



13-19 Ocak 2014/ ANTALYA

Non-metrik Çok Boyutlu Ölçeklendirme (NMDS) Analizi PC-ORD Uygulaması

NON-METRIC MULTIDIMENSIONAL
SCALING (NMDS) ANALYSIS

Eğitmen: Yrd. Doç. Dr. Serkan GÜLSOY
SDÜ Orman Fakültesi
Orman Müh. Bölümü, Isparta

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



13-19 Ocak 2014/ ANTALYA

PC-ORD

File Edit Modify Data Summary Ordination Graph Groups Window Options Help

Main - VVM_P~2.WK1

	ornek							
	q	q	q	q	q	q	q	q
	ArbAnd	BerCra	CedLib	CelGlb	CisSal	CotNum	CotCog	CraOri
10a	0	0	0	1	0	1	0	0
20a	0	0	0	0	0	0	0	0
30a	0	0	0	0	0	1	0	0
40a	0	0	0	0	0	0	0	0
50a	0	0	0	0	0	0	0	1
60a	0	0	0	0	0	0	0	0
70a	0	0	0	0	0	0	0	0
80a	0	0	0	0	0	0	0	0
90a	0	0	0	0	0	0	0	0

Second - CVM_NEW.WK1

	ornek							
	q	q	q	q	q	q	q	q
	yukslt	radinx	egim	yuztas	topder	kum	toz	ki1
oa1	1462	0.0669872	95	90	20.5	61.8608	29.6638	8.4753
oa2	1545	0.982962	10	60	7.1875	29.8227	34.0253	36.151
oa3	1485	0.0669872	80	60	32.8125	73.6378	19.7716	6.5905
oa4	1089	0.933012	60	30	26.48	17.6568	23.2249	59.118
oa5	1224	0.982962	25	60	22.04	16.1992	23.0451	60.755
oa6	1010	0.0669872	75	40	41.12	6.81018	14.4961	78.693
oa7	1030	0.982962	55	70	26.04	25.1448	14.5551	60.3
oa8	1028	0.982962	65	80	15.76	70.0499	12.2746	17.675
oa9	990	0.629409	20	20	33.12	22.7328	23.197	54.070

Main:VVM_P~2.WK1 Second:CVM_NEW.WK1 Graph

PC-ORD

File Edit Modify Data Summary Ordination Graph Groups Window Options Help

Main - VVM_P~2.WK1

	ornek							
	q	q	q	q	q	q	q	q
	ArbAnd	BerCra	CedLib	CelGlb	CisSal	CotNum	CotCog	CraOri
80	ornek							
42	bitki							
	q	q	q	q	q	q	q	q
	ArbAnd	BerCra	CedLib	CelGlb	CisSal	CotNum	CotCog	CraOri

NMS Setup

Distance Measure

Euclidean

Sorensen 1 - $2W/(A+B)$

Jaccard $W/(A+B-W)$

Correlation

Parameter Setup

Number of axes k = 4

Maximum number of iterations = 100

Reduction in dimension per cycle = 1

Initial step length = .20

Starting Coordinates

Random numbers

Read from Graph file

Output Options

Write distance matrix

Write starting coordinates

List stress, etc. for each iteration

Write final configuration

Plot distance vs dissimilarity

Varimax rotation

Monte Carlo test

OK Cancel Help

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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PC-ORD

File Edit Modify Data Summary Ordination Graph Groups Window O

Main - VVM_P~2.WK1

80	ornek				
42	bitki				
	q	q	q	q	q
	ArbAnd	BerCra	CedLib	CelGlb	CisSal
1oa	0	0	0	1	0
2oa	0	0	0	0	0
3oa	0	0	0	0	0
4oa	0	0	0	0	0
5oa	0	0	0	0	0
6oa	0	0	0	0	0
7oa	0	0	0	0	0
8oa	0	0	0	0	0
9oa	0	0	0	0	0

Second - CVM_NEW.WK1

80	ornek				
20	degisken				
	q	q	q	q	q
	yukslt	radinx	egim	yuztas	topder
oa1	1462	0.0669872	95	90	20.5
oa2	1545	0.982962	10	60	7.1875
oa3	1485	0.0669872	80	60	32.8125
oa4	1089	0.933012	60	30	26.48
oa5	1224	0.982962	25	60	22.04
oa6	1010	0.0669872	75	40	41.12
oa7	1030	0.982962	55	70	26.04
oa8	1028	0.982962	65	80	15.76
oa9	990	0.629409	20	20	33.12

Main:VVM P~2.WK1 Second:CVM NEW.WK1

NMS Random Numbers

Source For Random Number Seeds

Use time of day

User supplied seeds

1st User supplied seed integer =

2nd User supplied seed integer =

OK Cancel Help

Monte Carlo Test

Number of runs =

OK Cancel Help

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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File Edit Modify Data Summary Ordination Graph Groups Window O

Main - VVM_P~2.WK1

	q	q	q	q	q
	ArbAnd	BerCra	CedLib	CelGlb	CisSal
80	ornek				
42	bitki				
10a	0	0	0	1	0
20a	0	0	0	0	0
30a	0	0	0	0	0
40a	0	0	0	0	0
50a	0	0	0	0	0
60a	0	0	0	0	0
70a	0	0	0	0	0
80a	0	0	0	0	0
90a	0	0	0	0	0

Second - CVM_NEW.WK1

	q	q	q	q	q
	yukslt	radinx	egim	yuztas	topder
80	ornek				
20	degisken				
oa1	1462	0.0669872	95	90	20.5
oa2	1545	0.982962	10	60	7.1875
oa3	1485	0.0669872	80	60	32.8125
oa4	1089	0.933012	60	30	26.48
oa5	1224	0.982962	25	60	22.04
oa6	1010	0.0669872	75	40	41.12
oa7	1030	0.982962	55	70	26.04
oa8	1028	0.982962	65	80	15.76
oa9	990	0.629409	20	20	33.12

Main:VVM_P~2.WK1

Second:CVM_NEW.WK1

NMS

Descriptive title for results:

OK Cancel Help

Progress

Calculating 2-dimensional configuration. Run 1 of 20

Progress

Progress

Calculating 4-dimensional configuration. Run 10 of 20

Progress

Progress

Calculating 4-dimensional configuration. Run 20 of 20

Progress

Abort

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File Edit Modify Data Summary Ordination Graph Groups Window Options Help

Main - VVM_P~2.WK1

80	ornek							
42	bitki							
	q	q	q	q	q	q	q	q
	ArbAnd	BerCra	CedLib	CelGlb	CisSal	CotNum	CotCog	CraOri
10a	0	0	0	1	0	1	0	0
20a	0	0	0	0	0	0	0	0
30a	0	0	0	0	0	1	0	0
40a	0	0	0	0	0	0	0	0
50a	0	0	0	0	0	0	0	1
60a	0	0	0	0	0	0	0	0
70a	0	0	0	0	0	0	0	0
80a	0	0	0	0	0	0	0	0
90a	0	0	0	0	0	0	0	0

Graph - GRAPH.FIL

80				
10a	.35305	-.00883	-.41478	-.74429
20a	-.51579	.35850	-.64709	-.03122
30a	.63038	.23004	.25449	-.59605
40a	.23966	.52908	-.10348	.22529
50a	.57557	.38770	-.18611	-.17508
60a	.79425	.35847	.03627	-.01640
70a	.35585	.54395	-.32922	.07138
80a	.30868	.64416	-.15853	.24678
90a	.24902	.44690	-.45991	-.01014
100a	.19058	.78011	-.17010	.14466
110a	.13203	-.50869	-.08719	-.67085
120a	.54983	-.05048	-.14011	-.63940
130a	.33468	-.02468	-.15835	-.67051
140a	.06439	.53125	.10468	.13499
150a	-.60597	-.14772	-.24066	-.13753
160a	-.51660	-.00896	-.25390	.09589
170a	-.15853	-.27498	-.51109	-.83916

Second - CVM_NEW.WK1

80	ornek							
20	degisken							
	q	q	q	q	q	q	q	q
	yukslt	radinx	egim	yuztas	topder	kum	toz	kil
oa1	1462	0.0669872	95	90	20.5	61.8608	29.6638	8.4753
oa2	1545	0.982962	10	60	7.1875	29.8227	34.0253	36.151
oa3	1485	0.0669872	80	60	32.8125	73.6378	19.7716	6.5905
oa4	1089	0.933012	60	30	26.48	17.6568	23.2249	59.118
oa5	1224	0.982962	25	60	22.04	16.1992	23.0451	60.755
oa6	1010	0.0669872	75	40	41.12	6.81018	14.4961	78.693
oa7	1030	0.982962	55	70	26.04	25.1448	14.5551	60.3
oa8	1028	0.982962	65	80	15.76	70.0499	12.2746	17.675
oa9	990	0.629409	20	20	33.12	22.7328	23.197	54.070

Result - RESULT.FIL

```

***** Nonmetric Multidimensional Scaling *****
PC-ORD, Version 3.17
 7 Jan 2014, 10:40

Ordination of ornek in bitki space.      80 ornek      42 bitki

The following options were selected:
ANALYSIS OPTIONS
1. SORENSEN = Distance measure
2. 4 = Number of axes (max. = 6)
3. 100 = Maximum number of iterations
4. RANDOM = Starting coordinates (random or from file)
5. 1 = Reduction in dimensionality at each cycle
6. .20 = Step length (rate of movement toward minimum stress)
7. USE TIME = Random number seeds (use time vs. user-supplied)

OUTPUT OPTIONS
    
```

Main:VVM_P~2.WK1 Second:CVM_NEW.WK1 Graph:GRAPH.FIL Result: F4 Append Results

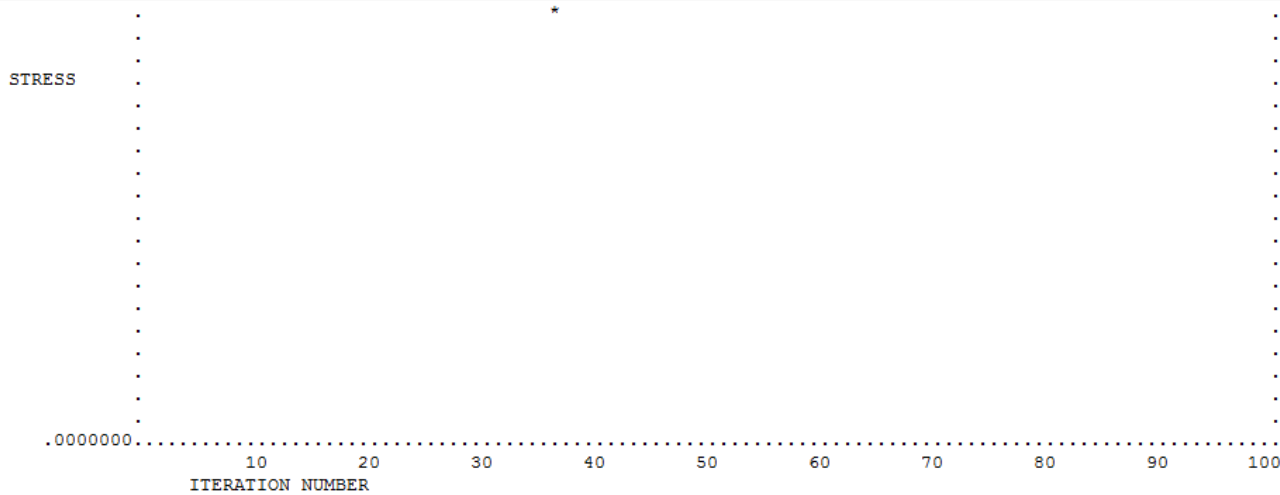
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PC-ORD - [Result - RESULT.FIL]

File Edit Modify Data Summary Ordination Graph Groups Window Options Help



STRESS AS A FUNCTION OF DIMENSIONALITY

Dimensions	Stress in real data		Stress in randomized data Monte Carlo test, 19 runs			p
	Stress	Change	Mean	Minimum	Maximum	
1	49.766	.000	54.900	50.859	57.501	.0500
2	48.722	1.044	35.352	32.271	42.610	1.0000
3	34.908	13.814	26.177	23.615	33.487	1.0000
4	17.524	17.383	20.352	18.738	22.111	.0500



Stress kat sayısı 20 değerinin altında olmalıdır...

p = proportion of randomized runs with stress < or = observed stress
i.e., $p = (1 + \text{no. permutations} \leq \text{observed}) / (1 + \text{no. permutations})$

***** Calculations finished *****

Main:VVM_P-2.WK1

Second:CVM_NEW.WK1

Graph:GRAPH.FIL

Result:

F4 Append Results

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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PC-ORD

File Edit Modify Data Summary Ordination **Graph** Groups Window Options Help

Main - VVM_P-2.WK1

Graph Ordination

	ArbAnd	BerCra	CedLib	CelGlb	CisSal	CotNum	CotCog	CraOri
10a	0	0	0	1	0	1	0	0
20a	0	0	0	0	0	0	0	0
30a	0	0	0	0	0	1	0	0
40a	0	0	0	0	0	0	0	0
50a	0	0	0	0	0	0	0	1
60a	0	0	0	0	0	0	0	0
70a	0	0	0	0	0	0	0	0
80a	0	0	0	0	0	0	0	0
90a	0	0	0	0	0	0	0	0

Graph - GRAPH.FIL

	10a	20a	30a	40a	50a	60a	70a	80a	90a	100a	110a	120a	130a	140a	150a	160a	170a
80	.12681	.29061	-.77654	-.26558	-.11903	-.47024	-.01732	-.30475	.12041	-.14686	-.20525	-.01699	.06742	-.28840	.04328	.01520	.92873
ornek	-.01494	.20393	-.07303	.44205	.49145	.56214	.58354	.63389	.51465	.70435	-.46806	.04576	-.05865	.20152	-.26496	-.08515	-.36215
bitki	-.09225	-.81710	.21760	-.22347	.17008	.27601	-.09662	-.23233	-.13135	-.29804	-.26921	.22571	.11896	-.18682	-.54379	-.43002	-.03083
10a	-.92724	-.16390	-1.49319	-.16513	-.43643	-.45553	-.31715	-.22843	-.30295	-.27115	-.72591	-.84733	-.77139	-.03590	-.02818	.17232	-.73911

Second - CVM_NEW.WK1

	yukslt	radinx	egim	yuztas	topder	kum	toz	kil
oa1	1462	0.0669872	95	90	20.5	61.8608	29.6638	8.4753
oa2	1545	0.982962	10	60	7.1875	29.8227	34.0253	36.151
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oa8	1028	0.982962	65	80	15.76	70.0499	12.2746	17.675
oa9	990	0.629409	20	20	33.12	22.7328	23.197	54.070

Result - RESULT.FIL

***** Nonmetric Multidimensional Scaling *****

PC-ORD, Version 3.17
7 Jan 2014, 10:44

Ordination of ornek in bitki space. 80 ornek 42 bitki

The following options were selected:

ANALYSIS OPTIONS

1. SORENSEN = Distance measure
2. 4 = Number of axes (max. = 6)
3. 100 = Maximum number of iterations
4. RANDOM = Starting coordinates (random or from file)
5. 1 = Reduction in dimensionality at each cycle
6. .20 = Step length (rate of movement toward minimum stress)
7. USE TIME = Random number seeds (use time vs. user-supplied)

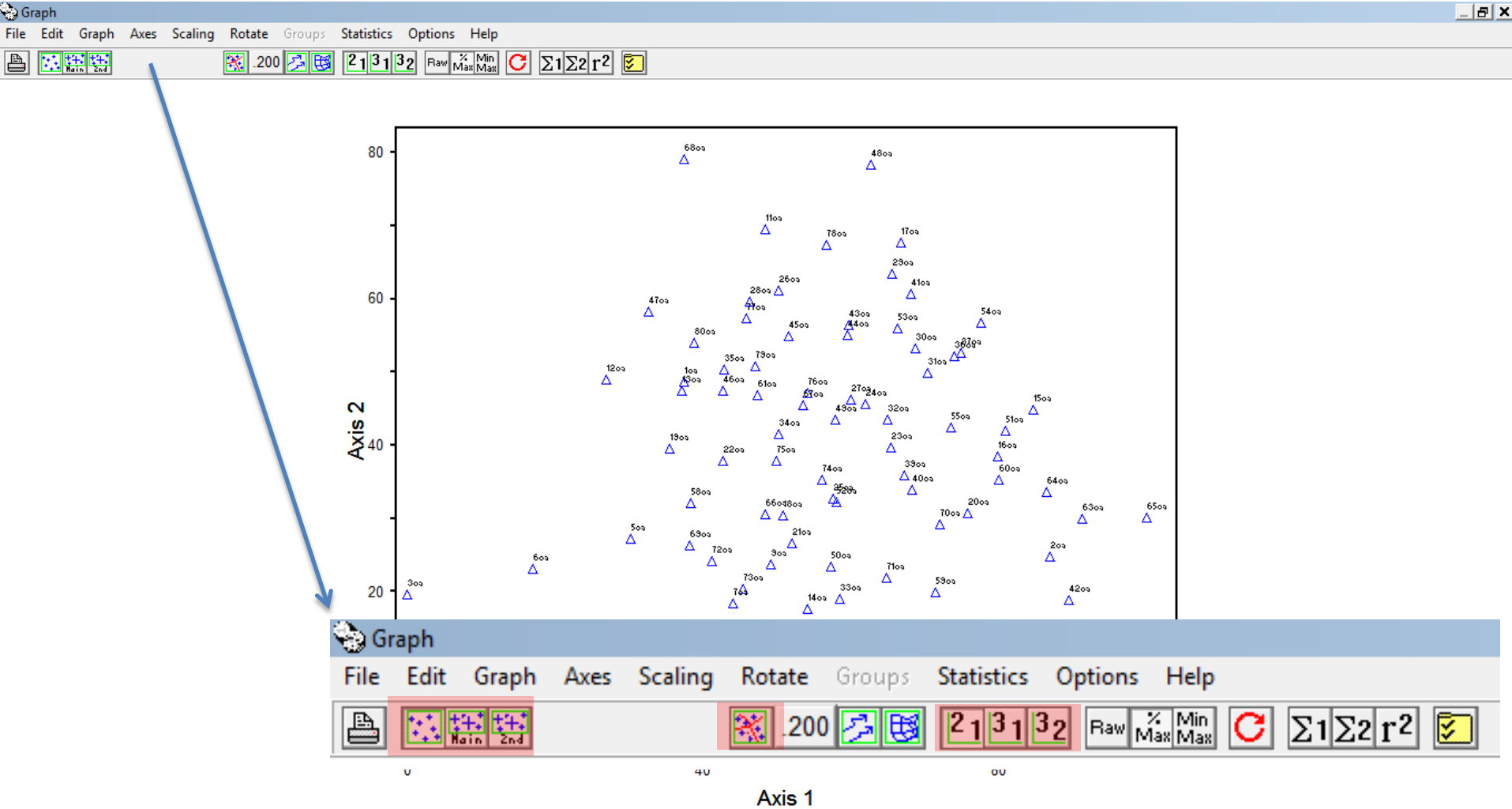
OUTPUT OPTIONS

Main:VVM_P-2.WK1 Second:CVM_NEW.WK1 Graph:GRAPH.FIL Result: F4 Append Results

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13-19 Ocak 2014/ ANTALYA



Preferences

Format

Frame Type

- Box
- Standard XY
- Centered XY

Symbols

ornek

bitki ornek- bitki

Plot Points

- ornek
- bitki

Fonts

- Graph title
- Axis titles
- Tick marks
- Tick labels
- Label every other tick
- Overlay tick marks
- Hide Toolbar
- Show side scatterplots

Quantitative Overlays

- Show side scatterplots

Groups

- Color code categories
- Symbol code categories
- Show Legend
-

Line Weights

- Frame -
- Tics -
- Joint Plots -
- Regression Lines -
- Vectors -
- Grids -

Background Color

- White
- Black
- Navy

Print in black and white

Save in black and white

Preferences

Format

Fonts

Graph Title **Arial Size: 16**

Row Labels Small Fonts Size: 6

Column Labels Small Fonts Size: 6

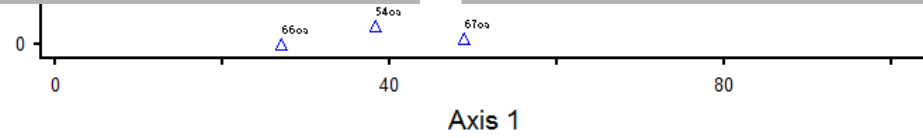
Axis Titles **Arial Size: 14**

Joint Plot Labels Arial Size: 10

Tick Labels Arial Size: 10

Correlation Labels Arial Size: 10

Legend Labels Arial Size: 12



Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler

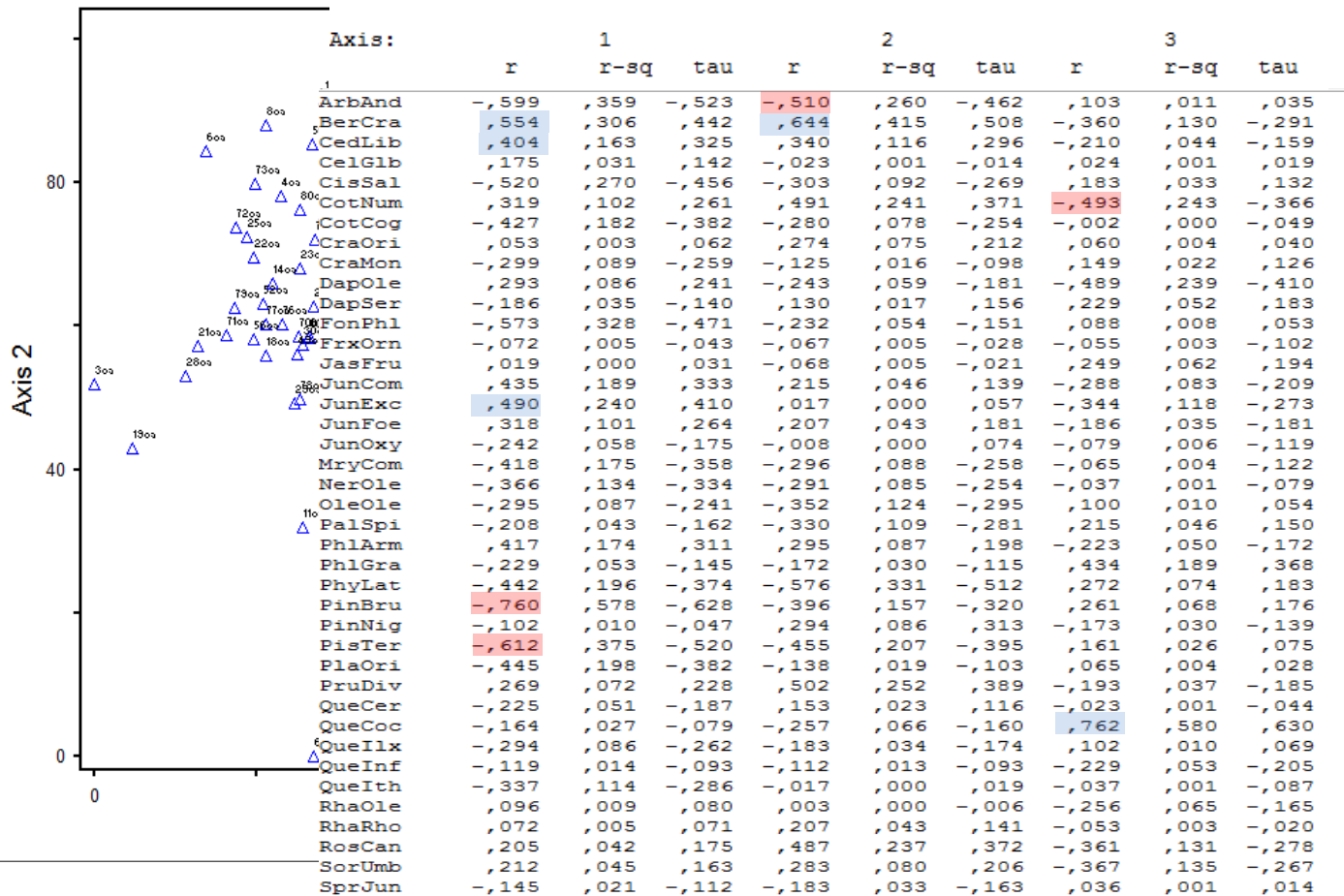


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Graph File Edit Graph Axes Scaling Rotate Groups Statistics Options Help

Correlations With Main Matrix
Correlations With Second Matrix
Percent Of Variance In Distance Matrix

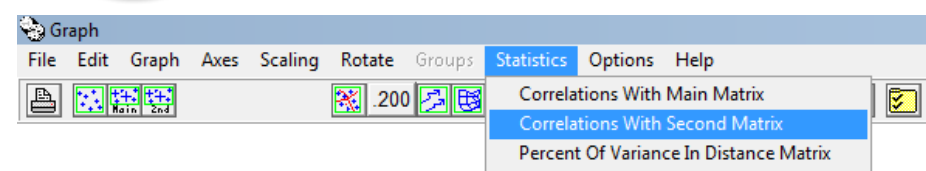
Pearson and Kendall Correlations with Ordination Axes N= 80



Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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***** Output from Graph *****

PC-ORD Version 3.17
06.01.2014, 14:38

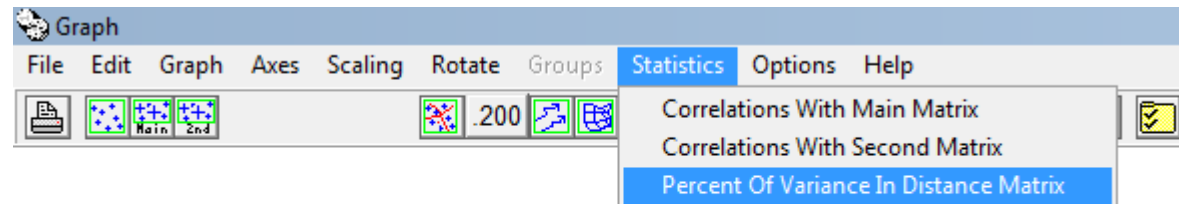
Pearson and Kendall Correlations with Ordination Axes N= 80

Axis:	1			2			3		
	r	r-sq	tau	r	r-sq	tau	r	r-sq	tau
yukslt	,803	,645	,618	,585	,342	,425	-,410	,168	-,223
radinx	,121	,015	,131	-,169	,028	-,102	,247	,061	,145
egim	-,080	,006	-,049	,232	,054	,184	-,165	,027	-,028
yuztas	,557	,311	,409	,071	,005	,062	-,233	,054	-,101
topder	-,512	,262	-,345	-,089	,008	,010	,091	,008	,049
kum	,265	,070	,162	,199	,040	,098	-,202	,041	-,131
toz	,207	,043	,173	,002	,000	,067	-,166	,028	-,105
kil	-,359	,129	-,217	-,216	,047	-,140	,277	,077	,158
pH	,114	,013	,060	-,156	,024	-,138	-,184	,034	-,123
kirec	-,275	,076	-,197	-,109	,012	-,056	-,026	,001	-,040
orgmad	,238	,056	,165	,075	,006	-,024	-,361	,130	-,147
zyyprz	,542	,294	,451	,059	,003	,050	-,008	,000	,002
krctas	,643	,413	,537	,288	,083	,222	-,343	,118	-,267
konglo	-,340	,116	-,295	-,301	,091	-,274	,182	,033	,139
karsk	-,433	,187	-,353	-,078	,006	-,027	,230	,053	,181
disbky	,262	,069	,213	-,114	,013	-,073	,056	,003	,092
duzarz	-,068	,005	-,072	-,007	,000	-,044	-,123	,015	-,110
ondule	-,084	,007	-,064	,072	,005	,081	-,070	,005	-,073
icbuky	-,102	,010	-,066	,046	,002	,036	,188	,035	,135
yamkon	-,356	,127	-,277	-,160	,026	-,110	,245	,060	,177

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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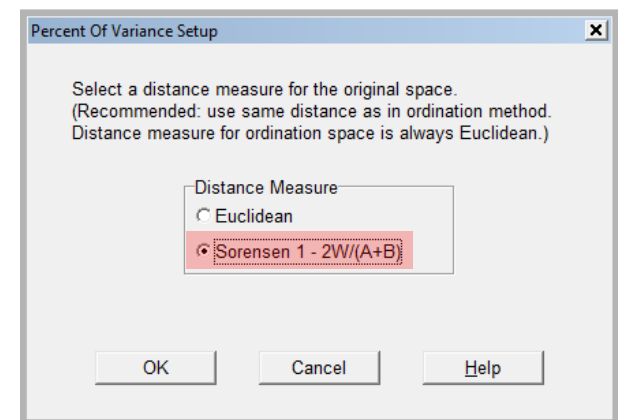
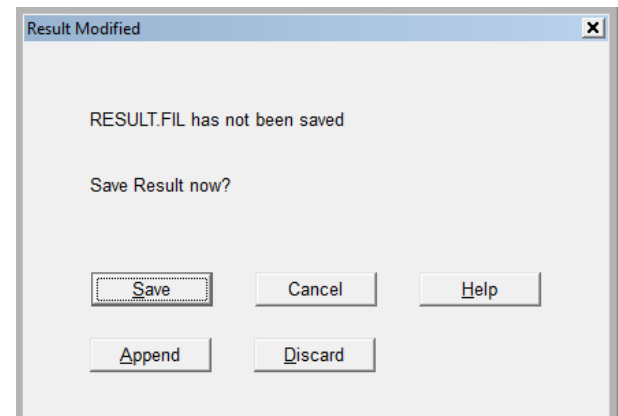
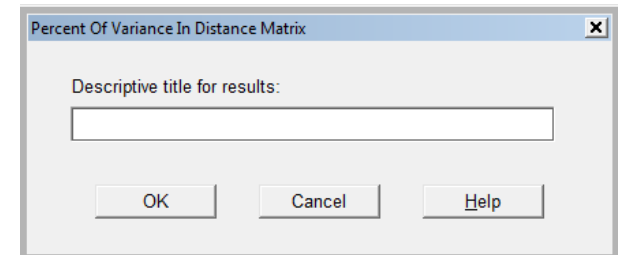


```
***** Output from Graph *****  
PC-ORD Version 3.17  
07.01.2014, 11:01
```

Coefficients of determination for the correlations between ordination distances and distances in the original n-dimensional space:

Axis	Increment	Cumulative
1	, 356	, 356
2	, 173	, 530
3	, 149	, 679

```
Number of entities = 80  
Number of entity pairs used in correlation = 3160  
Distance measure for ORIGINAL distance: Sorensen 1 - 2W/(A+B)
```



Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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Graph

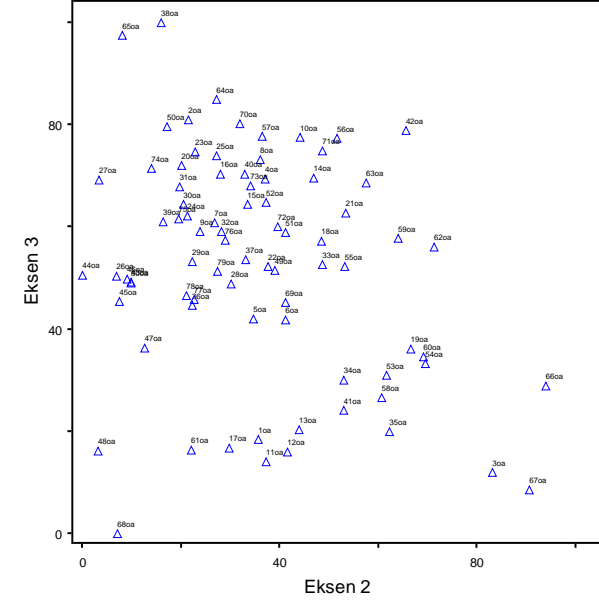
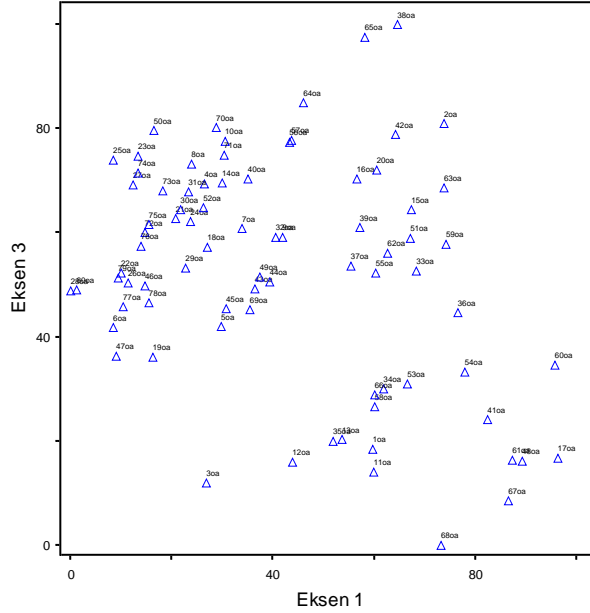
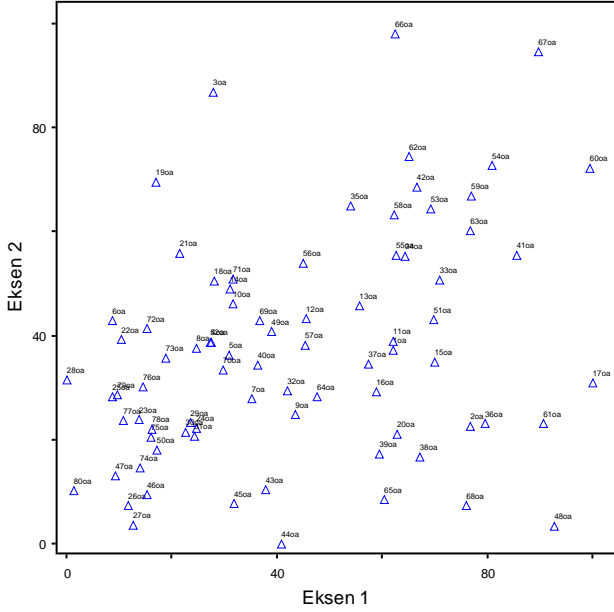
File Edit Graph Axes Scaling Rotate Groups Statistics Options Help

yukslt

2 1 3 1 3 2

Raw % Max Min Max

$\Sigma 1$ $\Sigma 2$ r^2



Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler

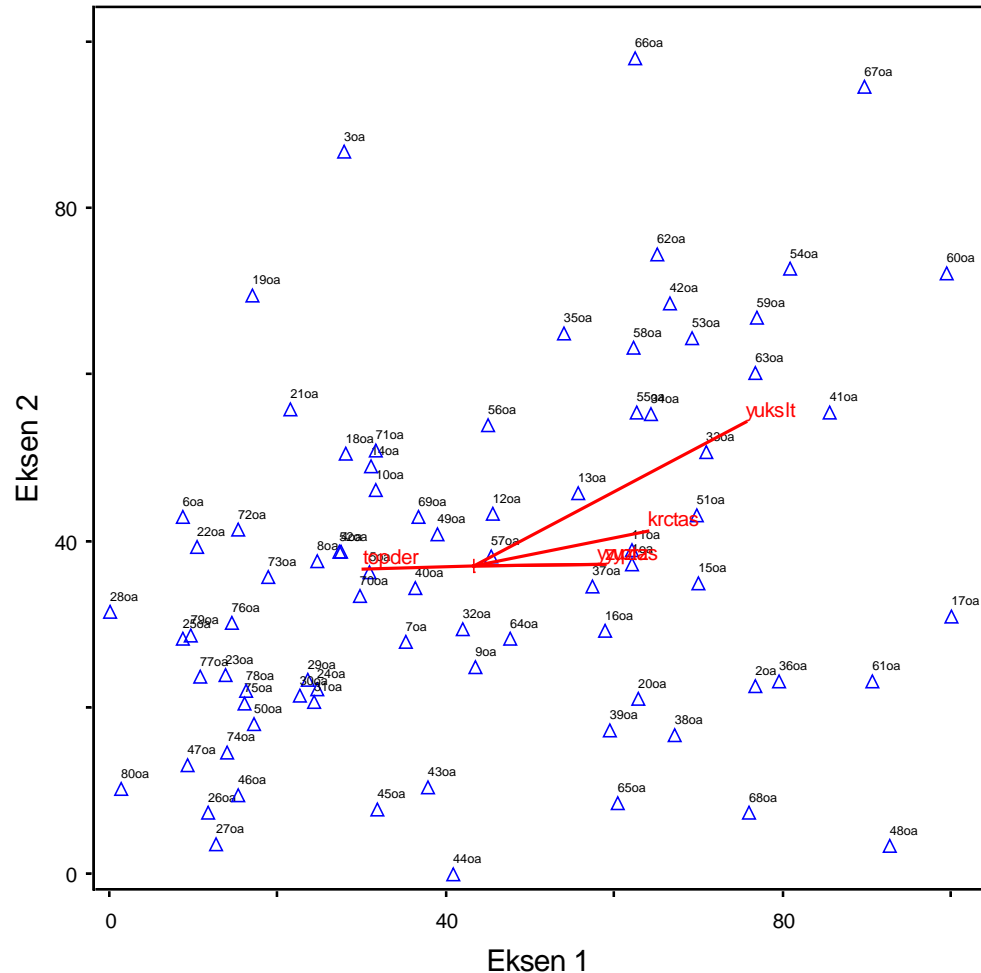


13-19 Ocak 2014/ ANTALYA

Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help

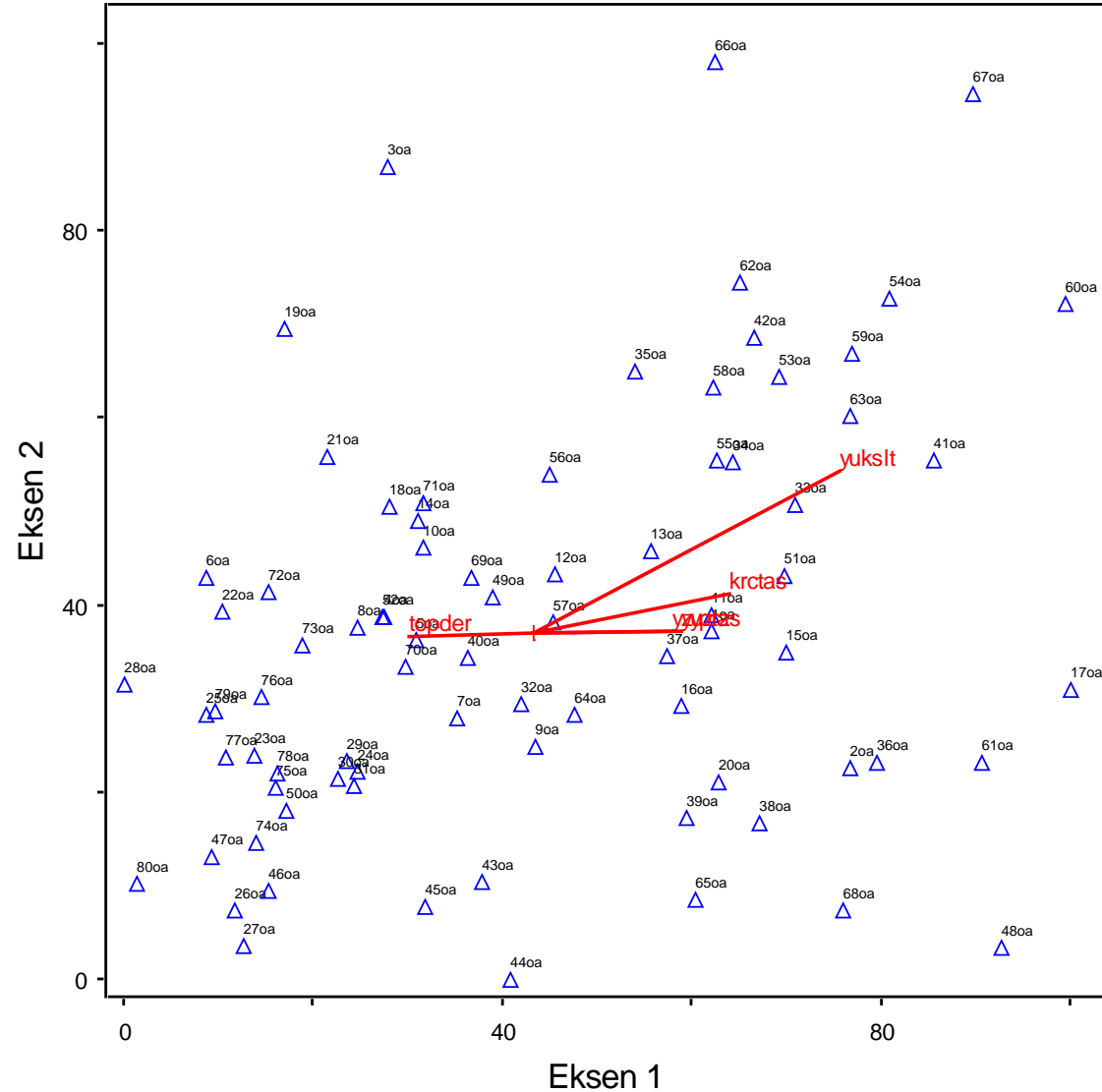
yukslt 200 21 31 32 Raw % Max Min Max $\Sigma 1$ $\Sigma 2$ r^2



Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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Axis:

r

Axis:

	r
yukslt	,803
radinx	,121
egim	-,080
yuztas	,557
topder	-,512
kum	,265
toz	,207
kil	-,359
pH	,114
kirec	-,275
orgmad	,238
zyyprz	,542
krctas	,643
konglo	-,340
karsk	-,433
disbky	,262
duzarz	-,068
ondule	-,084
icbuky	-,102
yamkon	-,356

ArbAnd	-,599
BerCra	,554
CedLib	,404
CelGlb	,175
CisSal	-,520
CotNum	,319
CotCog	-,427
CraOri	,053
CraMon	-,299
DapOle	,293
DapSer	-,186
FonPhl	-,573
FrXOrn	-,072
JasFru	,019
JunCom	,435
JunExc	,490
JunFoe	,318
JunOxy	-,242
MryCom	-,418
NerOle	-,366
OleOle	-,295
PalSpi	-,208
PhlArm	,417
PhlGra	-,229
PhyLat	-,442
PinBru	-,760
PinNig	-,102
PisTer	-,612
PlaOri	-,445
PruDiv	,269
QueCer	-,225
QueCoc	-,164
QueIlx	-,294
QueInf	-,119
QueIth	-,337
RhaOle	,096
RhaRho	,072
RosCan	,205
SorUmb	,212
SprJun	-,145

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



13-19 Ocak 2014/ ANTALYA

Graph

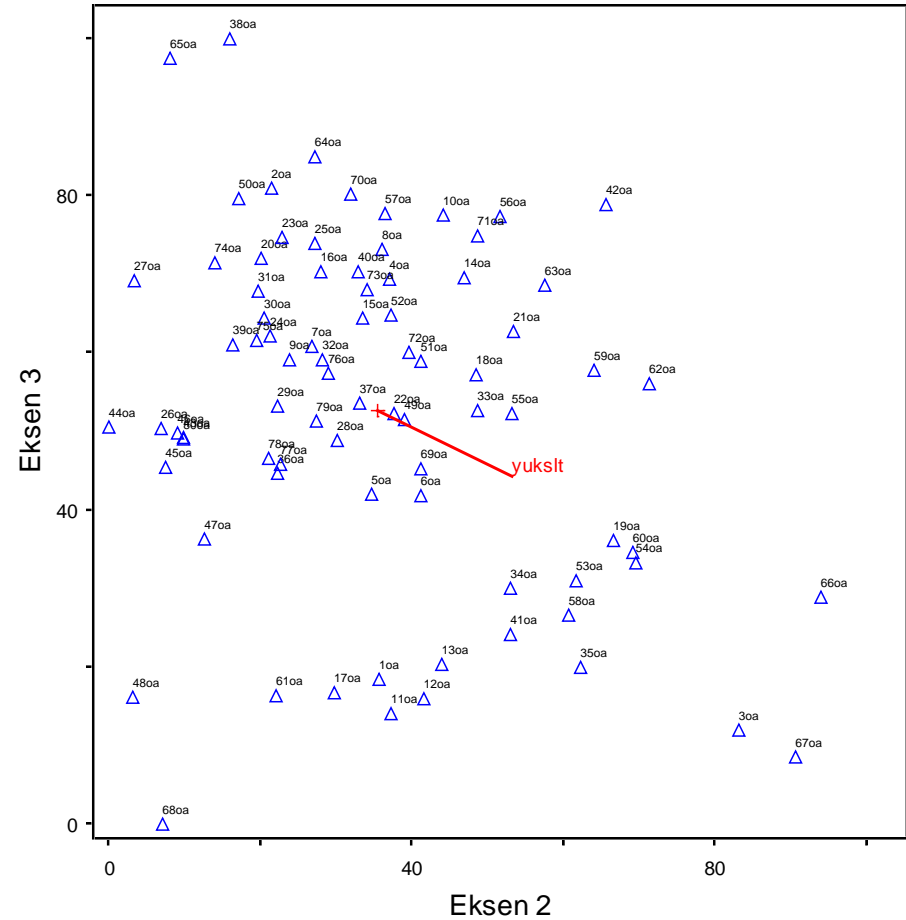
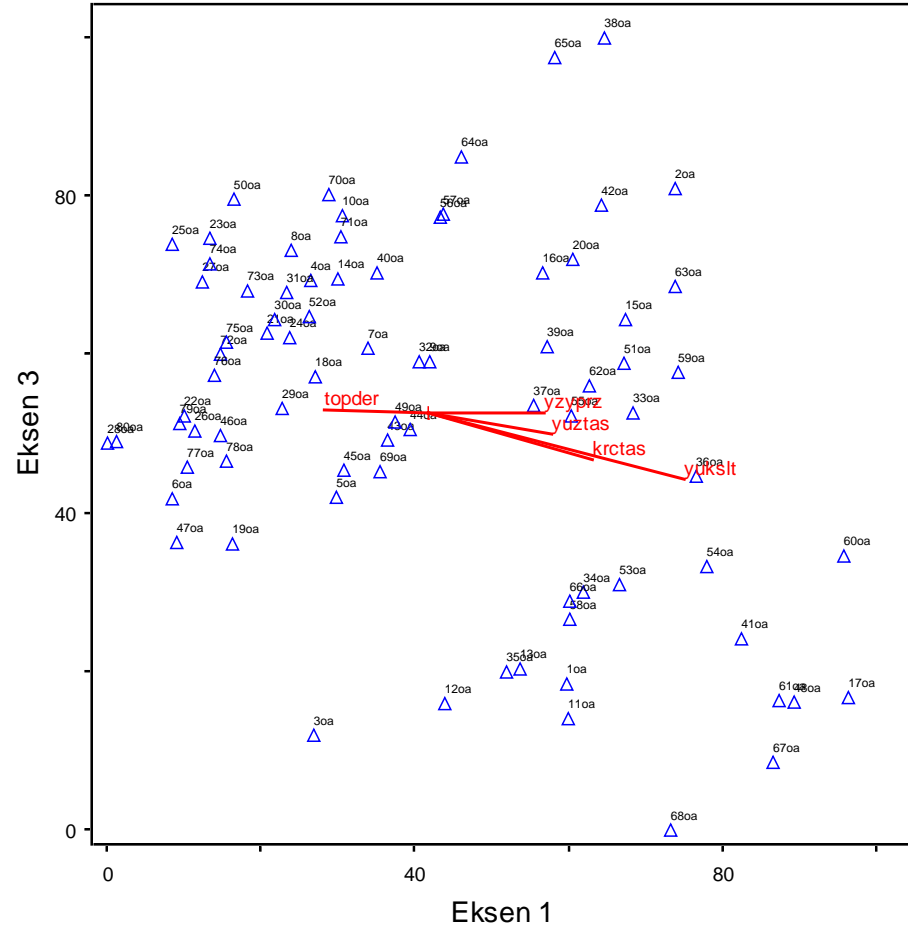
File Edit Graph Axes Scaling Rotate Groups Statistics Options Help

yukslt

21 31 32

Raw % Max Min Max

$\Sigma 1$ $\Sigma 2$ r^2



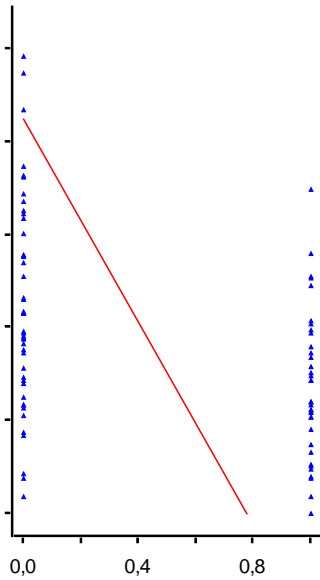
Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



13-19 Ocak 2014/ ANTALYA

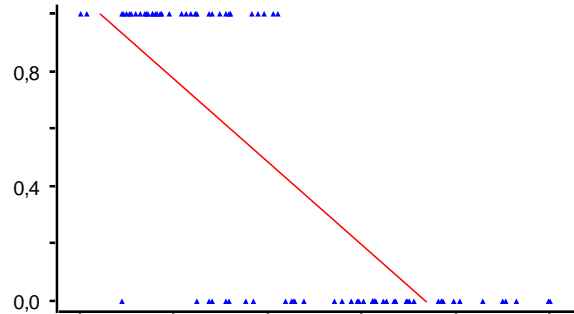
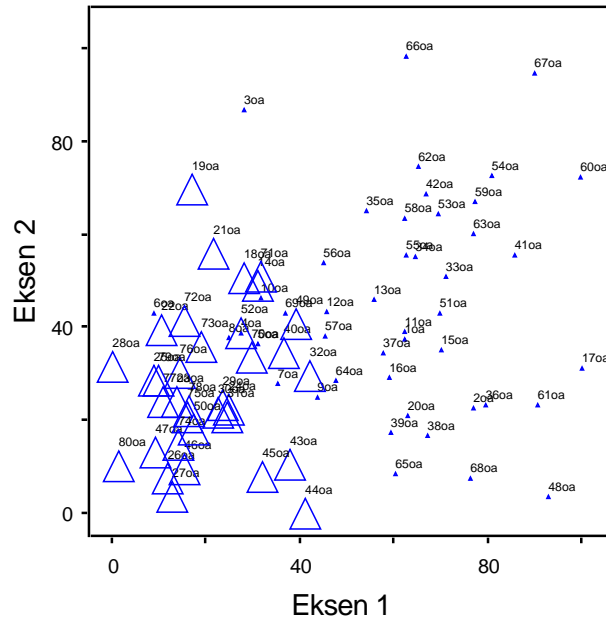
Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help



PinBru

Eksen 1
 $r = -,760$ $\tau = -,628$
Eksen 2
 $r = -,396$ $\tau = -,320$



Axis:

	r
ArbAnd	-,599
BerCra	,554
CedLib	,404
CelGlb	,175
CisSal	-,520
CotNum	,319
CotCog	-,427
CraOri	,053
CraMon	-,299
DapOle	,293
DapSer	-,186
FonPhl	-,573
FrxOrn	-,072
JasFru	,019
JunCom	,435
JunExc	,490
JunFoe	,318
JunOxy	-,242
MryCom	-,418
NerOle	-,366
OleOle	-,295
PalSpi	-,208
PhlArm	,417
PhlGra	-,229
PhyLat	-,442
PinBru	-,760
PinNig	-,102
PisTer	-,612
PlaOri	-,445
PruDiv	,269
QueCer	-,225
QueCoc	-,164
QueIlx	-,294
QueInf	-,119
QueIth	-,337
RhaOle	,096
RhaRho	,072
RosCan	,205
SorUmb	,212
SprJun	-,145

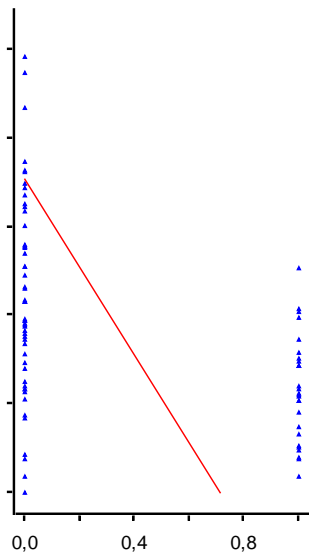
Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



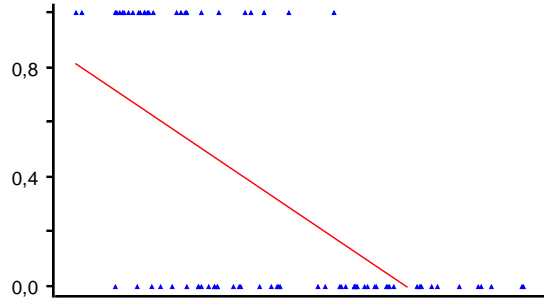
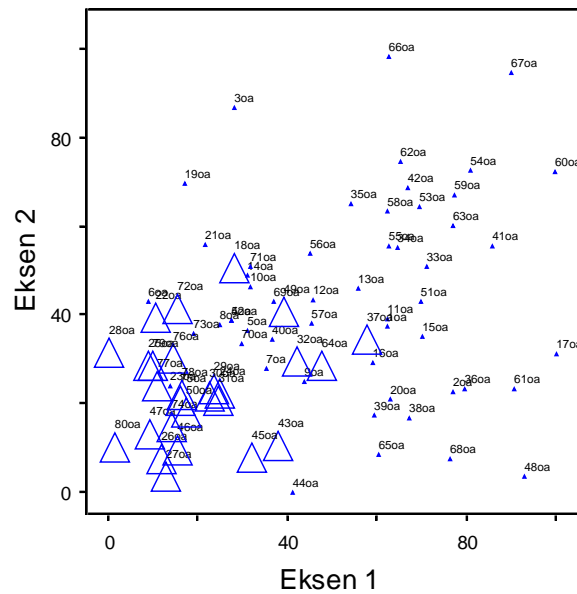
13-19 Ocak 2014/ ANTALYA

Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help



PisTer
Eksen 1
 $r = -.612$ $\tau = -.520$
Eksen 2
 $r = -.455$ $\tau = -.395$



Axis:

	r
ArbAnd	-,599
BerCra	,554
CedLib	,404
CelGlb	,175
CisSal	-,520
CotNum	,319
CotCog	-,427
CraOri	,053
CraMon	-,299
DapOle	,293
DapSer	-,186
FonPhl	-,573
FrxOrn	-,072
JasFru	,019
JunCom	,435
JunExc	,490
JunFoe	,318
JunOxy	-,242
MryCom	-,418
NerOle	-,366
OleOle	-,295
PalSpi	-,208
PhlArm	,417
PhlGra	-,229
PhyLat	-,442
PinBru	-,760
PinNig	-,102
PisTer	-,612
PlaOri	-,445
PruDiv	,269
QueCer	-,225
QueCoc	-,164
QueIlx	-,294
QueInf	-,119
QueIth	-,337
RhaOle	,096
RhaRho	,072
RosCan	,205
SorUmb	,212
SprJun	-,145

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler

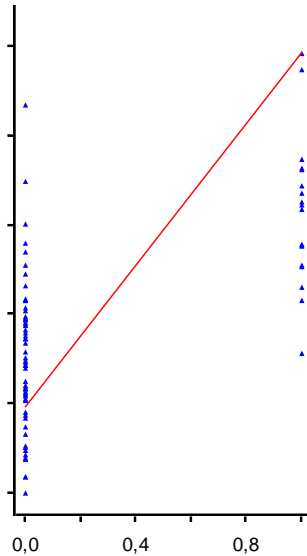


13-19 Ocak 2014/ ANTALYA

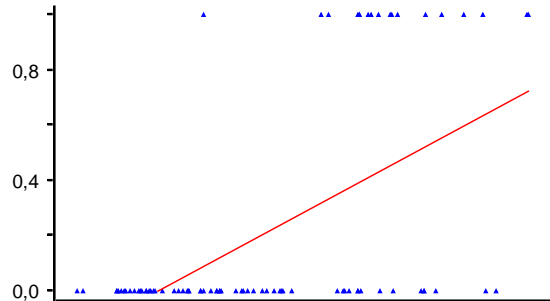
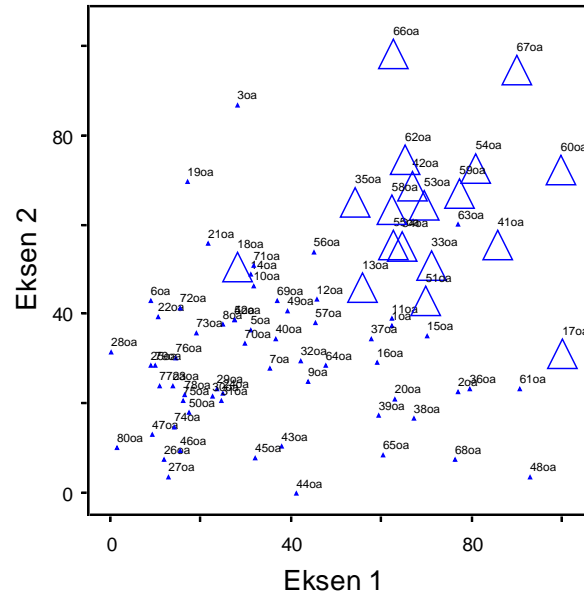
Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help

BerCra
.200
21
31
32
Raw
% Max
Min Max
Σ1
Σ2
r²



BerCra
 Eksen 1
 $r = ,554$ $\tau = ,442$
 Eksen 2
 $r = ,644$ $\tau = ,508$



Axis:

	r
ArbAnd	-,599
BerCra	,554
CedLib	,404
CelGlb	,175
CisSal	-,520
CotNum	,319
CotCog	-,427
CraOri	,053
CraMon	-,299
DapOle	,293
DapSer	-,186
FonPhl	-,573
FrxOrn	-,072
JasFru	,019
JunCom	,435
JunExc	,490
JunFoe	,318
JunOxy	-,242
MryCom	-,418
NerOle	-,366
OleOle	-,295
PalSpi	-,208
PhlArm	,417
PhlGra	-,229
PhyLat	-,442
PinBru	-,760
PinNig	-,102
PisTer	-,612
PlaOri	-,445
PruDiv	,269
QueCer	-,225
QueCoc	-,164
QueIlx	-,294
QueInf	-,119
QueIth	-,337
RhaOle	,096
RhaRho	,072
RosCan	,205
SorUmb	,212
SprJun	-,145

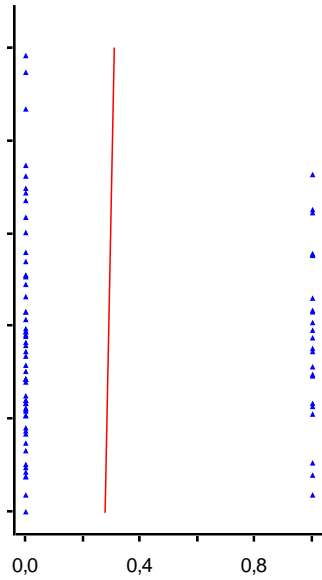
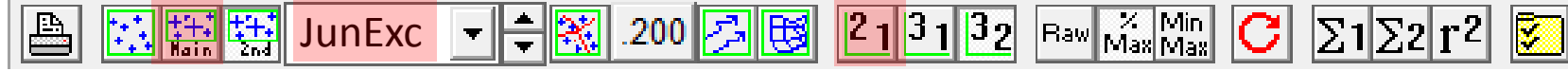
Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



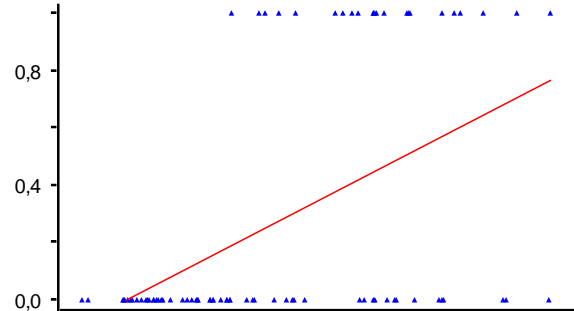
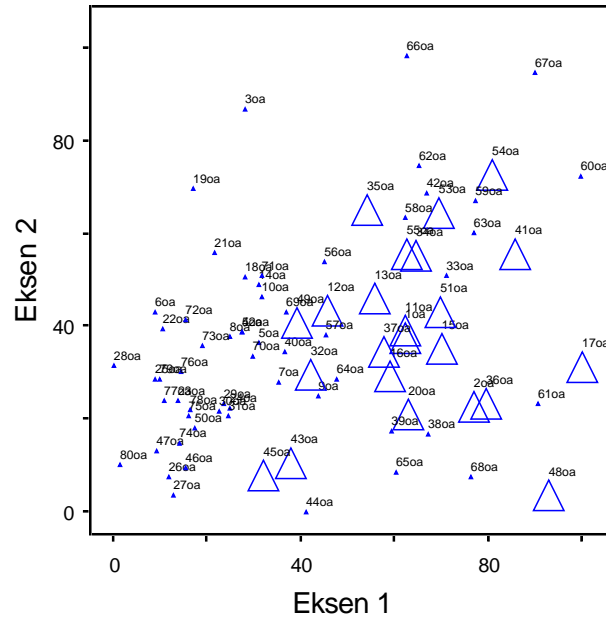
13-19 Ocak 2014/ ANTALYA

Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help



JunExc
Eksen 1
r = ,490 tau = ,410
Eksen 2
r = ,017 tau = ,057



Axis:

	r
ArbAnd	-,599
BerCra	,554
CedLib	,404
CelGlb	,175
CisSal	-,520
CotNum	,319
CotCog	-,427
CraOri	,053
CraMon	-,299
DapOle	,293
DapSer	-,186
FonPhl	-,573
FrxOrn	-,072
JasFru	,019
JunCom	,435
JunExc	,490
JunFoe	,318
JunOxy	-,242
MryCom	-,418
NerOle	-,366
OleOle	-,295
PalSpi	-,208
PhlArm	,417
PhlGra	-,229
PhyLat	-,442
PinBru	-,760
PinNig	-,102
PisTer	-,612
PlaOri	-,445
PruDiv	,269
QueCer	-,225
QueCoc	-,164
QueIlx	-,294
QueInf	-,119
QueIth	-,337
RhaOle	,096
RhaRho	,072
RosCan	,205
SorUmb	,212
SprJun	-,145

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler

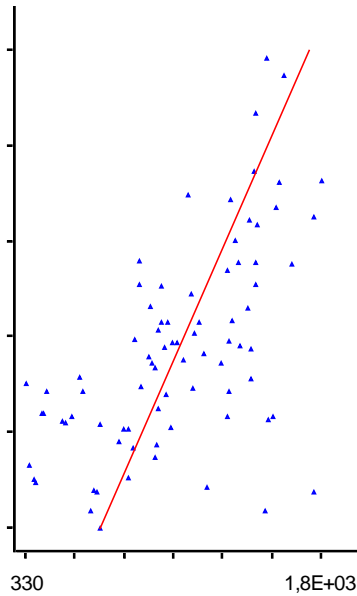


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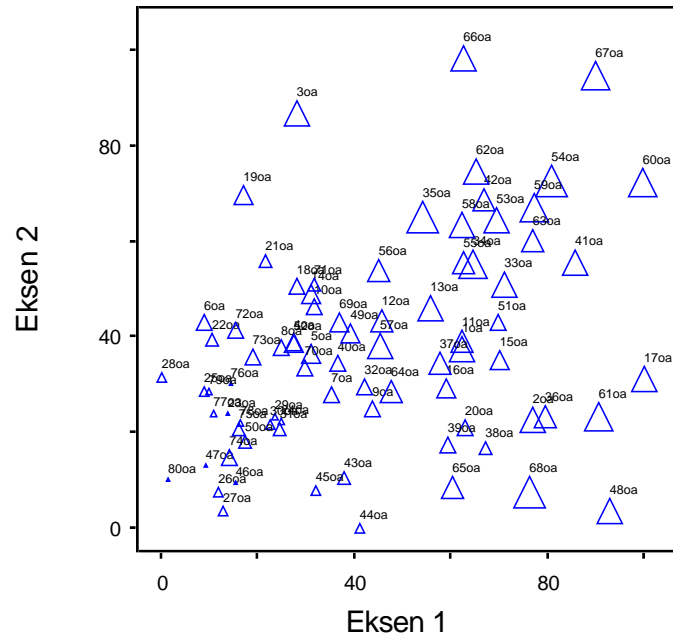
Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help

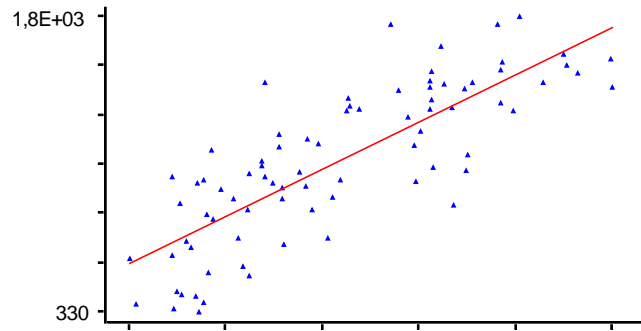
yukslt 200 21 31 32 Raw % Max Min Max $\Sigma 1 \Sigma 2 r^2$



yukslt
Eksen 1
 $r = ,803$ $\tau = ,618$
Eksen 2
 $r = ,585$ $\tau = ,425$



Axis:	r
yukslt	,803
radinx	,121
egim	-,080
yuztas	,557
topder	-,512
kum	,265
toz	,207
kil	-,359
pH	,114
kirec	-,275
orgmad	,238
zyyprz	,542
krctas	,643
konglo	-,340
karsk	-,433
disbky	,262
duzarz	-,068
ondule	-,084
icbuky	-,102
yamkon	-,356



Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler

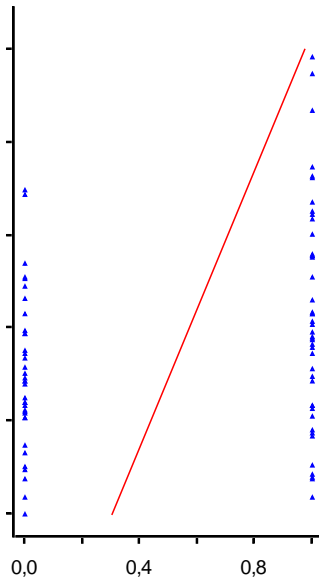


13-19 Ocak 2014/ ANTALYA

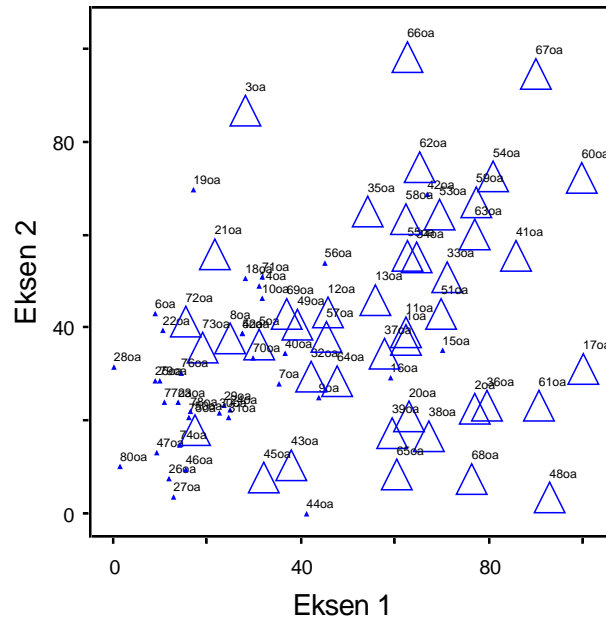
Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help

krctas 200 21 31 32 Raw % Max Min Max $\Sigma 1$ $\Sigma 2$ r^2

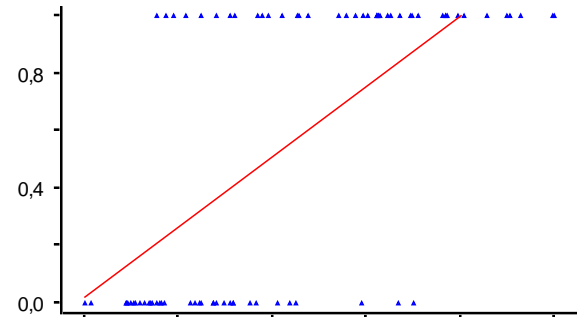


krctas
Eksen 1
 $r = ,643$ $\tau = ,537$
Eksen 2
 $r = ,288$ $\tau = ,222$



Axis:

	r
yukslt	,803
radinx	,121
egim	-,080
yuztas	,557
topder	-,512
kum	,265
toz	,207
kil	-,359
pH	,114
kirec	-,275
orgmad	,238
zyyprz	,542
krctas	,643
konglo	-,340
karsk	-,433
disbky	,262
duzarz	-,068
ondule	-,084
icbuky	-,102
yamkon	-,356



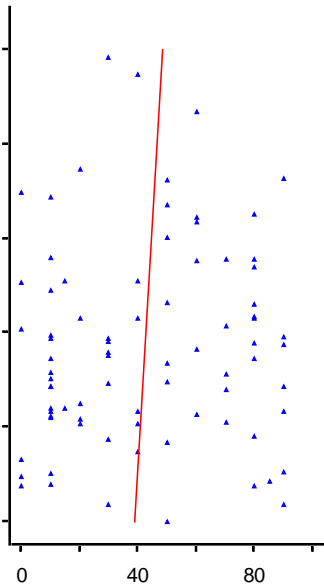
Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



13-19 Ocak 2014/ ANTALYA

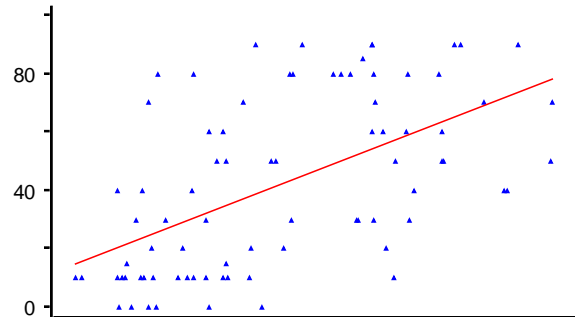
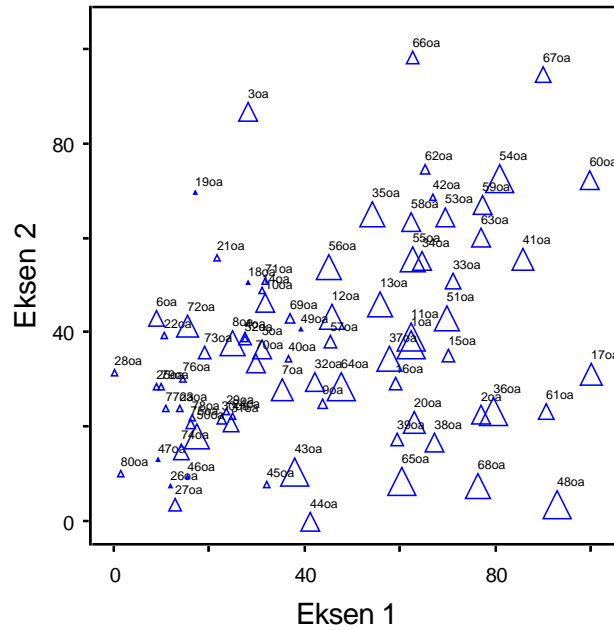
Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help



yuztas

Eksen 1
 $r = ,557$ $\tau = ,409$
Eksen 2
 $r = ,071$ $\tau = ,062$



Axis:

	r
yukslt	,803
radinx	,121
egim	-,080
yuztas	,557
topder	-,512
kum	,265
toz	,207
kil	-,359
pH	,114
kirec	-,275
orgmad	,238
zyyprz	,542
krctas	,643
konglo	-,340
karsk	-,433
disbky	,262
duzarz	-,068
ondule	-,084
icbuky	-,102
yamkon	-,356

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler

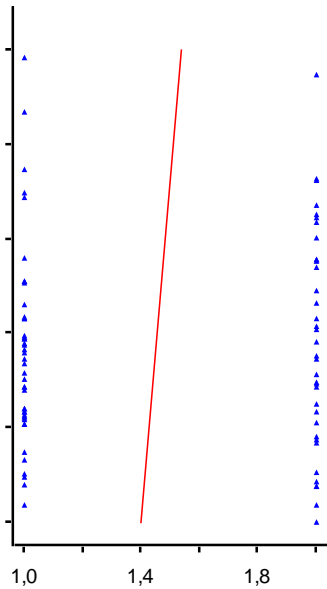


13-19 Ocak 2014/ ANTALYA

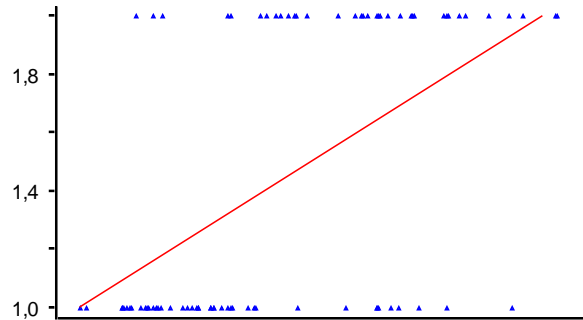
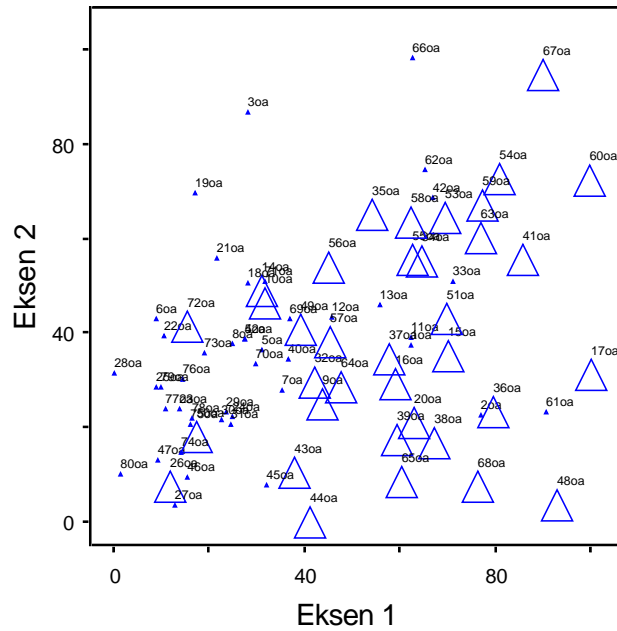
Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help

Graph toolbar with icons for file operations, graph types, and statistics. The 'yuzprz' variable is selected in the toolbar.



yuzprz
Eksen 1
r = ,542 tau = ,451
Eksen 2
r = ,059 tau = ,050



Axis:

	r
yukslt	,803
radinx	,121
egim	-,080
yuztas	,557
topder	-,512
kum	,265
toz	,207
kil	-,359
pH	,114
kirec	-,275
orgmad	,238
yzyprz	,542
krctas	,643
konglo	-,340
karsk	-,433
disbky	,262
duzarz	-,068
ondule	-,084
icbuky	-,102
yamkon	-,356

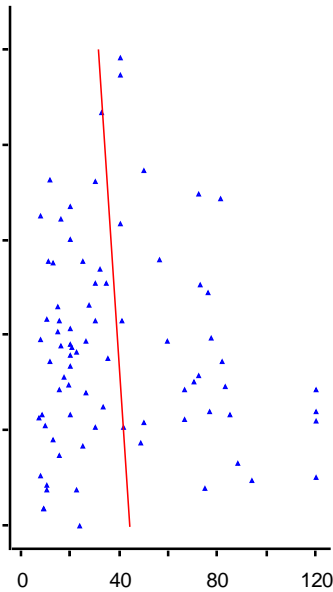
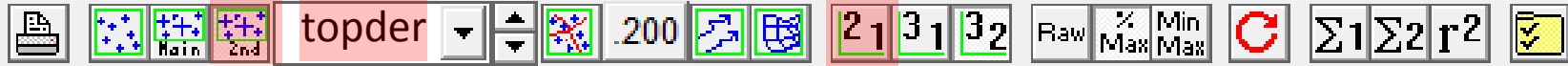
Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



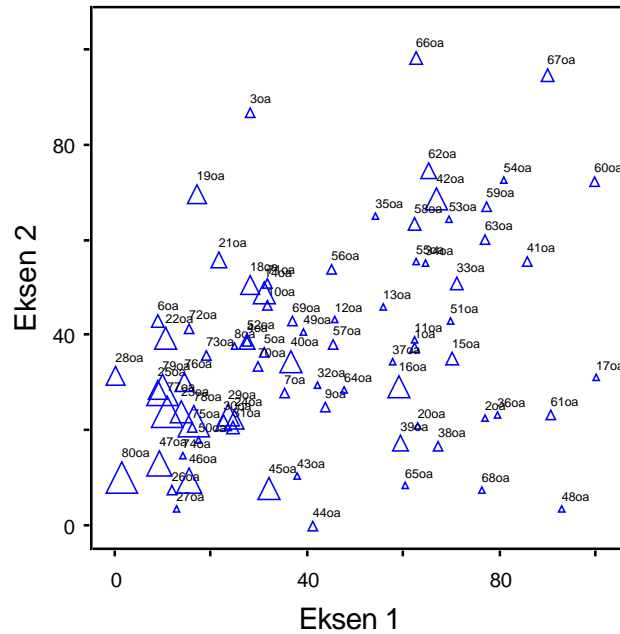
13-19 Ocak 2014/ ANTALYA

Graph

File Edit Graph Axes Scaling Rotate Groups Statistics Options Help

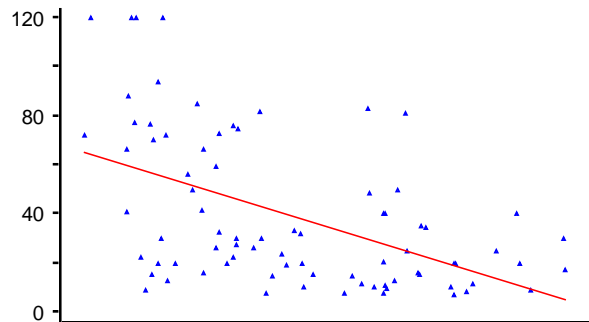


topder
Eksen 1
 $r = -,512$ $\tau = -,345$
Eksen 2
 $r = -,089$ $\tau = ,010$



Axis:

	r
yukslt	,803
radinx	,121
egim	-,080
yuztas	,557
topder	-,512
kum	,265
toz	,207
kil	-,359
pH	,114
kirec	-,275
orgmad	,238
zyyprz	,542
krctas	,643
konglo	-,340
karsk	-,433
disbky	,262
duzarz	-,068
ondule	-,084
icbuky	-,102
yamkon	-,356



Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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İlk işlemlerin ardından Cluster ve Twinspan gruplarını doğrudan çağırırız...



PC-ORD

File Edit Modify Data Summary Ordination Graph Groups Window Options Help

Open... Main Matrix F7
Close... Second Matrix F8
Save As... Graph File F9
Append Results F4 Result File F10
Import Matrix
Export Matrix...
Delete File
Switch Matrix...
Memory Requirements
Print...
Print Setup...
Font...
Dos Shell
Exit

Graph - GRAPH.FIL

	q	q	q	q	q	q
Cra	CedLib	CelGlb	CisSal	CotNum	CotCog	CraOri
0	1	0	1	0		
0	0	0	0	0		
0	0	0	1	0		
0	0	0	0	0		
0	0	0	0	0		
0	0	0	0	0		
0	0	0	0	0		
0	0	0	0	0		
0	0	0	0	0		

Open Second Matrix

Dosya adı: CLUSTE~1.WK1
Klasör: d:\...pcordd~1\grupan~1

Listelenecek Dosya Türü: *.wk1 (Lotus 1-2-3)
Sürücü: D:

Second - CVM_NEW.WK1

80	ornek						
20	degisken						
	q	q	q	q	q	q	q
	yukslt	radinx	egim	yuztas	topder	kum	toz
oa1	1462	0.0669872	95	90	20.5	61.8608	29.6
oa2	1545	0.982962	10	60	7.1875	29.8227	34.0
oa3	1485	0.0669872	80	60	32.8125	73.6378	19.7716
oa4	1089	0.933012	60	30	26.48	17.6568	23.2249
oa5	1224	0.982962	25	60	22.04	16.1992	23.0451
oa6	1010	0.0669872	75	40	41.12	6.81018	14.4961
oa7	1030	0.982962	55	70	26.04	25.1448	14.5551
oa8	1028	0.982962	65	80	15.76	70.0499	12.2746
oa9	990	0.629409	20	20	33.12	22.7328	23.197

Pearson and Kendall Correlations with Ordination Axes N= 80

Axis:	1	2	3						
	r	r-sq	tau	r	r-sq	tau	r	r-sq	tau
yukslt	-,521	,271	-,320	-,199	,040	-,137	,502	,252	,344
radinx	,043	,002	,022	,308	,095	,188	,180	,032	,157
egim	,024	,001	-,010	-,346	,120	-,205	,035	,001	,054
yuztas	-,167	,028	-,089	,130	,017	,097	,234	,055	,169
topder	,092	,008	,033	-,132	,017	-,143	-,376	,142	-,115

Main:VVM_P~2.WK1 Second:CVM_NEW.WK1 Graph:GRAPH.FIL Result: F4 Append Results

Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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PC-ORD

File Edit Modify Data Summary Ordination **Graph** Groups Window Options Help

Main - VVM_P-2.WK1

Graph Ordination

	ArbAnd	BerCra	CedLib	CelGlb	CisSal	CotNum	CotCog	CraOri
80								
42								
10a	0	0	0	1	0	1	0	0
20a	0	0	0	0	0	0	0	0
30a	0	0	0	0	0	1	0	0
40a	0	0	0	0	0	0	0	0
50a	0	0	0	0	0	0	0	1
60a	0	0	0	0	0	0	0	0
70a	0	0	0	0	0	0	0	0
80a	0	0	0	0	0	0	0	0
90a	0	0	0	0	0	0	0	0

Graph - GRAPH.FIL

80				
10a	.18300	-.24957	-.04819	-.90733
20a	.12371	.66699	.55197	-.21202
30a	.11070	-1.35450	.21477	-.68210
40a	.41181	-.13702	.35753	.18600
50a	.53655	-.38095	.12479	-.24032
60a	.61344	-.69344	.05959	.01368
70a	.59929	-.07162	.32079	-.10846
80a	.55309	-.18949	.49896	.20459
90a	.53024	.02493	.29123	-.19763
100a	.49938	-.22995	.67014	.13323
110a	-.35189	-.16599	-.47613	-.65687
120a	.18368	-.48048	-.21368	-.69565
130a	.04017	-.36428	-.09888	-.71984
140a	.13443	-.13590	.31893	.25070
150a	-.31437	.44739	.10582	-.06670
160a	-.12787	.40689	.13702	.12258
170a	-.30741	.29289	-.13847	-1.29786

Second - CLUSTE-1.WK1

80	ornek
1	sinif
	c
	Cluster_
oa1	1
oa2	2
oa3	1
oa4	3
oa5	3
oa6	3
oa7	3
oa8	3
oa9	3

Result -

***** Output from Graph *****

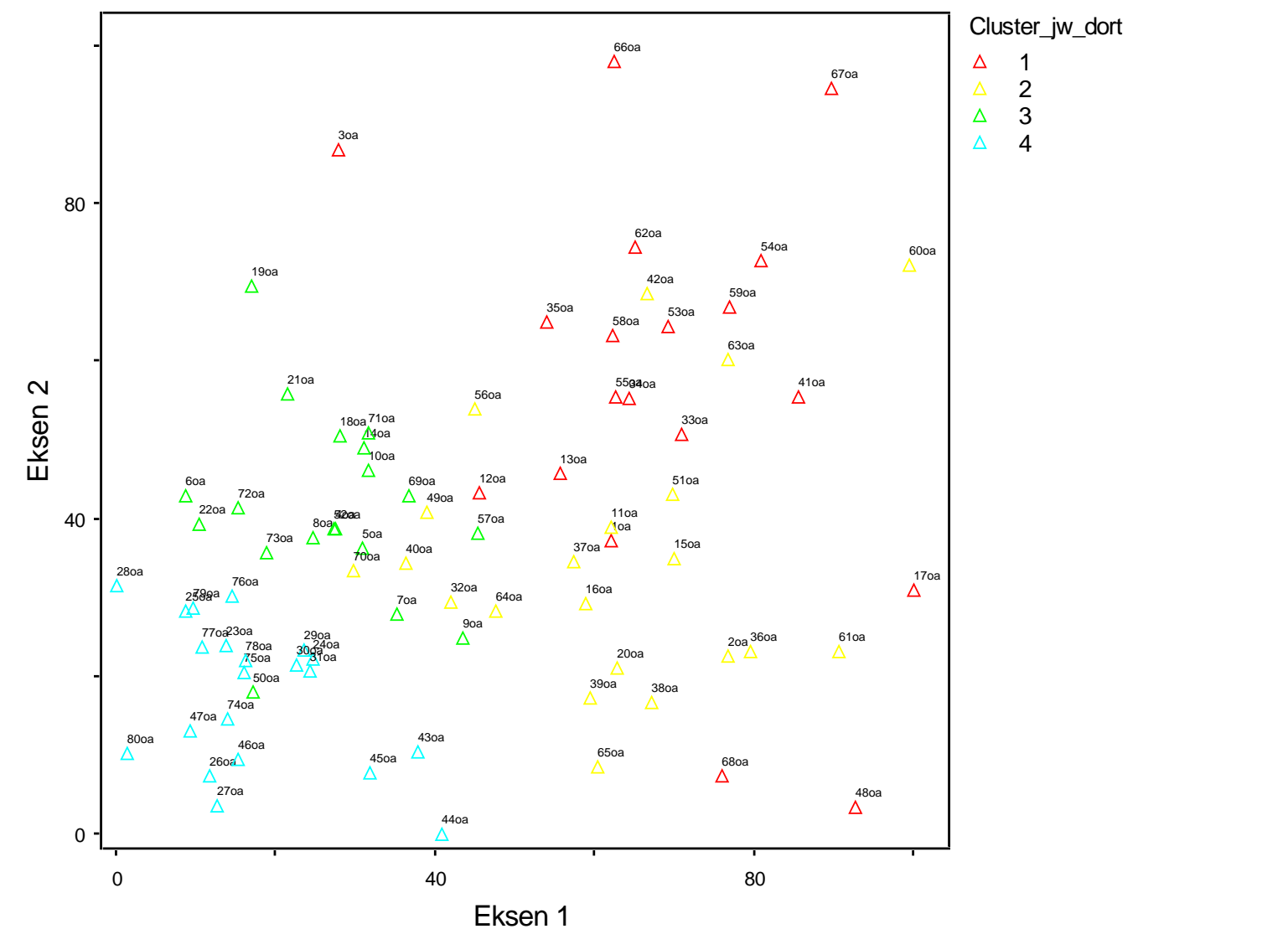
PC-ORD Version 3.17
07.01.2014, 11:46

Pearson and Kendall Correlations with Ordination Axes N= 80

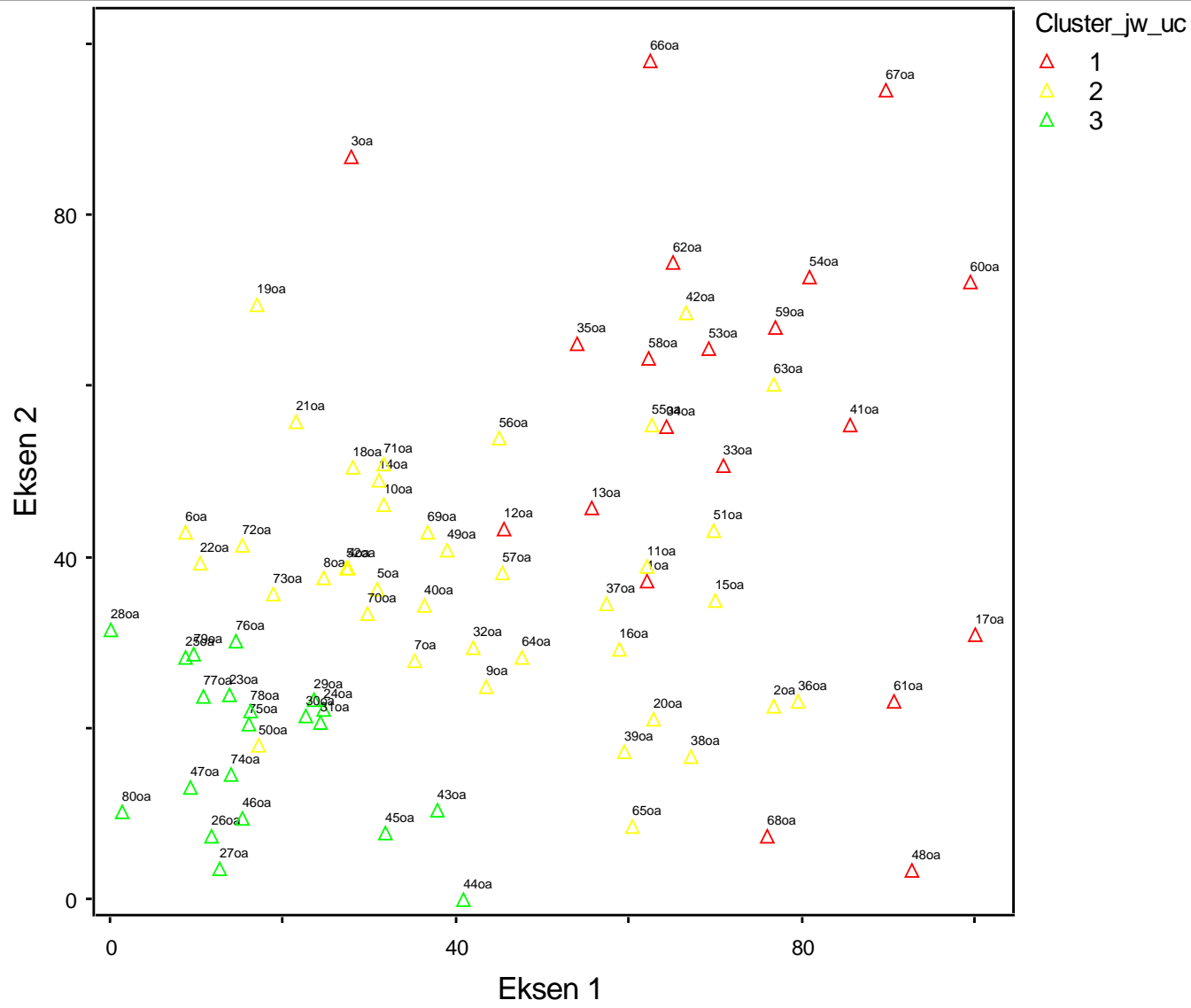
Axis:	1			2			3		
	r	r-sq	tau	r	r-sq	tau	r	r-sq	tau
yukslt	-.521	.271	-.320	-.199	.040	-.137	.502	.252	.344
radinx	.043	.002	.022	.308	.095	.188	.180	.032	.157
egim	.024	.001	-.010	-.346	.120	-.205	.035	.001	.054
yuztas	-.167	.028	-.089	.130	.017	.097	.234	.055	.169
topder	.092	.008	.033	-.132	.017	-.143	-.376	.142	-.115

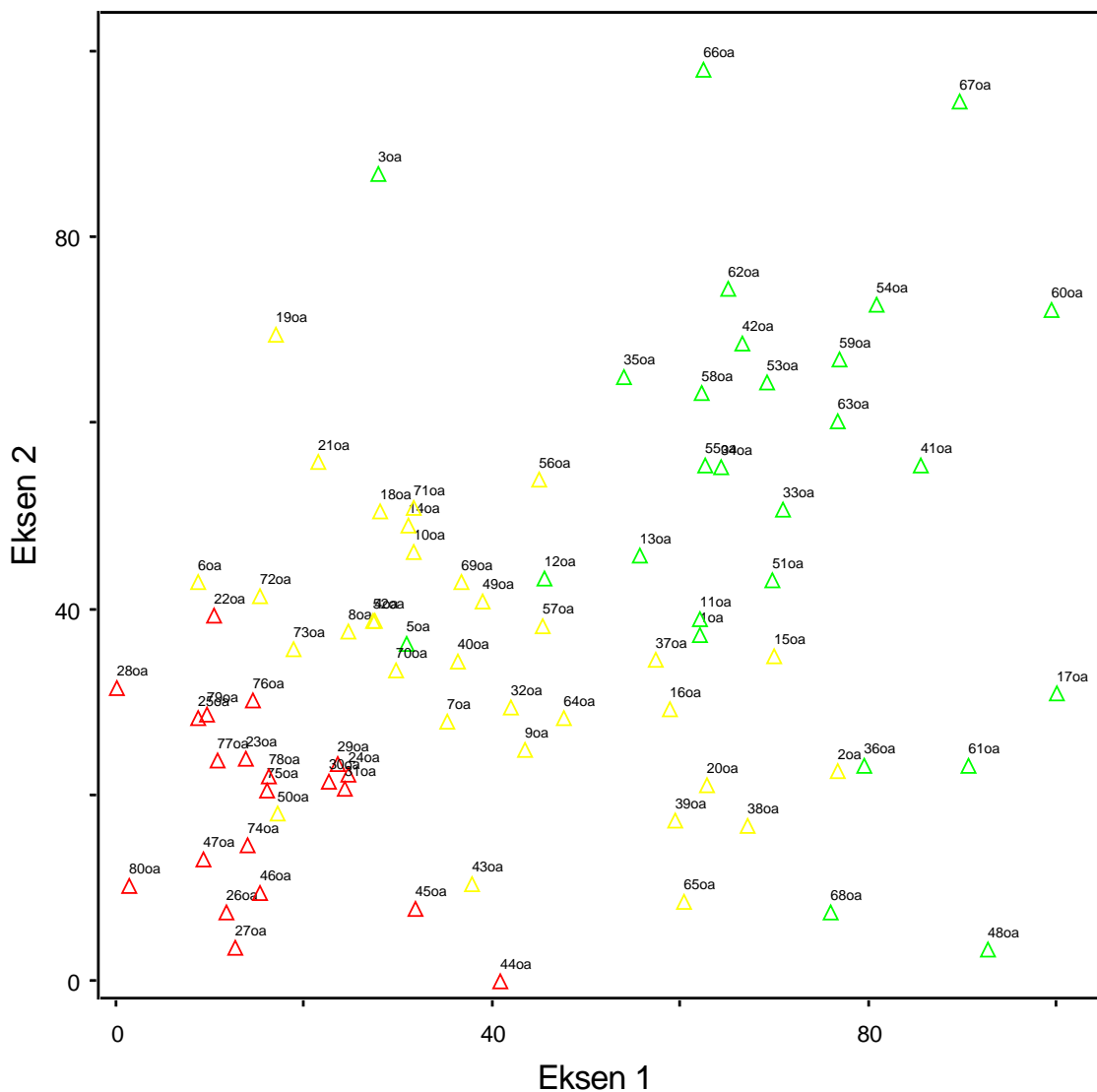
Main:VVM_P-2.WK1 Second:CLUSTE-1.WK1 Graph:GRAPH.FIL Result: F4 Append Results

Graph toolbar icons: Print, Main, End, .200, Rotate, Groups, Statistics (21, 31, 32), Raw, % Max, Min Max, Refresh, Sum 1, Sum 2, r2, Checkmark.



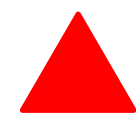
Graph toolbar with icons for file operations, zooming (Main, End), navigation (Home, Back), and statistical functions (Raw, % Max, Min Max, Sum 1, Sum 2, r², and a checkmark).





grup
 △ 1
 △ 2
 △ 3

TWINSpan 3
 indikator



PinBru
 ArbAnd
 CotCog
 MyrCom
 PisTer
 NerOle

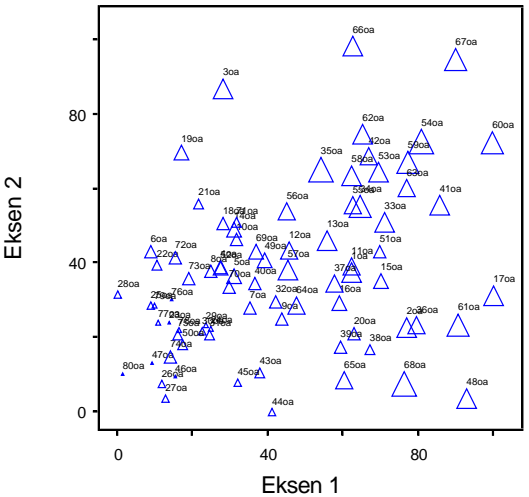
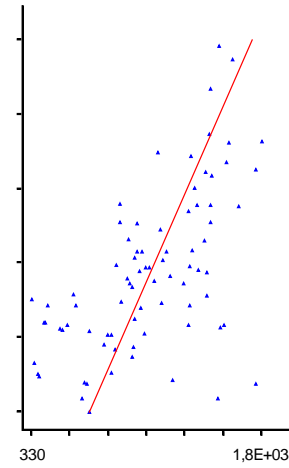
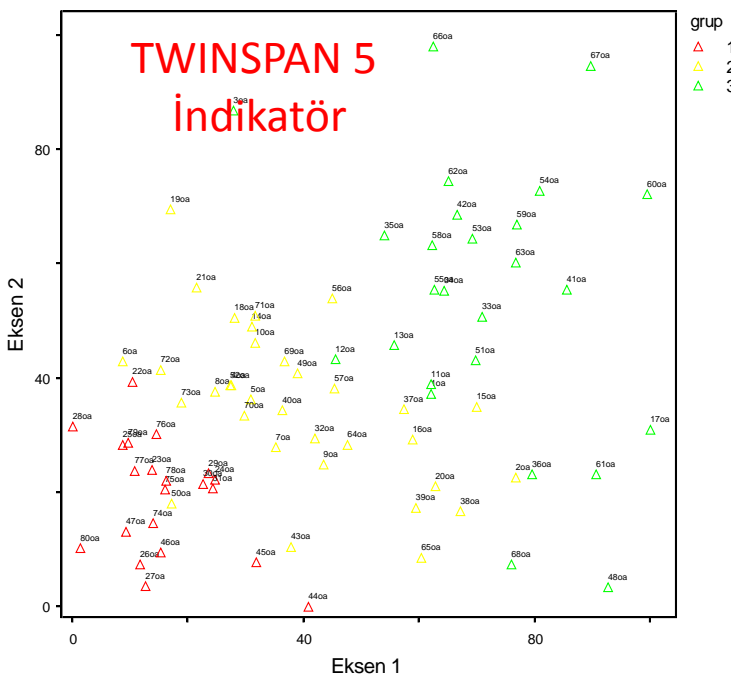


PinNig
 JasFru
 JunExc

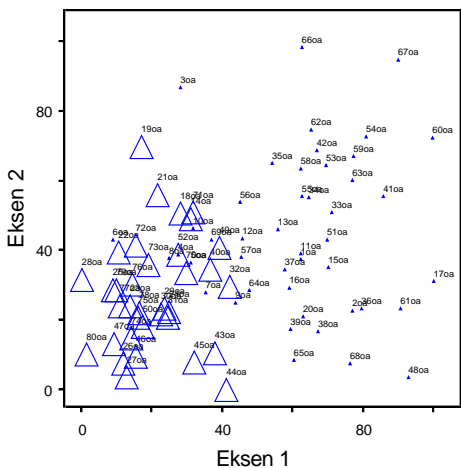
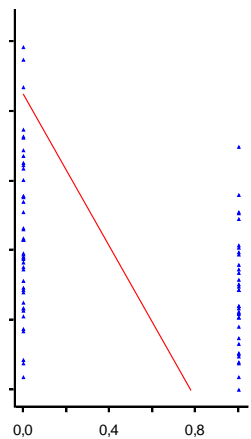
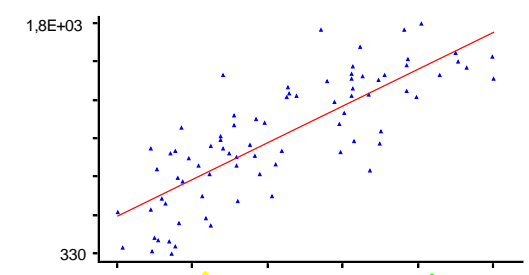


BerCra
 CedLib
 JunExc
 JunCom
 CotNum
 DapOle
 RosCan

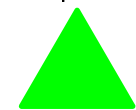
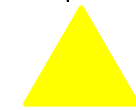
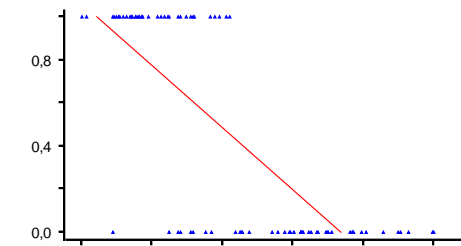
TWINSPAN 5 İndikatör



yukslt
Eksen 1
 $r = ,803$ $\tau = ,618$
Eksen 2
 $r = ,585$ $\tau = ,425$



FBu
Eksen1
 $r = -,70$ $\tau = ,68$
Eksen2
 $r = -,36$ $\tau = ,30$



ArbAnd
CotCog
MryCom
CisSal
NerOle
PinBru
PisTer
Quellx
VitAgn

CraOri
JasFru
JunExc
PinNig

BerCra
CedLib
CotNum
JunCom
JunExc



13-19 Ocak 2014/ ANTALYA

TEŞEKKÜRLER

