Results

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Results

Physiochemical data

Summary measures of the physiochemical data collected are shown in Table 1, while statistical analysis of the physiochemical differences between the two sampling sites is shown in Table 2, below.

Table 1: Summary measure of key physiochemical and biological measures of water quality for both sample sites, the braamfotein spruit, and Magalies river. While some condition such as pH are similar between systems with low varience, other variable, especialy calculated biological indexes such as IHI differ significantly between sites, with high varience

	Braamfontein Spruit		Magalies River	
	Mean	Standard.Error	Mean.	Standard.Error.
pH	8.21	0.06	8.32	0.02
Conductitiy (μS)	269.20	42.12	224.50	0.78
Temperature($^{\circ}C$)	14.40	0.25	18.87	0.10
Dissolved Oxygen($mg \cdot L^{-1}$)	9.09	0.43	6.21	0.17
Turbidity(NTUs)	13.56	1.78	1.60	0.26
IHI	126.57	17.05	42.29	20.80
SASS	44.25	3.41	121.88	19.94
taxa	9.38	0.62	18.88	2.58
ASPT	4.72	0.20	6.33	0.23

Table 2: Statistical comparison of physiochemical conditions between the two samples sites, the Braamfontein spruit and Magalies River. While some conditions varied with high significance such as turbidity, others such as pH did not vary significantly

	T.statistic	Degrees.of.freedom	p.value
pH	-1.658	7.898	0.136
Conductitiy (μS)	1.061	6.004	0.329
Temperature($^{\circ}C$)	-16.474	8.006	0.000
Dissolved Oxygen($mg \cdot L^{-1}$)	6.277	5.211	0.001
Turbidity(NTUs)	6.646	6.248	0.000
IHI	3.133	11.554	0.009
SASS	-3.837	7.409	0.006
taxa	-3.578	7.819	0.007
ASPT	-5.269	13.809	0.000

Biological indicies

Figure 1 below shows the comparison between the IHIH score calculated for each site, and figure 2 illustrates the relation between (average) ASPT and SASS, to classically the overall state of the system.

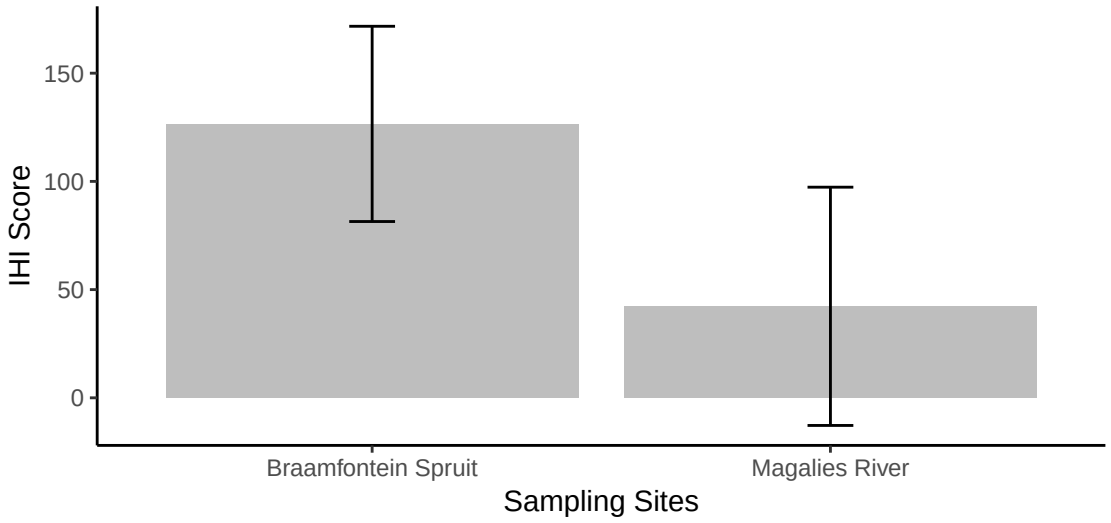

Figure 1: Comparision of IHI scores obtained for each sampling site.
Note the considerably overlaping ranges given by the error bars of the two samples

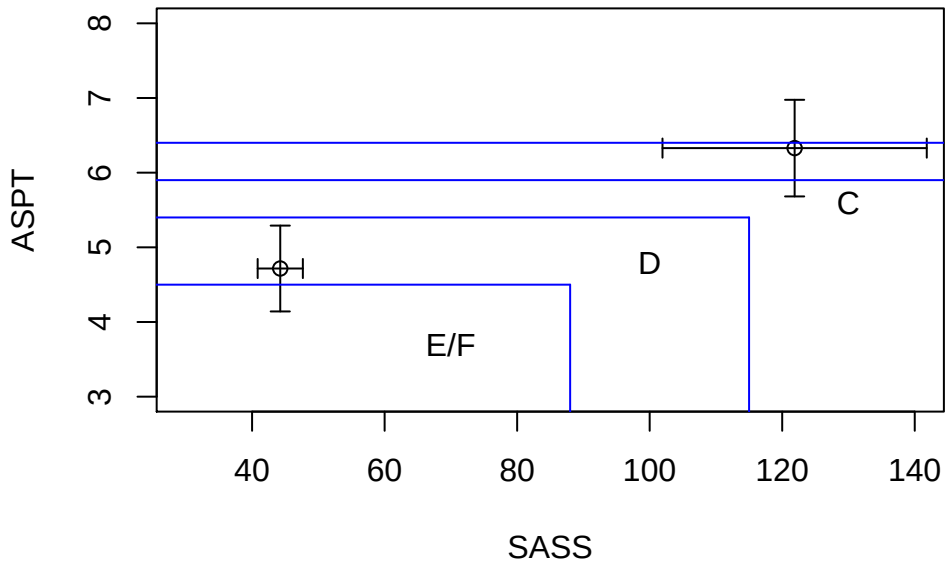

Figure 2:Standard Curve of absorbance plotted against Concentration of MTT in c