APPENDIX K

BOX PLOTS BY DAY OF WEEK

This appendix contains notched box-whisker plots (as described in Section 4 of this report) of concentrations of selected hydrocarbons by hour, by day of week (all hours of data included), and by day of week for specific hours for the PAMS and PAMS-like sites in the SoCAB. The plots are organized alphabetically by site. Plots that are missing from the sequence are included in Section 4. Other box plots were investigated as a part of the analyses; this appendix provides examples of the types of plots prepared.

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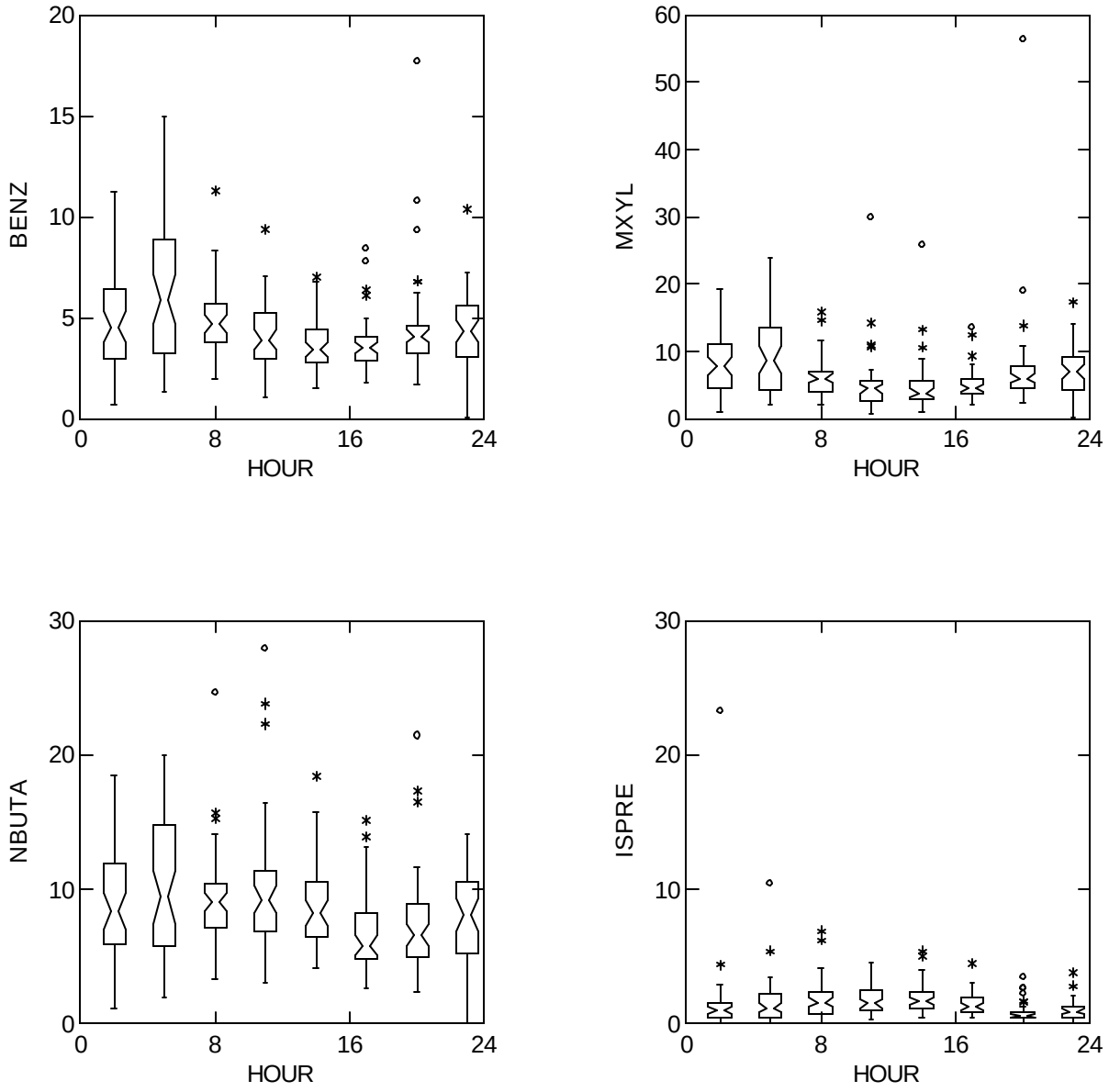
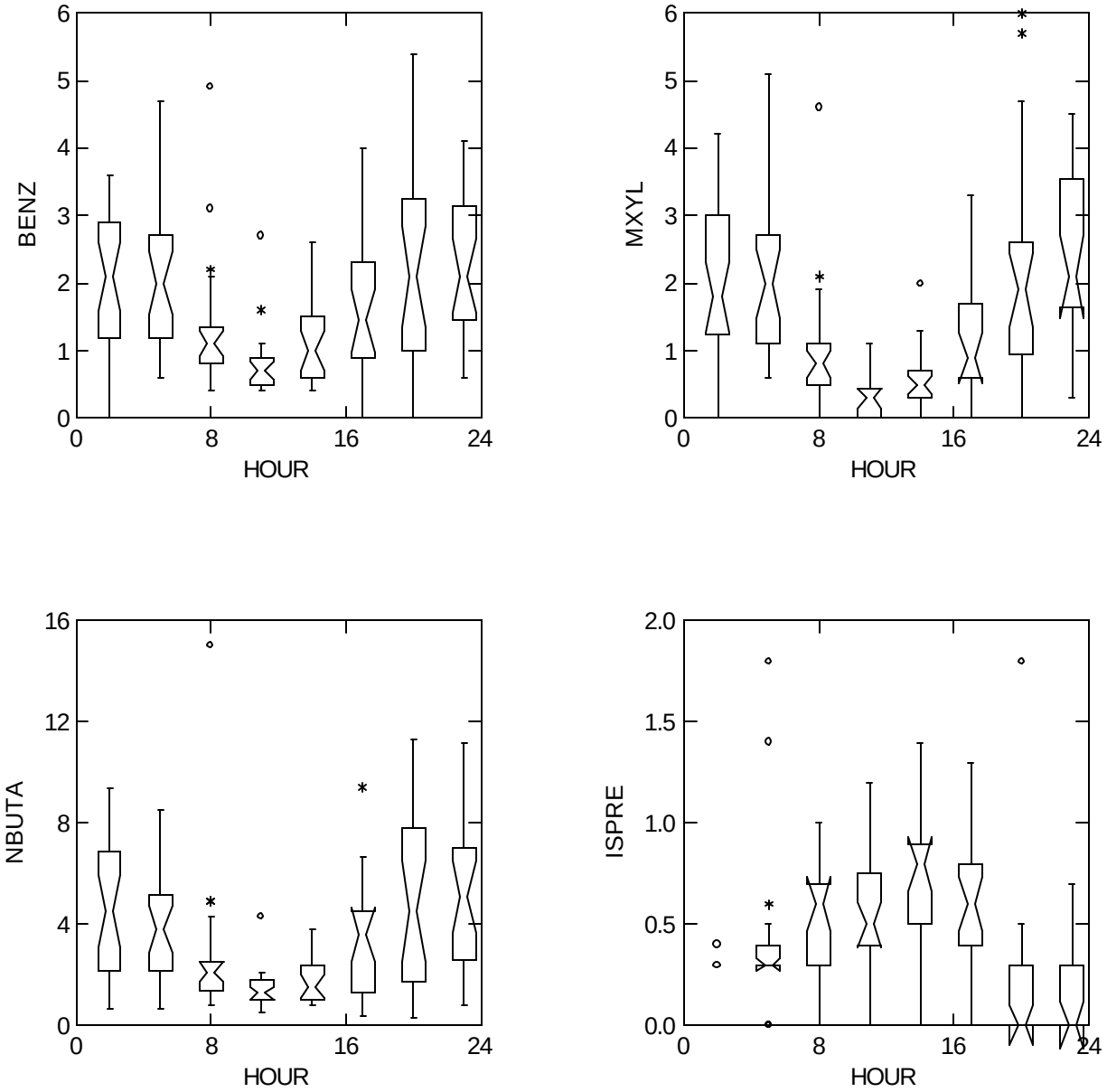
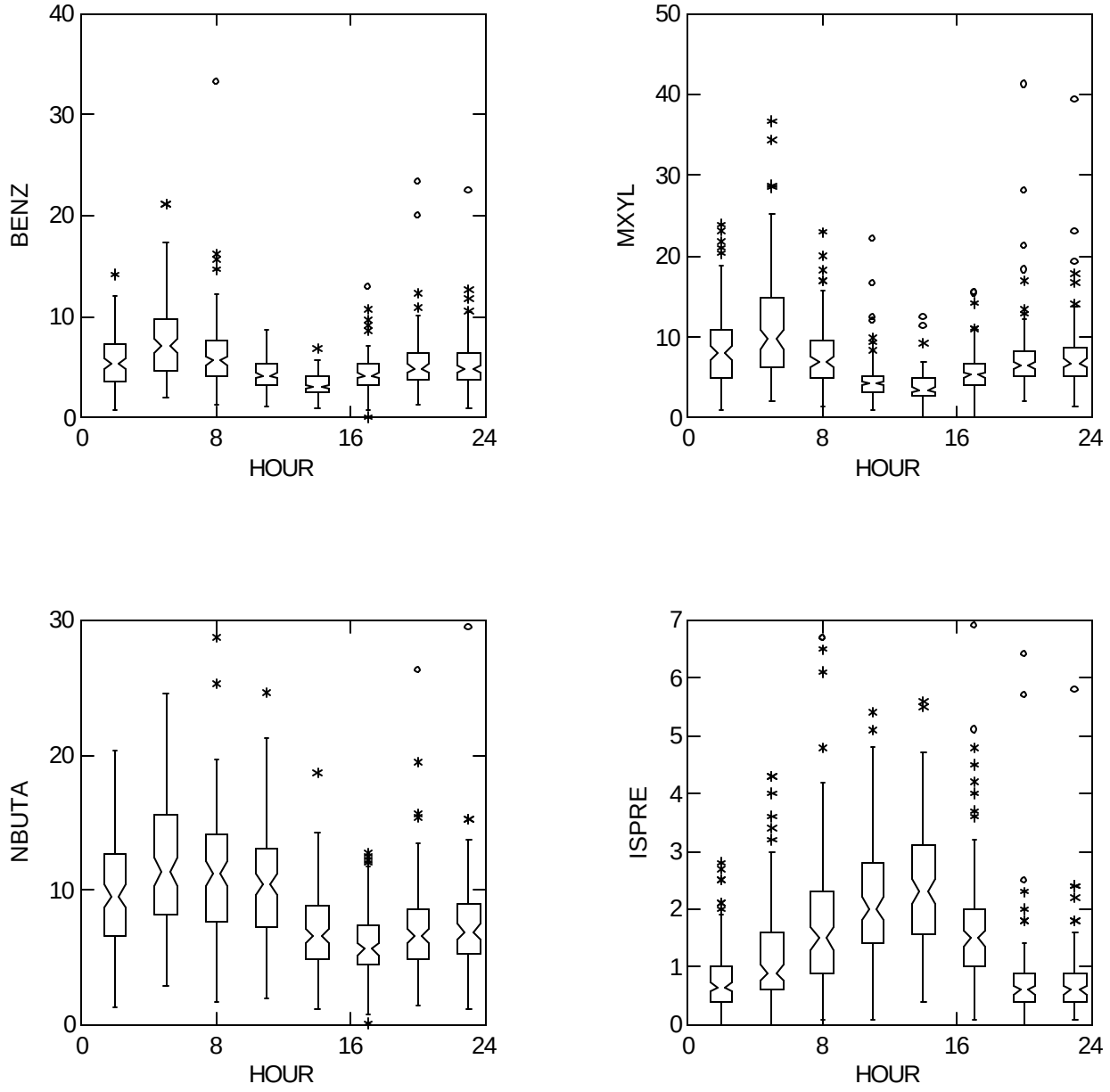


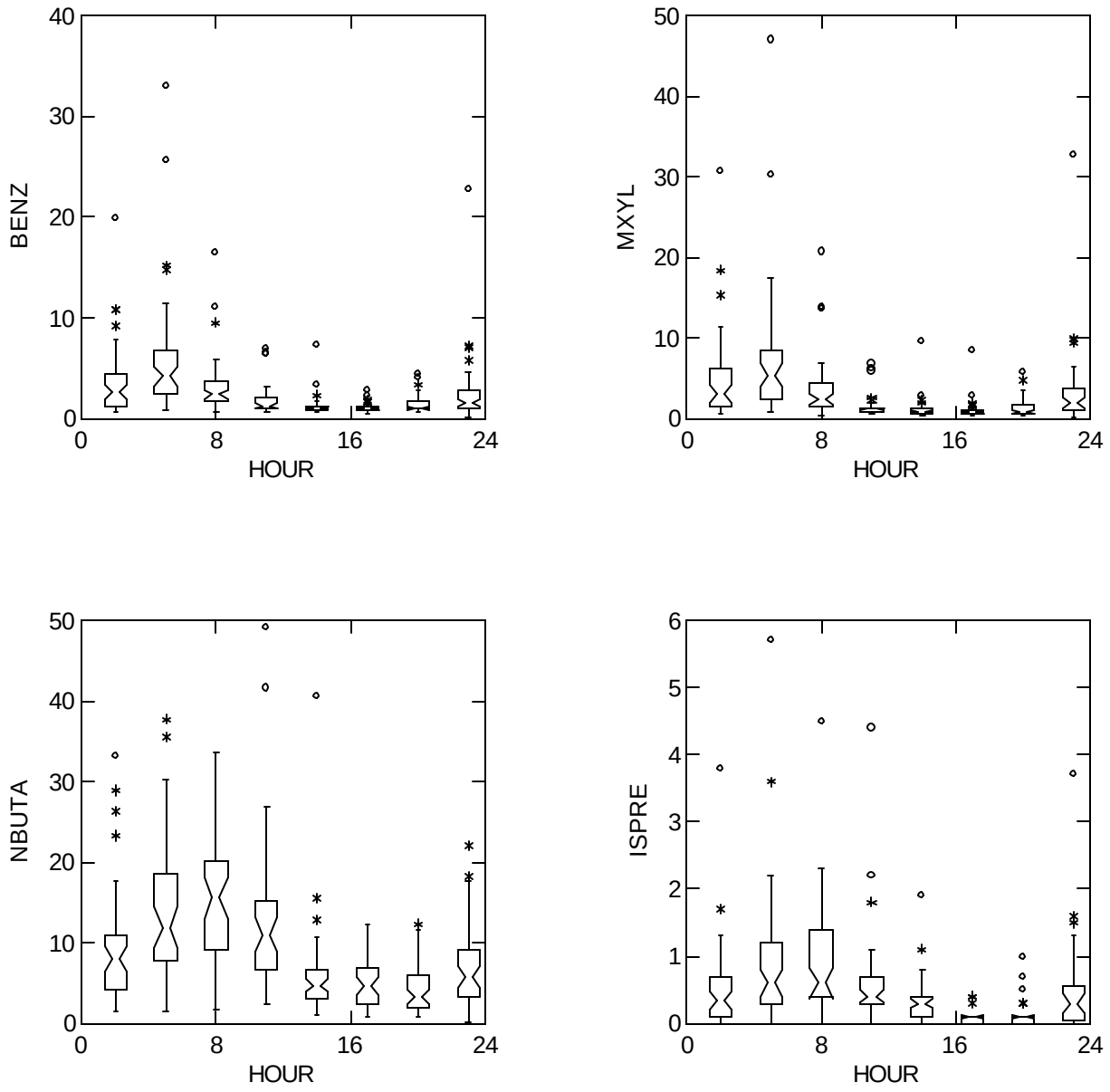
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by time of day (PST) at Azusa in 1999 and 2000.



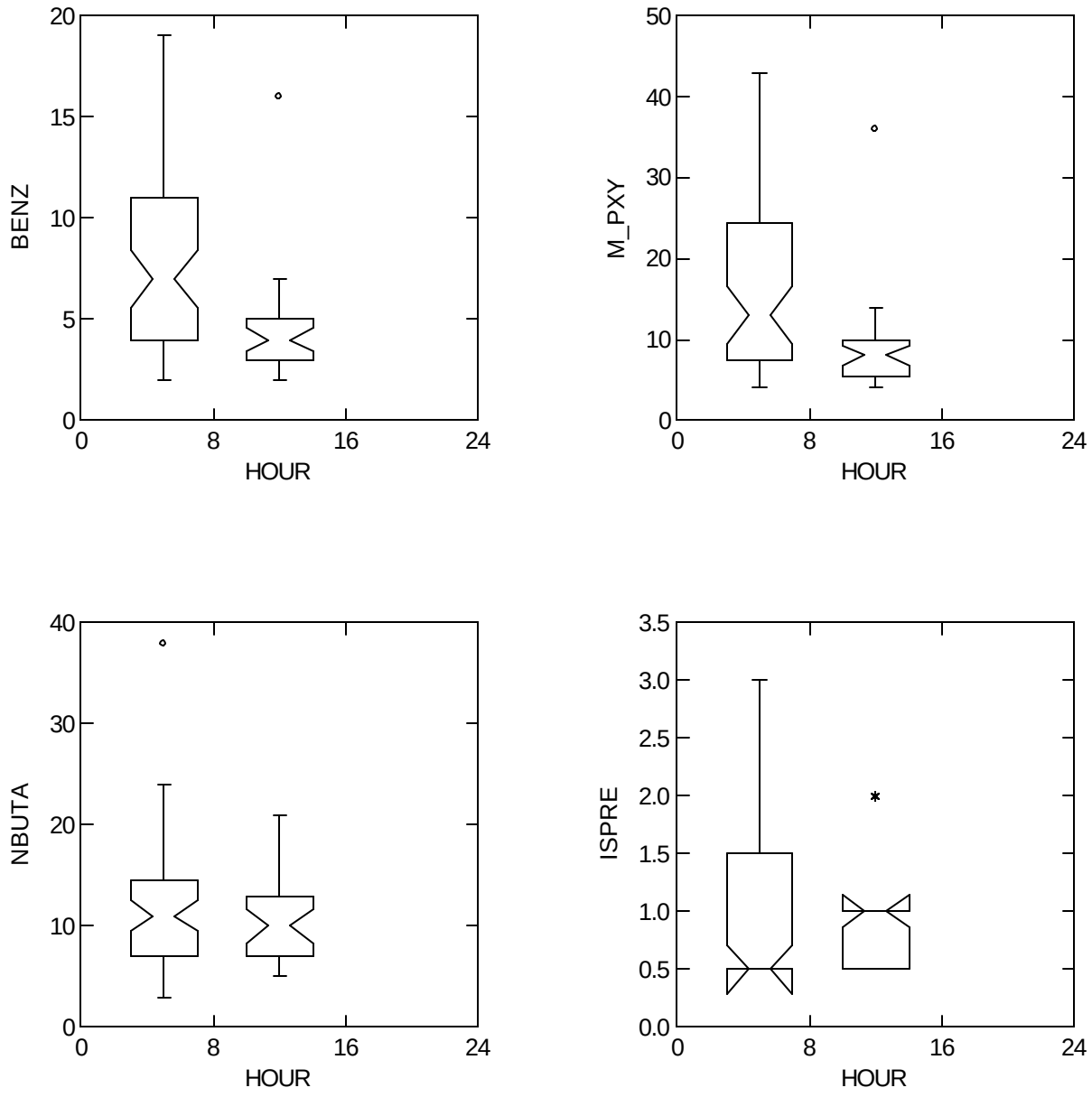
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by time of day (PST) at Banning in 1999 and 2000.



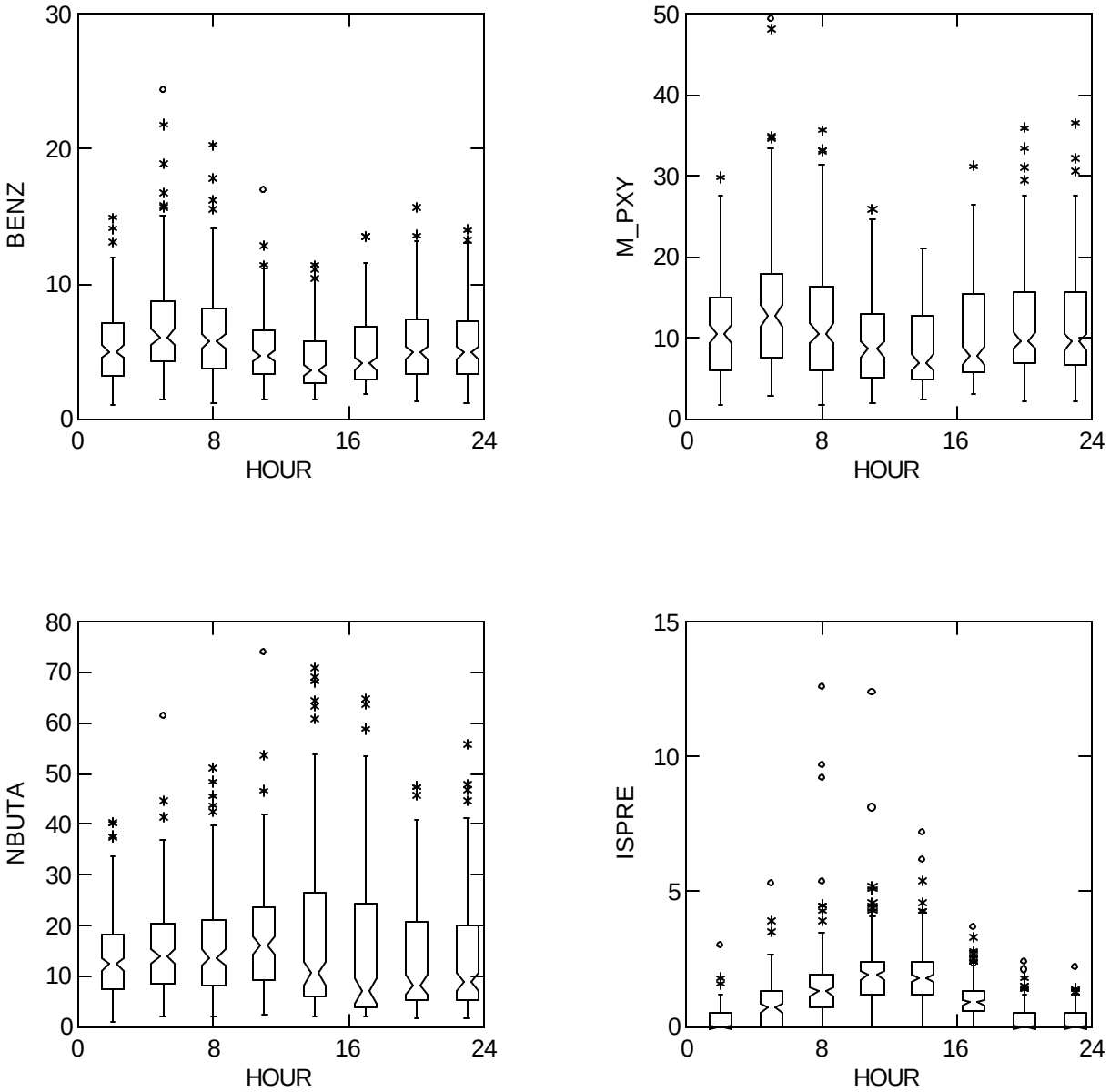
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by time of day (PST) at Burbank in 1999 and 2000.



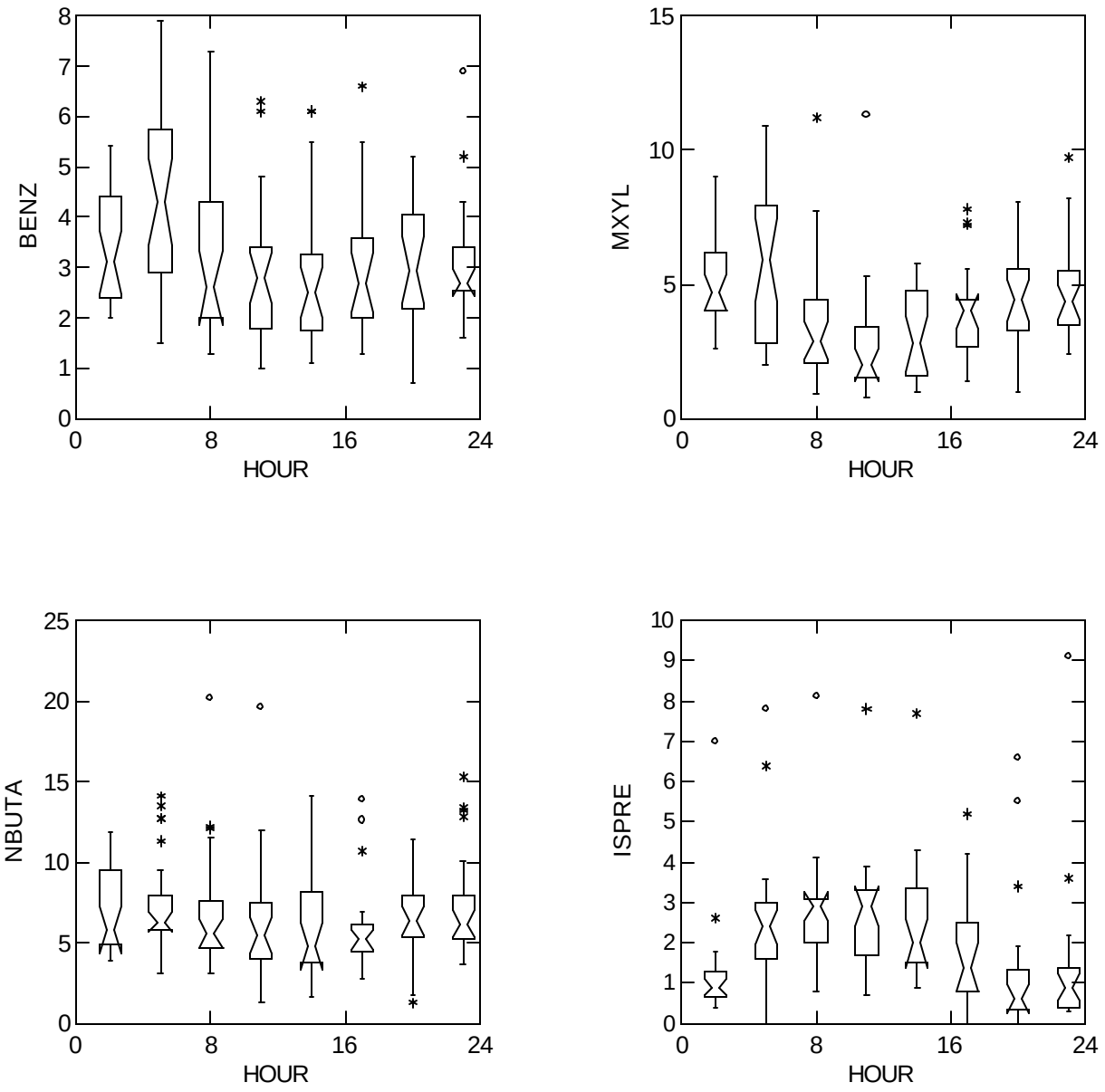
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NUBTA), and isoprene (ISPRE) concentrations (ppbC) by time of day (PST) at Hawthorne in 1999 and 2000.



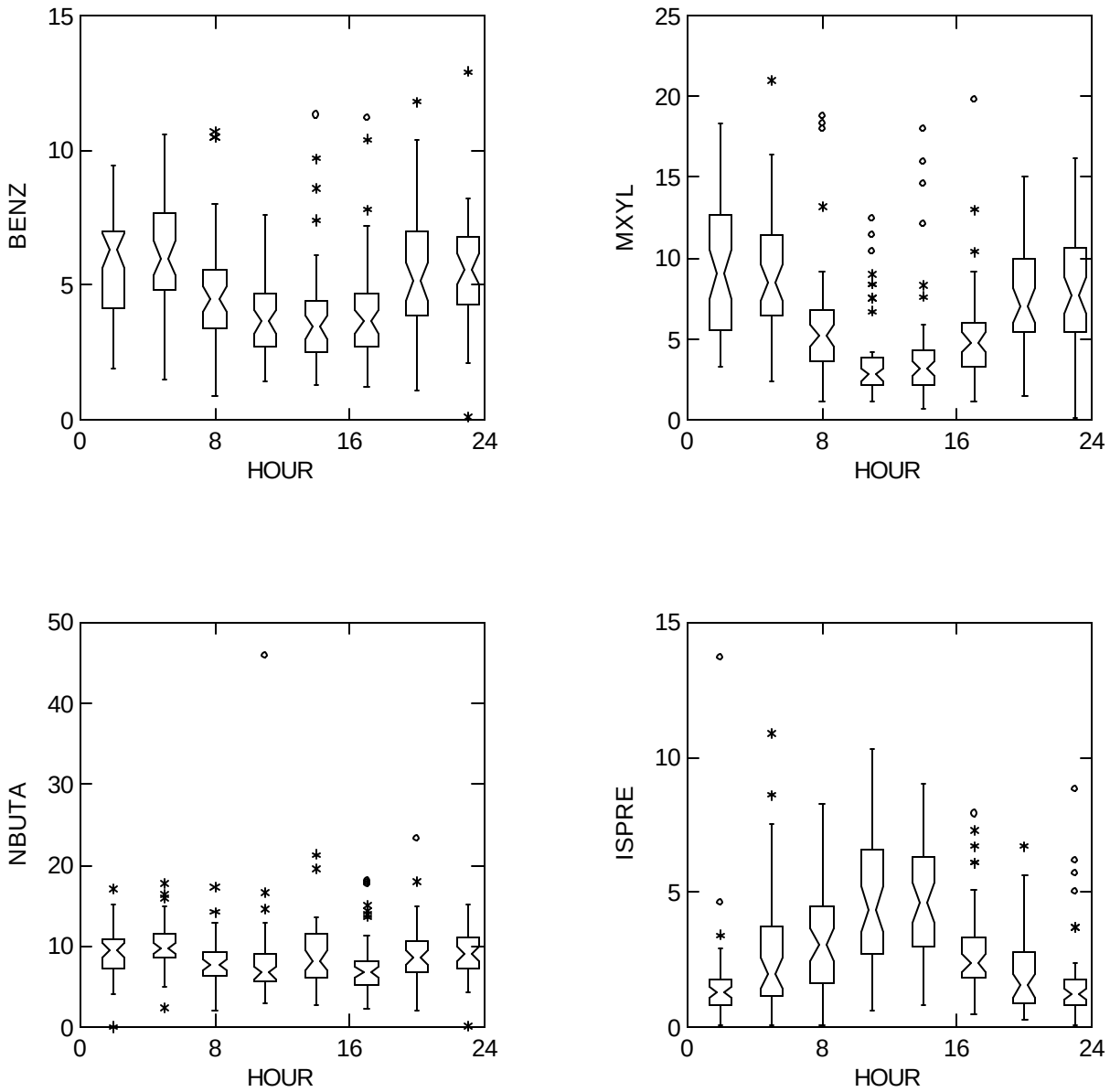
Notched box-whisker plots of benzene (BENZ), m-&p-xylene (M_PXY), n-butane (NBUTA),
and isoprene (ISPRE) concentrations (ppbC) by time of day (PST) at Los Angeles in 1999 and 2000.



Notched box-whisker plots of benzene (BENZ), m-&p-xylene (M_PXY), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by time of day (PST) at Pico Rivera in 1999 and 2000.

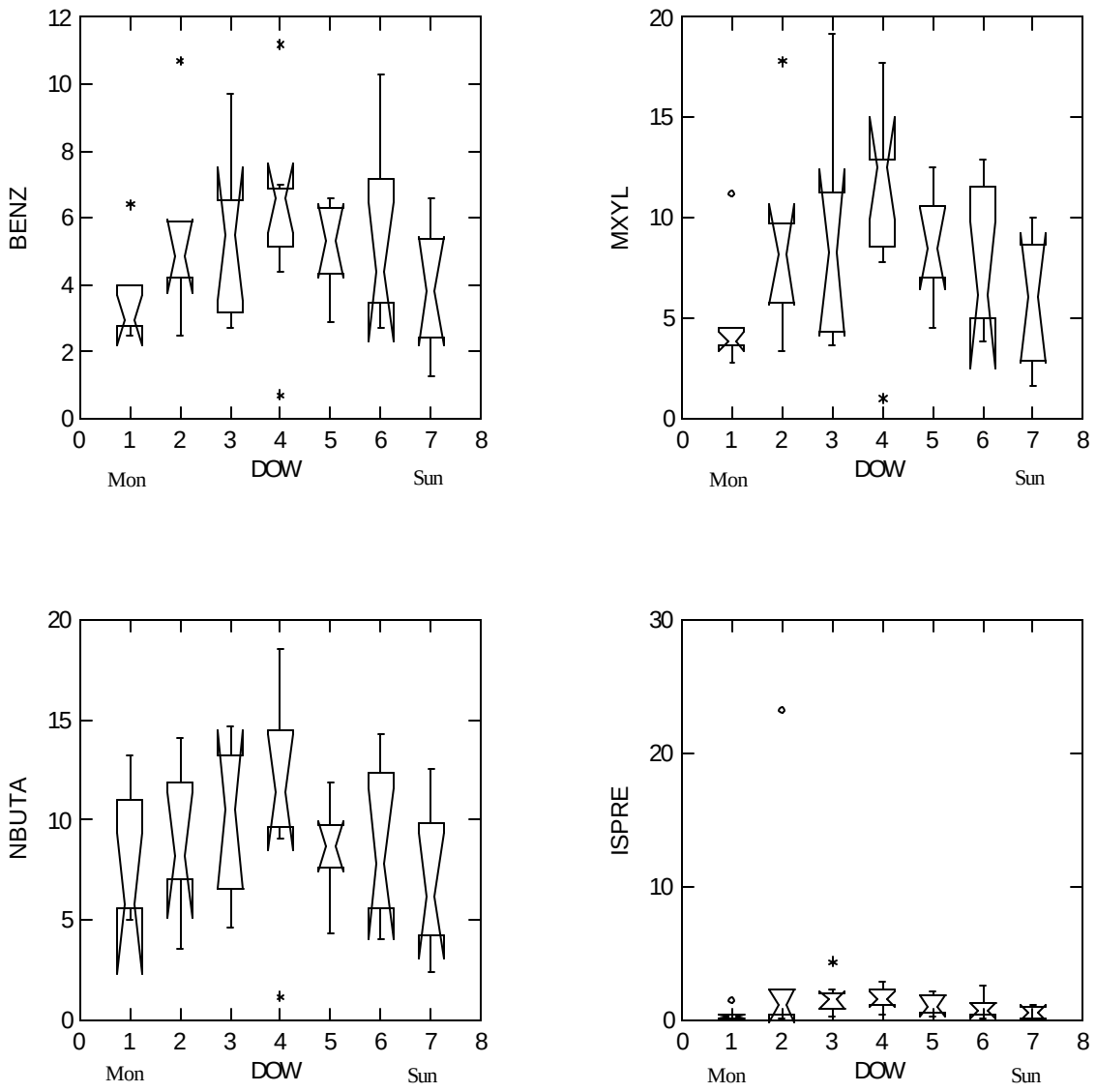


Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by time of day (PST) at Santa Clarita in 1999 and 2000.



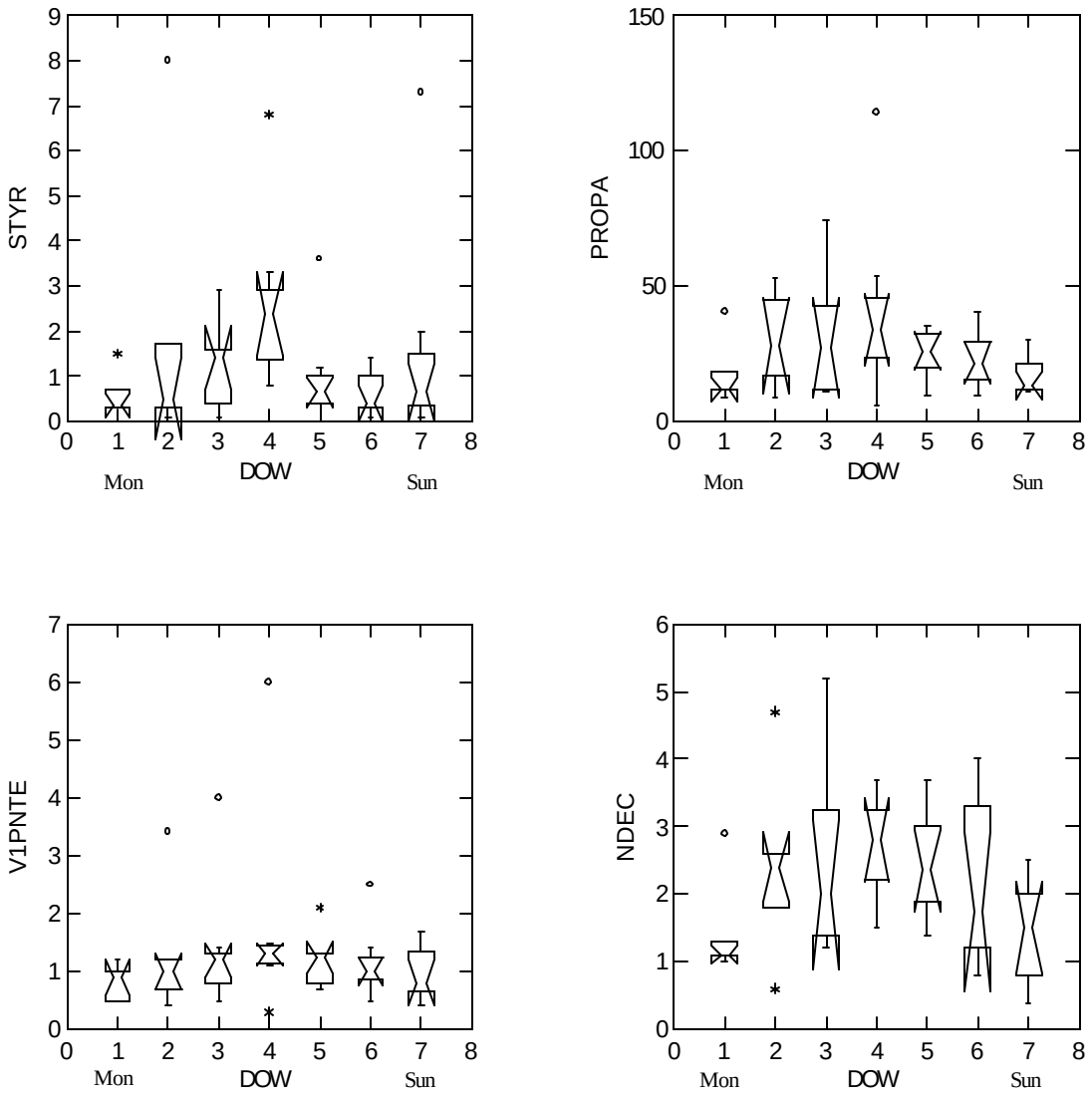
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by time of day (PST) at Upland in 1999 and 2000.

0200 PST



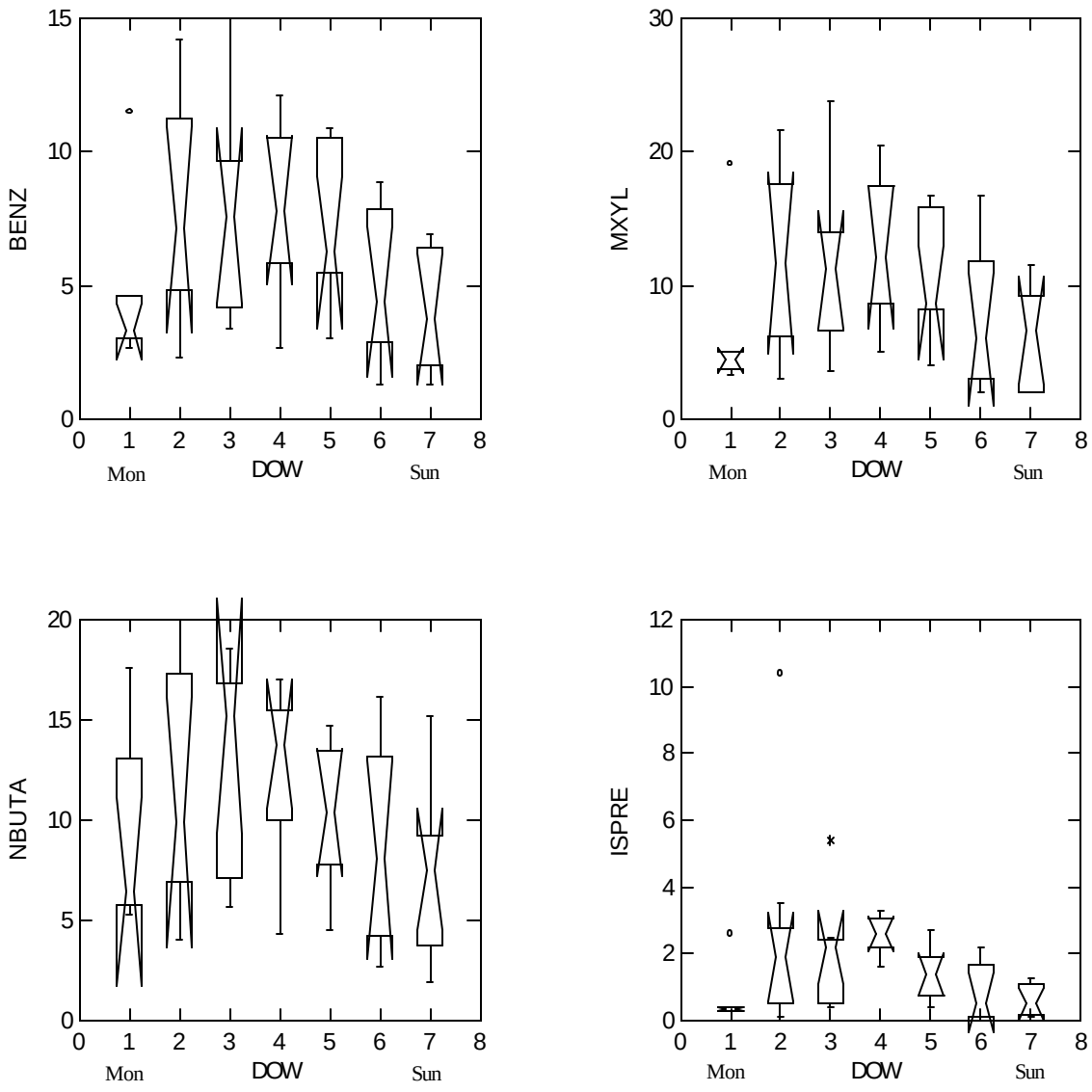
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Azusa in 1999 and 2000 at 0200 PST.

0200 PST



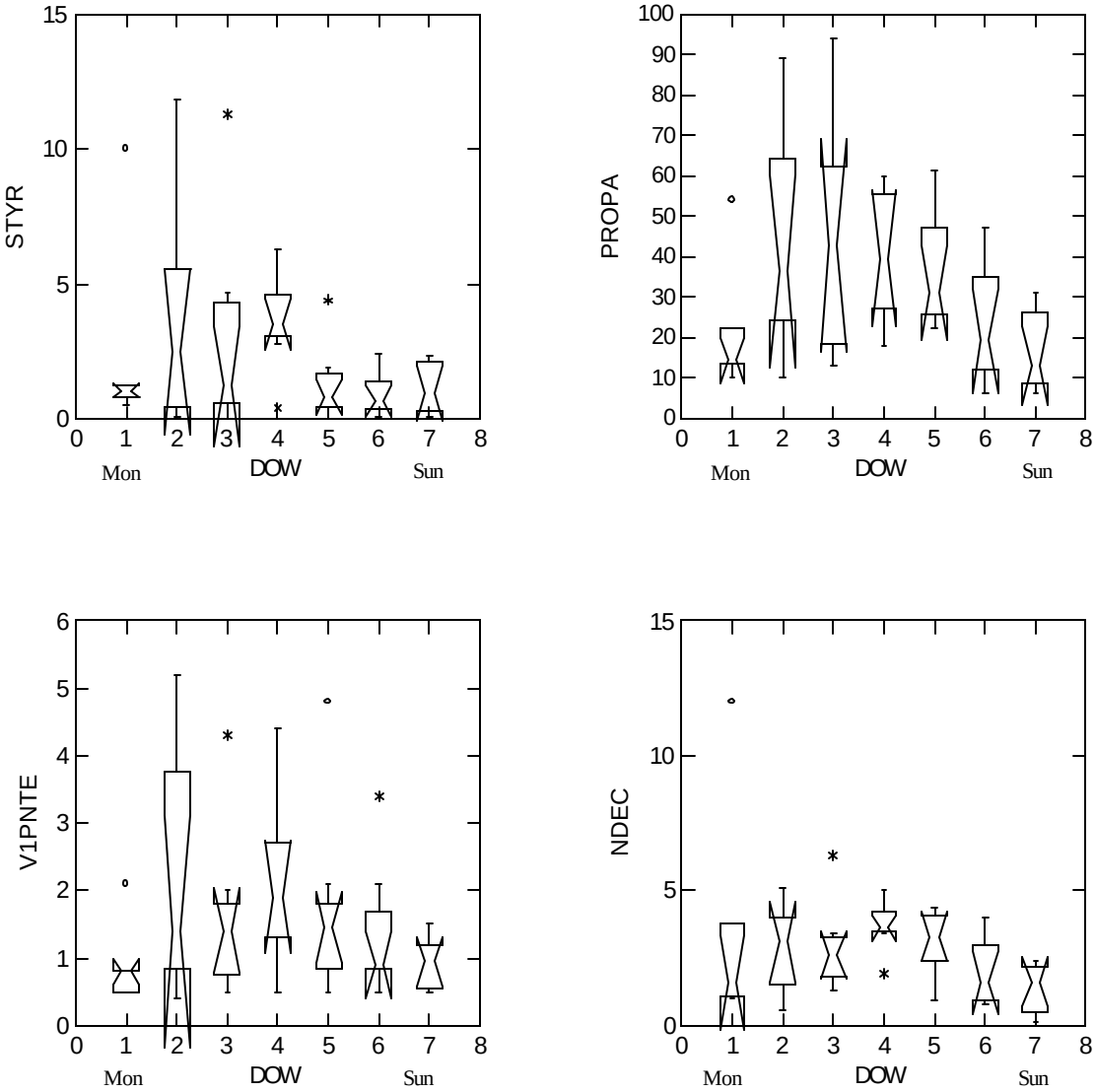
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Azusa in 1999 and 2000 at 0200 PST.

0500 PST



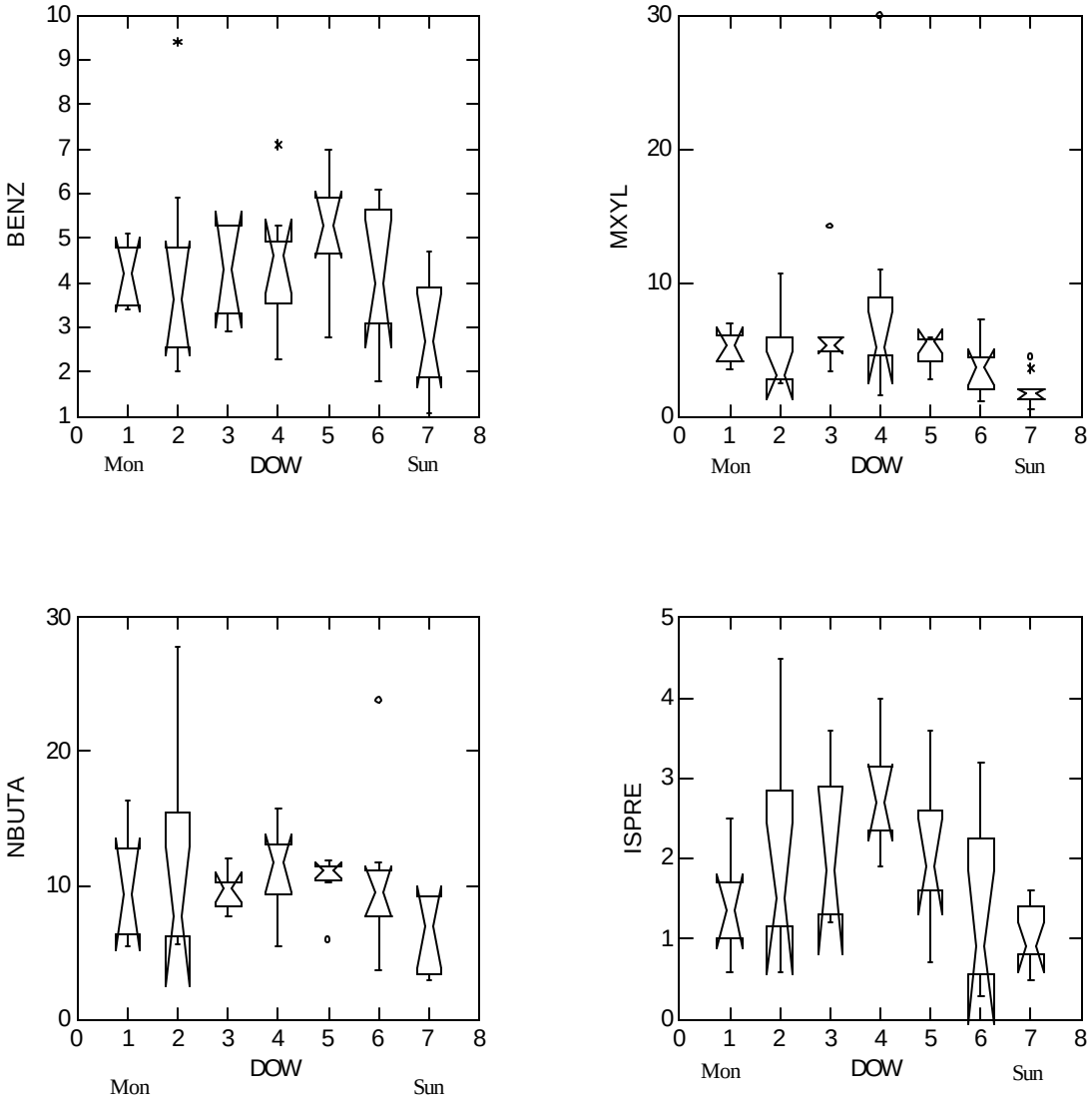
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Azusa in 1999 and 2000 at 0500 PST.

0500 PST



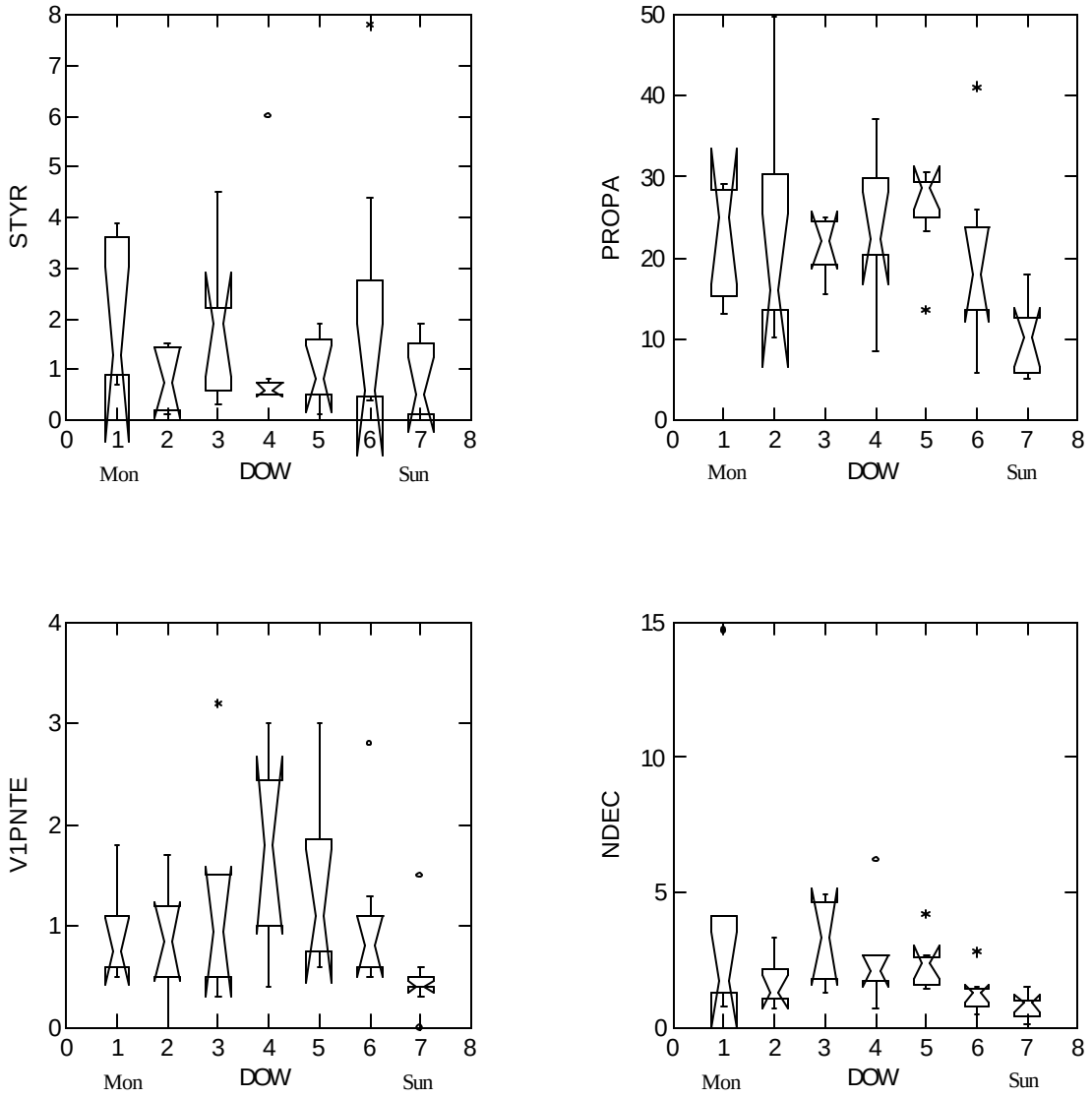
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Azusa in 1999 and 2000 at 0500 PST.

1100 PST

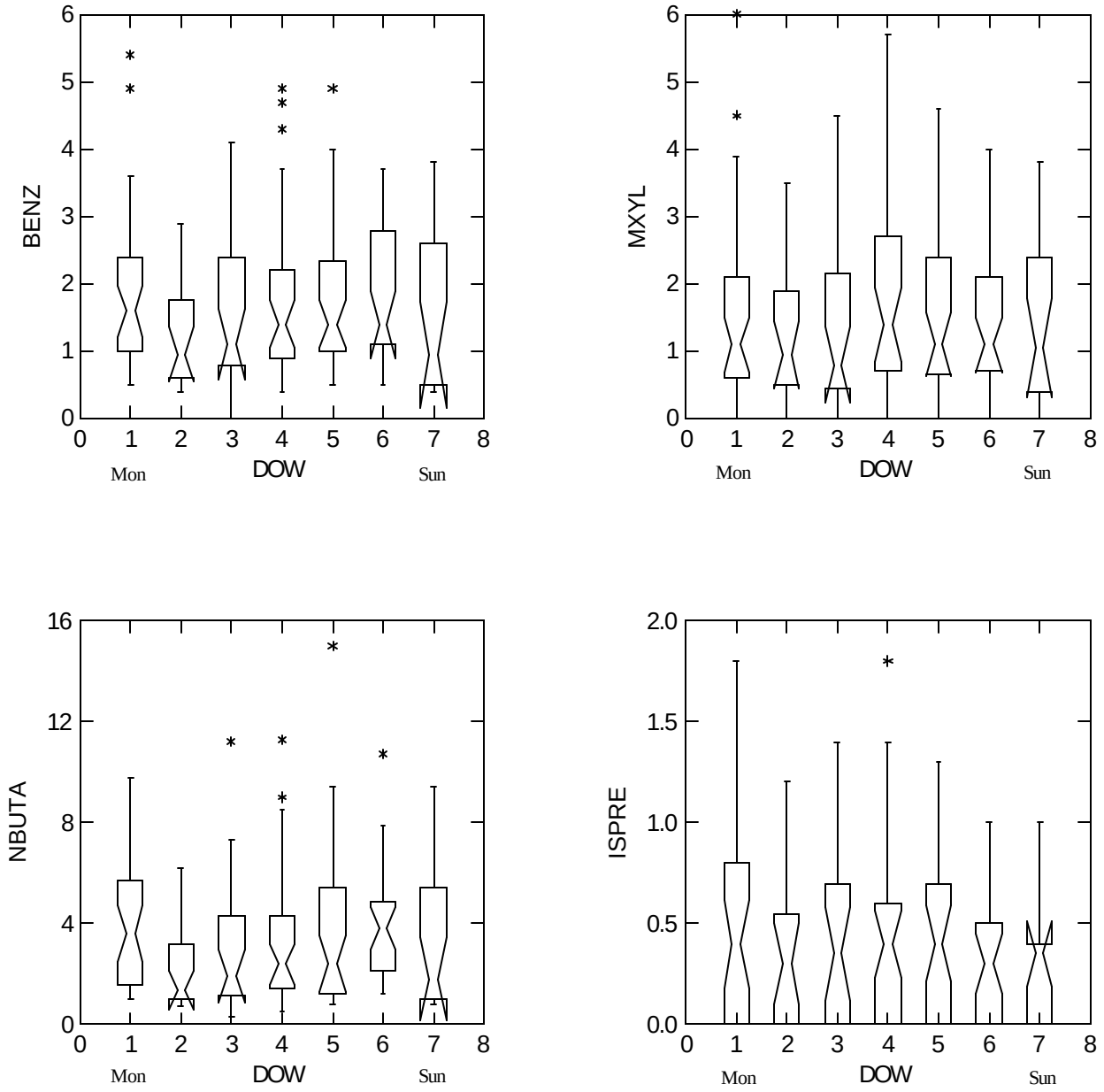


Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Azusa in 1999 and 2000 at 1100 PST.

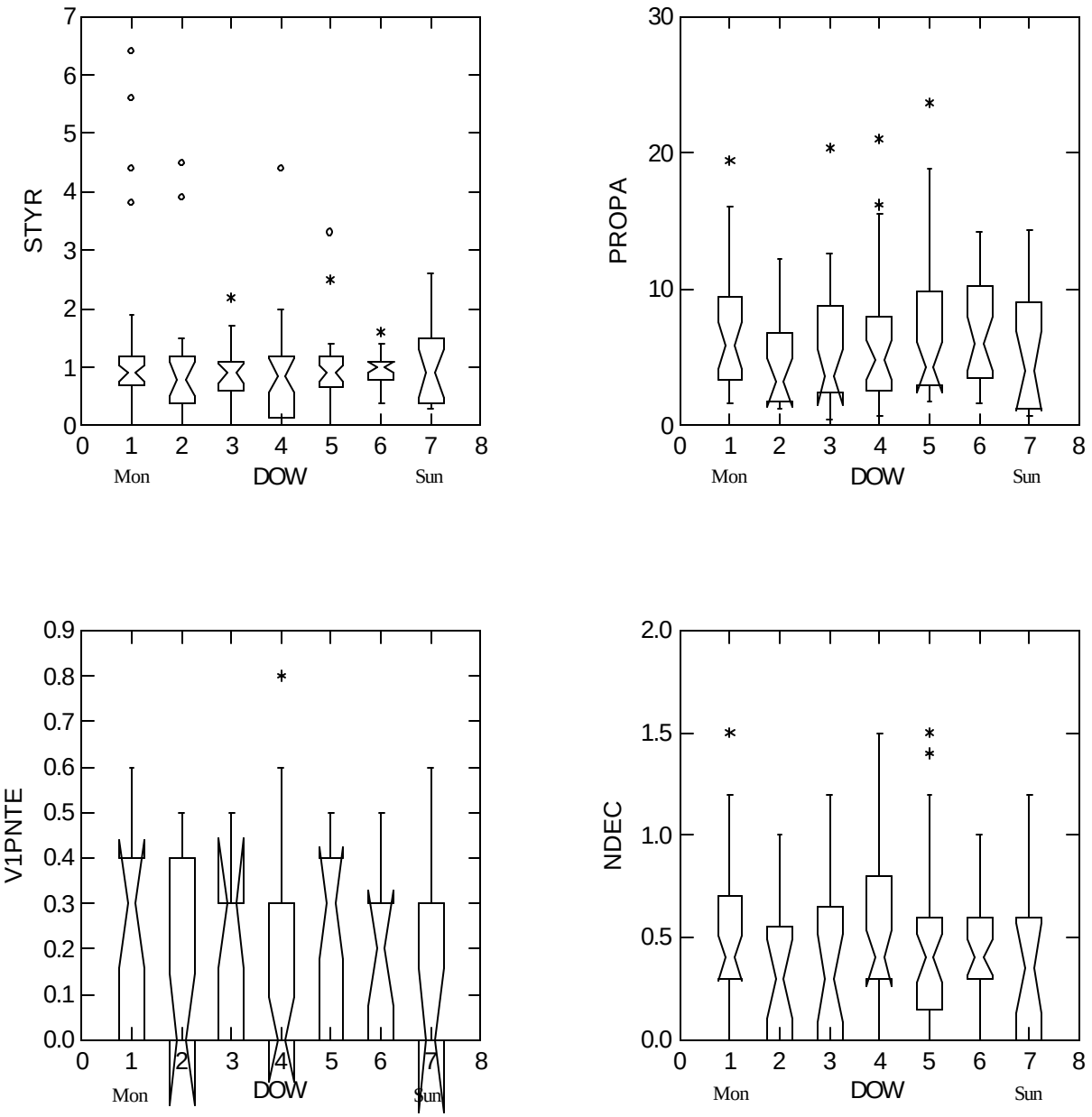
1100 PST



Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Azusa in 1999 and 2000 at 1100 PST.

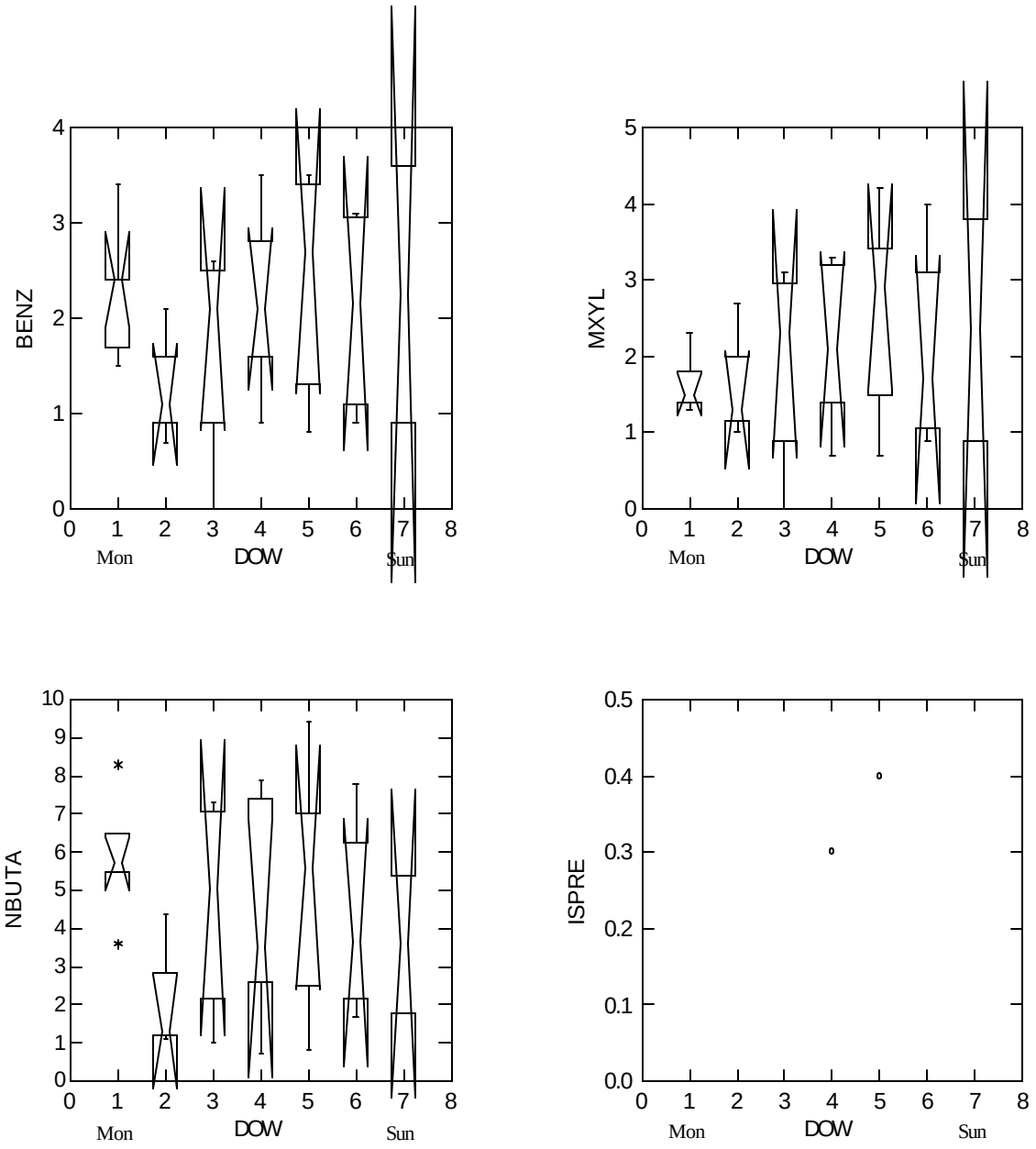


Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Banning in 1999 and 2000. All time periods are included.



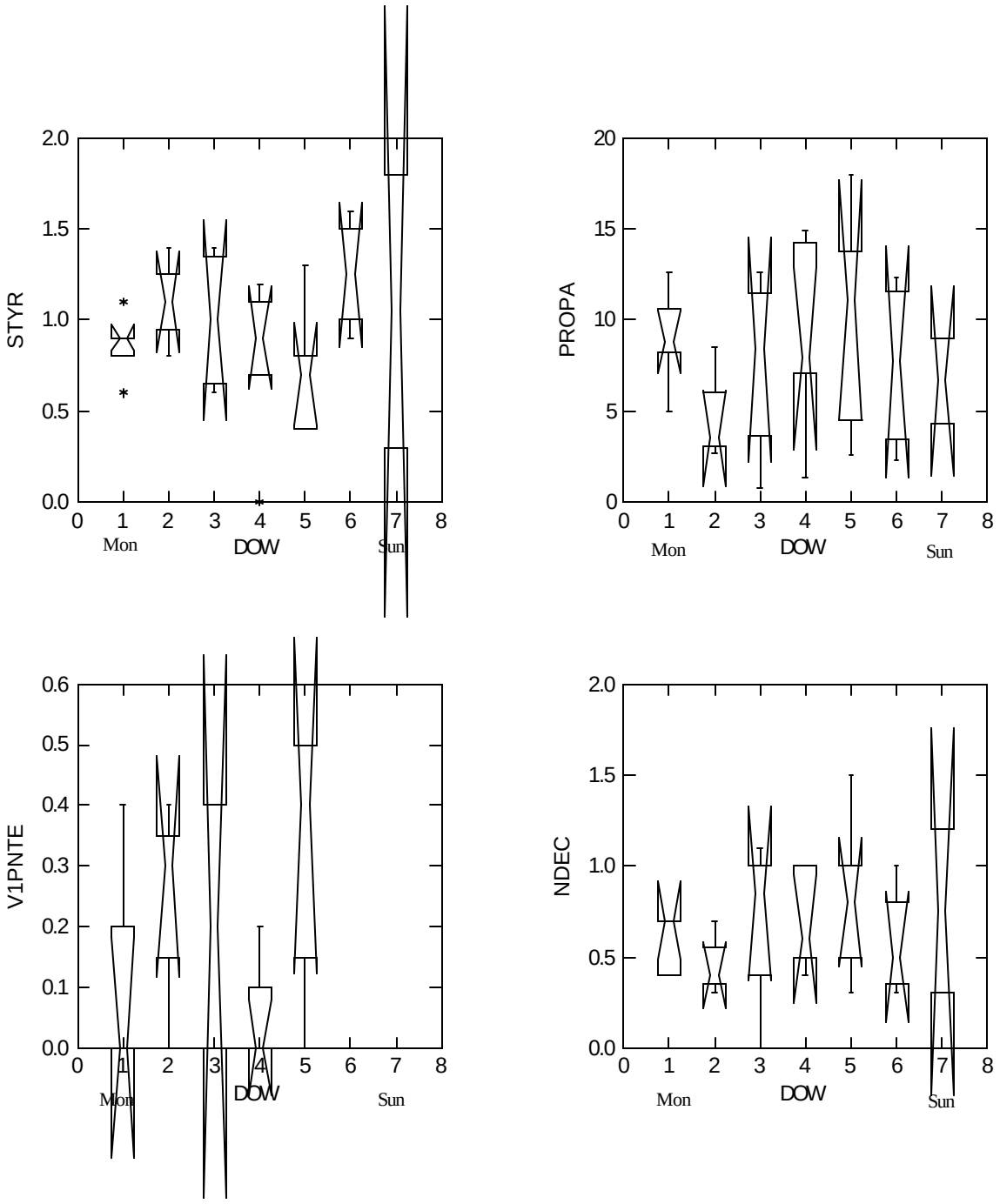
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Banning in 1999 and 2000. All time periods are included.

0200 PST



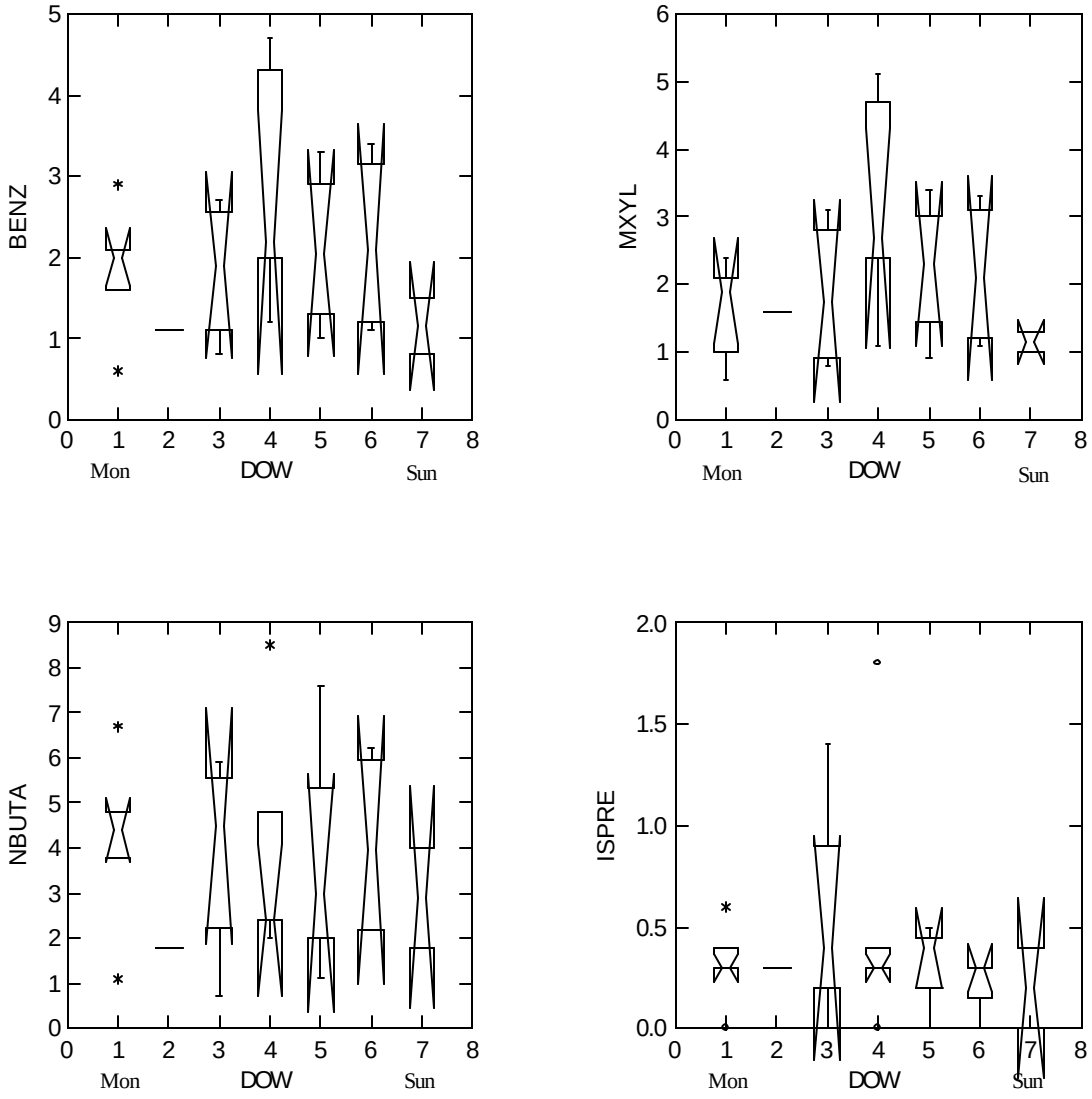
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Banning in 1999 and 2000 at 0200 PST.

0200 PST



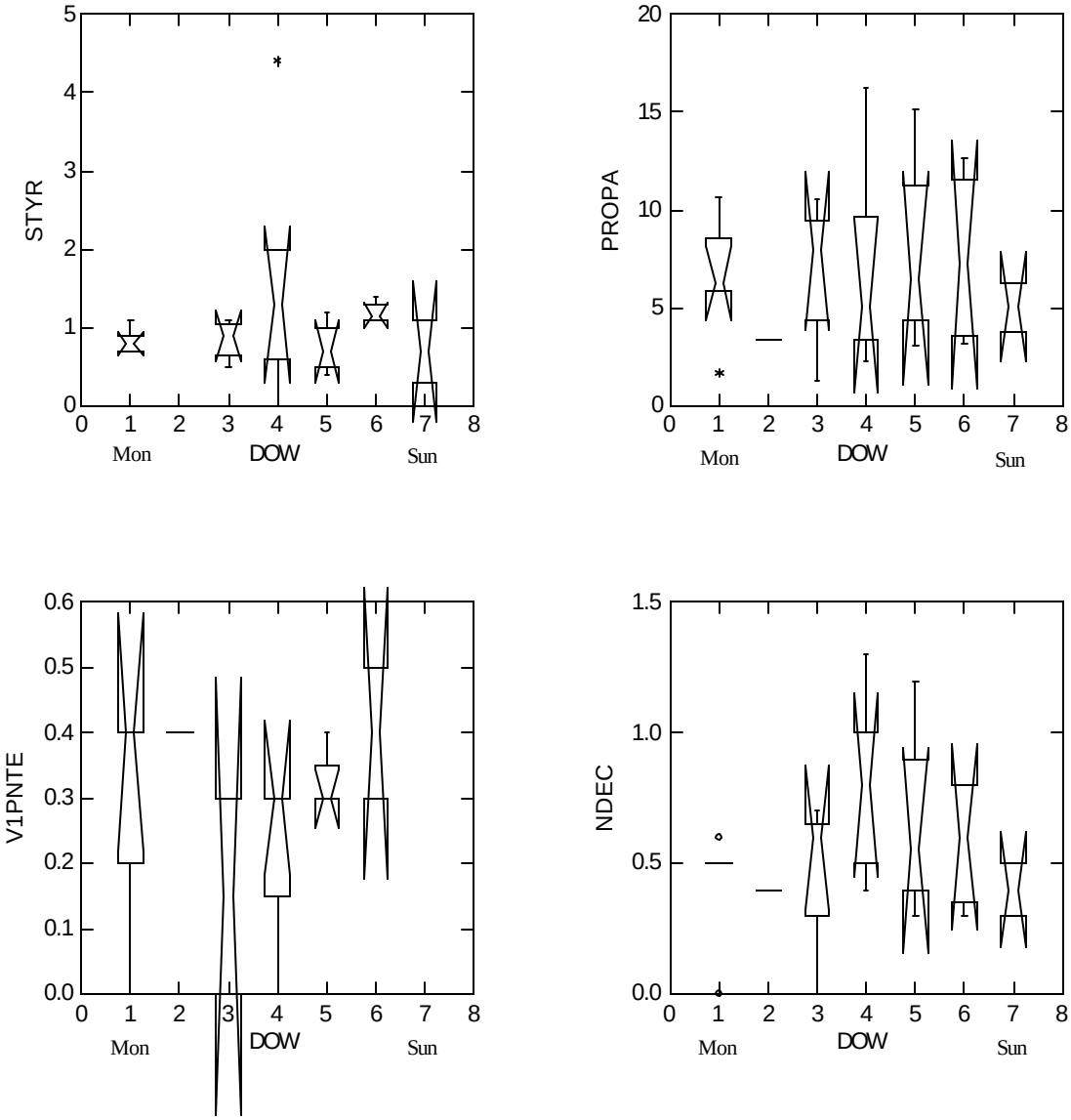
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Banning in 1999 and 2000 at 0200 PST.

0500 PST



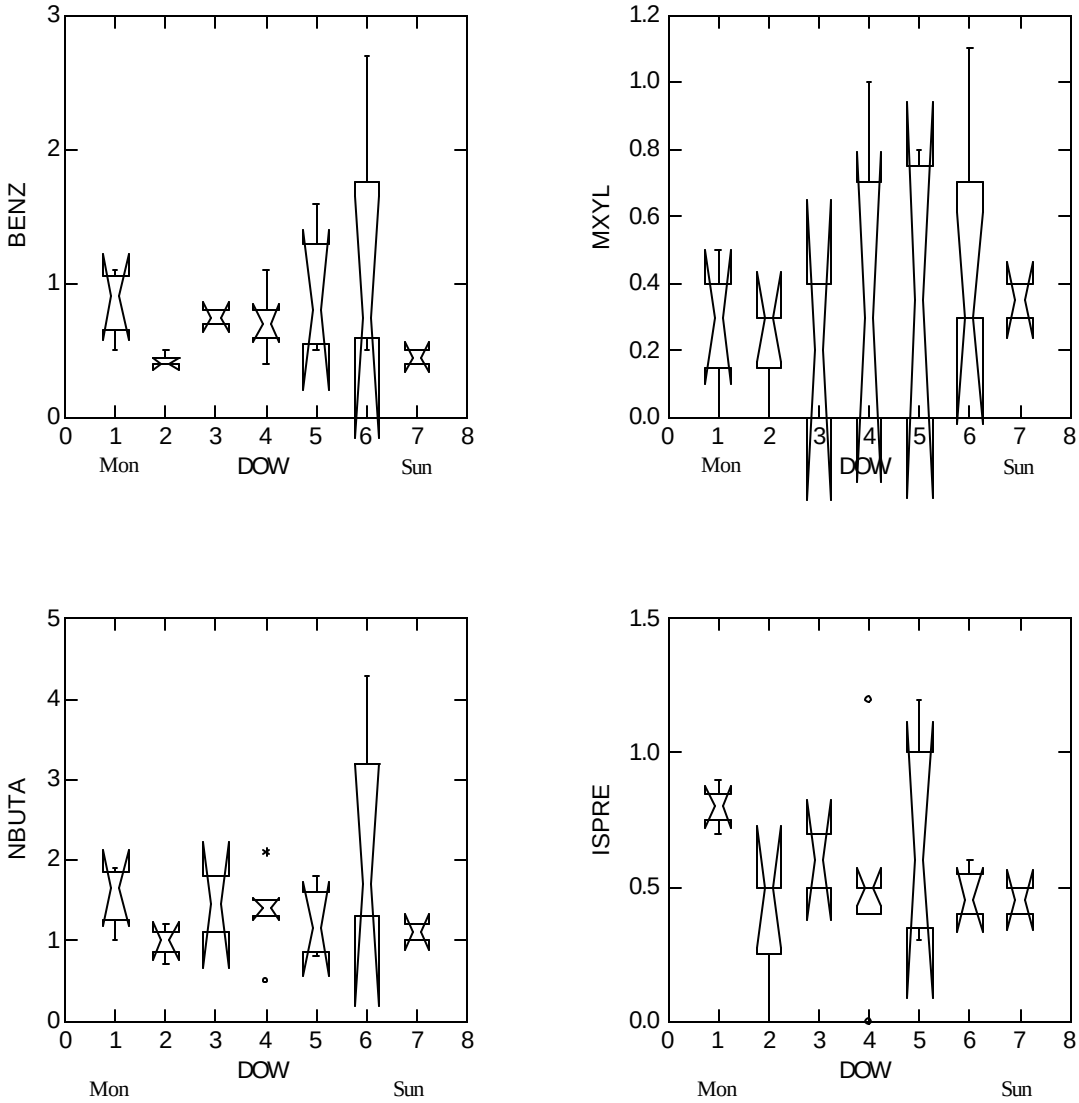
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Banning in 1999 and 2000 at 0500 PST.

0500 PST



Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Banning in 1999 and 2000 at 0500 PST.

1100 PST



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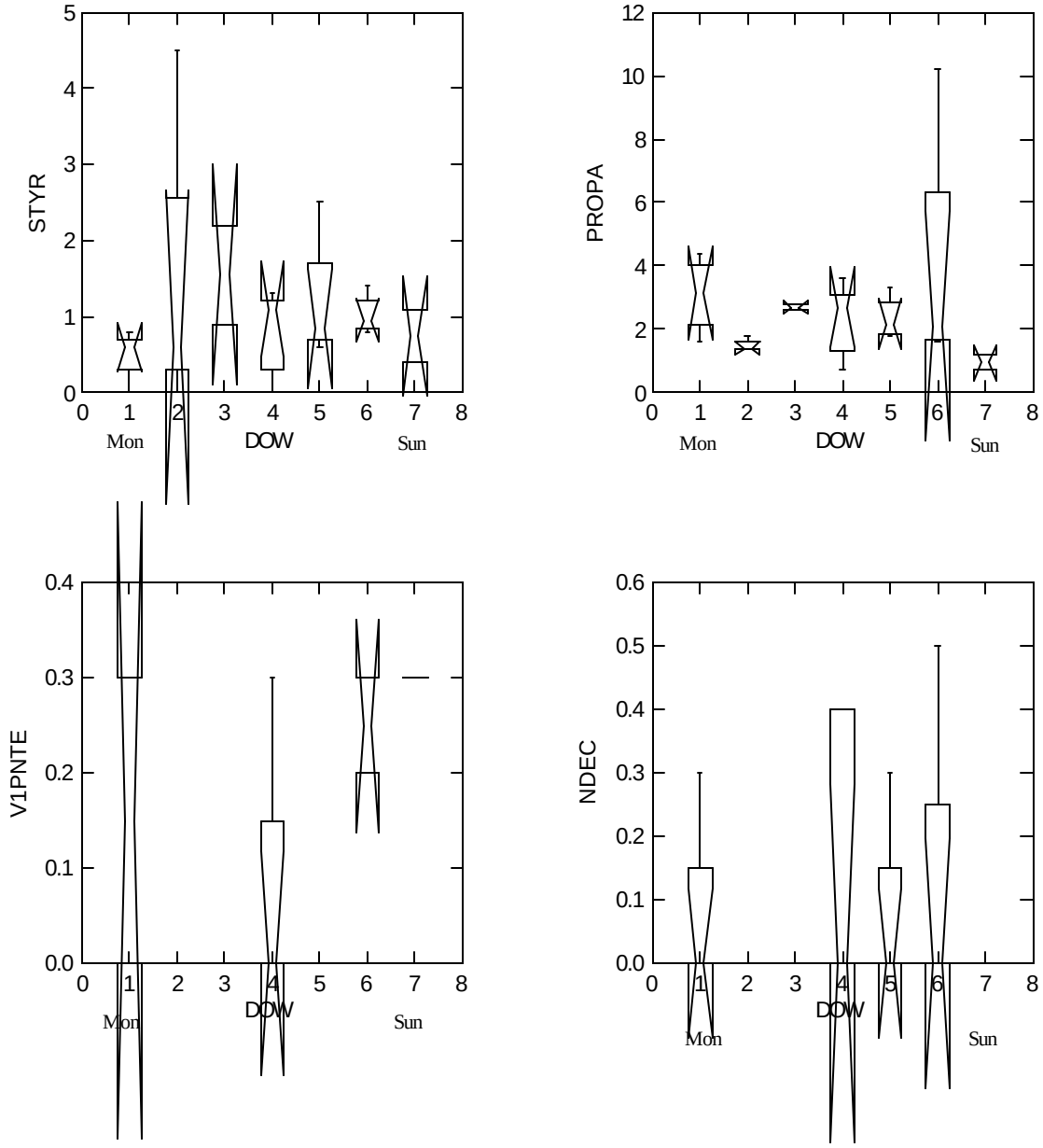
1100 PST



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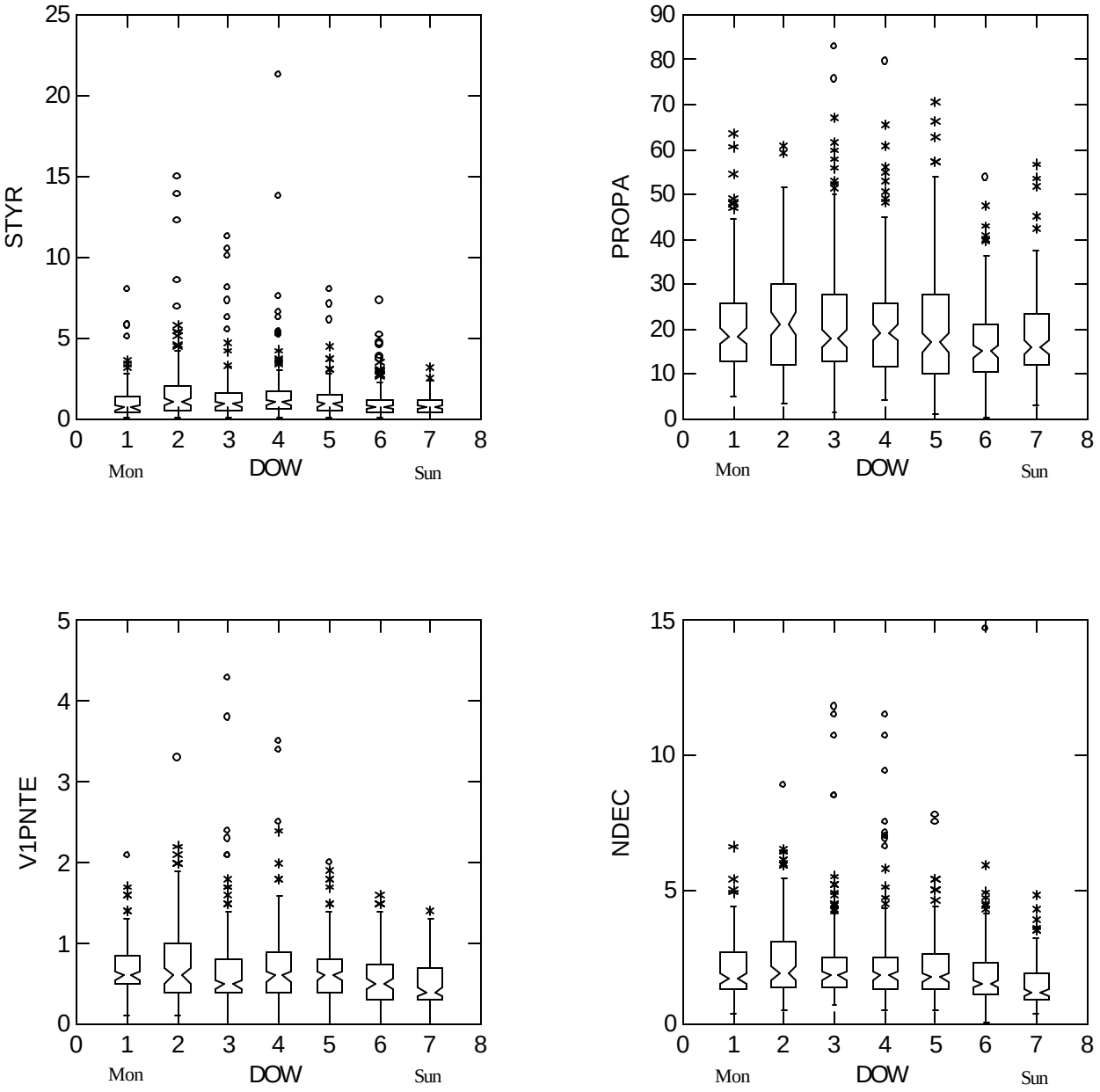

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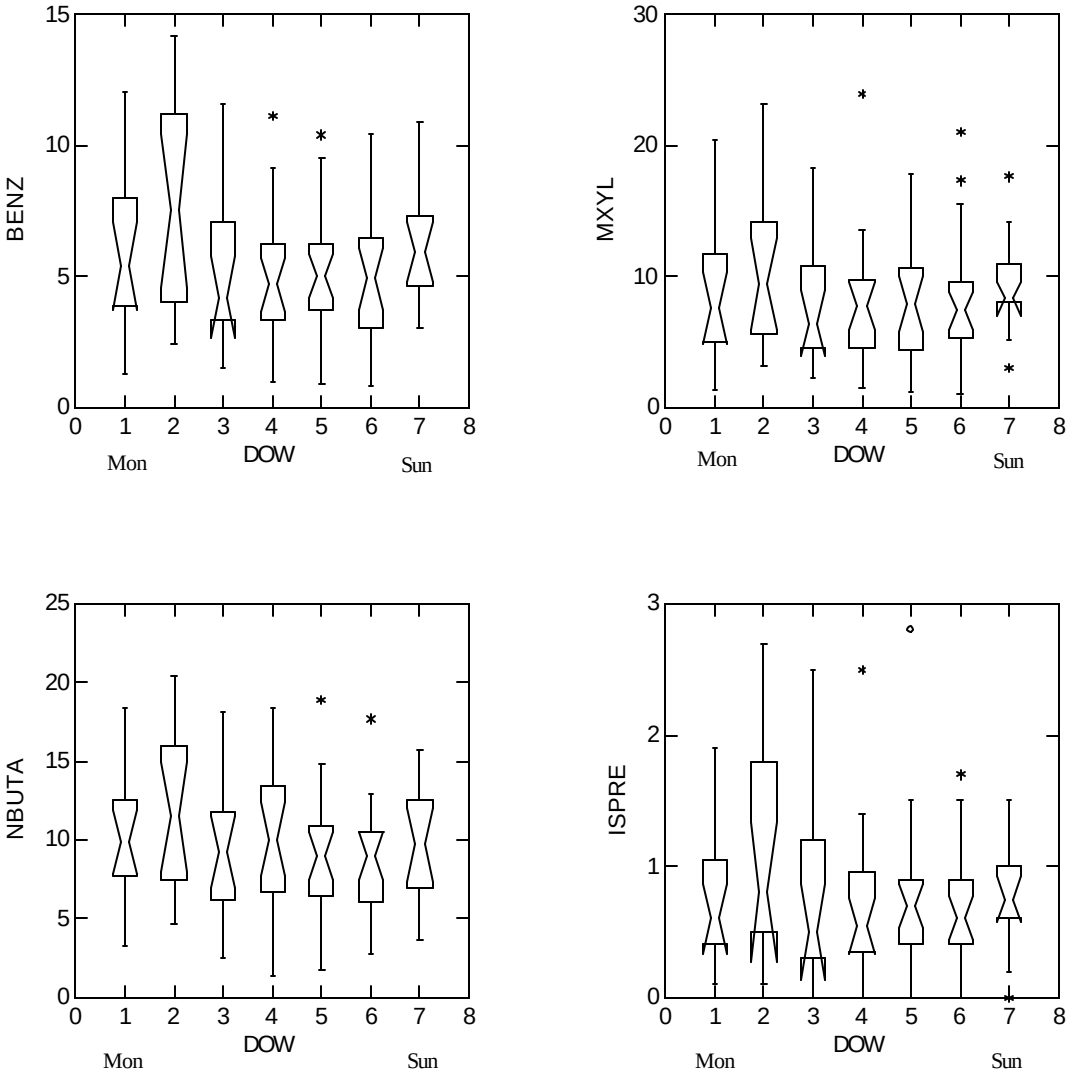
0200 PST



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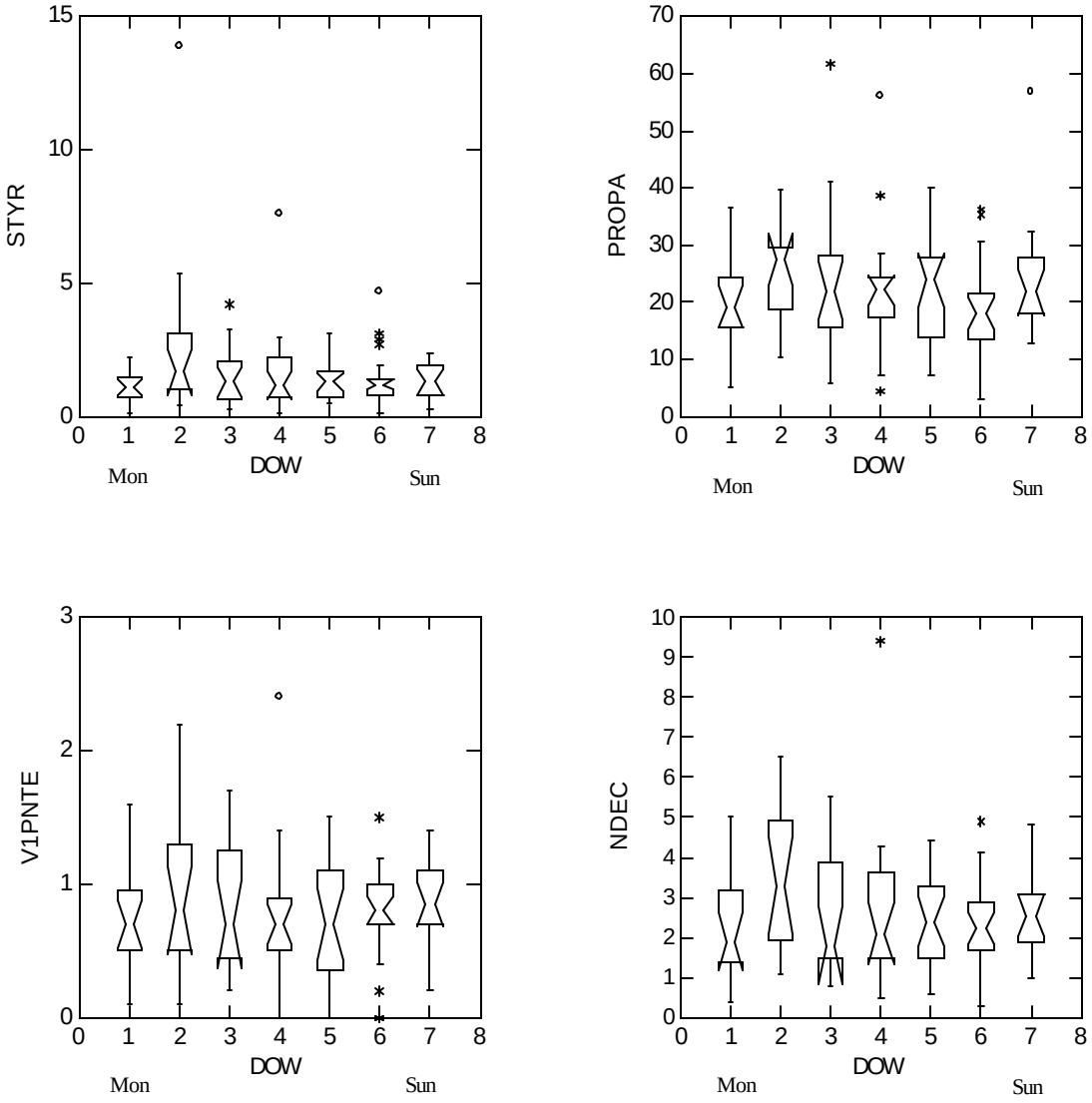
0200 PST



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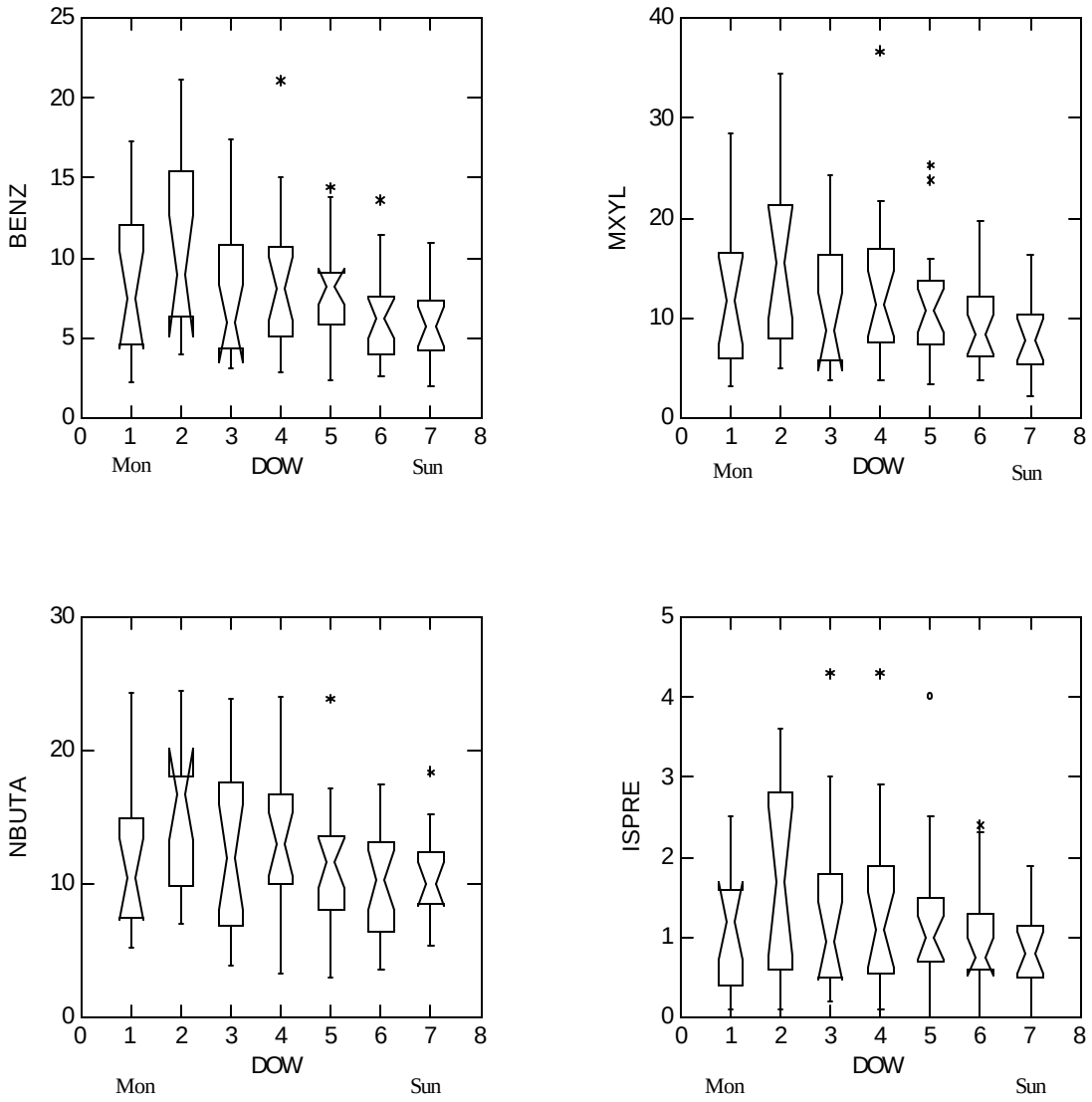
0500 PST



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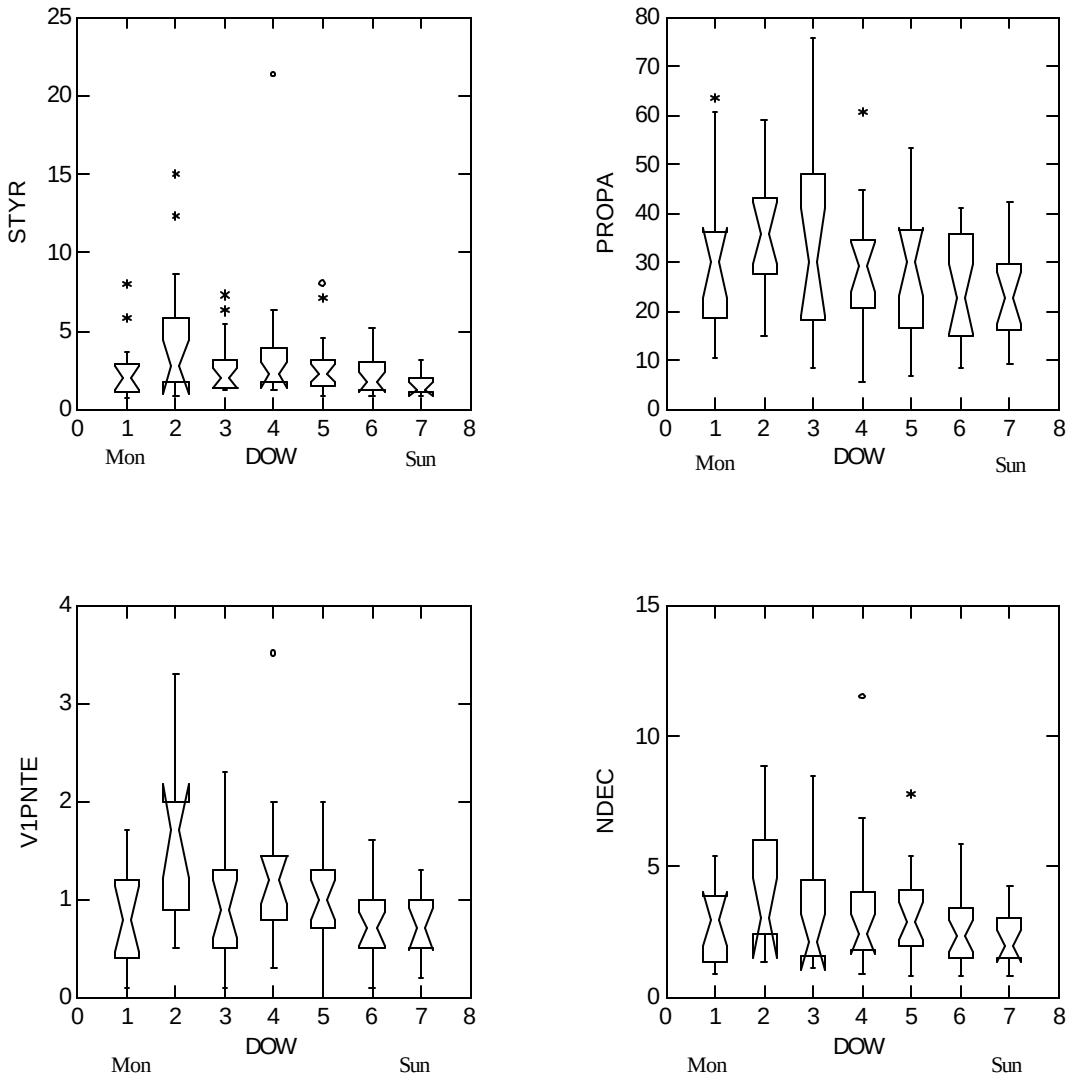
0500 PST



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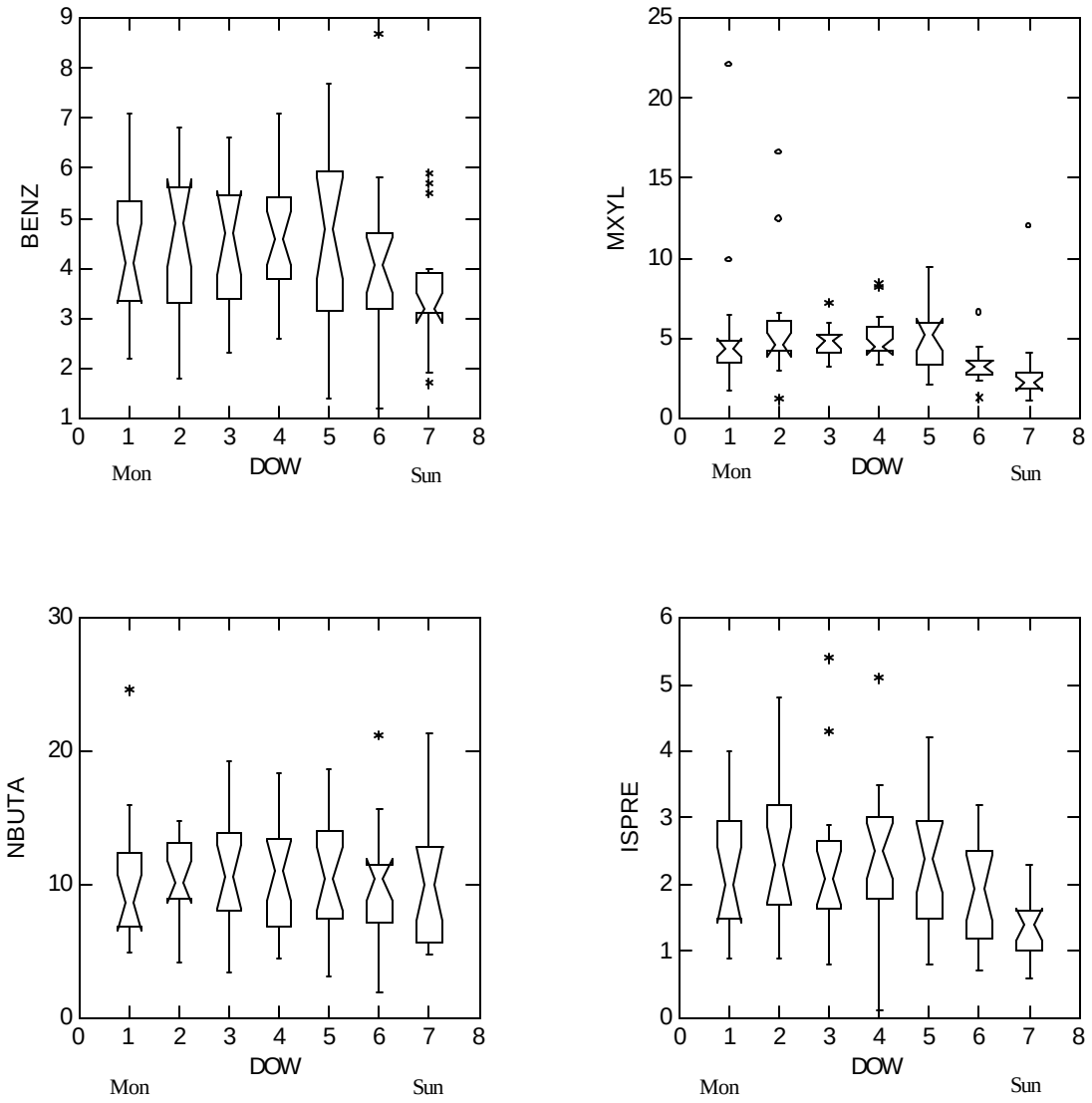
1100 PST



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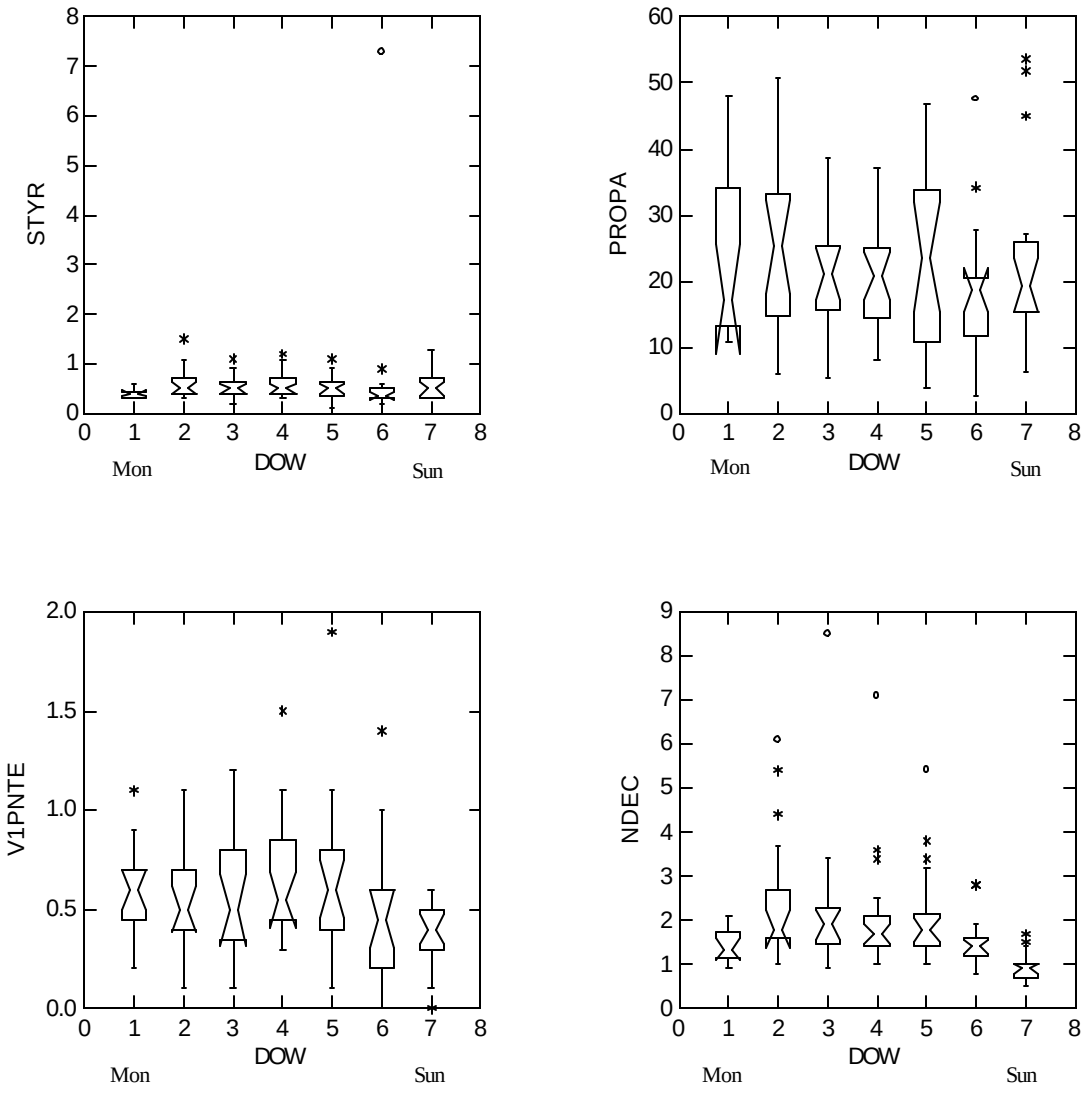
1100 PST



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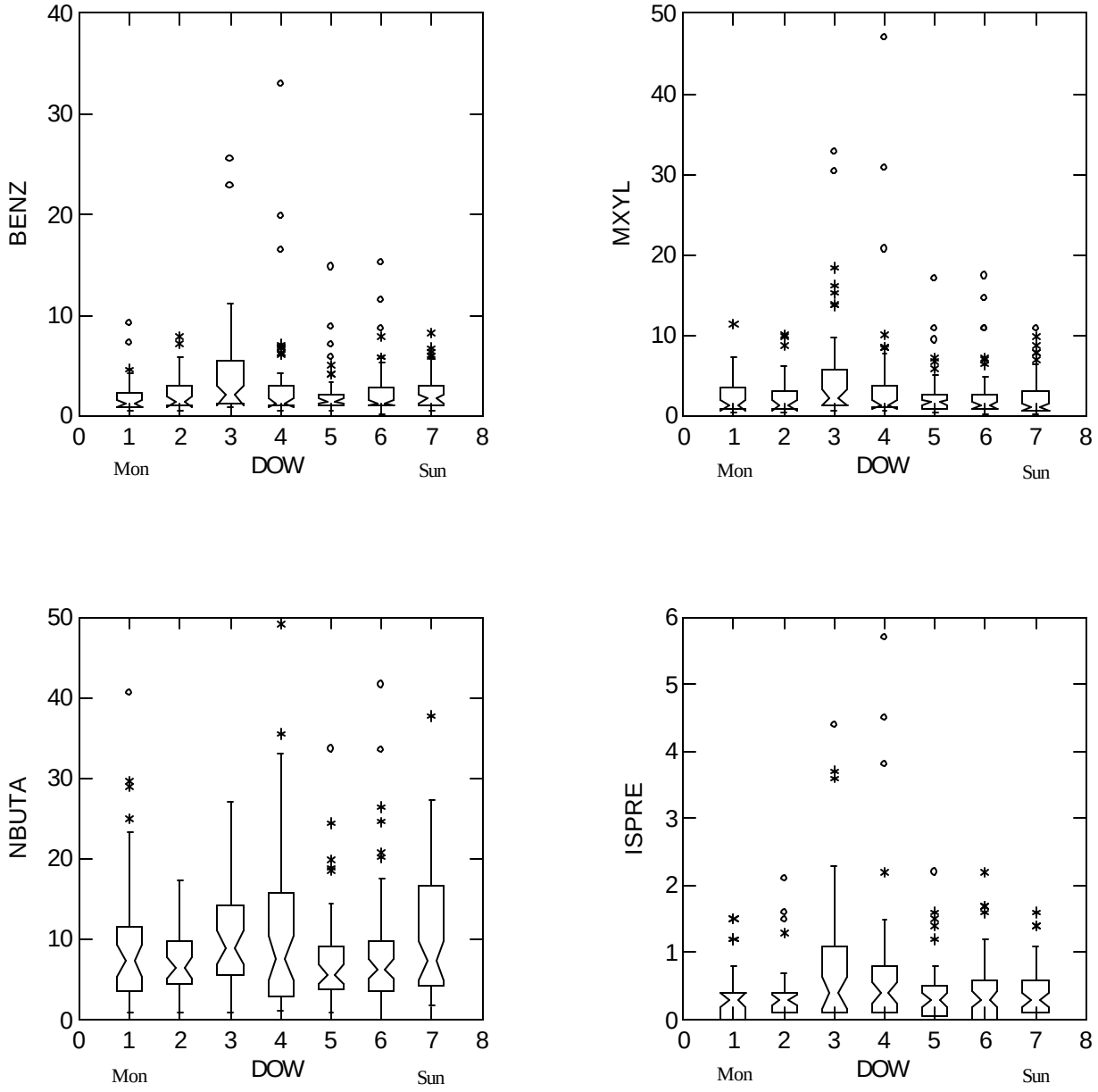
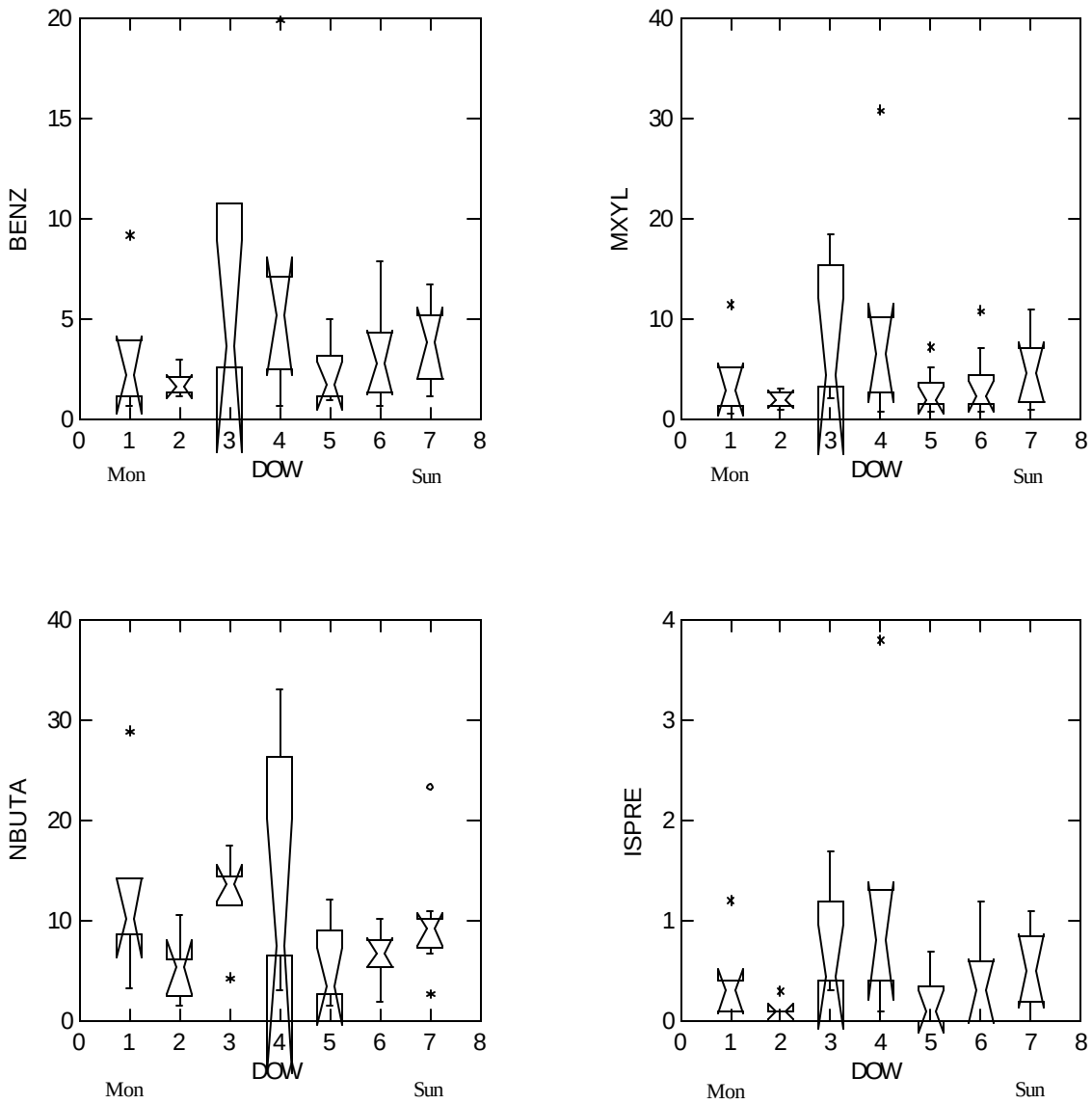


Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Hawthorne in 1999 and 2000. All time periods are included.

0200 PST



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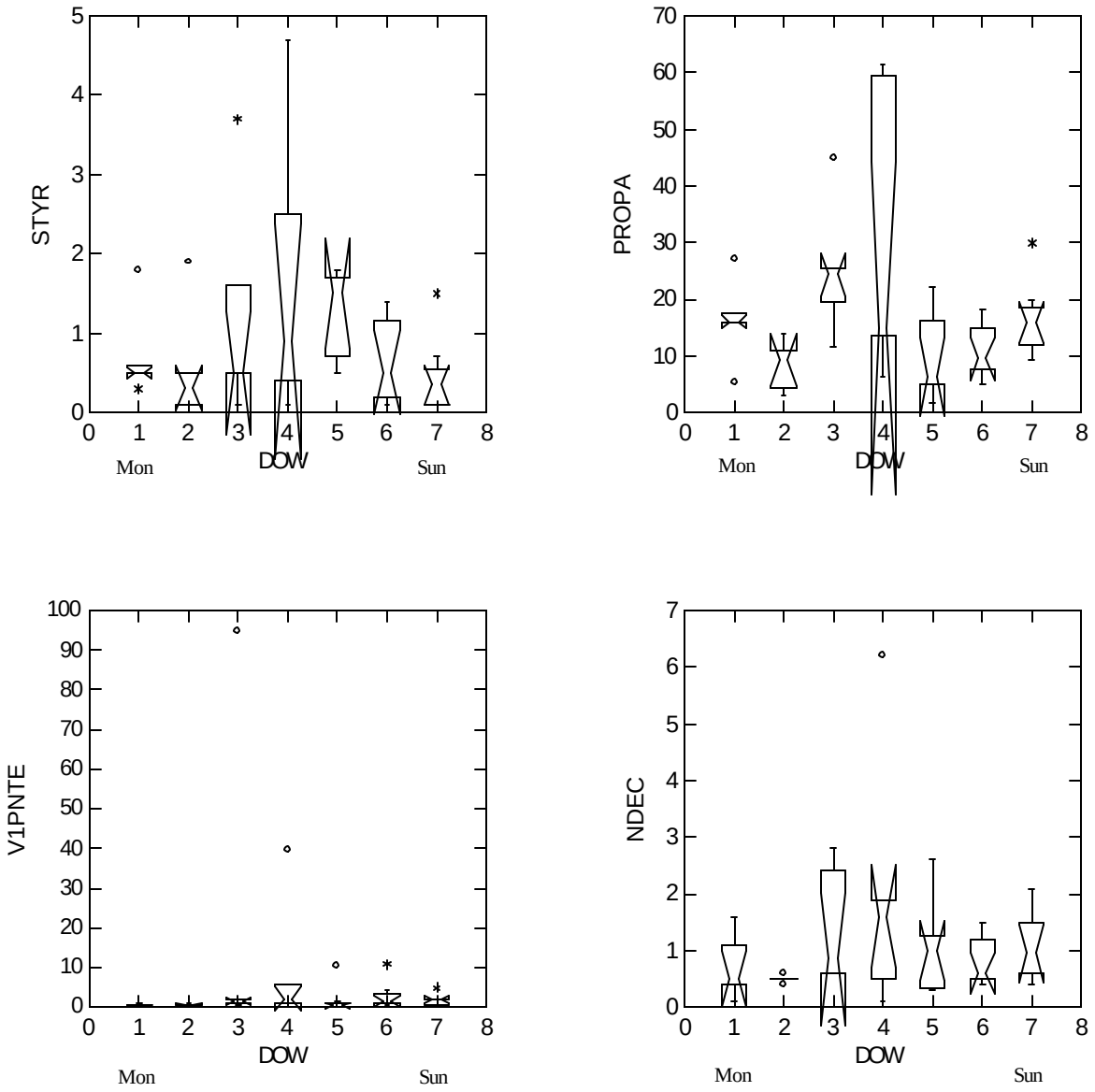
0200 PST



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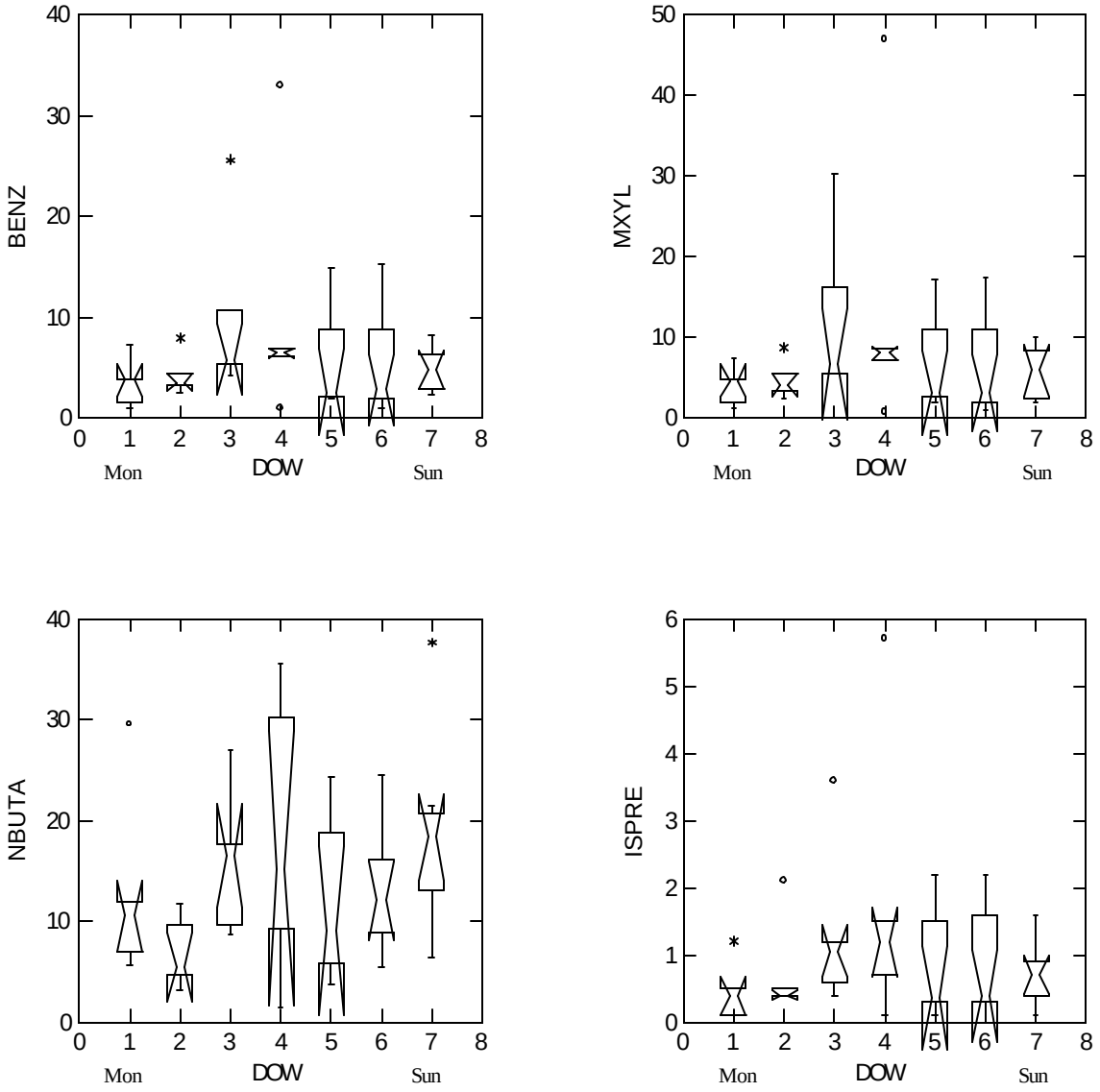
0500 PST



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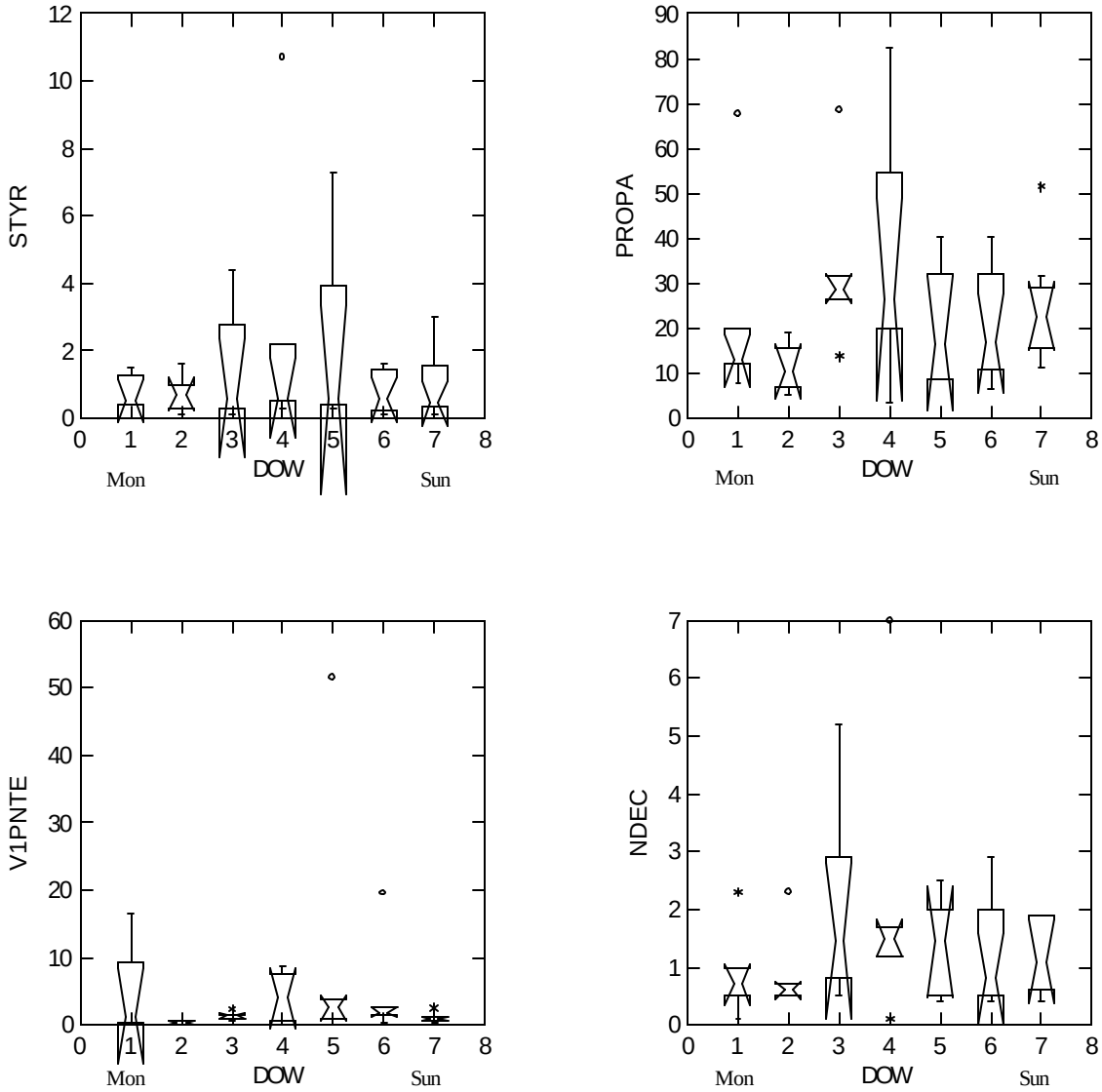
0500 PST



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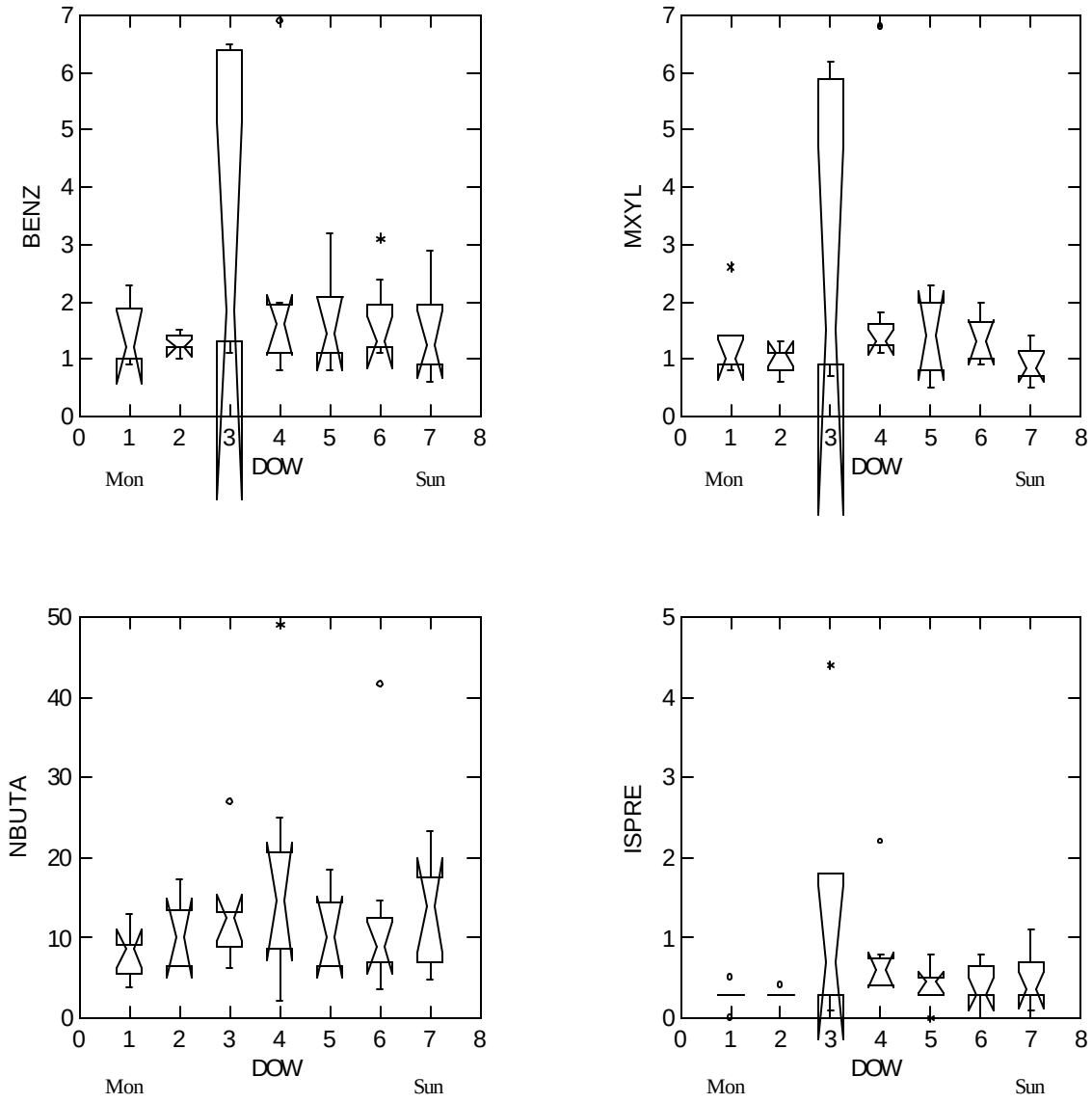
1100 PST



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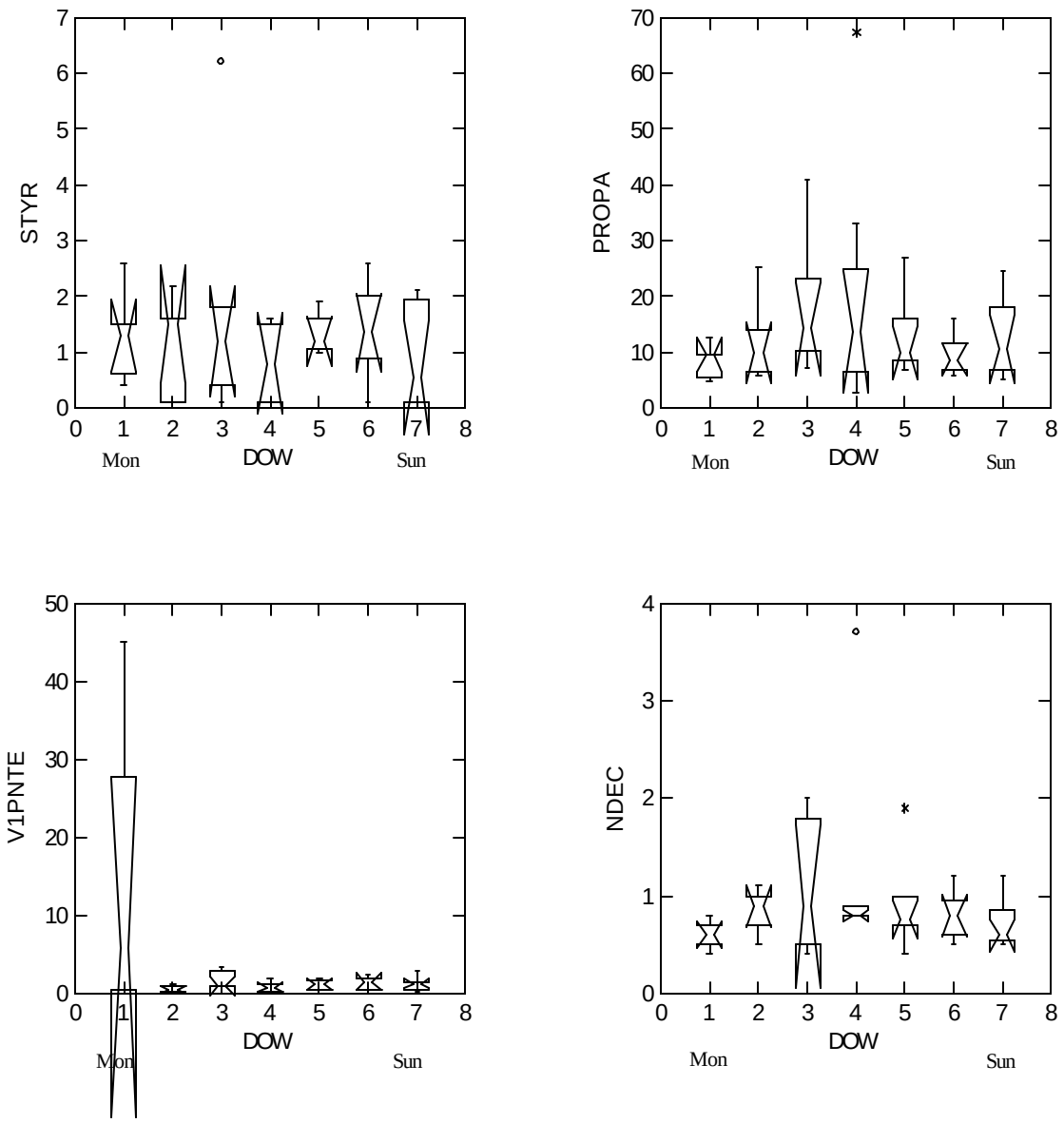
1100 PST



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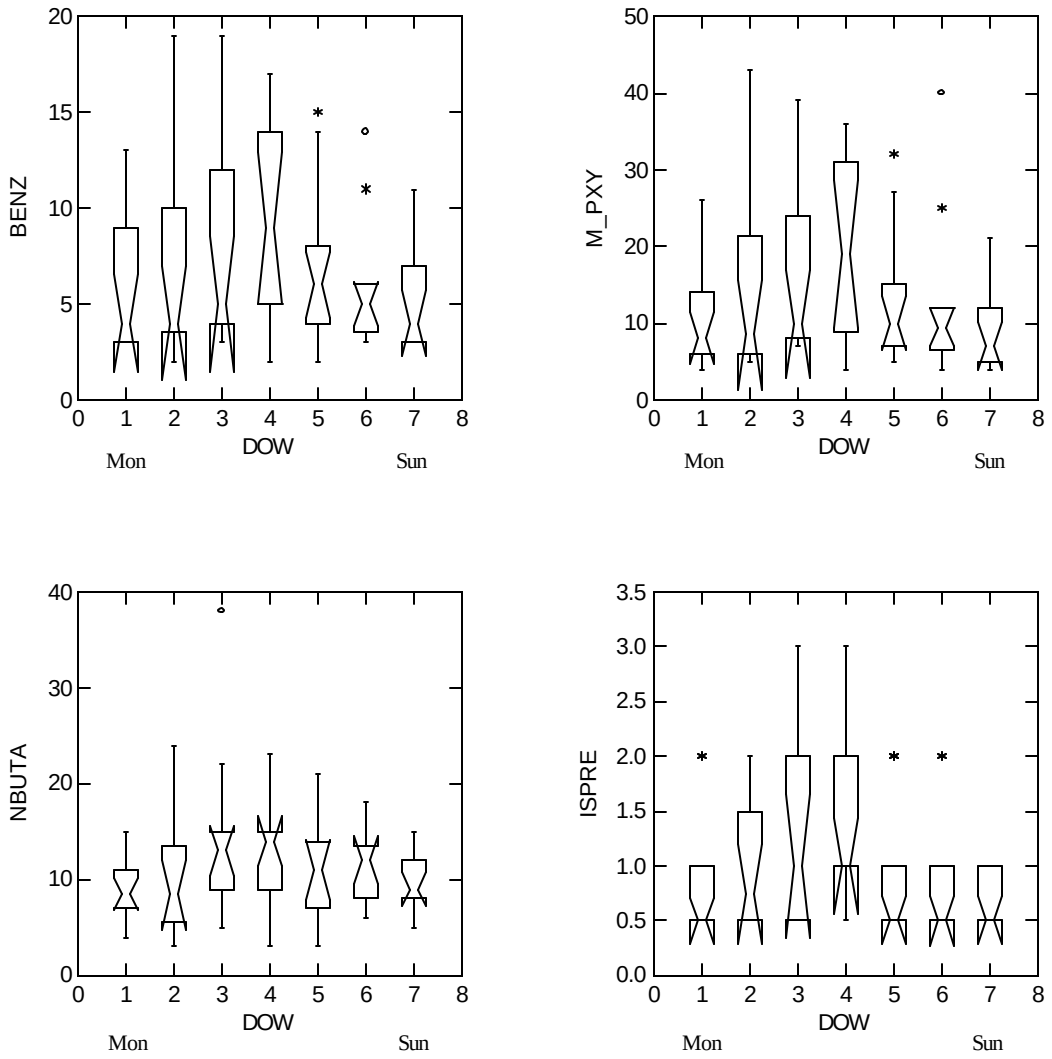
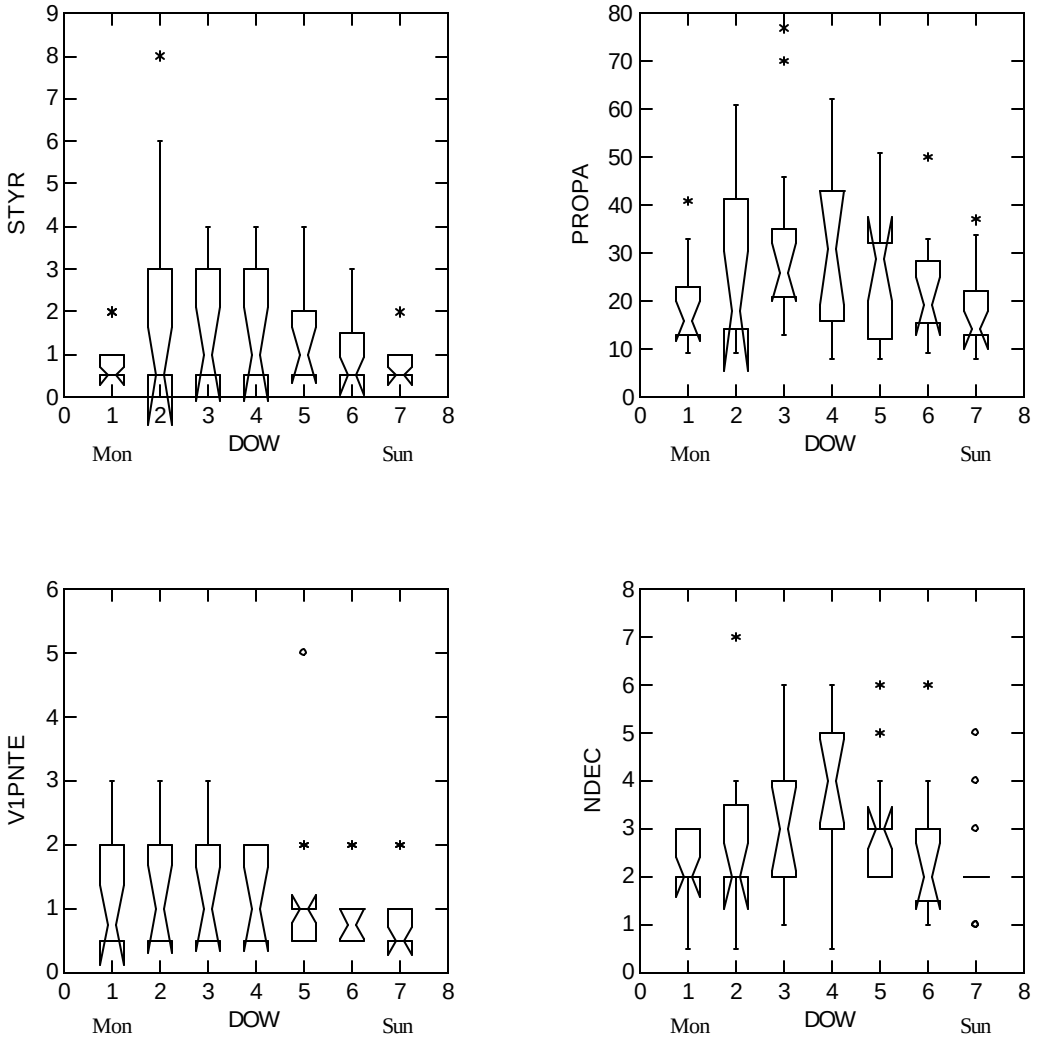
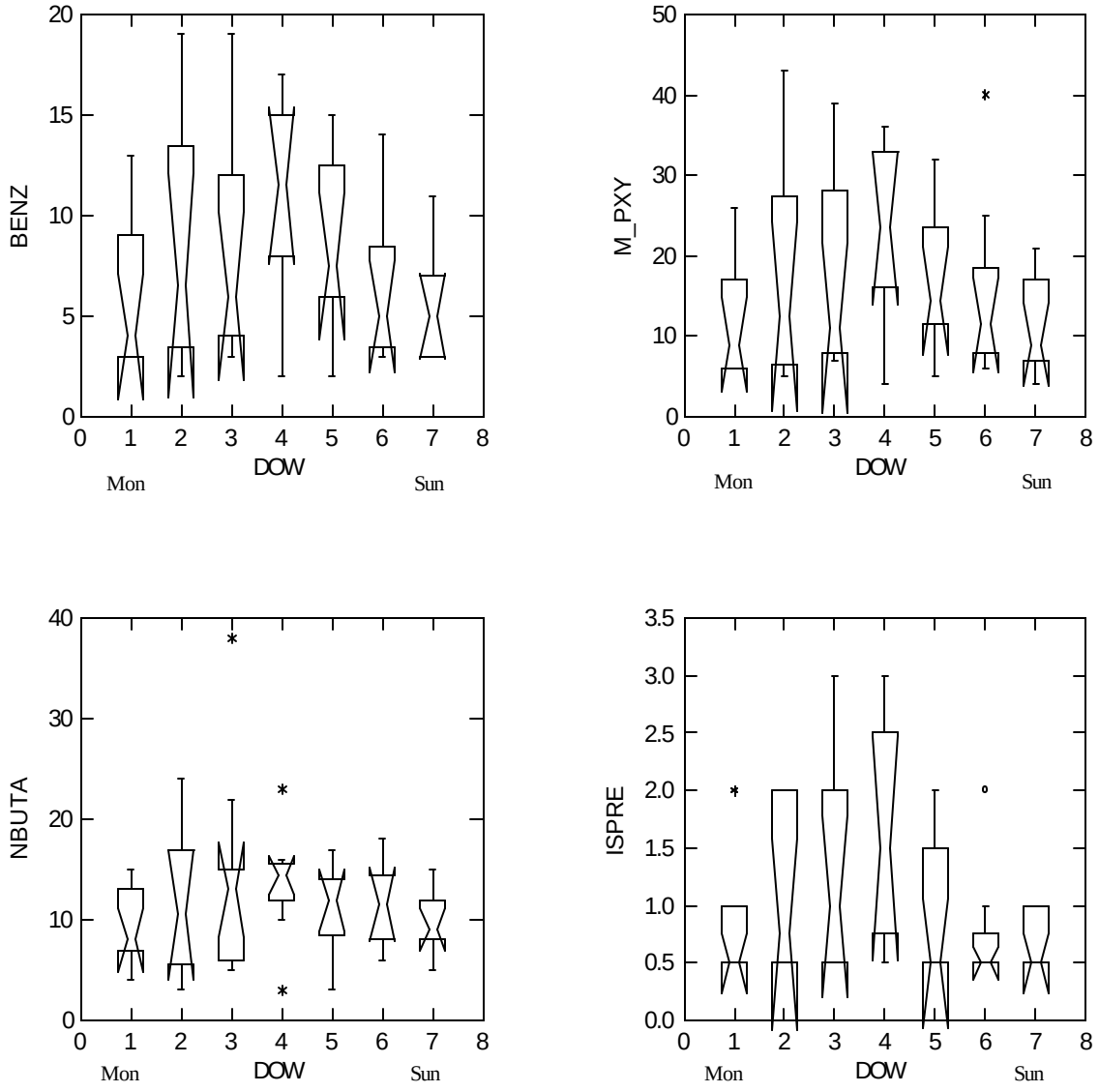


Notched box-whisker plots of benzene (BENZ), m- & p-xylene (M_PXY), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Los Angeles in 1999 and 2000. All time periods are included.



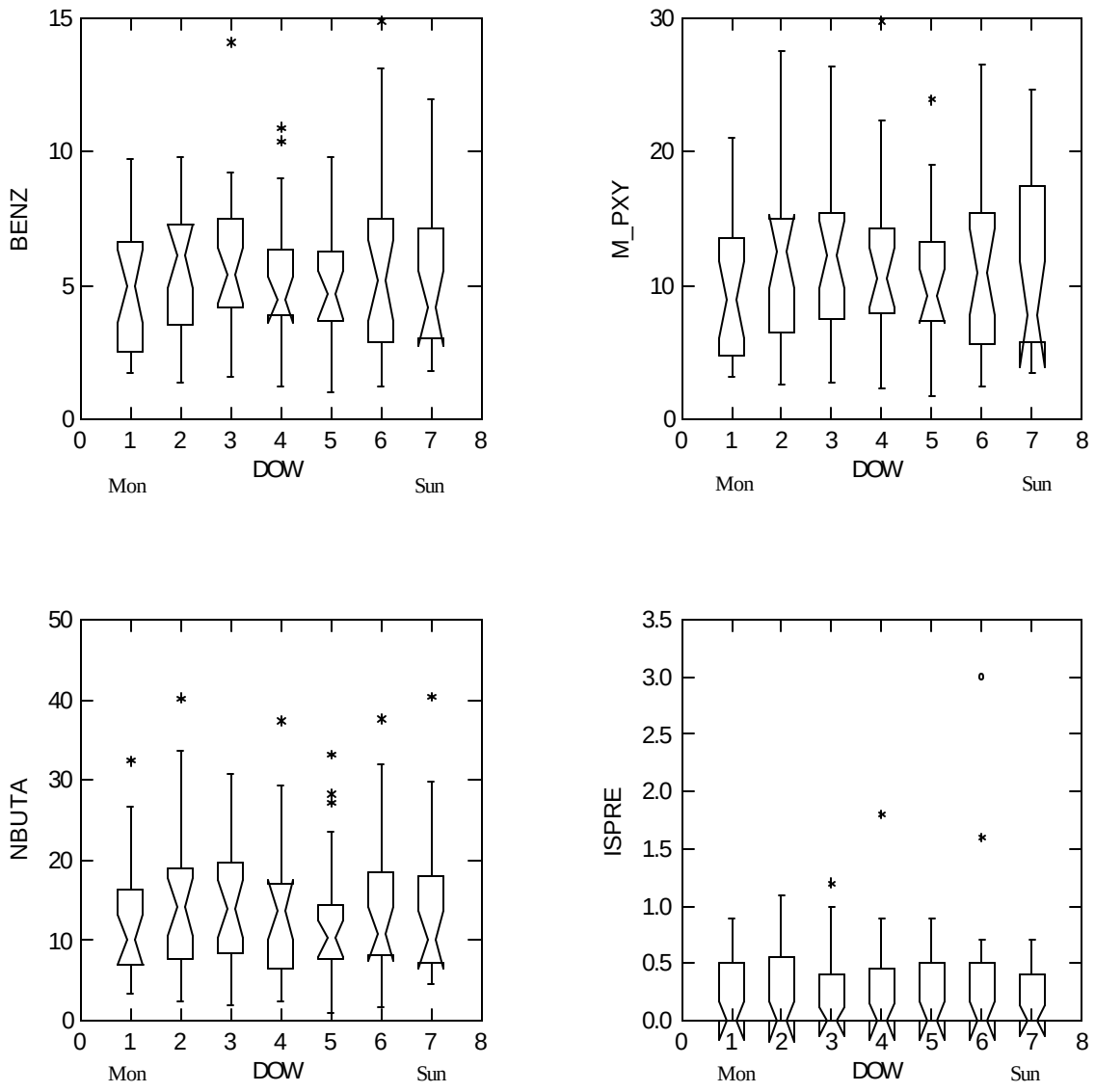
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Los Angeles in 1999 and 2000. All time periods are included.

0500 PST



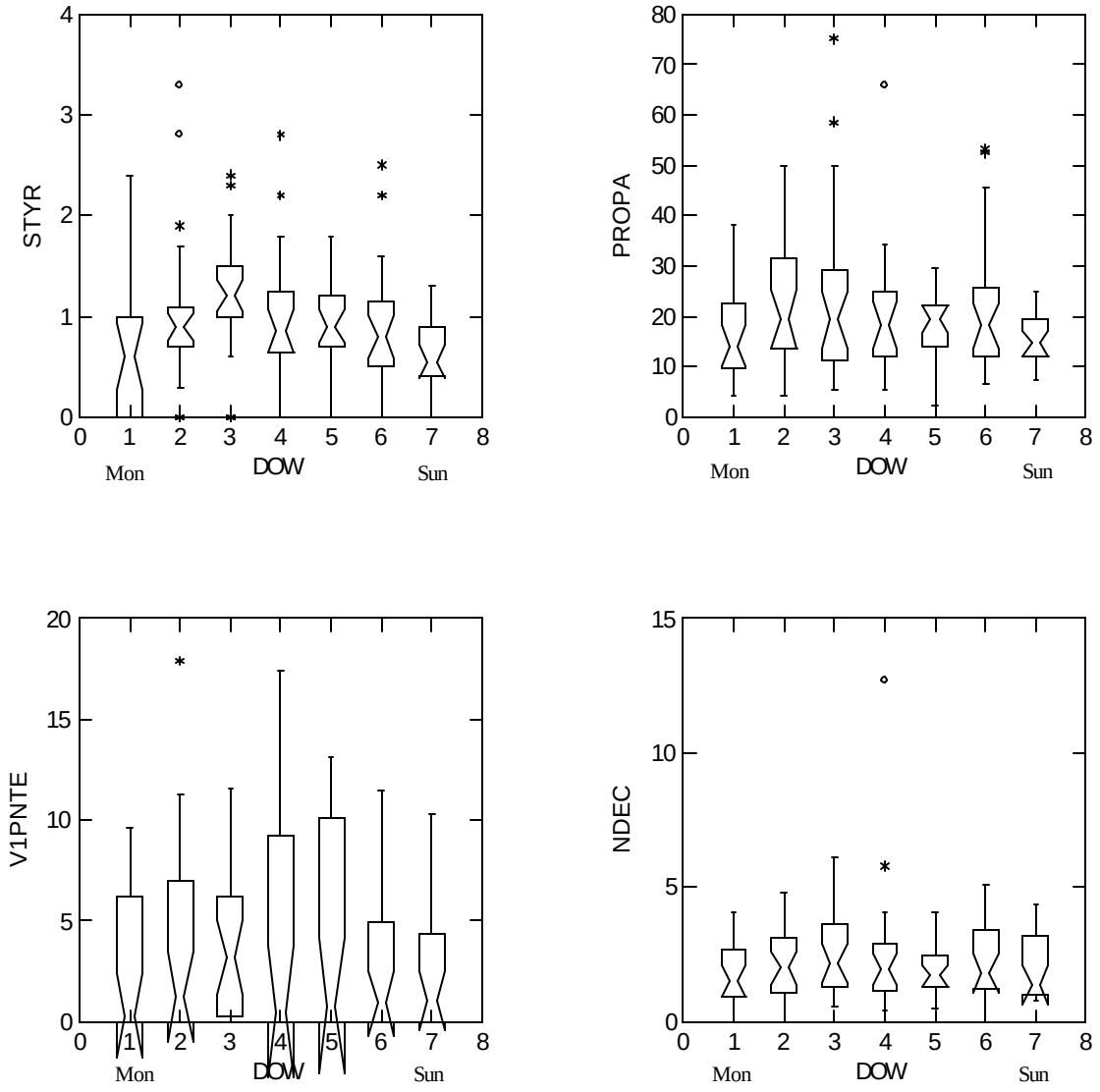
Notched box-whisker plots of benzene (BENZ), m- & p-xylene (M_PXY), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Los Angeles in 1999 and 2000 at 0500 PST.

0200 PST



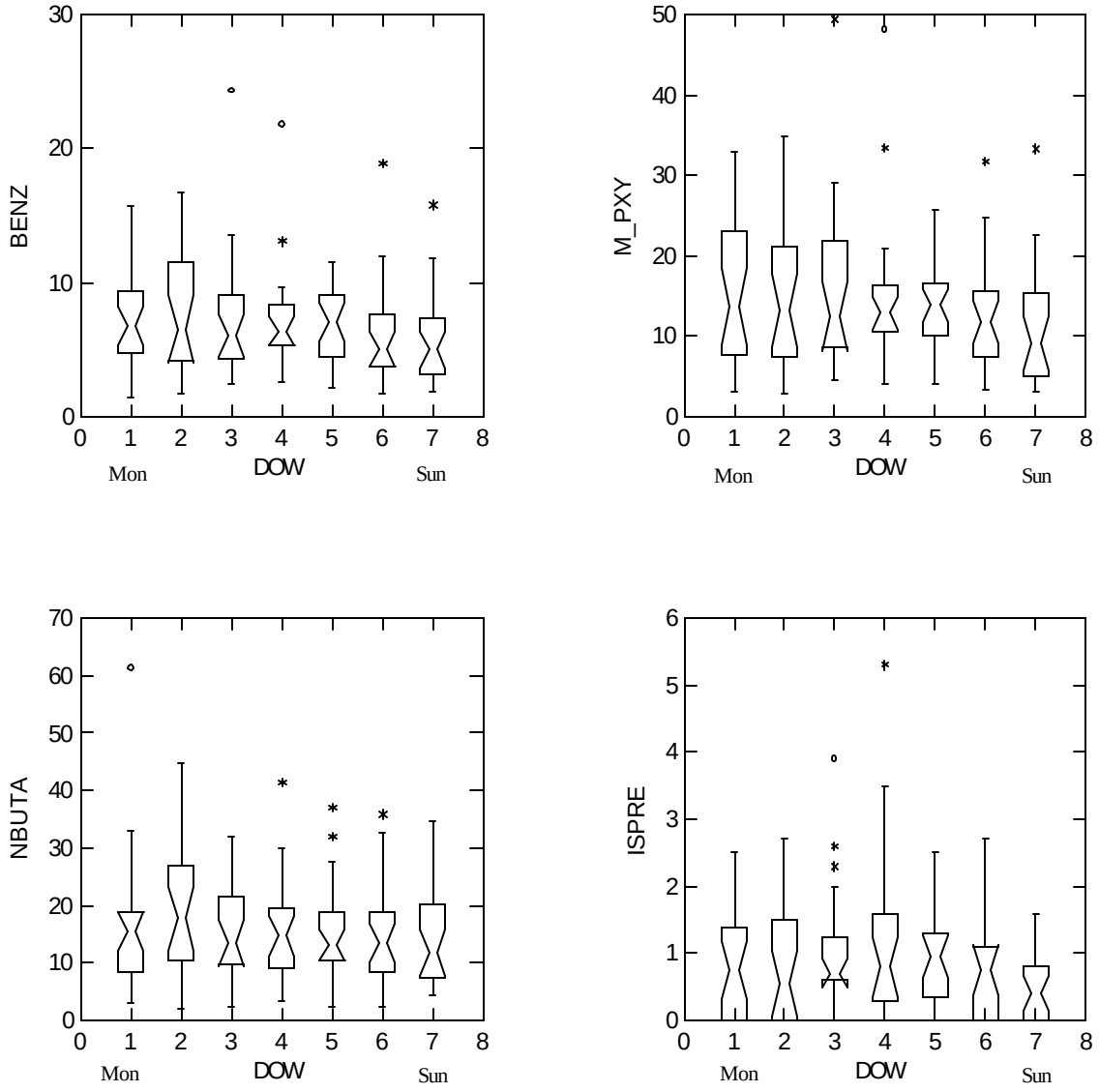
Notched box-whisker plots of benzene (BENZ), m-& p-xylene (M_PXY), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Pico Rivera in 1999 and 2000 at 0200 PST.

0200 PST



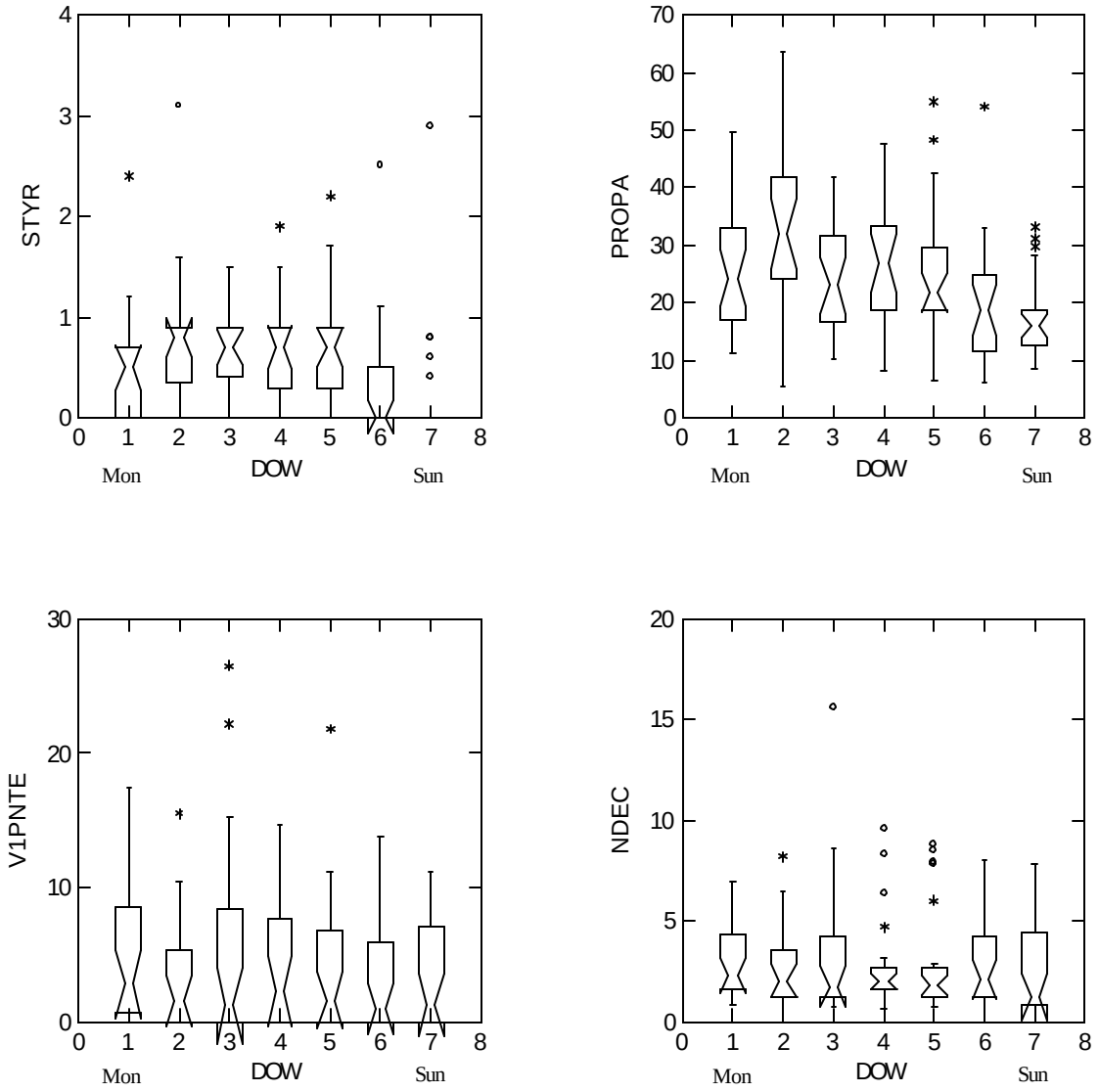
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Pico Rivera in 1999 and 2000 at 0200 PST.

0500 PST



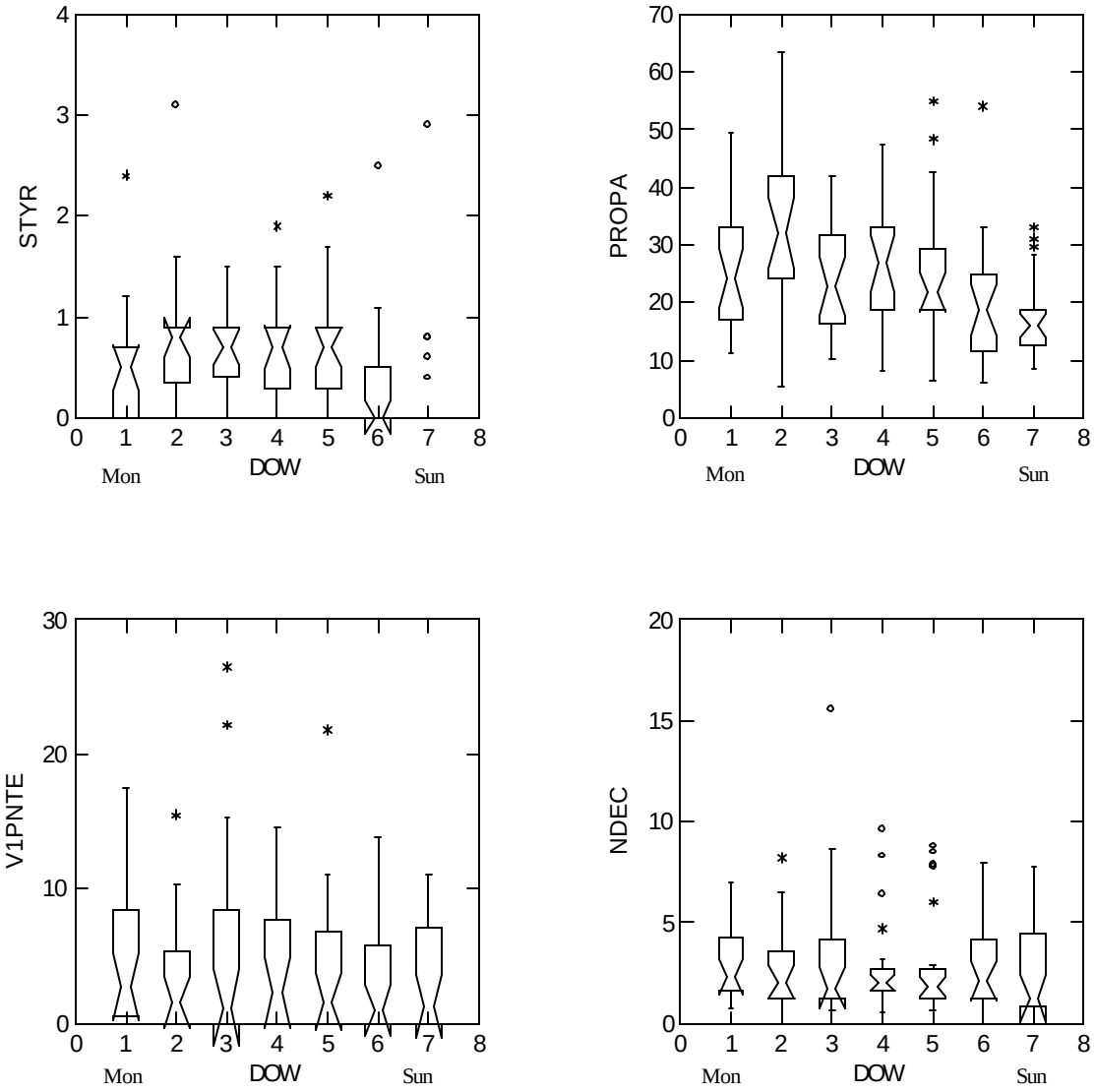
Notched box-whisker plots of benzene (BENZ), m- & p-xylene (M_PXY), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Pico Rivera in 1999 and 2000 at 0500 PST.

1100 PST

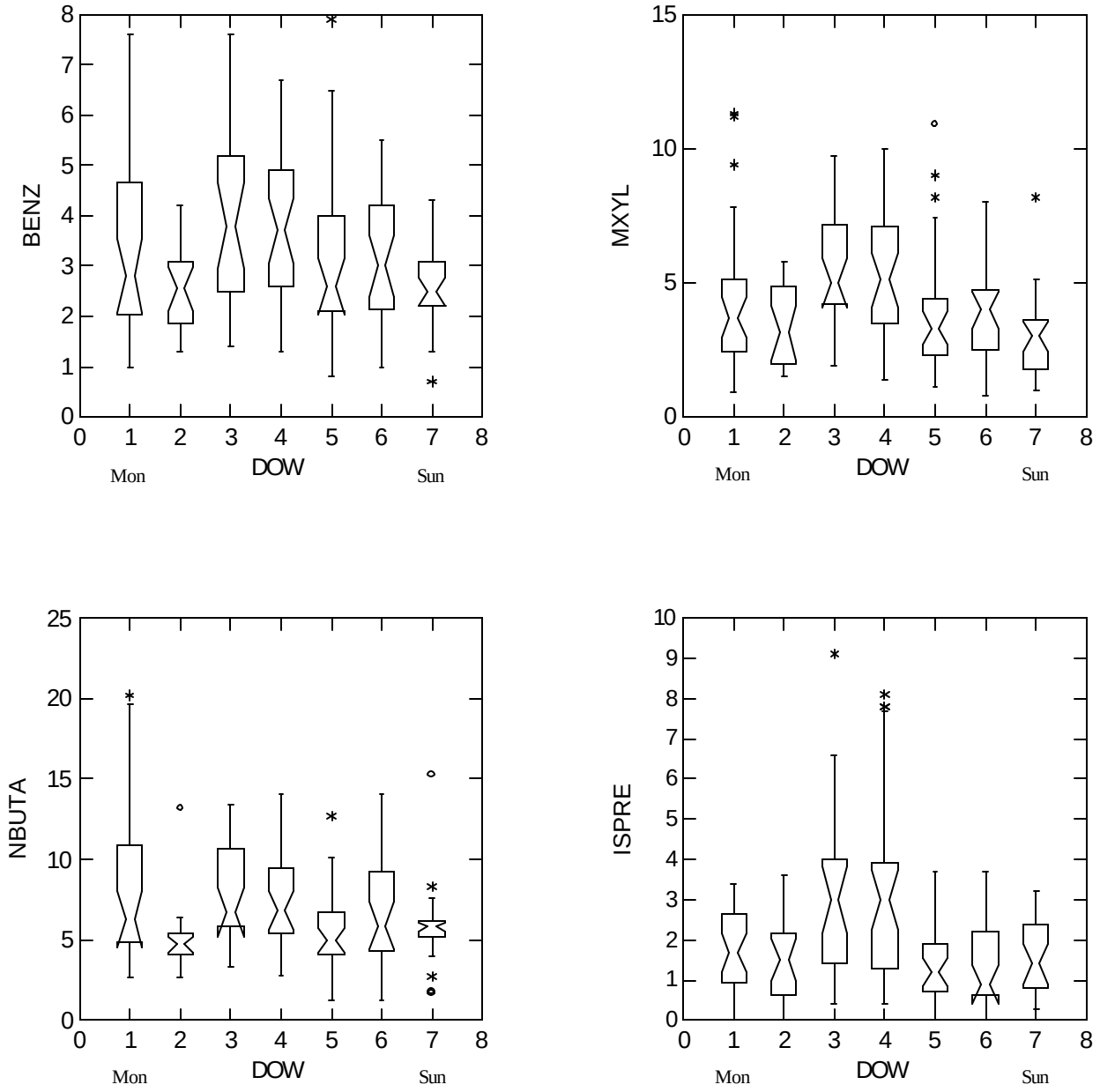


Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Pico Rivera in 1999 and 2000 at 1100 PST.

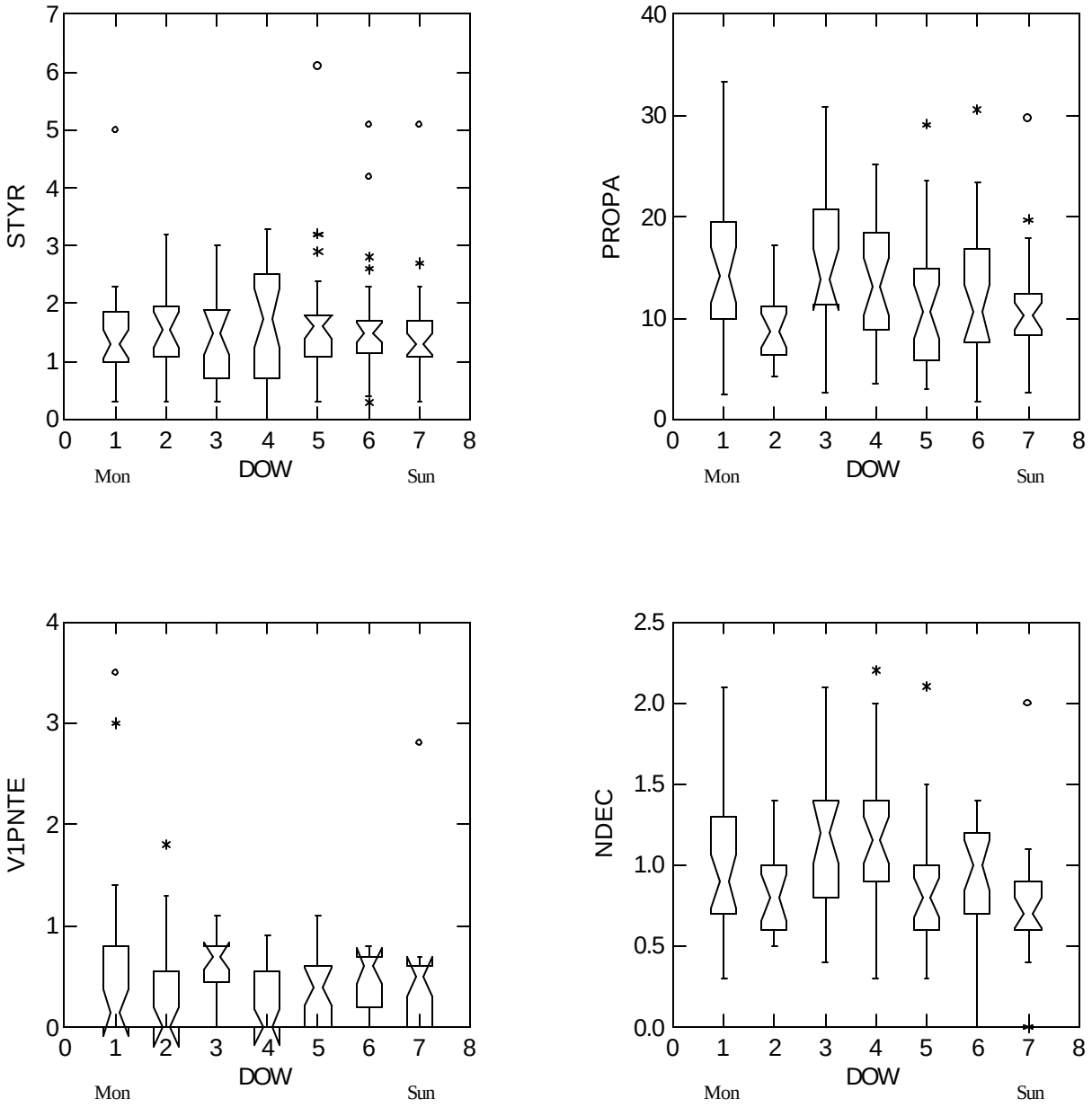
1100 PST



Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Pico Rivera in 1999 and 2000 at 1100 PST.

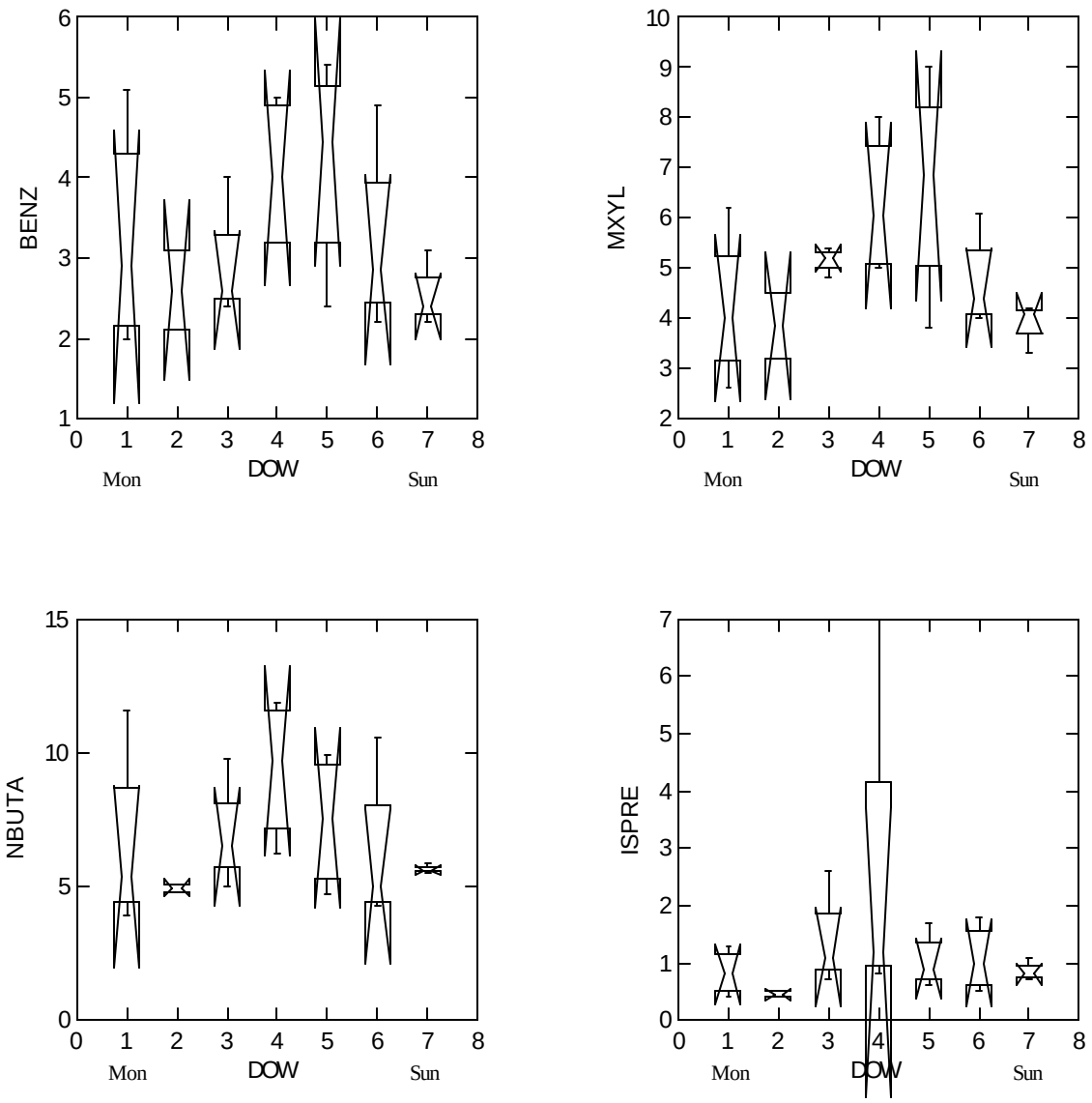


Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Santa Clarita in 1999 and 2000. All time periods are included.



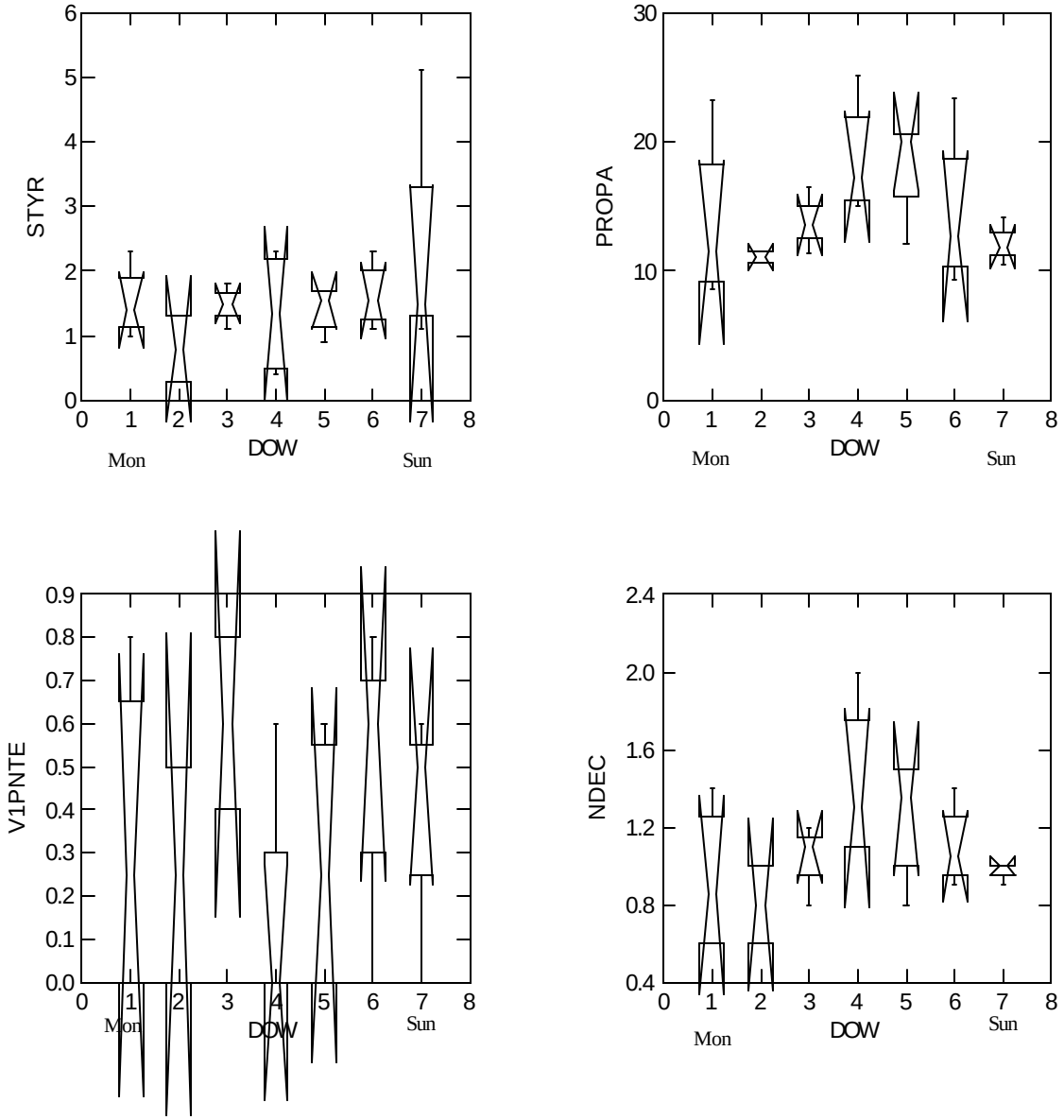
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Santa Clarita in 1999 and 2000. All time periods are included.

0200 PST



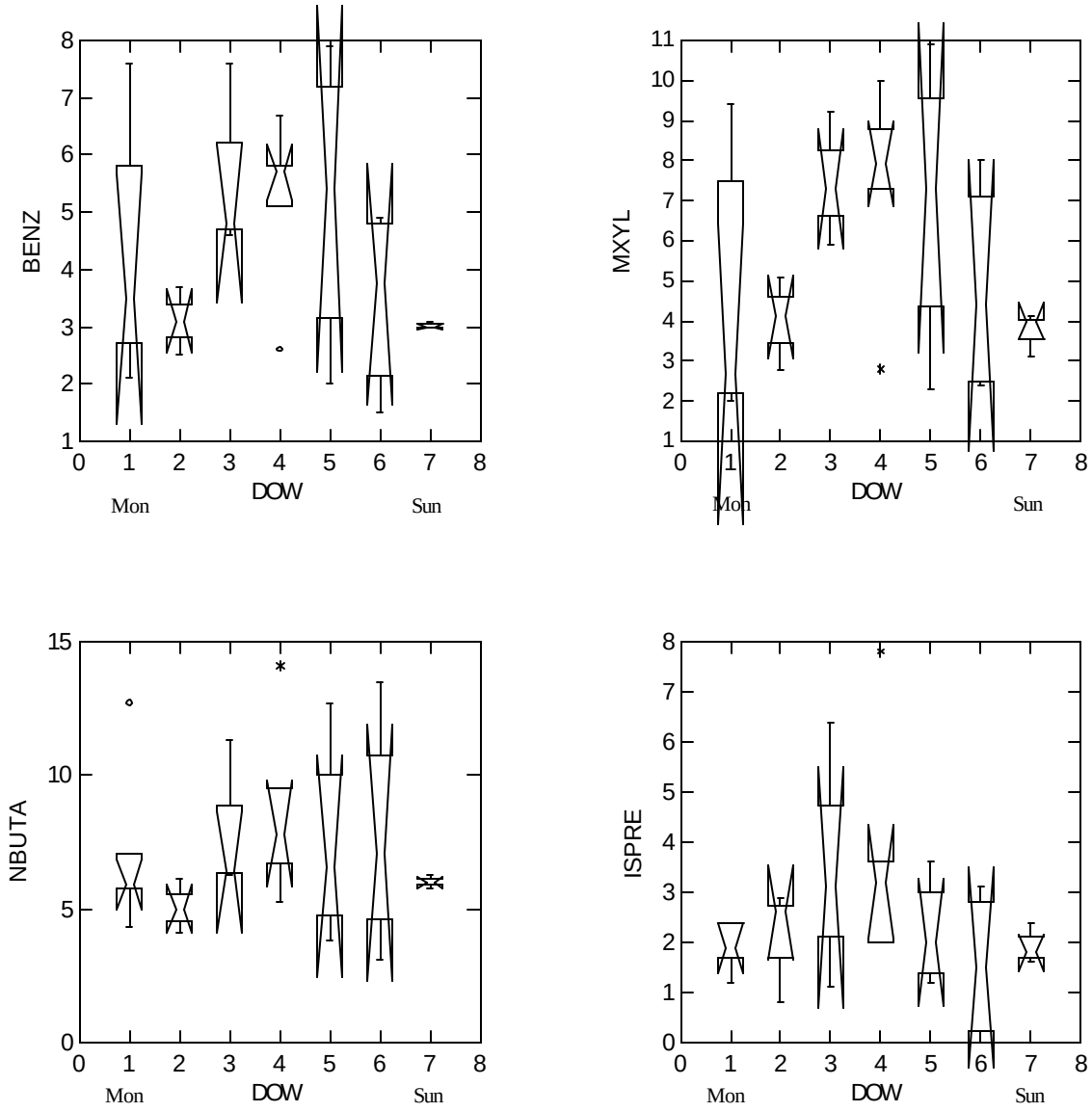
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Santa Clarita in 1999 and 2000 at 0200 PST.

0200 PST



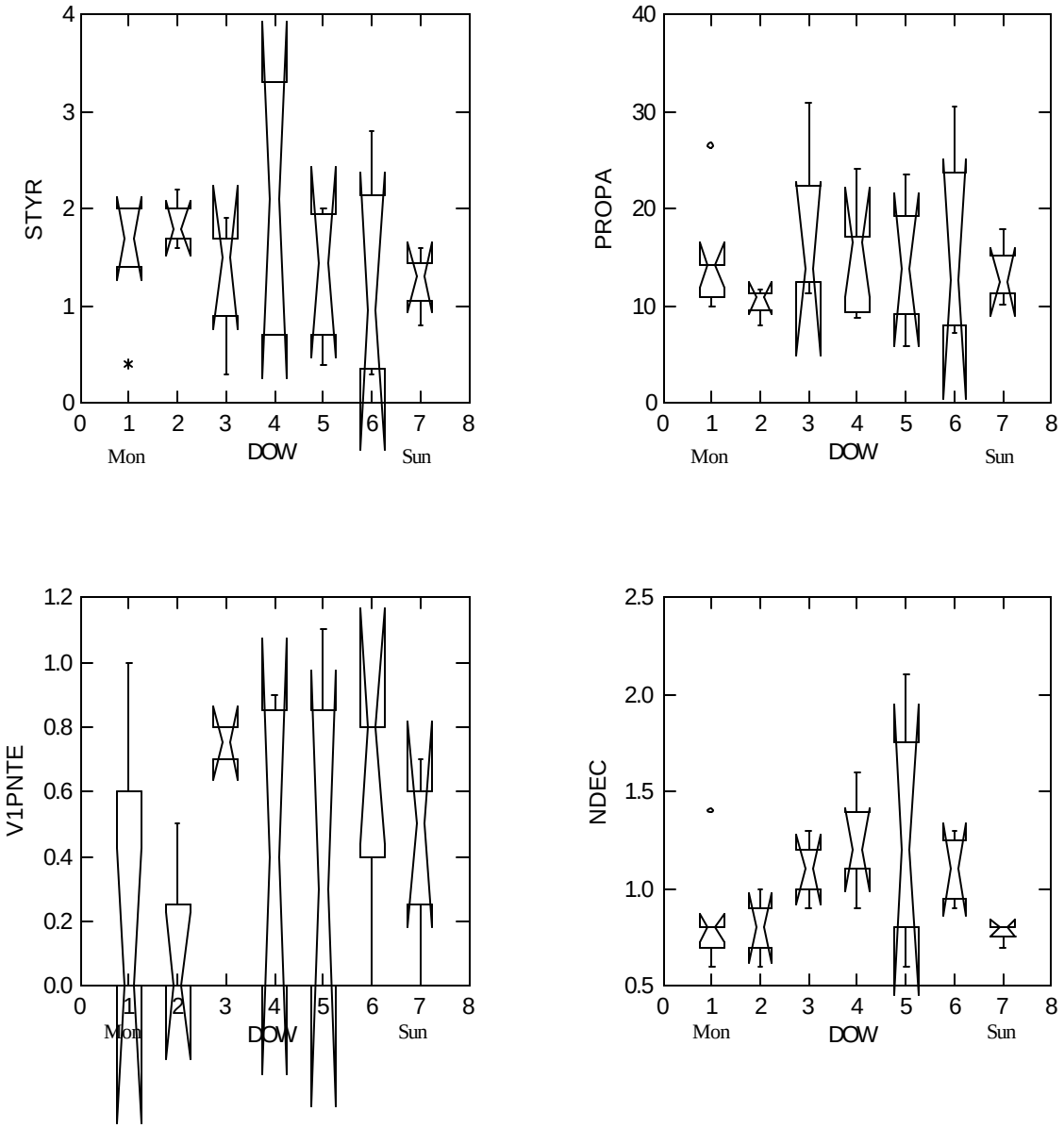
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Santa Clarita in 1999 and 2000 at 0200 PST.

0500 PST



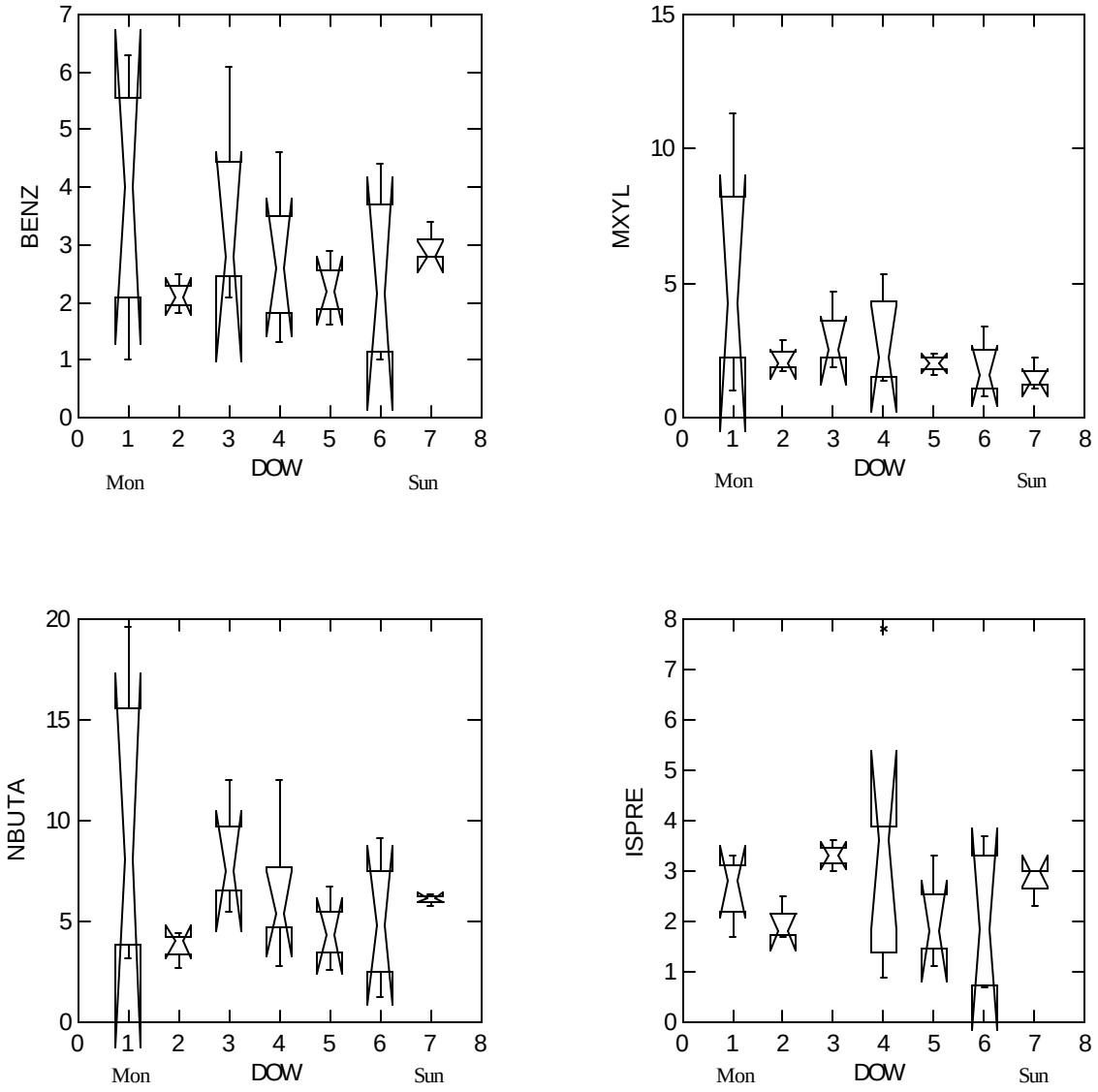
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Santa Clarita in 1999 and 2000 at 0500 PST.

0500 PST



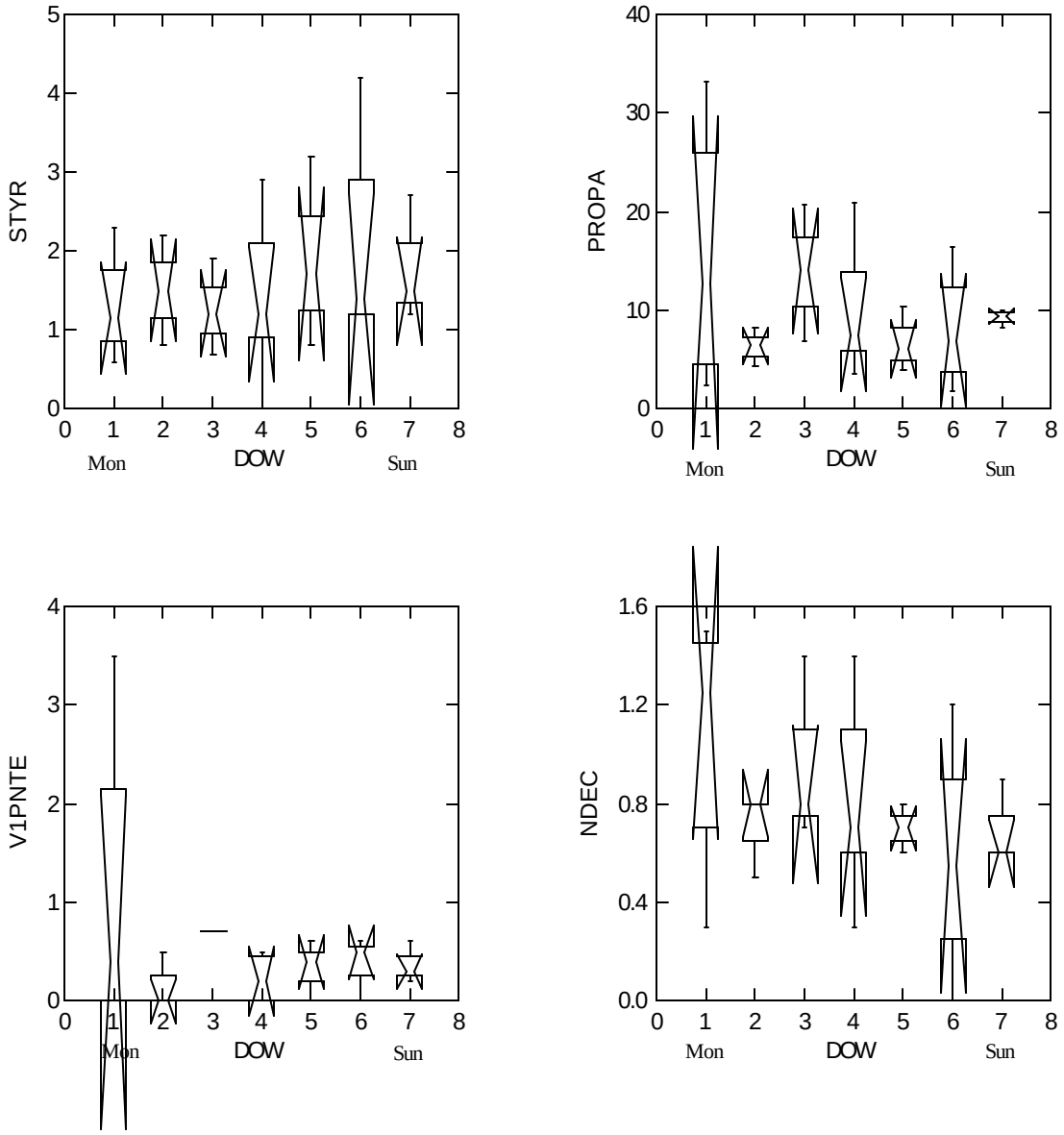
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Santa Clarita in 1999 and 2000 at 0500 PST.

1100 PST

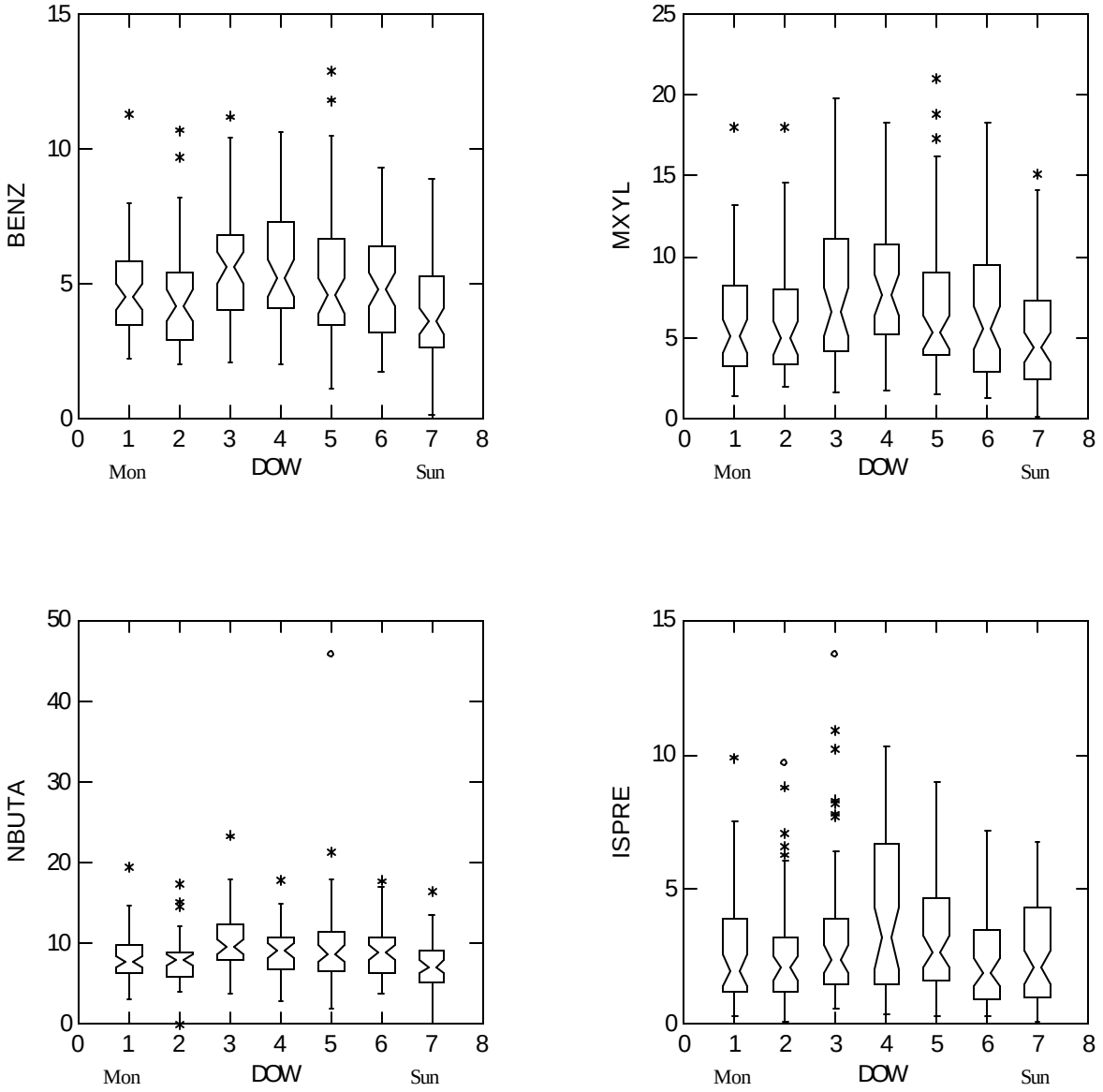


Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Santa Clarita in 1999 and 2000 at 1100 PST.

1100 PST

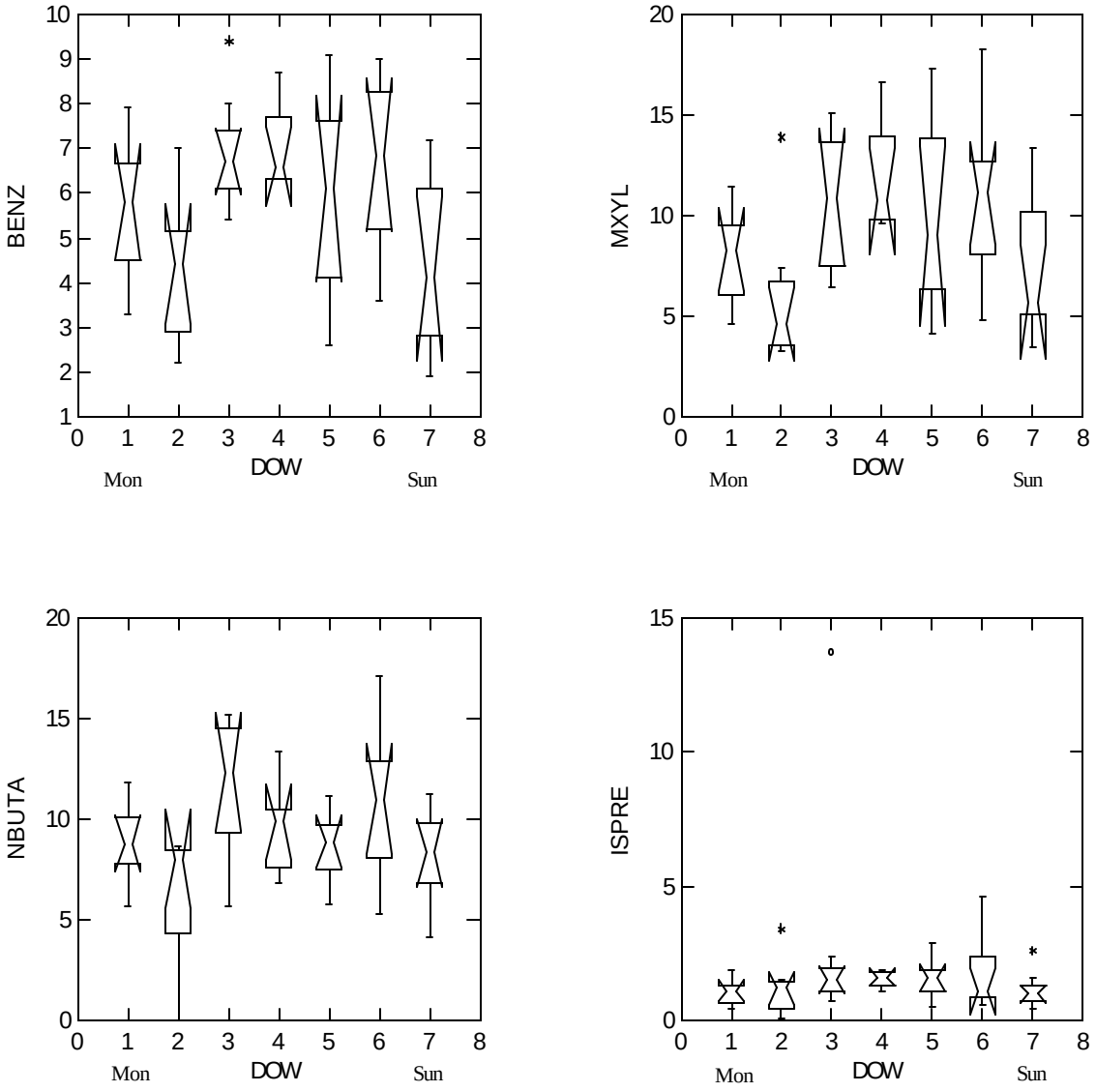


Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Santa Clarita in 1999 and 2000 at 1100 PST.



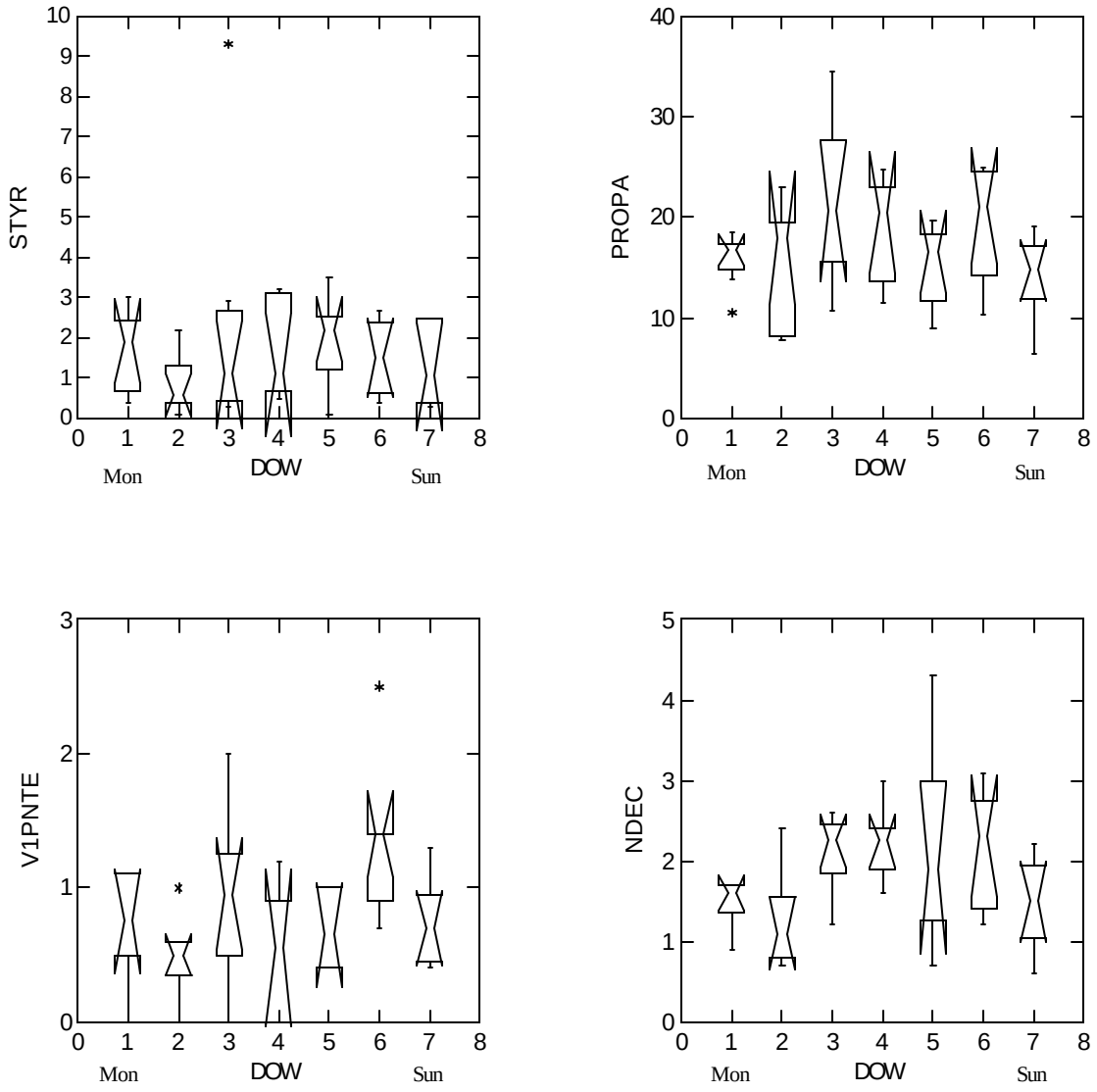
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Upland in 1999 and 2000. All time periods are included.

0200 PST



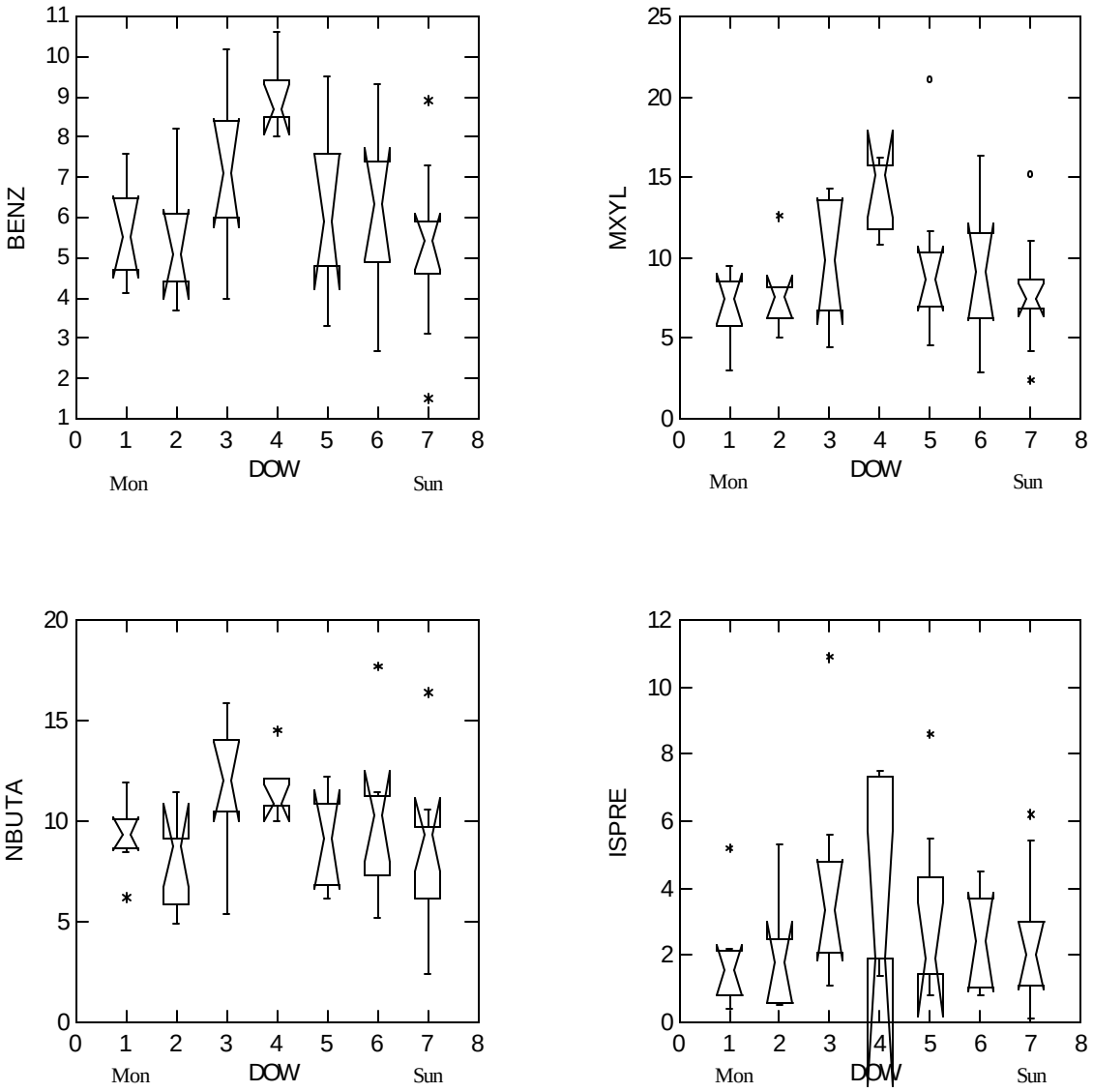
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Upland in 1999 and 2000 at 0200 PST.

0200 PST



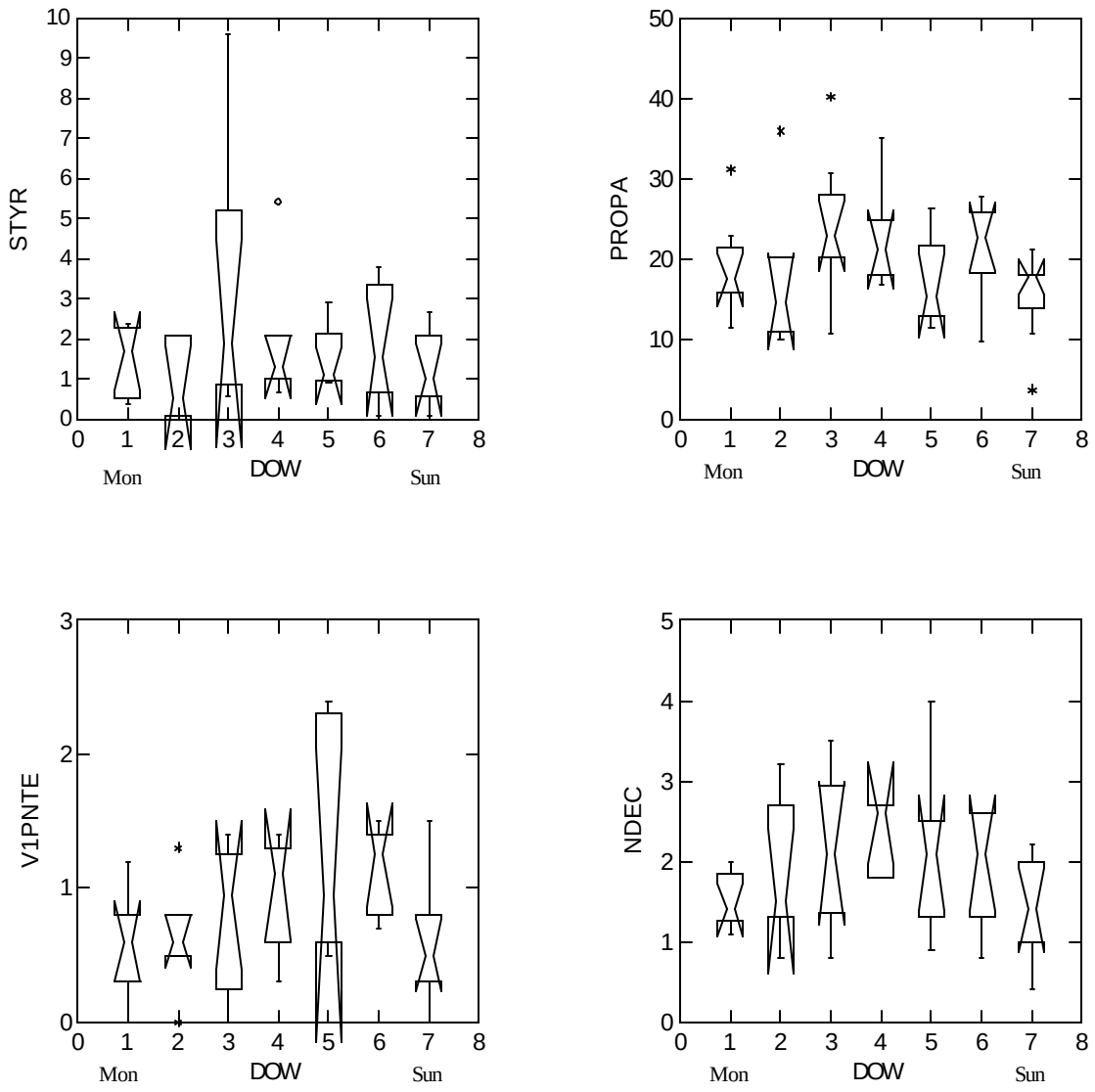
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Upland in 1999 and 2000 at 0200 PST.

0500 PST



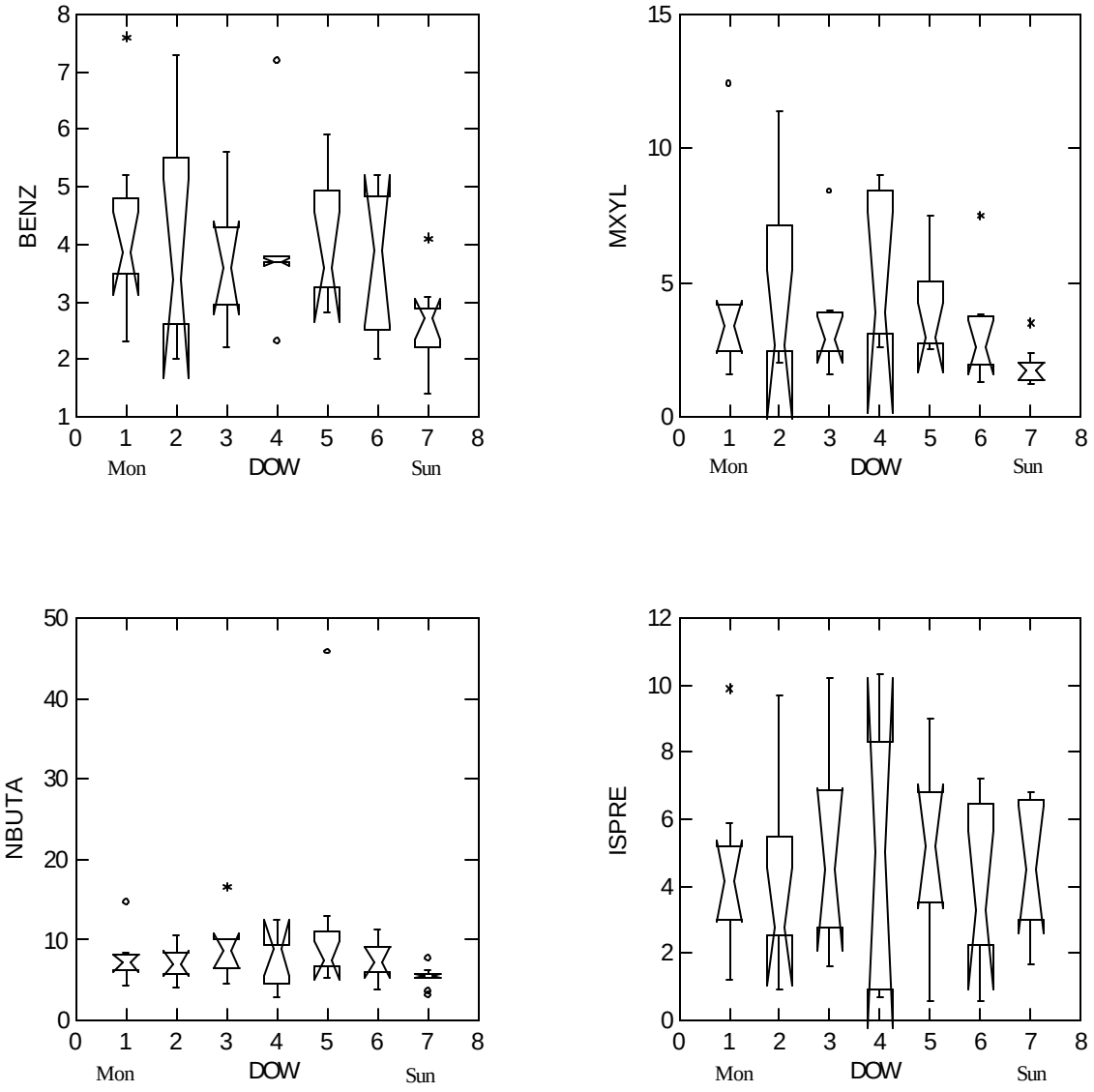
Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Upland in 1999 and 2000 at 0500 PST.

0500 PST



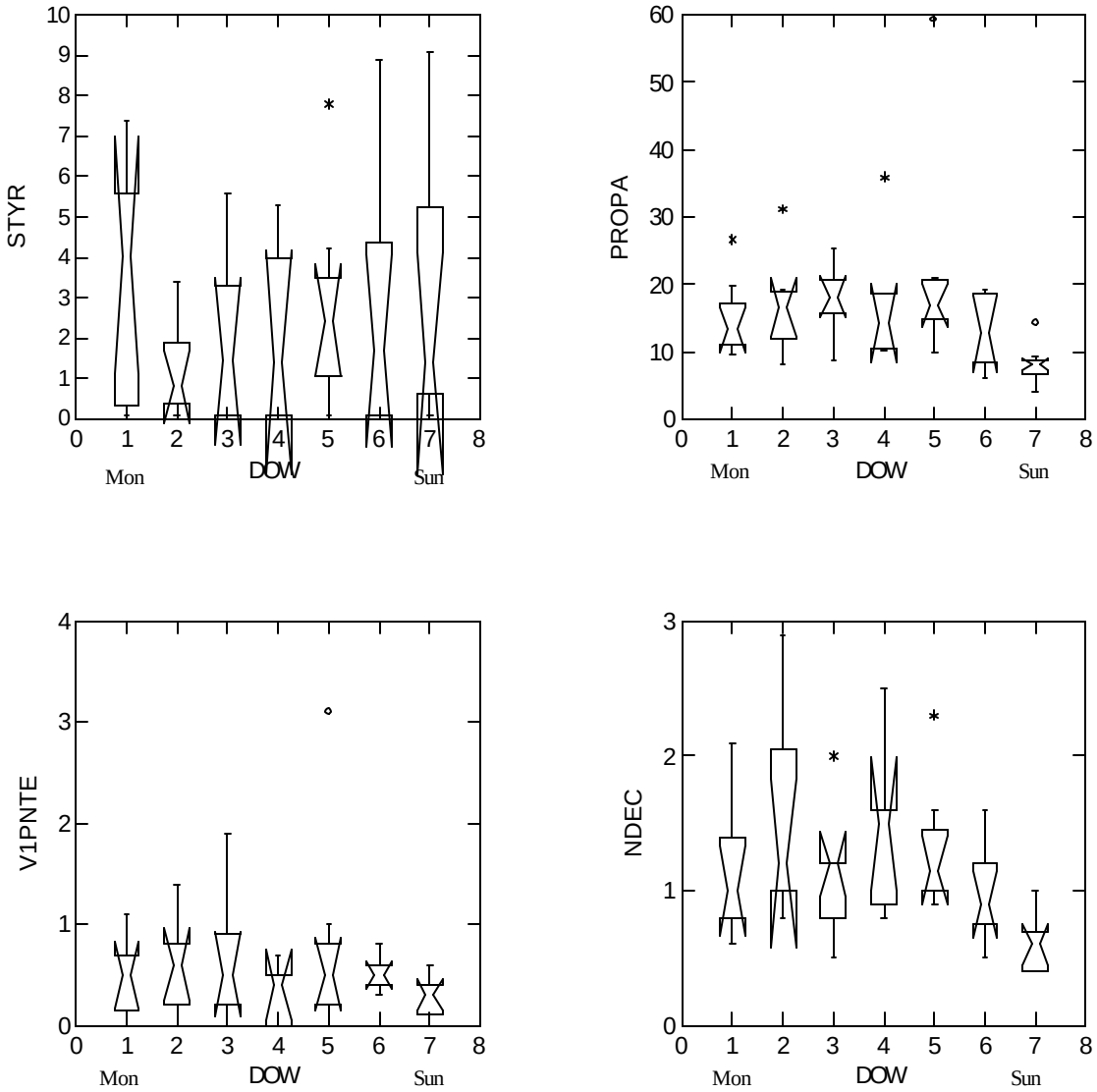
Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Upland in 1999 and 2000 at 0500 PST.

1100 PST



Notched box-whisker plots of benzene (BENZ), m-xylene (MXYL), n-butane (NBUTA), and isoprene (ISPRE) concentrations (ppbC) by day of week (DOW) at Upland in 1999 and 2000 at 1100 PST.

1100 PST



Notched box-whisker plots of styrene (STYR), propane (PROPA), 1-pentene (V1PNTE), and n-decane (NDEC) concentrations (ppbC) by day of week (DOW) at Upland in 1999 and 2000 at 1100 PST.

APPENDIX L

FINGERPRINT PLOTS OF DATA COLLECTED AT LOS ANGELES N. MAIN DURING THE SPECIAL STUDY (SEPTEMBER-OCTOBER 2000)

This appendix contains fingerprint plots of hydrocarbon samples collected at Los Angeles N. Main in September-October 2000. These plots compare concentrations between a weekday (Monday, October 2) and a weekend day (Sunday, October 8). Three types of data are plotted: concentration (ppbC), weight percent (normalized by the total nonmethane organic compound [TNMOC] mass), and reactivity-weighted weight percent (where each weight percent is multiplied by a maximum incremental reactivity-MIR factor). Historical data (1999 and 2000 PAMS season) for Los Angeles N. Main are also included in one plot for perspective.

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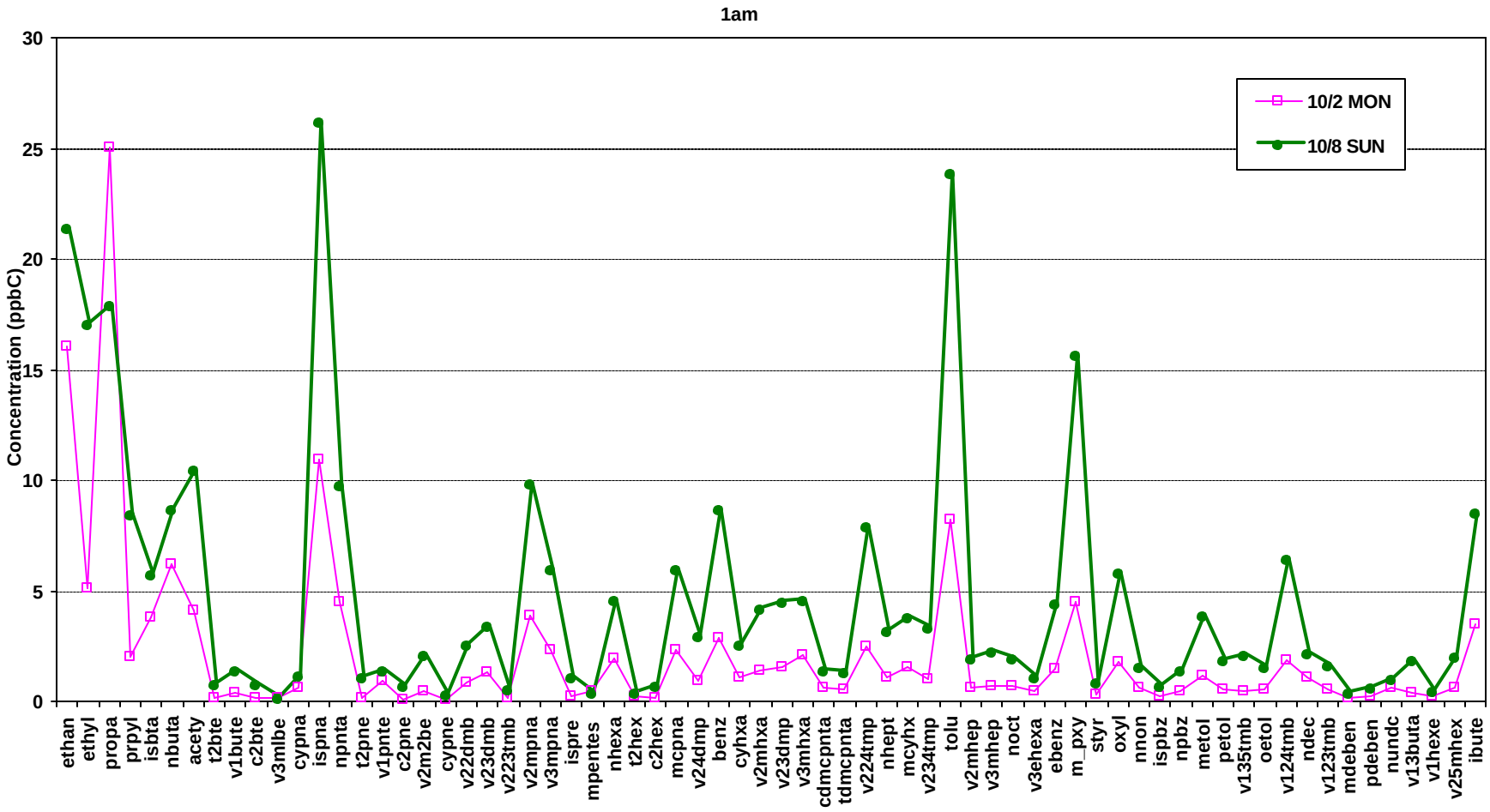
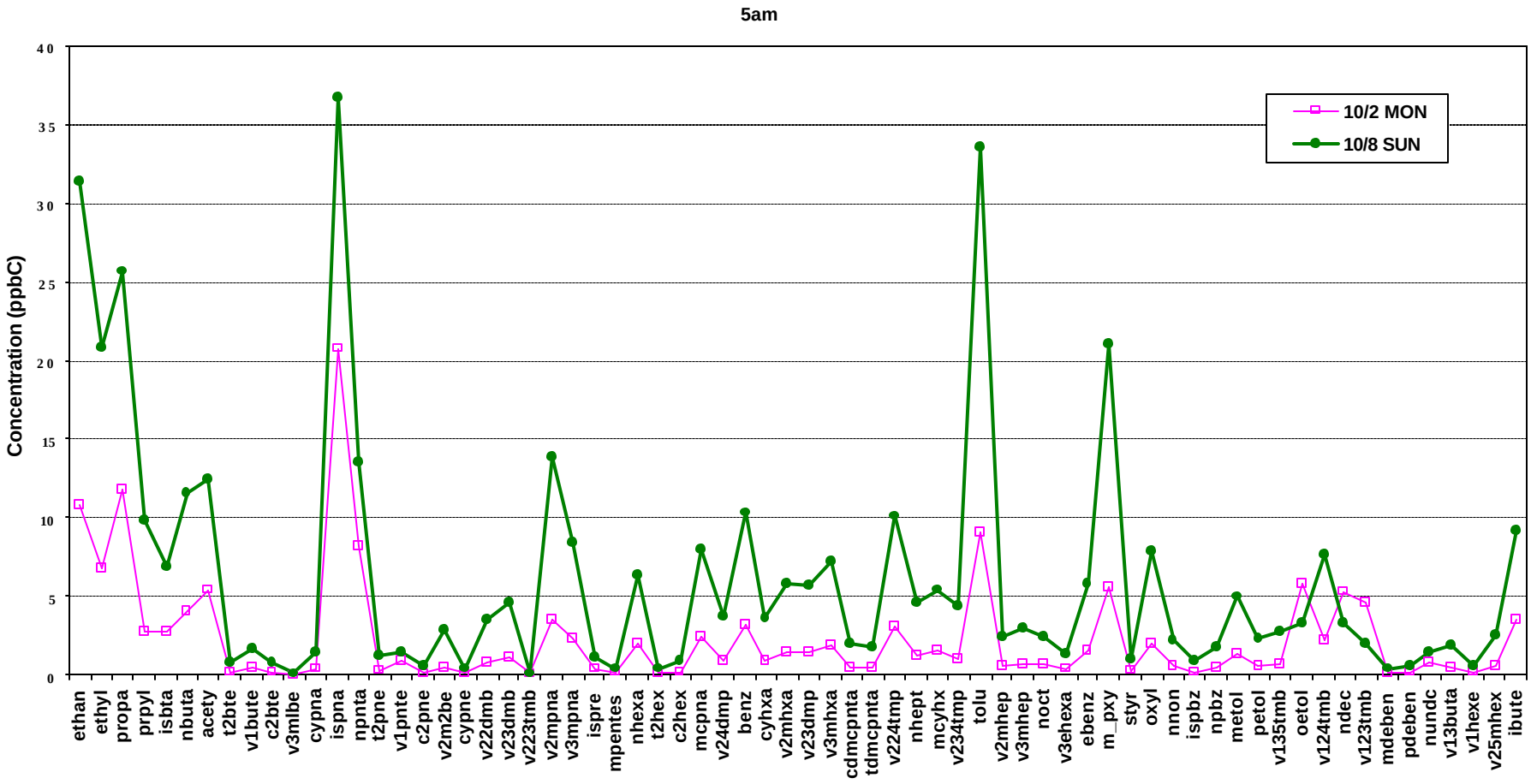
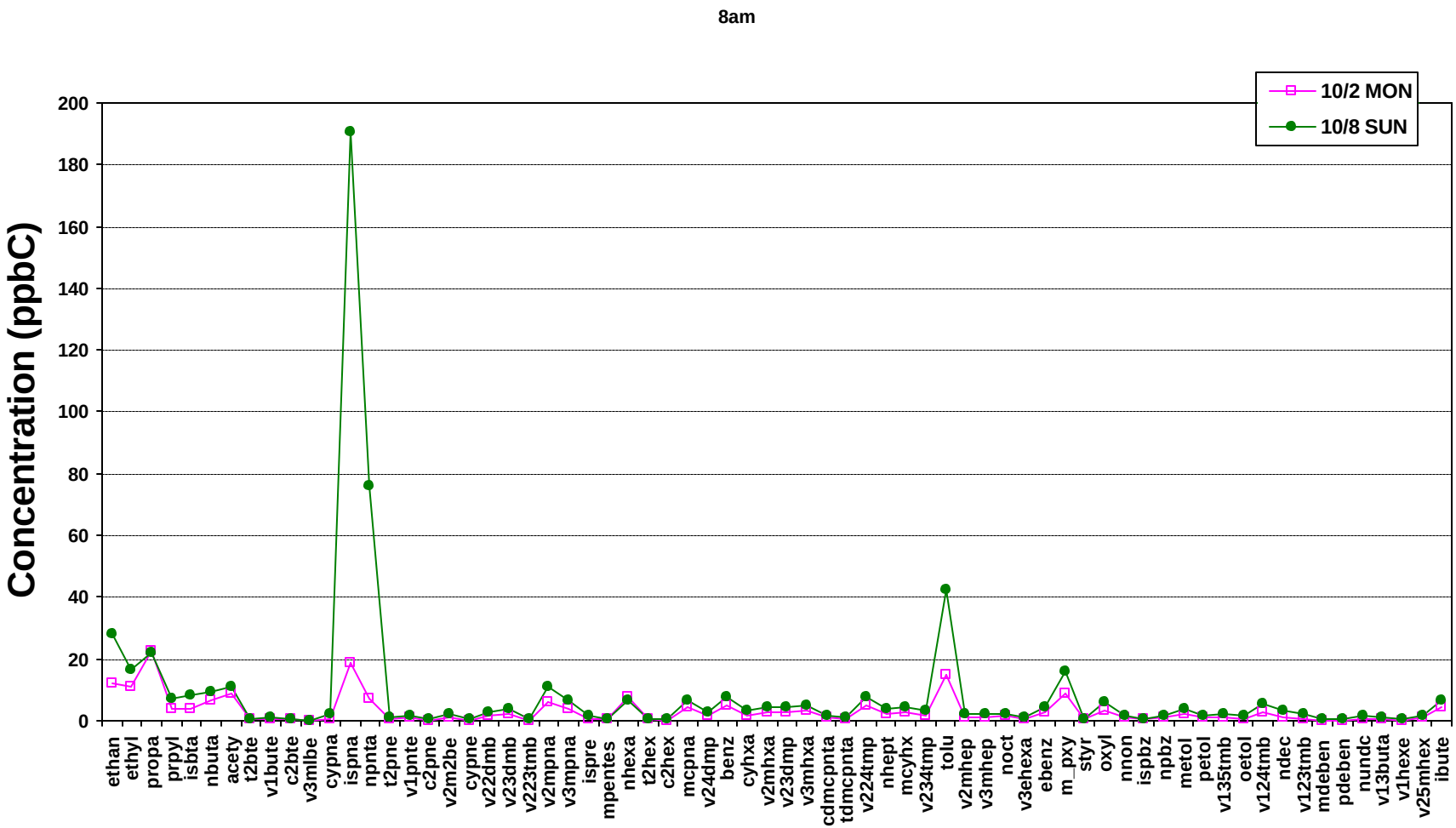
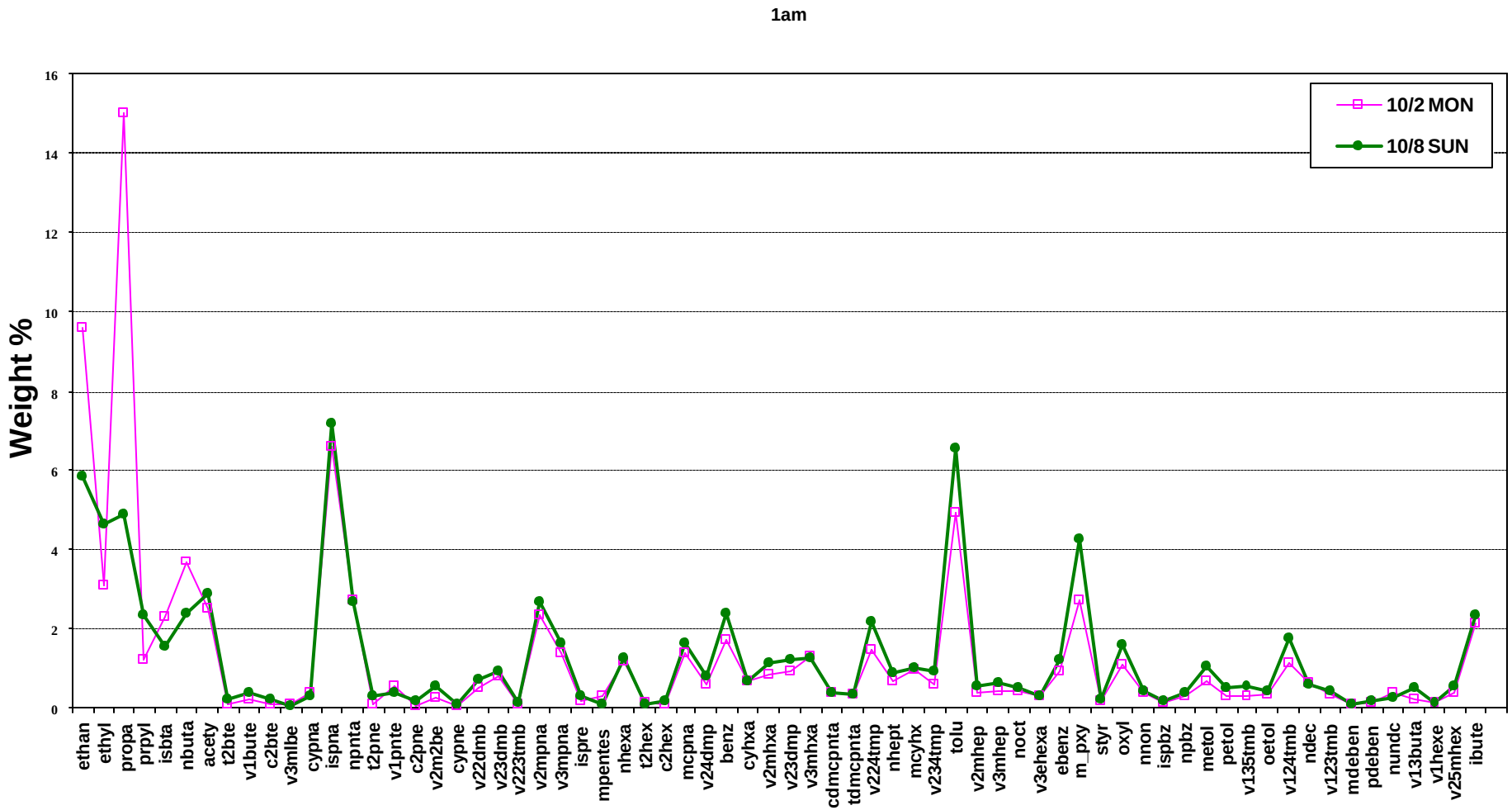
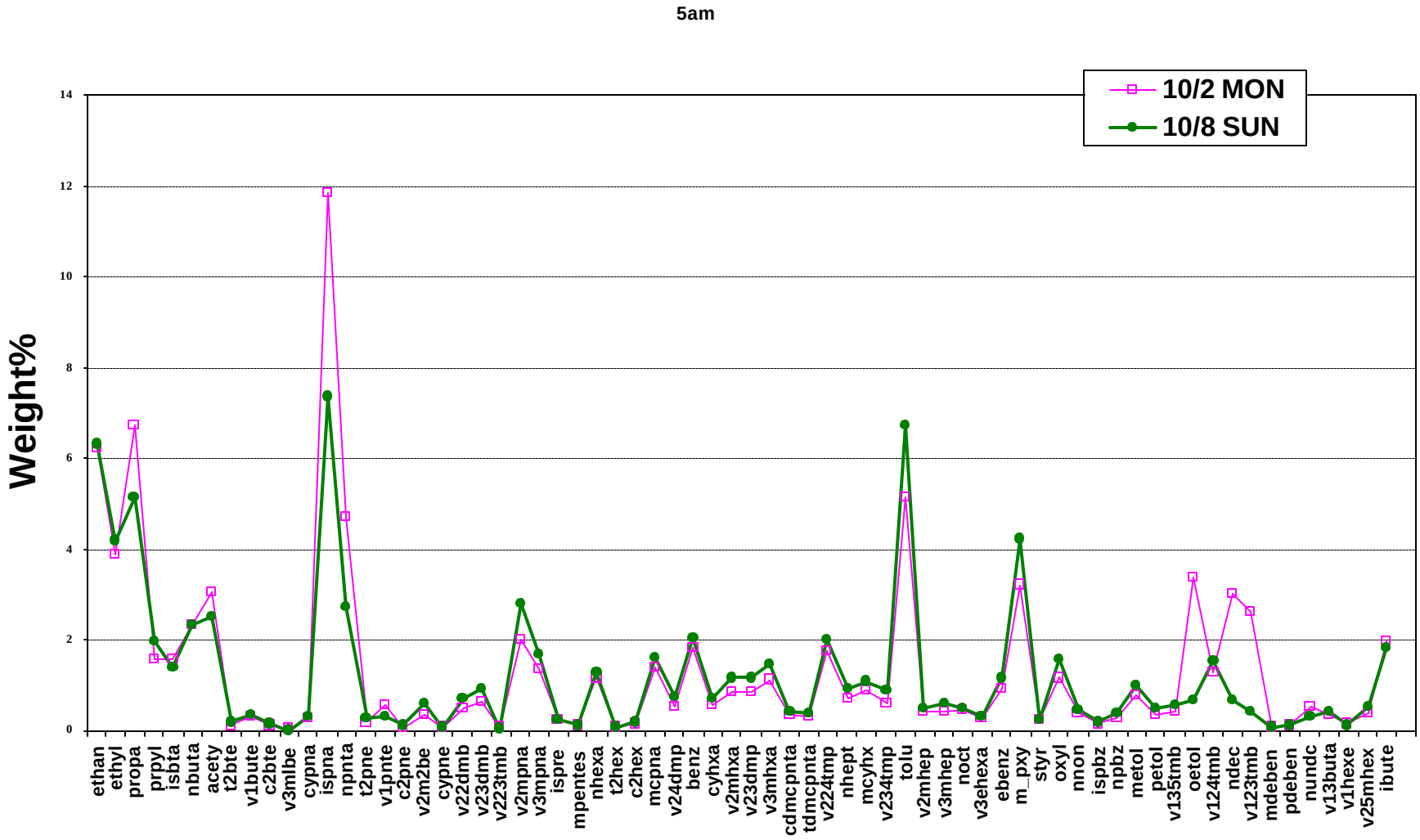
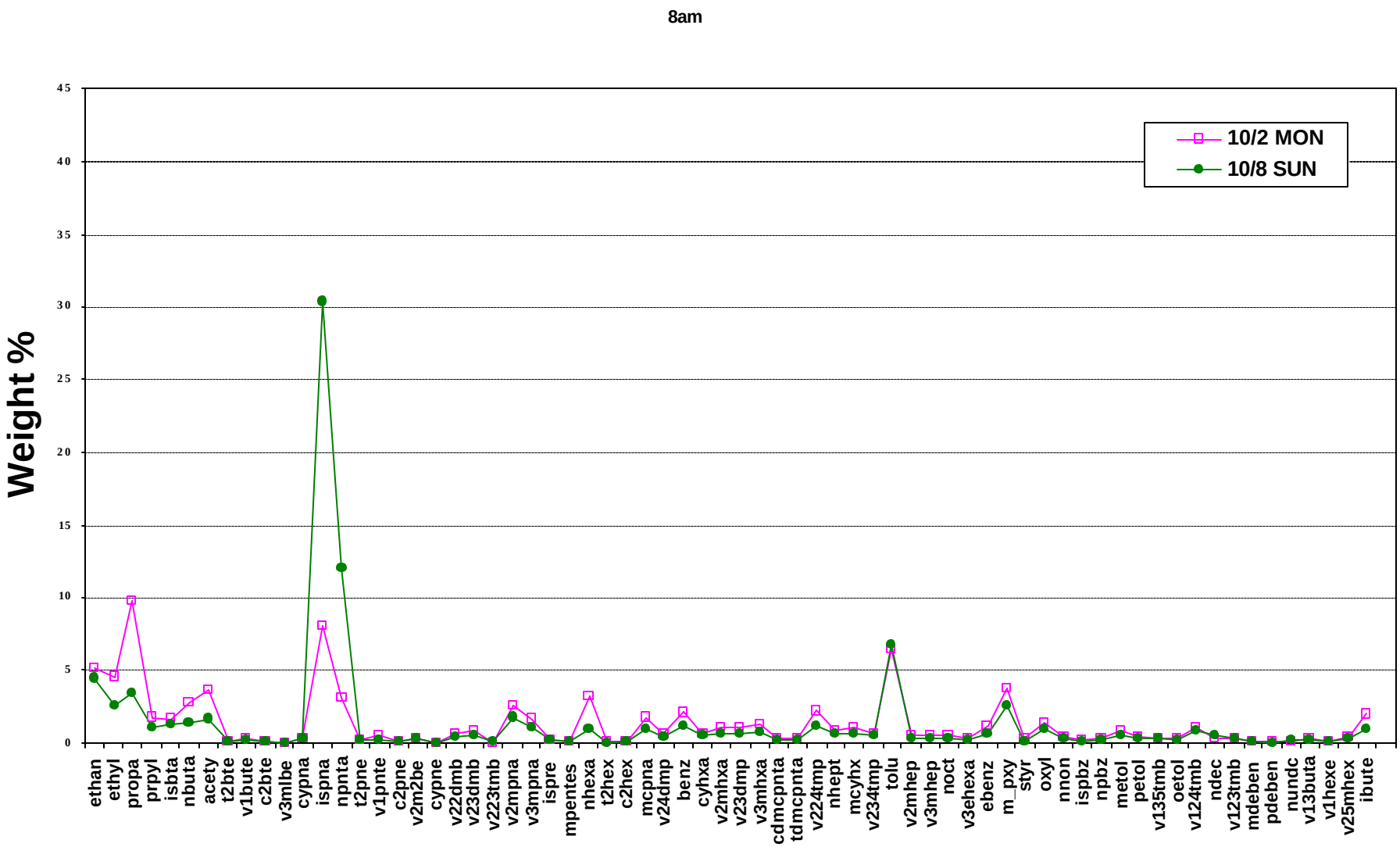

1am
Concentration (ppbC)
30
25
20
15
10
5
0
10/2 MON
10/8 SUN
ethan
ethyl
propa
prpyl
isbta
nbuta
acety
t2bte
v1bute
c2bte
v3mlbe
cypna
ispna
npnta
t2pne
v1pnte
c2pne
v2m2be
cypne
v22dmb
v23dmb
v223tmb
v2mpna
v3mpna
ispre
mpentes
nhexa
t2hex
c2hex
mcpna
v24dmp
benz
cyhxa
v2mhxa
v23dmp
v3mhxa
cdmcpnta
tdmcpnta
v224tmp
nhept
mcyhx
v234tmp
tolu
v2mhep
v3mhep
noct
v3ehexa
ebenz
m_pxy
styr
oxyl
nnon
ispbz
npbz
metol
petol
v135tmb
oetol
v124tmb
ndec
v123tmb
mdeben
pdeben
nundc
v13buta
v1hexe
v25mhex
ibute

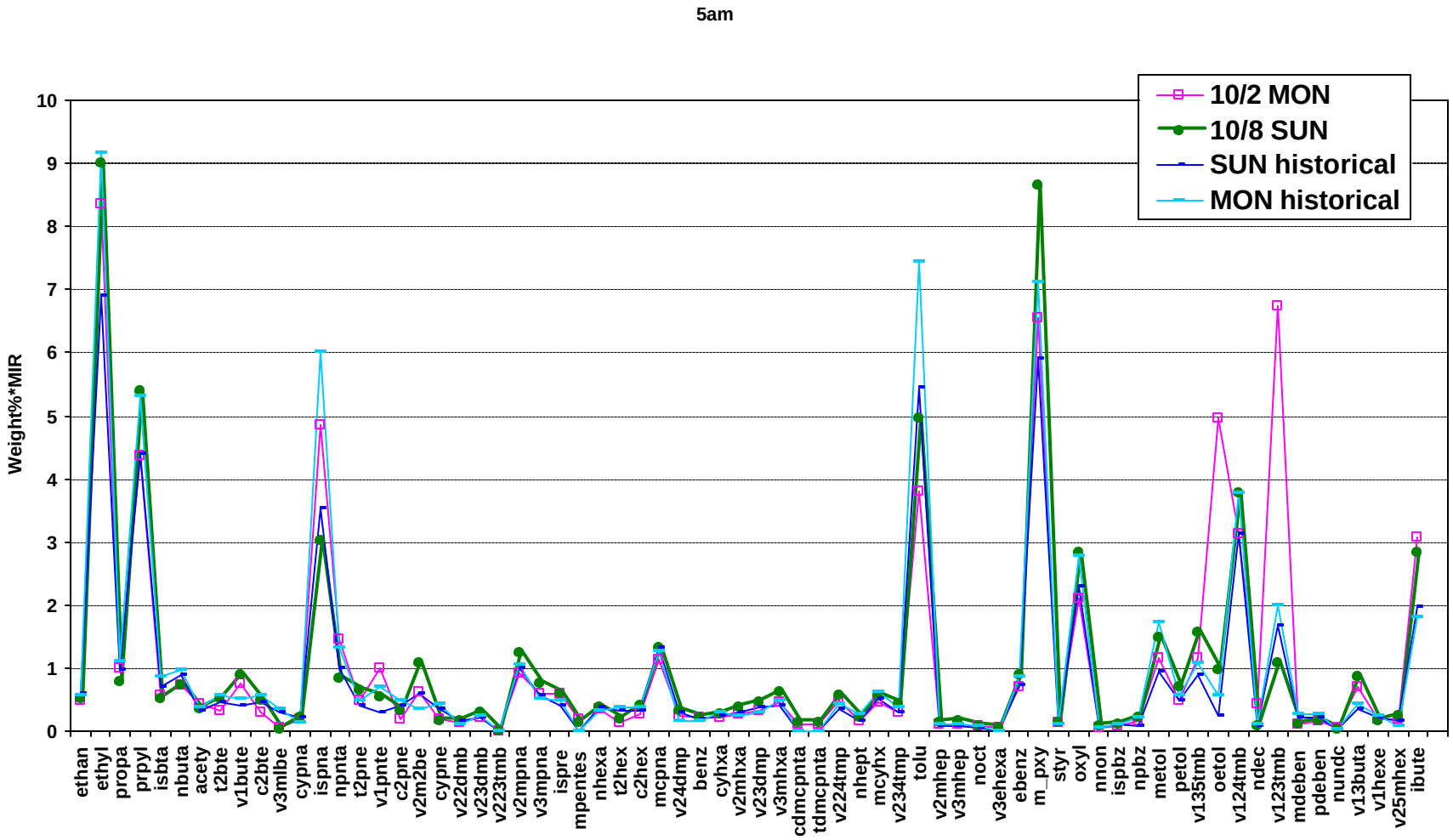

5am
Concentration (ppbC)
40
35
30
25
20
15
10
5
0
10/2 MON
10/8 SUN
ethan
ethyl
propa
prpyl
isbta
nbuta
acety
t2bte
v1bute
c2bte
v3mlbe
cypna
ispna
npnta
t2pne
v1pnte
c2pne
v2m2be
cypne
v22dmb
v23dmb
v223tmb
v2mpna
v3mpna
ispre
mpentes
nhexa
t2hex
c2hex
mcpna
v24dmp
benz
cyhxa
v2mhxa
v23dmp
v3mhxa
cdmcpnta
tdmcpnta
v224tmp
nhept
mcyhx
v234tmp
tolu
v2mhep
v3mhep
noct
v3ehexa
ebenz
m_pxy
styr
oxyl
nnon
ispbz
npbz
metol
petol
v135tmb
oetol
v124tmb
ndec
v123tmb
mdeben
pdeben
nundc
v13buta
v1hexe
v25mhex
ibute

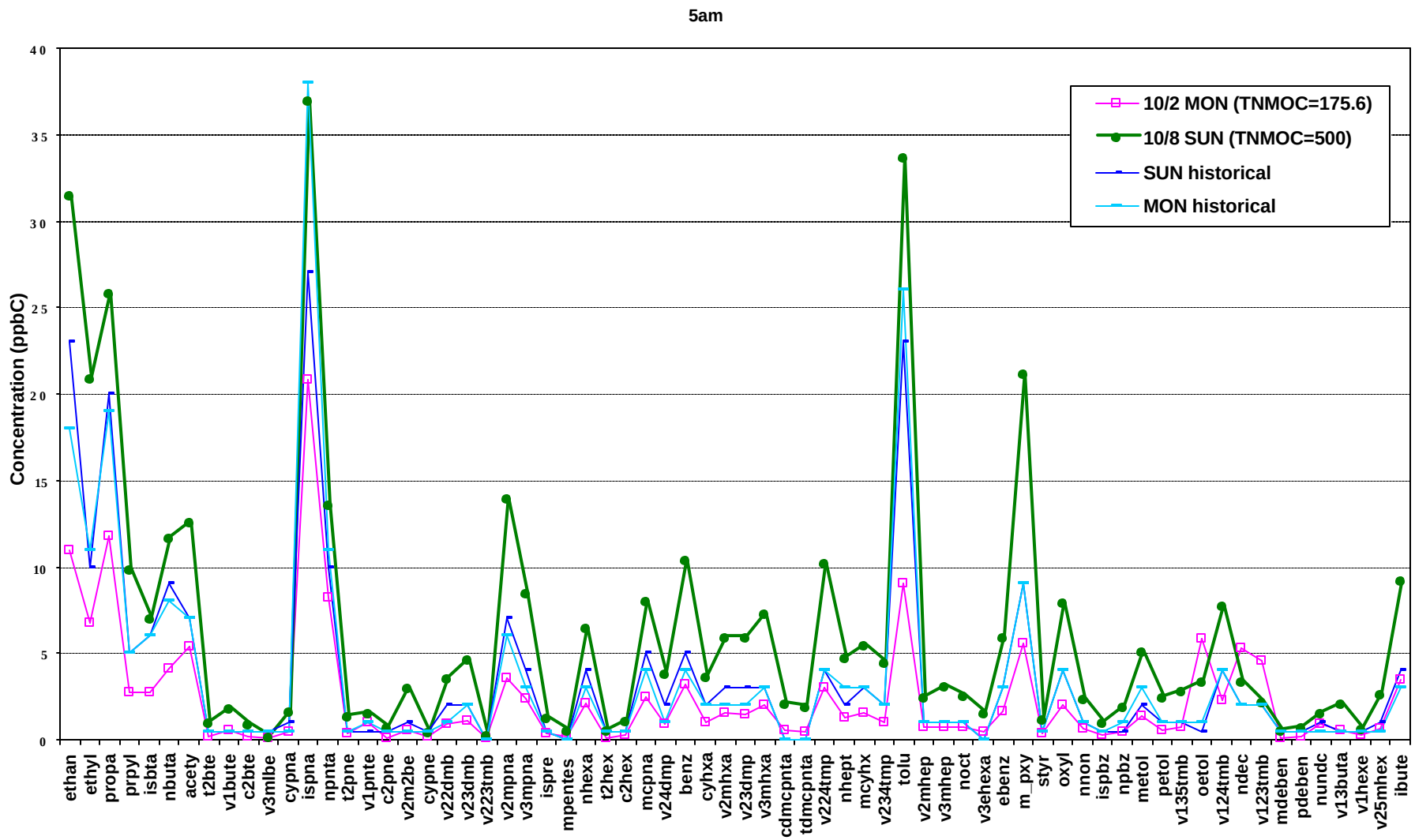

8am
10/2 MON
10/8 SUN
Concentration (ppbC)
200
180
160
140
120
100
80
60
40
20
0
ethan
ethyl
propa
prpyl
isbta
nbuta
acety
t2bte
v1bute
c2bte
v3mlbe
cypna
ispna
npnta
t2pne
v1pnte
c2pne
v2m2be
cypne
v22dmb
v23dmb
v223tmb
v2mpna
v3mpna
ispre
mpentes
nhexa
t2hex
c2hex
mcpna
v24dmp
benz
cyhxa
v2mhxa
v23dmp
v3mhxa
cdmcpnta
tdmcpnta
v224tmp
nhept
mcyhx
v234tmp
tolu
v2mhep
v3mhep
noct
v3ehexa
ebenz
m_pxy
styr
oxyl
nnon
ispbz
npbz
metol
petol
v135tmb
oetol
v124tmb
ndec
v123tmb
mdeben
pdeben
nundc
v13buta
v1hexe
v25mhex
ibute


1am
Weight %
10/2 MON
10/8 SUN
0
2
4
6
8
10
12
14
16
ethan
ethyl
propa
prpyl
isbta
nbuta
acety
t2bte
v1bute
c2bte
v3mlbe
cypna
ispna
npnta
t2pne
v1pnte
c2pne
v2m2be
cypne
v22dmb
v23dmb
v223tmb
v2mpna
v3mpna
ispre
mpentes
nhexa
t2hex
c2hex
mcpna
v24dmp
benz
cyhxa
v2mhxa
v23dmp
v3mhxa
cdmcpnta
tdmcpnta
v224tmp
nhept
mcyhx
v234tmp
tolu
v2mhep
v3mhep
noct
v3ehexa
ebenz
m_pxy
styr
oxyl
nnon
ispbz
npbz
metol
petol
v135tmb
oetol
v124tmb
ndec
v123tmb
mdeben
pdeben
nundc
v13buta
v1hexe
v25mhex
ibute


5am
10/2 MON
10/8 SUN
Weight%
0
2
4
6
8
10
12
14
ethan
ethyl
propa
prpyl
isbta
nbuta
acety
t2bte
v1bute
c2bte
v3mlbe
cypna
ispna
npnta
t2pne
v1pnte
c2pne
v2m2be
cypne
v22dmb
v23dmb
v223tmb
v2mpna
v3mpna
ispre
mpentes
nhexa
t2hex
c2hex
mcpna
v24dmp
benz
cyhxa
v2mhxa
v23dmp
v3mhxa
cdmcpnta
tdmcpnta
v224tmp
nhept
mcyhx
v234tmp
tolu
v2mhep
v3mhep
noct
v3ehexa
ebenz
m_pxy
styr
oxyl
nnon
ispbz
npbz
metol
petol
v135tmb
oetol
v124tmb
ndec
v123tmb
mdeben
pdeben
nundc
v13buta
v1hexe
v25mhex
ibute


8am
Weight %
45
40
35
30
25
20
15
10
5
0
10/2 MON
10/8 SUN
ethan
ethyl
propa
prpyl
isbta
nbuta
acety
t2bte
v1bute
c2bte
v3mlbe
cypna
ispna
npnta
t2pne
v1pnte
c2pne
v2m2be
cypne
v22dmb
v23dmb
v223tmb
v2mpna
v3mpna
ispre
mpentes
nhexa
t2hex
c2hex
mcpna
v24dmp
benz
cyhxa
v2mhxa
v23dmp
v3mhxa
cdmcpnta
tdmcpnta
v224tmp
nhept
mcyhx
v234tmp
tolu
v2mhep
v3mhep
noct
v3ehexa
ebenz
m_pxy
styr
oxyl
nnon
ispbz
npbz
metol
petol
v135tmb
oetol
v124tmb
ndec
v123tmb
mdeben
pdeben
nundc
v13buta
v1hexe
v25mhex
ibute


5am
10/2 MON
10/8 SUN
SUN historical
MON historical
Weight%*MIR
0
1
2
3
4
5
6
7
8
9
10
ethan
ethyl
propa
prpyl
isbta
nbuta
acety
t2bte
v1bute
c2bte
v3mlbe
cypna
ispna
npnta
t2pne
v1pnte
c2pne
v2m2be
cypne
v22dmb
v23dmb
v223tmb
v2mpna
v3mpna
ispre
mpentes
nhexa
t2hex
c2hex
mcpna
v24dmp
benz
cyhxa
v2mhxa
v23dmp
v3mhxa
cdmcpnta
tdmcpnta
v224tmp
nhept
mcyhx
v234tmp
tolu
v2mhep
v3mhep
noct
v3ehexa
ebenz
m_pxy
styr
oxyl
nnon
ispbz
npbz
metol
petol
v135tmb
oetol
v124tmb
ndec
v123tmb
mdeben
pdeben
nundc
v13buta
v1hexe
v25mhex
ibute


5am
Concentration (ppbC)
40
35
30
25
20
15
10
5
0
10/2 MON (TNMOC=175.6)
10/8 SUN (TNMOC=500)
SUN historical
MON historical
ethan
ethyl
propa
prpyl
isbta
nbuta
acety
t2bte
v1bute
c2bte
v3mlbe
cypna
ispna
npnta
t2pne
v1pnte
c2pne
v2m2be
cypne
v22dmb
v23dmb
v223tmb
v2mpna
v3mpna
ispre
mpentes
nhexa
t2hex
c2hex
mcpna
v24dmp
benz
cyhxa
v2mhxa
v23dmp
v3mhxa
cdmcpnta
tdmcpnta
v224tmp
nhept
mcyhx
v234tmp
tolu
v2mhep
v3mhep
noct
v3ehexa
ebenz
m_pxy
styr
oxyl
nnon
ispbz
npbz
metol
petol
v135tmb
oetol
v124tmb
ndec
v123tmb
mdeben
pdeben
nundc
v13buta
v1hexe
v25mhex
ibute