APPENDIX H

Macrozoobenthos ANOVA Tables

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG1 HYDRA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	219229.5831976E	873.42463425	23.50
ERROR	504	18730.85665556	37.16439853	
CORRECTED TOTAL	755	237960.4400 5747		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	61748.82715738	83.08	0.0001
YEAR	1	861.84549577	23.19	0.0001
TRANSECT*YEAR	20	16706.21716700	22.48	0.0001
MONTH	1	5267.74200238	141.74	0.0001
TRANSECT*MONTH	20	42207.61073504	56.79	0.0001
YEAR*MONTH	1	20088.82367702	540.49	0.0001
TRANSECT*YEAR*MONTH	20	33841.88827388	45.53	0.0001
STATION	2	1356.22225310	18.78	0.0001
TRANSECT*STATION	40	11382.90240163	7.66	0.0001
YEAR*STATION	2	335.26738608	4.51	0.0114
TRANSEC*YEAR*STATION	40	7527.83517548	5.06	0.0001
MONTH*STATION	2	671.50548327	9.03	0.0001
TRANSEC*MONTH*STATIC	40	10807.06047088	7.27	0.0001
YEAR*MONTH*STATION	2	420.00142373	5.65	0.0037
TRANS*YEAR*MONT*STAT	40	5967.82415128	4.01	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.921286	71.1825

ROOT MSE	BLG1 MEAN
6.09626103	8.56414546

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG2 TURBELLARIA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	4249.69186223	16.93104328	7.75
ERROR	504	11000.39637476	2.18332614	
CORRECTED TOTAL	755	5350.08823659		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	1237.90297283	28.35	0.0001
YEAR	1	163.03335108	74.67	0.0001
TRANSECT*YEAR	20	270.48410297	6.19	0.0001
MONTH	1	81.35302401	37.26	0.0001
TRANSECT*MONTH	20	332.69094221	7.62	0.0001
YEAR*MONTH	1	38.53614900	17.65	0.0001
TRANSECT*YEAR*MONTH	20	185.31324550	4.24	0.0001
STATION	2	291.06521271	66.66	0.0001
TRANSECT*STATION	40	833.58124525	9.54	0.0001
YEAR*STATION	2	13.06715816	2.99	0.0511
TRANSEC*YEAR*STATION	40	224.77856058	2.57	0.0001
MONTH*STATION	2	14.12653629	3.24	0.0401
TRANSEC*MONTH*STATIC	40	341.66283885	3.91	0.0001
YEAR*MONTH*STATION	2	16.43265485	3.76	0.0239
TRANS*YEAR*MONT*STAT	40	205.65382741	2.35	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.794322	56.3190

ROOT MSE	BLG2 MEAN
1.47760825	2.62363892

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG3 NEMERTINEA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	3984.39558342	15.87408758	6.80
ERROR	504	1176.22875683	2.33396563	
CORRECTED TOTAL	755	5160.72474025		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	1729.60526523	37.05	0.0001
YEAR	1	0.95278857	0.41	0.5232
TRANSECT*YEAR	20	119.33882232	2.56	0.0003
MONTH	1	498.05317751	213.41	0.0001
TRANSECT*MONTH	20	482.62745256	10.34	0.0001
YEAR*MONTH	1	2.74560021	1.18	0.2783
TRANSECT*YEAR*MONTH	20	180.08233217	3.86	0.0001
STATION	2	14.72016716	3.16	0.0435
TRANSECT*STATION	40	199.77764500	2.14	0.0001
YEAR*STATION	2	2.83692415	0.61	0.5450
TRANSEC*YEAR*STATION	40	254.04512884	2.72	0.0001
MONTH*STATION	2	5.62772937	2.06	0.1282
TRANSEC*MONTH*STATIC	40	282.44672503	3.03	0.0001
YEAR*MONTH*STATION	2	12.33424166	2.64	0.0722
TRANS*YEAR*MONT*STAT	40	195.13763365	2.09	0.0002

PR > F	R-SQUARE	C.V.
0.0001	0.772061	67.5724

ROOT MSE	BUG3 MEAN
1.52773873	2.26085719

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG4 NEMATODA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	9715.81880744	38.70844146	8.97
ERROR	504	2174.40271240	4.31425110	
CORRECTED TOTAL	755	11890.22151984		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	4071.42005067	47.19	0.0001
YEAR	1	33.01832485	7.65	0.0059
TRANSECT*YEAR	20	366.03585822	4.24	0.0001
MONTH	1	519.00527473	120.30	0.0001
TRANSECT*MONTH	20	361.99580016	4.20	0.0001
YEAR*MONTH	1	110.20938265	25.55	0.0001
TRANSECT*YEAR*MONTH	20	172.35895649	2.00	0.0064
STATION	2	133.71356729	15.50	0.0001
TRANSECT*STATION	40	2500.01526151	14.49	0.0001
YEAR*STATION	2	12.49148459	1.45	0.2361
TRANSEC*YEAR*STATION	40	322.44101788	1.87	0.0013
MONTH*STATION	2	135.37722497	15.69	0.0001
TRANSEC*MONTH*STATIC	40	611.57672676	3.54	0.0001
YEAR*MONTH*STATION	2	16.35306495	1.90	0.1514
TRANS*YEAR*MONT*STAT	40	345.79271025	2.03	0.0003

PR > F	R-SQUARE	C.V.
0.0001	0.817127	39.0540

ROOT MSE	BUG4 MEAN
2.07708717	5.31305401

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG5 PIRUDINEA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	64.67127658	0.25765449	4.16
ERROR	504	31.19889091	0.06190256	
CORRECTED TOTAL	755	95.87016748		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	20.17672709	16.30	0.0001
YEAR	1	0.13984558	2.26	0.1335
TRANSECT*YEAR	20	1.46406508	1.18	0.2639
MONTH	1	0.45478871	7.35	0.0069
TRANSECT*MONTH	20	2.22752820	1.80	0.0182
YEAR*MONTH	1	0.08486255	1.37	0.2422
TRANSECT*YEAR*MONTH	20	1.20059585	0.97	0.4977
STATION	2	5.06195516	40.85	0.0001
TRANSECT*STATION	40	21.68522791	8.76	0.0001
YEAR*STATION	2	0.14405242	1.16	0.3132
TRANSEC*YEAR*STATION	40	2.52385075	1.02	0.4343
MONTH*STATION	2	0.02154457	0.17	0.8403
TRANSEC*MONTH*STATIC	40	3.77866623	1.53	0.0230
YEAR*MONTH*STATION	2	0.46752855	3.78	0.0236
TRANS*YEAR*MONT*STAT	40	5.22558592	2.11	0.0001

MODEL F	R-SQUARE	C.V.
0.0001	0.674571	29.2958

ROOT MSE	BUG5 MEAN
0.24880225	0.84915512

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG6 CLIGOCHAETA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	138874.56460877	553.28511796	14.21
ERROR	504	19622.97822156	38.93447663	
CORRECTED TOTAL	755	158497.54083033		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	72359.56318351	92.92	0.0001
YEAR	1	63.17856687	1.62	0.2033
TRANSECT*YEAR	20	4669.87819119	6.00	0.0001
MONTH	1	594.71287808	15.27	0.0001
TRANSECT*MONTH	20	7705.59409368	9.90	0.0001
YEAR*MONTH	1	3944.00178501	101.30	0.0001
TRANSECT*YEAR*MONTH	20	10700.51698537	13.74	0.0001
STATION	2	2380.18007229	30.57	0.0001
TRANSECT*STATION	40	18278.46501194	11.74	0.0001
YEAR*STATION	2	156.20070822	2.01	0.1356
TRANSEC*YEAR*STATION	40	7420.97285946	4.77	0.0001
MONTH*STATION	2	262.63697310	3.37	0.0351
TRANSEC*MONTH*STATIC	40	5315.37214225	3.41	0.0001
YEAR*MONTH*STATION	2	480.24057068	6.17	0.0023
TRANS*YEAR*MONT*STAT	40	4543.05014712	2.92	0.0001

MODEL F	R-SQUARE	C.V.
0.0001	0.876194	43.7413

ROOT MSE	BUG6 MEAN
6.23974972	14.26513205

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG7 MANAYUNKIA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	27659.07690087	110.19552550	16.61
ERROR	504	3344.02945590	6.63497908	
CORRECTED TOTAL	755	31003.10635677		

SOURCE	DF	ANOVA SS	F VALUE	PR F
TRANSECT	20	10345.41330189	77.96	0.0001
YEAR	1	374.52476723	56.45	0.0001
TRANSECT*YEAR	20	1183.41553190	8.92	0.0001
MONTH	1	83.56627788	12.59	0.0004
TRANSECT*MONTH	20	2510.79264830	18.92	0.0001
YEAR*MONTH	1	132.00311000	19.90	0.0001
TRANSECT*YEAR*MONTH	20	430.31481106	3.24	0.0001
STATION	2	104.94147411	7.91	0.0004
TRANSECT*STATION	40	6848.32219469	25.80	0.0001
YEAR*STATION	2	286.46467753	21.59	0.0001
TRANSEC*YEAR*STATION	40	1861.83729010	7.02	0.0001
MONTH*STATION	2	125.21196687	9.44	0.0001
TRANSEC*MONTH*STATIC	40	2729.43249048	10.28	0.0001
YEAR*MONTH*STATION	2	82.94731505	6.25	0.0021
TRANS*YEAR*MONT*STAT	40	559.88904378	2.11	0.0001

PR F	R-SQUARE	C.V.
0.0001	0.892139	62.9581

ROOT MSE	BUG7 MEAN
2.57584531	4.09136619

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG8 +ARPACTICOIDA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	2747.57577160	10.94651702	6.71
ERROR	504	822.67292353	1.63228755	
CORRECTED TOTAL	755	3570.24869512		

SOURCE	DF	ANOVA SS	F VALUE	PR F
TRANSECT	20	625.82427271	19.17	0.0001
YEAR	1	163.94728929	100.44	0.0001
TRANSECT*YEAR	20	211.14996186	6.47	0.0001
MONTH	1	62.07161267	38.03	0.0001
TRANSECT*MONTH	20	274.43686169	8.41	0.0001
YEAR*MONTH	1	32.46610094	19.89	0.0001
TRANSECT*YEAR*MONTH	20	157.41327797	4.82	0.0001
STATION	2	90.81587757	27.82	0.0001
TRANSECT*STATION	40	602.77981748	9.23	0.0001
YEAR*STATION	2	9.43188359	2.89	0.0565
TRANSEC*YEAR*STATION	40	175.22361890	2.68	0.0001
MONTH*STATION	2	16.70276914	5.12	0.0063
TRANSEC*MONTH*STATIC	40	179.21660777	2.74	0.0001
YEAR*MONTH*STATION	2	11.70142057	3.58	0.0285
TRANS*YEAR*MONT*STAT	40	134.39439943	2.06	0.0002

PR F	R-SQUARE	C.V.
0.0001	0.769575	73.4759

ROOT MSE	BUG8 MEAN
1.27761009	1.73881585

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE EUGS — CSTRACODA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	4385.18956060	17.47087474	9.78
ERROR	504	900.36141147	1.78643137	
CORRECTED TOTAL	755	5285.55097207		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	831.76447734	23.28	0.0001
YEAR	1	14.58643362	8.39	0.0039
TRANSECT*YEAR	20	110.17732531	3.08	0.0001
MONTH	1	49.56884415	27.75	0.0001
TRANSECT*MONTH	20	960.72059831	26.89	0.0001
YEAR*MONTH	1	4.01174245	2.25	0.1346
TRANSECT*YEAR*MONTH	20	159.76849400	4.47	0.0001
STATION	2	25.20750129	7.06	0.0010
TRANSECT*STATION	40	817.69312449	11.44	0.0001
YEAR*STATION	2	7.74550567	2.17	0.1155
TRANSEC*YEAR*STATION	40	337.32990260	4.72	0.0001
MONTH*STATION	2	37.43100790	10.48	0.0001
TRANSEC*MONTH*STATIC	40	725.33695858	10.21	0.0001
YEAR*MONTH*STATION	2	11.17784841	3.13	0.0446
TRANS*YEAR*MONT*STAT	40	288.25899647	4.03	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.829656	81.5765

ROOT MSE	BUGS MEAN
1.33657449	1.63842107

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE EUG10 — GAMMARUS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	8802.31598703	35.06898800	8.74
ERROR	504	2021.37504685	4.01066478	
CORRECTED TOTAL	755	10823.69103388		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	2909.87492865	36.28	0.0001
YEAR	1	16.91810019	4.22	0.0405
TRANSECT*YEAR	20	363.36221605	4.53	0.0001
MONTH	1	439.84505915	109.67	0.0001
TRANSECT*MONTH	20	614.91638356	7.67	0.0001
YEAR*MONTH	1	16.16657880	4.03	0.0452
TRANSECT*YEAR*MONTH	20	695.18845753	8.67	0.0001
STATION	2	661.85753456	82.51	0.0001
TRANSECT*STATION	40	1353.75057262	8.44	0.0001
YEAR*STATION	2	40.66604040	5.07	0.0066
TRANSEC*YEAR*STATION	40	323.88395589	2.02	0.0003
MONTH*STATION	2	70.57855936	8.80	0.0002
TRANSEC*MONTH*STATIC	40	532.20810600	5.81	0.0001
YEAR*MONTH*STATION	2	9.86583929	1.23	0.2932
TRANS*YEAR*MONT*STAT	40	353.23257135	2.20	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.813245	64.5329

ROOT MSE	BUG10 MEAN
2.00266442	3.08420386

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG11 HYALLELA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	1616.11456704	6.43870505	6.68
ERROR	504	485.85476660	0.96399756	
CORRECTED TOTAL	755	2101.96932365		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	430.24667654	22.32	0.0001
YEAR	1	5.08245549	5.27	0.0221
TRANSECT*YEAR	20	93.41215041	4.85	0.0001
MONTH	1	0.86787550	0.90	0.3432
TRANSECT*MONTH	20	85.61966572	4.44	0.0001
YEAR*MONTH	1	6.76270439	7.02	0.0083
TRANSECT*YEAR*MONTH	20	90.65672442	4.70	0.0001
STATION	2	80.92736138	41.97	0.0001
TRANSECT*STATION	40	321.11315544	8.33	0.0001
YEAR*STATION	2	4.55695079	2.36	0.0951
TRANSEC*YEAR*STATION	40	53.09595553	1.38	0.0662
MONTH*STATION	2	3.65642275	1.90	0.1512
TRANSEC*MONTH*STATIC	40	262.50040035	6.81	0.0001
YEAR*MONTH*STATION	2	4.19204790	2.17	0.1148
TRANS*YEAR*MONT*STAT	40	173.32313343	4.49	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.769657	71.5867

ROOT MSE	BUG11 MEAN
0.98183377	1.37149277

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG12 CHIRONOMIDAE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	24906.42376006	99.22877992	20.01
ERROR	504	2499.67111924	4.95966492	
CORRECTED TOTAL	755	27406.09487930		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	9562.77972600	96.41	0.0001
YEAR	1	417.08087633	84.09	0.0001
TRANSECT*YEAR	20	1612.38867445	16.26	0.0001
MONTH	1	394.77846252	79.60	0.0001
TRANSECT*MONTH	20	1271.75548526	12.82	0.0001
YEAR*MONTH	1	1034.85077047	208.65	0.0001
TRANSECT*YEAR*MONTH	20	1333.25418776	13.44	0.0001
STATION	2	1047.25652893	105.58	0.0001
TRANSECT*STATION	40	4121.17475209	20.77	0.0001
YEAR*STATION	2	5.55812155	0.56	0.5714
TRANSEC*YEAR*STATION	40	1009.81767266	5.09	0.0001
MONTH*STATION	2	56.62829276	5.71	0.0035
TRANSEC*MONTH*STATIC	40	2097.84950143	10.57	0.0001
YEAR*MONTH*STATION	2	99.40697516	10.02	0.0001
TRANS*YEAR*MONT*STAT	40	841.84373268	4.24	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.908791	31.8651

ROOT MSE	BUG12 MEAN
2.22703052	6.98692766

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG13 CAENIS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	2337.76960466	9.31382313	14.59
ERROR	504	321.62964558	0.63815406	
CORRECTED TOTAL	755	2659.39925044		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	735.69250973	57.96	0.0001
YEAR	1	2.14728904	3.36	0.0672
TRANSECT*YEAR	20	139.20198044	10.91	0.0001
MONTH	1	6.75614405	10.59	0.0012
TRANSECT*MONTH	20	197.85426058	15.50	0.0001
YEAR*MONTH	1	62.47806432	97.90	0.0001
TRANSECT*YEAR*MONTH	20	100.05672205	7.84	0.0001
STATION	2	126.33462299	98.98	0.0001
TRANSECT*STATION	40	365.69586615	14.33	0.0001
YEAR*STATION	2	2.09000738	1.64	0.1955
TRANSEC*YEAR*STATION	40	130.08001862	5.10	0.0001
MONTH*STATION	2	0.24722640	0.19	0.8240
TRANSEC*MONTH*STATIC	40	330.94164032	12.96	0.0001
YEAR*MONTH*STATION	2	15.36452623	12.04	0.0001
TRANS*YEAR*MONT*STAT	40	118.82466655	4.66	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.879059	52.7837

ROOT MSE	BUG13 MEAN
0.79884545	1.51343225

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG14 HEXAGENIA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	8283.79103163	33.00315152	32.72
ERROR	504	508.37478779	1.00868013	
CORRECTED TOTAL	755	8792.16581942		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	4190.29128446	207.71	0.0001
YEAR	1	49.69467269	49.27	0.0001
TRANSECT*YEAR	20	322.93042325	16.01	0.0001
MONTH	1	148.51604946	147.24	0.0001
TRANSECT*MONTH	20	941.66614139	46.68	0.0001
YEAR*MONTH	1	23.83098114	23.63	0.0001
TRANSECT*YEAR*MONTH	20	1108.28184148	54.94	0.0001
STATION	2	0.95474111	0.47	0.6232
TRANSECT*STATION	40	621.84066276	15.41	0.0001
YEAR*STATION	2	9.00141999	4.46	0.0120
TRANSEC*YEAR*STATION	40	194.45395427	4.82	0.0001
MONTH*STATION	2	7.42540994	3.68	0.0259
TRANSEC*MONTH*STATIC	40	355.84611045	8.82	0.0001
YEAR*MONTH*STATION	2	23.66315504	11.73	0.0001
TRANS*YEAR*MONT*STAT	40	285.39418420	7.07	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.942179	36.1575

ROOT MSE	BUG14 MEAN
1.00433069	2.77765893

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG15 CECETIS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	299.47455240	1.19312571	7.35
ERROR	504	81.86900599	0.16243850	
CORRECTED TOTAL	755	381.34355939		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	76.15578206	23.44	0.0001
YEAR	1	1.54426785	9.51	0.0022
TRANSECT*YEAR	20	9.52666690	2.94	0.0001
MONTH	1	0.11515912	0.71	0.4002
TRANSECT*MONTH	20	18.91727852	5.82	0.0001
YEAR*MONTH	1	0.07598661	0.47	0.4943
TRANSECT*YEAR*MONTH	20	10.29467700	3.17	0.0001
STATION	2	21.20272849	65.26	0.0001
TRANSECT*STATION	40	93.39230649	14.37	0.0001
YEAR*STATION	2	2.76559880	8.51	0.0002
TRANSEC*YEAR*STATION	40	15.49413294	2.38	0.0001
MONTH*STATION	2	0.59219794	1.82	0.1626
TRANSEC*MONTH*STATIC	40	33.66729912	5.18	0.0001
YEAR*MONTH*STATION	2	2.10523137	6.48	0.0017
TRANS*YEAR*MONT*STAT	40	13.61493975	2.10	0.0002

PR > F	R-SQUARE	C.V.
0.0001	0.785314	39.5357

ROOT MSE	BUG15 MEAN
0.40303660	1.01942538

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG16 CHELMATOPSYCHE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	4132.89199131	16.46570514	13.23
ERROR	504	627.19426521	1.24443307	
CORRECTED TOTAL	755	4760.08625652		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	1737.18410283	69.80	0.0001
YEAR	1	10.86509991	8.73	0.0033
TRANSECT*YEAR	20	75.45162714	3.03	0.0001
MONTH	1	143.54833610	115.35	0.0001
TRANSECT*MONTH	20	852.65085627	34.26	0.0001
YEAR*MONTH	1	15.62198224	12.55	0.0004
TRANSECT*YEAR*MONTH	20	38.68821107	1.55	0.0593
STATION	2	43.82617188	17.61	0.0001
TRANSECT*STATION	40	409.89836535	8.23	0.0001
YEAR*STATION	2	1.38529560	0.56	0.5735
TRANSEC*YEAR*STATION	40	156.13459350	3.14	0.0001
MONTH*STATION	2	2.26514950	0.91	0.4031
TRANSEC*MONTH*STATIC	40	262.27020788	5.27	0.0001
YEAR*MONTH*STATION	2	3.49021522	1.40	0.2470
TRANS*YEAR*MONT*STAT	40	379.61177561	7.63	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.868239	70.0013

ROOT MSE	BUG16 MEAN
1.11554160	1.59260235

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG17 HYDROPSYCHE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	1525.30182690	6.07689972	8.56
ERROR	504	357.78969620	0.70990059	
CORRECTED TOTAL	755	1883.09172511		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	405.27207593	28.54	0.0001
YEAR	1	16.80205071	23.67	0.0001
TRANSECT*YEAR	20	47.51888102	3.35	0.0001
MONTH	1	85.05208435	119.81	0.0001
TRANSECT*MONTH	20	207.77886956	14.63	0.0001
YEAR*MONTH	1	10.20319720	14.37	0.0002
TRANSECT*YEAR*MONTH	20	73.61634714	5.18	0.0001
STATION	2	5.03739430	3.55	0.0295
TRANSECT*STATION	40	247.27177314	8.71	0.0001
YEAR*STATION	2	5.02640858	3.54	0.0297
TRANSEC*YEAR*STATION	40	42.12026215	1.48	0.0315
MONTH*STATION	2	18.24473667	12.85	0.0001
TRANSEC*MONTH*STATIC	40	273.46728038	9.63	0.0001
YEAR*MONTH*STATION	2	2.63830140	1.86	0.1570
TRANS*YEAR*MONT*STAT	40	85.25216597	3.00	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.809999	64.0977

ROOT MSE	BUG17 MEAN
0.84255598	1.31530886

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG18 ACARINA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	448.08202253	1.78518734	3.78
ERROR	504	237.96333869	0.47218916	
CORRECTED TOTAL	755	686.06536142		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	104.26542039	11.04	0.0001
YEAR	1	0.00801100	0.01	0.9045
TRANSECT*YEAR	20	17.88804555	1.89	0.0113
MONTH	1	0.06475867	0.14	0.7113
TRANSECT*MONTH	20	27.94111483	2.96	0.0001
YEAR*MONTH	1	2.31007322	4.89	0.0274
TRANSECT*YEAR*MONTH	20	55.96523069	5.93	0.0001
STATION	2	4.96216697	5.25	0.0055
TRANSECT*STATION	40	99.14777433	5.25	0.0001
YEAR*STATION	2	4.05144248	4.29	0.0142
TRANSEC*YEAR*STATION	40	34.21651179	1.81	0.0022
MONTH*STATION	2	5.73235234	6.07	0.0025
TRANSEC*MONTH*STATIC	40	44.40755133	2.35	0.0001
YEAR*MONTH*STATION	2	1.51437092	1.60	0.2022
TRANS*YEAR*MONT*STAT	40	45.62835400	2.42	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.653119	54.1386

ROOT MSE	BUG18 MEAN
0.68716022	1.26926146

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG19 **PHYSA**

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	970.03300829	3.86467334	6.54
ERROR	504	297.77035391	0.59081419	
CORRECTED TOTAL	755	1267.80336220		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	299.54261761	25.35	0.0001
YEAR	1	0.05818596	0.10	0.7538
TRANSECT*YEAR	20	36.07732263	3.05	0.0001
MONTH	1	36.17230696	61.22	0.0001
TRANSECT*MONTH	20	46.96670958	3.97	0.0001
YEAR*MONTH	1	17.90024832	30.30	0.0001
TRANSECT*YEAR*MONTH	20	60.93217357	5.16	0.0001
STATION	2	85.44145045	72.31	0.0001
TRANSECT*STATION	40	157.92368944	6.68	0.0001
YEAR*STATION	2	2.06253119	1.75	0.1756
TRANSEC*YEAR*STATION	40	83.92302538	3.55	0.0001
MONTH*STATION	2	10.16826049	8.61	0.0002
TRANSEC*MONTH*STATIC	40	73.23347576	3.10	0.0001
YEAR*MONTH*STATION	2	9.85341857	8.34	0.0003
TRANS*YEAR*MONT*STAT	40	49.77759238	2.11	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.765129	57.1572

ROOT MSE	BUG19 MEAN
0.76864439	1.34479028

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG20 **GYRALLUS**

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	992.37888750	3.95370067	6.15
ERROR	504	324.01429121	0.64288550	
CORRECTED TOTAL	755	1316.39315871		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	182.21767235	14.17	0.0001
YEAR	1	1.59244232	2.48	0.1161
TRANSECT*YEAR	20	41.67446179	3.24	0.0001
MONTH	1	25.42827099	39.55	0.0001
TRANSECT*MONTH	20	54.48474956	4.24	0.0001
YEAR*MONTH	1	2.41037537	3.75	0.0534
TRANSECT*YEAR*MONTH	20	55.83631556	4.34	0.0001
STATION	2	114.42669753	88.99	0.0001
TRANSECT*STATION	40	163.10967347	6.34	0.0001
YEAR*STATION	2	0.84926805	0.66	0.5170
TRANSEC*YEAR*STATION	40	103.67258769	4.03	0.0001
MONTH*STATION	2	15.97483413	12.42	0.0001
TRANSEC*MONTH*STATIC	40	122.61479326	4.77	0.0001
YEAR*MONTH*STATION	2	6.85661656	5.33	0.0051
TRANS*YEAR*MONT*STAT	40	101.22810846	3.94	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.753862	63.7578

ROOT MSE	BUG20 MEAN
0.80180141	1.25757327

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE EUG21 AMNICOLA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	4685.94269007	18.66909438	9.68
ERROR	504	972.10552743	1.92878081	
CORRECTED TOTAL	755	5658.04821750		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	1684.97448992	43.68	0.0001
YEAR	1	35.25047810	18.28	0.0001
TRANSECT*YEAR	20	311.12872725	8.07	0.0001
MONTH	1	11.24931995	5.83	0.0161
TRANSECT*MONTH	20	195.48463441	5.07	0.0001
YEAR*MONTH	1	6.31599964	3.27	0.0710
TRANSECT*YEAR*MONTH	20	237.27123411	6.15	0.0001
STATION	2	405.29485805	105.07	0.0001
TRANSECT*STATION	40	1135.25397254	14.71	0.0001
YEAR*STATION	2	12.60095623	3.27	0.0389
TRANSEC*YEAR*STATION	40	286.08884051	3.71	0.0001
MONTH*STATION	2	3.46540213	0.90	0.4079
TRANSEC*MONTH*STATIC	40	214.48896441	2.78	0.0001
YEAR*MONTH*STATION	2	11.41515219	2.96	0.0528
TRANS*YEAR*MONT*STAT	40	135.64963062	1.76	0.0035

PR > F	R-SQUARE	C.V.
0.0001	0.828191	50.2404

ROOT MSE	BLG21 MEAN
1.38880553	2.76432100

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE EUG22 ELIMIA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	2023.39675229	8.06134164	9.26
ERROR	504	438.64171017	0.87032085	
CORRECTED TOTAL	755	2462.03846246		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	712.91085461	40.96	0.0001
YEAR	1	1.00114199	1.15	0.2840
TRANSECT*YEAR	20	64.04760243	3.68	0.0001
MONTH	1	20.45306262	23.50	0.0001
TRANSECT*MONTH	20	148.32381857	8.52	0.0001
YEAR*MONTH	1	8.81170001	10.12	0.0016
TRANSECT*YEAR*MONTH	20	118.71571149	6.82	0.0001
STATION	2	26.51505087	15.23	0.0001
TRANSECT*STATION	40	568.17520058	16.32	0.0001
YEAR*STATION	2	7.01414131	4.03	0.0184
TRANSEC*YEAR*STATION	40	98.00608937	2.82	0.0001
MONTH*STATION	2	2.48302399	1.43	0.2411
TRANSEC*MONTH*STATIC	40	99.69165245	2.86	0.0001
YEAR*MONTH*STATION	2	8.25782687	4.74	0.0091
TRANS*YEAR*MONT*STAT	40	138.98587433	3.99	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.821838	50.5101

ROOT MSE	BLG22 MEAN
0.93290988	1.84697720

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG23 SPHAERIICAE

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	3624.43461267	14.43997854	7.87
ERROR	504	924.19093441	1.83371217	
CORRECTED TOTAL	755	4548.62554708		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	1133.45569051	30.91	0.0001
YEAR	1	2.89218151	1.58	0.2097
TRANSECT*YEAR	20	244.99363013	6.68	0.0001
MONTH	1	11.11996680	6.06	0.0142
TRANSECT*MONTH	20	213.63740268	5.83	0.0001
YEAR*MONTH	1	80.89129188	44.11	0.0001
TRANSECT*YEAR*MONTH	20	177.36234685	4.84	0.0001
STATION	2	75.01660045	20.45	0.0001
TRANSECT*STATION	40	1049.82687102	14.31	0.0001
YEAR*STATION	2	7.46546811	2.04	0.1317
TRANSEC*YEAR*STATION	40	148.69273243	2.03	0.0003
MONTH*STATION	2	10.73522153	2.93	0.0545
TRANSEC*MONTH*STATIC	40	237.31335170	3.24	0.0001
YEAR*MONTH*STATION	2	33.83219119	9.23	0.0001
TRANS*YEAR*MONT*STAT	40	197.20658588	2.69	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.796820	38.6017

ROOT MSE	BUG23 MEAN
1.35414629	3.50799813

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE BUG24 ISOPODA

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	499.83919624	1.99139122	7.76
ERROR	504	129.39569513	0.25674543	
CORRECTED TOTAL	755	629.23889547		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
TRANSECT	20	102.06292717	19.88	0.0001
YEAR	1	2.95130412	11.50	0.0008
TRANSECT*YEAR	20	18.94338980	3.69	0.0001
MONTH	1	0.53242954	2.07	0.1505
TRANSECT*MONTH	20	35.42044502	6.90	0.0001
YEAR*MONTH	1	0.05704668	0.22	0.6376
TRANSECT*YEAR*MONTH	20	40.47184540	7.88	0.0001
STATION	2	29.53305618	57.51	0.0001
TRANSECT*STATION	40	111.81134203	10.89	0.0001
YEAR*STATION	2	1.49343021	2.91	0.0555
TRANSEC*YEAR*STATION	40	15.11025293	1.47	0.0344
MONTH*STATION	2	0.60386128	1.18	0.3094
TRANSEC*MONTH*STATIC	40	57.56343766	5.61	0.0001
YEAR*MONTH*STATION	2	1.08218591	2.11	0.1226
TRANS*YEAR*MONT*STAT	40	82.20219642	8.00	0.0001

PR > F	R-SQUARE	C.V.
0.0001	0.794355	54.4466

ROOT MSE	BUG24 MEAN
0.50670054	0.93068748

ANALYSIS OF VARIANCE TABLES

ANALYSIS OF VARIANCE PROCEDURE

DEPENDENT VARIABLE EICMASS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE
MODEL	251	1237.29616813	4.92946681	4.17
ERROR	504	596.32877281	1.18319201	
CORRECTED TOTAL	755	1833.62494094		

SOURCE	DF	ANOVA SS	F VALUE	PR > F
YEAR	1	1.54719389	1.31	0.2534
MONTH	1	0.24415322	0.21	0.6498
MONTH*YEAR	1	25.45535342	21.51	0.0001
TRANSECT	20	360.62315904	15.24	0.0001
TRANSECT*YEAR	20	45.52679093	1.92	0.0095
TRANSECT*MONTH	20	45.25378004	1.91	0.0101
TRANSECT*MONTH*YEAR	20	71.21452883	3.01	0.0001
STATION	2	66.53625375	28.12	0.0001
STATION*YEAR	2	12.54701908	5.30	0.0053
STATION*MONTH	2	3.21645689	1.36	0.2578
STATION*MONTH*YEAR	2	1.72959459	0.73	0.4820
TRANSECT*STATION	40	189.96738031	4.01	0.0001
TRANSEC*STATION*YEAR	40	105.37661259	2.23	0.0001
TRANSEC*STATIC*MONTH	40	77.84682999	1.64	0.0091
TRANS*STAT*MONT*YEAR	40	230.71106161	4.86	0.0001

DF	F	R-SQUARE	C.V.
0.0001		0.674781	103.8015

ROOT MSE	EICMASS MEAN
1.08774630	1.04751018