

Harvard Forest Data Archive HF421-02

Data File:

Name = hf421-02-respiration.csv  
Description = stem respiration  
Rows = 920 Columns = 38  
MD5 checksum = f1517b4ead7b4f92415e6c3677ba67b9

Variables:

chamber.volume = volume of the respiration chamber (cubicMeter)  
chamber.area = stem surface area covered by the chamber  
(squareMeter)  
flux.raw = mean respiratory flux from this chamber  
(micromolePerMeterSquaredPerSecond)  
sd.flux.raw = standard deviation of the respiratory flux from this  
chamber (micromolePerMeterSquaredPerSecond)  
aic.raw = Akaike Information Criterion of model fitted to  
respiration curve (dimensionless)  
r2.raw = R2 of fit to the respiration curve after correction for  
water vapour dilution using atmospheric humidity (dimensionless)  
flux.atm = mean respiratory flux after correction for water vapour  
dilution using internal humidity from this chamber  
(micromolePerMeterSquaredPerSecond)  
sd.flux.atm = standard deviation of the respiratory flux after  
correction for water vapour dilution using atmospheric humidity from this  
chamber (micromolePerMeterSquaredPerSecond)  
aic.atm = Akaike Information Criterion of model fitted to  
respiration curve after correction for water vapour dilution using  
atmospheric humidity (dimensionless)  
r2.atm = R2 of fit to the respiration curve after correction for  
water vapour dilution using atmospheric humidity (dimensionless)  
flux.int = mean respiratory flux after correction for water vapour  
dilution using internal humidity from this chamber  
(micromolePerMeterSquaredPerSecond)  
sd.flux.int = standard deviation of the respiratory flux after  
correction for water vapour dilution using internal humidity from this  
chamber (micromolePerMeterSquaredPerSecond)  
aic.int = Akaike Information Criterion of model fitted to  
respiration curve after correction for water vapour dilution using internal  
humidity (dimensionless)  
r2.int = R2 of fit to the respiration curve after correction for  
water vapour dilution using internal humidity (dimensionless)  
ea.pa = atmospheric pressure from the Fisher meteorological station  
(pascal)  
airt.c = surface air temperature from the Fisher meteorological  
station (celsius)  
soilt1.c = soil temperature at 2.25 cm near the Barn Tower (celsius)  
soilt2.c = soil temperature at 6.8 cm near the Barn Tower (celsius)  
soilt3.c = soil temperature at 12.85 cm near the Barn Tower  
(celsius)  
soilt4.c = soil temperature at 22.75 cm near the Barn Tower  
(celsius)

pres.pa = atmospheric barometric pressure from the Fisher  
Meteorological station (pascal)

h2o.ppt.atm = atmospheric humidity from the Fisher meteorological  
station in parts per thousand (dimensionless)

h2o.ppt.int = internal atmospheric humidity from the Li-Cor 840 in  
parts per thousand (dimensionless)

vwcdaily = daily mean volumetric water content from probes at the  
Barn Tower (dimensionless)

vwcl = 10-minute mean volumetric water content at 2.25 cm near the  
Barn Tower (dimensionless)

vwcl2 = 10-minute mean volumetric water content at 6.8 cm near the  
Barn Tower (dimensionless)

vwcl3 = 10-minute mean volumetric water content at 12.85 cm near the  
Barn Tower (dimensionless)

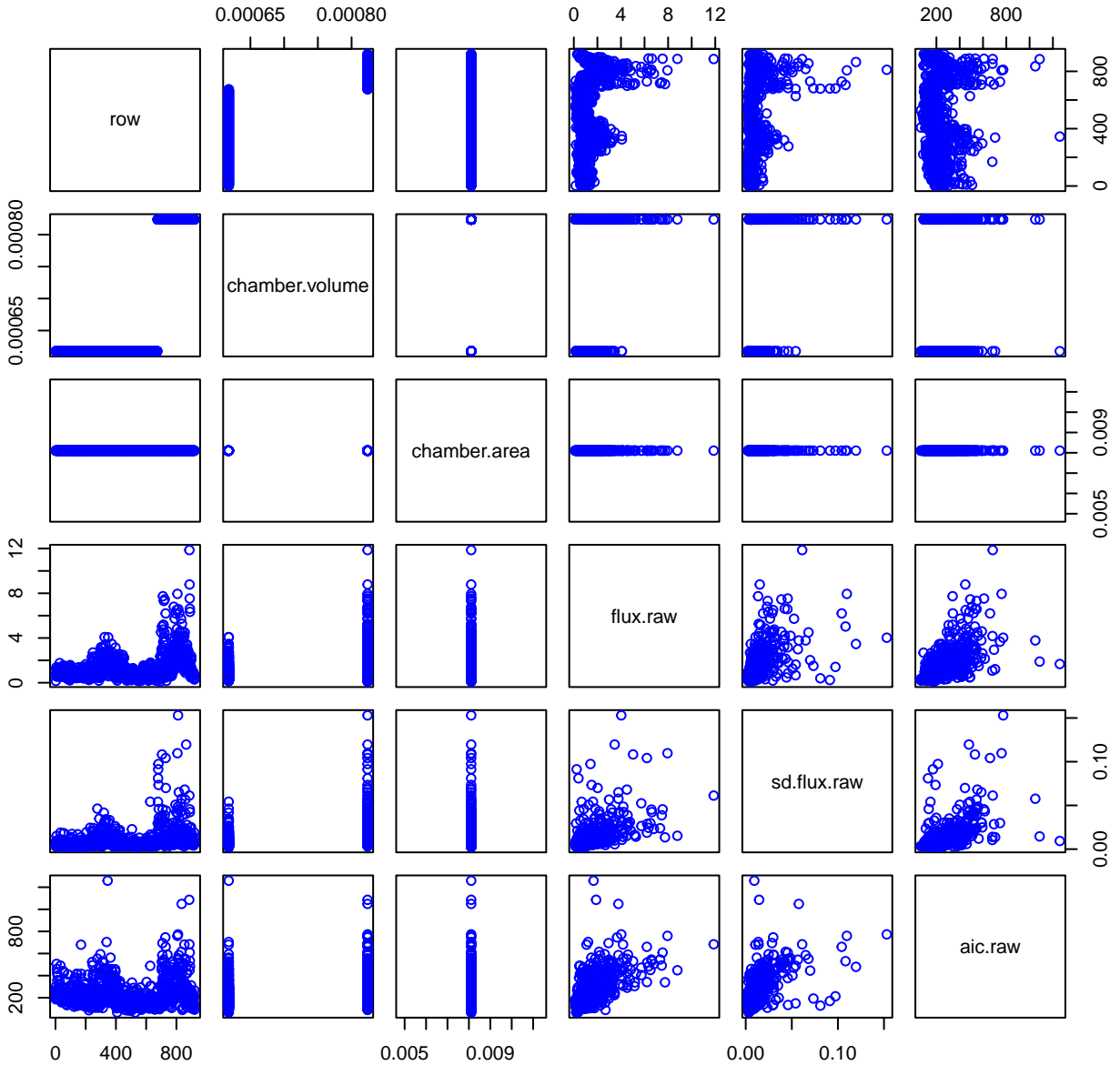
vwcl4 = 10-minute mean volumetric water content at 22.75 cm near the  
Barn Tower (dimensionless)

total.rad = total downwelling shortwave radiation at top of Barn  
Tower (wattPerMeterSquared)

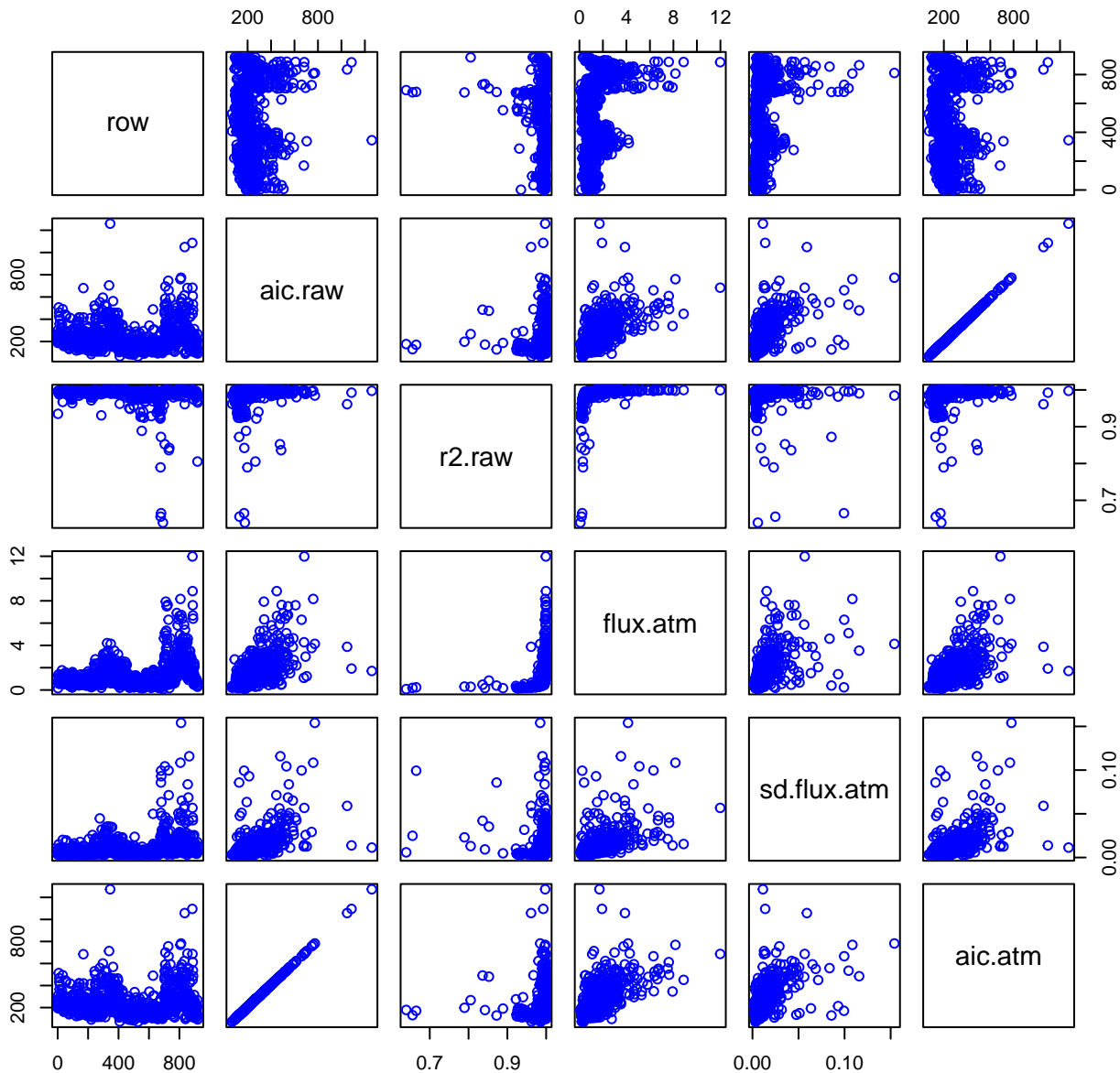
diffuse.rad = diffuse downwelling shortwave radiation at top of Barn  
Tower (wattPerMeterSquared)

Variable	Min	Median	Mean	Max	NAs
chamber.volu	0.001	0.001	0.001	0.001	0
chamber.area	0.008	0.008	0.008	0.008	0
flux.raw	0.083	0.946	1.324	11.867	0
sd.flux.raw	0.002	0.007	0.011	0.153	0
aic.raw	67.124	196.583	234.309	1259.229	0
r2.raw	0.639	0.996	0.990	1.000	0
flux.atm	0.084	0.957	1.346	11.981	0
sd.flux.atm	0.002	0.007	0.011	0.154	0
aic.atm	70.303	201.381	239.010	1273.647	0
r2.atm	0.639	0.996	0.990	1.000	0
flux.int	0.096	1.018	0.830	1.179	914
sd.flux.int	0.007	0.010	0.013	0.034	914
aic.int	119.378	166.169	163.177	209.520	914
r2.int	0.639	0.990	0.930	0.993	914
ea.pa	216.725	1339.700	1399.793	2990.744	0
airt.c	0.300	15.800	15.847	28.500	0
soilt1.c	2.460	14.140	14.201	21.870	0
soilt2.c	3.048	14.315	13.969	20.800	0
soilt3.c	3.173	13.670	13.461	19.230	0
soilt4.c	3.110	13.330	12.951	18.030	0
pres.pa	99200.000	101600.000	101613.913	103200.000	0
h2o.ppt.atm	2.129	13.397	14.016	30.484	0
h2o.ppt.int					920
vwv.daily	0.185	0.270	0.277	0.425	397
vwv1	0.002	0.042	0.049	0.166	0
vwv2	0.046	0.142	0.191	0.709	0
vwv3	0.097	0.318	0.314	0.533	0
vwv4	0.103	0.318	0.313	0.467	0
total.rad	3.251	3.973	13.160	479.164	0
diffuse.rad	0.119	0.461	3.168	280.571	0

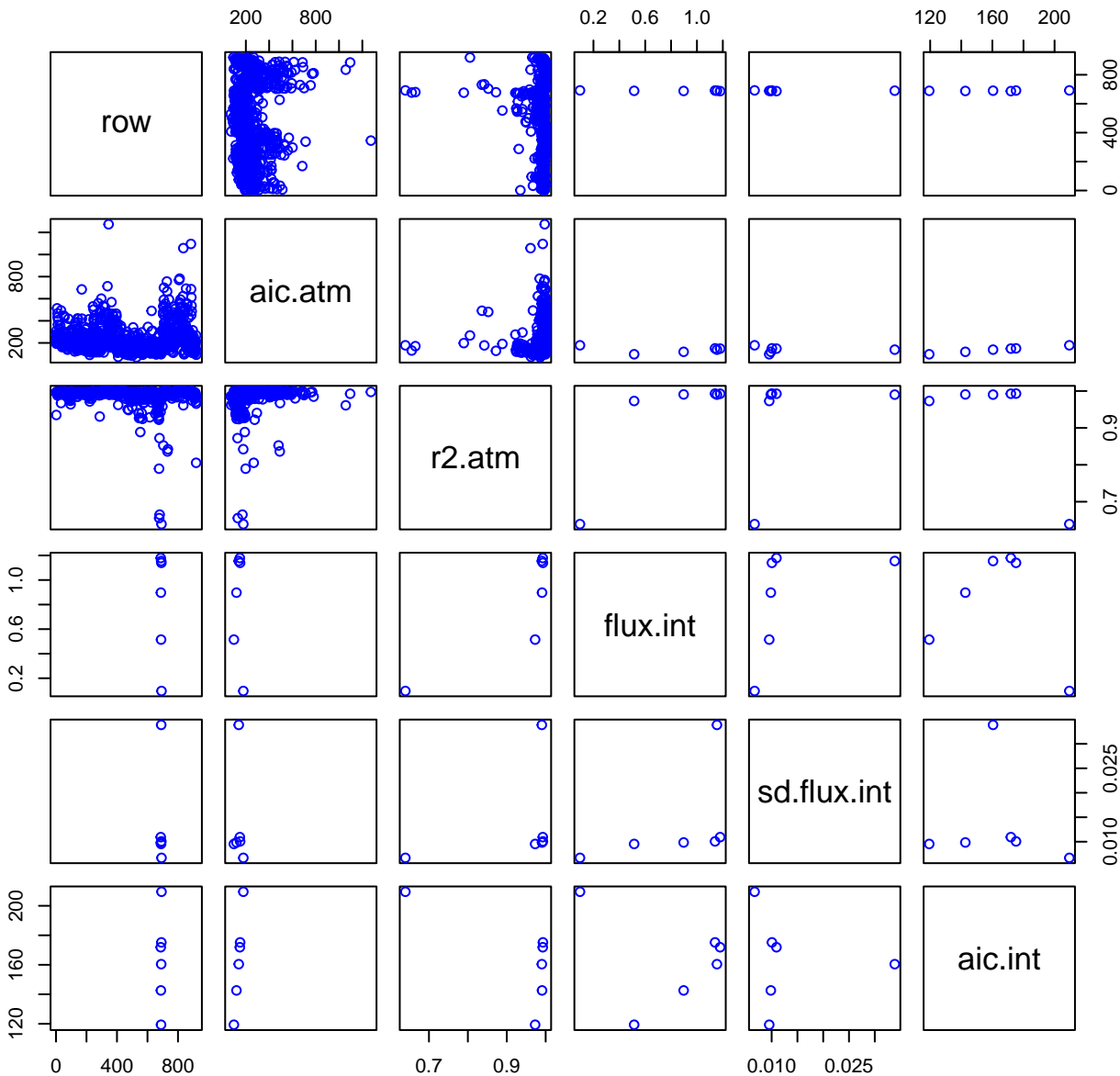
# HF421-02 Plot 1



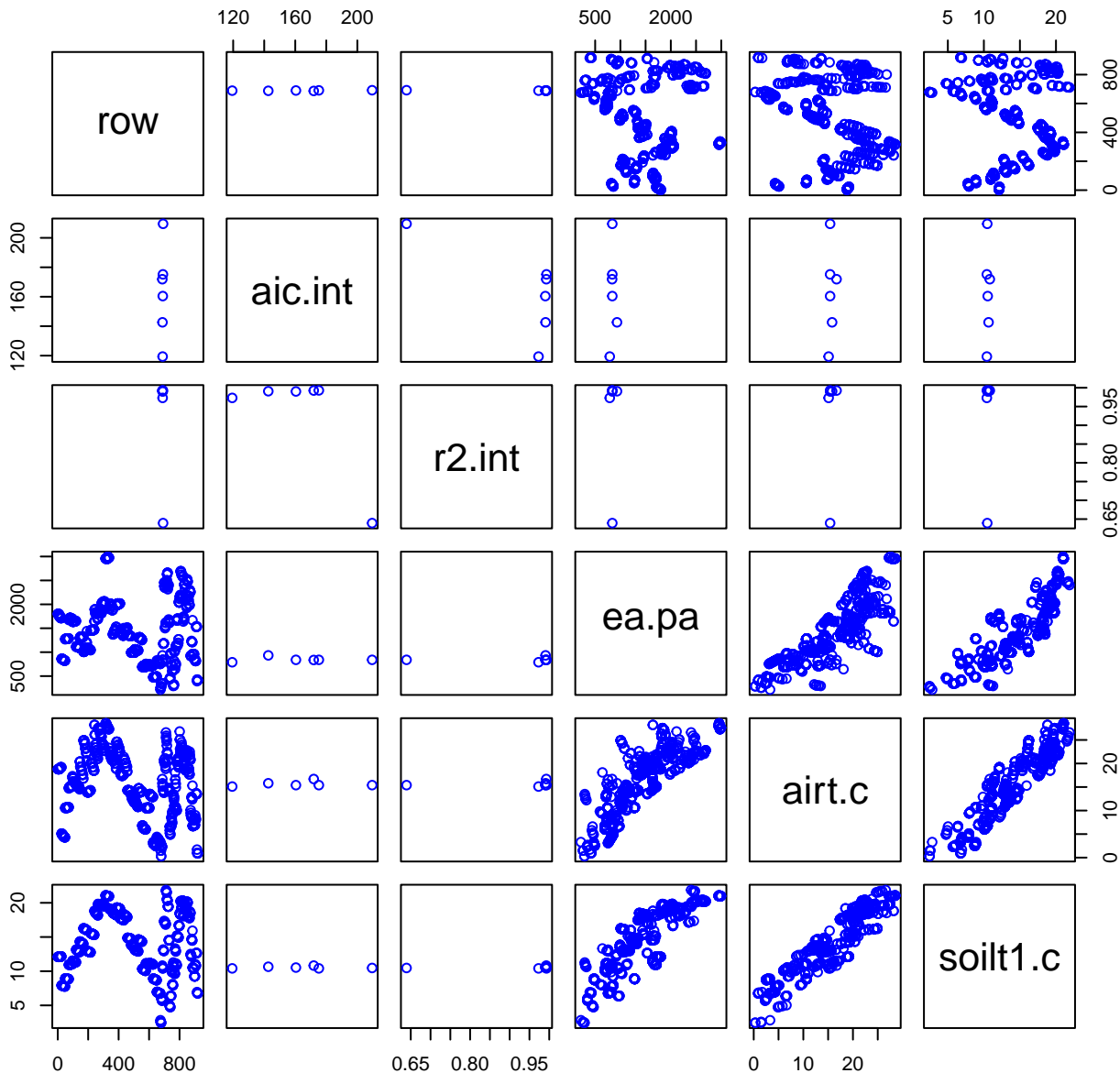
# HF421-02 Plot 2



# HF421-02 Plot 3



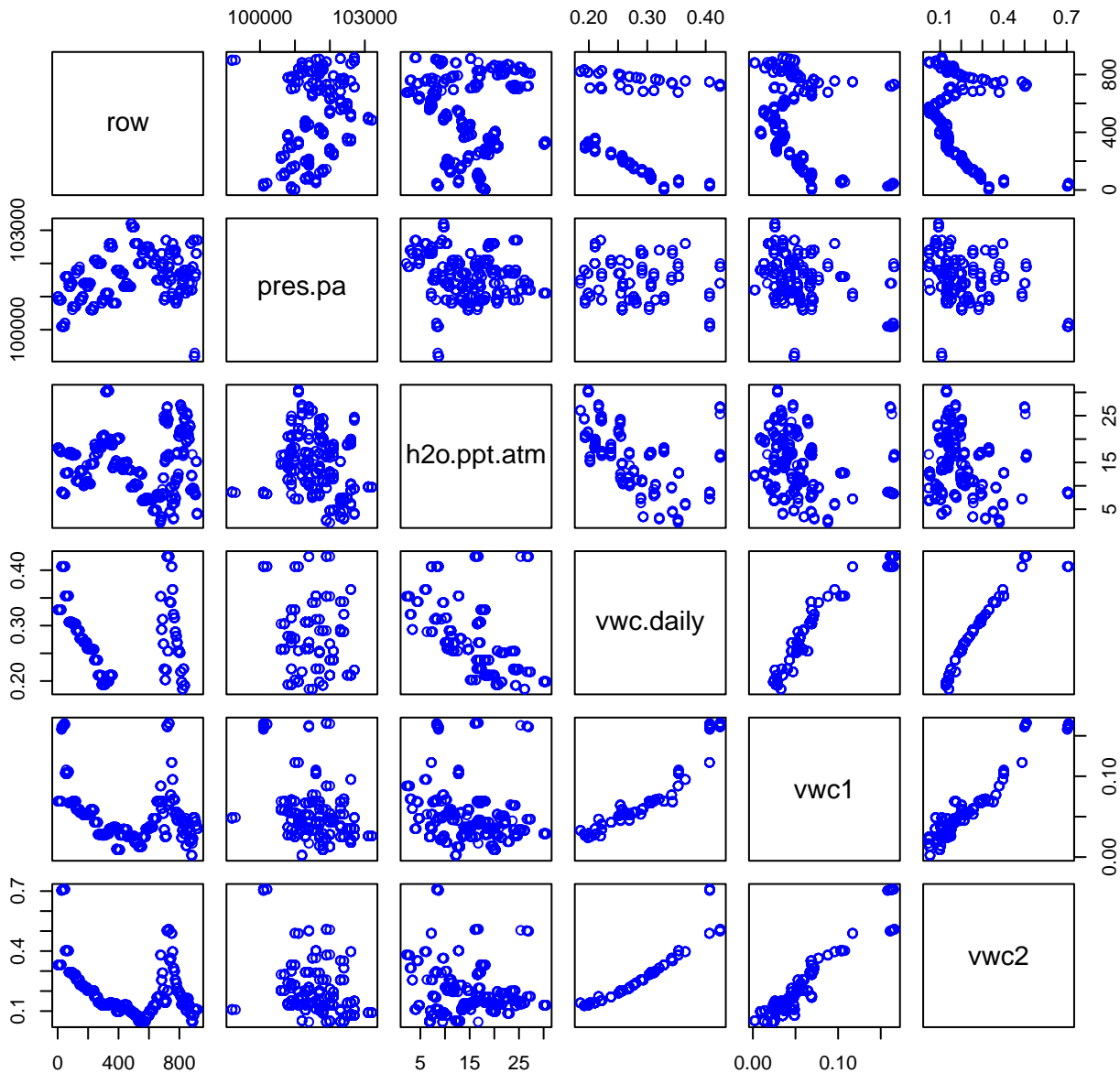
# HF421-02 Plot 4







# HF421-02 Plot 6



# HF421-02 Plot 7

