



Parco Pineta
di Appiano Gentile e Tradate

ALLEGATO A

Piano di settore
per la tutela e la gestione
della fauna
nel Parco Pineta
di Appiano Gentile e Tradate

2002

*TEST STATISTICI
PER LA REALIZZAZIONE
DELL'INDICE DI VALORE FAUNISTICO*



1. TEST STATISTICI PER LA REALIZZAZIONE DELL'INDICE DI VALORE FAUNISTICO

1.1. TEST ANOVA: ANFIBI - AGRICOLO

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

TIPO_FOR (8 levels)

0, 5, 6, 7, 8, 9, 10,

999

Model contains no constant

Dep Var: TOT_RET N: 20 Multiple R: 0.508221399 Squared multiple R: 0.258288991

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

	TOT_RET	
TIPO_FOR 0	0	-8.473684211
TIPO_FOR 5	5	2.842105263
TIPO_FOR 6	6	-3.236842105
TIPO_FOR 7	7	5.921052632
TIPO_FOR 8	8	1.57632E+01
TIPO_FOR 9	9	1.01316E+01
TIPO_FOR 10	10	-6.473684211

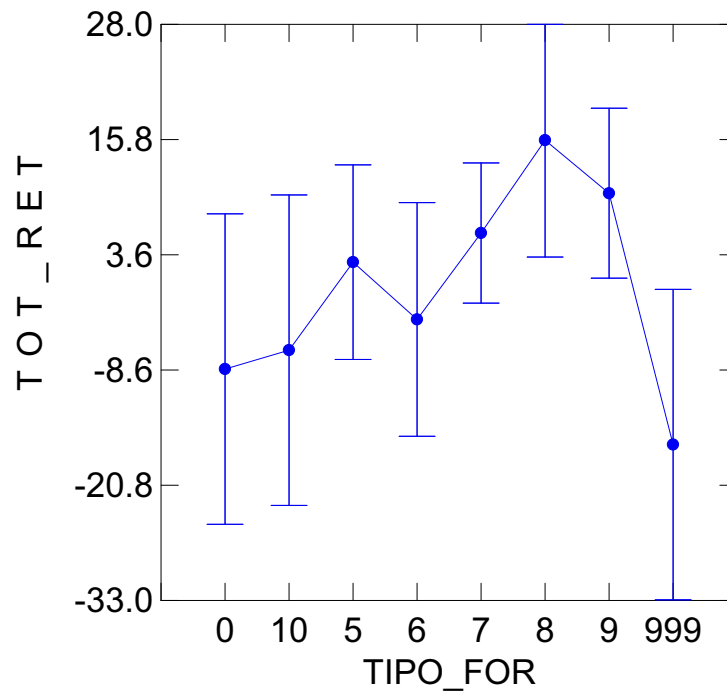
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
TIPO_FOR	1.54818E+03	7	2.21169E+02	0.646720284	0.711509057
Error	4.44582E+03	13	3.41986E+02		

Least squares means.

	LS Mean	SE	N
TIPO_FOR =0	-8.473684211	1.64313E+01	1
TIPO_FOR =5	2.842105263	1.02954E+01	3
TIPO_FOR =6	-3.236842105	1.23691E+01	2
TIPO_FOR =7	5.921052632	7.416044848	6
TIPO_FOR =8	1.57632E+01	1.23691E+01	2
TIPO_FOR =9	1.01316E+01	8.999813550	4
TIPO_FOR =10	-6.473684211	1.64313E+01	1
TIPO_FOR =999	-1.64737E+01	1.64313E+01	1

Least Squares Means



*** WARNING ***

Case 1 is an outlier (Studentized Residual = 2.666833773)

Case 4 is an outlier (Studentized Residual = 4.618224326)

Case 6 is an outlier (Studentized Residual = 4.618224326)

Case 16 is an outlier (Studentized Residual = 4.618224326)

Durbin-Watson D Statistic 0.731

First Order Autocorrelation 0.531

Test for effect called: TIPO_FOR

Null hypothesis contrast AB

1 -8.473684211

2 2.842105263

3 -3.236842105

4 5.921052632

5 1.57632E+01

6 1.01316E+01

7 -6.473684211

-1

Inverse contrast $A(X'X)^{-1}A'$

1 2 3 4 5

1 0.789473684

2 -0.070175439 0.309941520

3 -0.105263158-0.035087719 0.447368421

4 -0.035087719-0.011695906-0.017543860 0.160818713

5 -0.105263158-0.035087719-0.052631579-0.017543860 0.447368421

6 -0.052631579-0.017543860-0.026315789-0.008771930-0.026315789

7 -0.210526316-0.070175439-0.105263158-0.035087719-0.105263158

6 7

6 0.236842105

7 -0.052631579 0.789473684

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	1.54818E+03	7	2.21169E+02	0.646720284	0.711509057
Error	4.44582E+03	13	3.41986E+02		

1.2. TEST ANOVA: ANFIBI - FORESTA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

TIPO_FOR (7 levels)

1, 3, 5, 6, 7, 8, 9

Model contains no constant

Dep Var: COD_TOT_AN N: 27 Multiple R: 0.601533049 Squared multiple R: 0.361842009

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

	COD_TOT_AN	
TIPO_FOR 1		-8.500000000
TIPO_FOR 3		1.25833E+01
TIPO_FOR 5		1.47500E+01
TIPO_FOR 6		-5.45000E+01
TIPO_FOR 7		1.55000E+01
TIPO_FOR 8		3.250000000

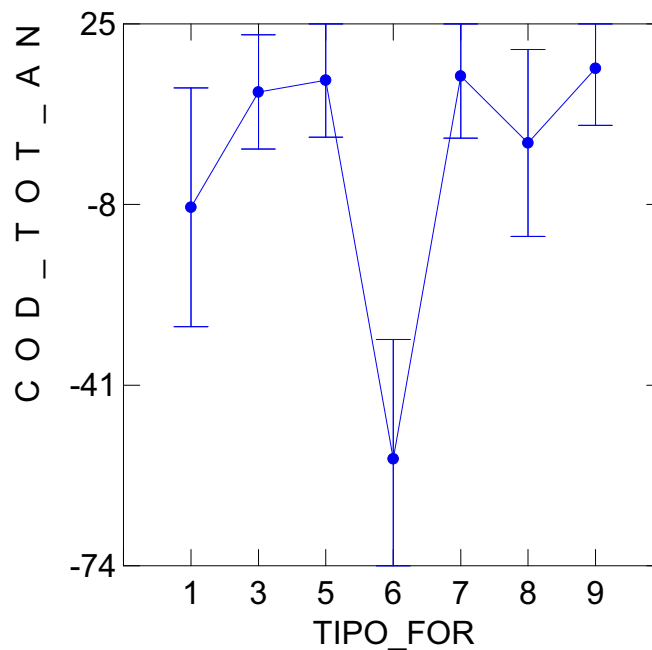
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
TIPO_FOR	8.23733E+03	6	1.37289E+03	1.984535255	0.113682644
Error	1.45277E+04	21	6.91794E+02		

Least squares means.

	LS Mean	SE	N
TIPO_FOR =1	-8.500000000	2.18084E+01	1
TIPO_FOR =3	1.25833E+01	1.04544E+01	6
TIPO_FOR =5	1.47500E+01	1.04544E+01	6
TIPO_FOR =6	-5.45000E+01	2.18084E+01	1
TIPO_FOR =7	1.55000E+01	1.13891E+01	5
TIPO_FOR =8	3.250000000	1.70836E+01	2
TIPO_FOR =9	1.69167E+01	1.04544E+01	6

Least Squares Means



*** WARNING ***

Case 1 is an outlier (Studentized Residual = 8.416061172)

Case 14 is an outlier (Studentized Residual = 8.416061172)

Durbin-Watson D Statistic 0.674

First Order Autocorrelation 0.538

Test for effect called: TIPO_FOR

Null hypothesis contrast AB

1 -8.500000000

2 1.25833E+01

3 1.47500E+01

4 -5.45000E+01

5 1.55000E+01

6 3.250000000

-1

Inverse contrast $A(X'X)^{-1}A'$

1 2 3 4 5

1 0.687500000

2 -0.052083333 0.157986111

3 -0.052083333-0.008680556 0.157986111

4 -0.312500000-0.052083333-0.052083333 0.687500000

5 -0.062500000-0.010416667-0.010416667-0.062500000 0.187500000

6 -0.156250000-0.026041667-0.026041667-0.156250000-0.031250000

6

6 0.421875000

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	8.23733E+03	6	1.37289E+03	1.984535255	0.113682644
Error	1.45277E+04	21	6.91794E+02		

1.3. TEST ANOVA: RETTILI - AGRICOLO

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_VEG (3 levels)

0, 6, 9

Model contains no constant

Dep Var: TOT_RET N: 15 Multiple R: 0.662114501 Squared multiple R:
0.438395613

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_RET	
COD_VEG 0	-1.48475E+01
COD_VEG 6	7.016949153

Analysis of Variance

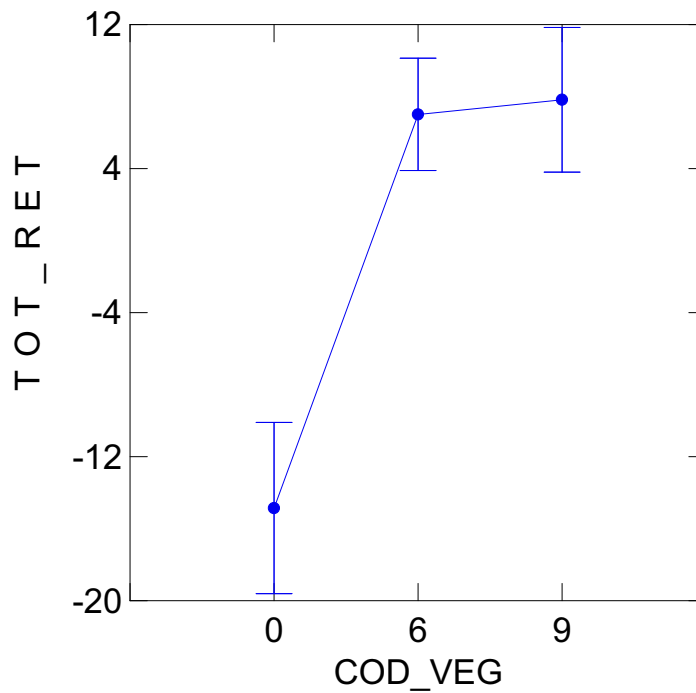
Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_VEG	9.70169E+02	2	4.85085E+02	5.073983662	0.023512467
Error	1.24283E+03	13	9.56023E+01		

Least squares means.

	LS Mean	SE	N
COD_VEG =0	-1.48475E+01	4.762909051	1

COD_VEG	=6	7.016949153	3.118055894	9
COD_VEG	=9	7.830508475	4.025392850	5

Least Squares Means



*** WARNING ***

Case 1 is an outlier (Studentized Residual = 3.282677983)

Case 15 is an outlier (Studentized Residual = 2.921060985)

Durbin-Watson D Statistic 0.537

First Order Autocorrelation 0.360

Test for effect called: COD_VEG

Null hypothesis contrast AB

1 -1.48475E+01

2 7.016949153

-1

Inverse contrast $A(X'X)^{-1}A'$

	1	2
1	0.237288136	
2	-0.084745763	0.101694915

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	9.70169E+02	2	4.85085E+02	5.073983662	0.023512467
Error	1.24283E+03	13	9.56023E+01		

The following results are for:

COD_VEG = 6.000000000

TOT_RET

Minimum	5.000000000
Maximum	3.00000E+01
Mean	9.222222222
Standard Dev	7.965202097

The following results are for:

COD_VEG = 9.000000000

TOT_RET

Minimum	5.000000000
Maximum	2.40000E+01
Mean	1.18000E+01
Standard Dev	7.395944835

The following results are for:

COD_VEG = 0.000000000

TOT_RET

Minimum 5.000000000
 Maximum 5.000000000
 Mean 5.000000000
 Standard Dev .

1.4. TEST ANOVA: RETTILI - FORESTA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

TIPO_FOR (8 levels)

0, 5, 6, 7, 8, 9, 10,
 999

Model contains no constant

Dep Var: TOT_RET N: 20 Multiple R: 0.508221399 Squared multiple R:
 0.258288991

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_RET

TIPO_FOR	0	-8.473684211
TIPO_FOR	5	2.842105263
TIPO_FOR	6	-3.236842105
TIPO_FOR	7	5.921052632
TIPO_FOR	8	1.57632E+01
TIPO_FOR	9	1.01316E+01
TIPO_FOR	10	-6.473684211

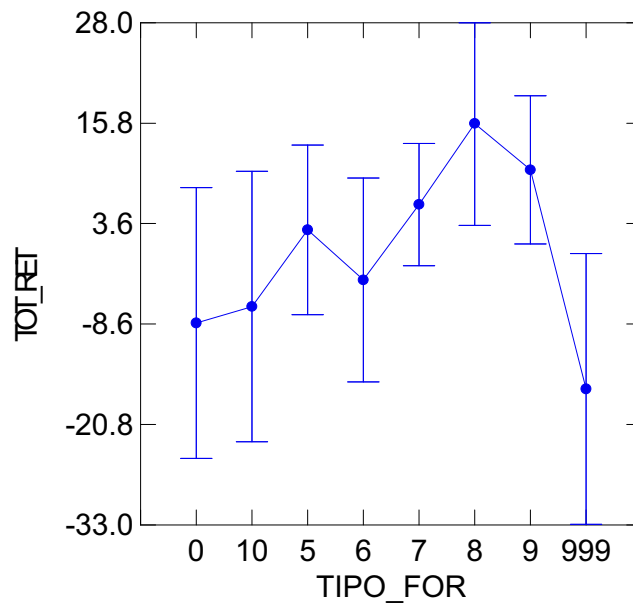
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
TIPO_FOR	1.54818E+03	7	2.21169E+02	0.646720284	0.711509057
Error	4.44582E+03	13	3.41986E+02		

Least squares means.

	LS Mean	SE	N
TIPO_FOR =0	-8.473684211	1.64313E+01	1
TIPO_FOR =5	2.842105263	1.02954E+01	3
TIPO_FOR =6	-3.236842105	1.23691E+01	2
TIPO_FOR =7	5.921052632	7.416044848	6
TIPO_FOR =8	1.57632E+01	1.23691E+01	2
TIPO_FOR =9	1.01316E+01	8.999813550	4
TIPO_FOR =10	-6.473684211	1.64313E+01	1
TIPO_FOR =999	-1.64737E+01	1.64313E+01	1

Least Squares Means



*** WARNING ***

Case 1 is an outlier (Studentized Residual = 2.666833773)

Case 4 is an outlier (Studentized Residual = 4.618224326)

Case 6 is an outlier (Studentized Residual = 4.618224326)

Case 16 is an outlier (Studentized Residual = 4.618224326)

Durbin-Watson D Statistic 0.731

First Order Autocorrelation 0.531

Test for effect called: TIPO_FOR

Null hypothesis contrast AB

1 -8.473684211

2 2.842105263

3 -3.236842105

4 5.921052632

5 1.57632E+01

6 1.01316E+01

7 -6.473684211

-1

Inverse contrast $A(X'X)^{-1}A'$

1 2 3 4 5

1 0.789473684

2 -0.070175439 0.309941520

3 -0.105263158-0.035087719 0.447368421

4 -0.035087719-0.011695906-0.017543860 0.160818713

5 -0.105263158-0.035087719-0.052631579-0.017543860 0.447368421

6 -0.052631579-0.017543860-0.026315789-0.008771930-0.026315789

7 -0.210526316-0.070175439-0.105263158-0.035087719-0.105263158

6 7

6 0.236842105

7 -0.052631579 0.789473684

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	1.54818E+03	7	2.21169E+02	0.646720284	0.711509057
Error	4.44582E+03	13	3.41986E+02		

1.5. TEST ANOVA: AVIFAUNA NIDIFICANTE - AGRICOLO

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_VEG (2 levels)

6, 9

Model contains no constant

Dep Var: TOT_AVI_IN N: 12 Multiple R: 0.810014142 Squared multiple R: 0.656122910

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_AVI_IN

COD_VEG 6 2.20000E+01

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_VEG	5.80800E+03	1	5.80800E+03	2.09882E+01	0.000788681
Error	3.04400E+03	11	2.76727E+02		

Least squares means.

	LS Mean	SE	N
COD_VEG =6	2.20000E+01	4.802145985	11
COD_VEG =9	-2.20000E+01	4.802145985	1

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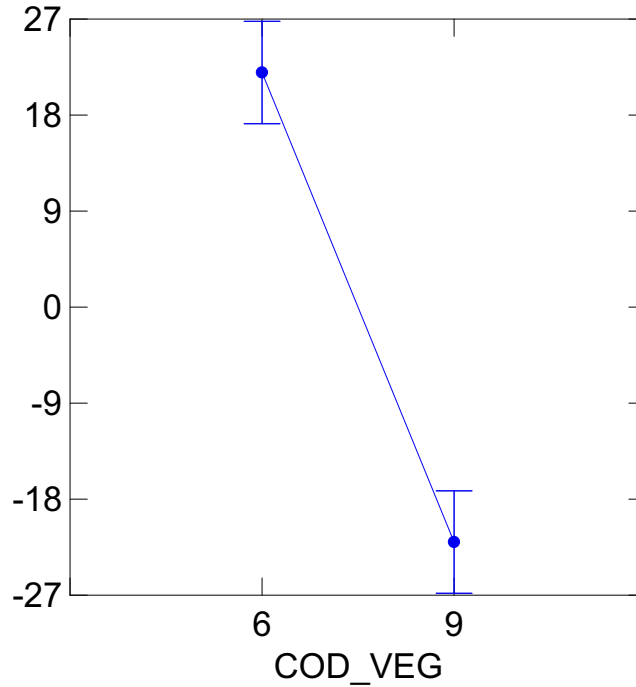
0

9

18

27

Least Squares Means



*** WARNING ***

Case 5 is an outlier (Studentized Residual = 9.279435432)

Durbin-Watson D Statistic 1.329

First Order Autocorrelation 0.297

Test for effect called: COD_VEG

Null hypothesis contrast AB

2.20000E+01

-1

Inverse contrast A(X'X) A'

0.083333333

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	5.80800E+03	1	5.80800E+03	2.09882E+01	0.000788681
Error	3.04400E+03	11	2.76727E+02		

The following results are for:

COD_VEG = 6.000000000

TOT_AVI_IN

Minimum 1.60000E+01

Maximum 3.60000E+01

Mean 2.65455E+01

Standard Dev 5.627852812

The following results are for:

COD_VEG = 9.000000000

TOT_AVI_IN

Minimum 2.80000E+01

Maximum 2.80000E+01

Mean 2.80000E+01

Standard Dev .

1.6. TEST ANOVA: AVIFAUNA NIDIFICANTE - FORESTA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

TIPO_FOR (6 levels)

3, 5, 6, 7, 8, 9

Model contains no constant

Dep Var: TOT_AVI_IN N: 68 Multiple R: 0.665903596 Squared multiple R: 0.443427599

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

		TOT_AVI_IN
TIPO_FOR	3	2.27477E+01
TIPO_FOR	5	2.91309E+01
TIPO_FOR	6	-7.40181E+01
TIPO_FOR	7	2.31636E+01
TIPO_FOR	8	-2.87591E+01

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
TIPO_FOR	5.63282E+04	5	1.12656E+04	1.00386E+01	0.000000425
Error	7.07008E+04	63	1.12224E+03		

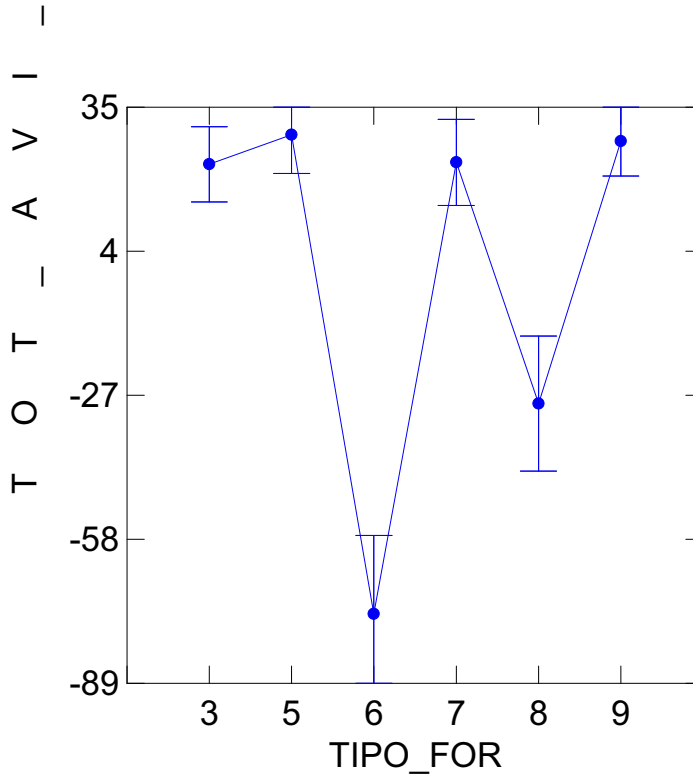
Least squares means.

	LS Mean	SE	N
TIPO_FOR =3	2.27477E+01	8.113034542	16
TIPO_FOR =5	2.91309E+01	8.360761491	15
TIPO_FOR =6	-7.40181E+01	1.68743E+01	2
TIPO_FOR =7	2.31636E+01	9.265122176	12
TIPO_FOR =8	-2.87591E+01	1.45418E+01	4

TIPO_FOR =9 2.77349E+01 7.483493711 19

Z

Least Squares Means



*** WARNING ***

Case 32 is an outlier (Studentized Residual = 3.715256223)

Case 33 is an outlier (Studentized Residual = 5.467946131)

Durbin-Watson D Statistic 0.739

First Order Autocorrelation 0.628

Test for effect called: TIPO_FOR

Null hypothesis contrast AB

- 1 2.27477E+01
- 2 2.91309E+01
- 3 -7.40181E+01

4 2.31636E+01

5 -2.87591E+01

-1

Inverse contrast A(X'X) A'

	1	2	3	4	5
1	0.058651977				
2	-0.004104558	0.062288471			
3	-0.030784187	-0.032836466	0.253726507		
4	-0.005130698	-0.005472744	-0.041045582	0.076492403	
5	-0.015392093	-0.016418233	-0.123136747	-0.020522791	0.188431627

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	5.63282E+04	5	1.12656E+04	1.00386E+01	0.000000425
Error	7.07008E+04	63	1.12224E+03		

The following results are for:

TIPO_FOR = 3.000000000

TOT_AVI_IN

Minimum 1.80000E+01

Maximum 6.90000E+01

Mean 3.70625E+01

Standard Dev 1.34287E+01

The following results are for:

TIPO_FOR = 5.000000000

TOT_AVI_IN

Minimum 9.000000000

Maximum 8.00000E+01

Mean 4.44000E+01

Standard Dev 2.08148E+01

The following results are for:

TIPO_FOR = 6.000000000

TOT_AVI_IN

Minimum 2.40000E+01

Maximum 5.70000E+01

Mean 4.05000E+01

Standard Dev 2.33345E+01

The following results are for:

TIPO_FOR = 7.000000000

TOT_AVI_IN

Minimum 1.60000E+01

Maximum 7.80000E+01

Mean 4.22500E+01

Standard Dev 1.82862E+01

The following results are for:

TIPO_FOR = 8.000000000

TOT_AVI_IN

Minimum 2.30000E+01

Maximum 3.90000E+01

Mean 2.85000E+01

Standard Dev 7.141428429

The following results are for:

TIPO_FOR = 9.000000000

TOT_AVI_IN

Minimum 1.50000E+01
 Maximum 7.10000E+01
 Mean 3.97895E+01
 Standard Dev 1.54617E+01

1.7. TEST ANOVA: AVIFAUNA SVERNANTE - AGRICOLO

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_AGRO (2 levels)

6, 9

Model contains no constant

Dep Var: TOT_AVI_IN N: 3 Multiple R: 0.279841982 Squared multiple R:
 0.078311535

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_AVI_IN

COD_AGRO 6 -2.06667E+01

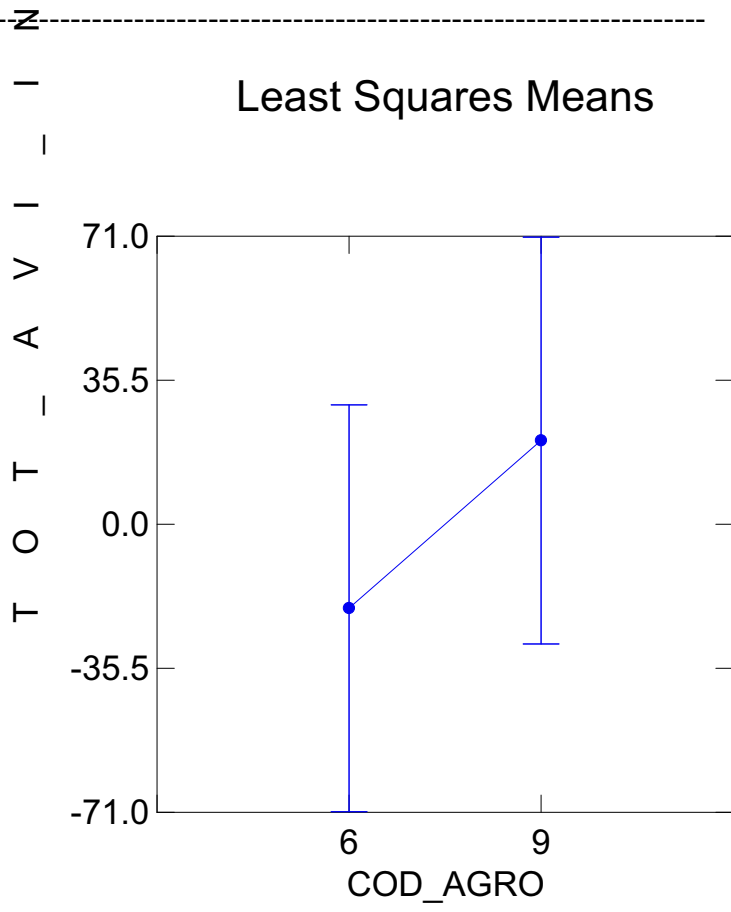
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_AGRO	1.28133E+03	1	1.28133E+03	0.169930595	0.720158018
Error	1.50807E+04	2	7.54033E+03		

Least squares means.

	LS Mean	SE	N
COD_AGRO =6	-2.06667E+01	5.01343E+01	1

COD_AGRO =9 2.06667E+01 5.01343E+01 2



-----Z-----

*** WARNING ***

Case 3 is an outlier (Studentized Residual = 9.085670026)

Durbin-Watson D Statistic 0.257

First Order Autocorrelation 0.425

1.8. TEST ANOVA: AVIFAUNA SVERNANTE – FORESTA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_FOR (3 levels)

5, 8, 9

Model contains no constant

Dep Var: TOT_AVI_IN N: 10 Multiple R: 0.500268831 Squared multiple R:
0.250268903

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_AVI_IN

COD_FOR 5 1.12258E+01

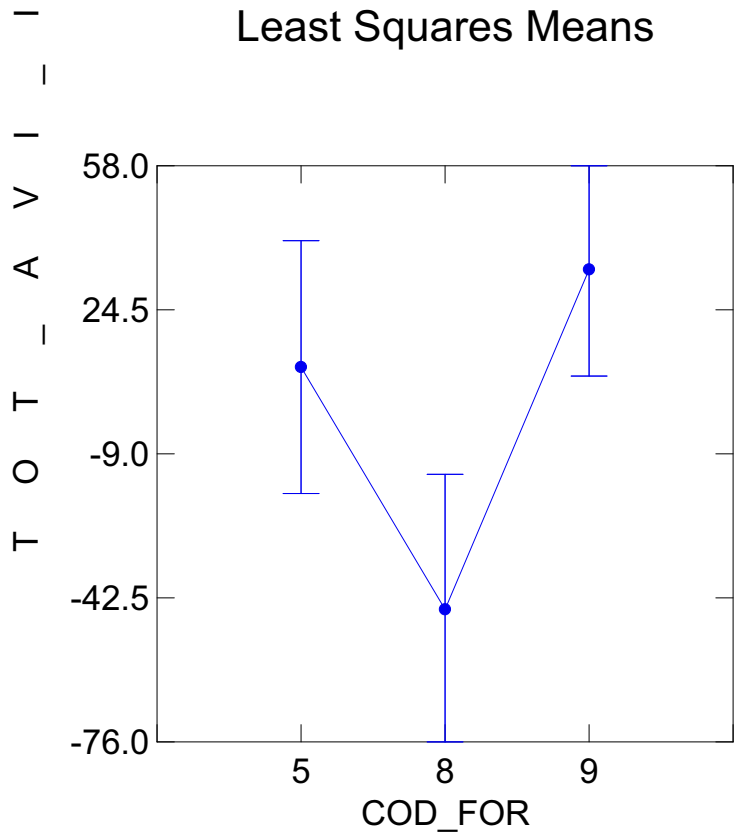
COD_FOR 8 -4.51613E+01

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_FOR	1.02152E+04	2	5.10761E+03	1.335246217	0.315952720
Error	3.06018E+04	8	3.82522E+03		

Least squares means.

	LS Mean	SE	N
COD_FOR =5	1.12258E+01	2.93898E+01	3
COD_FOR =8	-4.51613E+01	3.14190E+01	2
COD_FOR =9	3.39355E+01	2.48389E+01	5



Durbin-Watson D Statistic 0.502

First Order Autocorrelation 0.713

Test for effect called: COD_FOR

Null hypothesis contrast AB

1 1.12258E+01

2 -4.51613E+01

-1

Inverse contrast A(X'X) A'

1 2

1 0.225806452

2 -0.161290323 0.258064516

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	1.02152E+04	2	5.10761E+03	1.335246217	0.315952720
Error	3.06018E+04	8	3.82522E+03		

1.9. TEST ANOVA: AVIFAUNA MIGRATORIA - AGRICOLO

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_AGRO (2 levels)

6, 9

Model contains no constant

Dep Var: TOT_AVI_MI N: 3 Multiple R: 0.211109496 Squared multiple R: 0.044567219

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_AVI_MI

COD_AGRO 6 7.333333333

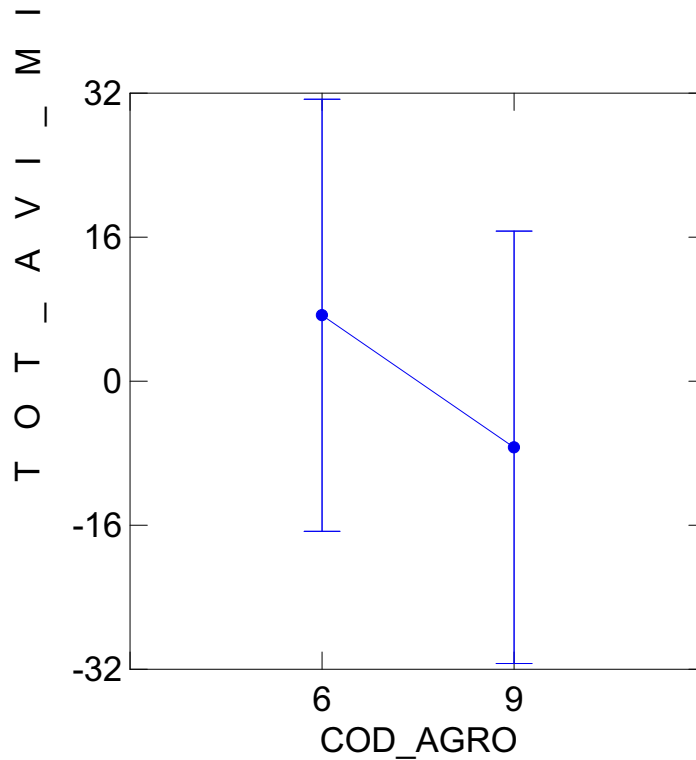
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_AGRO	1.61333E+02	1	1.61333E+02	0.093292213	0.788890504
Error	3.45867E+03	2	1.72933E+03		

Least squares means.

	LS Mean	SE	N
COD_AGRO =6	7.333333333	2.40093E+01	2
COD_AGRO =9	-7.333333333	2.40093E+01	1

Least Squares Means



*** WARNING ***

Case 1 is an outlier (Studentized Residual = 5.855981302)

Case 3 is an outlier (Studentized Residual = 0.829941012)

Durbin-Watson D Statistic 0.329

First Order Autocorrelation 0.376

1.10. TEST ANOVA: AVIFAUNA MIGRATORIA - FORESTA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_FOR (3 levels)

5, 8, 9

Model contains no constant

Dep Var: TOT_AVI_MI N: 6 Multiple R: 0.589157745 Squared multiple R:
0.347106848

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_AVI_MI

COD_FOR 5 2.56364E+01

COD_FOR 8 -6.37273E+01

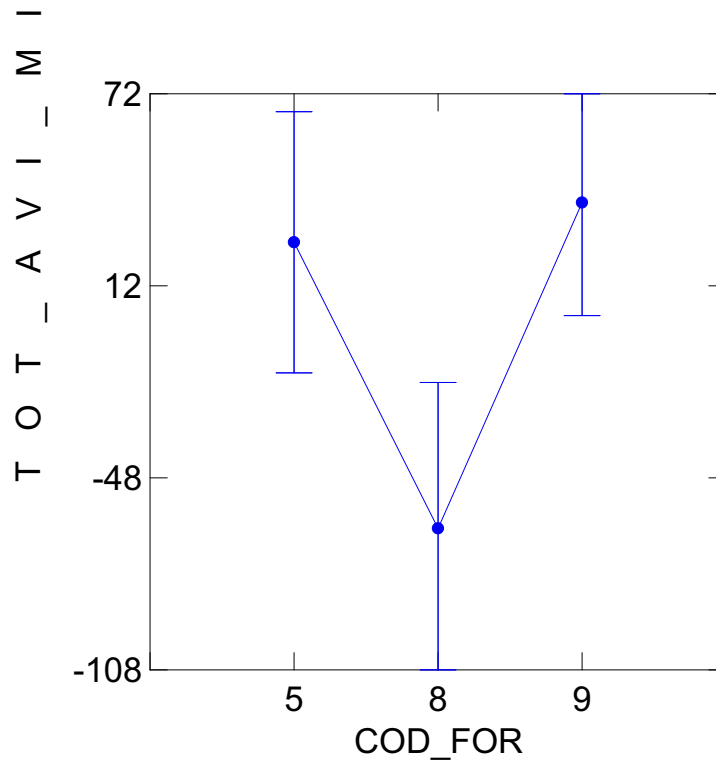
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_FOR	9.72836E+03	2	4.86418E+03	1.063288372	0.426269468
Error	1.82986E+04	4	4.57466E+03		

Least squares means.

	LS Mean	SE	N
COD_FOR =5	2.56364E+01	4.07862E+01	2
COD_FOR =8	-6.37273E+01	4.56003E+01	1
COD_FOR =9	3.80909E+01	3.53219E+01	3

Least Squares Means



 *** WARNING ***

Case 4 is an outlier (Studentized Residual = 8.158545828)

Durbin-Watson D Statistic 0.581

First Order Autocorrelation 0.610

1.11. TEST ANOVA: RAPACI- AGRICOLO

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_VEG (2 levels)

6, 9

Model contains no constant

Dep Var: COD_TOT N: 4 Multiple R: 0.205173634 Squared multiple R:
0.042096220

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

COD_TOT

COD_VEG 6 1.750000000

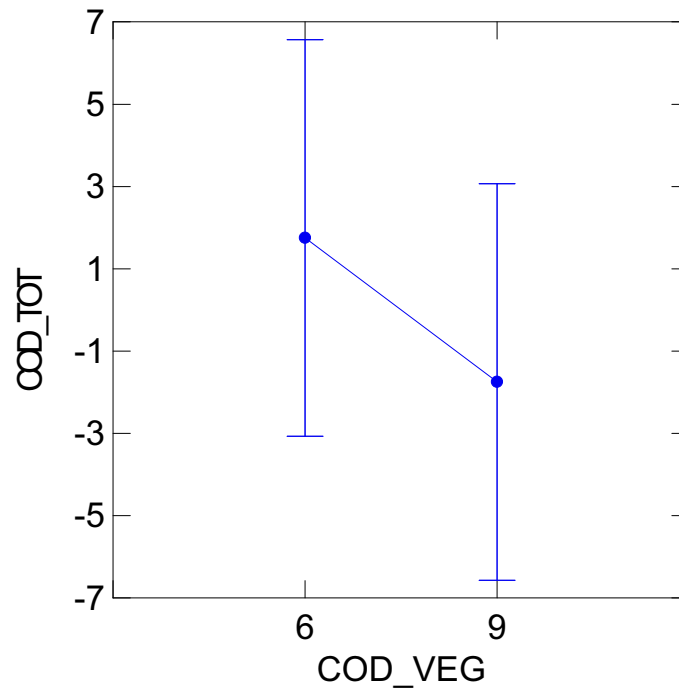
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_VEG	1.22500E+01	1	1.22500E+01	0.131838565	0.740609403
Error	2.78750E+02	3	9.29167E+01		

Least squares means.

	LS Mean	SE	N
COD_VEG =6	1.750000000	4.819664580	2
COD_VEG =9	-1.750000000	4.819664580	2

Least Squares Means



Durbin-Watson D Statistic 0.069

First Order Autocorrelation 0.730

Test for effect called: COD_VEG

Null hypothesis contrast AB

1.750000000

-1

Inverse contrast $A(X'X)^{-1}A'$

0.250000000

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	1.22500E+01	1	1.22500E+01	0.131838565	0.740609403
Error	2.78750E+02	3	9.29167E+01		

1.12. TEST ANOVA: RAPACI - FORESTA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

TIPO_FOR (5 levels)

3, 5, 7, 8, 9

Model contains no constant

Dep Var: TOT_COD N: 56 Multiple R: 0.549839876 Squared multiple R:
0.302323889

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_COD		
TIPO_FOR	3	5.647351376
TIPO_FOR	5	7.710154985
TIPO_FOR	7	-5.224612538
TIPO_FOR	8	-1.33369E+01

Analysis of Variance

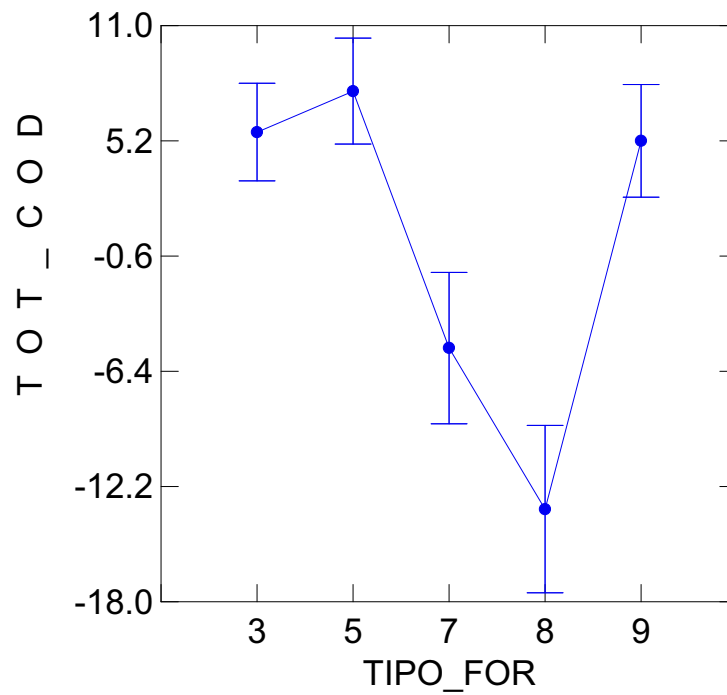
Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
TIPO_FOR	2.69310E+03	4	6.73275E+02	5.633288132	0.000762877
Error	6.21490E+03	52	1.19517E+02		

Least squares means.

	LS Mean	SE	N
TIPO_FOR =3	5.647351376	2.457810875	18
TIPO_FOR =5	7.710154985	2.665565155	15

TIPO_FOR =7	-5.224612538	3.811615647	6
TIPO_FOR =8	-1.33369E+01	4.212988319	4
TIPO_FOR =9	5.204024983	2.836411486	13

Least Squares Means



Durbin-Watson D Statistic 0.175

First Order Autocorrelation 0.881

Test for effect called: TIPO_FOR

Null hypothesis contrast AB

- 1 5.647351376
- 2 7.710154985
- 3 -5.224612538
- 4 -1.33369E+01

-1

Inverse contrast A(X'X) A'

	1	2	3	4
1	0.050543604			
2	-0.006014342	0.059449456		
3	-0.015035855	-0.018043026	0.121559102	
4	-0.022553782	-0.027064539	-0.067661346	0.148507981

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	2.69310E+03	4	6.73275E+02	5.633288132	0.000762877
Error	6.21490E+03	52	1.19517E+02		

Standard Dev 0.000000000

IMPORT successfully completed.

The following results are for:

TIPO_FOR = 9.000000000

TOT_COD

Minimum 5.000000000

Maximum 2.50000E+01

Mean 1.18462E+01

Standard Dev 6.388089879

The following results are for:

TIPO_FOR = 8.000000000

TOT_COD

Minimum 8.000000000

Maximum 9.000000000

Mean 8.250000000
Standard Dev 0.500000000

The following results are for:

TIPO_FOR = 7.000000000
TOT_COD

Minimum 8.000000000
Maximum 1.10000E+01
Mean 9.166666667
Standard Dev 1.471960144

The following results are for:

TIPO_FOR = 5.000000000
TOT_COD

Minimum 5.000000000
Maximum 2.80000E+01
Mean 1.34667E+01
Standard Dev 7.586328556

The following results are for:

TIPO_FOR = 3.000000000
TOT_COD

Minimum 5.000000000
Maximum 1.90000E+01
Mean 1.04444E+01
Standard Dev 4.314438444

1.13. TEST ANOVA: PIPPISTRELLI- AGRICOLO

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_VEG (2 levels)

6, 9

Model contains no constant

Dep Var: TOT_PIP_AG N: 5 Multiple R: 0.200000000 Squared multiple R:
0.040000000

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_PIP_AG

COD_VEG 6 1.600000000

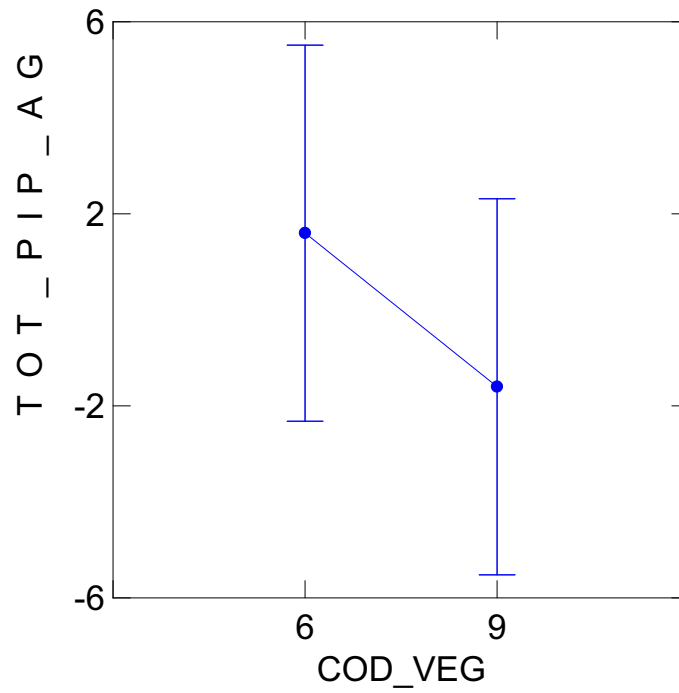
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_VEG	1.28000E+01	1	1.28000E+01	0.166666667	0.704000000
Error	3.07200E+02	4	7.68000E+01		

Least squares means.

	LS Mean	SE	N
COD_VEG =6	1.600000000	3.919183588	3
COD_VEG =9	-1.600000000	3.919183588	2

Least Squares Means



Durbin-Watson D Statistic 0.133

First Order Autocorrelation 0.800

Test for effect called: COD_VEG

Null hypothesis contrast AB

1.600000000

-1

Inverse contrast $A(X'X)^{-1}A'$

0.200000000

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	1.28000E+01	1	1.28000E+01	0.166666667	0.704000000
Error	3.07200E+02	4	7.68000E+01		

1.14. TEST ANOVA: PIPPISTRELLI - FORESTA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

TIPO_FOR (6 levels)

3, 5, 6, 7, 8, 9

Model contains no constant

Dep Var: TOT_PIP_IN N: 28 Multiple R: 0.652880739 Squared multiple R:
0.426253260

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

	TOT_PIP_IN
TIPO_FOR 3	3.716024341
TIPO_FOR 5	6.052738337
TIPO_FOR 6	-1.34199E+01
TIPO_FOR 7	2.645030426
TIPO_FOR 8	-2.709939148

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
TIPO_FOR	7.63846E+02	5	1.52769E+02	3.417474747	0.018711520
Error	1.02815E+03	23	4.47024E+01		

Least squares means.

	LS Mean	SE	N
TIPO_FOR =3	3.716024341	2.853513351	5

TIPO_FOR =5	6.052738337	1.974585613	11
TIPO_FOR =6	-1.34199E+01	4.975343431	1
TIPO_FOR =7	2.645030426	3.151002880	4
TIPO_FOR =8	-2.709939148	4.167025227	2
TIPO_FOR =9	3.716024341	2.853513351	5

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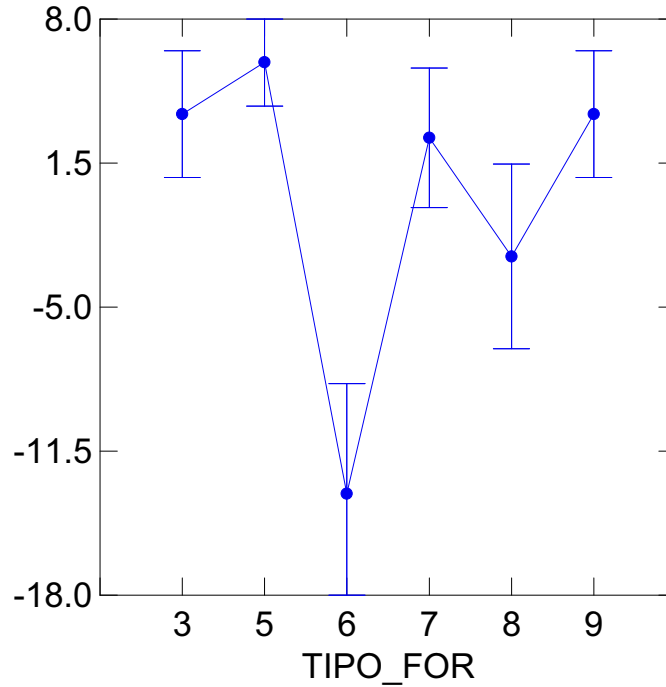
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11.5

18.0

Least Squares Means



Durbin-Watson D Statistic 0.605

First Order Autocorrelation 0.675

Test for effect called: TIPO_FOR

Null hypothesis contrast AB

1 3.716024341

2 6.052738337

3 -1.34199E+01

4 2.645030426

5 -2.709939148

-1

Inverse contrast $A(X'X)^{-1}A'$

	1	2	3	4	5
1	0.182150101				
2	-0.008113590	0.087221095			
3	-0.089249493	-0.040567951	0.553752535		
4	-0.022312373	-0.010141988	-0.111561866	0.222109533	
5	-0.044624746	-0.020283976	-0.223123732	-0.055780933	0.388438134

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	7.63846E+02	5	1.52769E+02	3.417474747	0.018711520
Error	1.02815E+03	23	4.47024E+01		

The following results are for:

TIPO_FOR = 7.000000000

TOT_PIP_IN

Minimum 8.000000000

Maximum 8.000000000

Mean 8.000000000

Standard Dev 0.000000000

The following results are for:

TIPO_FOR = 9.000000000

TOT_PIP_IN

Minimum 8.000000000

Maximum 8.000000000

Mean 8.000000000

Standard Dev 0.000000000

The following results are for:

TIPO_FOR = 5.000000000

TOT_PIP_IN

Minimum 8.000000000

Maximum 8.000000000

Mean 8.000000000

Standard Dev 0.000000000

The following results are for:

TIPO_FOR = 3.000000000

TOT_PIP_IN

Minimum 8.000000000

Maximum 8.000000000

Mean 8.000000000

Standard Dev 0.000000000

The following results are for:

TIPO_FOR = 6.000000000

TOT_PIP_IN

Minimum 8.000000000

Maximum 8.000000000

Mean 8.000000000

Standard Dev .

The following results are for:

TIPO_FOR = 8.000000000

TOT_PIP_IN

Minimum 8.000000000

Maximum 8.000000000

Mean 8.000000000

Standard Dev 0.000000000

1.15. TEST ANOVA: LEPRE COMUNE - AGRICOLO

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_VEG (2 levels)

6, 9

Model contains no constant

Dep Var: TOT_LEP_AG N: 13 Multiple R: 0.076923077 Squared multiple R: 0.005917160

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_LEP_AG

COD_VEG 6 0.307692308

Analysis of Variance

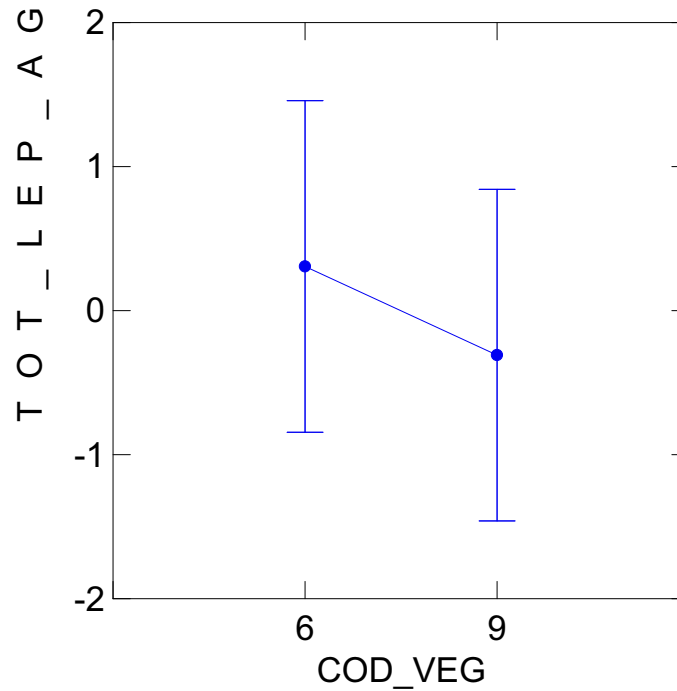
Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_VEG	1.230769231	1	1.230769231	0.071428571	0.793805888
Error	2.06769E+02	12	1.72308E+01		

Least squares means.

LS Mean SE N

COD_VEG	=6	0.307692308	1.151279196	7
COD_VEG	=9	-0.307692308	1.151279196	6

Least Squares Means



Durbin-Watson D Statistic 0.013

First Order Autocorrelation 0.916

Test for effect called: COD_VEG

Null hypothesis contrast AB

0.307692308

-1

Inverse contrast $A(X'X)^{-1}A'$

0.076923077

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	1.230769231	1	1.230769231	0.071428571	0.793805888
Error	2.06769E+02	12	1.72308E+01		

1.16. TEST ANOVA: LEPRE COMUNE - FORESTA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

TIPO_FOR (5 levels)

3, 5, 7, 9, 10

Model contains no constant

Dep Var: TOT_LEP_IN N: 15 Multiple R: 0.492365964 Squared multiple R:
0.242424242

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

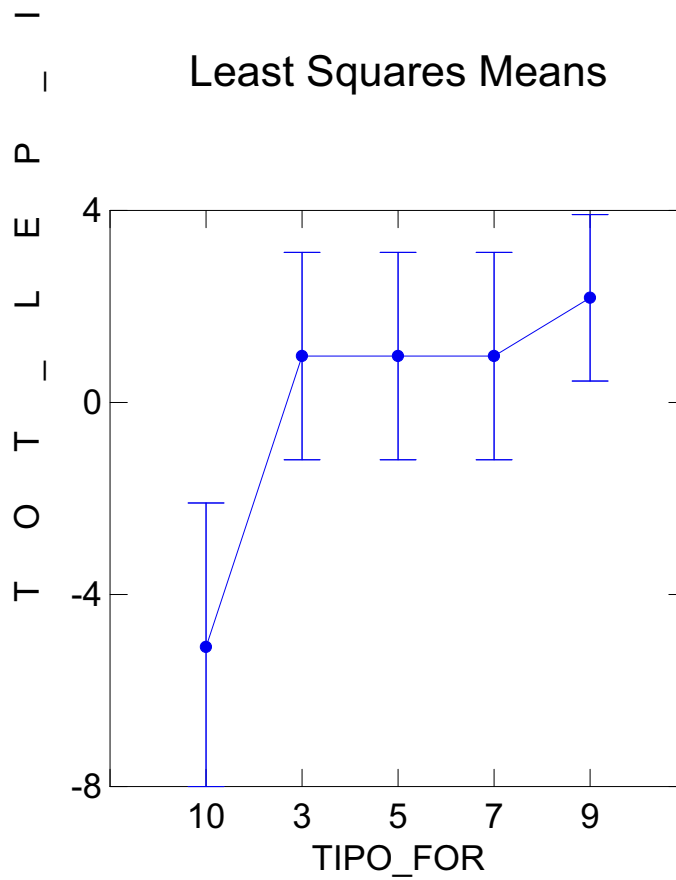
	TOT_LEP_IN
TIPO_FOR 3	0.969696970
TIPO_FOR 5	0.969696970
TIPO_FOR 7	0.969696970
TIPO_FOR 9	2.181818182

Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
TIPO_FOR	5.81818E+01	4	1.45455E+01	0.880000000	0.506780813
Error	1.81818E+02	11	1.65289E+01		

Least squares means.

	LS Mean	SE	N
TIPO_FOR =3	0.969696970	2.162139600	3
TIPO_FOR =5	0.969696970	2.162139600	3
TIPO_FOR =7	0.969696970	2.162139600	3
TIPO_FOR =9	2.181818182	1.733568344	5
TIPO_FOR =10	-5.090909091	3.002628450	1



Durbin-Watson D Statistic 0.299

First Order Autocorrelation 0.598

Test for effect called: TIPO_FOR

Null hypothesis contrast AB

1 0.969696970

2 0.969696970

3 0.969696970

4 2.181818182

-1

Inverse contrast $A(X'X)^{-1}A'$

	1	2	3	4
1	0.282828283			
2	-0.050505051	0.282828283		
3	-0.050505051	-0.050505051	0.282828283	
4	-0.030303030	-0.030303030	-0.030303030	0.181818182

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	5.81818E+01	4	1.45455E+01	0.880000000	0.506780813
Error	1.81818E+02	11	1.65289E+01		

1.17. TEST ANOVA: CARNIVORI - AGRICOLO

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

COD_VEG (2 levels)

6, 9

Model contains no constant

Dep Var: TOT_CARN_I N: 33 Multiple R: 0.337349542 Squared multiple R: 0.113804714

-1

Estimates of effects $B = (X'X)^{-1}X'Y$

TOT_CARN_I

COD_VEG 6 2.363636364

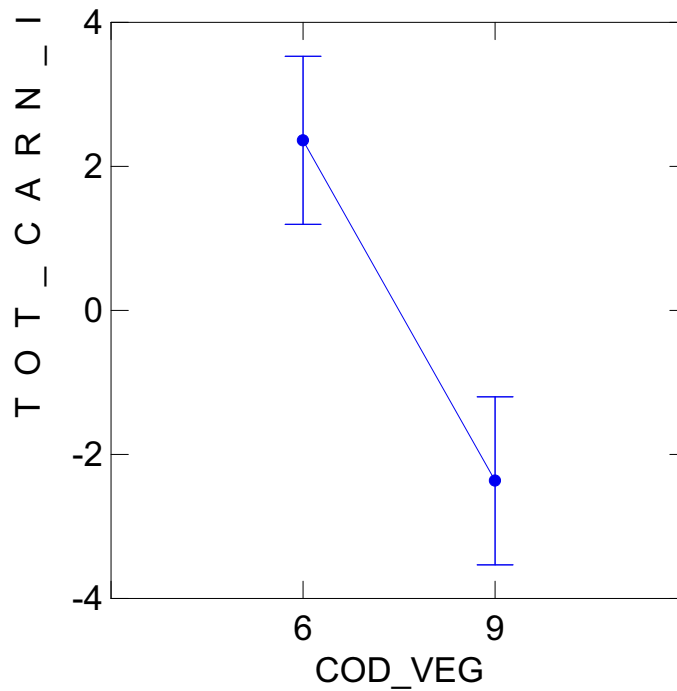
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
COD_VEG	1.84364E+02	1	1.84364E+02	4.109422492	0.051043302
Error	1.43564E+03	32	4.48636E+01		

Least squares means.

	LS Mean	SE	N
COD_VEG =6	2.363636364	1.165977758	23
COD_VEG =9	-2.363636364	1.165977758	10

Least Squares Means



Durbin-Watson D Statistic 0.185

First Order Autocorrelation 0.852

The following results are for:

COD_VEG = 6.000000000

TOT_CARN_I

Minimum 3.000000000

Maximum 1.50000E+01

Mean 6.521739130

Standard Dev 2.150466444

The following results are for:

COD_VEG = 9.000000000

TOT_CARN_I

Minimum 6.000000000

Maximum 9.000000000

Mean 7.200000000

Standard Dev 1.549193338

1.18. TEST ANOVA: CARNIVORI - FORESTA

Effects coding used for categorical variables in model.

Categorical values encountered during processing are:

TIPO_FOR (9 levels)

1, 3, 4, 5, 6, 7, 8,

9, 10

Model contains no constant

Dep Var: TOT_CAR_IN N: 131 Multiple R: 0.809264386 Squared multiple R:
0.654908847

-1

Estimates of effects $B = (X'X)^{-1} X'Y$

TOT_CAR_IN		
TIPO_FOR	1	-4.423883841
TIPO_FOR	3	5.544654927
TIPO_FOR	4	-1.18478E+01
TIPO_FOR	5	7.151536245
TIPO_FOR	6	1.230446463
TIPO_FOR	7	4.816772967
TIPO_FOR	8	-2.923883841
TIPO_FOR	9	6.376008604

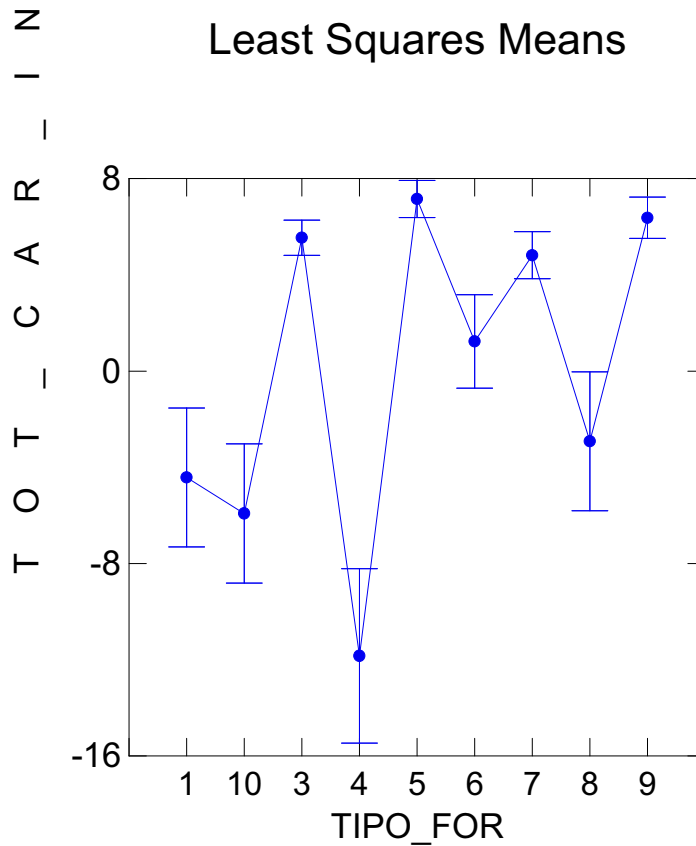
Analysis of Variance

Source	Sum-of-Squares	df	Mean-Square	F-ratio	P
TIPO_FOR	4.73565E+03	8	5.91956E+02	2.91784E+01	0.000000000
Error	2.49535E+03	123	2.02874E+01		

Least squares means.

	LS Mean	SE	N
TIPO_FOR =1	-4.423883841	2.891113748	2
TIPO_FOR =3	5.544654927	0.736948416	37
TIPO_FOR =4	-1.18478E+01	3.625840988	1
TIPO_FOR =5	7.151536245	0.768447845	34
TIPO_FOR =6	1.230446463	1.942127191	5
TIPO_FOR =7	4.816772967	0.974615875	21
TIPO_FOR =8	-2.923883841	2.891113748	2
TIPO_FOR =9	6.376008604	0.861156871	27

TIPO_FOR =10 -5.923883841 2.891113748 2



*** WARNING ***

Case 40 is an outlier (Studentized Residual = 1.09322E+01)

Case 41 is an outlier (Studentized Residual = 3.494851241)

Case 101 is an outlier (Studentized Residual = 3.618073994)

Case 130 is an outlier (Studentized Residual = 3.618073994)

Durbin-Watson D Statistic 0.595

First Order Autocorrelation 0.665

Test for effect called: TIPO_FOR

Null hypothesis contrast AB

1 -4.423883841

2 5.544654927
 3 -1.18478E+01
 4 7.151536245
 5 1.230446463
 6 4.816772967
 7 -2.923883841
 8 6.376008604
 -1

Inverse contrast $A(X'X)^{-1}A'$

	1	2	3	4	5
1	0.412005755				
2	-0.004756446	0.026769922			
3	-0.175988491	-0.009512891	0.648023018		
4	-0.005176132	-0.000279791	-0.010352264	0.029107286	
5	-0.035197698	-0.001902578	-0.070395396	-0.002070453	0.185920921
6	-0.008380404	-0.000452995	-0.016760809	-0.000492965	-0.003352162
7	-0.087994245	-0.004756446	-0.175988491	-0.005176132	-0.035197698
8	-0.006518092	-0.000352329	-0.013036185	-0.000383417	-0.002607237
	6	7	8		
6	0.046820914				
7	-0.008380404	0.412005755			
8	-0.000620771	-0.006518092	0.036554215		

Test of Hypothesis

Source	SS	df	MS	F	P
Hypothesis	4.73565E+03	8	5.91956E+02	2.91784E+01	0.000000000
Error	2.49535E+03	123	2.02874E+01		

The following results are for:

TIPO_FOR = 1.000000000

TOT_CAR_IN

Minimum 6.000000000

Maximum 6.000000000

Mean 6.000000000

Standard Dev 0.000000000

The following results are for:

TIPO_FOR = 3.000000000

TOT_CAR_IN

Minimum 3.000000000

Maximum 1.30000E+01

Mean 6.108108108

Standard Dev 2.568871172

The following results are for:

TIPO_FOR = 4.000000000

TOT_CAR_IN

Minimum 9.000000000

Maximum 9.000000000

Mean 9.000000000

Standard Dev .

The following results are for:

TIPO_FOR = 5.000000000

TOT_CAR_IN

Minimum 3.000000000

Maximum 2.20000E+01

Mean 7.764705882

Standard Dev 3.962390031

The following results are for:

TIPO_FOR = 6.000000000

TOT_CAR_IN

Minimum 3.000000000

Maximum 9.000000000

Mean 5.400000000

Standard Dev 2.509980080

The following results are for:

TIPO_FOR = 7.000000000

TOT_CAR_IN

Minimum 3.000000000

Maximum 1.60000E+01

Mean 5.809523810

Standard Dev 3.203420791

The following results are for:

TIPO_FOR = 8.000000000

TOT_CAR_IN

Minimum 6.000000000

Maximum 9.000000000

Mean 7.500000000

Standard Dev 2.121320344

The following results are for:

TIPO_FOR = 9.000000000

TOT_CAR_IN

Minimum 3.000000000
Maximum 1.60000E+01
Mean 7.148148148
Standard Dev 3.194992521

The following results are for:

TIPO_FOR = 1.00000E+01

TOT_CAR_IN

Minimum 3.000000000
Maximum 6.000000000
Mean 4.500000000
Standard Dev 2.121320344

