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Supplement 3. Preparation of data matrices for numerical analyses.

Bird data

We compiled population abundance table of breeding bird assemblages in MS Excel from the published and unpublished studies listed in Supplement 1, from which we computed matrices of presence/absence (binary), population densities (territories (pairs)/10 ha) and dominance (relative abundance, %) of 84 species × 139 samples (year/s in each site). These matrices were used in multivariate cluster and ordination analyses. We excluded species with large territories or species that were not covered in all censuses from data matrices: Ciconiformes: *Ciconia nigra*; Falconiformes: *Accipiter gentilis*, *Accipiter nisus*, *Aquila chrysaetos*, *Buteo buteo*, *Haliaetus albicilla*, *Falco cherrug*, *Falco tinnunculus*, *Pernis apivorus*; Galliformes: *Bonasa bonasia*, *Phasianus colchicus*, *Syrhaptes reversee*, *Tetrao urogallus*, *Tetrao tetrix*; Strigiformes: *Aegolius funereus*, *Glaucidium passerinum*, *Strix aluco*, *Strix uralensis*; Corvidae: *Corvus corax*, *Corvus cornix*, *Garrulus glandarius*, *Nucifraga caryocatactes*.

Environmental data

Latitude and longitude

We presented approximate geographic coordinate in mid-point of census plots or corresponding reserve centroids in floating format. These data were extracted from the digital map of the Western Carpathians in ArcGIS (Fig. 1, Supplement 1).

Climate

Elevational data on temperature (°C), precipitation (mm) and air humidity (%) (1961–2010) from the Western Carpathian region in the state territories in Slovakia, Czech Republic and Poland were gained from the CarpatClim database (Spinoni et al. 2015) by co-author KM. Elevational climatic data for the range 100–1800 m a.s.l. were estimated from the linear regression models.

Reserve size

Most remains of the primeval and natural forests were located in existing natural reserve network in Czechia, Poland and Slovakia (Supplement 1). We gained data on reserves sizes

from officially published databases (state lists of protected areas) of the state nature conservancy authorities in the mentioned states. In some samples, these data are not available because these sites were not a part of reserve network. These empty cell in matrices were threating as missing values.

Dendromass and wood increment

Dendromass (t/ha) is defined as the total above ground biomass of living trees. Dendromass was derived from growing stock data surveyed by processing of Forest Management Plans (hereafter FMP, stand-wise inventory). Dendromass volume data are updated at stand level by taxing methods at FMP renewal every ten years. The mean diameter and mean height of the stand are determined in the field, from which the volume of the mean stem is derived (volume models according Petráš & Pajtík 1991). The hectare number of trees in the forest stand is derived on the basis of the assessed stems and tree species representation according to yield tables (Halaj et al. 1987). The total volume of dendromass was determined based on the volume of the mean stem and the derived number of stems (trees) per hectare. The volume in FMP is determined for the volume unit under bark (VUB), while for other volume units stem over bark or tree over bark it is converted according to coefficients taken from volume models.

Volume increment (t/ha/year) is characterized as the change in under bark stem volume of trees with diameter above 7 cm for a specified time period, 10 years is standardly used. The volume increments were not determined directly according to field measurements, but were derived from yield tables for specific stand conditions according to the tree species, determined age and site quality.

Plant species composition and dominance

In selected census plots (Šúr NNR (forest edge and interior), Dolný les NNR, Šrámková NNR), we used 11.3 m radius (401.1 m^2) circular plot method (James & Shugart 1970) for description of vegetation (see publications in Supplement 1 and 2 for details). In this method, a tree was defined as a woody plant with diameter ≥ 3 cm in breast height (1.3 m). For the remaining census plots, these data were gained from publications (see Supplement 1) or from the forestry databases of the National Forest Centre (hereafter NLC) in Zvolen. From these forest inventory databases of NLC, we used data with the closest time match with the census work. By combining these two data sources, we prepared a matrix of 44 woody plant species presence/absence in 139-year census samples. In several census plots (16 samples; all Polish

plots and Ostrov orliaka morského NNR 2010–2013), we did not obtain dominance structure of woody vegetation so that woody plant dominance matrix consisted only from 123 samples.

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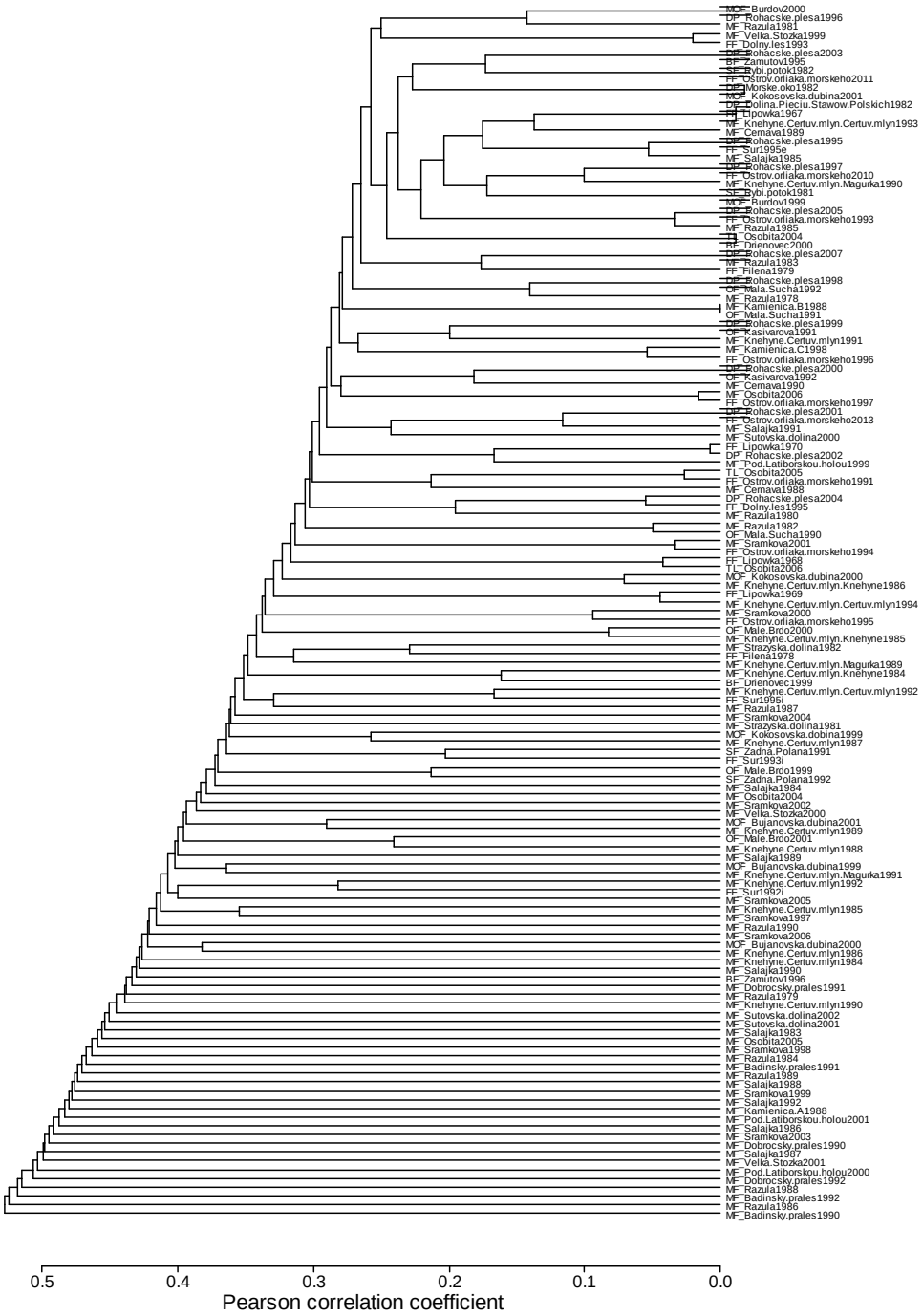
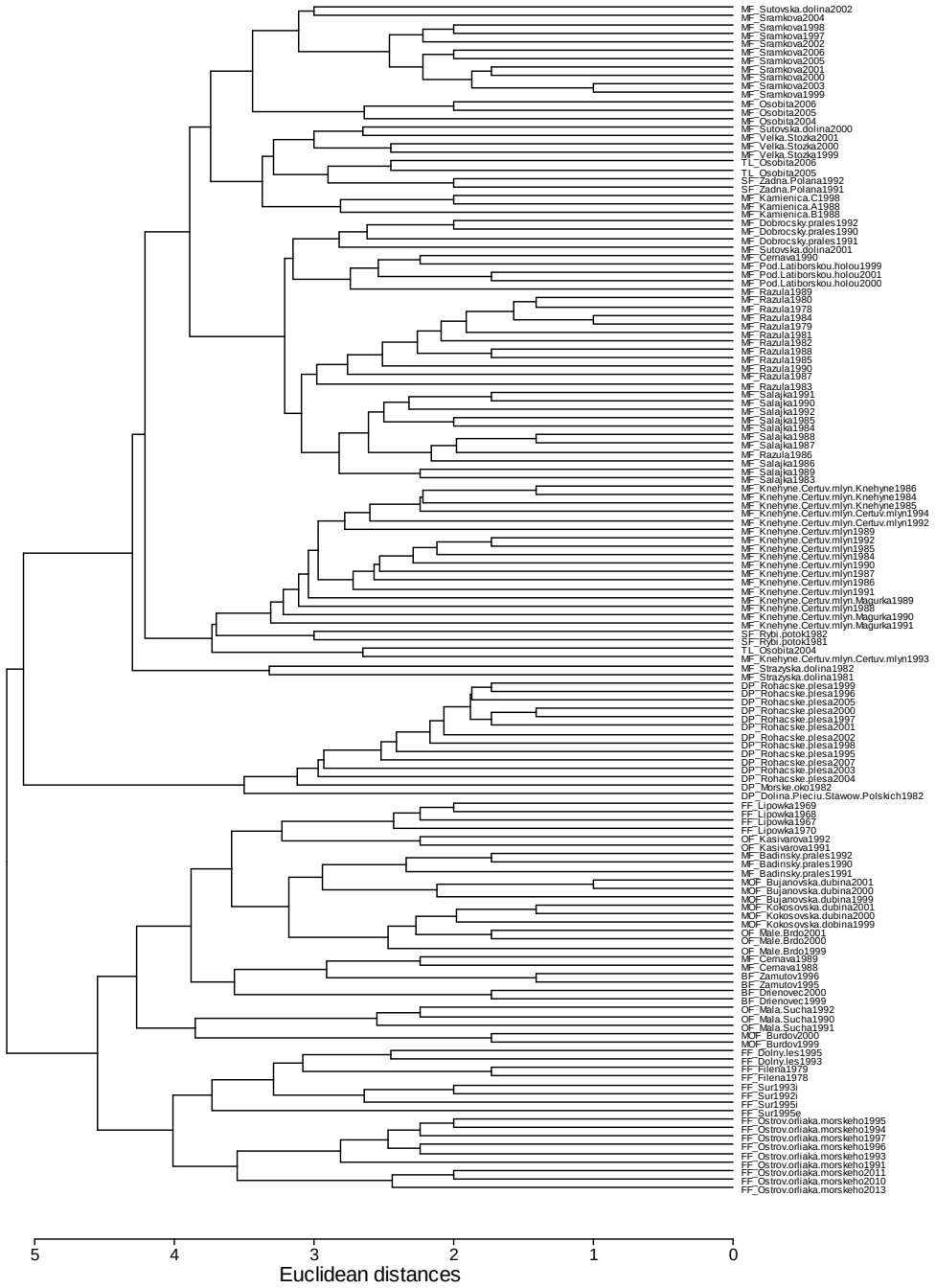
Supplement 4. Additional text to the results of the bootstrapped cluster analyses.

We excluded metrics of the Pearson's correlation coefficient and Bray-Curtis index due to strong chaining patterns in all analyses (Supplement 5). Four metrics applied for binary matrix analyses yielded four to eight significant branches. Two metrics used for analyses of density and dominance data matrices produced six and eight significant density groups and seven and eight significant dominance branches. These significant groups could be interpreted as different elevation bird assemblage belts. In some cases, bird assemblages were divided into few significant branches not creating clear elevation belts, e.g. two to three branches of dwarf pine habitats. The number of these significant assemblage belts varied. In all classifications, woody habitats of the Western Carpathians may be divided into at least three bird assemblage belts: (1) lowland and lower mountain forest, (2) middle mountain forests and (3) subalpine shrubs (dwarf-pine communities). This minimum classification was detected by both Jaccard and Sørensen dissimilarity indices that produced identical belts, sample by sample identical classifications (Supplement 5, 11).

Supplement 5. Dendrograms revealed by the bootstrapped cluster analyses (UPGMA) of several resemblance metrics based on presence/absence, density (territories/10 ha) and dominance (%) matrices. Three metrics, Pearson' correlation coefficient and Euclidean and chord distances were applied for all data matrices, Bray-Curtis index for density and dominance matrices, while Sørensen and Jacckard dissimilarity indices were used only in binary matrix clustering. A name of each sample is composed of a forest type indicated by capital letters, a name of a site and a year of a territory mapping census. Additional information on each site characteristics are given in Supplements 1 and 2. Legend: BF – beech forests, DP – dwarf pine communities, FF – floodplain forests, MF – mixed forests, MOF – mixed oak forests, OF – oak forests, SF – spruce forests and TL – tree line forest; letters "i" and "e" after census year mean forest interior and forest edge plots.

Binary matrix dendrograms

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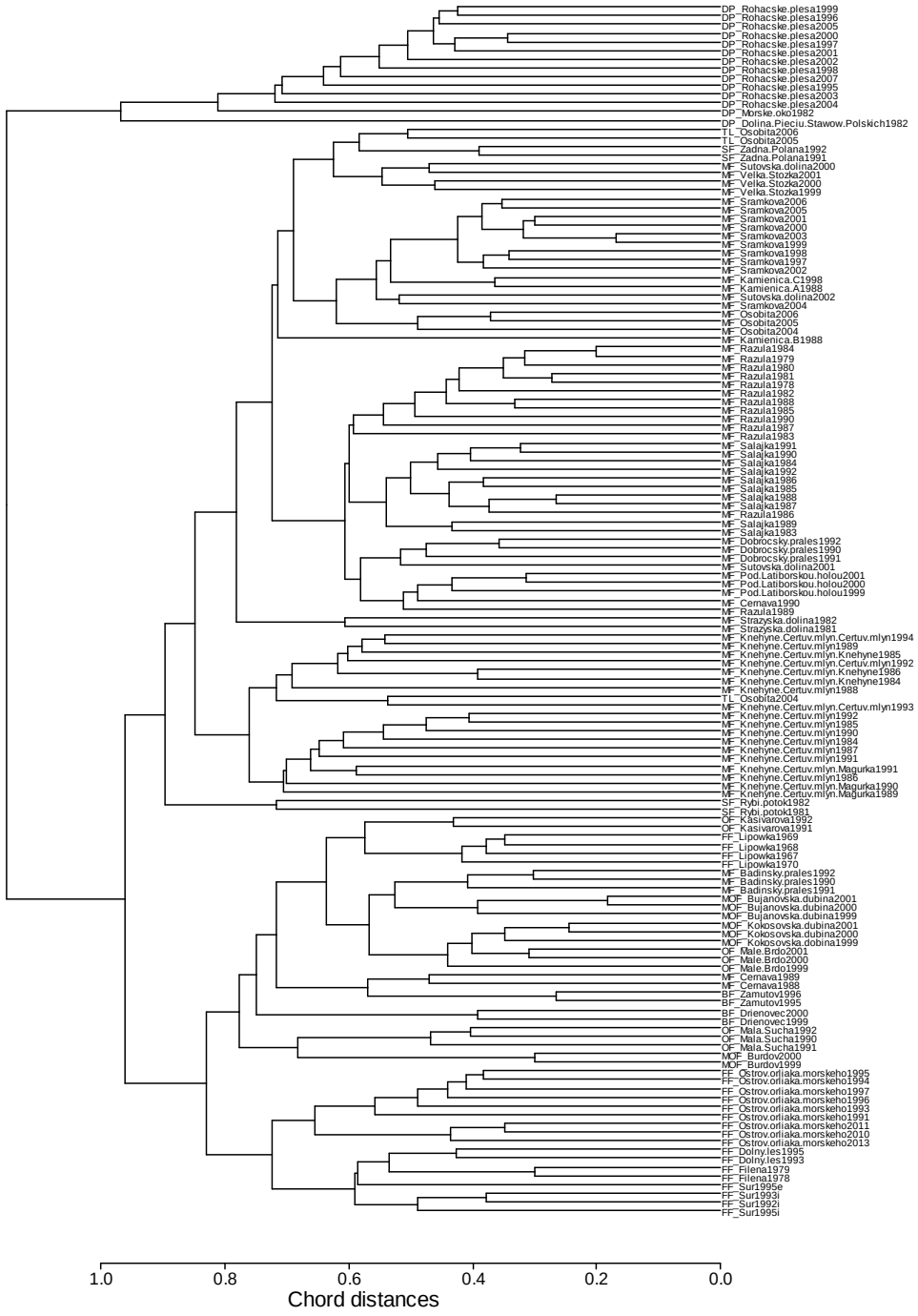
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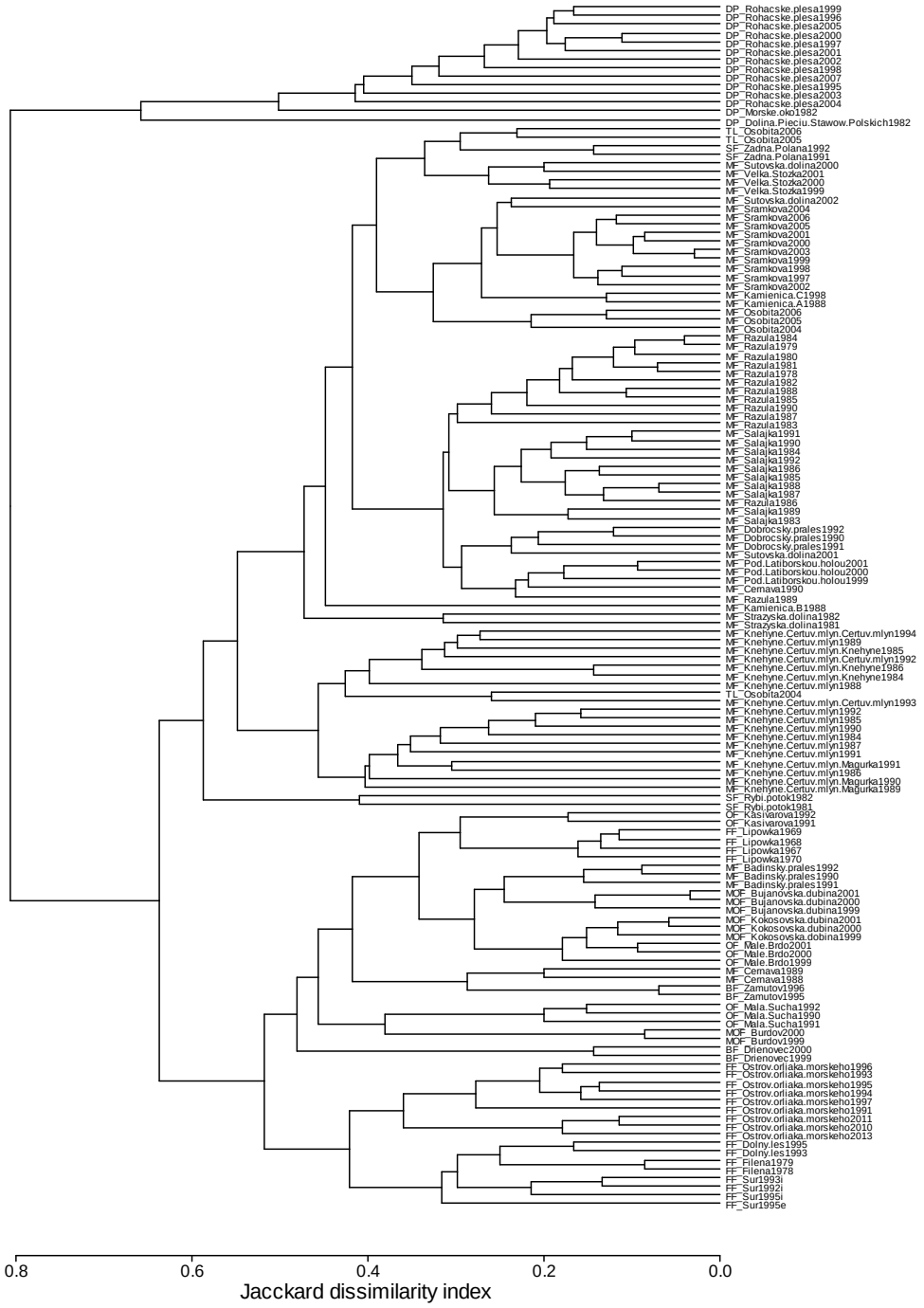
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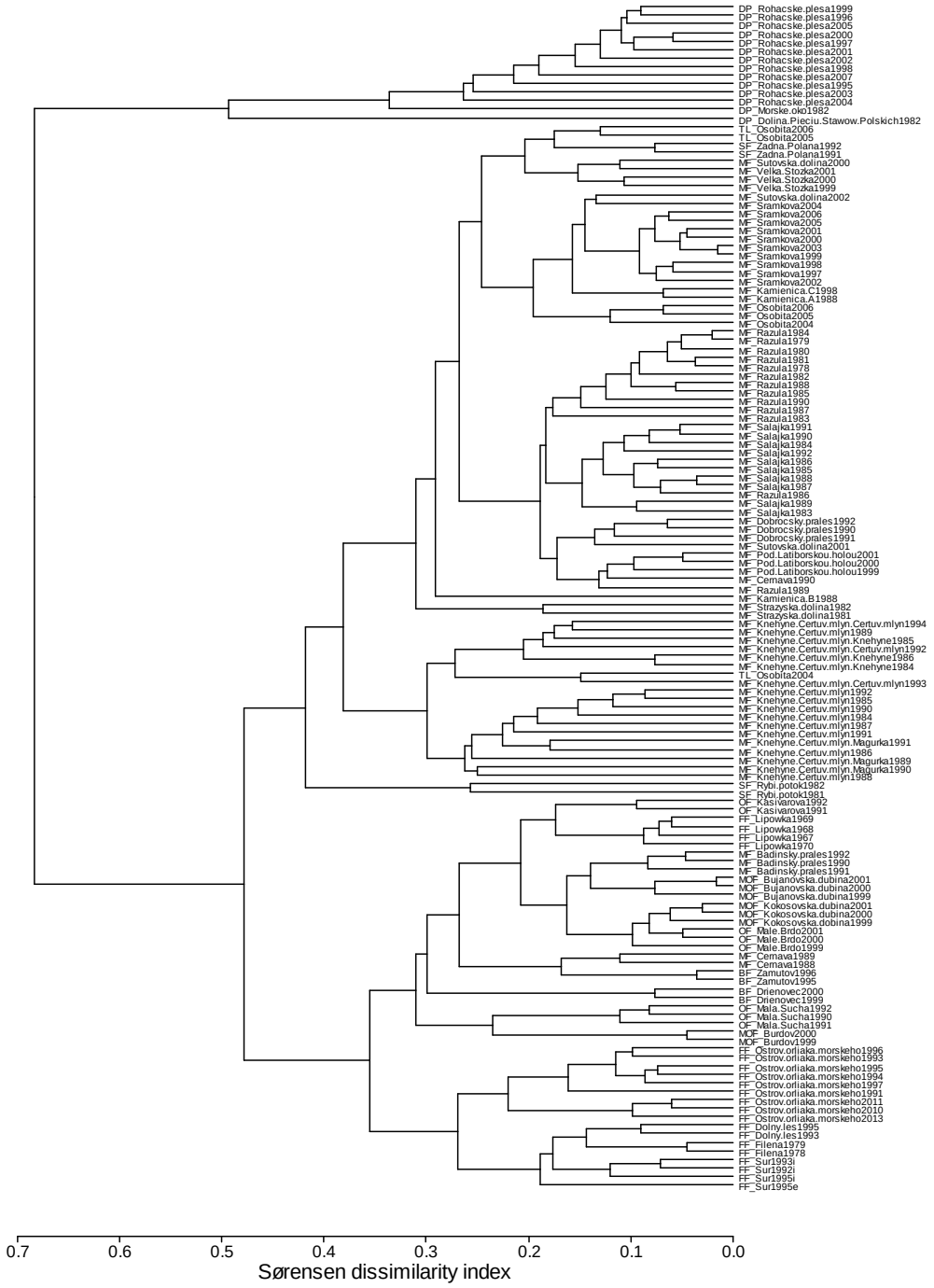
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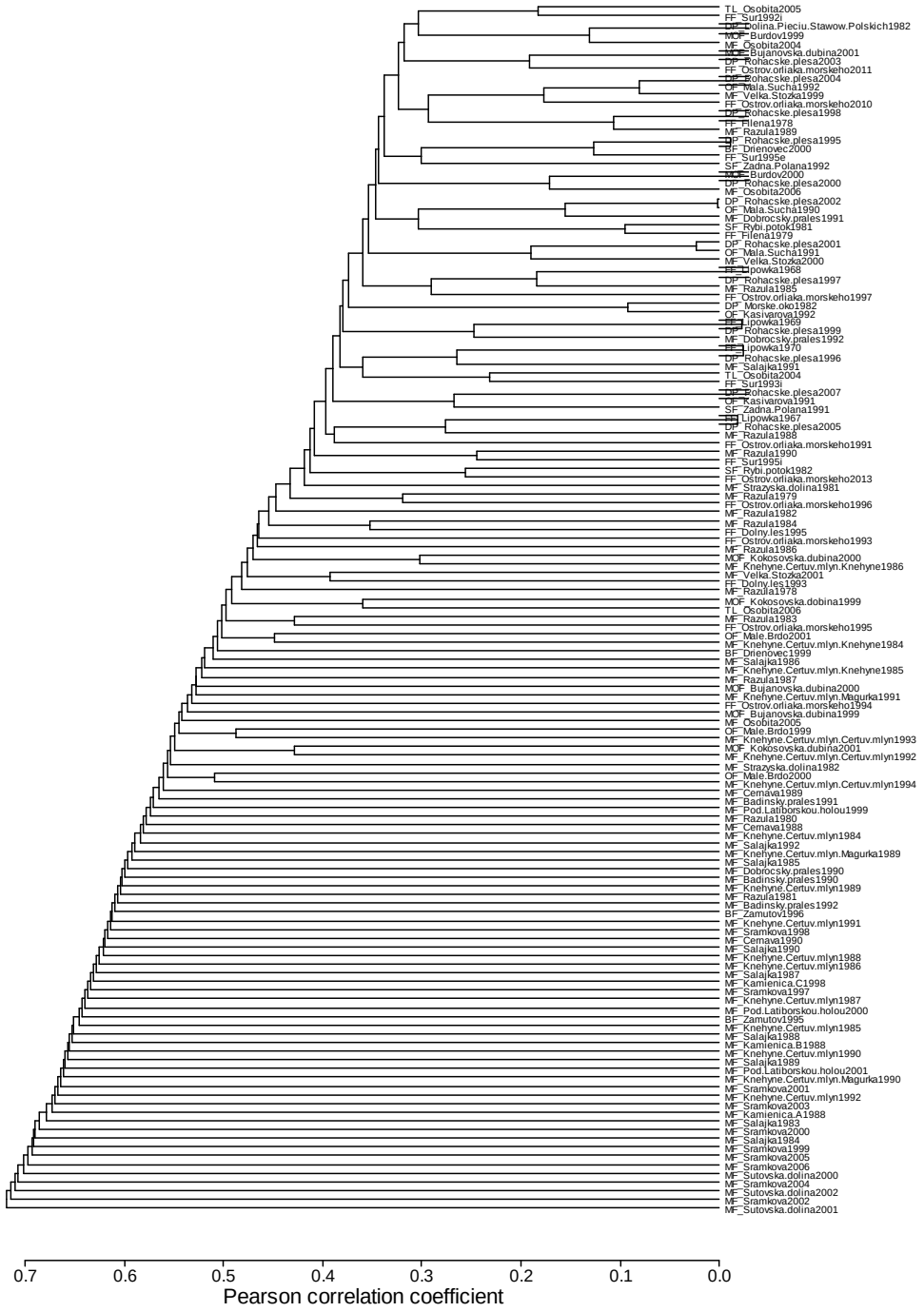
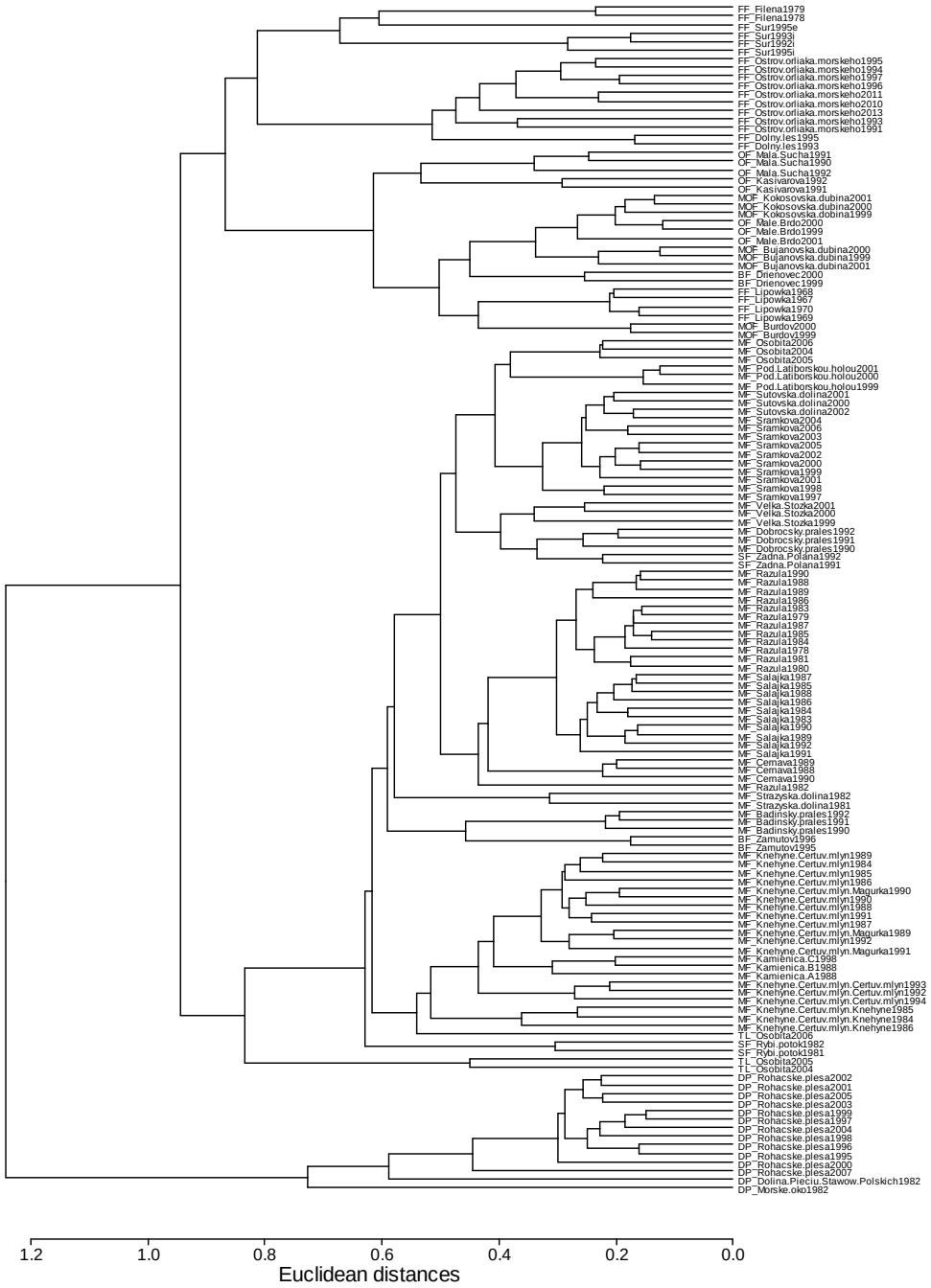
Density matrix dendrogams

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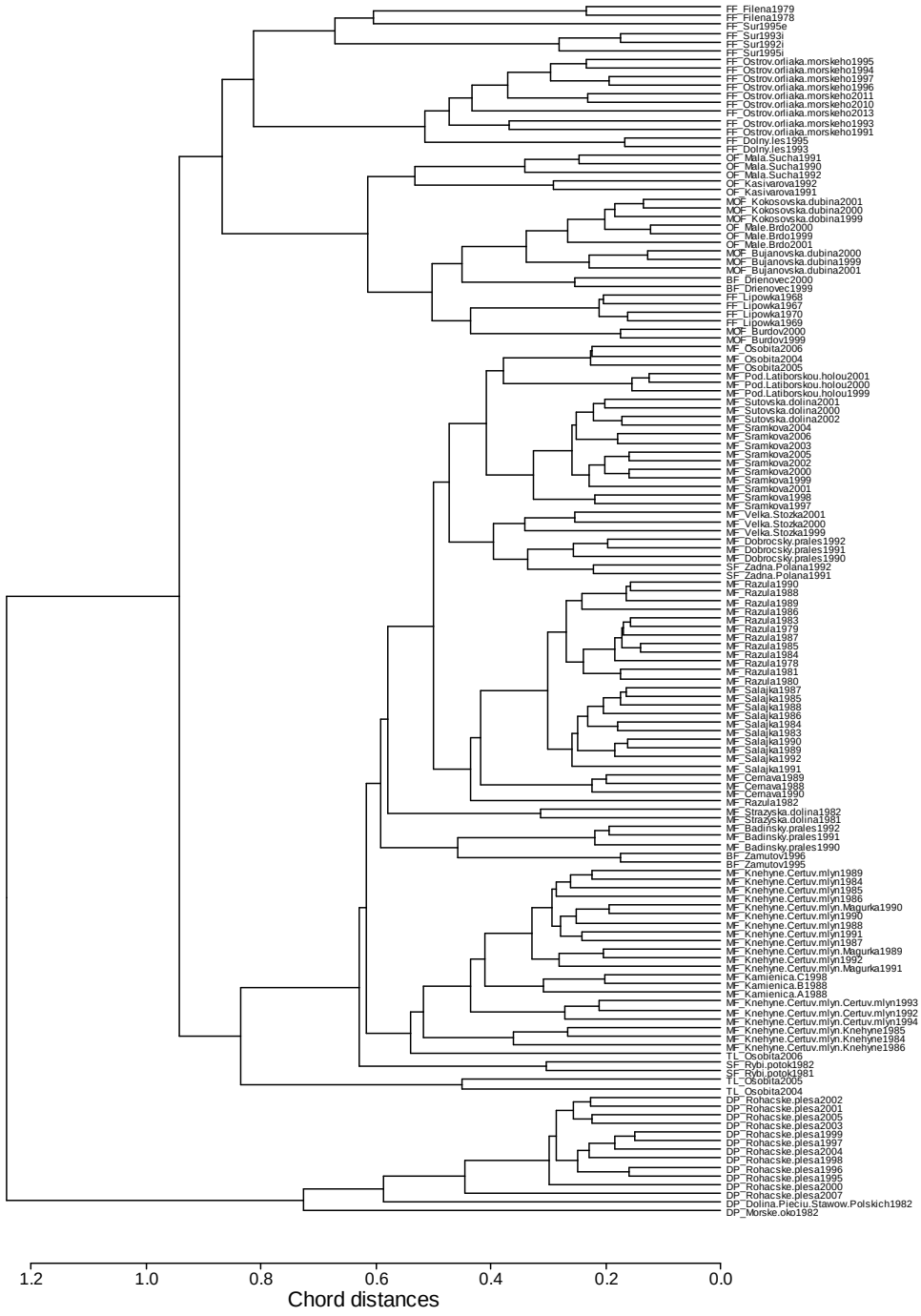
Euclidean distances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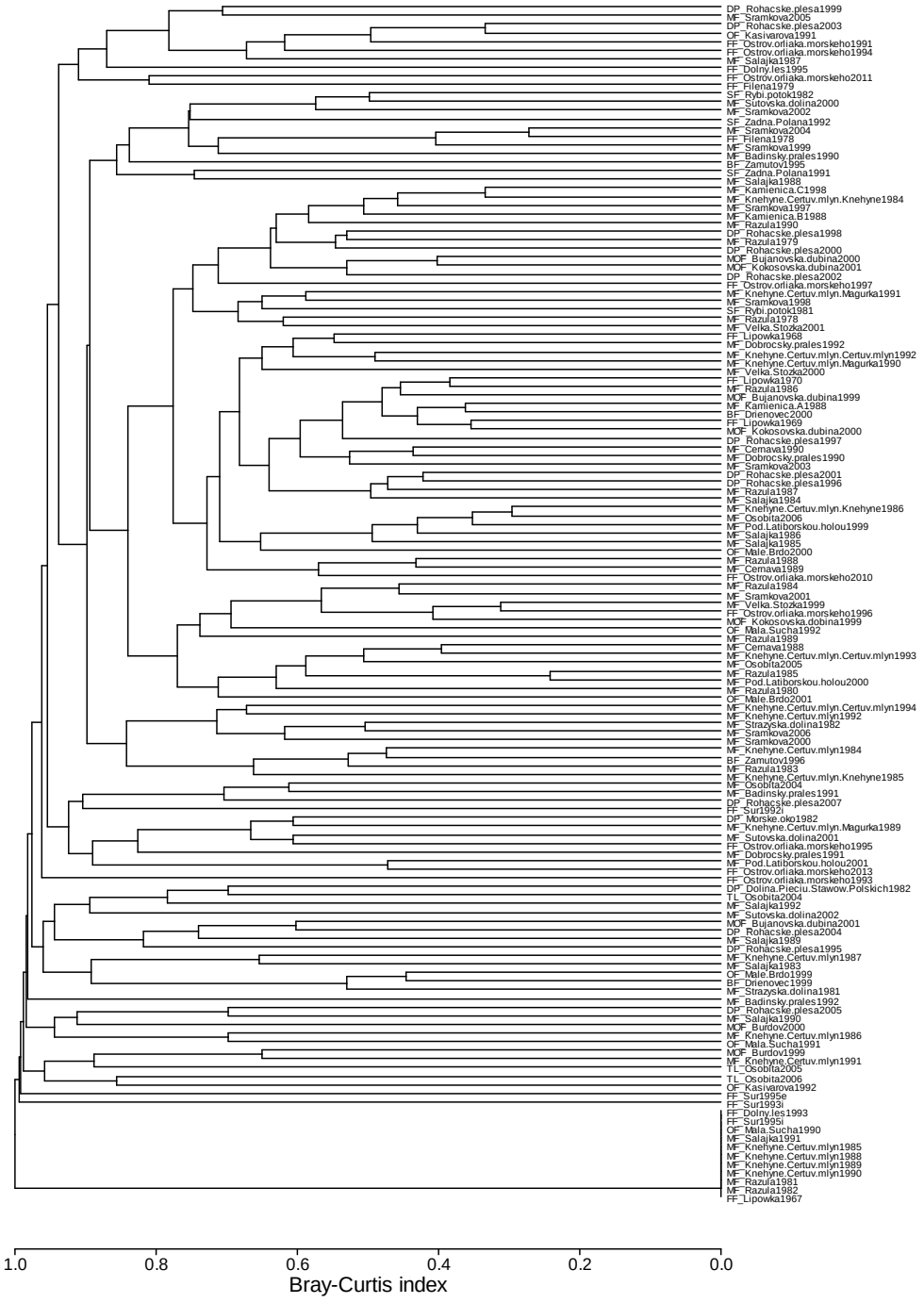
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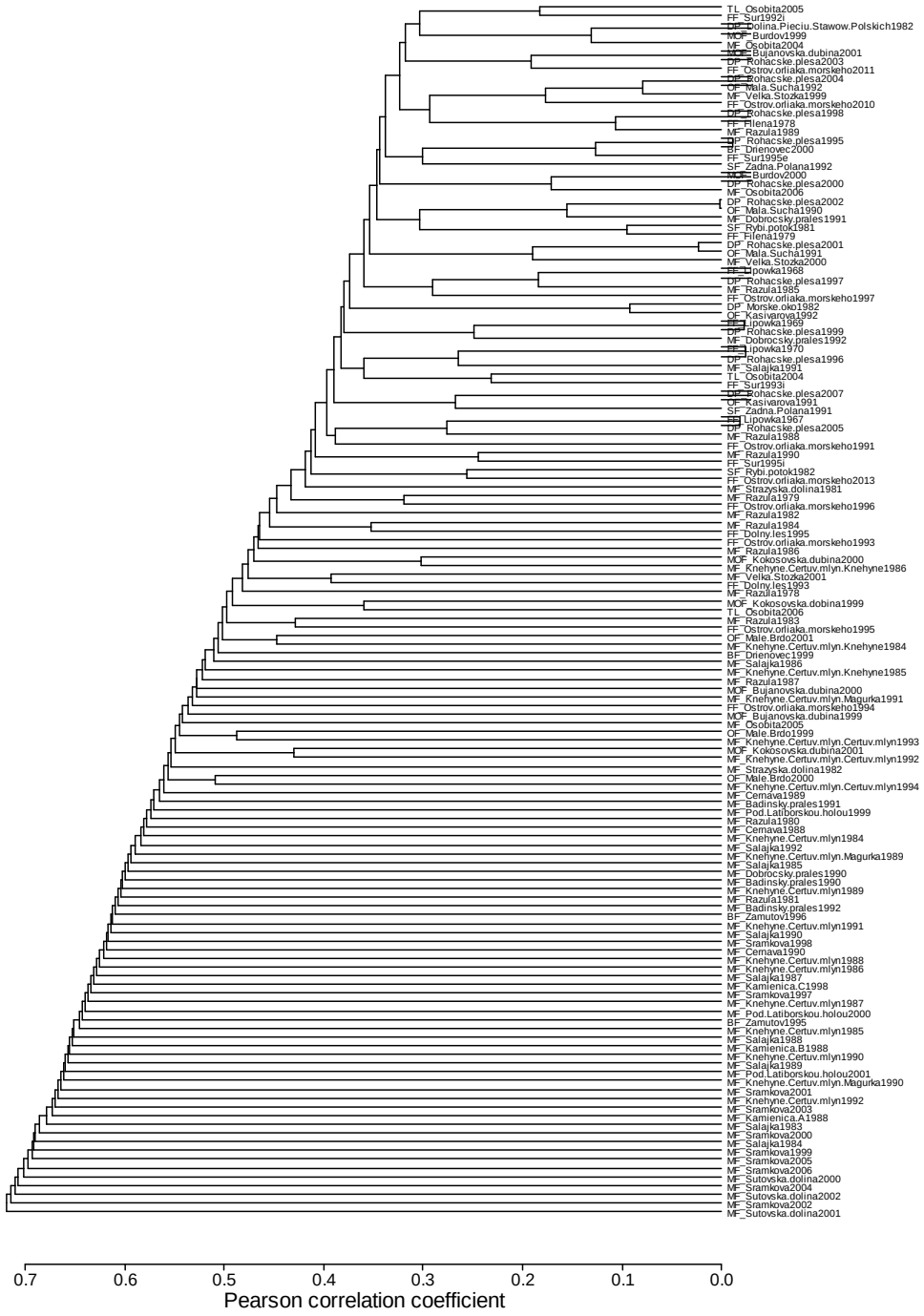
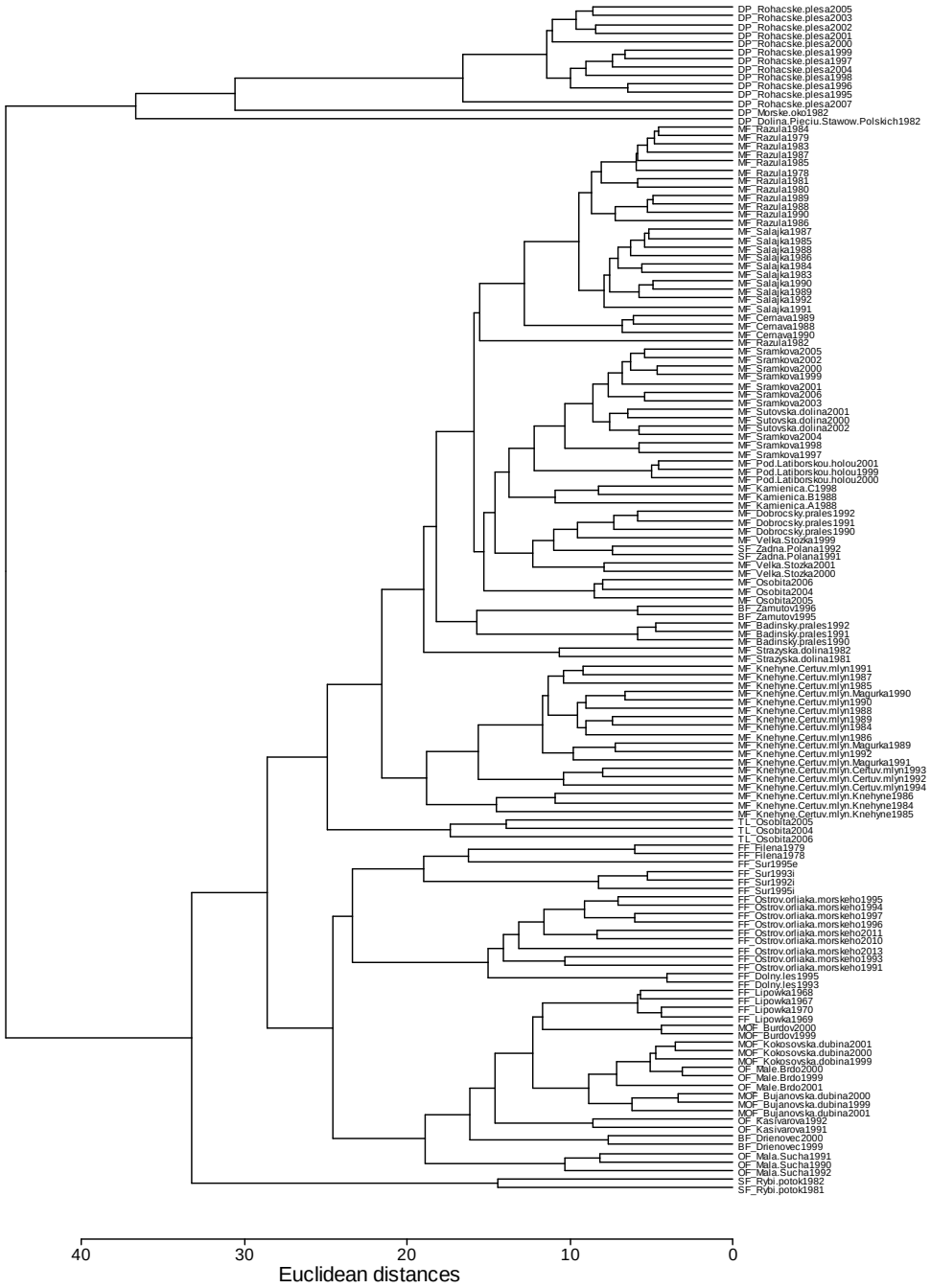
Bray-Curtis index

Dominance matrix dendrograms

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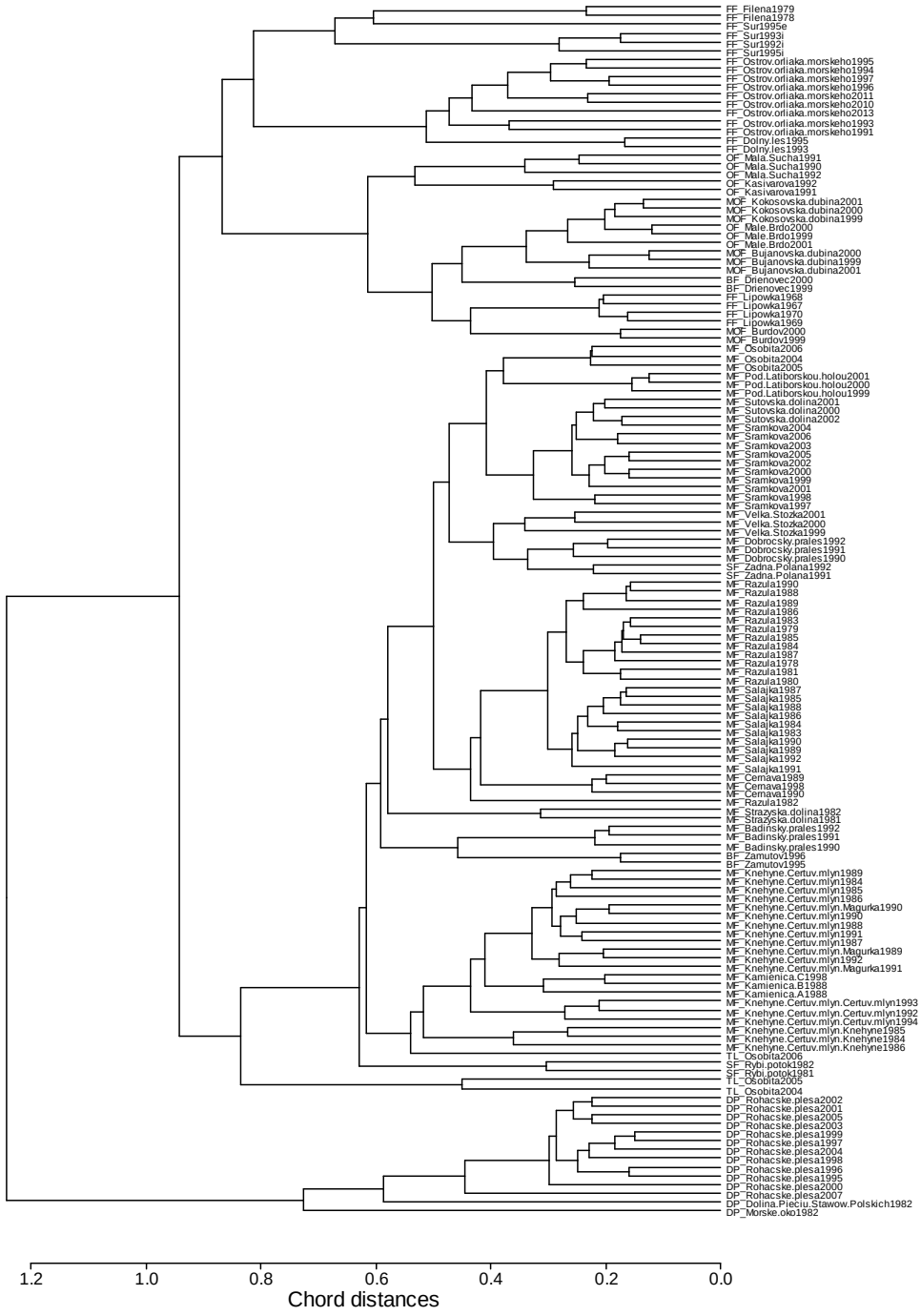
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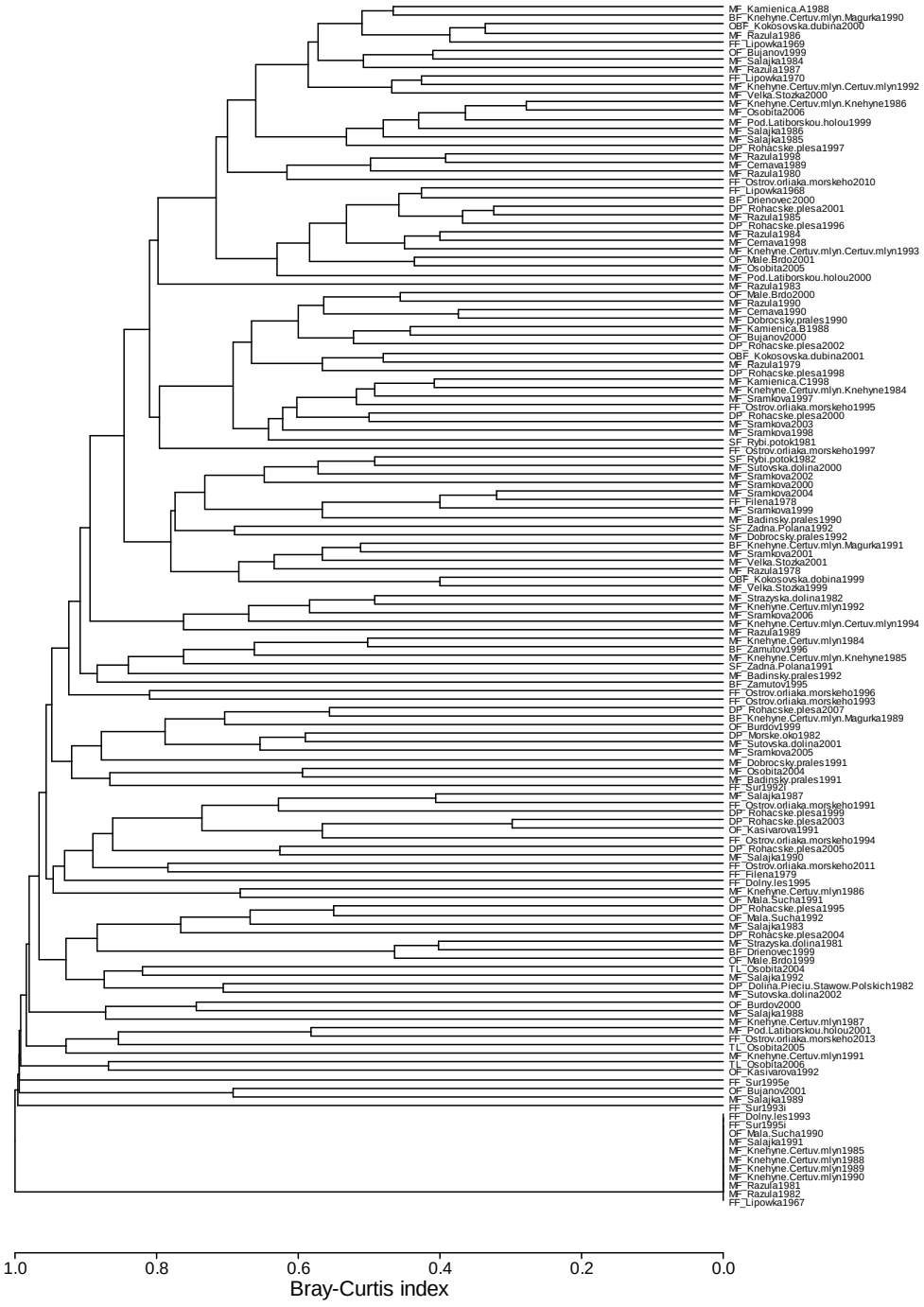
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0.6
0.4
0.2
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Bray-Curtis index

Supplement 6. Eigenvalues, explained cumulative variation, pseudo-canonical correlation and explained fitted cumulative variation for the first ten axes of canonical correspondence analysis employed for analyses of 37 bird species binary (presence/ absence) and 11 environmental variables × 38 census samples, 37 bird species density (territories (pairs))/ 10 ha) and 11 environmental variables × 38 census samples and 37 bird species dominance (%) and 11 environmental variables × 38 census samples. Census samples represent bird assemblages of primeval and natural Western Carpathian forests in elevational gradient from lowlands to subalpine zone (dwarf-pine communities).

Matrix type and ordination results	Axis 1	Axis 2	Axis 3	Axis 4	Axis 5	Axis 6	Axis 7	Axis 8	Axis 9	Axis 10
37 bird species binary vs. 11 environmental variables × 38 sample matrix										
Eigenvalues	0.1969	0.0521	0.0250	0.0216	0.0171	0.0162	0.0121	0.0077	0.0049	0.0036
Explained cumulative variation	32.52	41.12	45.25	48.81	51.63	54.30	56.31	57.58	58.38	58.97
Pseudo-canonical correlation	0.9589	0.8625	0.8191	0.8008	0.8404	0.7763	0.8417	0.7293	0.6510	0.4632
Explained fitted cumulative variation	54.77	69.25	76.20	82.20	86.94	91.45	94.82	96.96	98.31	99.31

37 bird species density vs. 11 environmental variables × 38 sample matrix

Eigenvalues	0.3127	0.1749	0.0639	0.0480	0.0377	0.0187	0.0172	0.0115	0.0081	0.0046
Explained cumulative variation	29.95	46.70	52.81	57.41	61.02	62.81	64.46	65.56	66.33	66.77
Pseudo-canonical correlation	0.9495	0.9626	0.8902	0.8098	0.8610	0.7719	0.7458	0.7830	0.6244	0.5712
Explained fitted cumulative variation	44.67	69.66	78.78	85.64	91.02	93.69	96.15	97.79	98.94	99.60

37 bird species dominance vs. 11 environmental variables × 38 sample matrix

Eigenvalues	0.3438	0.2100	0.0791	0.0694	0.0321	0.0247	0.0174	0.0137	0.0093	0.0073
Explained cumulative variation	27.77	44.73	51.12	56.73	59.32	61.31	62.72	63.83	64.57	65.16
Pseudo-canonical correlation	0.9629	0.9201	0.8111	0.9372	0.8413	0.7298	0.7895	0.7814	0.5641	0.6254
Explained fitted cumulative variation	42.43	68.34	78.10	86.66	90.62	93.67	95.82	97.50	98.65	99.54

Supplement 7. Biplots of canonical correspondence analysis (CCA) based matrices of 37 bird species presence/absence (binary) vs. 11 environmental variables × 38 samples (a), 37 bird species density vs. 11 environmental variables × 38 samples (b) and 37 bird species dominance vs. 11 environmental variables × 38 samples (c) of breeding bird assemblages of primeval and natural forests in Western Carpathians. Ordination diagram shows clear distinction between significant elevational belts of bird assemblages revealed by the bootstrapped cluster analysis of Euclidean distances of the full bird matrices. The size of symbols reflects contribution of attributes (count bird presences/absences (a), densities (b) and dominances (c) to the year census samples). The greater the size of symbol, the higher contribution has the attribute for census samples. Legend: graph a: open circle and blue diamonds = two types of floodplain and lowland forests (softwood and hardwoods), green triangles = dry oak forests, filled red squares = oak, oak-beech and beech forests, filled yellow circle = single mixed forest site, purple squares and stars = two groups of mixed and spruce forests, yellow X marks = dwarf-pine communities (subalpine zone); graph b: filled yellow circles and green X marks = two groups of floodplain and lowland forests, filled red squares = oak, oak-beech and beech forests, filled green triangles = beech, mixed and spruce forests, filled blue diamond = upper timber line forest and open circles (grey space) = dwarf-pine communities (subalpine zone); graph c: filled blue diamonds = floodplain, lowland, oak, oak-beech and beech forests, filled red squares = beech, mixed and spruce forests, open circle = single spruce forest, green triangle = single upper timber line forest, filled yellow circle and filled purple star and × mark = three significantly different dwarf-pine communities (subalpine zone); Environmental variables (factors): CaseR.1 – the first DCA ordination axis of woody plant species composition matrix (floristics 1), CaseR.2 – the second DCA ordination axis of woody plant species composition matrix (floristics 2), CensYear – census year, Dendroms – dendromass, Longitud – longitude, Precp1 – mean annual precipitation 1961–2010, Precp4 – precipitation during breeding months (April–July) in census years, ResrSize – reserve size, Tempr1 – mean annual temperature 1961–2010, WoodIncr – wood increment.

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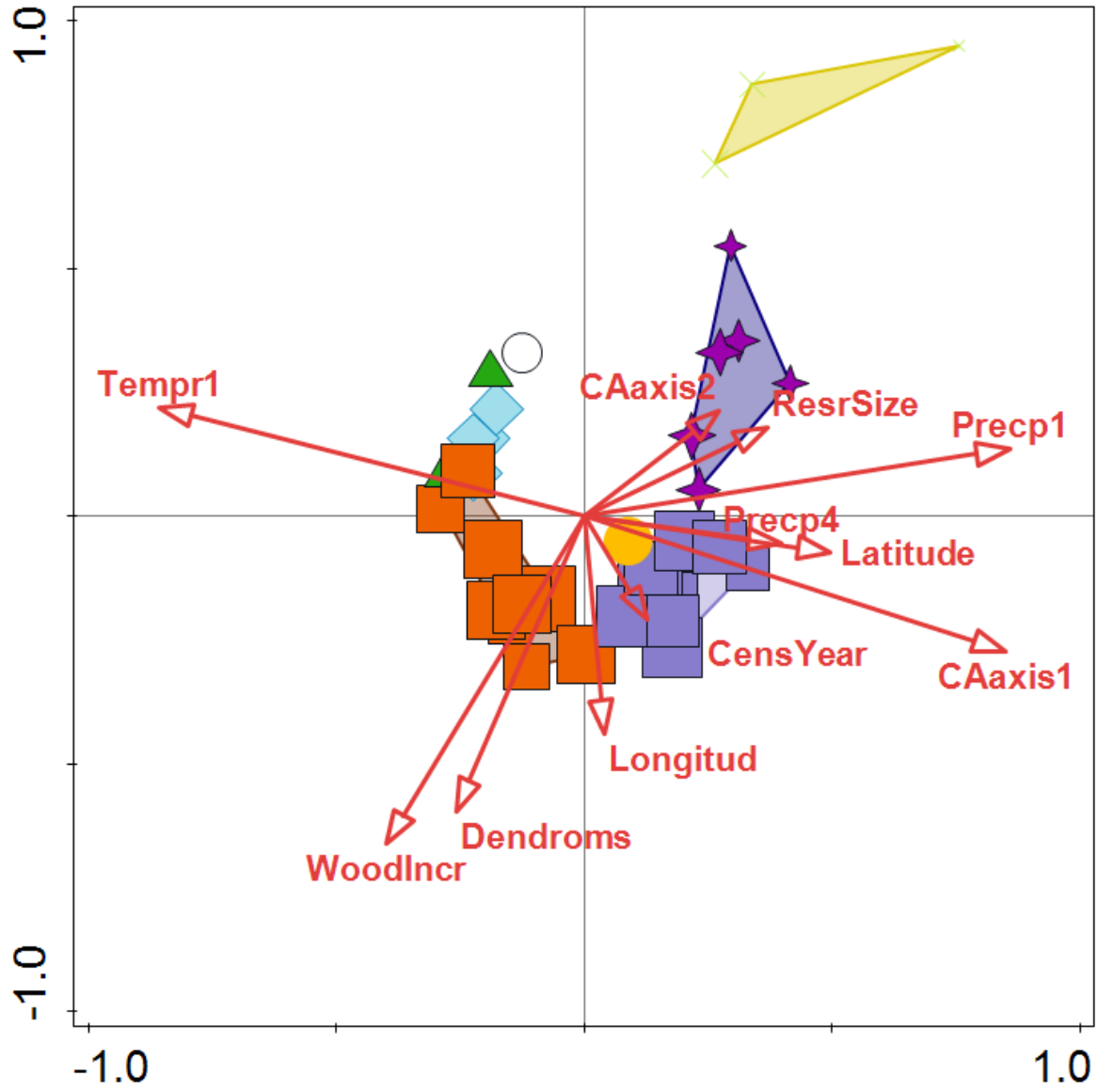
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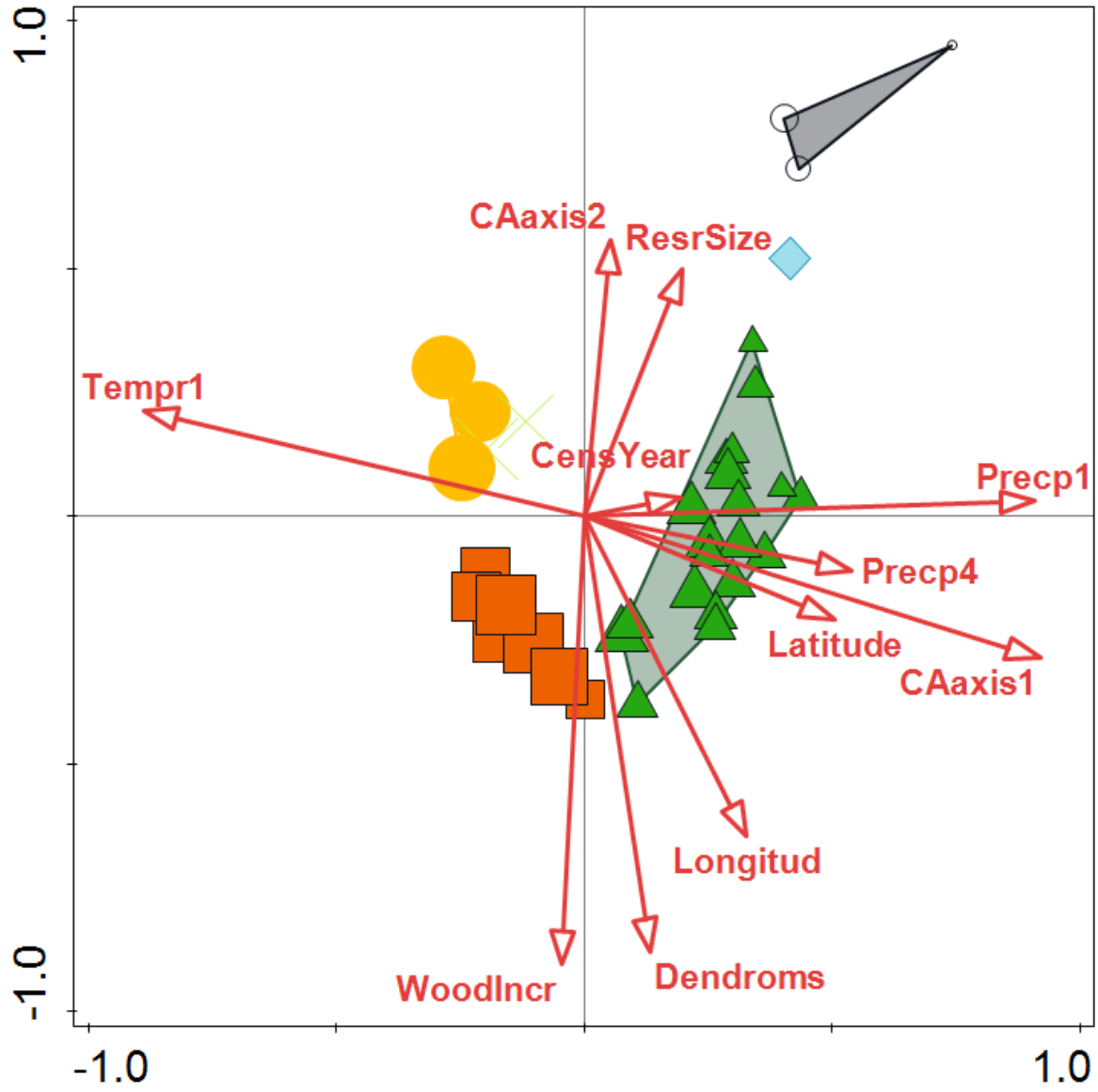
CAaxis1
Longitud
Dendroms
WoodIncr

b)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Longitud
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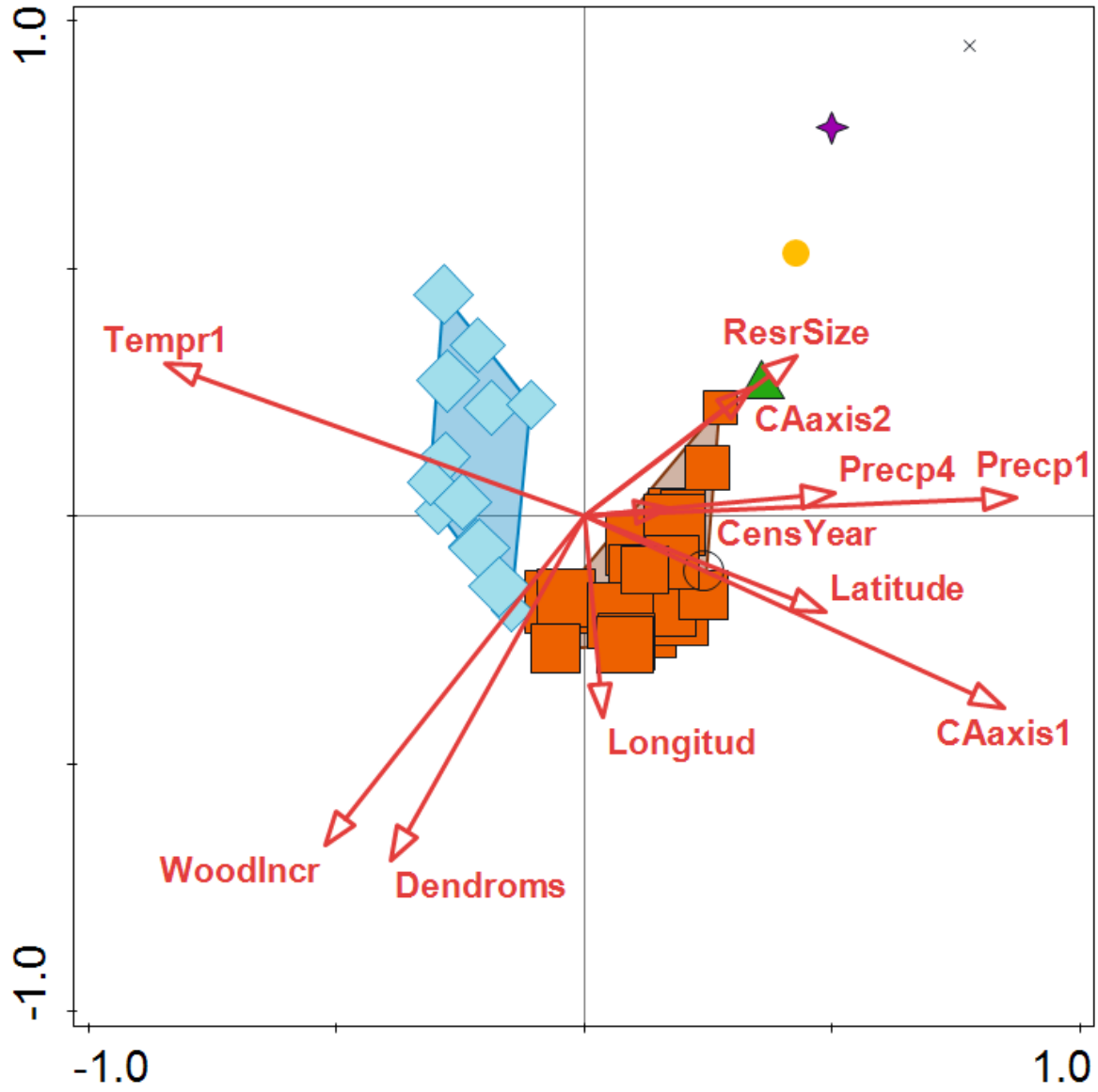
Dendroms

c)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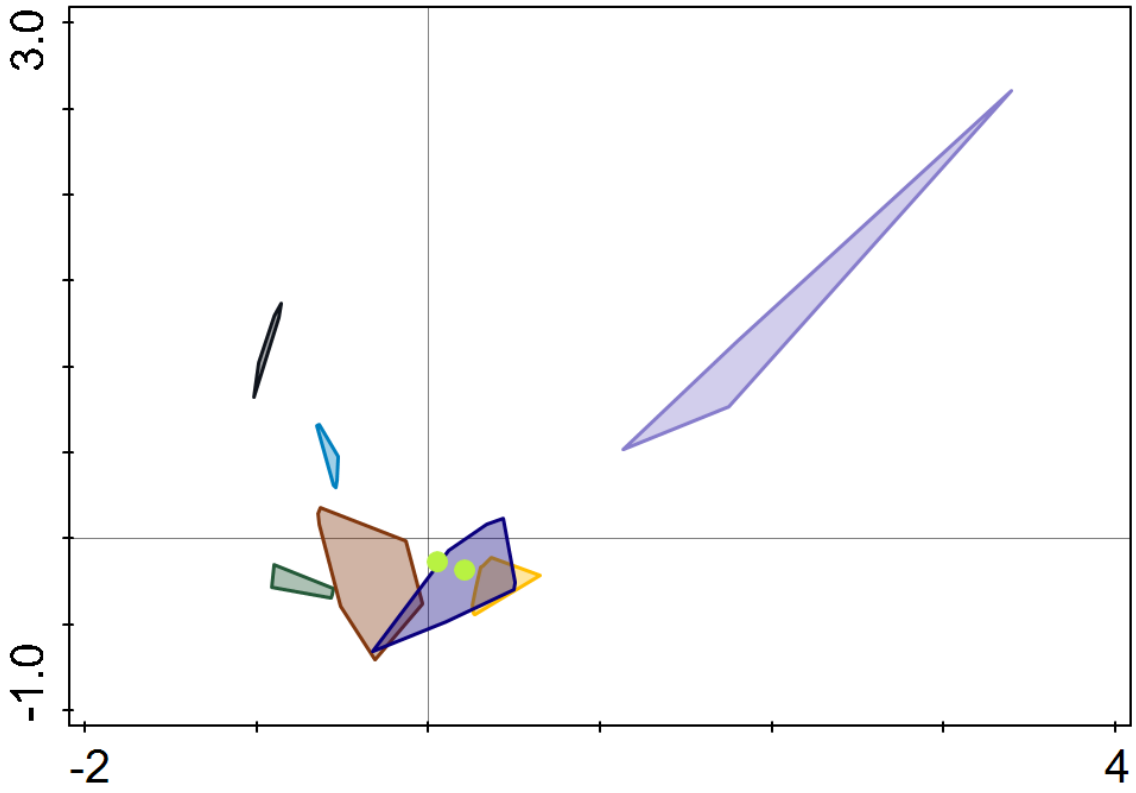
CensYear
Latitude
CAaxis1
Longitud
WoodIncr
Dendroms

Supplement 8. Detailed biplots with hidden factors of canonical correspondence analysis (CCA) based on matrices of 84 bird species presence/absence (binary) vs. 11 environmental variables × 139 samples (a), 84 bird species density vs. 11 environmental variables × 139 samples (b) and 84 bird species dominance vs. 11 environmental variables × 139 samples (c) of breeding bird assemblages of primeval and natural forests in Western Carpathians. Ordination diagram shows clear distinction between significant elevational belts of bird assemblages revealed by the bootstrapped cluster analysis of Euclidean distances of the same bird matrices. Legend: graph a: blue and black = two types of floodplain and lowland forests (softwood and hardwoods), green = dry oak forests, brown = oak, oak-beech and beech forests, pale green circles = single mixed forest site, yellow and purple = two groups of mixed and spruce forests, pale pink = dwarf-pine communities (subalpine zone); graph b: open black circles and open blue squares = two groups of floodplain and lowland forests, open green diamonds = oak, oak-beech and beech forests, brown × marks = beech, mixed and spruce forests, filled green circles = upper timber line forest and filled orange squares = dwarf-pine communities (subalpine zone); graph c: open black circles = floodplain, lowland, oak, oak-beech and beech forests, blue diamonds = beech, mixed and spruce forests, green triangles = single spruce forest, red squares = single upper timber line forest, filled orange circle and green × marks and filled purple star = three significantly different dwarf-pine communities (subalpine zone).

a)



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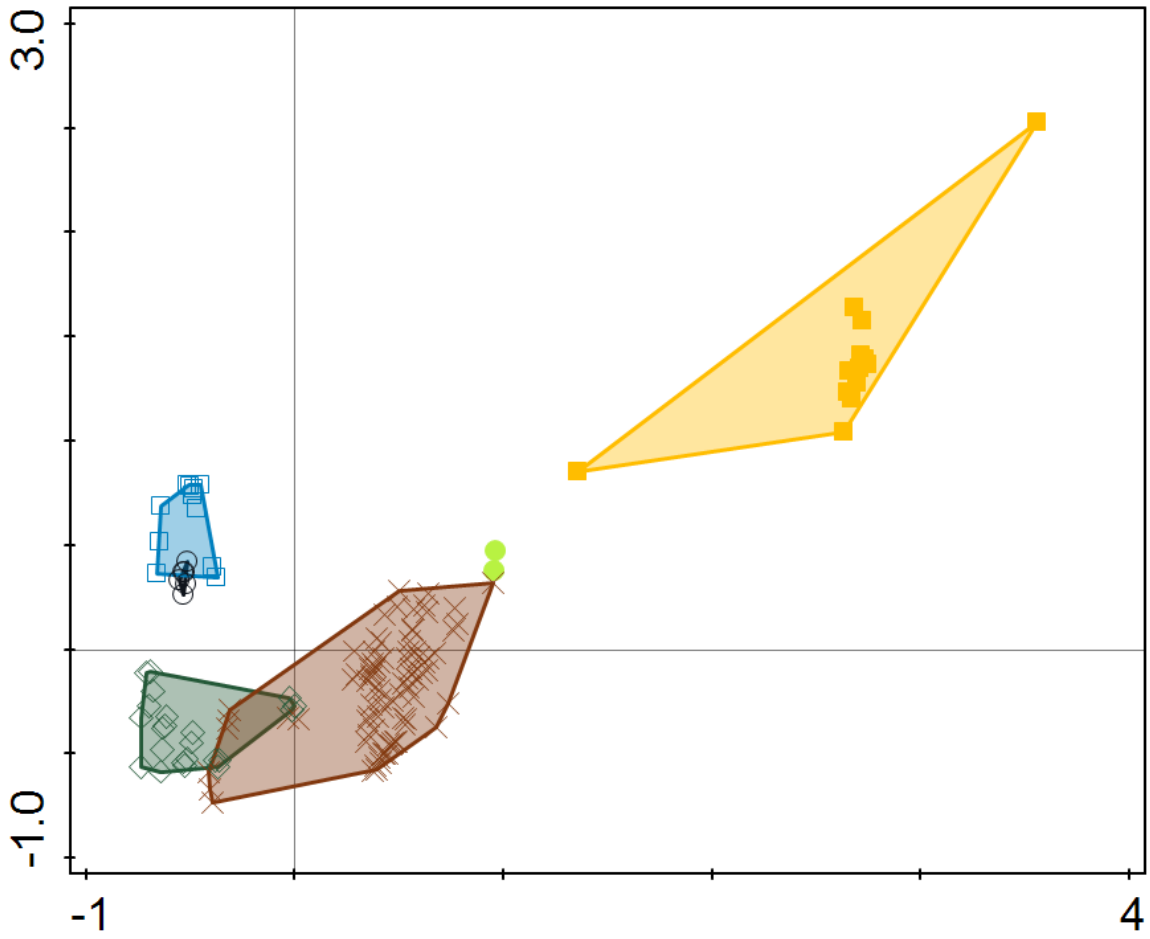
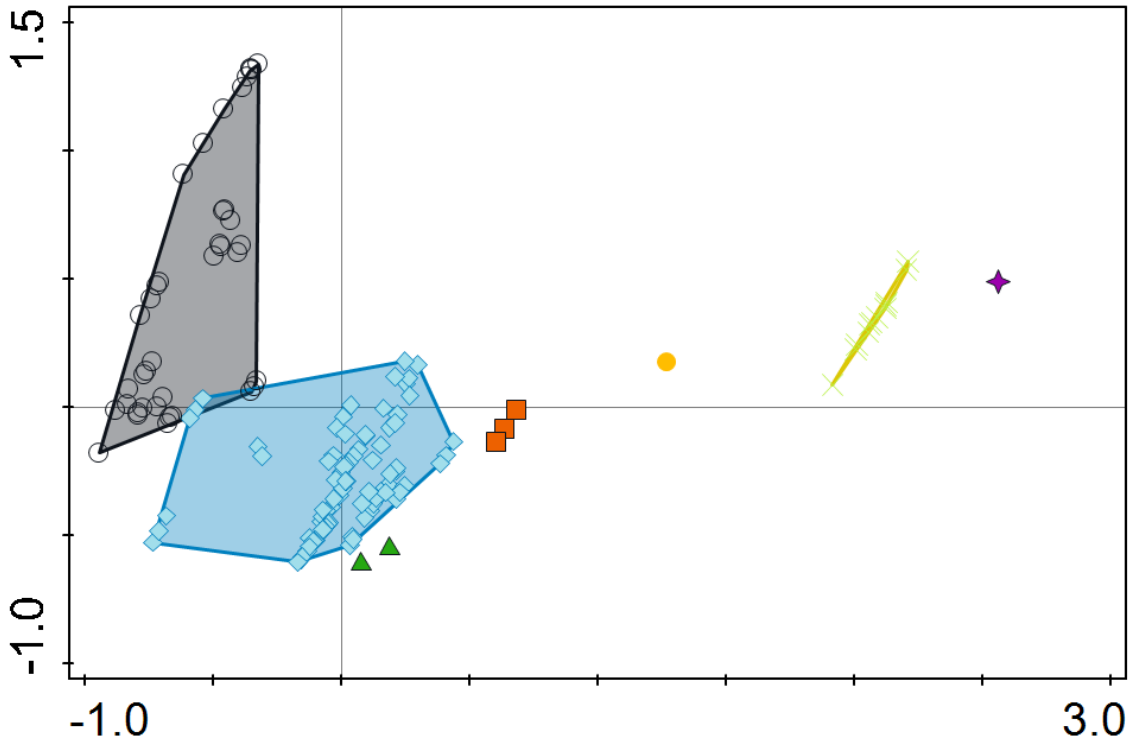
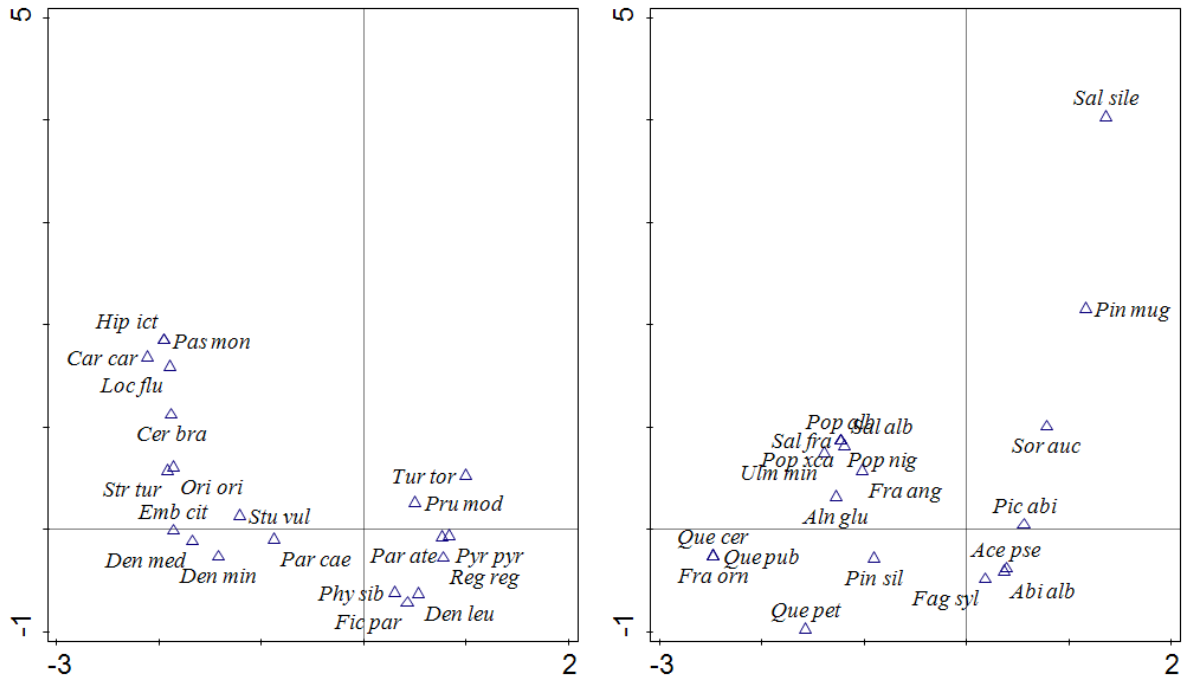


c)

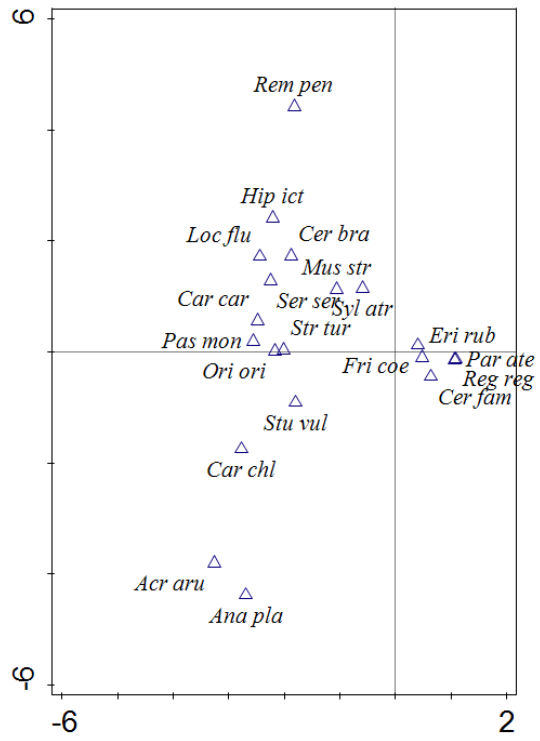


Supplement 9. Biplots based on predictive co-correspondence analyses (CO-CA) of three data matrices 84 bird species binary (presence/ absence) and 44 woody plant species binary (presence/ absence) × 139 census samples (a), 84 bird species density (territories (pairs)/ 10 ha) and 44 woody plant species dominance (%) × 123 census samples (b) and 84 bird species dominance (%) and 44 woody plant species dominance (%) × 123 census samples (c) show ~58, 65 and 71% of total variance of each data set. Correlation coefficients of the first ordination axes were 0.96 ($\lambda = 0.31$, $P = 0.0001$), 0.95 ($\lambda = 0.60$, $P = 0.0001$) and 0.97 ($\lambda = 0.42$, $P = 0.0001$) based on standard randomization tests with 9999 iterations. Census samples represent bird assemblages of primeval and natural Western Carpathian forests in elevational gradient from lowlands to subalpine zone (dwarf-pine communities). The distribution of bird and woody plant species along the first two ordination axes in all biplots may be mediated by factors related the elevational gradient. Only the first twenty bird and woody plant species with the highest weights are displayed.

a)



b)


6
-6
-6
2
Rem pen
Hip ict
Loc flu
Cer bra
Mus str
Car car
Ser ser
Syl atr
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Pas mon
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Ori ori
Fri coe
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Cer fam
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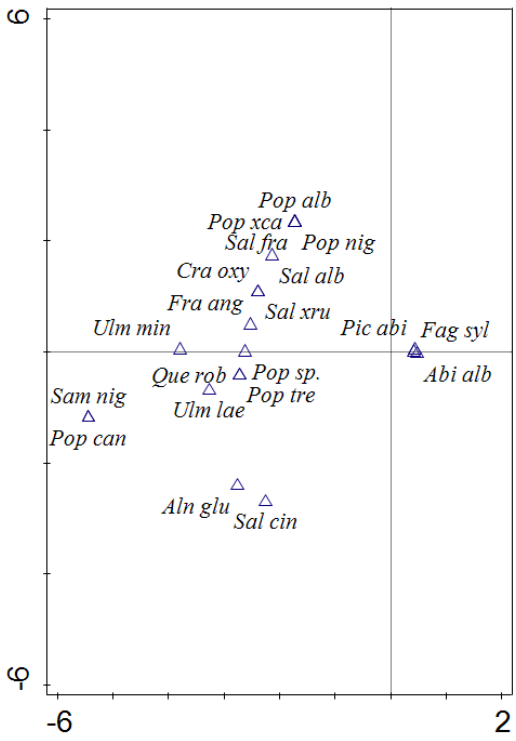
Car chl
Acr aru
Ana pla


6
-6
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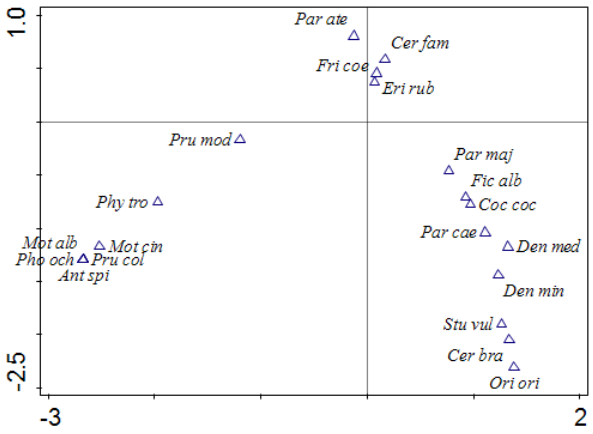
2
Pop alb
Pop xca
Sal fra
Pop nig
Cra oxy
Sal alb
Fra ang
Sal xru
Ulm min
Pic abi
Fag syl
Que rob
Pop sp.
Abi alb
Sam nig
Pop tre
Ulm lae
Pop can
Aln glu
Sal cin

c)


1.0
-2.5
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Par ate
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Fri coe
Eri rub
Pru mod
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Phy tro
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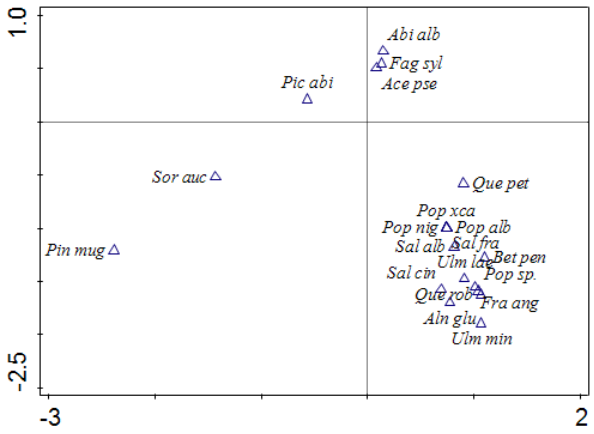
Cer bra
Ori ori


1.0
-2.5
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2
Abi alb
Fag syl
Pic abi
Ace pse
Sor auc
Que pet
Pop xca
Pop nig
Pop alb
Sal alb
Sal fra
Pin mug
Ulm lae
Bet pen
Sal cin
Pop sp.
Que rob
Fra ang
Aln glu
Ulm min

Supplement 10. Explanatory power (%), statistics (pseudo-*F*) and standard and adjusted (false discovery rate) probabilities (*P* and *P*(adj)) of canonical correspondence analysis (CCA) simple and conditional term effect simulations of explanatory variables. Unrestricted permutation tests were used to test the statistical significance of ordination axes based on 9999 iterations. CCAs were based on binary, density and dominance bird assemblage matrices of 139 (a, b, c, d, e, f) and 38 (g, h, i, j, k, l) samples × 11 environmental variables. Explanations: CaseR.1 – the first DCA ordination axis of woody plant species composition matrix (floristics 1), CaseR.2 – the second DCA ordination axis of woody plant species composition matrix (floristics 2), Precipitation 1 – mean annual precipitation 1961–2010, Precipitation 4 – precipitation during breeding months (April–July) in census years, Temperature 1 – mean annual temperature 1961–2010.

Binary matrix of 139 bird assemblage samples

a) Simple Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
Temperature 1	17.9	27.5	0.0001	0.00011
Precipitation 1	16.0	24.0	0.0001	0.00011
CaseR.1	15.4	22.9	0.0001	0.00011
Wood increment	9.5	13.3	0.0001	0.00011
Dendromass	9.2	12.7	0.0001	0.00011
Latitude	8.2	11.2	0.0001	0.00011
Precipitation 4	6.6	8.8	0.0001	0.00011
Reserve size	5.4	7.2	0.0001	0.00011
Longitude	4.4	5.8	0.0001	0.00011
CaseR.2	3.9	5.1	0.0001	0.00011
Census year	2.8	3.7	0.0002	0.0002

b) Conditional Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
Temperature 1	17.9	27.5	0.0001	0.00014
CaseR.1	10.8	19.0	0.0001	0.00014
CaseR.2	3.8	6.9	0.0001	0.00014
Precipitation 1	3.1	6.0	0.0001	0.00014

Reserve size	2.1	4.2	0.0001	0.00014
Census year	1.9	3.8	0.0001	0.00014
Latitude	1.9	3.8	0.0001	0.00014
Longitude	2.0	4.3	0.0001	0.00014
Wood increment	1.4	2.9	0.0021	0.00231
Precipitation 4	1.2	2.6	0.0006	0.00073
Dendromass	1.0	2.1	0.0063	0.0063

Density matrix of 139 bird assemblage samples

c) Simple Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
Temperature 1	21.5	34.6	0.0001	0.00012
Precipitation 1	20.9	33.3	0.0001	0.00012
CaseR.1	17.1	26.0	0.0001	0.00012
Wood increment	10.8	15.3	0.0001	0.00012
Latitude	10.1	14.2	0.0001	0.00012
Dendromass	10.0	13.9	0.0001	0.00012
Longitude	6.5	8.8	0.0001	0.00012
Precipitation 4	6.0	8.0	0.0001	0.00012
Reserve size	4.7	6.2	0.0001	0.00012
CaseR.2	3.9	5.2	0.0002	0.00022
Census year	2.8	3.6	0.0014	0.0014

d) Conditional Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
Temperature 1	21.5	34.6	0.0001	0.00018
Wood increment	11.4	21.3	0.0001	0.00018
Precipitation 1	5.3	10.6	0.0001	0.00018
CaseR.1	4.8	10.3	0.0001	0.00018

CaseR.2	2.9	6.5	0.0001	0.00018
Reserve size	2.0	4.6	0.0003	0.00041
Census year	2.1	5.1	0.0001	0.00018
Precipitation 4	1.8	4.5	0.0006	0.00073
Latitude	2.1	5.4	0.0003	0.00041
Longitude	1.2	3.3	0.0032	0.00352
Dendromass	0.9	2.4	0.0204	0.0204

Dominance matrix of 139 bird assemblage samples

e) Simple Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
Temperature 1	26.5	45.3	0.0001	0.00012
Precipitation 1	23.1	37.8	0.0001	0.00012
Wood increment	19.3	30.2	0.0001	0.00012
Dendromass	17.3	26.4	0.0001	0.00012
CaseR.1	16.1	24.2	0.0001	0.00012
Precipitation 4	12.2	17.5	0.0001	0.00012
Latitude	8.5	11.7	0.0001	0.00012
Reserve size	7.9	10.9	0.0001	0.00012
Longitude	5.1	6.8	0.0001	0.00012
CaseR.2	4.6	6.1	0.0004	0.0004
Census year	4.1	5.4	0.0002	0.00022

f) Conditional Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
Temperature 1	26.5	45.3	0.0001	0.00022
CaseR.1	12.2	25.0	0.0001	0.00022
Wood increment	5.5	12.2	0.0001	0.00022
Precipitation 1	5.5	13.3	0.0001	0.00022

CaseR.2	2.2	5.7	0.0001	0.00022
Precipitation 4	1.9	4.9	0.0003	0.00037
Census year	1.7	4.6	0.0003	0.00037
Reserve size	1.6	4.5	0.0003	0.00037
Latitude	1.6	4.7	0.0002	0.00037
Longitude	1.2	3.6	0.0015	0.00165
Dendromass	0.9	2.7	0.0097	0.0097

Binary matrix of 38 bird assemblage samples

g) Simple Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
Precipitation 1	24.8	9.2	0.0001	0.00037
CAaxis1	24.7	9.2	0.0001	0.00037
Temperature 1	24.7	9.2	0.0001	0.00037
Wood increment	9.9	3.1	0.0081	0.02228
Latitude	9.4	2.9	0.0102	0.02244
Reserve size	6.6	2.0	0.0542	0.08456
Dendromass	6.5	1.9	0.061	0.08456
Precipitation 4	6.4	1.9	0.0615	0.08456
CAaxis2	4.2	1.2	0.2478	0.30287
Longitude	3.5	1.0	0.3702	0.40722
Census year	2.5	0.7	0.6796	0.6796

h) Conditional Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
Precipitation 1	24.8	9.2	0.0001	0.0011
CAaxis1	7.5	3.0	0.0009	0.0033
Wood increment	7.0	3.0	0.0004	0.0022
Temperature 1	2.6	1.1	0.343	0.539

CAaxis2	4.0	1.8	0.0343	0.09432
Reserve size	2.9	1.3	0.1683	0.37026
Census year	2.7	1.2	0.2269	0.41598
Latitude	2.0	0.9	0.5352	0.6081
Longitude	1.9	0.9	0.6081	0.6081
Dendromass	2.0	0.9	0.5554	0.6081
Precipitation 4	1.9	0.8	0.6052	0.6081

Density matrix of 38 bird assemblage samples

i) Simple Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
CAaxis1	26.9	10.3	0.0001	0.00037
Precipitation 1	25.4	9.5	0.0001	0.00037
Temperature 1	24.6	9.2	0.0001	0.00037
Wood increment	14.4	4.7	0.0002	0.00055
Dendromass	14.0	4.6	0.0003	0.00066
Longitude	11.7	3.7	0.0014	0.00257
Precipitation 4	10.3	3.2	0.0066	0.00907
Latitude	9.8	3.0	0.0058	0.00907
Reserve size	7.4	2.2	0.0277	0.03386
CAaxis2	7.2	2.2	0.0402	0.04422
Census year	3.2	0.9	0.4648	0.4648

j) Conditional Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
CAaxis1	26.9	10.3	0.0001	0.00055
Wood increment	15.5	7.3	0.0001	0.00055
Precipitation 1	6.2	3.1	0.0006	0.0022
Reserve size	4.1	2.2	0.0132	0.0363

CAaxis2	3.0	1.7	0.0733	0.13438
Temperature 1	3.3	1.9	0.0421	0.09262
Census year	2.5	1.5	0.135	0.21214
Latitude	2.2	1.3	0.2079	0.28586
Precipitation 4	1.5	0.9	0.5728	0.70009
Dendromass	0.9	0.5	0.8931	0.9558
Longitude	0.8	0.4	0.9558	0.9558

Dominance matrix of 38 bird assemblage samples

k) Simple Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
CAaxis1	23.1	8.4	0.0001	0.00022
Precipitation 1	22.5	8.1	0.0001	0.00022
Temperature 1	21.9	7.8	0.0001	0.00022
Wood increment	16.5	5.5	0.0001	0.00022
Dendromass	13.8	4.5	0.0001	0.00022
Precipitation 4	8.9	2.7	0.0114	0.01568
Latitude	8.8	2.7	0.0109	0.01568
Reserve size	8.7	2.7	0.0111	0.01568
Longitude	6.5	1.9	0.0532	0.06502
CAaxis2	6.4	1.9	0.0645	0.07095
Census year	2.8	0.8	0.5953	0.5953

l) Conditional Term Effects:

Name	Explains %	pseudo-*F*	*P*	*P*(adj)
CAaxis1	23.1	8.4	0.0001	0.00037
Wood increment	15.4	6.7	0.0001	0.00037
Precipitation 1	7.6	3.7	0.0001	0.00037
Longitude	3.6	1.8	0.0505	0.1111

Temperature 1	3.6	1.8	0.0672	0.11189
CAaxis2	3.8	2.0	0.0194	0.05335
Reserve size	2.9	1.6	0.0712	0.11189
Census year	2.1	1.1	0.325	0.44688
Latitude	1.5	0.8	0.6391	0.78112
Precipitation 4	1.1	0.6	0.8855	0.9384
Dendromass	0.9	0.5	0.9384	0.9384