

Harvard Forest Data Archive HF361-08

Data File:

Name = hf361-08-stem-efflux.csv
Description = stem CO2 efflux data
Rows = 822 Columns = 38
MD5 checksum = 4a7eb7cbac1f0c46b04915414342652d

Variables:

chamber.volume = volume of the respiration chamber (cubicMeter)
chamber.area = stem surface area covered by the chamber
(squareMeter)
datetime = time stamp of when the measurement was started
flux.raw = mean CO2 efflux from given chamber
(micromolePerMeterSquaredPerSecond)
sd.flux.raw = standard deviation of respiratory flux from given
chamber (micromolePerMeterSquaredPerSecond)
aic.raw = Akaike Information Criterion of linear regression model
fitted to CO2
curve (dimensionless)
r2.raw = R2 of the fitted linear regression model fitted to CO2
curve (dimensionless)
flux.atm = mean CO2 efflux from given chamber after correction for
water vapor
dilution using atmospheric humidity
(micromolePerMeterSquaredPerSecond)
sd.flux.atm = standard deviation of respiratory flux from given
chamber after correction
for water vapor dilution using atmospheric
humidity (micromolePerMeterSquaredPerSecond)
aic.atm = Akaike Information Criterion of linear regression model
fitted to CO2
curve after correction for water vapor dilution using
atmospheric
humidity (dimensionless)
r2.atm = R2 of the fitted linear regression model fitted to CO2
curve after
correction for water vapor dilution using atmospheric
humidity (dimensionless)
flux.int = mean CO2 efflux from given chamber after correction for
water vapor
dilution using internal humidity from LiCOR-840
(micromolePerMeterSquaredPerSecond)
sd.flux.int = standard deviation of respiratory flux from given
chamber after correction
for water vapor dilution using internal
humidity from LiCOR-840 (micromolePerMeterSquaredPerSecond)
aic.int = Akaike Information Criterion of linear regression model
fitted to CO2
curve after correction for water vapor dilution using
internal humidity from
LiCOR-840 (dimensionless)
r2.int = R2 of the fitted linear regression model fitted to CO2
curve after
correction for water vapor dilution using internal
humidity from
LiCOR-840 (dimensionless)
ea.pa = atmospheric water vapor pressure calculated from humidity
from Fisher
meteorological station at time of measurement (pascal)
airt.c = surface air temperature at time of measurement (celsius)
soiltl.c = soil temperature at 2.25 cm near the Barn Tower at time
of
measurement (celsius)

soilt2.c = soil temperature at 6.80 cm near the Barn Tower at time
of
measurement (celsius)

soilt3.c = soil temperature at 12.85 cm near the Barn Tower at time
of
measurement (celsius)

soilt4.c = soil temperature at 22.75 cm near the Barn Tower at time
of
measurement (celsius)

pres.pa = atmospheric barometric pressure from Fisher meteorological
station at time
of measurement (celsius)

h2o.ppt.atm = atmospheric humidity from Fisher meteorological
station at time of
measurement in parts per thousand (dimensionless)

h2o.ppt.int = internal humidity from LiCOR-840 at time of
measurement in parts per
thousand (dimensionless)

wvc.daily = daily mean volumetric water content from probes near the
Barn Tower for
day of measurement (dimensionless)

wvc1 = 10-mean volumetric water content at 2.25 cm from probe near
the Barn Tower
at time of measurement (dimensionless)

wvc2 = 10-mean volumetric water content at 6.80 cm from probe near
the Barn Tower
at time of measurement (dimensionless)

wvc3 = 10-mean volumetric water content at 12.85 cm from probe near
the Barn
Tower at time of measurement (dimensionless)

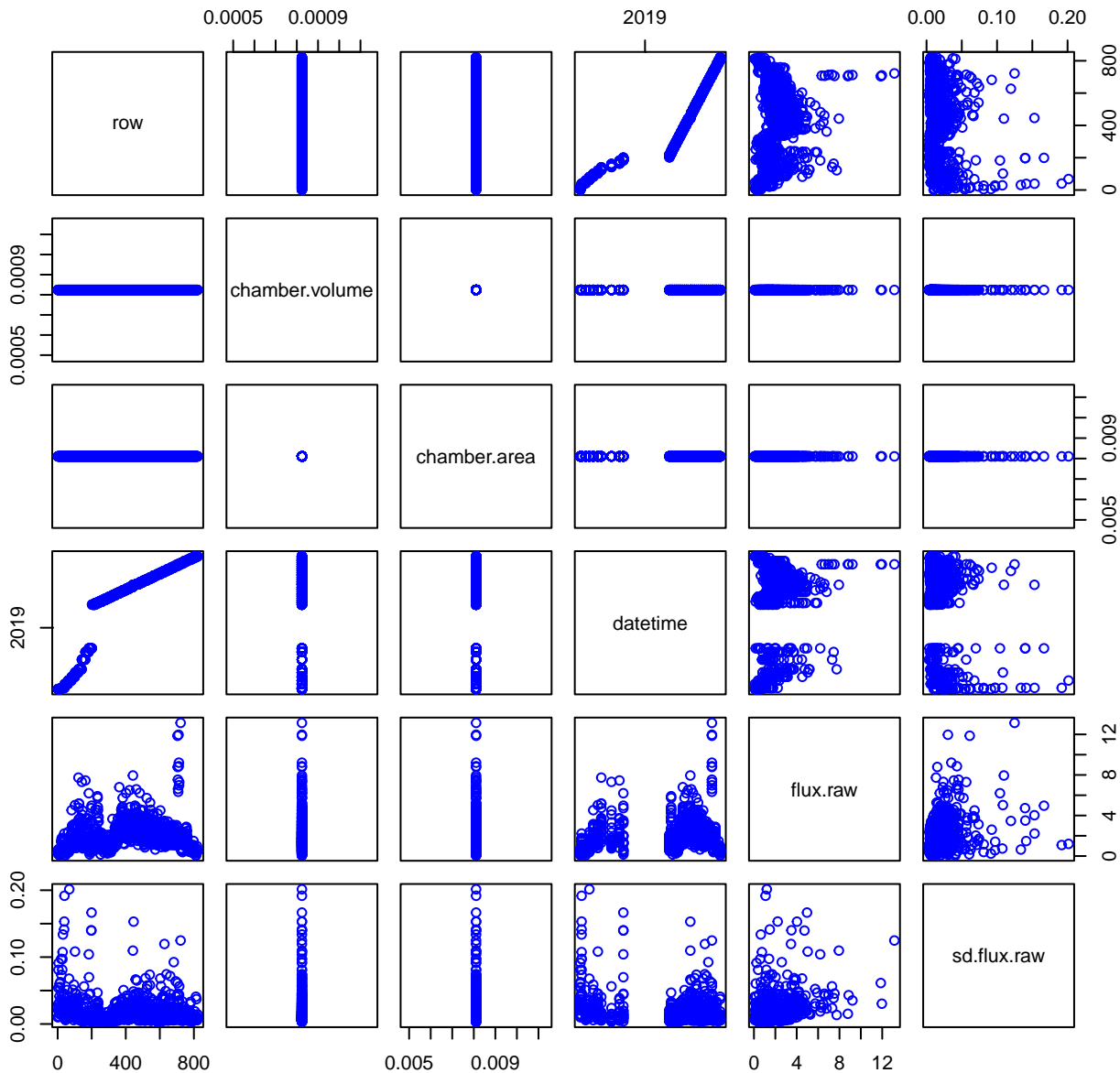
wvc4 = 10-mean volumetric water content at 22.75 cm from probe near
the Barn
Tower at time of measurement (dimensionless)

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

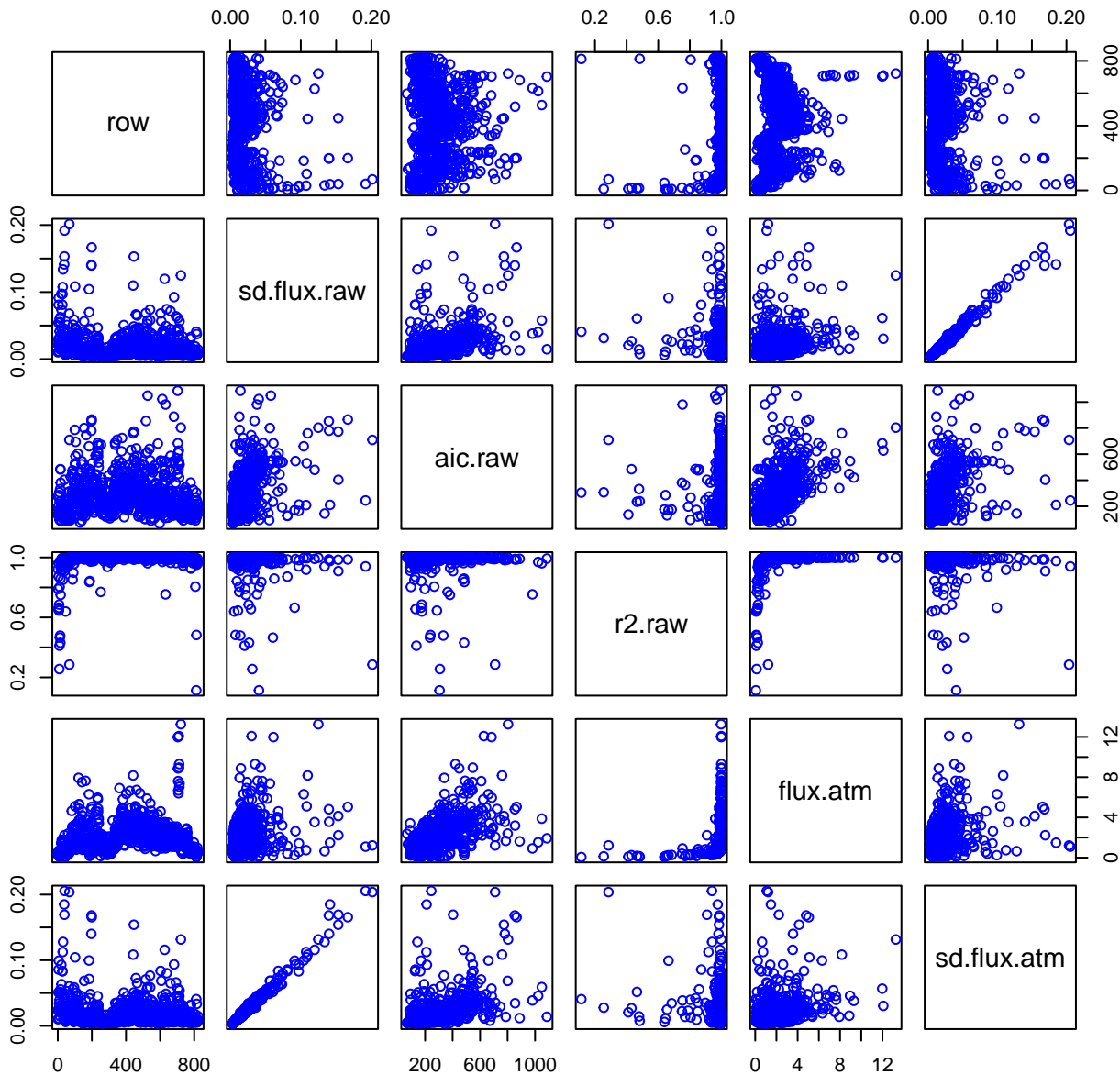
diffuse.rad = diffuse downwelling shortwave radiation at the top of
the Barn Tower at
time of measurement (wattPerMeterSquared)

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
datetime	2018-04-09T17:47:43		2019-11-06T18:50:29		
flux.raw	0.058	1.765	2.092	13.137	0
sd.flux.raw	0.003	0.013	0.019	0.201	0
aic.raw	67.223	247.322	286.865	1086.113	0
r2.raw	0.114	0.997	0.982	1.000	0
flux.atm	0.059	1.783	2.128	13.263	0
sd.flux.atm	0.003	0.013	0.020	0.206	0
aic.atm	75.272	253.012	291.621	1095.732	0
r2.atm	0.114	0.997	0.982	1.000	0
flux.int	0.096	0.685	0.754	1.345	802
sd.flux.int	0.007	0.011	0.016	0.060	802
aic.int	111.590	153.741	163.729	275.688	802
r2.int	0.639	0.981	0.958	0.995	802
ea.pa	213.675	1531.860	1493.507	2724.824	0
airt.c	0.300	17.450	15.544	27.600	0
soilt1.c	2.460	14.865	14.249	21.940	0
soilt2.c	3.048	14.480	13.979	20.830	0
soilt3.c	3.173	13.730	13.377	19.230	0
soilt4.c	3.095	13.315	12.749	18.030	0
pres.pa	99200.000	101700.000	101642.336	102700.000	0
h2o.ppt.atm	2.101	15.246	14.985	27.670	0
h2o.ppt.int					822
vwv.daily	0.185	0.269	0.284	0.425	280
vwv1	0.002	0.046	0.053	0.167	0
vwv2	0.046	0.165	0.208	0.511	0
vwv3	0.097	0.356	0.339	0.514	0
vwv4	0.103	0.350	0.334	0.462	0
total.rad	3.251	3.978	7.195	66.453	0
diffuse.rad	0.119	0.460	0.534	3.472	0

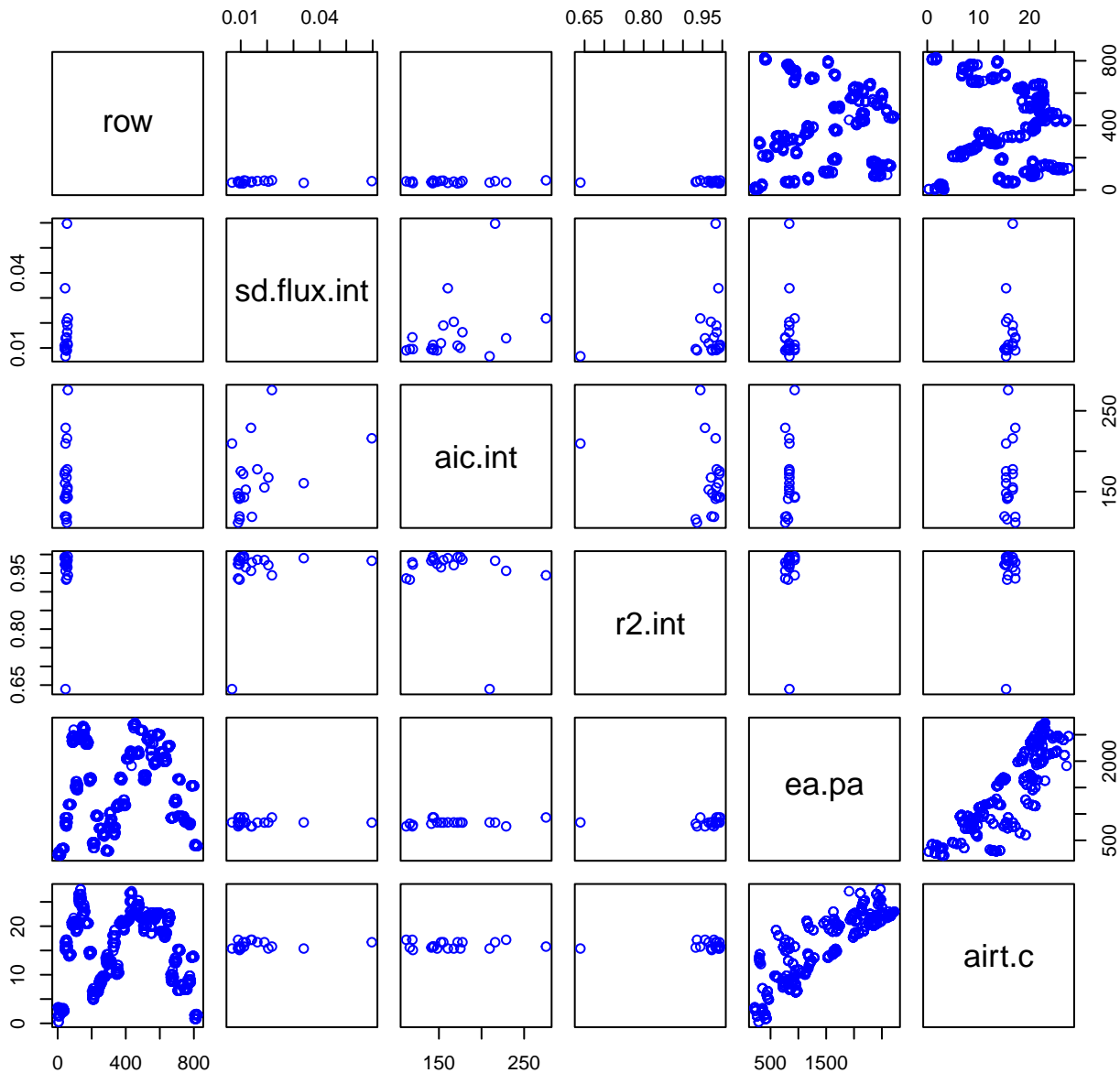
HF361-08 Plot 1



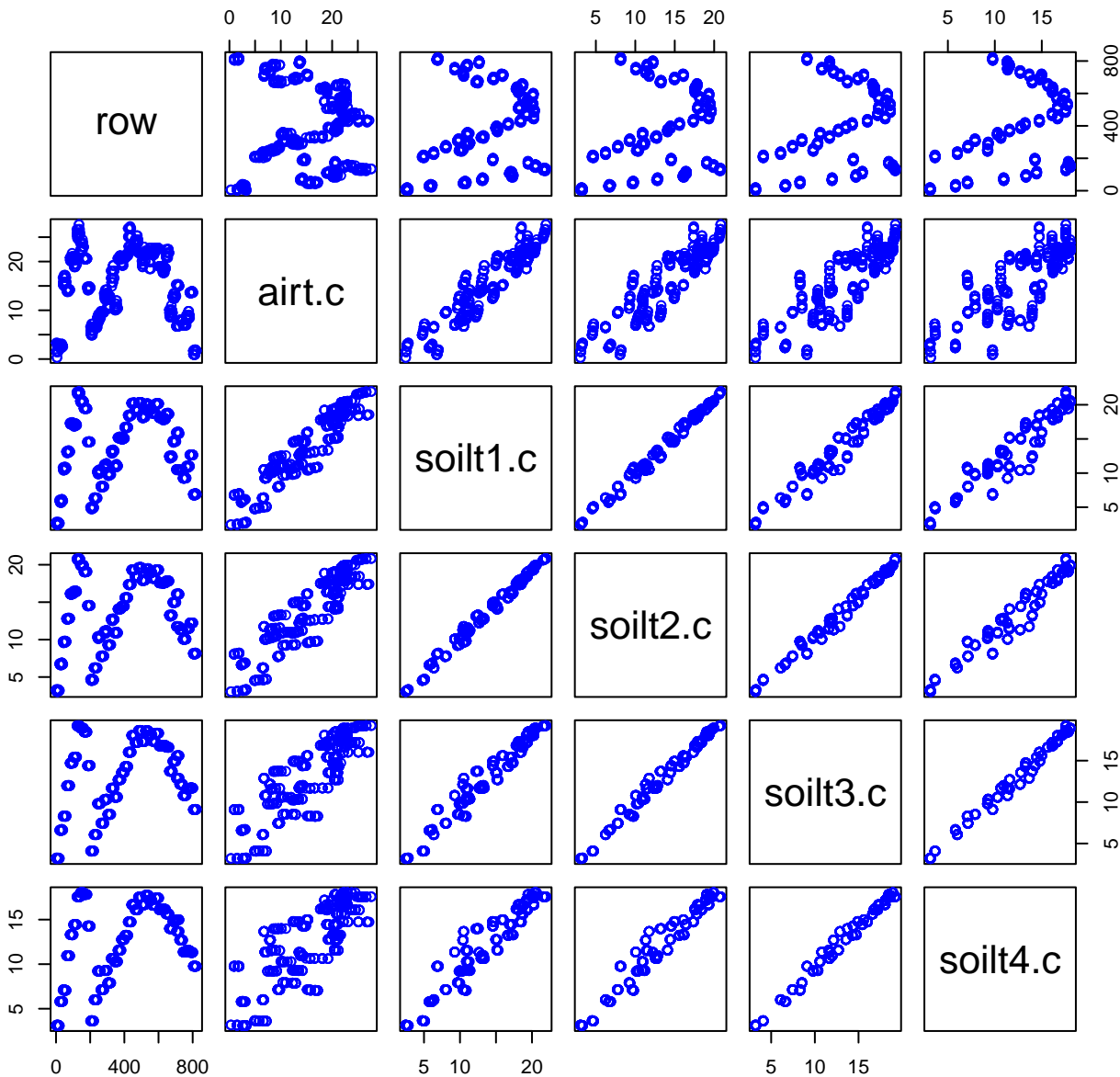
HF361-08 Plot 2



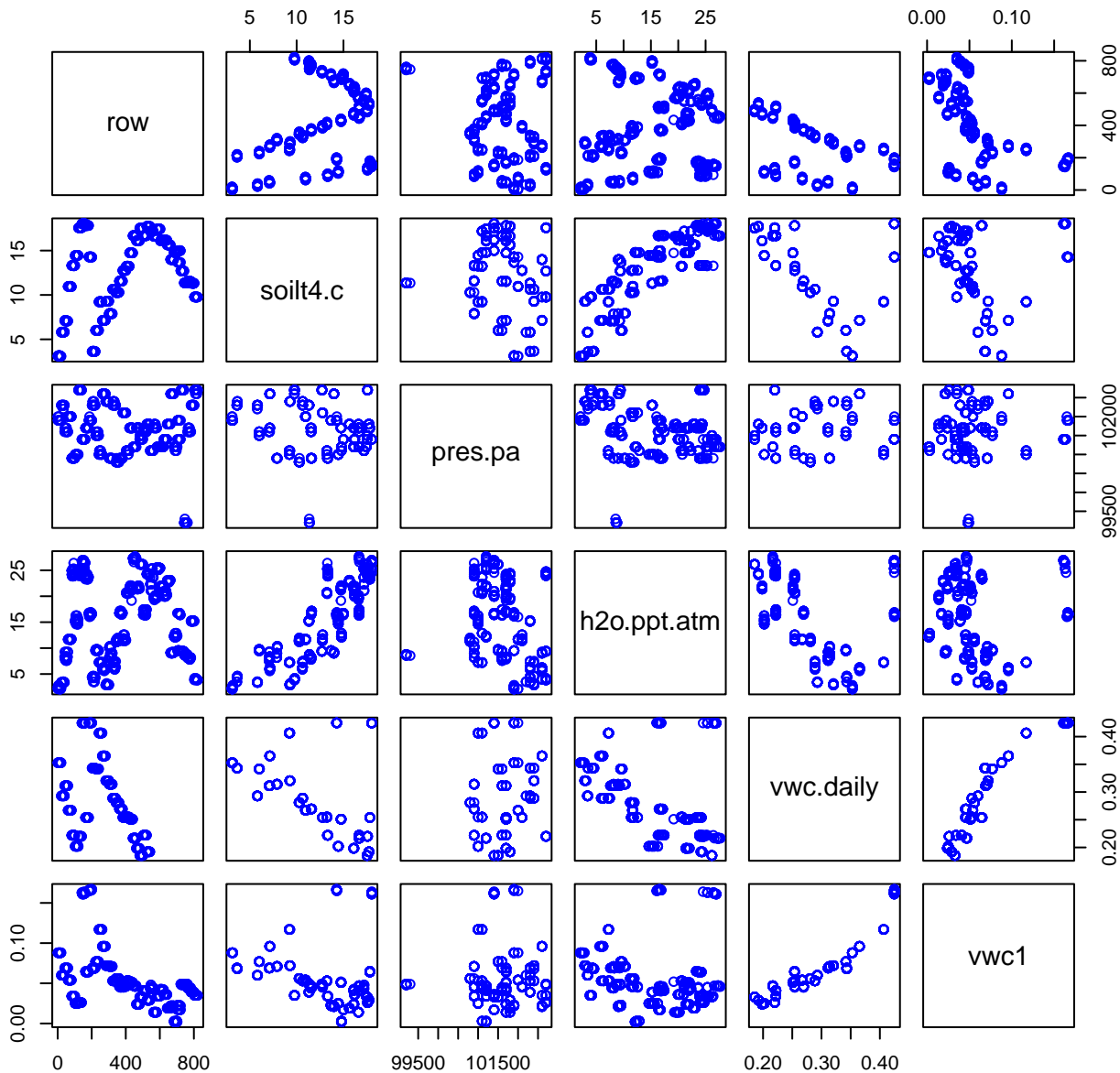
HF361-08 Plot 4



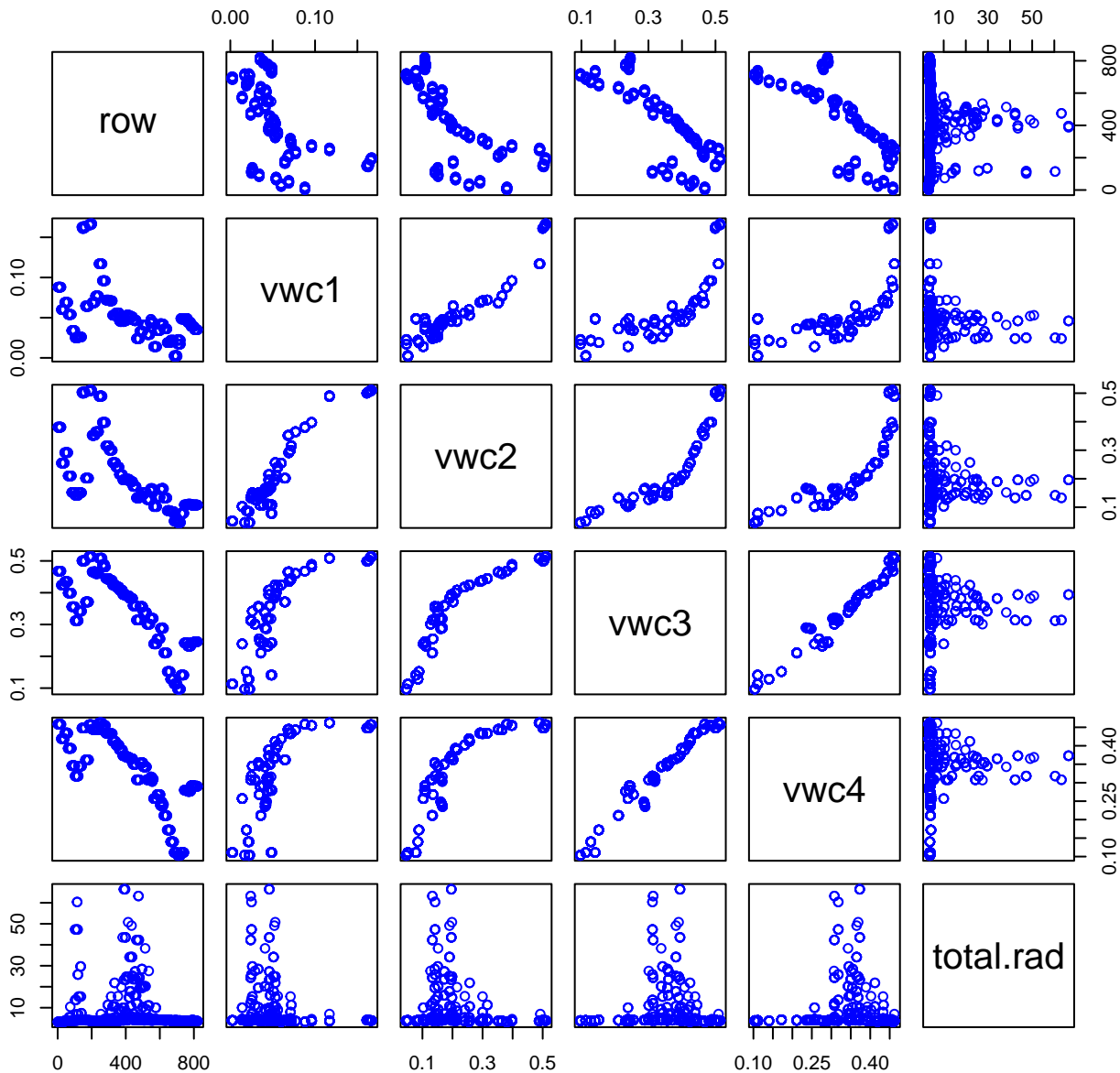
HF361-08 Plot 5



HF361-08 Plot 6



HF361-08 Plot 7



HF361-08 Plot 8

