

Statistical Ecology
Stat 555

Correspondence Analysis

Problem: data were collected on the abundance of 16 species of intertidal algae and invertebrates over a 16 year period from 1976-1992 in control (C or 0) and impact (I or 1) sites adjacent to the thermal discharge from a nuclear power plant. The plant began operations in 1985.

The CORRESP Procedure

Inertia and Chi-Square Decomposition

Singular Value	Principal Inertia	Chi-Square	Percent	Cumulative Percent	3	6	9	12	15
					-----+-----+-----+-----+-----+-----	-----+-----+-----+-----+-----+-----	-----+-----+-----+-----+-----+-----	-----+-----+-----+-----+-----+-----	-----+-----+-----+-----+-----+-----
0.56770	0.32229	3122.7	16.03	16.03	*****	*****	*****	*****	*****
0.53823	0.28969	2806.8	14.41	30.44	*****	*****	*****	*****	*****
0.44072	0.19424	1882.0	9.66	40.10	*****	*****	*****	*****	*****
0.42086	0.17713	1716.2	8.81	48.91	*****	*****	*****	*****	*****
0.40201	0.16161	1565.9	8.04	56.95	*****	*****	*****	*****	*****
0.37219	0.13853	1342.2	6.89	63.84	*****	*****	*****	*****	*****
0.35687	0.12735	1233.9	6.33	70.18	*****	*****	*****	*****	*****
0.31942	0.10203	988.6	5.08	75.25	*****	*****	*****	*****	*****
0.30383	0.09231	894.4	4.59	79.84	*****	*****	*****	*****	*****
0.29488	0.08695	842.5	4.33	84.17	*****	*****	*****	*****	*****
0.29127	0.08484	822.0	4.22	88.39	*****	*****	*****	*****	*****
0.27818	0.07738	749.8	3.85	92.24	*****	*****	*****	*****	*****
0.26574	0.07062	684.2	3.51	95.75	*****	*****	*****	*****	*****
0.23000	0.05290	512.6	2.63	98.38	****	****	****	****	****
0.18032	0.03251	315.0	1.62	100.00	***	***	***	***	***
Total	2.01039	19478.7	100.00						

Degrees of Freedom = 5055

The CORRESP Procedure

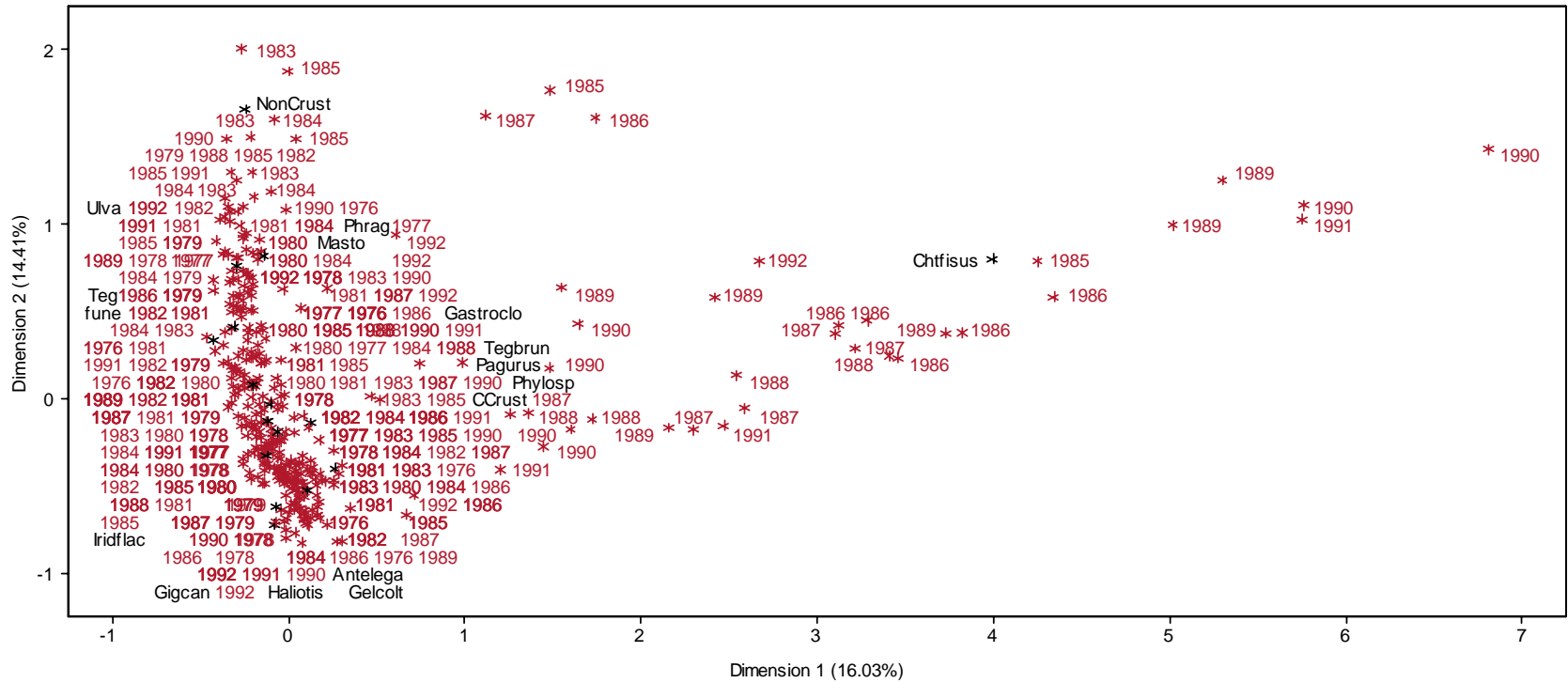
Row Coordinates

	Dim1	Dim2
1976	-0.2230	0.6955
1976	-0.1841	0.0732
1976	-0.2146	0.5127
1976	-0.3177	0.5004
1976	-0.1812	0.0882
1976	-0.1977	0.6578
1976	-0.0516	-0.2379
1976	-0.1769	0.8297

Column Coordinates

	Dim1	Dim2
CCrust	-0.0595	-0.1865
NonCrust	-0.2422	1.6605
Gastroclo	-0.3087	0.4140
Gelcolt	0.1072	-0.5240
Gigcan	-0.0696	-0.6171
Masto	0.1253	-0.1353
Iridflac	-0.0799	-0.7170
Phylosp	-0.1163	-0.1262
Antelega	0.2636	-0.3965
Tegbrun	-0.1988	0.0789
Tegfune	-0.4235	0.3365
Pagurus	-0.1019	-0.0287
Haliotis	-0.1206	-0.3249
Chtfusus	3.9967	0.8024
Phrag	-0.1372	0.8225
Ulva	-0.2957	0.7603

Intertidal organisms at Diablo Canyon, 1976-1992



Intertidal organisms at Diablo Canyon, 1976-1992

