

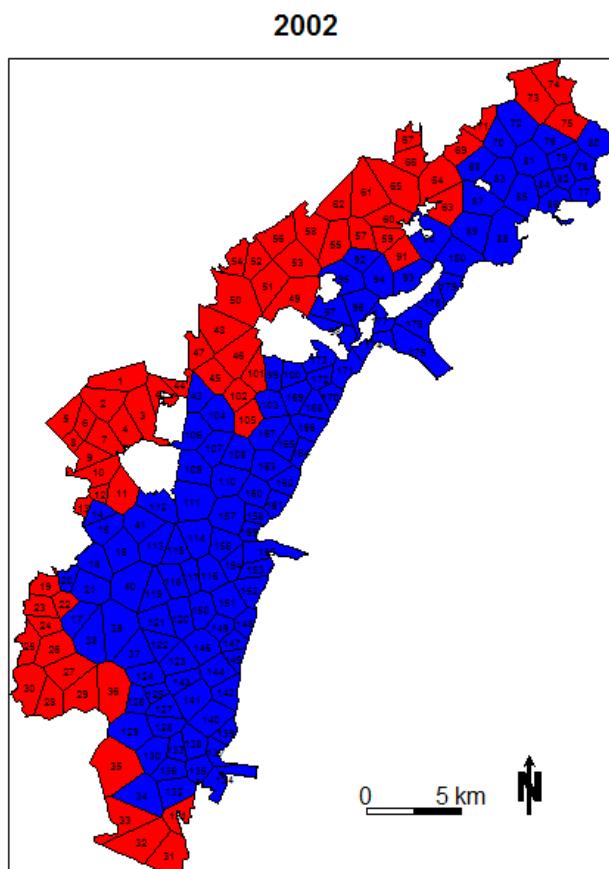
Sigovini M., 2011. Multiscale dynamics of zoobenthic communities and relationships with environmental factors in the Lagoon of Venice. Ph.D thesis, Università Ca' Foscari, Venezia.

ERRATA

26/04/2011

CHAPTER 4 - RESULTS

- Page 72, Figure 4.5: in the title of the map, "Abundancies" should read "Abundances".
- Page 96, Figure 4.29: the map on the right should be changed with the following:



- Tables 4.3 and 4.4 on page 69, Table 4.6 on page 71:

<i>for</i>	<i>read</i>
ES50	$E(S_{50})$
H1ln_A	H'_A
J1_A	J'_A
H1ln_B	H'_B
J1_B	J'_B

Add to the captions: "For a key of symbols, see Table 3.6."

- Table 4.8 and 4.9 (page 79):

<i>for</i>	<i>read</i>
Df	d.f.
pF-value	pseudo-F
R2	R^2
p(>F)	p (perm)
F-value	F

Pseudo-F, R² and p values should be pragmatically rounded to two significant digits.

Alignment of columns should be:

d.f.	pseudo-F	R ²	p (perm)	A	pseudo-F	R ²	p (perm)	B	pseudo-F	R ²	GT(B)	p (perm)
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- Table 4.10 and 4.11 (page 80):

<i>for</i>	<i>read</i>
Df	d.f.
F-value	F
p(>F)	p

F and p values should be pragmatically rounded to two significant digits.

Alignment of columns should be:

d.f.	F	A	F	B	F	S
	p		p		p	

- Table 4.12 and 4.13 (page 81): for "signif" read "p (perm)".

R and p values should be pragmatically rounded to two significant digits.

Alignment of columns should be:

	A		B		GT(B)	
	R	p (perm)	R	p (perm)	R	p (perm)

- Tables 4.15 and 4.16 (page 116), 4.18 (page 120), 4.19 and 4.20 (page 123), 4.22 (page 125), 4.23 and 4.24 (page 126), 4.31 (page 145), 4.32 (pag. 146); figures 4.65 and 4.66 (page 128), 4.68 and 4.69 (page 130), 4.70 (page 131):

<i>for</i>	<i>read</i>	<i>also</i>
mea_T_gC	Mean Temperature (°C)	T
med_Sal_PSU	Median Salinity (PSU)	Sal
med_O2_ppm	Median DO concentration (ppm)	DO
med_TSS_mgL	Median TSS (mg/L)	TSS
med_Chla_ugL	Median Chlorophyll <i>a</i> (µg/L)	Chl- <i>a</i>
med_Alcl_Tot_uEqL	Median Total Alkalinity (µEq/L)	
r90_T_gC	Range of Temperature	
r90_Sal_PSU	Range of Salinity (PSU)	
r90_O2_ppm	Range of DO concentration (ppm)	DO (range)
r90_TSS_mgL	Range of TSS	
r90_Chla_ugL	Range of Chlorophyll <i>a</i>	
r90_Alcl_Tot_uEqL	Range of Total Alkalinity (µEq/L)	Alk (range)
pc_sand	Sand (1mm-63um, %)	% sand
pc_silt_8um	Silt (63-8um, %)	% silt
pc_clay_8um	Clay (<8um, %)	% clay
pc_TOC_LOI	TOC (%)	% TOC
MA	Macroalgae	
FA	Phanerogams	
iT_mq	Intertidal surface (m ²)	Intertidal
tRes_d	Residence time (d)	RTime

- Table 4.21 (page 124): "(adj-)R2" should read "adj-R²", and "xn" should read "x_n".
Equation 4 should read: "y = -5.9 - 2.2x₁ + 0.00065x₂ + 6.1x₃ + 1.2x₄ + 3.0x₅ - 5.4x₆ + 1.3x₇".
Add to the caption: "Environmental variables have been previously subjected to the reported transformations."
- Table 4.26 (page 133):

<i>for</i>	<i>read</i>
cl1	sector rank 1
cl2	sector rank 2
cl3	sector rank 3

 Pseudo-F and p values should be pragmatically rounded to two significant digits.
Add to the caption: "Pseudo-F, permutation p values and level of significance (***: < 0.001; **: 0.001-0.01; *: 0.01-0.05; .: 0.05-0.1) are presented."
- Figures 4.72 (page 134), 4.73 (page 137), 4.78 (page 141), 4.79 (page 143), 4.80 and 4.81 (page 144): the unit of distance, in abscissa, is meters.

- Table 4.32 (page 146):

<i>for</i>	<i>read</i>
total var	total variance
var constrained	explained variance
R2	R^2
Var	variance explained by the axis
% of explained var of the model	% of the model explained variance
cum % of explained var of the model	cumulative %
Multiple R-squared env	multiple- R^2 (MLR on environmental variables)
Adjusted R-squared env	adj- R^2 (MLR on environmental variables)
p-valuE	p value

Multiple- and adj- R^2 should be pragmatically rounded to two significant digits.

" $\downarrow 2.2\text{E-}16$ " should read " $< 2.2 \cdot 10^{-16}$ " and, throughout the table, "E- n " should read ". 10^{-n} ".

In the caption, "Only significant axes accounting for a notable amount of variance were considered. R^2 and p-value for overall regression model and significance of environmental variables as explanatory variables of the regression are presented" should read: "Only significant axes accounting for a notable amount of variance were considered. R^2 and p value for overall regression model, as well as p value and level of significance (***: < 0.001; **: 0.001-0.01; *: 0.01-0.05; ..: 0.05-0.1) of environmental variables as explanatory variables of the regression, are presented".

ACKNOWLEDGEMENTS

Also I would like to thank very much Francesca De Pascalis and Fantina Madricardo (CNR-ISMAR), and Elisa Cenci (Università degli Studi di Padova - Biologia Marina in Chioggia). I am very sorry not to have them mentioned before.

- Page 165: "Jane Frankefield" should read "Jane Frankenfield Zanin".

REFERENCES

The following in-text citations throughout the chapters should be corrected:

<i>for</i>	<i>read</i>
(Anderson, 2003)	(Anderson & Willis, 2003)
(Dauvin <i>et al.</i> , 2007)	(Dauvin <i>et al.</i> , 2008)
(Dutilleul & Legendre, 1992)	(Dutilleul & Legendre, 1992)
(Ferla, 2006)	(Ferla <i>et al.</i> , 2007)
(Gardner, 1997)	(Gardner, 1998)
(Giordani Soika, 1951)	(Giordani Soika, 1949)
(MAGISACQUE - CVN - SGS/Ecologia - Biotecnica, 1992)	(MAGISACQUE - SGS/Ecologia - Biotecnica, 1992)
(Masiero, 2003)	(Masiero, 2004)
(Nicolai, 1982)	(Nicolai, 1992)

(OECD, 1993)	(OECD, 2003)
(Pérès & Picard, 1968)	(Pérès & Picard, 1964)
(Reish, 1971)	(Reish, 1972)
(Reizopoulou, 2004)	(Reizopoulou & Nicolaïdou, 2004)
(Remane & Schlieper, 1971)	(Remane, 1971)
(Richard <i>et al.</i> , 1999)	(Thorne <i>et al.</i> , 1999)
(Schiøtz <i>et al.</i> , 2003)	(Schiøtz & Pèti, 2003)
(Sfriso & Facca, 2005)	-

The following references should be added to the "Reference" section:

- Anderson M.J., 2008. Animal-sediment relationships revisited: characterising species' distributions along an environmental gradient using canonical analysis and quantile regression splines. *Journal of Experimental Marine Biology and Ecology*, 366: 16-27.
- Anderson M.J., Connell S.D., Gillanders B.M., Diebel C.E., Blom W.M., Saunders J.E., Landers T.J., 2005. Relationships between taxonomic resolution and spatial scales of multivariate variation. *Journal of Animal Ecology*, 74: 636-646.
- Cucco A., Umgieser G., Ferrarin C., Perilli A., Melaku-Canu D., Solidoro C., 2009. Eulerian and lagrangian transport time scales of a tidal active coastal basin. *Ecological Modelling*, 220: 913-922.
- Dauvin J.C., Bellan G., Bellan-Santini D., 2008. The need for clear and comparable terminology in benthic ecology. Part I. Ecological concepts. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 18: 432-445.
- Dejak C., Franco D., Pastres R., Pecenik G., Solidoro C., 1992. Thermal exchange at air-water interfaces and reproduction of temperature vertical profiles in water columns. *Journal of Marine Systems*, 3: 465-476.
- Dutilleul P., Legendre P., 1992. Lack of robustness in two tests of normality against autocorrelation in sample data. *Journal of Statistical Computation and Simulation*, 42: 79-91.
- EPA, 1997. Methods for determination of chemical substances in marine and estuarine matrices, 2nd Edition (EPA/600/R-97/072). US-EPA, National Exposure Research Laboratory, Office of Research and Development, Cincinnati, OH.
- Frénot E., Goubert E., 2007. A first step towards modelling confinement of paralic ecosystems. *Ecological Modelling*, 200 (1-2): 139-148.
- Gatto P., 1980. II sottosuolo del litorale veneziano. Technical Report 108, CNR - Istituto di Dinamica delle Grandi Masse, Venezia.
- Giordani Soika A., 1949. Studi sulle olocenosi VII - Notizie e considerazioni preliminari sulla fauna sottobasale delle praterie di Zostera. *Atti Società Naturalisti e Matematici Modenesi*, 80: 1-15.
- Golley F.B., 1989. Paradigm shift. *Landscape Ecology*, 3: 65-66.
- Haase G., 1985. Rahmenmethodik der geochorologischen Naturraum-erkundung. Forschungsbericht des Instituts für Geographie und Geoökologie, Leipzig.
- Hall S.J., Raffaelli D., Thrush S.F., 1993. Patchiness and disturbance in shallow water benthic assemblages. In: Giller P.S., Hildrew A.G., Raffaelli D. (eds.). *Aquatic ecology: scale, pattern and processes*. Blackwell Scientific Publications, Oxford.
- Hazen A., 1914. Storage to be provided in impounding reservoirs for municipal water supply. *ASCE Transactions*, 77: 1539-1640.
- IRSA, 1990. Quaderno n. 59 - Metodi di analisi per acque di mare. 570.1 - Clorofilla (IRSA 570.1 Q59 1990). IRSA, Roma.
- Jombart T., Dray S., Dufour A.B., 2009. Finding essential scales of spatial variation in ecological data: a multivariate approach. *Ecography*, 32: 161-168.
- Mannsfeld K., 1982. Naturräumliche Erkundung und Ordnung am Beispiel von Westlausitzer Platte und Hügelland. *Hallesches Jahrbuch für Geowissenschaften*, 7: 19-34.
- McArdle B.H., Anderson M.J., 2001. Fitting multivariate models to community data: A comment on distance-based redundancy analysis. *Ecology*, 82: 290-297.

- Minchin P.R., Rennie L., 2010. Does the Hellinger transformation make PCA a viable ordination method for community data? Ecological Society of America 95th annual meeting, Pittsburgh, PA, August 1-6, 2010.
- Mistri M., Como S., Keppel E., Lardicci C., Magni P., Munari C., Sigovini M., Tagliapietra D., Tataranni M., 2009. Responses of benthic indicators in Italian coastal transitional ecosystems. 3rd Lagunet Congress, Orbetello, IT, October 1-4, 2009.
- Monbet Y., 1992. Control of phytoplankton biomass in estuaries: A comparative analysis of microtidal and macrotidal estuaries. *Estuaries*, 15: 563-571.
- Munari C., Mistri M., 2008. Biodiversity of soft-sediment benthic communities from Italian transitional waters. *Journal of Biogeography*, 35: 1622-1637.
- Munari C., Mistri M., 2010. Towards the application of the Water Framework Directive in Italy: assessing the potential of benthic tools in Adriatic coastal transitional ecosystems. *Marine Pollution Bulletin*, 60: 1040-1050.
- Nicolai P., 1992. *La scienza della bioindicazione*. ENEA, Roma.
- O'Brien R.M., 2007. A caution regarding rules of thumb for variance inflation factors. *Quality and Quantity*, 41 (5): 673-690.
- Odum W.E., 1988. Comparative ecology of tidal freshwater and salt marshes. *Annual Review of Ecology and Systematics*, 19: 147-176.
- Ott J., Fedra K., 1977. Stabilizing properties of a high biomass benthic community in a fluctuating ecosystem. *Helgolander Wissenschaftliche Meeresuntersuchungen*, 30: 485-494.
- Pardal M.A., Cardoso P.G., Sousa J.P., Raffaelli D., 2004. Assessing environmental quality: a novel approach. *Marine Ecology Progress Series*, 267: 1-8.
- Pardo-Igúzquiza E., Dowd P.A., 2004. Normality tests for spatially correlated data. *Mathematical Geology*, 36: 659-681.
- Pearson T.H., 1975. The benthic ecology of Loch Linnhe and Loch Eli, a sea-loch system on the west coast of Scotland. IV Changes in the benthic fauna attributable to organic enrichment. *Journal of Experimental Marine Biology and Ecology*, 20: 1-41.
- Peres-Neto P.R., Legendre P., 2010. Estimating and controlling for spatial autocorrelation in the study of ecological communities. *Global Ecology and Biogeography*, 19: 174-184.
- Perry J.N., Liebhold A.M., Rosenberg M.S., Dungan J., Miriti M., Jakomulska A., Citron-Pousty S., 2002. Illustrations and guidelines for selecting statistical methods for quantifying spatial pattern in ecological data. *Ecography*, 25: 578-600.
- Peterson D.L., Parker V.T. (eds.), 1998. *Ecological scale*. Columbia University Press, New York.
- Por F.D., 1980. A classification of hypersaline waters, based on trophic criteria. *Marine Ecology*, 1: 121-131.
- Reimann C., Filzmoser P., 2000. Normal and lognormal data distribution in geochemistry: death of a myth. Consequences for the statistical treatment of geochemical and environmental data. *Environmental Geology*, 39 (9): 1001-1014.
- Rochford D.J., 1951. Studies in Australian estuarine hydrology, 1: introduction and comparative features. *Australian Journal of Marine & Freshwater Research*, 2: 1-116.
- Rosenberg R., 1976. Benthic faunal dynamics during succession following pollution abatement in a Swedish estuary. *Oikos*, 27: 414-427.
- Schlacher T.A., Wooldridge T.H., 1996. How sieve mesh size affects sample estimates of estuarine benthic macrofauna. *Journal of Experimental Marine Biology and Ecology*, 201: 159-171.
- Schneider D.C., 2001. The rise of the concept of scale in ecology. *BioScience*, 51 (7): 545-553.
- Selye H., 1956. *The Stress of Life*. McGraw-Hill, New York.
- Somerfield P.J., Clarke K.R., 1995. Taxonomic levels, in marine community studies, revisited. *Marine Ecology Progress Series*, 127: 113-119.
- Thorne R.S., Williams P.W., Cao Y., 1999. The influence of data transformations on biological monitoring studies using macroinvertebrates. *Water Research*, 33 (2): 343-350.
- Victor R., Victor J.R., 1997. Some aspects of the ecology of littoral invertebrates in a coastal lagoon of southern Oman. *Journal of Arid Environments*, 37: 33-44.

The following references should be modified:

- Page 175:

MAGISTRATO ALLE ACQUE DI VENEZIA - SELC, 2005b. Progetto MELa2. Rilievo della distribuzione delle comunità bentoniche di substrato molle (macro e meiozoobenthos e macrofitobenthos) in laguna di Venezia (2002, 2003, 2004) - Rapporto finale. Prodotto dal Concessionario, Consorzio Venezia Nuova.

should be replaced with:

MAGISTRATO ALLE ACQUE DI VENEZIA - SELC, 2005. Progetto MELa2. Rilievo della distribuzione delle comunità bentoniche di substrato molle (macro e meiozoobenthos e macrofitobenthos) in laguna di Venezia (2002, 2003, 2004) - Rapporto finale. Prodotto dal Concessionario, Consorzio Venezia Nuova.

- Page 179:

Sarretta, A., 2007. Integrazione di dati granulometrici e informazioni ambientali nella laguna di Venezia per lo studio degli habitat di fondo. Ph.D thesis, Università Ca' Foscari Venezia Italy, unpublished.

should be replaced with:

Sarretta A., 2008. Integrazione di dati granulometrici e informazioni ambientali nella laguna di Venezia per lo studio degli habitat di fondo. Ph.D thesis, Università Ca' Foscari, Venezia.

- Page 181:

Tagliapietra D., Sigovini M., Magni P., 2011. Habitat Saprobity: An overlooked aspect of the Functioning of Coastal Transitional Ecosystems. *Hydrobiologia* (Submitted).

should be replaced with:

Tagliapietra D., Sigovini M., Magni P., submitted. Habitat saprobity: An overlooked aspect of the functioning of Coastal Transitional Ecosystems. *Hydrobiologia*.

- Page 175:

MAGISTRATO ALLE ACQUE DI VENEZIA - SELC, 2005b. Progetto MELa2. Attività A. Resocontazione finale della distribuzione della vegetazione acquatica sommersa (fanerogame marine e macroalghe) in laguna di Venezia. Rapporto finale. Prodotto dal Concessionario, Consorzio Venezia Nuova.

should be deleted.

APPENDIX 3

In the titles of the maps, "Abundancies" should read "Abundances".

APPENDIX 4

All the generic and specific names should be in *italic*.