

Harvard Forest Data Archive HF297-04

Data File:

Name = hf297-04-soil-chem-metabolite.csv
Description = soil chemistry and metabolites
Rows = 30 Columns = 55
MD5 checksum = 9eab4248971cd2f802d0eade9elaf14

Variables:

year = year of sample collection
soil.ph = soil pH measured in distilled water (number)
per.loi = organic matter measured by loss on ignition (LOI) at
550°C (dimensionless)
per.tn = total nitrogen measured by combustion analysis at
1350°C
(dimensionless)
per.tc = total carbon measured by combustion analysis at
1350°C
(dimensionless)
ca = exchangeable Ca extracted in ammonium chloride, measured by
ICP-OES (milligramPerKilogram)
k = exchangeable K extracted in ammonium chloride, measured by
ICP-OES (milligramPerKilogram)
mg = exchangeable Mg extracted in ammonium chloride, measured by
ICP-OES (milligramPerKilogram)
p = exchangeable P extracted in ammonium chloride, measured by
ICP-OES (milligramPerKilogram)
al = exchangeable Al extracted in ammonium chloride, measured by
ICP-OES (milligramPerKilogram)
fe = exchangeable Fe extracted in ammonium chloride, measured by
ICP-OES (milligramPerKilogram)
mn = exchangeable Mn extracted in ammonium chloride, measured by
ICP-OES (milligramPerKilogram)
na = exchangeable Na extracted in ammonium chloride, measured by
ICP-OES (milligramPerKilogram)
zn = exchangeable Zn extracted in ammonium chloride, measured by
ICP-OES (milligramPerKilogram)
acidity = exchangeable acidity extracted in potassium chloride,
measured by
titration (milliequivalent)
cec = effective cation exchange capacity (ECEC) calculated by
summation of
milliequivalent levels of Ca, K, Mg, Na, and acidity, 100gm
(dimensionless)
no3n = nitrate nitrogen extracted in potassium chloride, determined
colorimetrically by Ion Analyzer (milligramPerKilogram)
nh4n = ammonium nitrogen extracted in potassium chloride,
determined
colorimetrically by Ion Analyzer (milligramPerKilogram)
put = five percent PCA soluble putrescine by HPLC (nanomolePerGram)
spd = five percent PCA soluble spermidine by HPLC (nanomolePerGram)
spm = five percent PCA soluble spermine by HPLC (nanomolePerGram)
weight = weight (gram)
asp = five percent PCA soluble Aspartic Acid by HPLC
(nanomolePerGram)

glu = five percent PCA soluble Glutamic Acid by HPLC
(nanomolePerGram)

gln = five percent PCA soluble Glutamine by HPLC (nanomolePerGram)

ser = five percent PCA soluble Serine by HPLC (nanomolePerGram)

arg.thr.gly = five percent PCA soluble Arginine+Threonine+Glycine by
HPLC (system was
unable to separate these three amino acids)
(nanomolePerGram)

thr = five percent PCA soluble Threonine by HPLC (nanomolePerGram)

gly = five percent PCA soluble Glycine by HPLC (nanomolePerGram)

ala = five percent PCA soluble Alanine by HPLC (nanomolePerGram)

pro = five percent PCA soluble Proline by HPLC (nanomolePerGram)

gaba = five percent PCA soluble g-Aminobutyric Acid by HPLC
(nanomolePerGram)

val = five percent PCA soluble Valine by HPLC (nanomolePerGram)

met = five percent PCA soluble Methionine by HPLC (nanomolePerGram)

ile = five percent PCA soluble Isoleucine by HPLC (nanomolePerGram)

leu = five percent PCA soluble Leucine by HPLC (nanomolePerGram)

trp = five percent PCA soluble Tryptophan by HPLC (nanomolePerGram)

phe = five percent PCA soluble Phenylalanine by HPLC
(nanomolePerGram)

cys = five percent PCA soluble Cystine by HPLC (nanomolePerGram)

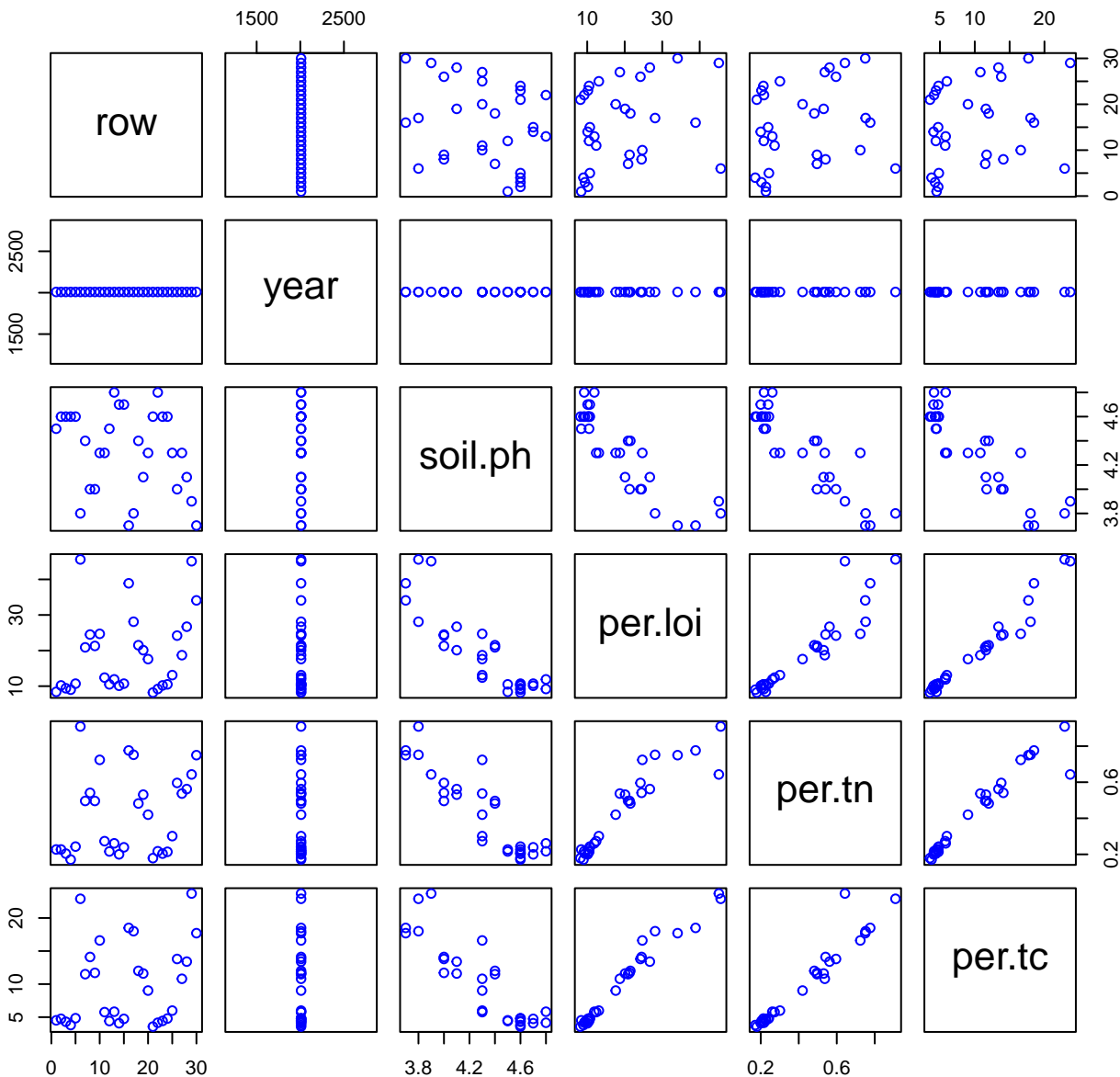
orn = five percent PCA soluble Ornithine by HPLC (nanomolePerGram)

lys = five percent PCA soluble Lysine by HPLC (nanomolePerGram)

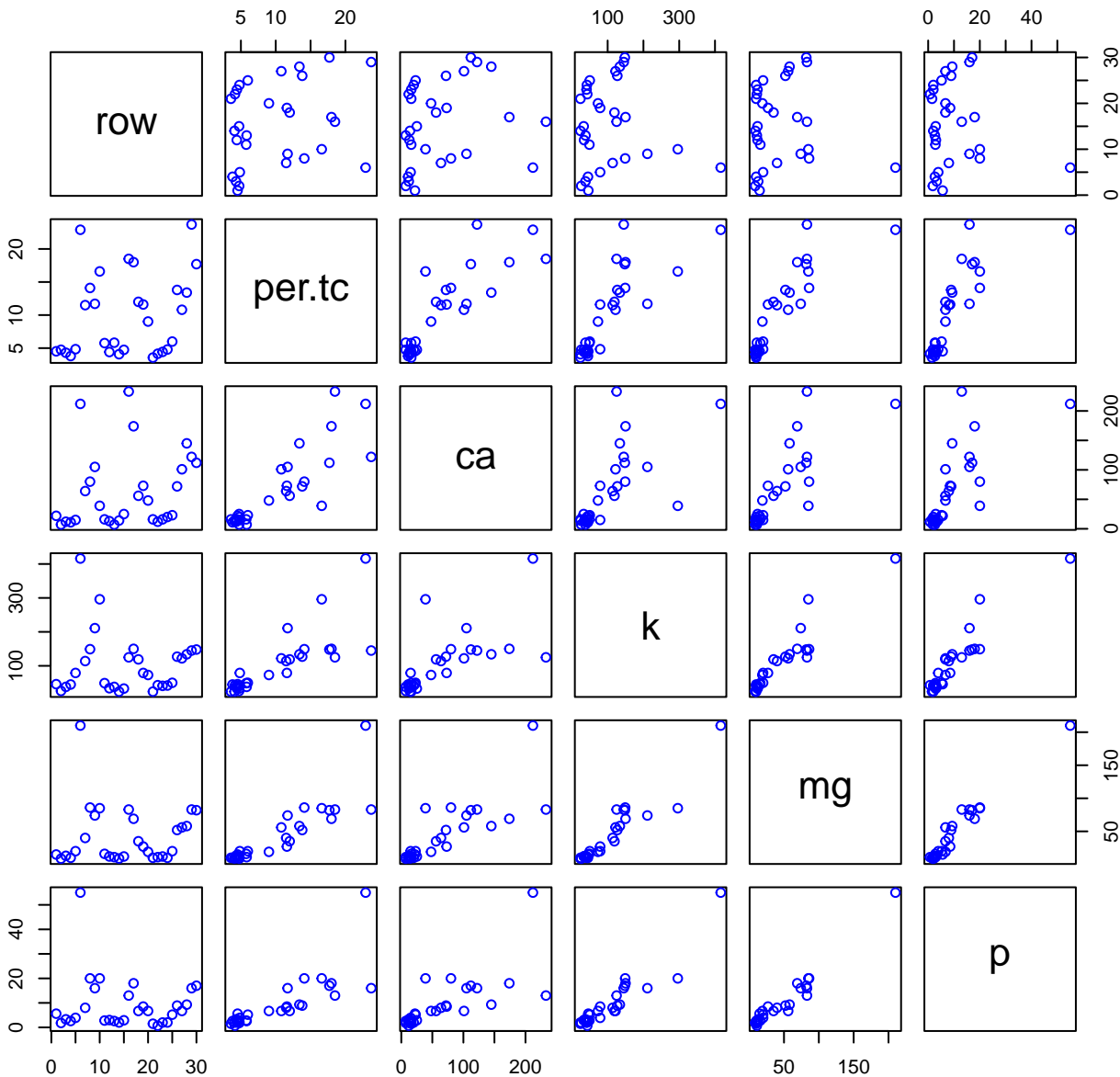
his = five percent PCA soluble Histidine by HPLC (nanomolePerGram)

Variable	Min	Median	Mean	Max	NAs
year	2009.000	2009.000	2009.000	2009.000	0
soil.ph	3.700	4.350	4.320	4.800	0
per.loi	8.200	15.350	18.883	45.600	0
per.tn	0.171	0.360	0.420	0.909	0
per.tc	3.570	7.505	9.842	23.700	0
ca	7.100	32.000	62.177	233.000	0
k	24.000	76.000	100.667	416.000	0
mg	8.700	20.000	41.623	210.000	0
p	0.700	6.150	9.057	55.000	0
al	188.000	450.000	439.033	908.000	0
fe	5.500	39.000	44.660	106.000	0
mn	1.800	11.500	11.587	57.000	0
na	2.500	7.550	10.110	25.000	0
zn	0.700	4.900	6.837	33.000	0
acidity	2.900	6.500	7.170	13.200	0
cec	3.200	7.700	8.147	15.000	0
no3n	0.300	0.500	0.610	2.100	0
nh4n	8.200	16.500	21.747	63.000	0
put	1.290	6.695	8.191	28.250	0
spd	3.090	10.520	12.620	38.770	0
spm	0.160	0.895	1.043	4.050	0
weight	0.198	0.200	0.200	0.203	0
asp					30
glu	0.000	29.945	29.406	84.180	0
gln	0.000	0.000	89.719	343.040	0
ser	0.000	12.180	14.283	39.400	0
arg.thr.gly	0.000	129.985	174.108	641.300	0
thr					30
gly					30
ala	7.350	44.885	61.083	188.390	0
pro	0.000	5.750	5.253	16.600	0
gaba	10.740	72.575	89.033	276.650	0
val	2.480	8.065	8.850	20.890	0
met	0.000	0.000	0.000	0.000	0
ile	0.000	2.105	2.713	13.110	0
leu	0.000	3.980	4.588	12.380	0
trp	34.390	48.020	52.460	88.190	0
phe	0.000	11.040	38.184	275.450	0
cys	0.000	4.940	4.687	11.700	0
orn	0.790	5.655	5.618	18.880	0
lys	4.570	12.010	13.609	28.280	0
his	0.000	0.000	0.000	0.000	0

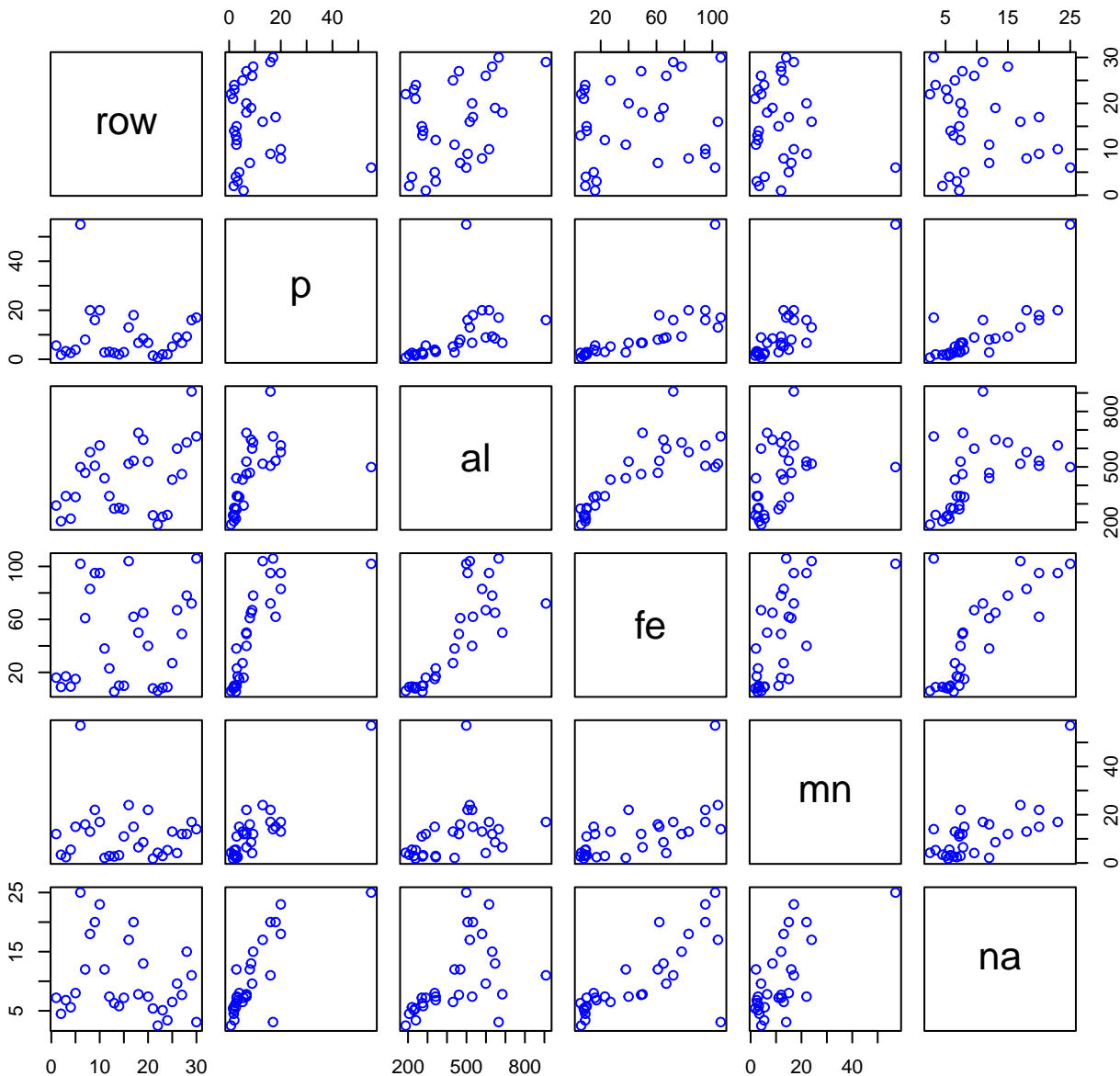
HF297-04 Plot 1



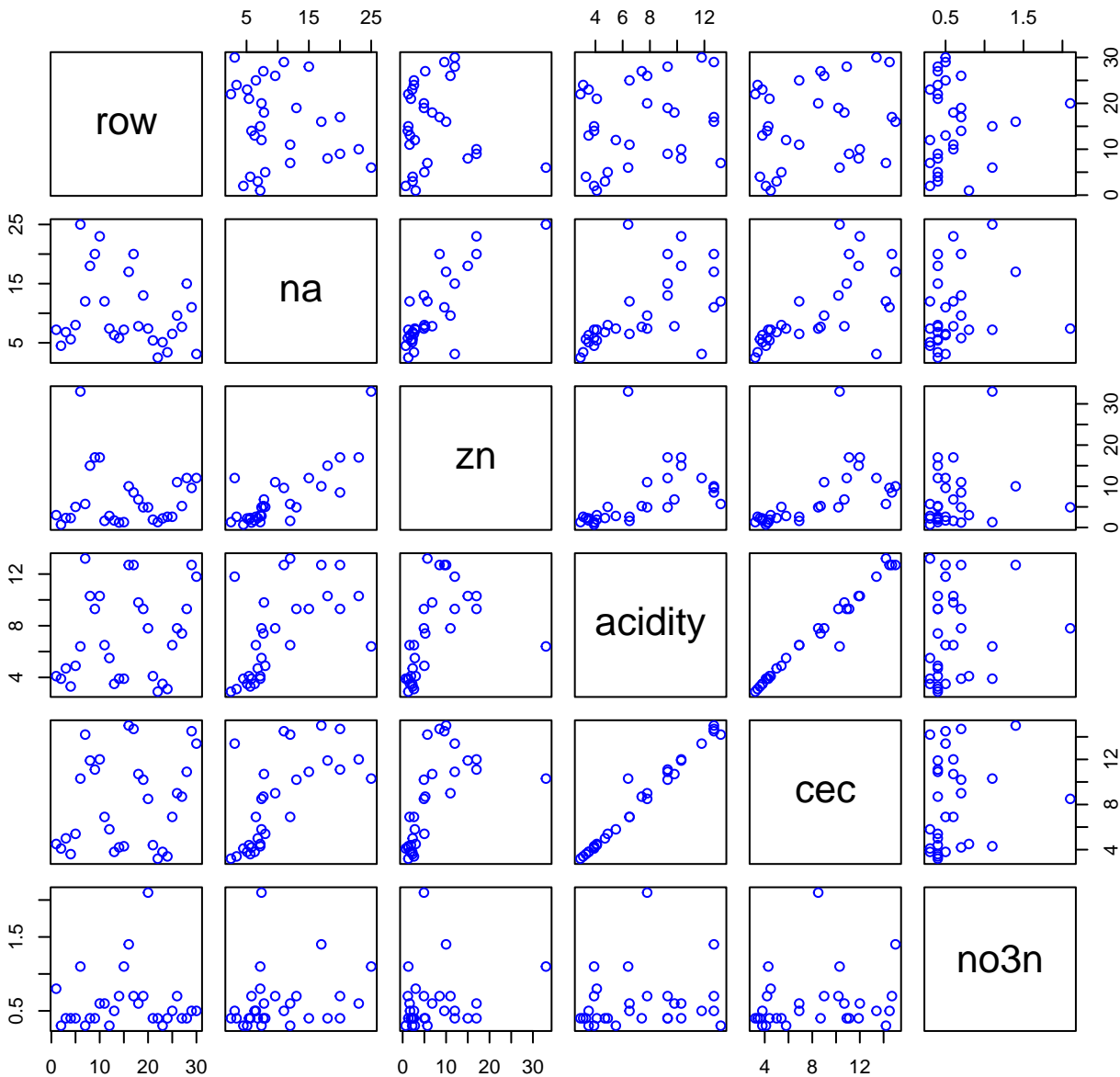
HF297-04 Plot 2



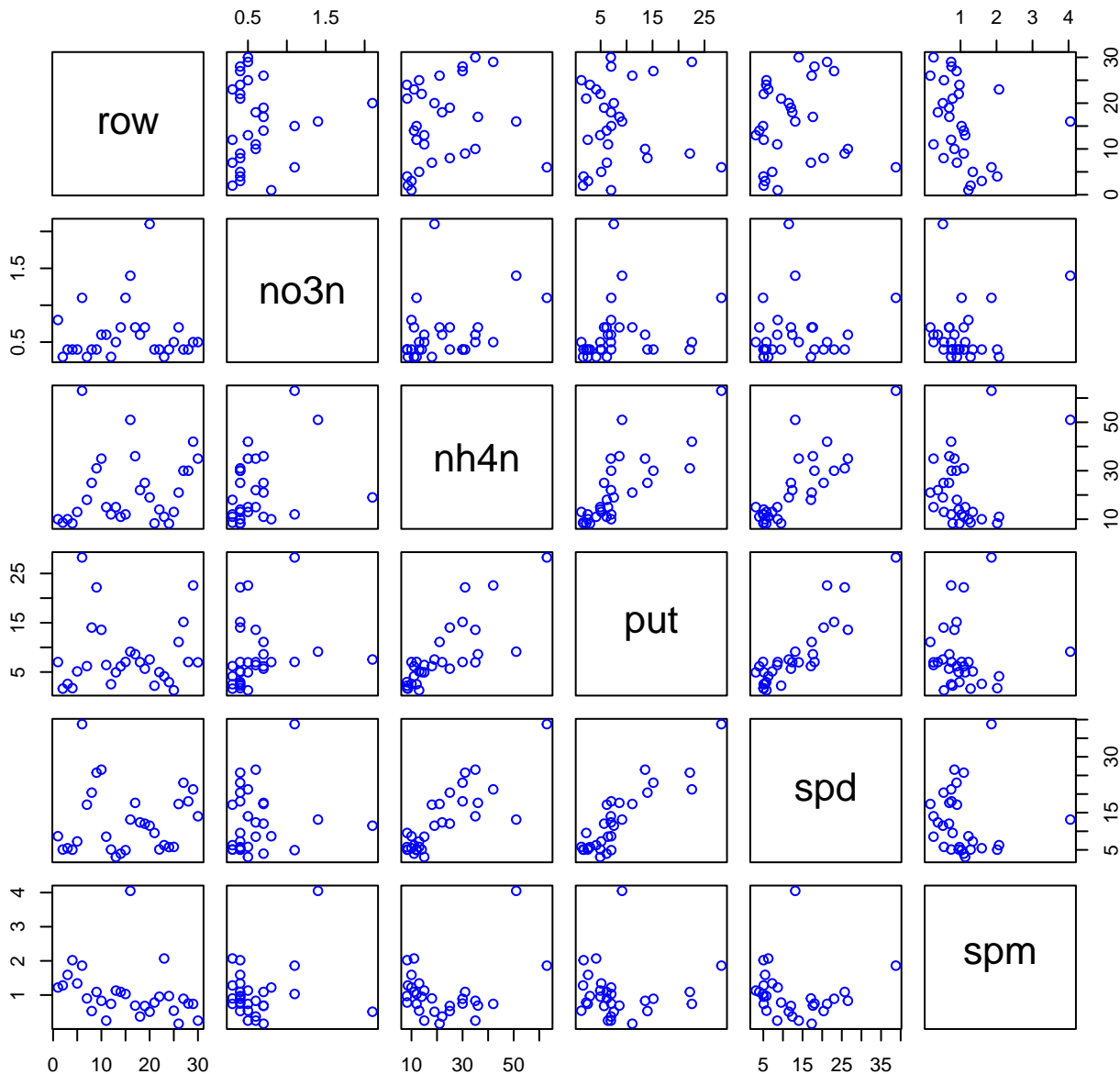
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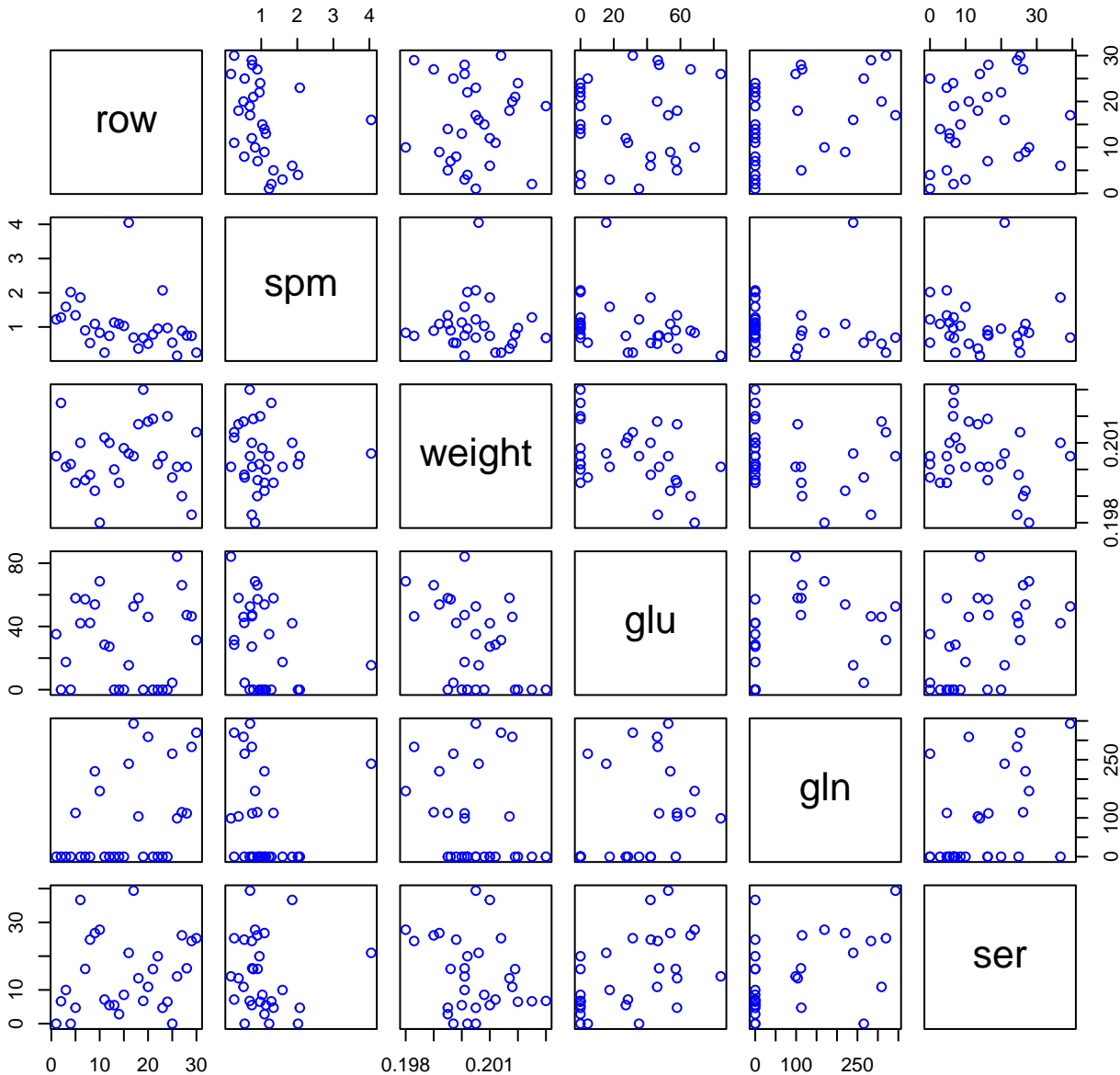
HF297-04 Plot 4



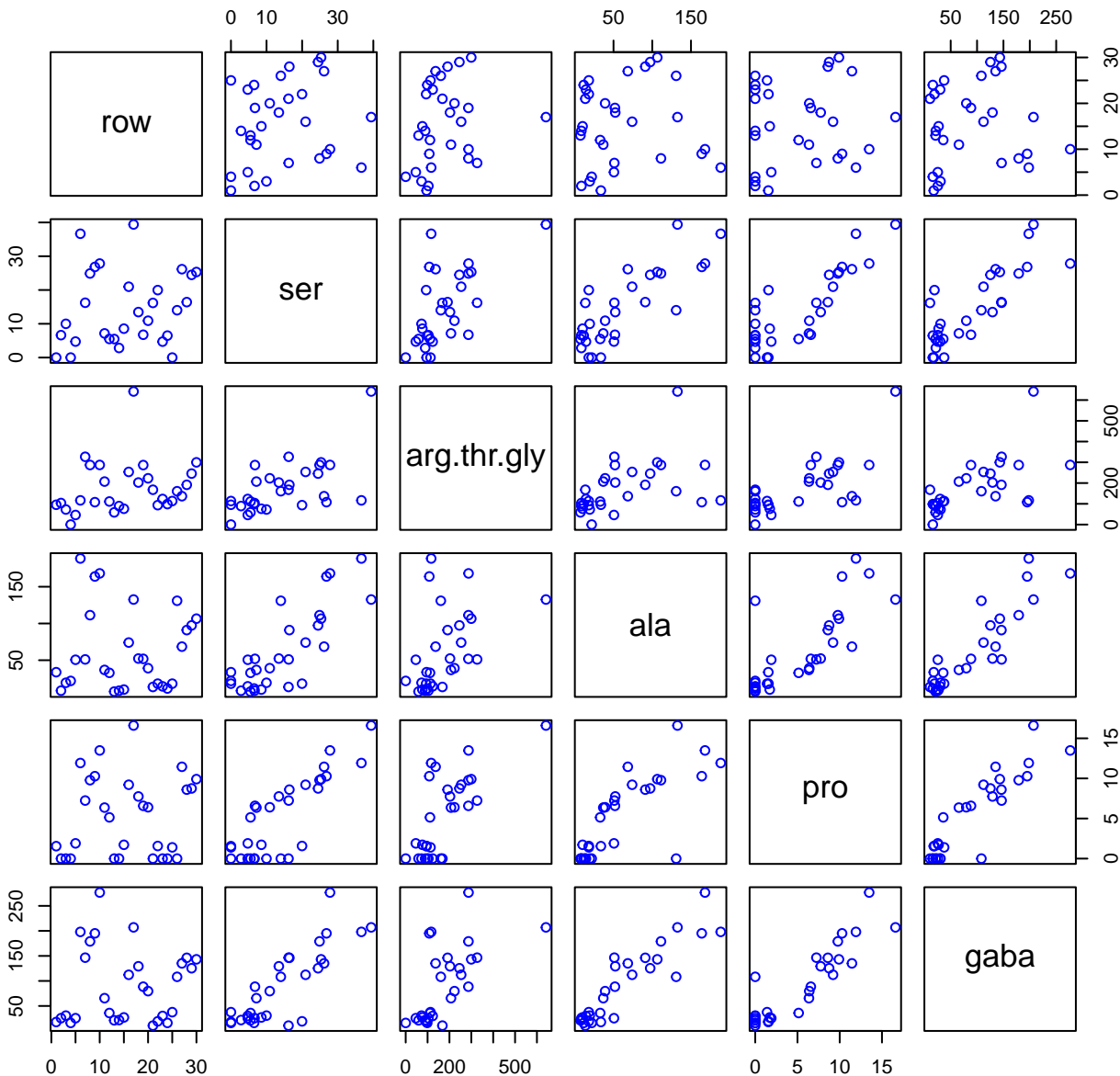
HF297-04 Plot 5



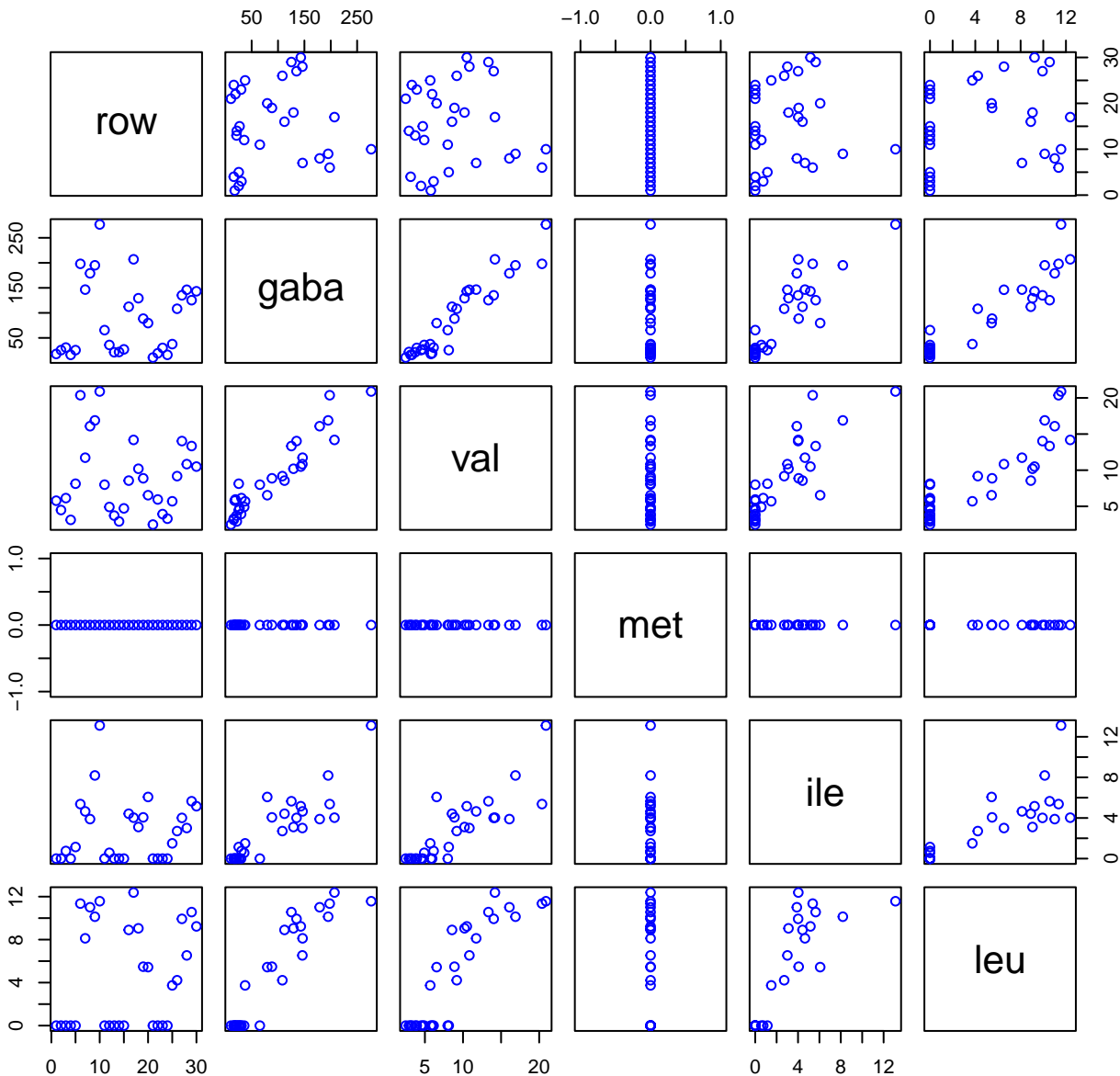
HF297-04 Plot 6



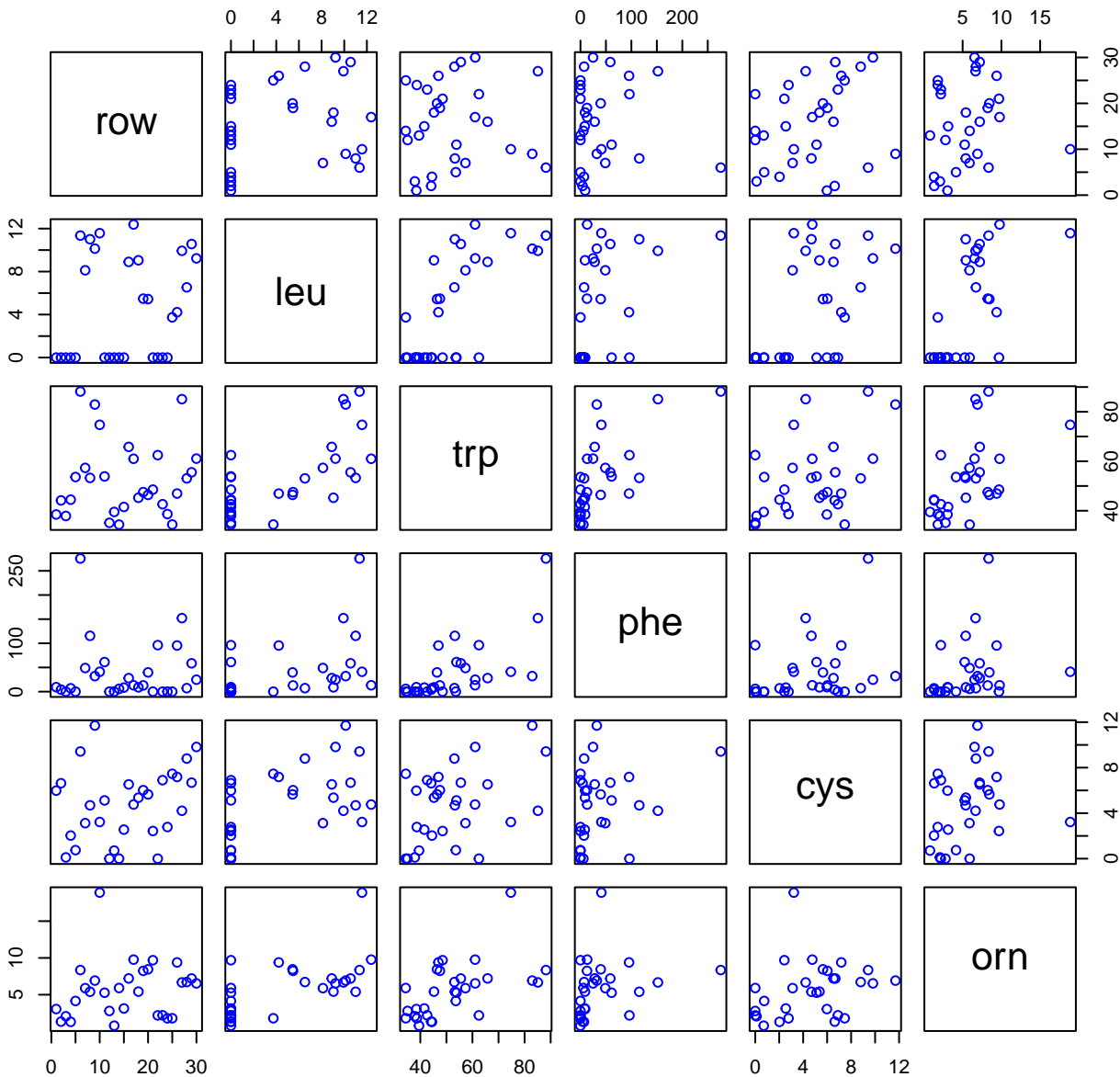
HF297-04 Plot 7



HF297-04 Plot 8



HF297-04 Plot 9



HF297-04 Plot 10

