3	18.335	3.846	436	1.31948E-10	0.00000384 6	4.56023169
			4	17.753	3.658	436	1.23704E-10	0.00000365 8	4.43701856
			5	21.09	4.571	436	1.74579E-10	0.00000457 1	5.19804382
		2	1	22.941	4.041	412	2.06569E-10	0.00000404 1	5.63960554
			2	17.46	3.732	412	1.19654E-10	0.00000373 2	4.0823028
			3	19.222	3.962	412	1.45023E-10	0.00000396 2	4.53930974
			4	18.046	3.578	412	1.27821E-10	0.00000357 8	4.30598407
			5	19.044	3.81	412	1.4235E-10	0.00000381	4.53333536
Pisti	<i>Microcos paniculata</i>	1	1	9.896	1.404	676	3.84378E-11	0.00000140 4	4.18786866
			2	11.088	1.632	676	4.82554E-11	0.00000163 2	4.65682478
			3	10.374	1.486	676	4.22408E-11	0.00000148 6	4.38155722
			4	10.518	1.829	676	4.34216E-11	0.00000182 9	4.25559689
			5	11.641	2.28	676	5.31888E-11	0.00000228	4.5721843
		2	1	10.444	1.951	676	4.28128E-11	0.00000195 1	4.15210346
			2	10.623	2.039	676	4.42929E-11	0.00000203	4.19422913

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			3	9.918	2.026	676	3.86089E-11	0.000002026	3.85227759
			4	11.659	2.511	676	5.33534E-11	0.000002511	4.4632903
			5	12.596	2.593	676	6.22737E-11	0.000002593	4.88226293
Pithraj	<i>Aphanamixis polystachya</i>	1	1	14.269	2.331	352	7.99147E-11	0.000002331	3.05025898
			2	14.234	2.044	352	7.95232E-11	0.000002044	3.12883845
			3	11.786	2.08	352	5.45221E-11	0.00000208	2.47428942
			4	13.657	2.157	352	7.32066E-11	0.000002157	2.94162542
			5	15.506	2.972	352	9.43711E-11	0.000002972	3.18904171
		2	1	14.211	2.111	396	7.92664E-11	0.000002111	3.48954744
			2	11.815	1.903	396	5.47907E-11	0.000001903	2.85048511
			3	14.211	1.985	396	7.92664E-11	0.000001985	3.5340803
			4	11.989	1.699	396	5.64164E-11	0.000001699	2.97280171
			5	11.127	1.486	396	4.85955E-11	0.000001486	2.7917703
Sitgach	<i>Gardenia coronaria</i>	1	1	17.958	3.947	558	1.26577E-10	0.000003947	5.64227981
			2	16.411	2.618	558	1.05708E-10	0.000002618	5.59105281
			3	18.278	3.994	558	1.31128E-10	0.000003994	5.75229825

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			4	17.67	3.408	558	1.2255E-10	0.000003408	5.75162124
			5	19.059	4.547	558	1.42574E-10	0.000004547	5.84647656
		2	1	17.042	3.738	478	1.13994E-10	0.000003738	4.58947801
			2	18.085	3.845	478	1.28374E-10	0.000003845	4.91307964
			3	17.133	3.44	478	1.15214E-10	0.00000344	4.7272699
			4	18.572	3.588	478	1.35381E-10	0.000003588	5.17627757
			5	19.302	3.649	478	1.46233E-10	0.000003649	5.40971485
Bohera	<i>Terminalia bellirica</i>	1	1	17.927	3.218	176	1.26141E-10	0.000003218	1.87399945
			2	21.045	1.656	176	1.73835E-10	0.000001656	2.54989753
			3	24.423	1.557	176	2.3412E-10	0.000001557	3.03061776
			4	21.131	2.481	176	1.75259E-10	0.000002481	2.41289461
			5	22.217	1.578	176	1.93736E-10	0.000001578	2.72484337
		2	1	23.213	1.632	160	2.11496E-10	0.000001632	2.59116638
			2	20.694	2.719	160	1.68085E-10	0.000002719	2.10442828
			3	18.258	2.888	160	1.30842E-10	0.000002888	1.78697594
			4	23.408	1.738	160	2.15064E-10	0.000001738	2.59656355

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			5	21.516	1.555	160	1.81703E-10	0.00000155 5	2.39420964
Bonak	<i>Schima wallichii</i>	1	1	17.752	6.121	604	1.2369E-10	0.00000612 1	5.19862133
			2	17.454	4.856	604	1.19572E-10	0.00000485 6	5.5198043
			3	18.062	4.668	604	1.28048E-10	0.00000466 8	5.85092436
			4	19.941	4.849	604	1.56075E-10	0.00000484 9	6.58321472
			5	18.809	5.303	604	1.38858E-10	0.00000530 3	5.9218673
		2	1	18.905	4.637	584	1.40279E-10	0.00000463 7	6.01861149
			2	16.558	4.336	584	1.07611E-10	0.00000433 6	5.16438081
			3	20.403	4.896	584	1.63391E-10	0.00000489 6	6.53893404
			4	16.746	4.948	584	1.10068E-10	0.00000494 8	5.01665073
			5	21.376	3.867	584	1.79346E-10	0.00000386 7	7.40052801
Chikrashi	<i>Chukrasia tabularis</i>	1	1	15.758	3.194	424	9.74635E-11	0.00000319 4	3.84698781
			2	16.494	2.973	424	1.0678E-10	0.00000297 3	4.14956722
			3	15.961	3.017	424	9.99908E-11	0.00000301 7	3.96811667
			4	13.773	3.317	424	7.44555E-11	0.00000331 7	3.20125417
			5	14.574	2.916	424	8.33676E-11	0.00000291	3.57022812

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		2	1	15.421	2.343	448	9.33393E-11	0.00000234 3	4.26337195
			2	15.152	3.055	448	9.01114E-11	0.00000305 5	3.91393736
			3	13.881	3.848	448	7.56277E-11	0.00000384 8	3.25997216
			4	16.017	3.097	448	1.00694E-10	0.00000309 7	4.18307431
			5	14.313	3.2	448	8.04083E-11	0.0000032	3.59299311
Dhaki-Jaam	<i>Syzygium grande</i>	1	1	15.384	2.047	752	9.2892E-11	0.00000204 7	7.33502904
			2	16.05	1.881	752	1.01109E-10	0.00000188 1	7.83315736
			3	12.476	2.263	752	6.10929E-11	0.00000226 3	5.55815755
			4	16.079	1.912	752	1.01475E-10	0.00000191 2	7.82732422
			5	15.097	2.44	752	8.94584E-11	0.00000244	6.91133392
		2	1	14.357	2.478	796	8.09035E-11	0.00000247 8	6.85218024
			2	14.755	2.287	796	8.54512E-11	0.00000228 7	7.21668496
			3	15.952	2.258	796	9.9878E-11	0.00000225 8	7.95276186
			4	13.875	2.511	796	7.55624E-11	0.00000251 1	6.54679395
			5	14.396	2.564	796	8.13436E-11	0.00000256 4	6.81919334
Jailla-Khami	<i>Lithocarpus spp.</i>	1	1	19.547	6.216	420	1.49968E-10	0.00000621 6	4.10266035

			2	23.802	5.341	420	2.22365E-10	0.00000534 1	5.59568633
			3	20.191	5.382	420	1.60013E-10	0.00000538 2	4.50318837
			4	24.726	5.113	420	2.39965E-10	0.00000511 3	5.94724743
			5	22.049	5.046	420	1.90817E-10	0.00000504 6	5.15407074
		2	1	22.436	4.94	432	1.97574E-10	0.00000494	5.45471939
			2	25.627	4.147	432	2.57772E-10	0.00000414 7	6.7377318
			3	21.478	5.021	432	1.81062E-10	0.00000502 1	5.13183328
			4	21.782	4.998	432	1.86224E-10	0.00000499 8	5.23311808
			5	20.414	5.94	432	1.63567E-10	0.00000594	4.54782705
Jarul	<i>Lagerstroemia speciosa</i>	1	1	20.58	3.149	292	1.66238E-10	0.00000314 9	3.70279661
			2	16.595	2.005	292	1.08092E-10	0.00000200 5	3.12802139
			3	17.368	3.077	292	1.18397E-10	0.00000307 7	3.02181584
			4	21.263	1.669	292	1.77455E-10	0.00000166 9	4.27565267
			5	20.51	1.881	292	1.65109E-10	0.00000188 1	4.03995085
		2	1	18.717	1.978	328	1.37503E-10	0.00000197 8	4.05376477
			2	17.643	1.957	328	1.22176E-10	0.00000195 7	3.79107508
			3	19.405	1.871	328	1.47797E-10	0.00000187	4.26251459

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			4	17.987	2.352	328	1.26986E-10	0.00000235 2	3.75319218
			5	20.591	2.845	328	1.66416E-10	0.00000284 5	4.25064573
Seliawal	<i>Vitex pinnata L.</i>	1	1	12.837	1.992	436	6.46795E-11	0.00000199 2	3.43816376
			2	14.833	2.373	436	8.6357E-11	0.00000237 3	3.94606308
			3	13.031	2.473	436	6.66492E-11	0.00000247 3	3.32799216
			4	12.823	2.211	436	6.45385E-11	0.00000221 1	3.35298886
			5	12.357	2.802	436	5.9933E-11	0.00000280 2	3.00660648
		2	1	10.658	1.691	484	4.45852E-11	0.00000169 1	3.15335342
			2	12.123	2.181	484	5.76846E-11	0.00000218 1	3.48311735
			3	12.702	1.896	484	6.33263E-11	0.00000189 6	3.80821977
			4	12.427	1.917	484	6.06139E-11	0.00000191 7	3.69954555
			5	13.055	2.137	484	6.6895E-11	0.00000213 7	3.83550669
T-jarul	<i>Lagerstroemia parviflora</i>	1	1	13.648	2.642	364	7.31102E-11	0.00000264 2	2.89518675
			2	13.21	2.31	364	6.84929E-11	0.00000231	2.87411573
			3	14.008	3.039	364	7.70179E-11	0.00000303 9	2.88161809
			4	16.605	3.815	364	1.08222E-10	0.00000381	3.36013145

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			5	13.994	2.703	364	7.68641E-11	0.00000270 3	2.97027983
		2	1	14.45	2.807	328	8.1955E-11	0.00000280 7	2.75966733
			2	14.686	3.497	328	8.46538E-11	0.00000349 7	2.64964339
			3	14.947	3.407	328	8.76895E-11	0.00000340 7	2.73179042
			4	15.176	3.209	328	9.03971E-11	0.00000320 9	2.8332987
			5	16.319	3.355	328	1.04527E-10	0.00000335 5	3.07017811
Sal	<i>Shorea robusta</i>	1	1	14.688	3.301	576	8.46769E-11	0.00000330 1	4.73349265
			2	13.687	2.866	576	7.35286E-11	0.00000286 6	4.49944223
			3	14.296	3.085	576	8.02174E-11	0.00000308 5	4.66063319
			4	14.46	2.989	576	8.20685E-11	0.00000298 9	4.77032775
			5	14.182	3.551	576	7.89432E-11	0.00000355 1	4.42489935
		2	1	13.62	2.309	596	7.28105E-11	0.00000230 9	4.88776906
			2	14.21	2.434	596	7.92552E-11	0.00000243 4	5.08716041
			3	13.081	2.469	596	6.71617E-11	0.00000246 9	4.57306023
			4	13.806	2.857	596	7.48127E-11	0.00000285 7	4.71129157
			5	15.584	3.712	596	9.5323E-11	0.00000371	5.10850885

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Table. S4. Average values of maximum theoretical stomatal conductance (g_{max}) of different functional and phenological groups.

Functional group			Phenological group	
LD	IST	ST	EG	DS
1.873999	4.700234	3.238973	3.871684	4.700234
2.549898	4.098745	2.813905	3.412621	4.098745
3.030618	3.818881	2.648802	3.911749	3.818881
2.412895	3.495119	3.301588	4.380996	3.495119
2.724843	3.880681	3.362115	4.439006	3.880681
2.591166	3.636339	2.766033	4.488691	3.636339
2.104428	2.917959	2.616565	3.614756	2.917959
1.786976	4.166222	2.808161	3.854885	4.166222
2.596564	3.849822	2.560042	3.427921	3.849822
2.39421	5.363486	2.98324	4.266919	5.363486
5.198621	3.871684	4.777508	5.198621	2.454909
5.519804	3.412621	4.511066	5.519804	3.037415
5.850924	3.911749	4.560232	5.850924	2.645922
6.583215	4.380996	4.437019	6.583215	2.415755

5.921867	4.439006	5.198044	5.921867	2.442474
6.018611	4.488691	5.639606	6.018611	2.989558
5.164381	3.614756	4.082303	5.164381	2.012304
6.538934	3.854885	4.53931	6.538934	2.54391
5.016651	3.427921	4.305984	5.016651	2.696641
7.400528	4.266919	4.533335	7.400528	2.816886
3.846988	2.454909	4.187869	7.335029	2.714007
4.149567	3.037415	4.656825	7.833157	2.599406
3.968117	2.645922	4.381557	5.558158	2.730494
3.201254	2.415755	4.255597	7.827324	2.700065
3.570228	2.442474	4.572184	6.911334	2.617558
4.263372	2.989558	4.152103	6.85218	3.446554
3.913937	2.012304	4.194229	7.216685	3.291863
3.259972	2.54391	3.852278	7.952762	3.173576
4.183074	2.696641	4.46329	6.546794	2.838126
3.592993	2.816886	4.882263	6.819193	3.959976
7.335029	2.714007	3.050259	4.10266	3.238973
7.833157	2.599406	3.128838	5.595686	2.813905
5.558158	2.730494	2.474289	4.503188	2.648802
7.827324	2.700065	2.941625	5.947247	3.301588
6.911334	2.617558	3.189042	5.154071	3.362115
6.85218	3.446554	3.489547	5.454719	2.766033
7.216685	3.291863	2.850485	6.737732	2.616565
7.952762	3.173576	3.53408	5.131833	2.808161
6.546794	2.838126	2.972802	5.233118	2.560042
6.819193	3.959976	2.79177	4.547827	2.98324
4.10266	5.903329	5.64228	5.903329	4.187869
5.595686	7.578572	5.591053	7.578572	4.656825
4.503188	6.035247	5.752298	6.035247	4.381557
5.947247	6.660425	5.751621	6.660425	4.255597
5.154071	6.277493	5.846477	6.277493	4.572184

5.454719	7.032871	4.589478	7.032871	4.152103
6.737732	7.231486	4.91308	7.231486	4.194229
5.131833	6.264002	4.72727	6.264002	3.852278
5.233118	6.091864	5.176278	6.091864	4.46329
4.547827	6.803539	5.409715	6.803539	4.882263
3.702797	3.867823		4.777508	3.050259
3.128021	3.440291		4.511066	3.128838
3.021816	3.699156		4.560232	2.474289
4.275653	3.3754		4.437019	2.941625
4.039951	3.668105		5.198044	3.189042
4.053765	3.45555		5.639606	3.489547
3.791075	3.477868		4.082303	2.850485
4.262515	3.49039		4.53931	3.53408
3.753192	3.853387		4.305984	2.972802
4.250646	3.214471		4.533335	2.79177
3.438164	5.575871		3.867823	1.873999
3.946063	4.947036		3.440291	2.549898
3.327992	4.829304		3.699156	3.030618
3.352989	5.454241		3.3754	2.412895
3.006606	4.538316		3.668105	2.724843
3.153353	4.366166		3.45555	2.591166
3.483117	4.288752		3.477868	2.104428
3.80822	4.812022		3.49039	1.786976
3.699546	5.055794		3.853387	2.596564
3.835507	4.807096		3.214471	2.39421
2.895187			5.575871	3.846988
2.874116			4.947036	4.149567
2.881618			4.829304	3.968117
3.360131			5.454241	3.201254
2.97028			4.538316	3.570228
2.759667			4.366166	4.263372

2.649643			4.288752	3.913937
2.73179			4.812022	3.259972
2.833299			5.055794	4.183074
3.070178			4.807096	3.592993
4.733493			3.438164	3.702797
4.499442			3.946063	3.128021
4.660633			3.327992	3.021816
4.770328			3.352989	4.275653
4.424899			3.006606	4.039951
4.887769			3.153353	4.053765
5.08716			3.483117	3.791075
4.57306			3.80822	4.262515
4.711292			3.699546	3.753192
5.108509			3.835507	4.250646
			5.64228	2.895187
			5.591053	2.874116
			5.752298	2.881618
			5.751621	3.360131
			5.846477	2.97028
			4.589478	2.759667
			4.91308	2.649643
			4.72727	2.73179
			5.176278	2.833299
			5.409715	3.070178
				4.733493
				4.499442
				4.660633
				4.770328
				4.424899
				4.887769
				5.08716

				4.57306
				4.711292
				5.108509
Average value				
4.381142	4.083143	4.062086	5.072748	3.417748