

2010

Abundance and diversity of anuran species in Danum Valley, Sabah, Borneo

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<http://hdl.handle.net/10026.1/13893>

The Plymouth Student Scientist
University of Plymouth

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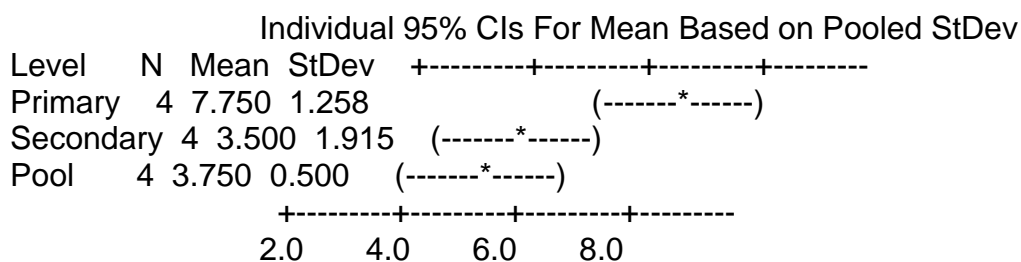
Appendix 1.0

One way Anova of number of species found at each site.

One-way ANOVA: Primary, Secondary, Pool

Source	DF	SS	MS	F	P
Factor	2	45.50	22.75	12.41	0.003
Error	9	16.50	1.83		
Total	11	62.00			

S = 1.354 R-Sq = 73.39% R-Sq(adj) = 67.47%



Pooled StDev = 1.354

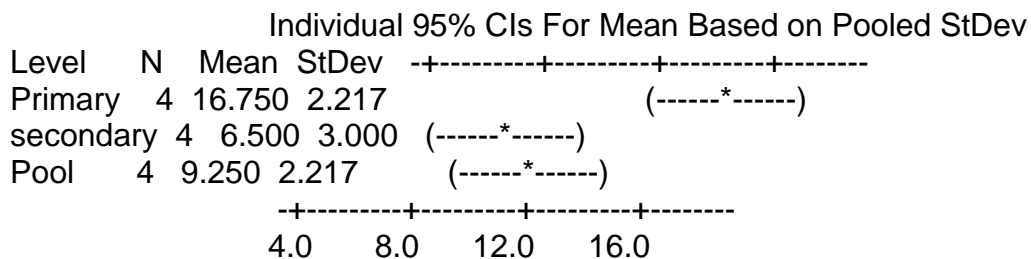
Appendix 1.1

One way anova of number of individuals found at each site

One-way ANOVA: Primary, secondary, Pool

Source	DF	SS	MS	F	P
Factor	2	225.17	112.58	17.93	0.001
Error	9	56.50	6.28		
Total	11	281.67			

S = 2.506 R-Sq = 79.94% R-Sq(adj) = 75.48%



Pooled StDev = 2.506

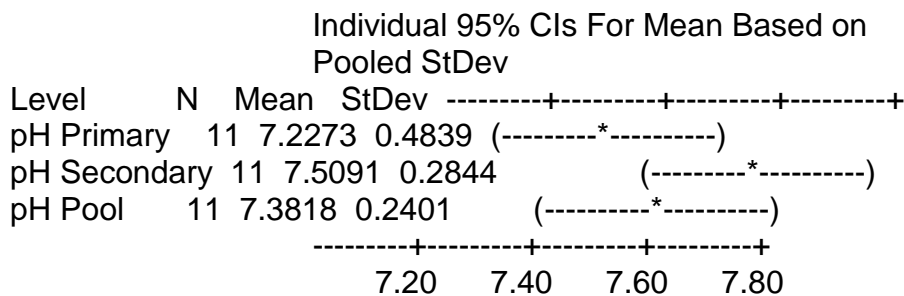
Appendix 1.2

One way anova of pH readings for all three sites

One-way ANOVA: pH Primary, pH Secondary, pH Pool

Source	DF	SS	MS	F	P
Factor	2	0.438	0.219	1.76	0.189
Error	30	3.727	0.124		
Total	32	4.165			

S = 0.3525 R-Sq = 10.52% R-Sq(adj) = 4.55%



Pooled StDev = 0.3525

Appendix 1.3

One way anova of soil temperature readings for all three sites

One-way ANOVA: Primary temp soil, Secondary temp soil, Pool temp soil

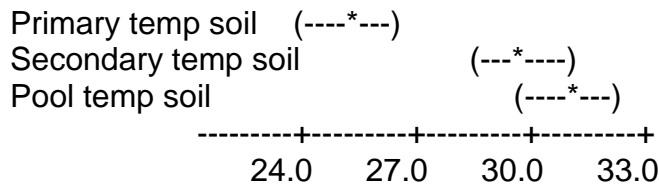
Source	DF	SS	MS	F	P
Factor	2	371.98	185.99	36.19	0.000
Error	30	154.17	5.14		
Total	32	526.14			

S = 2.267 R-Sq = 70.70% R-Sq(adj) = 68.75%

Level	N	Mean	StDev
Primary temp soil	11	22.673	0.352
Secondary temp soil	11	27.673	2.975
Pool temp soil	11	30.827	2.538

Individual 95% CIs For Mean Based on Pooled StDev

Level	-----+-----+-----+-----+
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Pooled StDev = 2.267

Appendix 1.4

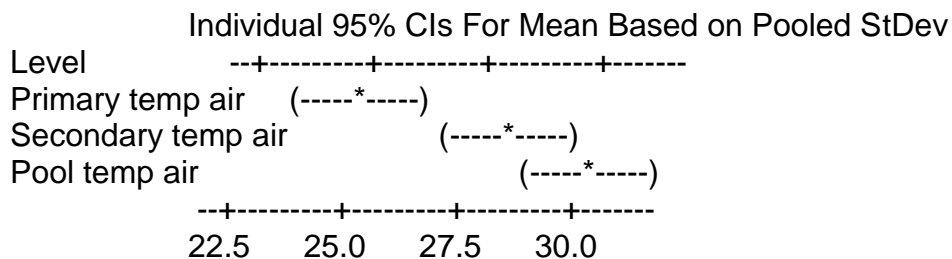
One way anova for air temperature readings for all three sites

One-way ANOVA: Primary temp air, Secondary temp air, Pool temp air

Source	DF	SS	MS	F	P
Factor	2	266.71	133.36	25.17	0.000
Error	30	158.93	5.30		
Total	32	425.65			

S = 2.302 R-Sq = 62.66% R-Sq(adj) = 60.17%

Level	N	Mean	StDev
Primary temp air	11	23.536	0.555
Secondary temp air	11	26.991	1.820
Pool temp air	11	30.500	3.503



Pooled StDev = 2.302

Appendix 1.5

Kruskal-Wallis test of light readings for all three sites

Kruskal-Wallis Test: reading versus habitat

Kruskal-Wallis Test on reading

habitat	N	Median	Ave Rank	Z
1	11	0.8000	6.5	-4.39

2	11	598.0000	21.9	2.06
3	11	619.0000	22.5	2.33
Overall	33		17.0	

H = 19.31 DF = 2 P = 0.000

H = 19.32 DF = 2 P = 0.000 (adjusted for ties)

Appendix 1.6

Anosim comparing individuals and species between each site.

Global Test

Sample statistic (Global R): 0.995

Significance level of sample statistic: 0.1% (**p=0.001**)

Number of permutations: 999 (Random sample from 5775)

Number of permuted statistics greater than or equal to Global R: 0

Pairwise Tests

Groups	R	Significance	Possible	Actual	Number >= observed
	Statistic	Level %	Permutations	Permutations	
primary, secondary	0.979	2.9	35	35	1
primary, pool	1	2.9	35	35	1
secondary, pool	1	2.9	35	35	1