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STATISTICAL DATA

Sexual dimorphism

1. Mean shell morphology and tail width

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= CL	MALE	FEMALE
MEAN	112.1964	155.48
VARIANCE	96.61779	778.7969
STAND. DEV.	9.829436	27.90693
N	14	25

T VALUE = 5.584512 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 8.060595 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= CL	MALE	FEMALE
MEAN	112.1964	155.48
VARIANCE	96.61779	778.7969
STAND. DEV.	9.829436	27.90693
N	14	25

T VALUE = 7.016618 WITH 34 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 8.060595 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= CW	MALE	FEMALE
MEAN	80.03571	118.66
VARIANCE	54.8738	496.9115
STAND. DEV.	7.407686	22.29151
N	14	25

T VALUE = 6.260409 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 9.055532 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= CW	MALE	FEMALE
MEAN	80.03571	118.66
VARIANCE	54.8738	496.9115
STAND. DEV.	7.407686	22.29151
N	14	25

T VALUE = 7.91787 WITH 33 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 9.055532 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= PL	MALE	FEMALE
MEAN	90.125	137.78
VARIANCE	87.27704	596.9661
STAND. DEV.	9.342218	24.43289
N	14	25

T VALUE = 6.983629 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 6.839899 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= PL	MALE	FEMALE
MEAN	90.125	137.78
VARIANCE	87.27704	596.9661
STAND. DEV.	9.342218	24.43289
N	14	25

T VALUE = 8.684272 WITH 35 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 6.839899 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= Ht	MALE	FEMALE
MEAN	44.75	67.14
VARIANCE	26.68269	134.9587
STAND. DEV.	5.16553	11.61717
N	14	25

T VALUE = 6.813317 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 5.057911 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= Ht	MALE	FEMALE
MEAN	44.75	67.14
VARIANCE	26.68269	134.9587
STAND. DEV.	5.16553	11.61717
N	14	25

T VALUE = 8.284498 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 5.057911 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= TW	MALE	FEMALE
MEAN	19.17857	15.06
VARIANCE	3.254132	5.881674
STAND. DEV.	1.803921	2.425216
N	14	25

T VALUE = 5.540818 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.807448 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= TW	MALE	FEMALE
MEAN	19.17857	15.06
VARIANCE	3.254132	5.881674
STAND. DEV.	1.803921	2.425216
N	14	25

T VALUE = 6.022276 WITH 36 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.807448 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= G	MALE	FEMALE
MEAN	10.19643	15.9
VARIANCE	1.874795	9.770833
STAND. DEV.	1.294139	3.125833
N	14	25

T VALUE = 6.4923 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 5.834047 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= G	MALE	FEMALE
MEAN	10.19643	15.9
VARIANCE	1.874795	9.770833
STAND. DEV.	1.294139	3.125833
N	14	25

T VALUE = 7.982986 WITH 36 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 5.834047 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= H	MALE	FEMALE
MEAN	13.05357	19.03
VARIANCE	9.02094	13.67875
STAND. DEV.	3.003488	3.69848
N	14	25

T VALUE = 5.159293 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.516333 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= H	MALE	FEMALE
MEAN	13.05357	19.03
VARIANCE	9.02094	13.67875
STAND. DEV.	3.003488	3.69848
N	14	25

T VALUE = 5.475127 WITH 34 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.516333 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= P	MALE	FEMALE
MEAN	10.83929	18.08
VARIANCE	3.140456	18.8527
STAND. DEV.	1.772133	4.34197
N	14	25

T VALUE = 5.94063 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 6.003174 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= P	MALE	FEMALE
MEAN	10.83929	18.08
VARIANCE	3.140456	18.8527
STAND. DEV.	1.772133	4.34197
N	14	25

T VALUE = 7.320106 WITH 36 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 6.003174 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= Ab	MALE	FEMALE
MEAN	23.69643	36.83
VARIANCE	9.886343	58.54541
STAND. DEV.	3.144256	7.651498
N	14	25

T VALUE = 6.111217 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 5.921847 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= Ab	MALE	FEMALE
MEAN	23.69643	36.83
VARIANCE	9.886343	58.54541
STAND. DEV.	3.144256	7.651498
N	14	25

T VALUE = 7.52275 WITH 36 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 5.921847 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= F	MALE	FEMALE
MEAN	16.08929	22.72
VARIANCE	2.419302	10.44438
STAND. DEV.	1.555411	3.231776
N	14	25

T VALUE = 7.193646 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.317103 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= F	MALE	FEMALE
MEAN	16.08929	22.72
VARIANCE	2.419302	10.44438
STAND. DEV.	1.555411	3.231776
N	14	25

T VALUE = 8.628198 WITH 38 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.317103 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR EQUAL VARIANCES

Var= A	MALE	FEMALE
MEAN	13.71429	21.18
VARIANCE	3.027475	19.13814
STAND. DEV.	1.739964	4.374717
N	14	25

T VALUE = 6.092088 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 6.321487 WITH 24, 13 D.F.

FILE: A:A

T TEST FOR UNEQUAL VARIANCES

Var= A	MALE	FEMALE
MEAN	13.71429	21.18
VARIANCE	3.027475	19.13814
STAND. DEV.	1.739964	4.374717
N	14	25

T VALUE = 7.534694 WITH 36 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 6.321487 WITH 24, 13 D.F.



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2. Mean ratios of shell morphology and tail width and carapace length

FILE: A:RWTL

T TEST FOR EQUAL VARIANCES

Var= CWCL	MALE	FEMALE
MEAN	.7306667	.7703334
VARIANCE	1.089293E-03	7.964167E-04
STAND. DEV.	3.300445E-02	2.822086E-02
N	30	30

T VALUE = 5.00321 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.367743 WITH 29, 29 D.F.

FILE: A:RWTL

T TEST FOR UNEQUAL VARIANCES

Var= CWCL	MALE	FEMALE
MEAN	.7306667	.7703334
VARIANCE	1.089293E-03	7.964167E-04
STAND. DEV.	3.300445E-02	2.822086E-02
N	30	30

T VALUE = 5.00321 WITH 59 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.367743 WITH 29, 29 D.F.

FILE: A:RWTL

T TEST FOR EQUAL VARIANCES

Var= TWCL	MALE	FEMALE
MEAN	.1853333	9.866665E-02
VARIANCE	3.912696E-04	1.154069E-04
STAND. DEV.	1.978054E-02	1.074276E-02
N	30	30

T VALUE = 21.08858 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.390347 WITH 29, 29 D.F.

FILE: A:RWTL

T TEST FOR UNEQUAL VARIANCES

Var= TWCL	MALE	FEMALE
MEAN	.1853333	9.866665E-02
VARIANCE	3.912696E-04	1.154069E-04
STAND. DEV.	1.978054E-02	1.074276E-02
N	30	30

T VALUE = 21.08858 WITH 46 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.390347 WITH 29, 29 D.F.



FILE: A:RATO

T TEST FOR EQUAL VARIANCES

Var= PLCL	MALE	FEMALE
MEAN	.8316668	.882
VARIANCE	1.993377E-03	8.717899E-04
STAND. DEV.	4.464725E-02	2.952609E-02
N	30	30

T VALUE = 5.150392 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 2.286533 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR UNEQUAL VARIANCES

Var= PLCL	MALE	FEMALE
MEAN	.8316668	.882
VARIANCE	1.993377E-03	8.717899E-04
STAND. DEV.	4.464725E-02	2.952609E-02
N	30	30

T VALUE = 5.150392 WITH 52 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 2.286533 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR EQUAL VARIANCES

Var= HTCL	MALE	FEMALE
MEAN	.4206667	.4353333
VARIANCE	9.099204E-04	6.740504E-04
STAND. DEV.	3.016489E-02	2.596248E-02
N	30	30

T VALUE = 2.018453 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.349929 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR UNEQUAL VARIANCES

Var= HTCL	MALE	FEMALE
MEAN	.4206667	.4353333
VARIANCE	9.099204E-04	6.740504E-04
STAND. DEV.	3.016489E-02	2.596248E-02
N	30	30

T VALUE = 2.018454 WITH 59 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.349929 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR EQUAL VARIANCES

Var= GCL	MALE	FEMALE
MEAN	9.833332E-02	.103
VARIANCE	1.247155E-04	1.0449E-04
STAND. DEV.	1.116761E-02	1.022204E-02
N	30	30

T VALUE = 1.688314 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.193564 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR UNEQUAL VARIANCES

Var= GCL	MALE	FEMALE
MEAN	9.833332E-02	.103
VARIANCE	1.247155E-04	1.0449E-04
STAND. DEV.	1.116761E-02	1.022204E-02
N	30	30

T VALUE = 1.688314 WITH 60 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.193564 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR EQUAL VARIANCES

Var= HCL	MALE	FEMALE
MEAN	.114	.123
VARIANCE	3.972526E-04	1.251821E-04
STAND. DEV.	.0199312	1.118848E-02
N	30	30

T VALUE = 2.15669 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.173399 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR UNEQUAL VARIANCES

Var= HCL	MALE	FEMALE
MEAN	.114	.123
VARIANCE	3.972526E-04	1.251821E-04
STAND. DEV.	.0199312	1.118848E-02
N	30	30

T VALUE = 2.15669 WITH 47 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.173399 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR EQUAL VARIANCES

Var= PCL	MALE	FEMALE
MEAN	.1056667	.117
VARIANCE	3.219566E-04	2.079421E-04
STAND. DEV.	1.794315E-02	.0144202
N	30	30

T VALUE = 2.696628 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.548299 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR UNEQUAL VARIANCES

Var= PCL	MALE	FEMALE
MEAN	.1056667	.117
VARIANCE	3.219566E-04	2.079421E-04
STAND. DEV.	1.794315E-02	.0144202
N	30	30

T VALUE = 2.696628 WITH 57 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.548299 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR EQUAL VARIANCES

Var= ABCL	MALE	FEMALE
MEAN	.2076666	.2306666
VARIANCE	4.805943E-04	4.478364E-04
STAND. DEV.	2.192246E-02	2.116215E-02
N	30	30

T VALUE = 4.134412 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.073147 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR UNEQUAL VARIANCES

Var= ABCL	MALE	FEMALE
MEAN	.2076666	.2306666
VARIANCE	4.805943E-04	4.478364E-04
STAND. DEV.	2.192246E-02	2.116215E-02
N	30	30

T VALUE = 4.134412 WITH 60 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.073147 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR EQUAL VARIANCES

Var= FCL	MALE	FEMALE
MEAN	.149	.1483334
VARIANCE	1.610209E-04	1.72983E-04
STAND. DEV.	.0126894	.0131523
N	30	30

T VALUE = .1997981 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.074289 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR UNEQUAL VARIANCES

Var= FCL	MALE	FEMALE
MEAN	.149	.1483334
VARIANCE	1.610209E-04	1.72983E-04
STAND. DEV.	.0126894	.0131523
N	30	30

T VALUE = .1997981 WITH 60 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.074289 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR EQUAL VARIANCES

Var= ACL	MALE	FEMALE
MEAN	.1283333	.1376667
VARIANCE	1.523032E-04	9.436442E-05
STAND. DEV.	1.234112E-02	9.714135E-03
N	30	30

T VALUE = 3.254936 WITH 58 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.61399 WITH 29, 29 D.F.

FILE: A:RATO

T TEST FOR UNEQUAL VARIANCES

Var= ACL	MALE	FEMALE
MEAN	.1283333	.1376667
VARIANCE	1.523032E-04	9.436442E-05
STAND. DEV.	1.234112E-02	9.714135E-03
N	30	30

T VALUE = 3.254936 WITH 57 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.61399 WITH 29, 29 D.F.

3. Correlation of shell morphology and tail width

CORRELATION MATRIX

VAR:	CL	CW	PL	HT	G
CL:	1	.9896036	.9776918	.9578947	.8952984
CW:	.9896036	1	.9692189	.9447555	.9176606
PL:	.9776918	.9692189	1	.9603158	.9209022
HT:	.9578947	.9447555	.9603158	1	.8790361
G:	.8952984	.9176606	.9209022	.8790361	1
H:	.9033082	.9036366	.8978747	.9039367	.8312939
P:	.8682604	.8563679	.8274051	.7872272	.7427433
Ab:	.9388328	.9287742	.9586381	.9420006	.9174593
F:	.9227486	.9051456	.9221322	.8956792	.802919
A:	.9369948	.9587791	.9272554	.8720304	.9151001

CORRELATION MATRIX

VAR:	H	P	Ab	F	A
CL:	.9033082	.8682604	.9388328	.9227486	.9369948
CW:	.9036366	.8563679	.9287742	.9051456	.9587791
PL:	.8978747	.8274051	.9586381	.9221322	.9272554
HT:	.9039367	.7872272	.9420006	.8956792	.8720304
G:	.8312939	.7427433	.9174593	.802919	.9151001
H:	1	.8416224	.8697572	.8129227	.8677182
P:	.8416224	1	.7522421	.736372	.8643348
Ab:	.8697572	.7522421	1	.8407689	.8706427
F:	.8129227	.736372	.8407689	1	.8357865
A:	.8677182	.8643348	.8706427	.8357865	1

t-value matrix for $r <> 0$ with 28 d.f.

VAR:	CL	CW	PL	HT	G
CL:	99999	36.40951	24.63026	17.65362	10.63485
CW:	36.40951	99999	20.83106	15.25181	12.22001
PL:	24.63026	20.83106	99999	18.21887	12.50138
HT:	17.65362	15.25181	18.21887	99999	9.756416
G:	10.63485	12.22001	12.50138	9.756416	99999
H:	11.14206	11.16413	10.79181	11.18438	7.913874
P:	9.260879	8.775696	7.795892	6.75509	5.869724
Ab:	14.42573	13.25959	17.82199	14.85231	12.20306
F:	12.66916	11.26691	12.61251	10.6577	7.127547
A:	14.19266	17.85443	13.10413	9.427589	12.00876

t-value matrix for $r <> 0$ with 28 d.f.

VAR:	H	P	Ab	F	A
CL:	11.14206	9.260879	14.42573	12.66916	14.19266
CW:	11.16413	8.775696	13.25959	11.26691	17.85443
PL:	10.79181	7.795892	17.82199	12.61251	13.10413
HT:	11.18438	6.75509	14.85231	10.6577	9.427589
G:	7.913874	5.869724	12.20306	7.127547	12.00876
H:	99999	8.246109	9.326262	7.386318	9.237451
P:	8.246109	99999	6.041236	5.759159	9.094206
Ab:	9.326262	6.041236	99999	8.217545	9.365436
F:	7.386318	5.759159	8.217545	99999	8.054878
A:	9.237451	9.094206	9.365436	8.054878	99999

CORRELATION MATRIX

VAR:	CL	CW	PL	HT	G
CL:	1	.9460559	.9322948	.8818828	.5936148
CW:	.9460559	1	.9589327	.8845269	.6438201
PL:	.9322948	.9589327	1	.9209507	.6595861
HT:	.8818828	.8845269	.9209507	1	.5598846
G:	.5936148	.6438201	.6595861	.5598846	1
H:	.712099	.7661935	.7885656	.8069019	.4378567
P:	.4307877	.40575	.4581251	.4177168	.4487677
AB:	.8880847	.841122	.8509789	.8212721	.562705
F:	.7551133	.7661179	.7774616	.6379401	.6286016
A:	.79566	.8690716	.84291	.7845181	.5963786

CORRELATION MATRIX

VAR:	H	P	AB	F	A
CL:	.712099	.4307877	.8880847	.7551133	.79566
CW:	.7661935	.40575	.841122	.7661179	.8690716
PL:	.7885656	.4581251	.8509789	.7774616	.84291
HT:	.8069019	.4177168	.8212721	.6379401	.7845181
G:	.4378567	.4487677	.562705	.6286016	.5963786
H:	1	.1960155	.7017317	.655385	.7820634
P:	.1960155	1	.1913014	.2286483	.3830066
AB:	.7017317	.1913014	1	.7803278	.7139239
F:	.655385	.2286483	.7803278	1	.7002479
A:	.7820634	.3830066	.7139239	.7002479	1

t-value matrix for $r < > 0$ with 28 d.f.

VAR:	CL	CW	PL	HT	G
CL:	99999	15.45064	13.63906	9.897761	3.903221
CW:	15.45064	99999	17.88996	10.03341	4.452272
PL:	13.63906	17.88996	99999	12.50571	4.643517
HT:	9.897761	10.03341	12.50571	99999	3.575592
G:	3.903221	4.452272	4.643517	3.575592	99999
H:	5.367022	6.309138	6.785416	7.228421	2.57709
P:	2.525908	2.349086	2.727195	2.432759	2.657259
AB:	10.22299	8.229335	8.573796	7.616976	3.601919
F:	6.09475	6.307631	6.541169	4.383487	4.27688
A:	6.950527	9.29618	8.289606	6.694469	3.931389

t-value matrix for $r < > 0$ with 28 d.f.

VAR:	H	P	AB	F	A
CL:	5.367022	2.525908	10.22299	6.09475	6.950527
CW:	6.309138	2.349086	8.229335	6.307631	9.29618
PL:	6.785416	2.727195	8.573796	6.541169	8.289606
HT:	7.228421	2.432759	7.616976	4.383487	6.694469
G:	2.57709	2.657259	3.601919	4.27688	3.931389
H:	99999	1.057735	5.211959	4.591546	6.640401
P:	1.057735	99999	1.031319	1.242816	2.193981
AB:	5.211959	1.031319	99999	6.602654	5.395036
F:	4.591546	1.242816	6.602654	99999	5.190313
A:	6.640401	2.193981	5.395036	5.190313	99999

CORRELATION MATRIX

VAR:	TW	CL
TW:	1	.4866683
CL:	.4866683	1

t-value matrix for $r < > 0$ with 28 d.f.

VAR:	TW	CL
TW:	99999	2.947854
CL:	2.947854	99999

CORRELATION MATRIX

VAR:	TW	CL
TW:	1	.8495813
CL:	.8495813	1

t-value matrix for $r < > 0$ with 28 d.f.

VAR:	TW	CL
TW:	99999	8.523076
CL:	8.523076	99999

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4. Regression analysis of shell morphology and tail width

SIMPLE LINEAR MODEL FOR FILE- A:REM
 VARIABLES = CL (IND.) AND CW (DEP.)

INTERCEPT = 12.00002
 SLOPE = .6094058
 R-SQUARE = .8950216
 PEARSON'S R = .9460557

STANDARD ERROR OF ESTIMATE = 2.793686
 SIGNIFICANCE OF EQUATION: F = 238.7214 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 3.944218E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.609 - T(.039) < B < .609 + T(.039)$

SUMMARY STATISTICS CL (IND.), CW (DEP.)

SUMX = 3030 SUMY = 2206.5 N = 30
 SUMX^2 = 5016.875 SUMY^2 = 2081.675 SUMXY = 3057.313

A N O V A T A B L E

	SS	D.F.	MS
REGRESSION	1863.144	1	1863.144
ERROR	218.5311	28	7.804683
TOTAL	2081.675	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REM
 VARIABLES = CL (IND.) AND PL (DEP.)

INTERCEPT = 14.1523
 SLOPE = .687106
 R-SQUARE = .8691732
 PEARSON'S R = .9322946

STANDARD ERROR OF ESTIMATE = 3.568262
 SIGNIFICANCE OF EQUATION: F = 186.0234 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = .0503779

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.687 - T(.050) < B < .687 + T(.050)$

SUMMARY STATISTICS CL (IND.), PL (DEP.)

SUMX = 3030 SUMY = 2506.5 N = 30
 SUMX^2 = 5016.875 SUMY^2 = 2725.05 SUMXY = 3447.125

A N O V A T A B L E

	SS	D.F.	MS
REGRESSION	2368.54	1	2368.54
ERROR	356.5098	28	12.73249
TOTAL	2725.05	29	*****



SIMPLE LINEAR MODEL FOR FILE- A:REM
 VARIABLES = CL (IND.) AND HT (DEP.)

INTERCEPT = 11.47366
 SLOPE = .3026536
 R-SQUARE = .7777168
 PEARSON'S R = .8818826

STANDARD ERROR OF ESTIMATE = 2.165838
 SIGNIFICANCE OF EQUATION: F = 97.96546 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 3.057801E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.303 - T(.031) < B < .303 + T(.031)$

SUMMARY STATISTICS CL (IND.), HT (DEP.)

SUMX = 3030 SUMY = 1261.25 N = 30
 SUMX^2 = 5016.875 SUMY^2 = 590.8855 SUMXY = 1518.375

A N O V A T A B L E
 SS D.F.

	SS	D.F.	MS
REGRESSION	459.5416	1	459.5416
ERROR	131.3439	28	4.690854
TOTAL	590.8855	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REM
 VARIABLES = CL (IND.) AND G (DEP.)

INTERCEPT = 5.136273
 SLOPE = 4.650555E-02
 R-SQUARE = .3523786
 PEARSON'S R = .5936148

STANDARD ERROR OF ESTIMATE = .843914
 SIGNIFICANCE OF EQUATION: F = 15.23514 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 1.191466E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.047 - T(.012) < B < .047 + T(.012)$

SUMMARY STATISTICS CL (IND.), G (DEP.)

SUMX = 3030 SUMY = 295 N = 30
 SUMX^2 = 5016.875 SUMY^2 = 30.79167 SUMXY = 233.3125

A N O V A T A B L E
 SS D.F.

	SS	D.F.	MS
REGRESSION	10.85033	1	10.85033
ERROR	19.94134	28	.7121908
TOTAL	30.79167	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REM
 VARIABLES = CL (IND.) AND H (DEP.)

INTERCEPT = -3.521359
 SLOPE = .1492214
 R-SQUARE = .5070852
 PEARSON'S R = .712099

STANDARD ERROR OF ESTIMATE = 1.969311
 SIGNIFICANCE OF EQUATION: F = 28.80494 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 2.780338E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 .149-T(.028) < B < .149+T(.028)

SUMMARY STATISTICS		CL (IND.), H (DEP.)	
SUMX = 3030	SUMY = 346.5	N = 30	
SUMX^2= 5016.875	SUMY^2= 220.3	SUMXY= 748.625	

ANOVA TABLE			
	SS	D.F.	MS
REGRESSION	111.7109	1	111.7109
ERROR	108.5892	28	3.878184
TOTAL	220.3	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REM
 VARIABLES = CL (IND.) AND P (DEP.)

INTERCEPT = 4.583342
 SLOPE = 5.973589E-02
 R-SQUARE = .1855781
 PEARSON'S R = .4307878

STANDARD ERROR OF ESTIMATE = 1.675075
 SIGNIFICANCE OF EQUATION: F = 6.380214 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 2.364927E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 .060-T(.024) < B < .060+T(.024)

SUMMARY STATISTICS		CL (IND.), P (DEP.)	
SUMX = 3030	SUMY = 318.5	N = 30	
SUMX^2= 5016.875	SUMY^2= 96.46667	SUMXY= 299.6875	

ANOVA TABLE			
	SS	D.F.	MS
REGRESSION	17.9021	1	17.9021
ERROR	78.56457	28	2.805878
TOTAL	96.46667	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REM
 VARIABLES = CL (IND.) AND AB (DEP.)

INTERCEPT = -4.329714
 SLOPE = .2498817
 R-SQUARE = .7886943
 PEARSON'S R = .8880846

STANDARD ERROR OF ESTIMATE = 1.731304
 SIGNIFICANCE OF EQUATION: F = 104.5094 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 2.444312E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.250 - T(.024) < B < .250 + T(.024)$

SUMMARY STATISTICS CL (IND.), AB (DEP.)

SUMX = 3030 SUMY = 627.25 N = 30
 SUMX^2 = 5016.875 SUMY^2 = 397.1854 SUMXY = 1253.625

A N O V A T A B L E
 SS D.F.

	SS	D.F.	MS
REGRESSION	313.2579	1	313.2579
ERROR	83.92755	28	2.997413
TOTAL	397.1854	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REM
 VARIABLES = CL (IND.) AND F (DEP.)

INTERCEPT = 4.647422
 SLOPE = .1020057
 R-SQUARE = .5701959
 PEARSON'S R = .7551131

STANDARD ERROR OF ESTIMATE = 1.185456
 SIGNIFICANCE OF EQUATION: F = 37.14596 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 1.673666E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.102 - T(.017) < B < .102 + T(.017)$

SUMMARY STATISTICS CL (IND.), F (DEP.)

SUMX = 3030 SUMY = 448.5 N = 30
 SUMX^2 = 5016.875 SUMY^2 = 91.55 SUMXY = 511.75

A N O V A T A B L E
 SS D.F.

	SS	D.F.	MS
REGRESSION	52.20143	1	52.20143
ERROR	39.34857	28	1.405306
TOTAL	91.55	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REM
 VARIABLES = CL (IND.) AND A (DEP.)

INTERCEPT = 1.556454
 SLOPE = .1097546
 R-SQUARE = .6330751
 PEARSON'S R = .7956602

STANDARD ERROR OF ESTIMATE = 1.118462
 SIGNIFICANCE OF EQUATION: F = 48.3099 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 1.579082E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.110 - T(.016) < B < .110 + T(.016)$

SUMMARY STATISTICS			CL (IND.), A (DEP.)
SUMX = 3030	SUMY = 379.25	N = 30	
SUMX ² = 5016.875	SUMY ² = 95.46041	SUMXY = 550.625	

	A N O V A	T A B L E	
	SS	D.F.	MS
REGRESSION	60.43362	1	60.43362
ERROR	35.0268	28	1.250957
TOTAL	95.46041	29	*****

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SIMPLE LINEAR MODEL FOR FILE- A:REF
 VARIABLES = CL (IND.) AND CW (DEP.)

INTERCEPT = 3.414887
 SLOPE = .7448869
 R-SQUARE = .9793152
 PEARSON'S R = .9896034

STANDARD ERROR OF ESTIMATE = 3.636769
 SIGNIFICANCE OF EQUATION: F = 1325.653 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 2.045857E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.745 - T(.020) < B < .745 + T(.020)$

SUMMARY STATISTICS CL (IND.), CW (DEP.)

SUMX = 4390	SUMY = 3372.5	N = 30
SUMX^2 = 31599.54	SUMY^2 = 17903.54	SUMXY = 23538.09

ANOVA TABLE

	SS	D.F.	MS
REGRESSION	17533.21	1	17533.21
ERROR	370.3301	28	13.22607
TOTAL	17903.54	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REF
 VARIABLES = CL (IND.) AND PL (DEP.)

INTERCEPT = -3.853912
 SLOPE = .9064049
 R-SQUARE = .9558815
 PEARSON'S R = .9776919

STANDARD ERROR OF ESTIMATE = 6.541724
 SIGNIFICANCE OF EQUATION: F = 606.6536 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 3.680034E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.906 - T(.037) < B < .906 + T(.037)$

SUMMARY STATISTICS CL (IND.), PL (DEP.)

SUMX = 4390	SUMY = 3863.5	N = 30
SUMX^2 = 31599.54	SUMY^2 = 27159.47	SUMXY = 28641.98

ANOVA TABLE

	SS	D.F.	MS
REGRESSION	25961.23	1	25961.23
ERROR	1198.236	28	42.79416
TOTAL	27159.47	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REF
 VARIABLES = CL (IND.) AND HT (DEP.)

INTERCEPT = 6.750622
 SLOPE = .3885493
 R-SQUARE = .9175626
 PEARSON'S R = .9578948

STANDARD ERROR OF ESTIMATE = 3.912479
 SIGNIFICANCE OF EQUATION: F = 311.6513 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 2.200958E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 .389-T(.022) < B < .389+T(.022)

SUMMARY STATISTICS CL (IND.), HT (DEP.)

SUMX = 4390 SUMY = 1908.25 N = 30
 SUMX^2 = 31599.54 SUMY^2 = 5199.211 SUMXY = 12277.98

A N O V A T A B L E

	SS	D.F.	MS
REGRESSION	4770.601	1	4770.601
ERROR	428.6099	28	15.3075
TOTAL	5199.211	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REF
 VARIABLES = CL (IND.) AND G (DEP.)

INTERCEPT = 1.306158
 SLOPE = 9.301031E-02
 R-SQUARE = .8015591
 PEARSON'S R = .8952984

STANDARD ERROR OF ESTIMATE = 1.554678
 SIGNIFICANCE OF EQUATION: F = 113.1 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 8.745808E-03

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 .093-T(.009) < B < .093+T(.009)

SUMMARY STATISTICS CL (IND.), G (DEP.)

SUMX = 4390 SUMY = 447.5 N = 30
 SUMX^2 = 31599.54 SUMY^2 = 341.0417 SUMXY = 2939.083

A N O V A T A B L E

	SS	D.F.	MS
REGRESSION	273.3651	1	273.3651
ERROR	67.67661	28	2.417022
TOTAL	341.0417	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REF
 VARIABLES = CL (IND.) AND H (DEP.)

INTERCEPT = 1.497212
 SLOPE = .1126045
 R-SQUARE = .8159658
 PEARSON'S R = .9033082

STANDARD ERROR OF ESTIMATE = 1.796513
 SIGNIFICANCE OF EQUATION: F = 124.1456 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 1.010625E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.113 - T(.010) < B < .113 + T(.010)$

SUMMARY STATISTICS		CL (IND.), H (DEP.)	
SUMX = 4390	SUMY = 539.25	N = 30	
SUMX ² = 31599.54	SUMY ² = 491.0438	SUMXY = 3558.25	

ANOVA TABLE			
	SS	D.F.	MS
REGRESSION	400.6749	1	400.6749
ERROR	90.36887	28	3.22746
TOTAL	491.0438	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REF
 VARIABLES = CL (IND.) AND P (DEP.)

INTERCEPT = -1.521998
 SLOPE = .1252642
 R-SQUARE = .7538764
 PEARSON'S R = .8682604

STANDARD ERROR OF ESTIMATE = 2.404446
 SIGNIFICANCE OF EQUATION: F = 85.76397 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 1.352616E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.125 - T(.014) < B < .125 + T(.014)$

SUMMARY STATISTICS		CL (IND.), P (DEP.)	
SUMX = 4390	SUMY = 504.25	N = 30	
SUMX ² = 31599.54	SUMY ² = 657.7104	SUMXY = 3958.292	

ANOVA TABLE			
	SS	D.F.	MS
REGRESSION	495.8324	1	495.8324
ERROR	161.8781	28	5.781359
TOTAL	657.7104	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REF
 VARIABLES = CL (IND.) AND Ab (DEP.)

INTERCEPT = -4.174381
 SLOPE = .2616131
 R-SQUARE = .881407
 PEARSON'S R = .9388328

STANDARD ERROR OF ESTIMATE = 3.223756
 SIGNIFICANCE OF EQUATION: F = 208.1016 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 1.813518E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 .262-T(.018) < B < .262+T(.018)

SUMMARY STATISTICS		CL (IND.), Ab (DEP.)	
SUMX = 4390	SUMY = 1023.25	N = 30	
SUMX^2= 31599.54	SUMY^2= 2453.711	SUMXY= 8266.855	

ANOVA TABLE			
	SS	D.F.	MS
REGRESSION	2162.718	1	2162.718
ERROR	290.9929	28	10.3926
TOTAL	2453.711	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REF
 VARIABLES = CL (IND.) AND F (DEP.)

INTERCEPT = 4.168539
 SLOPE = .1182104
 R-SQUARE = .8514652
 PEARSON'S R = .9227488

STANDARD ERROR OF ESTIMATE = 1.658624
 SIGNIFICANCE OF EQUATION: F = 160.5081 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 9.330553E-03

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 .118-T(.009) < B < .118+T(.009)

SUMMARY STATISTICS		CL (IND.), F (DEP.)	
SUMX = 4390	SUMY = 644	N = 30	
SUMX^2= 31599.54	SUMY^2= 518.5917	SUMXY= 3735.396	

ANOVA TABLE			
	SS	D.F.	MS
REGRESSION	441.5628	1	441.5628
ERROR	77.0289	28	2.751032
TOTAL	518.5917	29	*****

SIMPLE LINEAR MODEL FOR FILE- A:REF
VARIABLES = CL (IND.) AND A (DEP.)

INTERCEPT = 4.222298E-02
SLOPE = .1365566
R-SQUARE = .877959
PEARSON'S R = .9369946

STANDARD ERROR OF ESTIMATE = 1.710368
SIGNIFICANCE OF EQUATION: F = 201.4312 WITH 1, 28 D.F.
STANDARD ERROR OF SLOPE = 9.621644E-03

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
.137-T(.010) < B < .137+T(.010)

SUMMARY STATISTICS CL (IND.), A (DEP.)

SUMX = 4390	SUMY = 600.75	N = 30
SUMX^2 = 31599.54	SUMY^2 = 671.1688	SUMXY = 4315.125

ANOVA TABLE

	SS	D.F.	MS
REGRESSION	589.2587	1	589.2587
ERROR	81.9101	28	2.925361
TOTAL	671.1688	29	*****

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SIMPLE LINEAR MODEL FOR FILE- A:TWL1
 VARIABLES = CL (IND.) AND TW (DEP.)

INTERCEPT = 11.98002
 SLOPE = 6.537935E-02
 R-SQUARE = .2368459
 PEARSON'S R = .4866682

STANDARD ERROR OF ESTIMATE = 1.57091
 SIGNIFICANCE OF EQUATION: F = 8.689839 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 2.217863E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.065 - T(.022) < B < .065 + T(.022)$

Press ENTER to continue.

SUMMARY STATISTICS CL (IND.), TW (DEP.)

SUMX = 3030 SUMY = 557.5 N = 30
 CORRECTED (for mean) SUM OF SQUARES AND CROSS PRODUCT
 SUMX^2 = 5016.875 SUMY^2 = 90.54166 SUMXY = 328

A N O V A T A B L E
 SS D.F.

	SS	D.F.	MS
REGRESSION	21.44443	1	21.44443
ERROR	69.09724	28	2.467759
TOTAL	90.54166	29	*****

Press ENTER to continue.

SIMPLE LINEAR MODEL FOR FILE- A:TWL2
 VARIABLES = CL (IND.) AND TW (DEP.)

INTERCEPT = 3.537861
 SLOPE = 7.354538E-02
 R-SQUARE = .7217883
 PEARSON'S R = .8495812

STANDARD ERROR OF ESTIMATE = 1.533909
 SIGNIFICANCE OF EQUATION: F = 72.64276 WITH 1, 28 D.F.
 STANDARD ERROR OF SLOPE = 8.628974E-03

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 28 D.F.
 $.074 - T(.009) < B < .074 + T(.009)$

SUMMARY STATISTICS CL (IND.), TW (DEP.)

SUMX = 4390 SUMY = 429 N = 30
 SUMX^2 = 31599.54 SUMY^2 = 236.8 SUMXY = 2324

A N O V A T A B L E
 SS D.F.

	SS	D.F.	MS
REGRESSION	170.9195	1	170.9195
ERROR	65.88056	28	2.352877
TOTAL	236.8	29	*****

Growth rate

1. Mean plastron midline length

FILE: A:GR

T TEST FOR EQUAL VARIANCES

Var= H	MALE	FEMALE
MEAN	29.01	28.21
VARIANCE	1.542866	3.010897
STAND. DEV.	1.242122	1.735194
N	20	20

T VALUE = 1.676561 WITH 38 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.951496 WITH 19, 19 D.F.

FILE: A:GR

T TEST FOR UNEQUAL VARIANCES

Var= H	MALE	FEMALE
MEAN	29.01	28.21
VARIANCE	1.542866	3.010897
STAND. DEV.	1.242122	1.735194
N	20	20

T VALUE = -1.676561 WITH 36 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.951496 WITH 19, 19 D.F.

FILE: A:GR

T TEST FOR EQUAL VARIANCES

Var= FIR	MALE	FEMALE
MEAN	42.695	51.46501
VARIANCE	14.52488	49.21793
STAND. DEV.	3.811152	7.015549
N	20	20

T VALUE = 4.912462 WITH 38 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.388526 WITH 19, 19 D.F.

FILE: A:GR

T TEST FOR UNEQUAL VARIANCES

Var= FIR	MALE	FEMALE
MEAN	42.695	51.46501
VARIANCE	14.52488	49.21793
STAND. DEV.	3.811152	7.015549
N	20	20

T VALUE = 4.912462 WITH 30 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.388526 WITH 19, 19 D.F.

FILE: A:GR

T TEST FOR EQUAL VARIANCES

Var= SEC	MALE	FEMALE
MEAN	53.975	65.62501
VARIANCE	19.23582	95.30016
STAND. DEV.	4.385865	9.762181
N	20	20

T VALUE = 4.868222 WITH 38 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.954309 WITH 19, 19 D.F.

FILE: A:GR

T TEST FOR UNEQUAL VARIANCES

Var= SEC	MALE	FEMALE
MEAN	53.975	65.62501
VARIANCE	19.23582	95.30016
STAND. DEV.	4.385865	9.762181
N	20	20

T VALUE = 4.868222 WITH 27 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.954309 WITH 19, 19 D.F.

FILE: A:GR

T TEST FOR EQUAL VARIANCES

Var= THI	MALE	FEMALE
MEAN	64.23158	80.50556
VARIANCE	32.34766	166.5326
STAND. DEV.	5.6875	12.90475
N	19	18

T VALUE = 5.010162 WITH 35 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 5.148213 WITH 17, 18 D.F.

FILE: A:GR

T TEST FOR UNEQUAL VARIANCES

Var= THI	MALE	FEMALE
MEAN	64.23158	80.50556
VARIANCE	32.34766	166.5326
STAND. DEV.	5.6875	12.90475
N	19	18

T VALUE = 4.917008 WITH 24 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 5.148213 WITH 17, 18 D.F.



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FILE: A:GR

T TEST FOR EQUAL VARIANCES

Var= FOR	MALE	FEMALE
MEAN	73.20666	94.175
VARIANCE	40.524	192.074
STAND. DEV.	6.365846	13.85908
N	15	16

T VALUE = 5.350275 WITH 29 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.739759 WITH 15, 14 D.F.

FILE: A:GR

T TEST FOR UNEQUAL VARIANCES

Var= FOR	MALE	FEMALE
MEAN	73.20666	94.175
VARIANCE	40.524	192.074
STAND. DEV.	6.365846	13.85908
N	15	16

T VALUE = 5.46781 WITH 22 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.739759 WITH 15, 14 D.F.

FILE: A:GR

T TEST FOR EQUAL VARIANCES

Var= FIF	MALE	FEMALE
MEAN	86.34001	110.8
VARIANCE	54.34668	189.3359
STAND. DEV.	7.37202	13.75994
N	5	11

T VALUE = 3.693378 WITH 14 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.483855 WITH 10, 4 D.F.

FILE: A:GR

T TEST FOR UNEQUAL VARIANCES

Var= FIF	MALE	FEMALE
MEAN	86.34001	110.8
VARIANCE	54.34668	189.3359
STAND. DEV.	7.37202	13.75994
N	5	11

T VALUE = 4.615777 WITH 16 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.483855 WITH 10, 4 D.F.

2. Mean estimated carapace length

FILE: A:TCL

T TEST FOR EQUAL VARIANCES

Var= H	MALE	FEMALE
MEAN	36.9875	36.3305
VARIANCE	2.281147	3.908409
STAND. DEV	1.510347	1.97697
N	20	20

T VALUE = 1.181005 WITH 38 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.713352 WITH 19, 19 D.F.

FILE: A:TCL

T TEST FOR UNEQUAL VARIANCES

Var= H	MALE	FEMALE
MEAN	36.9875	36.3305
VARIANCE	2.281147	3.908409
STAND. DEV.	1.510347	1.97697
N	20	20

T VALUE = 1.181005 WITH 37 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 1.713352 WITH 19, 19 D.F.

FILE: A:TCL

T TEST FOR EQUAL VARIANCES

Var= FIR	MALE	FEMALE
MEAN	53.1315	62.84
VARIANCE	19.76624	63.95601
STAND. DEV.	4.445925	7.99725
N	20	20

T VALUE = 4.745117 WITH 38 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.235618 WITH 19, 19 D.F.

FILE: A:TCL

T TEST FOR UNEQUAL VARIANCES

Var= FIR	MALE	FEMALE
MEAN	53.1315	62.84
VARIANCE	19.76624	63.95601
STAND. DEV.	4.445925	7.99725
N	20	20

T VALUE = 4.745116 WITH 31 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.235618 WITH 19, 19 D.F.

FILE: A:TCL

T TEST FOR EQUAL VARIANCES

Var= SEC	MALE	FEMALE
MEAN	66.2115	78.983
VARIANCE	25.78536	123.8388
STAND. DEV.	5.077929	11.12829
N	20	20

T VALUE = 4.669343 WITH 38 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.802679 WITH 19, 19 D.F.

FILE: A:TCL

T TEST FOR UNEQUAL VARIANCES

Var= SEC	MALE	FEMALE
MEAN	66.2115	78.983
VARIANCE	25.78536	123.8388
STAND. DEV.	5.077929	11.12829
N	20	20

T VALUE = 4.669343 WITH 27 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.802679 WITH 19, 19 D.F.

FILE: A:TCL

T TEST FOR EQUAL VARIANCES

Var= THI	MALE	FEMALE
MEAN	78.1379	95.94112
VARIANCE	43.52995	216.4017
STAND. DEV.	6.597723	14.7106
N	19	18

T VALUE = 4.793602 WITH 35 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.971329 WITH 17, 18 D.F.

FILE: A:TCL

T TEST FOR UNEQUAL VARIANCES

Var= THI	MALE	FEMALE
MEAN	78.1379	95.94112
VARIANCE	43.52995	216.4017
STAND. DEV.	6.597723	14.7106
N	19	18

T VALUE = 4.705736 WITH 24 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 4.971329 WITH 17, 18 D.F.

FILE: A:TCL

T TEST FOR EQUAL VARIANCES

Var= FOR	MALE	FEMALE
MEAN	88.92938	111.5294
VARIANCE	77.45781	249.6104
STAND. DEV.	8.801012	15.79906
N	15	16

T VALUE = 4.998608 WITH 30 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.222534 WITH 15, 14 D.F.

FILE: A:TCL

T TEST FOR UNEQUAL VARIANCES

Var= FOR	MALE	FEMALE
MEAN	88.92938	111.5294
VARIANCE	77.45781	249.6104
STAND. DEV.	8.801012	15.79906
N	15	16

T VALUE = 4.998608 WITH 25 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.222534 WITH 15, 14 D.F.

FILE: A:TCL

T TEST FOR EQUAL VARIANCES

Var= FIF	MALE	FEMALE
MEAN	103.786	127.7546
VARIANCE	73.09668	241.0375
STAND. DEV.	8.54966	15.52538
N	5	11

T VALUE = 3.19833 WITH 14 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.297517 WITH 10, 4 D.F.

FILE: A:TCL

T TEST FOR UNEQUAL VARIANCES

Var= FIF	MALE	FEMALE
MEAN	103.786	127.7546
VARIANCE	73.09668	241.0375
STAND. DEV.	8.54966	15.52538
N	5	11

T VALUE = 3.965574 WITH 16 D.F.

F MAX TEST FOR HOMOGENEOUS VAR.
= 3.297517 WITH 10, 4 D.F.

3. Regression analysis

SIMPLE LINEAR MODEL FOR FILE- A:M3
 VARIABLES = MPL (IND.) AND CL (DEP.)

INTERCEPT = 3.63356
 SLOPE = 1.16526
 R-SQUARE = .9321291
 PEARSON'S R = .9654683

STANDARD ERROR OF ESTIMATE = 4.425123
 SIGNIFICANCE OF EQUATION: F = 247.2093 WITH 1, 18 D.F.
 STANDARD ERROR OF SLOPE = 7.411231E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 18 D.F.
 $1.165 - T(.074) < B < 1.165 + T(.074)$

SUMMARY STATISTICS MPL (IND.), CL (DEP.)

SUMX = 1649.7 SUMY = 1995 N = 20
 SUMX^2 = 3565.086 SUMY^2 = 5193.25 SUMXY = 4154.25

A N O V A T A B L E

	SS	D.F.	MS
REGRESSION	4840.78	1	4840.78
ERROR	352.4707	18	19.58171
TOTAL	5193.25	19	*****

SIMPLE LINEAR MODEL FOR FILE- A:M4
 VARIABLES = MPL (IND.) AND CL (DEP.)

INTERCEPT = 4.17009
 SLOPE = 1.141202
 R-SQUARE = .9898714
 PEARSON'S R = .9949228

STANDARD ERROR OF ESTIMATE = 3.561708
 SIGNIFICANCE OF EQUATION: F = 1759.138 WITH 1, 18 D.F.
 STANDARD ERROR OF SLOPE = 2.720898E-02

CONFIDENCE INTERVAL FOR SLOPE BASED ON T-STAT. W/ 18 D.F.
 $1.141 - T(.027) < B < 1.141 + T(.027)$

SUMMARY STATISTICS MPL (IND.), CL (DEP.)

SUMX = 2162.5 SUMY = 2551.25 N = 20
 SUMX^2 = 17135.31 SUMY^2 = 22544.36 SUMXY = 19554.84

A N O V A T A B L E

	SS	D.F.	MS
REGRESSION	22316.02	1	22316.02
ERROR	228.3438	18	12.68576
TOTAL	22544.36	19	*****

Reproductive biology

1. Mean egg length

FILE- A:LW VAR. 'LT'
ANOVA TABLE

SOURCE	SS	D.F.	MS
TREAT	222.6641	3	74.22135
ERROR	460.461	80	5.755762
TOTAL	683.125	83	*****

F VALUE = 12.89514 3, 80 D.F.
ETA SQUARED = .3259492

FOR VAR. 'LT'

TREAT.	N	MEAN	VAR.	S.D.
CS3	32	40.36	7.65	2.77
CS4	24	37.91	7.17	2.68
CS5	10	39.43	1.03	1.01
CS6	18	42.47	2.89	1.7

BARTLETT'S CHI SQUARE = 13.00266 WITH 3 D.F.

MULTIPLE COMPARISONS: SUMS OF SQUARES SIMULTANEOUS TEST PROCEDURE

CS3 VS. CS4 SIGNIFICANT
CS3 VS. CS5 NOT SIGNIFICANT
CS3 VS. CS6 SIGNIFICANT
CS4 VS. CS5 NOT SIGNIFICANT
CS4 VS. CS6 SIGNIFICANT
CS5 VS. CS6 SIGNIFICANT

Press ENTER to continue.

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2. Mean egg weight

FILE- A:LW VAR. 'WT'
ANOVA TABLE

SOURCE	SS	D.F.	MS
TREAT	78.50383	3	26.16795
ERROR	332.4773	80	4.155966
TOTAL	410.9811	83	*****

F VALUE = 6.296477 3, 80 D.F.
ETA SQUARED = .1910157

FOR VAR. 'WT'	N	MEAN	VAR.	S.D.
TREAT.				
CS3	32	10.76	6.6	2.57
CS4	24	9.58	3.04	1.74
CS5	10	10.9	.43	.65
CS6	18	12.34	3.17	1.78

BARTLETT'S CHI SQUARE = 17.39952 WITH 3 D.F.

MULTIPLE COMPARISONS: SUMS OF SQUARES SIMULTANEOUS TEST PROCEDURE

CS3 VS. CS4 NOT SIGNIFICANT
CS3 VS. CS5 NOT SIGNIFICANT
CS3 VS. CS6 NOT SIGNIFICANT
CS4 VS. CS5 NOT SIGNIFICANT
CS4 VS. CS6 SIGNIFICANT
CS5 VS. CS6 NOT SIGNIFICANT

Press ENTER to continue.

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3. Correlation

CORRELATION MATRIX

VAR:	CS	LT	WT
CS:	1	.2597825	.2702748
LT:	.2597825	1	.7995978
WT:	.2702748	.7995978	1

t-value matrix for $r < > 0$ with 82 d.f.

VAR:	CS	LT	WT
CS:	99999	2.436068	2.54205
LT:	2.436068	99999	12.05701
WT:	2.54205	12.05701	99999



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4. Mean incubation period

FILE- A:INCU VAR. 'INC'
ANOVA TABLE

SOURCE	SS	D.F.	MS
TREAT	5366.532	3	1788.844
ERROR	84290.72	44	1915.698
TOTAL	89657.25	47	*****

F VALUE = .9337816 3, 44 D.F.
ETA SQUARED = 5.985608E-02

FOR VAR. 'INC'

TREAT.	N	MEAN	VAR.	S.D.
CS3	20	164.2	1626.8	40.33
CS4	17	161.24	2463.82	49.64
CS5	4	200.75	673.58	25.95
CS6	7	170.57	1989.95	44.61

BARTLETT'S CHI SQUARE = 1.864585 WITH 3 D.F. .

MULTIPLE COMPARISONS:SUMS OF SQUARES SIMULTANEOUS TEST PROCEDURE

CS3 VS. CS4 NOT SIGNIFICANT
CS3 VS. CS5 NOT SIGNIFICANT
CS3 VS. CS6 NOT SIGNIFICANT
CS4 VS. CS5 NOT SIGNIFICANT
CS4 VS. CS6 NOT SIGNIFICANT
CS5 VS. CS6 NOT SIGNIFICANT

Press ENTER to continue.

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5. Mean hatching success

FILE- A:HASU
ANOVA TABLE VAR. 'HS'

SOURCE	SS	D.F.	MS
TREAT	3247.106	3	1082.369
ERROR	19145.42	17	1126.201
TOTAL	22392.53	20	*****

F VALUE = .9610791 3, 17 D.F.
ETA SQUARED = .1450085

TREAT.	N	MEAN	VAR.	S.D.
CS3	10	66.67	1234.69	35.14
CS4	6	70.83	854.17	29.23
CS5	2	40	800	28.28
CS6	3	38.89	1481.19	38.49

BARTLETT'S CHI SQUARE = .2918508 WITH 3 D.F.

MULTIPLE COMPARISONS:SUMS OF SQUARES SIMULTANEOUS TEST PROCEDURE

CS3 VS. CS4 NOT SIGNIFICANT
CS3 VS. CS5 NOT SIGNIFICANT
CS3 VS. CS6 NOT SIGNIFICANT
CS4 VS. CS5 NOT SIGNIFICANT
CS4 VS. CS6 NOT SIGNIFICANT
CS5 VS. CS6 NOT SIGNIFICANT

Press ENTER to continue.

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6. Hatched and unhatched eggs

t-test groups = hatfun(1,2) /var = length.

Independent samples of HATSUM

Group 1: HATSUM EQ 1.00 Group 2: HATSUM EQ 2.00

t-test for: LENGTH

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	48	39.6823	2.855	.412
Group 2	37	40.4932	2.834	.466

		Pooled Variance Estimate			Separate Variance Estimate		
F	2-Tail Value Prob.	t	Degrees of Freedom	2-Tail Prob.	t	Degrees of Freedom	2-Tail Prob.
1.02	.972	-1.30	83	.196	-1.30	77.87	.196

t-test groups = hatfun(1,2) /var = weight.

Independent samples of HATSUM

Group 1: HATSUM EQ 1.00 Group 2: HATSUM EQ 2.00

t-test for: WEIGHT

	Number of Cases	Mean	Standard Deviation	Standard Error
Group 1	48	10.4542	2.106	.304
Group 2	37	11.2811	2.339	.385

		Pooled Variance Estimate			Separate Variance Estimate		
F	2-Tail Value Prob.	t	Degrees of Freedom	2-Tail Prob.	t	Degrees of Freedom	2-Tail Prob.
1.23	.495	-1.71	83	.091	-1.69	73.17	.096

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7. Mean weight of hatched eggs and hatchlings

correlation all /options 4 /statistics all.

Variable	Cases	Mean	Std Dev
W\$EGG	48	10.4542	2.1064
W\$HAT	48	8.0373	1.6090

Variables	Cases	Cross-Prod Dev	Variance-Covar
W\$EGG W\$HAT	48	124.5240	2.6494

Correlations: W\$EGG W\$HAT

W\$EGG	1.0000	.7817**
W\$HAT	.7817**	1.0000

N of cases: 48 1-tailed Signif: * - .01 ** - .001

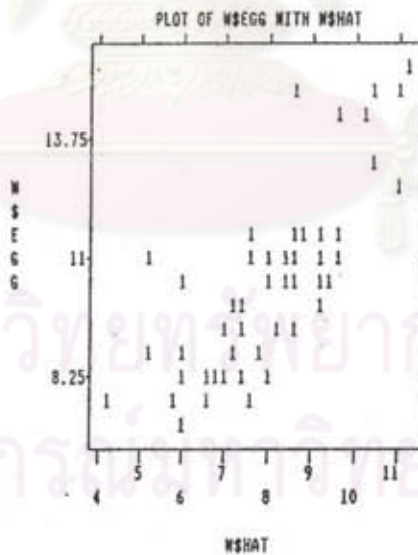
..* is printed if a coefficient cannot be computed

plot plot w\$egg with w\$hat.

***** P L O T *****

Data Information

48 unweighted cases accepted.



48 cases plotted.



BIOGRAPHY

Mr. Nipon Srinarumol was born in Bangkok on November 15, 1952. He finished his high school education from Triam Udom Suksa School, Bangkok, 1971. He graduated with the degree of Bachelor of Education (Major Biology), Chulalongkorn University in 1975, then he has worked as a teacher by teaching biology at Triam Udom Suksa School for 19 years. In 1990, he enrolled in the Graduate School of Chulalongkorn, Department of Biology, Faculty of Science.



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