



13-19 Ocak 2014/ ANTALYA

TWINSpan (İki Yönlü Gösterge Analizi) ANALİZİ

(CAP-Community Analysis Package
Uygulaması)

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Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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CAP, programına vejetasyon veri matrisi çağrılır.



CAP 4.1.3

File Edit Groups Ordination TWINSPAN Clustering Similarity Association Experimental Compare Help

Open

Reopen

New

Close

Export...

Save

Save As

Print...

Printer Setup

Exit

Aç

ANTALYA-VEJETASYON CAP-TWINSKAN Asama-1-twinspan Ara: Asama-1-twinspan

Düzenle	Yeni klasör	Ad	Değiştirme tarihi	Tür	Boyut
		CAP_TWINSKAN	03.01.2014 22:49	Dosya klasörü	
		VVM_	03.01.2014 16:21	Microsoft Office E...	8 KB

Dosya Adı: csv (Comma Delimited)

Aç İptal

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CAP 4.1.3 - WVM

File Edit Groups Ordination **Twinspan** Similarity Association Experimental Compare Help

Input Data **Twinspan**

Promote Demote Move Right Move Left Label Rows Label Columns

	oa1	oa2	oa3	oa4	oa5	oa6	oa7	oa8	oa9	oa10	oa11	oa12	oa13	oa14	oa15	oa16	oa17	oa18	oa19	oa20	oa21	oa22	oa23	oa24	oa25	oa26	oa27	oa28	oa29	oa30	oa31	oa32	oa33	oa34	oa35	oa36	oa37	oa38	oa39	oa40	o					
ArbAnd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0					
BerCr	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	0	0	0	0	0	0	0	0	0	0	0				
CedLib	0	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	0			
CelGib	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	0	0	0	0	0	0	0	0	0	0	0			
CisSal	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	0	0	0	0	0	0	0	0	0	0	0	0			
CotNum	1	0	1	0	0	0	0	0	0	0	1	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			
CotCog	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	0	0	0	0	0	0	0	0	0	0	0	0			
CraOri	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	0	0	0	0	0	0	0			
CraMon	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	0	0	0	0	0	0	0	0	0	0	0	0			
DapOle	1	0	0	0	1	0	1	0	1	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	0		
DapSer	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	0	0	0	0	0	0	0	0	0	0	0	0	0		
FonPhi	0	0	0	1	1	1	1	1	0	0	1	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	0		
FrzOr	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	0	0	0	0	0	0	0		
JasFru	0	0	0	1	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	0		
JunCom	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	0	0	0	0	0	0	0	0	0	0	0	0	0		
JunExc	1	1	0	0	0	0	0	0	0	0	0	1	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	0	
JunFoe	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
JunOxy	1	0	0	1	1	1	0	0	1	0	1	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	0	0	
MpCom	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
NerOle	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
OleOle	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PalSpi	0	0	0	0	0	0	0	0	0	0	1	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	0	0	
PhlArm	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PhlGra	0	1	0	1	1	0	1	1	1	1	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	0	0	0	
PhyLat	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PinBru	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PinNig	1	0	1	1	1	1	1	1	1	1	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	0	0	0	0
PisTer	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PlaOri	0	0	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	0	0	0
PruDiv	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QueCer	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QueCoc	0	1	0	1	0	0	1	1	1	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	0	0	0	0	0
QueL	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Setup for TWINSpan

Cut Levels

Data Type

% coverage Frequency Pres/abs Custom

CutValues

0 N/A N/A N/A N/A N/A N/A N/A N/A

Options

Maximum number of Indicators per division

Maximum level of divisions

Minimum size of group to be divided

Weighting

1 1 1 1 1 1 1 1 1

Indicator levels

1 2 3 4 5 6 7 8 9

Help Cancel OK

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CAP 4.1.3 - VVM_

File Edit Groups Ordination Twinspan Clustering Similarity Association Experimental Compare Help

QUADRAT DIVISION 1 Number of quadrats in cluster = 80
eigenvalue = 0,535991 number of iterations = 3
Indicators and their sign
PinBru [-];
BerCra [+];
QueCoc [-];
StyOff [-];
The maximum indicator score for the negative group = -1
The minimum indicator score for the positive group = 0
Negative group: 2 Number of objects = 54 comprising:
oa2, oa4, oa5, oa6, oa7, oa8, oa9, oa10, oa14, oa15, oa16, oa18, oa19, oa20, oa21, oa22, oa23, oa24, oa25, oa26, oa27, oa28, oa29, oa30, oa31, oa32, oa37, oa38, oa39, oa40, oa43, oa44, oa45, oa46, oa47, oa49, oa50, oa52, oa56, oa57, oa64, oa65, oa69, oa70, oa71, oa72, oa73, oa74, oa75, oa76, oa77, oa78, oa79, oa80,
The borderline negative group: Number of objects = 7 comprising:
oa2, oa5, oa15, oa37, oa39, oa56, oa69,
The positive group: 3 Number of objects = 26 comprising:
oa1, oa3, oa11, oa12, oa13, oa17, oa33, oa34, oa35, oa36, oa41, oa42, oa48, oa51, oa53, oa54, oa55, oa58, oa59, oa60, oa61, oa62, oa63, oa66, oa67, oa68,
The borderline positive group: Number of objects = 1 comprising:
oa51,
The misclassified positive: Number of objects = 2 comprising:
oa36, oa63,
Variables preferring the negative group of quadrats
ArbAnd 1 (20, 0) CisSal 1 (16, 0) CraMon 1 (11, 1) FonPhl 1 (28, 3) PalSpi 1 (15, 1) PhlGra 1 (30, 3) PhylLat 1 (28, 0) PinBru 1 (35, 0) PisTer 1 (27, 0) PlaOri 1 (11, 0) QueCoc 1 (43, 8) StyOff 1 (29, 0)
Variables biased towards the positive group of quadrats
BerCra 1 (1, 17) CedLib 1 (1, 10) CotNum 1 (1, 12) DapOle 1 (10, 12) JunCom 1 (0, 7) JunExc 1 (9, 14) PruDiv 1 (6, 10) RosCan 1 (2, 8)
Variables with no quadrat preference
DapSer 1 (28, 8) JasFru 1 (14, 5) JunOxy 1 (37, 13) PinNig 1 (15, 8)
END OF LEVEL 1
TWINSPAN QUADRAT CLASSIFICATION LEVEL 1

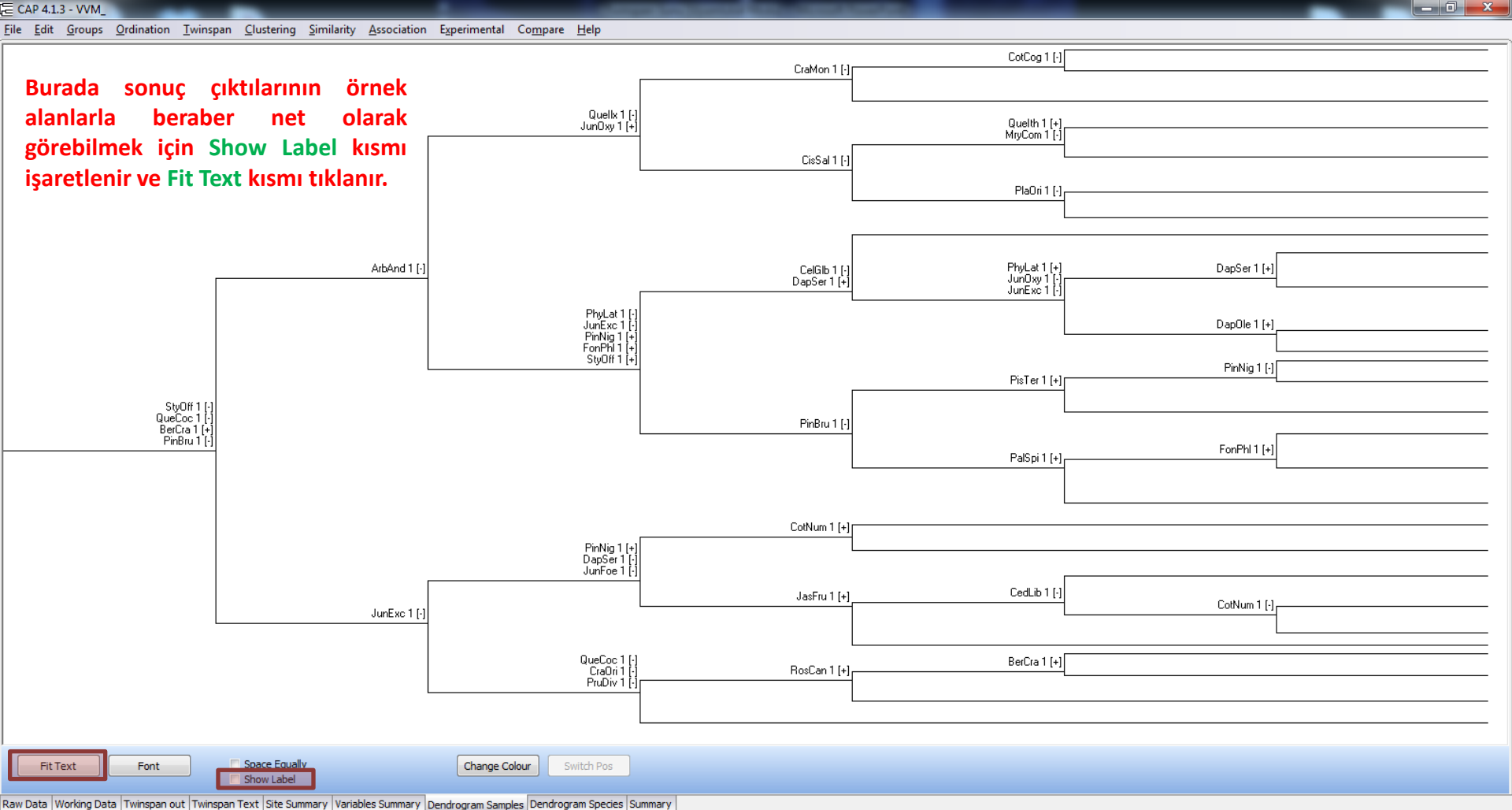
QUADRAT DIVISION 2 Number of quadrats in cluster = 54
eigenvalue = 0,322479 number of iterations = 3
Indicators and their sign
ArbAnd [-];
The maximum indicator score for the negative group = -1
The minimum indicator score for the positive group = 0
Negative group: 4 Number of objects = 21 comprising:
oa22, oa23, oa24, oa25, oa26, oa27, oa28, oa29, oa30, oa31, oa44, oa45, oa46, oa47, oa74, oa75, oa76, oa77, oa78, oa79, oa80,
The misclassified negatives: Number of objects = 1 comprising:
oa77

Raw Data Working Data Twinspan out Twinspan Text Site Summary Variables Summary **Dendrogram Samples** Dendrogram Species Summary

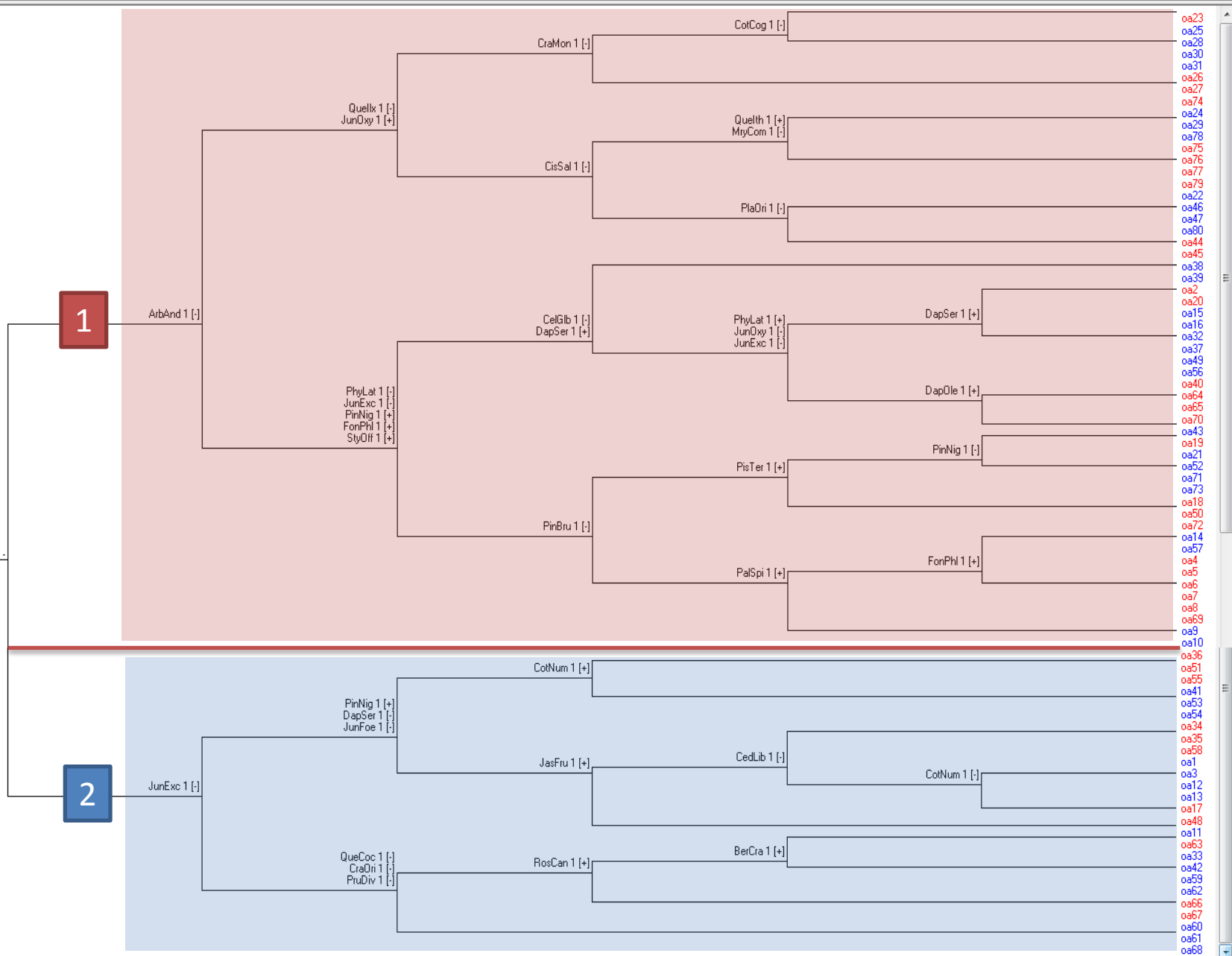
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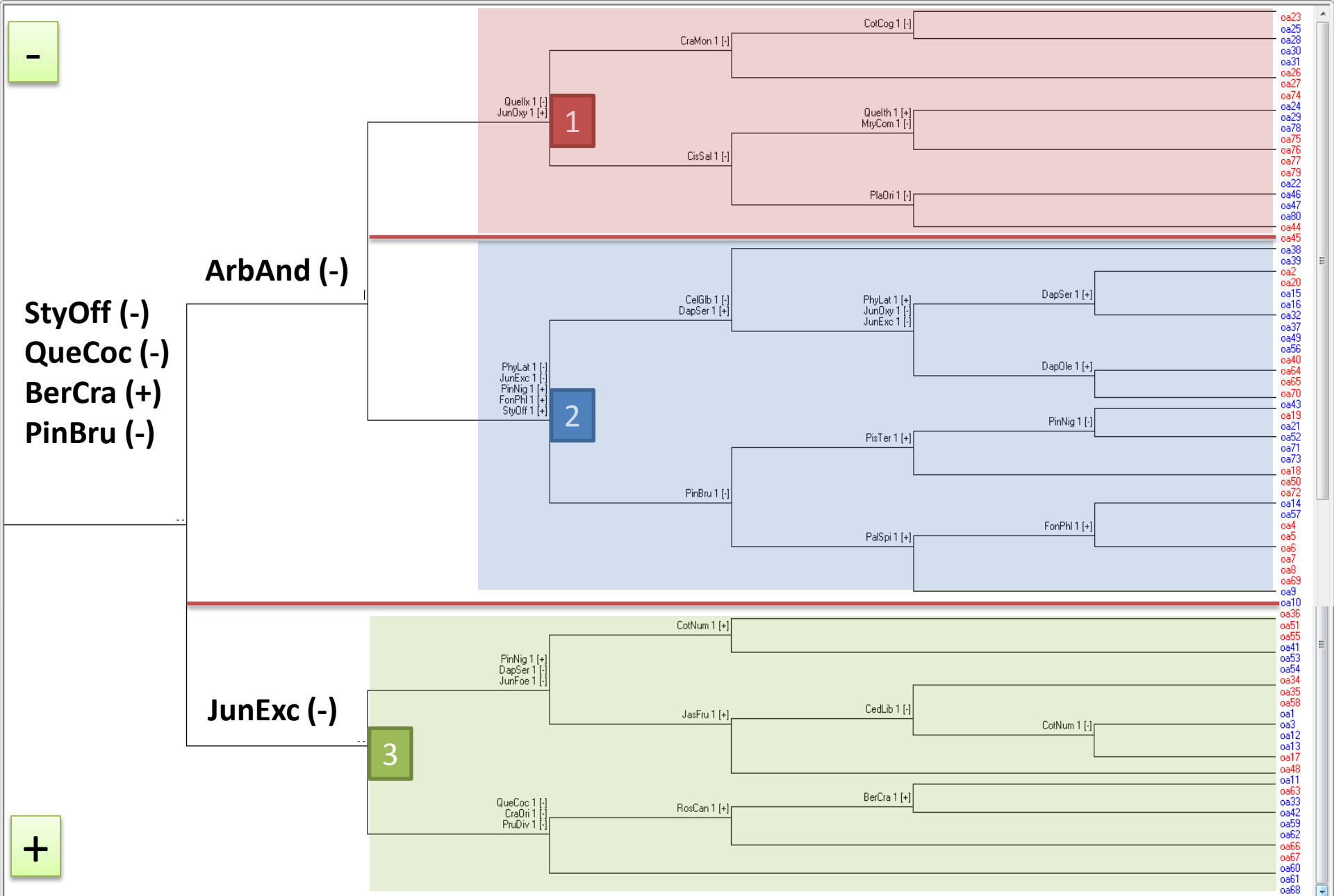
StyOff (-)
QueCoc (-)
BerCra (+)
PinBru (-)

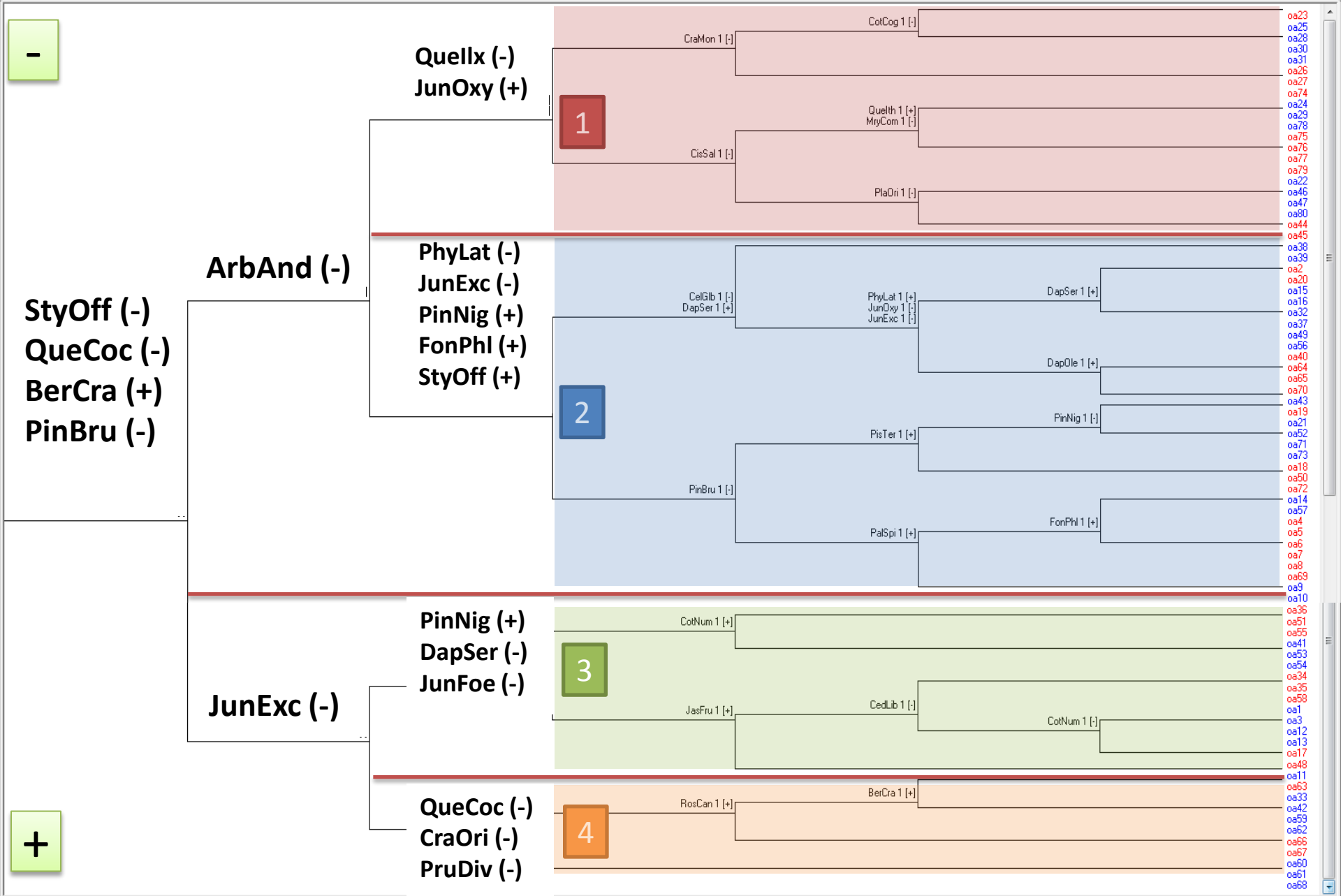


1

2







Vejetasyon Çevre İlişkileri - Analitik Değerlendirmeler



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twinspan_5_indikatör_2_ayrım

twinspan_5_indikatör_3_AYRIM

twinspan_5_indikatör_4_Ayrım

MRPP

Multi-Response Permutation Procedure
(Çoklu Permutasyon Testi)

I17			
	A	B	C
1	80 ornek		
2	1 sinif		
3	q		
4	Toplam		
5	oa1	2	
6	oa2	1	
7	oa3	2	
8	oa4	1	
9	oa5	1	
10	oa6	1	
11	oa7	1	
12	oa8	1	
13	oa9	1	
14	oa10	1	
15	oa11	2	
16	oa12	2	
17	oa13	2	
18	oa14	1	
19	oa15	1	
20	oa16	1	
21	oa17	2	
22	oa18	1	
23	oa19	1	
24	oa20	1	
25	oa21	1	
26	oa22	1	
27	oa23	1	
28	oa24	1	
29	oa25	1	
30	oa26	1	
31	oa27	1	
32	oa28	1	

D11			
	A	B	C
1	80 ornek		
2	1 sinif		
3	q		
4	Toplam		
5	oa1	3	
6	oa2	2	
7	oa3	3	
8	oa4	2	
9	oa5	2	
10	oa6	2	
11	oa7	2	
12	oa8	2	
13	oa9	2	
14	oa10	2	
15	oa11	3	
16	oa12	3	
17	oa13	3	
18	oa14	2	
19	oa15	2	
20	oa16	2	
21	oa17	3	
22	oa18	2	
23	oa19	2	
24	oa20	2	
25	oa21	2	
26	oa22	1	
27	oa23	1	
28	oa24	1	
29	oa25	1	
30	oa26	1	
31	oa27	1	
32	oa28	1	

F11			
	A	B	C
1	80 ornek		
2	1 sinif		
3	q		
4	Toplam		
5	oa1	3	
6	oa2	2	
7	oa3	3	
8	oa4	2	
9	oa5	2	
10	oa6	2	
11	oa7	2	
12	oa8	2	
13	oa9	2	
14	oa10	2	
15	oa11	3	
16	oa12	3	
17	oa13	3	
18	oa14	2	
19	oa15	2	
20	oa16	2	
21	oa17	3	
22	oa18	2	
23	oa19	2	
24	oa20	2	
25	oa21	2	
26	oa22	1	
27	oa23	1	
28	oa24	1	
29	oa25	1	
30	oa26	1	
31	oa27	1	
32	oa28	1	

Main - VVM_PCORD5_C.WK1										
	ornek									
42	bitki									
	c	c	c	c	c	c	c	c	c	c
	ArbAnd	BerCra	CedLib	CelGlb	CisSal	CotNum	CotCog	CraOri	CraMon	Da
10a	0	0	0	1	0	1	0	0	0	1
20a	0	0	0	0	0	0	0	0	0	0
30a	0	0	0	0	0	1	0	0	0	0
40a	0	0	0	0	0	0	0	0	0	0
50a	0	0	0	0	0	0	0	1	0	1
60a	0	0	0	0	0	0	0	0	0	0
70a	0	0	0	0	0	0	0	0	0	1
80a	0	0	0	0	0	0	0	0	0	0
90a	0	0	0	0	0	0	0	0	0	1
100a	0	0	0	0	0	0	0	0	0	0
110a	0	0	1	0	0	1	0	0	0	0
120a	0	0	0	0	0	1	0	0	0	1
130a	0	1	0	0	0	1	0	0	0	1
140a	0	0	0	1	0	0	0	1	0	0

Open Second Matrix		
Konum:	5_ind-koord	
Ad	Değiştirme tarihi	Ti
<input type="checkbox"/>	twinspan_5_indikatör_2_ayrım.wk1	04.01.2014 13:31 W
<input type="checkbox"/>	twinspan_5_indikatör_3_AYRIM.wk1	04.01.2014 13:30 W
<input type="checkbox"/>	twinspan_5_indikatör_4_Ayrım.wk1	04.01.2014 13:30 W

Dosya Adı: [tum_cevre] Aç

Dosya türü: [Lotus 1-2-3 (*.wk1)] İptal

Yardım

Main:VVM_PCORD5_C.WK1

Second:

Row:

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PC-ORD

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

Main - VVM_PCORD5_C.WK1

Cluster Analysis

- MRPP
- Blocked MRPP (MRBP)
- TWINSpan
- Indicator Species Analysis
- Mantel Test

	ArbAnd	BerCra	CedLib	Ce	tCog	CraOri	CraMon	Da
80	ornek							
42	bitki							
	c	c	c	c	c	c	c	c
10a	0	0	0	1		0	0	1
20a	0	0	0	0		0	0	0
30a	0	0	0	0	1	0	0	0
40a	0	0	0	0	0	0	0	0
50a	0	0	0	0	0	1	0	1
60a	0	0	0	0	0	0	0	0
70a	0	0	0	0	0	0	0	1
80a	0	0	0	0	0	0	0	0
90a	0	0	0	0	0	0	0	1
100a	0	0	0	0	0	0	0	0
110a	0	0	1	0	1	0	0	0
120a	0	0	0	0	1	0	0	1
130a	0	1	0	0	1	0	0	1
140a	0	0	0	1	0	1	0	0

MRPP Grouping Matrix

Define Classes From

- Main Matrix
- Secondary Matrix

OK Cancel Help

MRPP Grouping Variable

s|n|f

Select ONE GROUPING variable from Second Matrix

Toplam

OK Cancel Help

Incompatibility Warning

This program requires either a categorical variable or a class variable (such as presence/absence or cover classes) as the grouping variable. If you use continuous data to define groups, those values are truncated after the decimal point to determine group membership.

Do you wish to continue?

OK Cancel Help

Second - TWINSpan_5_INDİKATör_4_AYRIM.WK1

	Toplam
80	ornek
1	s n f
	q
	Toplam
oa1	3
oa2	2
oa3	3
oa4	2
oa5	2
oa6	2
oa7	2
oa8	2
oa9	2
oa10	2
oa11	3
oa12	3
oa13	3
oa14	2
oa15	2

MRPP Setup

Distance Measure

- Sorensen (Bray-Curtis)
- Relative Sorensen
- Jaccard
- Euclidean (Pythagorean)
- Relative Euclidean
- Correlation
- Chi-squared
- Squared Euclidean

Weighting Of Groups

- n/sum(n) (recommended)
- n-1/sum(n-1)
- 1/g (not recommended)
- n(n-1)/sum(n(n-1)) (not recommended)

Exclude one or more groups from comparison

Rank transform distance matrix

OK Cancel Help

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The screenshot shows the PCORD software interface. The main window displays a data matrix with columns for various environmental variables (ArşAbnd, BesCre, CndLib, DelGlb, ClnSal, CstRlm, CstCog, CreDrs, CraMin, Dn) and rows for different samples (10a, 20a, 30a, 40a, 50a, 60a, 70a, 80a, 90a, 100a, 110a, 120a, 130a, 140a). A blue arrow points from the data matrix to the 'Result - RESULT.TXT' window, which displays the output of the Multi-Response Permutation Procedure (MRPP). The output includes the following information:

```

***** Multi-Response Permutation Procedure (MRPP) *****
pc-ORD, Version 4.0
5 Jan 2014, 12:22

Groups were defined by values of: Toplam
Input data had: 80 örnek by 42 bulki
Weighting option: (1) = n(i)/sum(n(i))
Distance measure: Jaccard

GROUP: 1
Code: 3
Site: 16 0.73226728 = Average distance
Members:
10a 30a 110a 120a 130a 170a 340a 350a
160a 410a 480a 510a 530a 540a 550a 560a

GROUP: 2
    
```

The screenshot shows an Excel spreadsheet with two distance matrices. The first matrix is the Jackard distance matrix, and the second is the Sorensen distance matrix. The data is as follows:

	A	B	C	D	E	F	G	H	I
1	JACKARD					SORENSEN			
2		T	A	P			T	A	
3	Twn_Besind_ikiayrım	-27,873	0,075	0		Twn_Besind_ikiayrım	-29,78	0,122	0
4	Twn_besind_ucayrım	-34,256	0,131	0		Twn_besind_ucayrım	-34,231	0,199	0
5	Twn_besind_dortayrım	-31,44	0,15	0		Twn_besind_dortayrım	-31,434	0,227	0
6									
7	Twn_ucind_ikiayrım	-27,364	0,074	0		Twn_ucind_ikiayrım	-29,315	0,12	0
8	Twn_ucind_ucayrım	-33,54	0,129	0		Twn_ucind_ucayrım	-33,563	0,196	0
9	Twn_ucind_dortayrım	-30,713	0,146	0		Twn_ucind_dortayrım	-30,762	0,222	0
10									
11	Twn_birind_ikiayrım	-26,946	0,073	0		Twn_birind_ikiayrım	-28,654	0,117	0
12	Twn_birind_ucayrım	-31,318	0,12	0		Twn_birind_ucayrım	-31,198	0,182	0
13	Twn_birind_dortayrım	-28,45	0,137	0		Twn_birind_dortayrım	-28,541	0,209	0
14									

Test statistic: $T = -31.440172$
 Observed delta = 0.69432998
 Expected delta = 0.81639890
 Variance of delta = 0.15074411E-04
 Skewness of delta = -0.65268276

Chance-corrected within-group agreement $A = 0.14952117$
 $A = 1 - (\text{observed delta}/\text{expected delta})$
 $A_{\max} = 1$ when all items are identical within groups (delta=0)
 $A = 0$ when heterogeneity within groups equals expectation by chance
 $A < 0$ with more heterogeneity within groups than expected by chance
 Probability of a smaller or equal delta $p = 0.00000000$

***** MRPP finished *****

5-ind-4-ayrim

File Edit Transform Plot Statistics Multivar Model Diversity Time Geomet Strat Cladistics Script

Calibri

K T A

F11

	A	B	C
1	80 ornek		
2	1 sınıf		
3	q		
4	Toplam		
5	oa1	3	
6	oa2	2	
7	oa3	3	
8	oa4	2	
9	oa5	2	
10	oa6	2	
11	oa7	2	
12	oa8	2	
13	oa9	2	
14	oa10	2	
15	oa11	3	
16	oa12	3	
17	oa13	3	
18	oa14	2	
19	oa15	2	
20	oa16	2	
21	oa17	3	
22	oa18	2	
23	oa19	2	
24	oa20	2	
25	oa21	2	
26	oa22	1	
27	oa23	1	
28	oa24	1	
29	oa25	1	
30	oa26	1	
31	oa27	1	
32	oa28	1	

4lü

Hazır

5-ind-4-ayrim

File Edit Transform Plot Statistics Multivar Model Diversity Time Geomet Strat Cladistics Script

✓ Edit mode □ Edit labels □ Square mode

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	0	0	0	1	0	1	0	0	0	1	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	1	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	1	0
5	0	0	0	0	0	0	0	1	0	1	0	1	0
6	0	0	0	0	0	0	0	0	0	0	0	1	1
7	0	0	0	0	0	0	0	0	0	1	0	1	0
8	0	0	0	0	0	0	0	0	0	0	0	1	0
9	0	0	0	0	0	0	0	0	0	1	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	1	0	0	1	0	0	0	0	0	1	0
12	0	0	0	0	0	0	1	0	0	0	0	1	0
13	0	1	0	0	0	0	0	0	0	0	0	1	0
14	0	0	0	1	0	0	0	1	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	1	0	0	0	0	0	0	0	0	0	0	0
18	0	1	0	0	1	0	0	1	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	1	0	0	0
21	0	0	0	0	0	0	0	0	0	1	0	0	0
22	0	0	0	0	0	0	0	0	1	0	0	0	0
23	1	0	0	0	1	0	1	0	1	0	1	0	0
24	1	0	0	0	1	0	0	0	0	1	0	0	0
25	1	0	0	0	1	0	0	0	0	0	0	0	0
26	1	0	0	0	1	0	0	0	0	0	0	0	0
27	1	0	0	0	1	0	0	0	0	0	0	0	0
28	1	0	0	0	1	0	0	0	1	0	0	0	0
29	1	0	0	0	1	0	0	0	0	0	0	0	0
30	1	0	0	0	1	0	0	0	0	1	0	0	0
31	1	0	0	0	0	0	0	0	0	0	0	0	0
32	0	1	1	0	0	0	0	0	0	0	0	0	0
33	0	1	1	0	0	1	0	0	1	0	0	0	0
34	0	1	1	0	0	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0	0	0	0
37	0	0	0	0	0	0	0	0	0	0	0	0	0
38	0	0	0	1	0	0	0	0	0	0	0	0	0
39	0	0	0	1	0	0	0	1	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	0	0
41	0	1	0	1	0	1	0	1	0	0	0	0	0
42	0	1	0	0	0	0	0	1	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0	0	0	0	0
44	1	0	0	0	0	0	0	0	0	0	0	0	0

5-ind-4-ayrim

File Edit Transform Plot Statistics Multivar Model Diversity Time Geomet Strat Cladistics Script

- Undo Ctrl+Z
- Redo
- Cut Ctrl+X
- Copy Ctrl+C
- Paste Ctrl+V
- Remove
- Select All Ctrl+A
- Rename rows...
- Rename columns...
- Row color/symbol...
- Numbers to colors/symbols
- Column data types...
- Insert more rows...
- Insert more columns...
- Remove uninformative rows/columns...
- Replace...
- Column width...
- Font...
- Transpose
- Grouped columns to Multivar
- Grouped rows to Multivar
- Stack colored rows into columns
- Samples to events (UA to RASC)
- Events to samples (RASC to UA)
- Counter



	A	B	C	H
1	0	0	0	
2	0	0	0	
3	0	0	0	
4	0	0	0	
5	0	0	0	
6	0	0	0	1
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	1	0
12	0	0	0	0
13	0	1	0	0
14	0	0	0	1
15	0	0	0	0
16	0	0	0	0
17	0	1	0	0
18	0	1	0	1
19	0	0	0	0
20	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	1	0	0	0
24	1	0	0	0
25	1	0	0	0
26	1	0	0	0
27	1	0	0	0
28	1	0	0	0
29	1	0	0	0
30	1	0	0	0
31	1	0	0	0
32	0	0	0	0
33	0	1	1	0
34	0	1	1	0
35	0	1	1	0
36	0	0	0	0
37	0	0	0	0
38	0	0	1	0
39	0	0	0	1
40	0	0	0	0
41	0	1	0	1
42	0	1	0	0
43	0	0	0	0
44	1	0	0	0

- Principal components
- Principal coordinates
- Non-metric MDS
- Correspondence
- Detrended correspondence
- Canonical correspondence
- CABFAC factor analysis
- Two-block PLS
- Seriation
- Cluster analysis
- Neighbour joining
- K-means clustering
- Multivariate normality
- Discriminant/Hotelling
- Paired Hotelling
- Two-group permutation
- Box's M
- MANOVA/CVA
- One-way ANOSIM**
- Two-way ANOSIM
- One-way NPMANOVA
- Two-way NPMANOVA
- Mantel test
- SIMPER
- Calibration from CABFAC
- Calibration from optima
- Modern Analog Technique

ANOSIM

Permutation N: 9999

Mean rank within: 422,8

Mean rank between: 1635

R: 0,7674

p(same): 0,0001

Pairwise comparisons

- p values, uncorrected significance
- p values, sequential Bonferroni significance
- Bonferroni-corrected p values
- R values

	1	2	3	4	11
1		1	1	0,1281	0,504
2	1		1	0,1243	0,246
3	1	1		0,1232	0,251
4	0,1281	0,1243	0,1232		0,007
11	0,5049	0,2469	0,2511	0,0076	
14	0,2519	0,496	0,2431	0,0062	0,094
17	1	1	1	0,124	0,495

Distance measure

- Gower
- Euclidean
- Mahalanobis
- Correlation
- Rho
- Dice
- Jaccard
- Kulczynski
- Ochiai
- Simpson
- Bray-Curtis
- Cosine
- Morisita
- Raup-Crick
- Horn
- Hamming
- Chord
- Manhattan
- Jukes-Cantor
- Kimura
- Tajima-Nei
- User similarity
- User distance
- Mixed

Box plot

one_way_anosim_SONUC

	A	B	C	D	E	F	G	H	I	J
1		R	p							
2	Twn_Besind_ikiayrim	0,6418	0,0001							
3	Twn_besind_ucayrim	0,7483	0,0001							
4	Twn_besind_dortayrim	0,7674	0,0001							
5										
6	Twn_ucind_ikiayrim	0,6235	0,0001							
7	Twn_ucind_ucayrim	0,7308	0,0001							
8	Twn_ucind_dortayrim	0,7501	0,0001							
9										
10	Twn_birind_ikiayrim	0,5981	0,0001							
11	Twn_birind_ucayrim	0,6686	0,0001							
12	Twn_birind_dortayrim	0,743	0,0001							



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TEŞEKKÜRLER

