Bio 682
Quantitative Biology

Community Analysis: Homework Assignment Part One:

We will be using PC-ORD to perform some multivariate community-style analyses in the next three weeks. Version 5 of the program will be loaded on one computer in BS444; Version 4 is available on computers in Environmental Studies, the Marks Lab, ERI and other places – check around. If you can't find a copy, come see me and we can figure something out. In part one of the homework you will create a data file for use in these analyses. The data are a subset of abundance data (counts) from a series of double oblique hauls of zooplankton from the Bristol Channel and Severn estuary (UK) in 1974. The data were collected as part of a long-term study of the dynamics of marine plankton and the relationship between plankton and environmental variation. The species names are abbreviated to 6 characters because of the limitations of earlier versions PC-ORD. The assignment here is to use a spreadsheet to produce a data matrix which PC-ORD can use. Rows are plots, columns are species, and the four upper left cells are reserved for item and attribute numbers and names, and row 3 is reserved for data descriptors (Q = quantitative, M = mixed, and C = categorical). Save the file to a floppy/CD/jump drive in .wk1 format so you can use it when it's time to do the analyses. Any spreadsheet program will produce a *.wk1 file (old Lotus spreadsheet format) but you have to use the File | Save As option, and select *.wk1 as the file type. Pull the file into PC-ORD (to be sure it is of the right format), then print out the file (in the spreadsheet program – get it all on one page) and bring it to class on Feb 21. Do this quickly _and accurately_ because the two other homework assignments will be based on this file – and I _will_ dock you points for sloppy entry.

Site01		Site02		Site03		Site04		Site05	
EurAff	312	AcaBif	20	AcaBif	60	AcaBif	62	AcaBif	125
GasSpi	9	EurAff	379	CalHel	20	EurAff	323	EurAff	265
MesSla	2	GasSpi	5	EurAff	439	GasSpi	9	GasSpi	2
PlePil	2	PlePil	2	GasSpi	7	PlePil	2	PlePil	8
PseElo	62	PseElo	60	PlePij	20	PolLar	2	PolLar	1
SchSpi	2	SchSpi	2	PolLar	2	PseElo	40	PseElo	41
				PseElo	40	SagEle	6	SagEle	1
				SchSpi	5	SchSpi	6	SchSpi	2
				TemLon	20	TemLon	11		

Site11		Site13		Site20		Site25		Site26	
AcaBif	**915**	AcaBif	301	AcaBif	597	AcaBif	571	AcaBif	331
CalHel	161	CalHel	17	CalHel	37	CalHel	246	CalHel	740
CenHam	14	CenHam	17	CenHam	271	CenHam	208	CenHam	147
MesSla	1	EurAff	33	EvaNor	18	MesSla	1	ParPar	183
PlePil	1	MegNor	2	MesSla	1	ParPar	90	PlePil	2
PolLar	1	MesSla	8	PolLar	2	PlePij	26	PseElo	518
PseElo	535	ParPar	33	SagEle	16	PseElo	284	SagEle	8
SchSpi	1	PolLar	6	SagElj	2	SagEle	3	SagElj	35
TemLon	14	PseElo	797	SchSpi	3	SagElj	31	TemLon	183
		SagEle	17	TemLon	55	SchSpi	6		
		SagElj	3			TemLon	181		
		SchSpi	3						
		TemLon	17						