

# Bibliography

- Anderberg, M.R. (1973) *Cluster Analysis for Applications*. Academic Press.

Anderson, M.J. (2001) A new method for non-parametric multivariate analysis of variance. *Australian Ecology* **26**, 32–46.

Anderson, M.J. (2006) Distance-based tests for homogeneity of multivariate dispersions. *Biometrics* **62**, 245–253.

Anderson, M.J., Ellingsen, K.E. and McArdle, B.H. (2006) Multivariate dispersion as a measure of beta diversity. *Ecology Letters* **9**, 683–693.

Anderson, M.J. and Millar, R.B. (2004) Spatial variation and effects of habitat on temperate reef fish assemblages in northeastern New Zealand. *Journal of Experimental Marine Biology and Ecology* **305**, 191–221.

Anderson, M.J. and Willis, T.J. (2003) Canonical analysis of principal coordinates: a useful method of constrained ordination for ecology. *Ecology* **84**, 511–525.

Anderson, E. and ten others (1999) *LAPACK Users' Guide*, third edition. SIAM. Available on-line at [http://www.netlib.org/lapack/lug/lapack\\_lug.html](http://www.netlib.org/lapack/lug/lapack_lug.html).

Bauer, D.F. (1972) Constructing confidence sets using rank statistics. *Journal of the American Statistical Association* **67**, 687–690.

Benjamini, Y. and Hochberg, Y. (1995) Controlling the false discovery rate: a practical and powerful approach to multiple testing. *Journal of the Royal Statistical Society Series B* **57**, 289–300.

Benjamini, Y. and Yekutieli, D. (2001) The control of the false discovery rate in multiple testing under dependency. *Annals of Statistics* **29**, 1165–1188.

Beran, R. (1988) Balanced simultaneous confidence sets. *Journal of the American Statistical Association* **83**, 679–686.

Besag, J., Green, P.J., Higdon, D. and Mengersen, K. (1995) Bayesian computation and stochastic systems. *Statistical Science* **10**, 3–66.

Best, D.J. and Roberts, D.E. (1975) Algorithm AS 89: The upper tail probabilities of Spearman's rho. *Applied Statistics* **24**, 377–379.

Booth, J.G., Hall, P. and Wood, A.T.A. (1993) Balanced importance resampling for the bootstrap. *Annals of Statistics* **21**, 286–298.

Borg, I. and Groenen, P. (1997) *Modern Multidimensional Scaling. Theory and Applications*. Springer.

Cailliez, F. (1983) The analytical solution of the additive constant problem. *Psychometrika* **48**, 343–349.

Chambers, J.M., Cleveland, W.S., Kleiner, B. and Tukey, P.A. (1983) *Graphical Methods for Data Analysis*. Wadsworth & Brooks/Cole.

Chao, A. (1987) Estimating the population size for capture–recapture data with unequal catchability. *Biometrics* **43**, 783–791.

Chao, A., Chazdon, R. L., Colwell, R. K. and Shen, T. (2005) A new statistical approach for assessing similarity of species composition with incidence and abundance data. *Ecology Letters* **8**, 148–159.

Chase, J.M., Kraft, N.J.B., Smith, K.G., Vellend, M. and Inouye, B.D. (2011) Using null models to disentangle variation in community dissimilarity from variation in alpha-diversity. *Ecosphere* **2** [doi:10.1890/ES10-00117.1]

Clarke, K.R. (1993) Non-parametric multivariate analysis of changes in community structure. *Australian Journal of Ecology* **18**, 117–143.

- Coleman, B.D., Mares, M.A., Willis, M.R. and Hsieh, Y. (1982) Randomness, area and species richness. *Ecology* **63**, 1121–1133.
- Colwell, R.K. and Coddington, J.A. (1994) Estimating terrestrial biodiversity through extrapolation. *Philosophical Transactions of the Royal Society London B* **345**, 101–118.
- Colwell, R.K., Mao, C.X. and Chang, J. (2004) Interpolating, extrapolating, and comparing incidence-based species accumulation curves. *Ecology* **85**, 2717–2727.
- Cox, T.F. and Cox, M.A.A. (2001) *Multidimensional Scaling*. Chapman & Hall.
- Crawley, M.J. (2002) *Statistical Computing: An Introduction to Data Analysis Using S-PLUS*. John Wiley & Sons.
- Crist, T.O., Veech, J.A., Gering, J.C. and Summerville, K.S. (2003) Partitioning species diversity across landscapes and regions: a hierarchical analysis of  $\alpha$ ,  $\beta$ , and  $\gamma$ -diversity. *American Naturalist* **162**, 734–743.
- Datta, A. and Rawat, G.S. (2003) Foraging patterns of sympatric hornbills during the nonbreeding season in Arunachal Pradesh, Northeast India. *Biotropica* **35**, 208–218.
- Davison, A.C. and Hinkley, D.V. (1997) *Bootstrap Methods and Their Application*. Cambridge University Press.
- Davison, A.C., Hinkley, D.V. and Schechtman, E. (1986) Efficient bootstrap simulation. *Biometrika* **73**, 555–566.
- Dengler, J. (2009) Which function describes the species-area relationship best? A review and empirical evaluation. *Journal of Biogeography* **36**, 728–744.
- Efron, B. and Tibshirani, R. (1993) *An Introduction to the Bootstrap*. Chapman & Hall.
- Everitt, B. (1974) *Cluster Analysis*. Heinemann Educ. Books.
- Excoffier, L., Smouse, P.E. and Quattro, J.M. (1992) Analysis of molecular variance inferred from metric distances among DNA haplotypes: Application to human mitochondrial DNA restriction data. *Genetics* **131**, 479–491.
- Faith, D.P., Minchin, P.R. and Belbin, L. (1987) Compositional dissimilarity as a robust measure of ecological distance. *Vegetatio* **69**, 57–68.
- Fisher, R.A., Corbet, A.S. and Williams, C.B. (1943) The relation between the number of species and the number of individuals in a random sample of animal population. *Journal of Animal Ecology* **12**, 42–58.
- Forgy, E.W. (1965) Cluster analysis of multivariate data: efficiency vs interpretability of classifications. *Biometrics* **21**, 768–769.
- Fox, J. (2008) *Applied Regression Analysis and Generalized Linear Models*, second edition. Sage.
- Fox, J. and Monette, G. (1992) Generalized collinearity diagnostics. *Journal of the American Statistical Association* **87**, 178–183.
- Fox, J. and Weisberg, S. (2011) *An R Companion to Applied Regression*, second edition. Sage.
- Friendly, M. (2000) *Visualizing Categorical Data*. SAS Institute.
- Fritsch, K.S. and Hsu, J.C. (1999) Multiple comparison of entropies with application to dinosaur biodiversity. *Biometrics* **55**, 4, 1300–1305.
- Gabriel, K.R. (1971) The biplot graphical display of matrices with application to principal component analysis. *Biometrika* **58**, 453–467.
- Gardener, M. (2012) *Statistics for Ecologists Using R and Excel: Data collection, exploration, analysis and presentation*. Pelagic Publishing.
- Gilbert, G.S. and Sousa, W.P. (2002) Host specialization among wood-decay polypore fungi in a Caribbean mangrove forest. *Biotropica* **34**, 396–404.
- Gleason, J.R. (1988) Algorithms for balanced bootstrap simulations. *American Statistician* **42**, 263–266.
- Gordon, A.D. (1999) *Classification*, second edition. Chapman and Hall/CRC.
- Gotelli, N.J. and Colwell, R.K. (2001) Quantifying biodiversity: procedures and pitfalls in measurement and comparison of species richness. *Ecology Letters* **4**, 379–391.
- Gower, J.C. (1966) Some distance properties of latent root and vector methods used in multivariate analysis. *Biometrika* **53**, 325–328.
- Gower, J.C. (1971) A general coefficient of similarity and some of its properties. *Biometrics* **27**, 623–637.
- Gower, J.C. (1985) Properties of Euclidean and non-Euclidean distance matrices. *Linear Algebra and its Applications* **67**, 81–97.
- Gower, J.C. and Hand, D.J. (1996) *Biplots*. Chapman & Hall.

- Greenacre, M.J. (1984) *Theory and Applications of Correspondence Analysis*. Academic Press, London.
- Gross, J. (2003) Variance inflation factors. *R News* **3**, 13–15.
- Hall, P. (1989) Antithetic resampling for the bootstrap. *Biometrika* **73**, 713–724.
- Hartigan, J.A. (1975) *Clustering Algorithms*. Wiley.
- Hartigan, J.A. and Wong, M.A. (1979) A K-means clustering algorithm. *Applied Statistics* **28**, 100–108.
- Heck, K.L., van Belle, G. and Simberloff, D. (1975) Explicit calculation of the rarefaction diversity measurement and the determination of sufficient sample size. *Ecology* **56**, 1459–1461.
- Hill, M.O. (1973) Diversity and evenness: a unifying notation and its consequences. *Ecology* **54**, 427–473.
- Hill, M.O. and Gauch, H.G. (1980) Detrended correspondence analysis: an improved ordination technique. *Vegetatio* **42**, 47–58.
- Hinkley, D.V. (1988) Bootstrap methods (with Discussion). *Journal of the Royal Statistical Society B* **50**, 312–337, 355–370.
- Hinkley, D.V. and Shi, S. (1989) Importance sampling and the nested bootstrap. *Biometrika* **76**, 435–446.
- Hochberg, Y. (1988) A sharper Bonferroni procedure for multiple tests of significance. *Biometrika* **75**, 800–803.
- Hoffmann, B.D. (2003) Responses of ant communities to experimental fire regimes on rangelands in the Victoria River District of the Northern Territory. *Australian Ecology* **28**, 182–195.
- Hollander, M. and Wolfe, D.A. (1973) *Nonparametric Statistical Methods*. Wiley.
- Holm, S. (1979) A simple sequentially rejective multiple test procedure. *Scandinavian Journal of Statistics* **6**, 65–70.
- Hommel, G. (1988) A stagewise rejective multiple test procedure based on a modified Bonferroni test. *Biometrika* **75**, 383–386.
- Hope, A.C.A. (1968) A simplified Monte Carlo significance test procedure. *Journal of the Royal Statistical Society B* **30**, 582–598.
- Hurlbert, S.H. (1971) The nonconcept of species diversity: a critique and alternative parameters. *Ecology* **52**, 577–586.
- Hutcheson, K. (1970) A test for comparing diversities based on the Shannon formula. *Journal of Theoretical Biology* **29**, 151–154.
- Johns M.V. (1988) Importance sampling for bootstrap confidence intervals. *Journal of the American Statistical Association* **83**, 709–714.
- Johnson, N.L., Kotz, S. and Balakrishnan, N. (1995) *Continuous Univariate Distributions*. Wiley.
- Jost, L. (2006) Entropy and diversity. *Oikos* **113**, 363–375.
- Jost, L. (2007) Partitioning diversity into independent *alpha* and *beta* components. *Ecology* **88**, 2427–2439.
- Kaufman, L. and Rousseeuw, P.J. (1990) *Finding Groups in Data: An Introduction to Cluster Analysis*. Wiley.
- Kempton, R.A. and Taylor, L.R. (1974) Log-series and log-normal parameters as diversity discriminators for Lepidoptera. *Journal of Animal Ecology* **43**, 381–399.
- Keylock, C.J. (2005) Simpson diversity and the Shannon–Wiener index as special cases of a generalized entropy. *Oikos* **109**, 203–207.
- Kindt R., Van Damme P. and Simons A.J. (2006) Tree diversity in western Kenya: using diversity profiles to characterise richness and evenness. *Biodiversity and Conservation* **15**, 1253–1270.
- Koleff, P., Gaston, K.J. and Lennon, J.J. (2003) Measuring *beta* diversity for presence–absence data. *J. Animal Ecol.* **72**, 367–382.
- Krebs, C.J. (1999) *Ecological Methodology*. Addison Wesley Longman.
- Kruskal, J.B. (1964a) Multidimensional scaling by optimizing goodness-of-fit to a nonmetric hypothesis. *Psychometrika* **29**, 1–28.
- Kruskal, J.B. (1964b) Nonmetric multidimensional scaling: a numerical method. *Psychometrika* **29**, 115–129.
- Krzanowski, W.J. and Marriott, F.H.C. (1994) *Multivariate Analysis. Part I. Distributions, Ordination and Inference*. Edward Arnold.
- Lance, G.N. and Williams, W.T. (1966) A general theory of classificatory sorting strategies, I. Hierarchical systems. *Computer Journal* **9**, 373–380.
- Lande, R. (1996) Statistics and partitioning of species diversity, and similarity among multiple communities. *Oikos* **76**, 5–13.
- Legendre, P. and Anderson, M.J. (1999) Distance-based redundancy analysis: testing multispecies responses in multifactorial ecological experiments. *Ecological Monographs* **69**, 1–24.

- Legendre, P. and Gallagher, E.D. (2001) Ecologically meaningful transformations for ordination of species data. *Oecologia* **129**, 271–280.
- Legendre, P. and Legendre, L. (1998) *Numerical Ecology*, second English edition. Elsevier.
- Legendre, P., Oksanen, J. and ter Braak, C.J.F. (2011) Testing the significance of canonical axes in redundancy analysis. *Methods in Ecology and Evolution* **2**, 269–277.
- Lloyd, S.P. (1957, 1982) Least squares quantization in PCM. Technical Note, Bell Laboratories. Published in 1982 in *IEEE Transactions on Information Theory* **28**, 128–137.
- MacQueen, J. (1967) Some methods for classification and analysis of multivariate observations. In *Proceedings of the Fifth Berkeley Symposium on Mathematical Statistics and Probability*, eds L. M. Le Cam & J. Neyman, **1**, pp. 281–297. University of California Press.
- Mantel, N. (1967) The detection of disease clustering and a generalized regression approach. *Cancer Research* **27**, 209–220.
- Mardia, K.V., Kent, J.T. and Bibby, J.M. (1979) *Multivariate Analysis*. Academic Press.
- McArdle, B.H. and Anderson, M. J. (2001) Fitting multivariate models to community data: A comment on distance-based redundancy analysis. *Ecology* **82**, 290–297.
- McCune, B. (1997) Influence of noisy environmental data on canonical correspondence analysis. *Ecology* **78**, 2617–2623.
- McCune, B. and Grace, J.B. (2002) *Analysis of Ecological Communities*. MjM Software Design.
- McQuitty, L.L. (1966) Similarity analysis by reciprocal pairs for discrete and continuous data. *Educational and Psychological Measurement* **26**, 825–831.
- Mendes, R.S., Evangelista, L.R., Thomaz, S.M., Agostinho, A.A. and Gomes, L.C. (2008) A unified index to measure ecological diversity and species rarity. *Ecography* **31**, 450–456.
- Mielke, P.W. and Berry, K.J. (2001) *Permutation Methods: A Distance Function Approach*. Springer Series in Statistics. Springer.
- Miller, R.G. (1981) *Simultaneous Statistical Inference*. Springer.
- Minchin, P.R. (1987) An evaluation of relative robustness of techniques for ecological ordinations. *Vegetatio* **69**, 89–107.
- Mountford, M. D. (1962) An index of similarity and its application to classification problems. In: P.W. Murphy (ed.), *Progress in Soil Zoology*, 43–50. Butterworths.
- Noreen, E.W. (1989) *Computer Intensive Methods for Testing Hypotheses*. Wiley.
- Oksanen, J. (1983) Ordination of boreal heath-like vegetation with principal component analysis, correspondence analysis and multidimensional scaling. *Vegetatio* **52**, 181–189.
- Oksanen, J. and Minchin, P.R. (1997) Instability of ordination results under changes in input data order: explanations and remedies. *Journal of Vegetation Science* **8**, 447–454.
- Palmer, M.W. (1986) Pattern in corticolous bryophyte communities of the North Carolina Piedmont: Do mosses see the forest or the trees? *The Bryologist* **89**, 59–65.
- Palmer, M.W. (1993) Putting things in even better order: the advantages of canonical correspondence analysis. *Ecology* **74**, 2215–2230.
- Palmer, M.W. (1990) The estimation of species richness by extrapolation. *Ecology* **71**, 1195–1198.
- Patefield, W.M. (1981) Algorithm AS159. An efficient method of generating  $r \times c$  tables with given row and column totals. *Applied Statistics* **30**, 91–97.
- Patil, G.P. and Taillie, C. (1982) Diversity as a concept and its measurement. *Journal of the American Statistical Association* **77**, 548–567.
- Pereira, I.M. (2003) Use-history effects on structure and flora of Caatinga. *Biotropica* **35**, 154–165.
- Peres-Neto, P.R. and Jackson, D.A. (2001) How well do multivariate data sets match? The advantages of a Procrustean superimposition approach over the Mantel test. *Oecologia* **129**, 169–178.
- Pielou, E.C. (1975) *Ecological Diversity*. Wiley.
- Preston, F.W. (1948) The commonness and rarity of species. *Ecology* **29**, 254–283.
- Ripley, B.D. (1996) *Pattern Recognition and Neural Networks*. Cambridge University Press.
- Rogers, J.A. and Hsu, J.C. (2001) Multiple comparisons of biodiversity. *Biometrical Journal* **43**, 617–625.
- Rousseeuw, P.J. (1987) Silhouettes: A graphical aid to the interpretation and validation of cluster analysis. *Journal of Computational and Applied Mathematics* **20**, 53–65.
- Sammon, J.W. (1969) A non-linear mapping for data structure analysis. *IEEE Transactions on Computing* **C-18** 401–409.

- Sarkar, S. (1998) Some probability inequalities for ordered MTP2 random variables: a proof of Simes conjecture. *Annals of Statistics* **26**, 494–504.
- Sarkar, S. and Chang, C.K. (1997) Simes' method for multiple hypothesis testing with positively dependent test statistics. *Journal of the American Statistical Association* **92**, 1601–1608.
- Scherer, R. (2010) Simultaneous Confidence Intervals for Biodiversity Indices with Application to Overdispersed Multinomial Count Data. <http://www.biostat.uni-hannover.de/research/thesis/MSc-Scherer20100525.pdf>
- Seber, G.A.F. (1984). *Multivariate Observations*. Wiley.
- Shaffer, J.P. (1995) Multiple hypothesis testing. *Annual Review of Psychology* **46**, 561–576.
- Shimodaira, H. (2002) An approximately unbiased test of phylogenetic tree selection, *Systematic Biology* **51**, 492–508.
- Shimodaira, H. (2004) Approximately unbiased tests of regions using multistep-multiscale bootstrap resampling, *Annals of Statistics* **32**, 2616–2641.
- Shimwell, D.W. (1971) *The Description and Classification of Vegetation*. Sidgwick & Jackson.
- Sibson, R. (1972) Order invariant methods for data analysis. *Journal of the Royal Statistical Society B* **34**, 311–349.
- Smith, B.T., Boyle, J.M., Dongarra, J.J., Garbow, B.S., Ikebe, Y., Klema, V. and Moler, C.B. (1976) *Matrix Eigen-systems Routines – EISPACK Guide*. Springer-Verlag Lecture Notes in Computer Science **6**.
- Smith, E.P. and van Belle, G. (1984) Nonparametric estimation of species richness. *Biometrics* **40**, 119–129.
- Sneath, P.H.A. and Sokal, R.R. (1973) *Numerical Taxonomy*. Freeman.
- Struyf, A., Hubert, M. and Rousseeuw, P.J. (1996) Clustering in an object-oriented environment. *Journal of Statistical Software* **1**.
- Struyf, A., Hubert, M. and Rousseeuw, P.J. (1997) Integrating robust clustering techniques in S-PLUS, *Computational Statistics and Data Analysis* **26**, 17–37.
- Suzuki, R. and Shimodaira, H. (2004) An application of multiscale bootstrap resampling to hierarchical clustering of microarray data: How accurate are these clusters? *The Fifteenth International Conference on Genome Informatics 2004*, P034.
- Ter Braak, C.J.F. (1986) Canonical correspondence analysis: A new eigenvector technique for multivariate direct gradient analysis. *Ecology* **67**, 1167–1179.
- Torgerson, W.S. (1958) *Theory and Methods of Scaling*. Wiley.
- Tóthmérész, B. (1995) Comparison of different methods for diversity ordering. *Journal of Vegetation Science* **6**, 283–290.
- Tsallis, C. (1988) Possible generalization of Boltzmann–Gibbs statistics. *Journal of Statistical Physics* **52**, 479–487.
- Ugland, K.I., Gray, J.S. and Ellingsen, K.E. (2003) The species-accumulation curve and estimation of species richness. *Journal of Animal Ecology* **72**, 888–897.
- Van Sickle, J. and Hughes, R.M. (2000) Classification strengths of ecoregions, catchments, and geographic clusters of aquatic vertebrates in Oregon. *Journal of the North American Benthological Society* **19**, 370–384.
- Venables, W.N. and B.D. Ripley (2002) *Modern Applied Statistics with S*. Springer-Verlag.
- Westfall, P.H. and Young, S.S. (1993) *Resampling-based Multiple Testing: Examples and Methods for p-Value Adjustment*. Wiley.
- Whittaker, R.H. (1960) Vegetation of Siskiyou mountains, Oregon and California. *Ecological Monographs* **30**, 279–338.
- Whittaker, R.H. (1965) Dominance and diversity in plant communities. *Science* **147**, 250–260.
- Wilkinson, J.H. (1965) *The Algebraic Eigenvalue Problem*. Clarendon Press.
- Williamson, M. and Gaston, K.J. (2005) The lognormal distribution is not an appropriate null hypothesis for the species–abundance distribution. *Journal of Animal Ecology* **74**, 409–422.
- Wilson, J.B. (1991) Methods for fitting dominance/diversity curves. *Journal of Vegetation Science* **2**, 35–46.
- Wolda, H. (1981) Similarity indices, sample size and diversity. *Oecologia* **50**, 296–302.
- Wright, S.P. (1992) Adjusted P-values for simultaneous inference. *Biometrics* **48**, 1005–1013.
- Yandell, B.S. (1997) *Practical Data Analysis for Designed Experiments*. Chapman & Hall.
- Zapala, M.A. and Schork, N.J. (2006) Multivariate regression analysis of distance matrices for testing associations between gene expression patterns and related variable. *Proceedings of the National Academy of Sciences, USA* **103**, 19430–19435.