

BIBLIOGRAPHY OF *COENOSIS* (VOLUMES 1-10)

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Abstract: A bibliography of 178 papers, editorials and notes published in *Coenoses* volumes 1-10 (1986-1995) is presented. It contains several indices featuring the sources (summary information on papers), authors, disciplines, geography, ecosystem type as well as an extensive list of keywords.

The scope and aims of *Coenoses*

Coenoses was founded by Prof. Enrico Feoli (Trieste, Italy) and Prof. László Orlóci (London, Canada) in 1986 as a new scientific journal devoted to community research and "to serve as an international forum for an interdisciplinary dialogue regarding the theoretical bases of community studies, methods and research results" (cited from the Scope and Objective of the Journal). *Coenoses* publishes original scientific works, review papers, reports of meetings, information on new software tools, and short notes and editorials. Structure and function of biotic communities, as well as population-biological studies, are the declared main core of publishing in the pages of *Coenoses*.

The first issue of the journal was published by Proxima (Trieste), and later ones by Edizioni Lint (Trieste). Since volume 7, publication of the journal has been in the hands of C.E.T.A. (International Center for Theoretical and Applied Ecology), a private research institute located in Gorizia, Italy. The sponsors of the journal are Consiglio Nazionale delle Ricerche (CNR), the University of Trieste, Regione Autonoma Friuli-Venezia Giulia, and the Province of Gorizia. László Orlóci served at the beginning as Secretary and later as Editor-in-Chief, while Enrico Feoli acted as Managing Editor. Starting with volume 11, Norm Kenkel (Winnipeg, Canada) takes over as Editor-in-Chief.

Every new journal is strongly shaped by its founders. Both L. Orlóci and E. Feoli rank among the leading personalities in numerical and statistical data analysis in ecology. Topic areas such as the application of multivariate and univariate statistics, mathematical modelling, data-banking, and GIS applications became, and continue to be, the leading themes of *Coenoses*. By focusing on the development of new methods for the treatment of data in ecology, taxonomy and population biology, the journal has filled an important niche in the ecological publishing landscape (see the indices 'Scientific Disciplines' and 'Methods' below). Papers examining theoretical aspects of ecology, and vegetation science in particular, predominate. Although the journal has

published ca. 20 papers featuring zoological topics, a future challenge for *Coenoses* is to broaden its scope and to focus more on animal populations and communities.

The authors of papers published in *Coenoses* come from many countries, with Canada, Italy, Hungary, USA, South Africa and several Third World countries (e.g. Argentina, China, Ethiopia, Sudan) making up the most of the published material. The strong impact of the works of L. Orlóci and N. Kenkel (Canada), W. Conley and G. Patil (USA), E. Feoli (Italy), M. B. Dale (Australia) and J. Podani (Hungary) is indisputable. The association of the journal with the University of Trieste, the International Centre for Science and Technology, the International Institute for Theoretical Physics, the Third World Academy of Sciences, and C.E.T.A. (all institutions located in Trieste or Gorizia, and connected through the personality of Enrico Feoli) has fostered strong links between *Coenoses* and science in the Third World. The above-mentioned organizations, as well as the Summer Schools of the International Association for Vegetation Science (headed by László Orlóci), have organized a number of scientific meetings, modelling courses, and hands-on workshops that have brought together experts in theoretical ecology and numerical data analysis with colleagues from Africa, China, South America, and Eastern Europe (which at the time were still isolated by the Iron Curtain).

Preparation of the bibliography

The bibliography was produced using Sci-Mate (Institute for Scientific Information, Philadelphia, USA), a software package for entering, searching, and retrieving bibliographic items (e.g. paper citations), and for automatically producing and editing reference lists. The program also composed the citation formats used in preparing the Source Index. Each entry (bibliographic citation) in the Sci-Mate data bank contains the name(s) of the author(s), title, source (journal, proceedings), volume, pages, year, editors (optionally in the case of proceedings and compendia), place of publication, publisher (also optionally in the case of books) and

keywords (excluding words in the title). Additional fields coded for syntaxa, disciplines, ecosystems, and geographic units for each article.

The program BIBIND (Jürgen Geißelbrecht, Wien) was used to produce indices based on various fields containing codes for disciplines, ecosystems, and geographic units. BIBIND was also used to combine keywords with words (or groups of words) in article titles to form a common Keyword Index. The indices produced by BIBIND were subsequently edited to improve user-friendliness.

Structure of the bibliography

The bibliography consists of the following indices: Source Index, Authors Index, Discipline Index, Geography Index, Ecosystem Index, and Keyword Index.

Source Index

The Source Index contains references to all papers published in *Coenoses* volumes 1-10. All publication entities, including scientific papers, editorials, introductions to special volumes, obituaries, etc. have been included. Book reviews and two preceding bibliographies are not considered.

Each item is introduced by a running number. In total 178 papers are covered. The name(s) of the author(s) follow(s) in the next line. Since users often look for papers using authors as the main guideline, author(s) names are given in bold. The title of the paper is given next, followed by the year, volume and pagination as a separate entry. Unlike preceding *Coenoses* indices, titles are given using both capital and low-case letters. A list of keywords (headed by the abbreviation "KW") is given. To save space, keywords are presented as a line-ordered list. Disciplines (DI), geography (GG) and ecosystem (EC) codes follow, each on a separate line. All other indices have been derived from the Source Index using the above-mentioned software.

Authors Index

All authors, regardless of their position in joint-authored papers, are given in alphabetic order. Family name is given first, followed by initials. Names of Chinese and Ethiopian colleagues are given in full. The running number(s) of papers follows the name of each author.

Discipline Index

This index lists, in alphabetical order, the codes for scientific disciplines featured in the papers; the running numbers of the relevant papers follow this code. The coding system differs somewhat from that used in previous *Coenoses* indices. Codes are summarized in Table 1.

Geography Index

Like the preceding Index, the Geography Index contains an alphabetic sequence of codes for countries (including independent state units) as well as large-scale geographic units such as continents and subcontinents. Each is followed by the

running numbers of pertaining papers. Codes are summarized in Table 2.

Ecosystem Index

The ecosystem types dealt with in particular papers are listed (by abbreviations), followed by the running numbers of the relevant papers. The three-letter ecosystem codes are summarized in Table 3.

Keyword Index

This extensive index contains entries derived from both article titles and the KW-section of the Source Index. Entries are ordered alphabetically, and are followed by the running numbers of relevant papers. The Latin names of organisms and syntaxa are printed in italics.

Acknowledgements: We thank Jürgen Geißelbrecht for the computer programme BIBIND, Norm Kenkel for valuable information and corrections, and Enrico Feoli for encouragement. We dedicate this bibliography to our friend, Professor László Orlóci, the founder and editor of *Coenoses*.

Source Index

1

Goodall, D.W.

Classification and ordination: their nature and role in taxonomy and community studies.

1986, 1: 3-9

DI: NUM, VEG, ORD, NCL, SYS, TAX, GRD, MOD, RES, THE

2

Kenkel, N.C.

Report on: 'Numerical Methods in the Study of Vegetation Systems'.

1986, 1: 10

KW: Zürich, meeting

DI: VEG, HIS, EDU, NUM, VEG

GG: EUA, CH

3

Orlóci, L., Feoli, E., Lausi, D. & Nimis, P.L.

Estimation of character structure convergence (divergence) in plant communities: a nested hierarchical model.

1986, 1: 11-20

KW: character set, profile

DI: NUM, MUL, STA, EVO, VEG, THE, SYS, MOD

4

Lachance, M.A. & Starner, W.T.

The community concept and the problem of non-trivial characterization of yeast communities.

1986, 1: 21-28

KW: PCA

DI: NUM, MIC, INF, STA, ORD

5

Wildi, O.

The relational model for data bases in community studies.

1986, 1: 29-34

KW: relational data bank

DI: THE, VEG, NUM

6

Dale, M.B., Beatrice, M., Venanzoni, R. & Ferrari, C.

A comparison of some methods of selecting species in vegetation analysis.

1986, 1: 35-51

KW: species reduction, constancy, fidelity, discrimination, uniformity, correlation, specificity, cost, concordance, compositional similarity, order similarity, partition comparison, matrix comparison, compatibility, robust, resistant

DI: NUM, ORD, RES, STA, MUL, THE, VEG, MET

EC: FOR, SAL

GG: EUS, IT

7

Stofella, S.L.

Report on: 'Numerical Methods to Analyze Vegetation Data'.

1986, 1: 52

KW: Rosario, meeting

DI: VEG, NUM, MUL, EDU, HIS

GG: ALT, AR

8

Feoli, E. & Ganis, P.

Autocorrelation for measuring predictivity in community ecology: an example with structural and chorological data from mixed forest types in NE Italy.

1986, 1: 53-56

KW: Friuli

DI: THE, VEG, PAT, NUM, STA, MOR, LIF, GEO

EC: FOR

GG: EUS, IT

9

Swindel, B., Lloyd, R., Patil, G.P., Taillie, C. & Conde, L.

U.S. National Forest Management Act, forest ecosystems diversity, and diversity profiles.

1987, 2: 1-8

KW: clear-cutting, Douglas fir, intrinsic diversity orderings, pine

DI: DIV, MOD, STA, DYN

EC: FOR, BOR

GG: AMN, US

10

Podani, J.

Computerized sampling in vegetation studies.

1987, 2: 9-18

KW: computer, simulation, estimation, plot size, transformation, autophenetic, sampling, symphenetic

DI: PAT, NUM, ORD, INF, NCL, MUL

11

Hinch, S.G. & Somers, K.M.

An experimental evaluation of the effect of data centering, data standardization, and outlying observations on principal component analysis.

1987, 2: 19-23

KW: transformation, PCA, correlation

DI: NUM, STA, MOD, ORD, GRD, RES

12

Kenkel, N.C. & Booth, T.

A comparison of presence-absence resemblance coefficients for use in biogeographical studies.

1987, 2: 25-30

KW: NMDS

DI: NUM, MUL, RES, GEO, ORD

13

Jancey, R.C. & Wells, T.C.

Locality theory: the phenomenon and its significance.

1987, 2: 31-37

KW: species ranking

DI: RES, NUM, MUL, VEG, DYN, NCL

EC: BOR

GG: AMN, CA

14

Michaelsen, J., Davis, F.W. & Borchert, M.

A non-parametric method for analyzing hierarchical relationships in ecological data.

1987, 2: 39-48

KW: variable set, probability, non-parametric, cross-validation, California

DI: NUM, INF, NCL, STA, DIS

EC: MES

GG: AMN, US

15

Carnevale, N.J., Torres, P., Boccanelli, S.I. & Lewis, J.P.

Halophilous communities and species distributions along environmental gradients in southeastern Santa Fé Province, Argentina.

1987, 2: 49-60

KW: PCA

DI: NUM, GRD, PED, ORD, RES

EC: SAL

GG: ALT, AR

16

Orlóci, L.

Flexible gradient analysis: a note on ideas and an application.

1987, 2: 61-65

KW: sampling

DI: NUM, GRD, ORD, PED, RES, MET

EC: MIR

GG: EUA, CH

17

Fewster, P.H.

Regression modelling of perturbation in some vegetation types.

1987, 2: 67-74

KW: response

DI: NUM, STA, RES, ORD, MOD

EC: BOR

GG: AMN, CA

18

Bredenkamp, G.J.

An overview of the major plant communities of the Manyeleti Game Reserve, Gazankulu, South Africa.

1987, 2: 75-84

DI: VEG, SYS

EC: ARI, SAV

GG: AFS, ZA

19

Russo, T.

Parental and oblique transmission and interaction between traits in the evolution of non-genetic traits: suggestions for a cultural ecology.

1987, 2: 85-95

KW: epidemics, diffusion

DI: NUM, GEN, EVO, MOD, COM

20

Goodall, D.W. & Feoli, E.

Application of probabilistic methods in the analysis of phytosociological data.

1988, 3: 1-9

KW: association, hierarchy

DI: NUM, INF, RES, NCL, SYS, THE, VEG, MET

EC: ALP

GG: EUS, IT

21

Editors

Report on: "Statistical and Computational Ecology": an international workshop.

1988, 3: 10

KW: Las Cruces, meeting

DI: EDU, VEG, STA, NUM

GG: AMN, US

22

Dale, M.B.

Knowing when to stop: cluster concept - concept cluster.

1988, 3: 11-32

KW: splitting line, graph, test, interpretation, geometry

DI: NUM, MUL, MET, NCL, STA

23

Camiz, S.

Expert systems: utility in community studies and examples.

1988, 3: 33-40

KW: table sorting, NMDS, eigenanalysis

DI: NUM, SYS, ORD, MUL, NCL

24

Petrakis, P.

DAPROPHECO: a specialized database system for integrated studies in plant-hemiptera communities.

1988, 3: 41-53

KW: software

DI: NUM, ZOO, ORD, MUL, NCL

25

Hull, V. & Lagonegro, M.

AQUAMOD: an introductory purpose simulation model of plankton dynamics.

1988, 3: 55-60

KW: simulation, software

DI: HYD, MOD, NUM, DYN, PLN

EC: LAC, AQU

GG: EUS, IT

26

Bartoli, A. & Massari, G.

Sampling mycocoenoses.

1988, 3: 61-68

KW: mycocoenology, sampling design, size of sample, number of units

DI: CRY, MYC, PAT, THE, MET, STA

27

André, H.M.

Variable centered methods and community classification.

1988, 3: 69-78

KW: TABORD, clustering, comparison of classifications, DCA, Tennessee watershed data

DI: NUM, MUL, NCL, RES, ORD, ZOO, MET

EC: FOR

GG: AMN, US

28

Feoli, E., Ganis, P. & Zerihun Woldu

Community niche, an effective concept to measure diversity of gradients and hyperspaces.

1988, 3: 79-82

KW: beta diversity

DI: THE, VEG, ECO, COM, GRD, DIV, RES

EC: FOR

GG: AFE, ET

29

Mucina, L., Čífk, V. & Slavkovský, P.

Trend surface analysis and splines for pattern determination in plant communities.

1988, 3: 89-105

KW: TSA, bicubic splines, approximation, interpolation, triangular, *Persicaria*, canonical, kriging

DI: THE, VEG, PAT, NCL, ORD, PED, POP

EC: RUD, MIR

GG: EUC, CS, SK, EUB, BG

30

Kenkel, N.C.

Introduction to Data Analysis: a comprehensive program package for personal computers.

1988, 3: 107-109

KW: software

DI: THE, VEG, NUM, MUL, ORD, NCL, POP, STA, DYN

31

Carleton, T.J.

DENT: A Pascal program for vegetation data entry into microcomputers.

1988, 3: 110

KW: software

DI: NUM, NCL, MUL, NCL, ORD

32

Podani, J.

SYN-TAX III. A package of programs for data analysis in community ecology and systematics.

1988, 3: 111-119

KW: sampling, association analysis, software, comparison, consensus, ranking, symphenetic, PCA, PCO, AOC, correspondence analysis

DI: NUM, MUL, VEG, THE, MET, PAT, NCL, ORD, INF

33

Dale, M.

Mutational and nonmutational similarity measures: a preliminary examination.

1988, 3: 121-133

KW: transformation, partitions, topology, Levenstein, fuzzy set, Rajski
DI: NUM, MUL, NCL, MET, RES, MOD

34

Herben, T. & Liška, J.

The use of multi-way contingency tables for the study of epiphytic lichen distribution.

1988, 3: 135-139

KW: *Lecanora*, ANOVA

DI: NUM, MUL, NCL, CRY, STA, LIC

EC: EPI

GG: EUC, CS, CZ

35

Feoli, E. & Zuccarello, V.

Syntaxonomy: a source of useful fuzzy sets for environmental analysis?

1988, 3: 141-147

KW: *Salicetea herbaceae*, *Caricetea curvulae*, fuzzy sets

DI: SYS, NUM, MUL, GRD, ORD, DYN

EC: ALP, GRA

GG: EUS, IT

36

Levins, R. & Puccia, C.J.

The controlling factor in biological communities.

1988, 3: 149-154

KW: loop, density, null hypothesis

DI: THE, ECO, POP, DYN, INT, MOD

37

Biondini, M.E., Mielke, P.W. & Redente, E.F.

Permutation techniques based on Euclidean analysis spaces: a new and powerful statistical method for ecological research.

1988, 3: 155-174

KW: non-linearity, software

DI: NUM, MUL, MET, STA, VEG

38

Kostoris, A.

Assessment of DBH normality based on plotless sampling.

1988, 3: 175-180

DI: SIL, THE, MET, STA, NUM

39

Podani, J.

A method for generating consensus partitions and its application to community classification.

1989, 4: 1-10

KW: relocation, SLC, SAHN, MINFO, CLC

DI: NUM, MUL, SYS, NCL, MET

EC: GRA

GG: EUC, HU

40

Jancey, R.C.

The measurement of non-linear association in community descriptor sets.

1989, 4: 11-13

KW: SLC

DI: NUM, MUL, RES, NCL

41

Shaukat, S.S. & Uddin, M.

A comparison of principal component and factor analysis as ordination models with reference to a desert ecosystem.

1989, 4: 15-28

KW: PCA, NMDS, orthogonal

DI: NUM, ORD

EC: DES

GG: ASI, PK

42

Lepš, J., Soldán, T. & Landa, V.

Multivariate analysis of compositional changes in communities of *Ephemeroptera* (*Insecta*) in the Labe Basin, Czechoslovakia - a comparison of methods.

1989, 4: 29-37

KW: DCA, TWINSpan, transition matrix

DI: NUM, MUL, ZOO, DYN, NCL, ORD

EC: FLU, LAC

GG: EUC, CS, CZ

43

Yu, S.X. & Orlóci, L.

Species dispersions along soil gradients in a *Cryptocarya* community, Dinghushan, south China.

1989, 4: 39-45

KW: niche, canonical, dispersion profiles

DI: PED, GRD, COM, NUM, ORD

EC: FOR

GG: ASE, CN

44

Franceschi, E.A.

Distribution of herbaceous communities of the river Paraná valley along an elevation gradient after a catastrophic flood.

1989, 4: 47-53

KW: PCA, SSC

DI: GRD, GEO, NUM, MUL, WAT, ORD, NCL

EC: FLU, TRO, FLO

GG: ALT, AR

45

Dulová, M. & Okáli, I.

Statistical evaluation of biocenotic records: SOFIS and the *Auchenorrhyncha* file.

1989, 4: 55-58

KW: data bank, Bratislava

DI: ZOO, NUM

GG: EUC, CS, SK

46

Kenkel, N.C.

Report on: The International Workshop on Mathematical Community Ecology.

KW: meeting

1989, 4: 59-60

DI: NUM, MAT, EDU, VEG, HIS

GG: EUS, IT

47

Egziabher, T.B.G.

The environmental variables which led to the ecological crisis in Ethiopia.

1989, 4: 61-67

KW: highlands, Great Rift Valley, evergreen montane forests, com-bretaceous deciduous woodlands, microphyllous woodlands, evergreen scrub, Vavilov centre, multiethnic, multi-religious society, debtera, shimagle, serfs, chewa, neftenna

DI: ENV, CLI, HUM, HIS

EC: ARI, TRO, DES, FOR

GG: AFE, ET

48

Kenkel, N.C.

Report on "Sampling and Data Analysis in Mediterranean Macchia Vegetation".

1989, 4: 68

KW: IAVS, meeting

DI: NUM, WHO, HIS, VEG, EDU

EC: MES

GG: EUS, IT

49

Adler, G.H. & Wilson, M.L.

Insular distributions of voles and shrews: the rescue effect and implications for species co-occurrence patterns.

1989, 4: 69-72

KW: *Blarina*, mammals, loop

DI: ISL, ZOO, POP, INT

GG: AMN, US

50

Reich, R.M.

Sampling simulation with a microcomputer.

1989, 4: 73-80

KW: inventory, software

DI: PAT, NUM, MOD, THE, MET, ECO

51

Rinaldi, M.G. & Rinaldi, S.

Acid deposition and catastrophes in forests: a tree-nutrient model.

1989, 4: 81-90

KW: equilibrium, fold catastrophe

DI: ENV, MOD, NUT, STB

EC: FOR

52

Niven, B.S.

The ecosystem as an algebraic category: a mathematical basis for theory of community and ecosystem in animal ecology.

1989, 3: 83-87

KW: treehole

DI: MAT, ZOO, THE, ECO, TER

53

Stergiou, K.I.

A method to cope with collinearity of ecological data sets in community studies.

1989, 4: 91-94

KW: factor analysis

DI: NUM, MUL, ZOO, HYD, STA, MET, MAR

EC: SEA

GG: EUS, GR

54

Marsili-Libelli, S.

Fuzzy clustering of ecological data.

1989, 4: 95-106

DI: NUM, NCL, MUL, PHY, PHO

55

Díaz, S. & Acosta, A.

Floristic and diversity changes in the phanerophytic vegetation of Copacabana watershed (central Argentina) as a response to disturbance.

1989, 4: 107-111

KW: DCA

DI: DIT, DIV, ENV, GRB, ORD

EC: GRA, TRO

GG: ALT, AR

56

Czárán, T.

Coexistence of competing populations along an environmental gradient: a simulation study.

1989, 4: 113-120

KW: cellular automata, response

DI: COM, POP, DYN, DIS, GRD, THE, VEG, PAT

57

Margalef, R.

On diversity and connectivity, as historical expressions of ecosystems.

1989, 4: 121-126

DI: THE, ECO, DIV, COX

58

Niven, B.S.

The animal niche: a formalized functional definition and its use in classifying niches.

1989, 4: 127-135

DI: COM, ZOO, THE, ECO

59

Neet, C.R.

Niche overlap measures and hypothesis testing: a review with particular reference to empirical applications.

1989, 4: 137-144

DI: RES, COM, THE, MET, ECO

60

Ying-Hen Hsieh

Evolution of altruistic communities.

1989, 4: 145-147

KW: Von Foerster equations, altruistic ratio, fecundity function

DI: EVO, MOD, POP, ECO, THE, MAT

61

Banyikwa, F.F.

Species-habitat relationships in the Serengeti short grasslands, Tanzania.

1989, 4: 149-152

KW: topography

DI: NUM, ORD, GRD, GMO

EC: SAV

GG: AFE, TZ

62

Van Tilborgh, T., van Straaten, D., Van Hecke, P. & Verheyen, R.

Small-scale analysis of a marsh vegetation fed by seepage.

1989, 4: 153-162

KW: microtopography, species association, species juxtaposition, species region, plexus
 DI: GMO, PAT, RES, VEG, NUM
 EC: WET, MIR
 GG: EUW, BE

63

Shaukat, S.S.

A technique for species weighting and its utility in data reduction and minimization of misclassification.

1989, 4: 163-168

KW: sum of squares, data reduction

DI: THE, VEG, MET, NUM, NCL

EC: URB, RUD

GG: AMN, CA

64

Boryslawski, Z. & Krusińska, E.

Fuzzy linguistics concept in redescription of vegetation data.

1989, 4: 169-173

THE, VEG, NUM, ORD

65

Kenkel, N.C.

Report on "Numerical Methods and Models in Vegetation Biology".

1989, 4: 174

KW: León, IAVS, meeting

DI: VEG, HIS, NUM, MOD, EDU

GG: EUW, ES

66

Goodall, D.W.

Simulation modelling for ecological applications.

1989, 4: 175-180

KW: sensitivity, validation

DI: THE, ECO, MOD

67

Giavelli, G., Bodini, A. & Rossi, O.

An extension of the complexity concept derived from the analysis of colonisation processes in small island environments.

1990, 5: 1-5

DI: THE, ECO, MOD, STB, COX, ISL, DYN

68

Ulanowicz, R.E. & Puccia, C.J.

Mixed trophic impacts in ecosystems.

1990, 5: 7-16

KW: beneficial predators, Chesapeake Bay, trophic structure, effect of predation, indirect competition, indirect mutualism, input-output analysis, loop analysis, networks of carbon flows

DI: THE, ECO, MOD, COM, ENE

69

Podani, J.

Comparison of fuzzy classifications.

1990, 5: 17-21

KW: consensus, distance, minimum length sequence metrics, partitions

DI: NUM, NCL, THE, MET, RES, MUL

70

Ganesalingam, S.

Likelihood approach to clustering using unclassified initial sample.

1990, 5: 23-31

KW: linear discriminant function, normal distribution mixture, mixture and separate sampling, maximum likelihood estimates, simulation comparison

DI: NUM, MUL, NCL, STA, MET

71

Jain, R.K.

Fish species diversity and its relationship to distance from the coast line.

1990, 5: 33-35

DI: DIV, THE, ZOO, MAR

EC: SEA

72

Fischer, H.S.

Simulating the distribution of plant communities in an alpine landscape.

1990, 5: 37-43

KW: Davos

DI: MOD, SYS, LAN, GEO, MAP

EC: ALP

GG: EUA, CH

73

West, N.E. & Hatton, T.J.

Relative influence of observer error and plot randomization on detection of vegetation change.

1990, 5: 45-49

DI: NUM, ORD, VEG, DYN, THE, MET, STA

74

Wildi, O.

Sampling with multiple objectives and the role of spatial autocorrelation.

1990, 5: 51-60

KW: simulation, Davos

DI: NUM, PAT, MOD, MET, STA

EC: ALP

GG: EUA, CH

75

DiPasquale, C.

A game theory model for food webs: time dependence in a predator/prey system.

1990, 5: 61-67

KW: graph

DI: THE, MET, WEB, ECO, MOD, PPR

76

Lepš, J., Straškraba, M., Husák, Š. & Boháč, J.

Classification of sequences in community ecology - three case studies.

1990, 5: 69-77

KW: phytoplankton, soil macrofauna, TWINSpan

DI: THE, VEG, SYS, NCL, ZOO, PLN

EC: WET

GG: EUC, CS, CZ

77

Palmer, M.W.

Spatial scale and patterns of species-environment relationships in hardwood forest of the North Carolina Piedmont.

1990, 5: 79-87

KW: geostatistics, self-similarity, fractal, Duke Forest, calcium, semi-variogram, detrending, CCA
 DI: NUM, ORD, GRD, PAT, RES
 EC: FOR
 GG: AMN, US

78

Palmer, M.W.

Spatial scale and patterns of vegetation, flora and species richness in hardwood forests of the North Carolina piedmont.

1990, 5: 89-96

KW: Monte Carlo, floristic pattern, DCA

DI: NUM, ORD, PAT, DIV

EC: FOR

GG: AMN, US

79

Bouxin, G.

The measurement of horizontal patterns in vegetation: a review and proposals for models.

1990, 5: 97-112

KW: distance, non-parametric test, plurispecific, monospecific, sampling, dispersion index, contagion index

DI: NUM, THE, VEG, PAT, STA, MOD

80

Carnevale, N.J. & Torres, P.S.

The relevance of physical factors on species distribution in inland salt marshes (Argentina).

1990, 5: 113-120

KW: canonical correlations, interspecific competition, physical factors, plasticity

DI: GRD, ORD, NUM, COM, AUT

EC: SAL

GG: ALT, AR

81

Luboobi, L.S.

A population of insects infesting a stored quantity of wheat.

1990, 5: 121-124

KW: *Sitophilus*, *Triticum*, weevils, critical food ration, delay differential equations

DI: POP, INT, MOD

82

Li Dianmo & Chen Xiaofeng

Forest pest management strategies based on community models.

1990, 5: 125-129

KW: pest-host interaction, pine tree, pine caterpillar

DI: SIL, MOD, THE, ENV, INT, ZOO, MAT, COM

83

Szathmáry, E., Hegedüs, C., Németh, G., Molnár, I. & Vida, G.

The engagement of the Red Queen and King Midas in the phylogenerator model.

1990, 5: 131-141

KW: cladograms, ecological interactions, coevolution, extinction, simulation, speciation

DI: EVO, THE, MOD, GEN, DIV, CLA

84

Cabrera-Febola, W.

Model of the spatial structure of rocky shore communities.

1990, 5: 143-147

KW: Ancona beach, lattices, spatial distribution, Hassés diagram

DI: MOD, PAT, THE, MAT, ECO, COM

85

Kenkel, N.C.

Spatial competition models for plant populations.

1990, 5: 149-158

KW: Dirichlet, *Picea*, forestry, neighbour, nucleation, process, tessellation, Delaunay triangulation

DI: COM, THE, PAT, NUM, POP, MET

EC: BOR

GG: AMN, CA

86

Yu, S.X. & Orlóci, L.

On niche overlap and its measurement.

1990, 5: 159-165

KW: similarity, *Cryptocarya* forest, Dinghushan

DI: COM, RES, NUM, NCL, THE, VEG, ECO

EC: FOR, TRO

GG: ASE, CN

87

Anonymous

Report on Methods and Models in Landscape Ecology.

1990, 5: 166

KW: ICE project, CETA, Gorizia, meeting

DI: EDU, VEG, HIS, MOD, MET, ECO, LAN

GG: EUS, IT

88

Bredenkamp, G.J. & Theron, G.K.

The vegetation of the fersiallitic soils of the Manyeleti Game Reserve.

1990, 5: 167-175

KW: conservation area, edaphic gradient, Transvaal Lowveld

DI: SYS, NUM, ORD, GRD, PED, CON

EC: SAV

GG: AFS, ZA

89

Conley, W.

An "Institute for Theoretical Ecology" - Part I: What is "theoretical ecology" and why do we need it?

1990, 5: 177-179

KW: statistical ecology, mathematical ecology, research funding

DI: SCI, HIS, EDU, THE, ECO, NUM, STA, MAT

90

Editors

From the editors of *Coenoses*.

1991, 6: 1

KW: editorial

DI: SCI, HIS, BIB

GG: EUS, IT

91

Camiz, S.

Reflections on spaces and relationships in ecological data analysis: effects, problems, possible solutions.

1991, 6: 3-13

KW: horseshoe, CCA, PCA, NMDS

DI: NUM, ORD, VEG, THE, MET

92

Qiong Gao

The minimum description length principle as applied to multivariate clustering analysis with isodata.

1991, 6: 15-20

DI: NUM, VEG, MUL, NCL, THE, MET

93

Acosta, A., Díaz, S. & Cábido, M.

Patch structure in natural grasslands of Córdoba Mountains (Argentina) in relation to different rock substrates.

1991, 6: 21-27

KW: community pattern, montane grasslands, patchiness, TWINSpan, DCA

DI: DIV, SYS, NCL, NUM, ORD

EC: GRA

GG: ALT, AR

94

Palmer, A.R.

Vegetation/environment relationships in the central area of the Cape Midlands, South Africa.

1991, 6: 29-38

KW: karoo, rainfall, altitude, PCA

DI: SYS, NUM, ORD, CLI, PED

EC: ARI

GG: AFS, ZA

95

Estabrook, G.F.

The size of nature reserves and the number of long lived plant species they contain.

1991, 6: 39-45

KW: natural area, species richness, reserve size, stress tolerance, recursion

DI: DIV, CON, THE, ISL

96

Franceschi, E.A. & Lewis, J.P.

Early stages in the Paraná River tall grassland recovery after an extraordinary flood.

1991, 6: 47-52

KW: catastrophic events, community regeneration, *Panicum prionitis*

DI: DIT, VEG, DYN, ORD, SYS, NCL

EC: SAV

GG: ALT, AR

97

Conley, W.

An Institute for Theoretical Ecology? Part II: The concept of "Center" - critique and a new design.

1991, 6: 53-60

KW: mathematical ecology, research funding, inter-disciplinary research

DI: THE, VEG, MAT, STA, EDU, SCI, ECO

98

Feoli, E. & Orlóci, L.

The properties and interpretation of observations in vegetation study.

1991, 6: 61-70

DI: THE, VEG, PAT, INF, NUM, NCL, ORD, MET

99

Cavallini, F.

Parameter-dependent equilibria in dynamic models of ecological communities. A qualitative approach with MACSYMA programs.

1991, 6: 71-78

KW: Jacobian matrix, qualitative modelling, symbolic computation, qualitons

DI: ECO, MOD, STB, MAT, THE

100

Moskát, C.

Multivariate plexus concept in the study of complex ecological data: an application to the analysis of bird-habitat relationships.

1991, 6: 79-89

KW: community structure, NMDS, plexus diagram

DI: MUL, NUM, ORD, ZOO, RES

GG: EUC, HU

101

Mazzoleni, S., French, D.D. & Miles, J.

A comparative study of classification and ordination methods on successional data.

1991, 6: 91-101

KW: PCA, TWINSpan

DI: SYS, ORD, NUM, VEG, DYN

EC: HEA

GG: EUW, GB

102

Orlóci, L.

On character-based plant community analysis: choice, arrangement, comparison.

1991, 6: 103-107

KW: New Mexico

DI: NUM, VEG, THE, INF

EC: DES

GG: AMN, US

103

Conley, W.

An Institute for Theoretical Ecology? Part III: Why we need it and what it should be like.

1991, 6: 109-112

DI: THE, ECO, EDU, SCI

104

Conley, W.

An Institute for Theoretical Ecology? Part IV: "Computational workshops": a planned activity for theoretical ecology.

1991, 6: 113-120

KW: mathematical ecology, research funding, interdisciplinary research

DI: THE, ECO, NUM, MAT, STA, SCI, EDU

105

Bradbury, R.H.

Understanding *Acanthaster*.

1991, 6: 121-126

KW: *Acanthaster planci*, crown-of-thorns starfish, outbreaks

DI: POP, DYN, COM

EC: COR

GG: AU

106

Zerihun Woldu

Implications of photosynthetic pathways of some grass species in Ethiopia to landuse.

1991, 6: 127-130

KW: Andropogoneae, zone

DI: PHY, GRB, GEO, PHO, LAN

EC: ARI

GG: AFE, ET

107

Palmer, A.R.

The potential vegetation of the upper Orange river, South Africa: concentration analysis and its application to rangeland assessment.

1991, 6: 131-138

KW: rainfall, altitude, *Grewia-Rhoetalia erosae*, *Pentzietea incanae*

DI: SYS, CLI, GRD, MAP, NUM

EC: ARI

GG: AFS, ZA

108

Mueller-Dombois, D.

Stand demography and vegetation change.

1991, 6: 139-141

KW: Hawaii, senescence, Shimagare, Galápagos, *Metrosideros*

DI: POP, DYN, DEM, THE, VEG, ISL

EC: TRO, VOL, BOR

GG: PAC, US, ASE, JP, ALE, EC

109

Kenkel, N.C.

A weighted tessellation model for studying plant population dynamics.

1991, 6: 143-149

KW: Delaunay, Dirichlet, Fraser

DI: THE, ECO, PAT, NUM, POP, DYN

110

Hauser, M. & Mucina, L.

Spatial interpolation methods for interpretation of ordination diagrams.

1991, 6: 151-168

KW: kriging, residual, TSA

DI: THE, VEG, MET, NUM, PAT, ORD

EC: FOR, BOR, GRA, DUN

GG: EUA, AT, EUW, NL

111

Spitaleri, R.M., Napoleone, I. & Contoli, L.

A numerical approach for the evaluation of biotopes for conservation purposes.

1991, 6: 169-171

KW: policy, ranking, NMDS

DI: NUM, ORD, CON, DIV, THE, MET

112

Conley, W. & Brunt, J.W.

An Institute for Theoretical Ecology? Part V: Practical data management for cross-site analysis and synthesis of ecological information.

1991, 6: 173-180

KW: data management, interdisciplinary research

DI: THE, ECO, EDU, STA, NUM, MAT

113

Conley, W., Conley, M.R. & Karl, T.R.

A computational study of episodic events and historical context in long-term ecological processes: climate and grazing in the northern Chihuahuan Desert.

1992, 7: 1-19

KW: climate trends, desert climate, desertification, domestic livestock, jackknifing, Monte Carlo, perennial desert grasslands, precipitation, shrub increase, temperature, time series analysis, NMDS

DI: CLI, GRB, NUM, VEG, DYN, ORD, GRD

EC: DES, ARI

GG: AMN, US

114

Fekete, G.

The holistic view of succession reconsidered.

1992, 7: 21-29

KW: deterministic, extrazonal, holism, primary succession, reductionism, series, stochastic succession, zonal, *Festuco-Brometea*, *Festuca vaginata* grassland, *Quercetalia pubescentis*, *Quercus-Fagetea*, *Rhamno-Prunetea*

DI: THE, VEG, DYN

EC: DUN, GRA, FOR

GG: EUC, HU

115

Lagonegro, M., Hull, V., Falcucci, M. & Cignini, I.

Simulating aquatic systems: a model of ecological processes.

1992, 7: 31-54

KW: simulation, nitrogen, zooplankton

DI: MOD, PLN, NUT, MAT, THE

EC: AQU

116

García, A., Carlos, G. & Bermudez, F.F.

Vegetation, soil and management relations in meadow communities of the Valdeon Valley, Cordillera Cantábrica, Spain.

1992, 7: 55-60

KW: deficiency, floristic, haying, soil chemicals

DI: PED, CLI, ENV, NUM, DIV, ORD

EC: GRA

GG: EUW, ES

117

Guillet, A. & Moll, E.J.

Structural and biogeographical patterns of vegetation in equatorial Sudan. I. Terrestrial communities.

1992, 7: 61-73

KW: mosaic, national park, TWINSpan

DI: GEO, SYS, NUM, NCL, PED, CON

EC: ARI, SAV

GG: AFN, SD

118

Guillet, A. & Moll, E.J.

Structural and biogeographical patterns of vegetation in equatorial Sudan. II. Physiognomic trends.

1992, 7: 75-80

KW: TWINSpan

DI: SYS, GEO, STR, NUM, ORD

EC: ARI, SAV

GG: AFN, SD

119

Feoli, E. & Zuccarello, V.

Fuzzy sets and structural changes in forest succession: an example from broad leaved forests of N.E. Italy.

1992, 7: 81-90

KW: *Fagus*, kriging, *Ostrya*, *Quercus*, trajectories

DI: NUM, ORD, INF, VEG, DYN, IND, STR

EC: FOR

GG: EUS, IT

120

Wildi, O.

On the use of Mantel's statistic and flexible shortest path adjustment in the analysis of ecological gradients.

1992, 7: 91-101

KW: non-linearity, site factors, spatial analysis, pH

DI: GRD, THE, VEG, MET, PAT, ORD, NUM, HYD, PED

121

Niven, B.S.

Formalization of some basic concepts of plant ecology.

1992, 7: 103-113

KW: resource, associate, modifier, malentity

DI: THE, ECO, TER, PPR, COM

122

Chengyong Sun, Feoli, E. & Lagonegro, M.

Measuring climatic niche width and overlap of vegetation types of China.

1992, 7: 115-119

KW: dynamic spaces, hypervolume, niche space, Procrustes analysis, static spaces, trajectory, minimum spanning tree

DI: CLI, COM, NUM, VEG, GEO

GG: ASE, CN

123

Yu, S.X. & Orlóci, L.

Niche breadth: an index of species environmental fitness.

1992, 7: 121-125

KW: *Cryptocarya*, congruence, performance, tolerance range

DI: NUM, AUT, POP, RES, INF

EC: TRO

GG: ASE, CN

124

Bailey, R.C.

Hierarchical analysis of community and habitat structure.

1992, 7: 127-135

KW: freshwater mussels, nested ANOVA, ANCOVA, PCA

DI: PAT, NUM, THE, ZOO, STA, ORD

EC: LAC

GG: AMN, CA

125

Jianguo Wu

Detecting spatial patterns: the net-function interpolation.

1992, 7: 137-143

KW: Inner Mongolia, net function interpolation method, populational distribution

DI: PAT, POP, THE, MET, NUM

EC: GRA

GG: ASE, CN

126

Pucheta, E., Díaz, S. & Cábido, M.

The effect of grazing on the structure of a high plateau grassland in central Argentina.

1992, 7: 145-152

KW: morphological group, pampa, DCA, TWINSpan

DI: GRB, DIT, MOR, NUM, ORD, NCL

EC: GRA

GG: ALT, AR

127

Hill, M.O.

Modelling vegetation succession in abandoned arable fields in Britain.

1992, 7: 153-159

KW: initial floristic composition, old field, projection matrix, set-aside, successional model

DI: VEG, DYN, MOD, VEG

EC: SEG

GG: EUW, GB

128

Feoli, E. & Lagonegro, M.

Testing for elliptical clusters in ecological multidimensional spaces.

1992, 7: 161-167

KW: niche

DI: THE, VEG, NUM, MET, MUL, ORD, NCL

129

Scheuring, I.

A population dynamical description of the self-thinning law.

1992, 7: 169-174

KW: canopy closure dynamics, differential equation system, even-aged plants, parameter estimation

DI: POP, DYN, THE, COM, NUM, MOD, DEM

130

Xiaoshuang He

Structural characteristics of forest vegetation in the northeastern Lesser Xingan Mountains, China.

1992, 7: 175-180

KW: equitability, dominance, importance value, zonation

DI: STR, DIV, VEG, DYN, NUM, ORD

EC: FOR, BOR

GG: ASE, CN

131

Menghi, M., Cábido, M., Acosta, A., Peco, B. & Pineda, F.D.

Changes in pasture communities subject to burning in the Córdoba Mountains, Argentina.

1993, 8: 1-10

KW: Central Argentina, mountain areas, pasture, spatial niche, succession, correspondence analysis

DI: VEG, DYN, COM, GMO, MUL, NUM, ORD, FIR, DIT

EC: GRA

GG: ALT, AR

132

Crispi, G. & Mosetti, R.

Adjoint estimation of aquatic ecosystem parameters.

1993, 8: 11-14

KW: spatial niche, succession, correspondence analysis, calibration, differential equations

DI: GMO, GRB, MUL, VEG, DYN, NUM, COM, ORD

EC: GRA

GG: ALT, AR

133

McClellan, Y. & Boecklen, W.J.Plant mediation of ant-herbivore associations: the role of sticky rings formed by *Boerhavia spicata*.

1993, 8: 15-20

KW: Chihuahuan Desert, ant-aphid-plant associations, herbivory, plant physical defenses

DI: ANT, INT, ZOO, GRB

EC: DES, ARI

GG: AMN, US

134

Dale, M.R.T., Henry, G.H.R. & Young, C.

Markov models of spatial dependence in vegetation.

1993, 8: 21-24

KW: Ellesmere Island, goodness-of-fit, meadows, transect

DI: VEG, MOD, PAT

EC: ARC

GG: AMN, CA

135

Novotný, V.

What can be inferred from species diversity indices?

1993, 8: 25-26

KW: community indices

DI: DIV, THE, COM

136

Vetaas, O.R.

Effect of spatial arrangement of environmental variables on ordination results from a disturbed humidity gradient in northeastern Sudan.

1993, 8: 27-37

KW: arch-effect, detrending, constrained ordination, partial ordination, non-linearity, spatial independence, DCA

DI: ORD, GRD, NUM, DIT

EC: ARI

GG: AFN, SD

137

Rousseau, R. & Van Hecke, P.

Introduction of a species does not necessarily increase diversity.

1993, 8: 39-40

KW: dominance, Lorenz curve

DI: DIV, THE, COM

138

Fabricius, K.E. & Dale, M.B.

Multispecies associations of symbionts on shallow water crinoids of the central Great Barrier Reef.

1993, 8: 41-52

KW: Friedman-Rafsky test, host species, minimum spanning tree, symbiosis

DI: INT, ZOO, ORD, NUM, NCL

EC: COR

GG: AUN

139

De Patta Pillar, V. & Orlóci, L.

Taxonomy and perception in vegetation analysis.

1993, 8: 53-66

KW: Chaco, character set, community structure, congruence, convergence, crisp taxa, divergence, environmental structure, fuzzy taxa, growth-form, life-form, randomization test, redundancy

DI: THE, VEG, MET, LIF, NUM, ORD, INF

EC: BOR, ARI

GG: AMN, CA, ALE, BR

140

Pizzolotto, R.Carabid beetle (*Coleoptera, Carabidae*) coenoses for evaluation of faunal resources and impact assessment in the Aspromonte National Park of Calabria (Italy).

1993, 8: 69-79

KW: zoocoenoses, PCA

DI: ZOO, COM, NUM, NCL, ORD

GG: EUS, IT

141

Sun Ping

On identifying representative variables in ecosystem studies.

1993, 8: 81-84

KW: PCA

DI: NUM, ORD, THE, ECO

GG: ASE, CN

142

Zupo, V.The use of feeding indices for the study of food webs: an application to a *Posidonia oceanica* ecosystem.

1993, 8: 85-95

KW: Ischia, trophic group, food preference

DI: WEB, MUL, NCL, NUM, ORD, MAR

EC: SEA

GG: EUS, IT

143

Camiz, S.

Computer assisted procedures for structuring community data.

1993, 8: 97-104

KW: AOC, canonical contingency table, cluster analysis, correspondence analysis, eigenanalysis, exploratory analysis, table structuring

DI: THE, MET, NUM, NCL, MUL, ORD

144

Chang Hsin-Shih & Yang Dian-an

A study on climate-vegetation interaction in China: the ecological model for global change.

1993, 8: 105-119

KW: DCA, information systems, topography

DI: CLI, NUM, GEO, ORD, VEG

GG: ASE, CN

145

De Leo, G.A. & Ferrari, I.

Disturbance and diversity in a river zooplankton community: a neutral model analysis.

1993, 8: 121-129

KW: rotifers

DI: ZOO, PLN, DIT, DIV, MOD

EC: FLU

GG: EUS, IT

146

Levins, R. & Adler, G.H.

Differential diagnostics of island rodent populations.

1993, 8: 131-139

KW: rodents, signed diagraphs, time averaging

DI: ISL, POP, THE, DYN, ZOO

147

Orlóci, L.

Conjectures and scenarios in recovery study.

1993, 8: 141-148

KW: chaos, edges, phases, scale, steady state, Jornada, Arizona, Sonora Desert

DI: THE, VEG, PAT, DYN, NUM, ORD, GRD

EC: DES, ARI

GG: AMN, US

148

Kiflemariam, M.

Dialectics of biological dimensionality and biological diversity.

1993, 8: 149-158

KW: biodiversity, disparative systems

DI: THE, ECO, DIV, ENV, PHI, ENE

GG: AFE, ET, ER

149

Yu, S.X. & Orlóci, L.

Index of species environmental fitness: the niche breadth.

1993, 8: 159-164

KW: Dinghushan, minimum discrimination information statistics

DI: THE, ECO, AUT, MET, NUM, INF, COM

EC: TRO

GG: ASE, CN

150

Dale, M.B. & Dale, P.T.

Classification with multiple dissimilarity matrices.

1994, 9: 1-13

KW: constrained classification, multiple-objective optimisation, pareto optimality, NMDS, correspondence analysis, scale, sampling, fuzzy

DI: NUM, MUL, MET, RES, NCL, ORD, THE, VEG

151

Escudero, A., Pajarón, S. & Gavilán, R.

Saxicolous communities in the Sierra del Moncayo (Spain): a classificatory study.

1994, 9: 15-24

KW: comparison of dendrograms, consensus tree, phytosociology, *Asplenietea trichomanis*, PCA

DI: SYS, NUM, NCL, ORD

EC: CHA

GG: EUW, ES

152

Feoli, E. & Zuccarello, V.

Naiveté of fuzzy system spaces in vegetation dynamics?

1994, 9: 25-32

DI: NUM, MET, NCL, ORD, VEG, DYN, THE

EC: FOR

GG: EUS, IT

153

Tóthmérész, B.

Statistical analysis of spatial pattern in plant communities.

1994, 9: 33-41

KW: beech forest, characteristic plot size, complete spatial randomness, null model, shrub community, species-area relationship, species richness, *Quercus-Fagetum*, *Fagion*, *Melico-Fagetum*, comparative area, discriminatory area

DI: NUM, PAT, DIV, THE, VEG, MET

EC: FOR

GG: EUC, HU

154

Dale, M.

Straightening the horseshoe: a Riemannian resolution?

1994, 9: 43-53

DI: NUM, THE, VEG, ORD, RES

155

Izsák, J. & Papp, L.

Numerical properties of jackknifed diversity indices tested on loose sets of coenological samples (*Diptera, Drosophilidae*).

1994, 9: 59-67

KW: Hill, Shannon-Wiener, confidence intervals, drosophilid assemblages, index sensitivity, significance tests

DI: DIV, NUM, THE, ZOO, COM, STA

GG: EUC, HU

156

Orlóci, L.

Global warming: the process and its anticipated phytoclimatic effects in temperate and cold zone.

1994, 9: 69-74

DI: CLI, DIT, PHY, GEO

EC: ALP, ARC

GG: AMN, CA, US, PAC

157

Palmer, A.R. & Orlóci, L.

A contingency table model of vegetation: the mapping problem.

1994, 9: 75-79

KW: canonical analysis, distribution, elevation, karoo, rainfall, topomosture

DI: NUM, CLI, MUL, MET, GRD, POP

EC: ARI

GG: AFS, ZA

158

Xiaoshuang He & Shaoquan Nie

Canonical contingency table analysis of the vegetation along elevation gradients of the Greater Xingan Mountains, China.

1994, 9: 93-100

DI: NUM, VEG, ORD, GRD, GEO

EC: BOR

GG: ASE, CN

159

LoBue, G., Montacchini, F. & Ceruti, A.

Macromycetes of the alpine belt: mycocoenological investigations in the Western Italian Alps by multivariate methods.

1994, 9: 103-153

KW: alpine fungi, mycocoenology, phytosociology, *Thlaspietea rotundifolii*, *Caricetea curvulae*, *Salicetea herbaceae*

DI: MYC, IND, SYS, NUM, NCL, ORD

EC: ALP, GRA, NIV, CHA

GG: EUS, IT

160

Uddin, M., Atiqullah, M. & Shaukat, S.S.

Sweep-out component analysis as an ordination model: an alternative to principal component analysis.

1994, 9: 155-158

KW: varimax rotation, PCA

DI: THE, MET, NUM, MUL, ORD

161

Menghi, M. & Herrera, M.

Major vegetational trends related to relief and hydrology in the Mar Chiquita wetlands.

1995, 10: 1-10

KW: inland wetland, hydro-topographical gradient, physiognomic change, DCA

DI: VEG, NUM, ORD, DYN, GRD, HYD, LIF, STR

EC: WET

GG: ALT, AR

162

Torres, P.S., Barberis, I.M. & Lewis, J.P.

Robustness of numerical methods for vegetation classification.

1995, 10: 11-16

KW: clustering, similarity

DI: THE, VEG, MET, NUM, NCL, RES

163

Moraczewski, I.R., Borkowski, W. & Kierzek, A.

Clustering geobotanical data with the use of a genetic algorithm.

1995, 10: 17-28

KW: cluster analysis, genetic algorithm, partitioning

DI: THE, VEG, NUM, NCL, MET, SYS

164

Fekete, G., Tuba, Z. & Précésnyi, I.

Application of three approaches to evaluate abundance and rarity in a sand grassland community.

1995, 10: 29-38

KW: C4 plants, dominance, *Festuca vaginata* grassland, generalists, mesophyll succulence, net photosynthesis, niche width, niche overlap, specialists, water use efficiency, *Festuco-Brometea*

DI: COM, DIV, PHY, LIF, WAT, MOR, PHO, NUM, NCL

EC: DUN, GRA

GG: EUC, HU

165

Pausas, J.G. & Feoli, E.

Environment-vegetation relationships in the understory of Pyrenean *Pinus sylvestris* forests: I. An ordination approach.

1995, 10: 39-44

KW: CCA, correspondence analysis, normalization, understory, *Pino-Juniperetea*, PCA

DI: NUM, ORD, PED

EC: FOR

GG: EUW, ES

166

Geißelbrecht, J., Mucina, L. & Hiebinger, C.K.

A Monte Carlo randomisation procedure for estimating the synchrony of growth-curves in plant-demography studies.

1995, 10: 45-49

KW: *Anthyllis vulneraria*, *Globularia punctata*, leaf natality and mortality, population dynamics, synchrony of processes

DI: THE, POP, DYN, DEM, MET, NUM, MAT

EC: GRA

GG: EUA, AT

167

Orlóci, L.

Preface: special statistical ecology issue.

1995, 10: 53

KW: Manchester, Yale, editorial

DI: THE, ECO, STA, NUM, HIS

GG: AMN, US

168

Anonymous

Profile: Guest Editor, Professor G.P. Patil.

1995, 10: 55-56

KW: Pennsylvania, editorial

DI: WHO, HIS, ECO, STA, NUM

GG: AMN, US

169

Patil, G.P.

Silver jubilee of statistical ecology around the world.

1995, 10: 57-64

KW: Manchester

DI: THE, ECO, HIS, STA, NUM

170

Patil, G.P.

Penn State statistical ecology and environmental statistics - 25 years.

1995, 10: 65-74

KW: Center for Statistical Ecology and Environmental Statistics, ecological statistics, environmental risk assessment, graduate quantitative ecology program, observational economy, spatial statistics, Pennsylvania

DI: THE, ECO, STA, NUM, PAT, MET, EDU

GG: AMN, US

171

Ghosh-Dastidar, M., Johnson, G., Norris, R., Orsin, J. & Shirk, S.

On cross-disciplinarity of a statistical ecology and environmental statistics classroom at Penn State.

1995, 10: 75-79

KW: environmental science, multidisciplinary, Pennsylvania

DI: THE, ECO, STA, NUM, MET, EDU

GG: AMN, US

172

Johnson, G.D. & Patil, G.P.

Estimating statewide species richness of breeding birds in Pennsylvania.

1995, 10: 81-87

KW: covariate-directed sampling, species richness estimation, species area curve

DI: STA, NUM, ZOO, MET, DIV

GG: AMN, US

173

Myers, W.L., Johnson, G.D. & Patil, G.P.

Rapid mobilization of spatial/temporal information in the context of natural catastrophes.

1995, 10: 89-94

KW: environmental resources, GIS, ranked set sampling, rapid assessment

DI: MET, THE, STA, GEO, REM, DIT

174

Norris, R.C., Patil, G.P. & Sinha, A.K.

Estimation of multiple characteristics by ranked set sampling methods.

1995, 10: 95-111

KW: concomitant variable, environmental sampling, simple random sampling, stratified sampling, unequal allocation

DI: THE, ECO, STA, NUM, MET

175

Kaur, A., Gregori, D., Patil, G.P. & Taillie, C.

Assessment of aquatic systems toxicity using generalized linear models and quasi-likelihood techniques.

1995, 10: 113-121

KW: generalized estimating equations, toxicity assessment

DI: ECO, ENV, TOX, STA, POL, WAT, MOD, THE

176

Johnson, G.D., Tempelman, A. & Patil, G.P.

Fractal based methods in ecology: a review for analysis at multiple spatial scales.

1995, 10: 123-131

KW: multiscale analysis

DI: THE, ECO, PAT, NUM, IND, LAN

177

Urfer, W. & Schwarzenbach, F.H.

Analysis of arctic mountain vegetation: diversity and vertical distribution.

1995, 10: 133-140

KW: species presence index, vegetation line, vertical distribution

DI: MET, VEG, DIV, GEO

EC: ARC

GG: ATN, GL

178

Patil, G.P.

Environmental and Ecological Statistics: an innovative cross-disciplinary journal for statistics, ecology, and the environment.

1995, 10: 141-148

DI: STA, NUM, MOD, MET, SCI, ECO, ENV

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Table 1. The codes for disciplines or groups of organisms. The coding was extended also on other items outside the scope of this bibliography, but still being of relevance for vegetation science and plant ecology.

ANT	Ants and ant-plants
AUT	Autecology
BIB	Bibliography
CLA	Cladistics, vicariance biogeography
CLI	Climate, microclimate, atmosphere relations, snow
COM	Competition, niche, organization of plant communities
CON	Nature conservation, nature reserves
COX	Ecological complexity

CRY	Cryptogames, syntaxonomy of cryptogamic communities
DEM	Demography
DIT	Disturbance
DIV	Diversity
DYN	Vegetation and population dynamics, succession
ECO	Systems and general ecology
EDU	Environmental education
ENE	Energy, biomass, production
ENV	Environmental management
EVO	Evolution, evolutionary ecology
FIR	Fire ecology
GEN	Genetics, ecological genetics, population genetics
GEO	Plant geography, vegetation geography
GMO	Geomorphology
GRB	Grazing, browsing
GRD	Gradient analysis
HIS	History of science
HUM	Human ecology
HYD	Hydrobiology (general)
IND	Indication, bioindicators
INF	Information theory and methods
INT	Plant-animal interactions
ISL	Island biogeography
LAN	Landscape ecology, environmental planning
LIF	Life history, strategies, syndromes, adaptation
MAP	Vegetation mapping, cartography
MAR	Marine biology
MAT	General mathematics
MET	Methods of vegetation analysis
MIC	Ecology of microorganisms, bacteria
MOD	Ecological modeling
MOR	Ecological morphology, morphology of plants
MUL	Multivariate techniques
MYC	Mycology, mycorrhiza
NCL	Numerical classification
NUM	Numerical techniques in vegetation analysis
NUT	Nutrients
ORD	Ordination
PAT	Pattern analysis
PED	Plant-soil relations, pedology, soil analyses
PHI	Philosophical aspects of natural sciences
PHO	Photosynthesis, gas exchange
PHY	Ecophysiology, physiology of plants
PLN	Plankton
POL	Pollution problems
POP	Population ecology
PPR	Predator-prey relations
REM	Remote sensing studies
RES	Resemblance
SCI	Scientometrics, journalology, publishing
STA	Statistical methods
STB	Ecological stability
STR	Vegetation structure
SYS	Vegetation systematics, syntaxonomy
TAX	Taxonomy, cytotaxonomy, karyology
TER	Scientific terminology
THE	Vegetation theory, ecological theory
VEG	General vegetation science
WAT	Water-plant relations, water in plants
WEB	Food webs
WHO	Personalities: obituaries, anniversaries, jobs, research
ZOO	Zoology

Table 2. Codes for geographic units (countries, continents, subcontinents and other parts of the world). Only those geographic units are presented, which occur in this bibliography.

Countries

AR	Argentina
AT	Austria
AU	Australia
BE	Belgium
BG	Bulgaria
BR	Brazil
CA	Canada
CH	Switzerland
CN	China
CS	former Czechoslovakia
CY	Cyprus
CZ	Czech Republic
EC	Ecuador
ER	Eritrea
ES	Spain
ET	Ethiopia
GB	Great Britain
GL	Greenland
GR	Greece
HU	Hungary
IT	Italy
JP	Japan
NL	Netherlands
PK	Pakistan
SD	Sudan
SK	Slovakia
TZ	Tanzania
US	USA
ZA	South Africa

Continents, subcontinents (and analogous parts of the continents) & oceans

AFE	East Africa
AFN	North Africa
AFS	Southern Africa
ALE	Equatorial S. America
ALT	Temperate S. America

AMN	North America
ASE	East Asia
ASI	Indian Subcontinent
ATN	Northern Atlantic Ocean
AUN	Northern Australia
EUA	Alpine countries
EUB	Balkans
EUC	Central Europe
EUS	Southern Europe
EUW	Western Europe
PAC	Pacific Ocean

Table 3. The codes for ecosystems extended beyond the scope of this bibliography.

ALP	Alpine
AQU	Aquatic (freshwater) environments, mineral springs
ARC	Tundra and polar deserts
ARI	Arid ecosystems
BOR	Boreal forests
CHA	Rock fissures, walls, screes
COR	Coral reefs
DES	Deserts
DUN	Dunes
EPI	Epiphytic vegetation
FLO	Flooded environments
FLU	Fluviatile ecosystems
FOR	Temperate forests
GRA	Temperate grasslands, steppe, pampa
HEA	Heathland
LAC	Lacustrine ecosystems
MES	Mediterranean ecosystems, chapparall, mallee, fynbos
MIR	Mires, bogs, fens, carrs
NIV	Nival ecosystems
RUD	Ruderal vegetation
SAL	Salt-ladden environments
SAV	Tropical grasslands, savannah
SEA	Open-sea ecosystems
SEG	Segetal (agrestal) vegetation
TRO	Tropical ecosystems
URB	Urban ecosystems
VOL	Volcanic ecosystems
WET	Wetlands (incl. wet meadows, reed, swamps)