Figure 1. Stomatal response functions for theta and VPD.

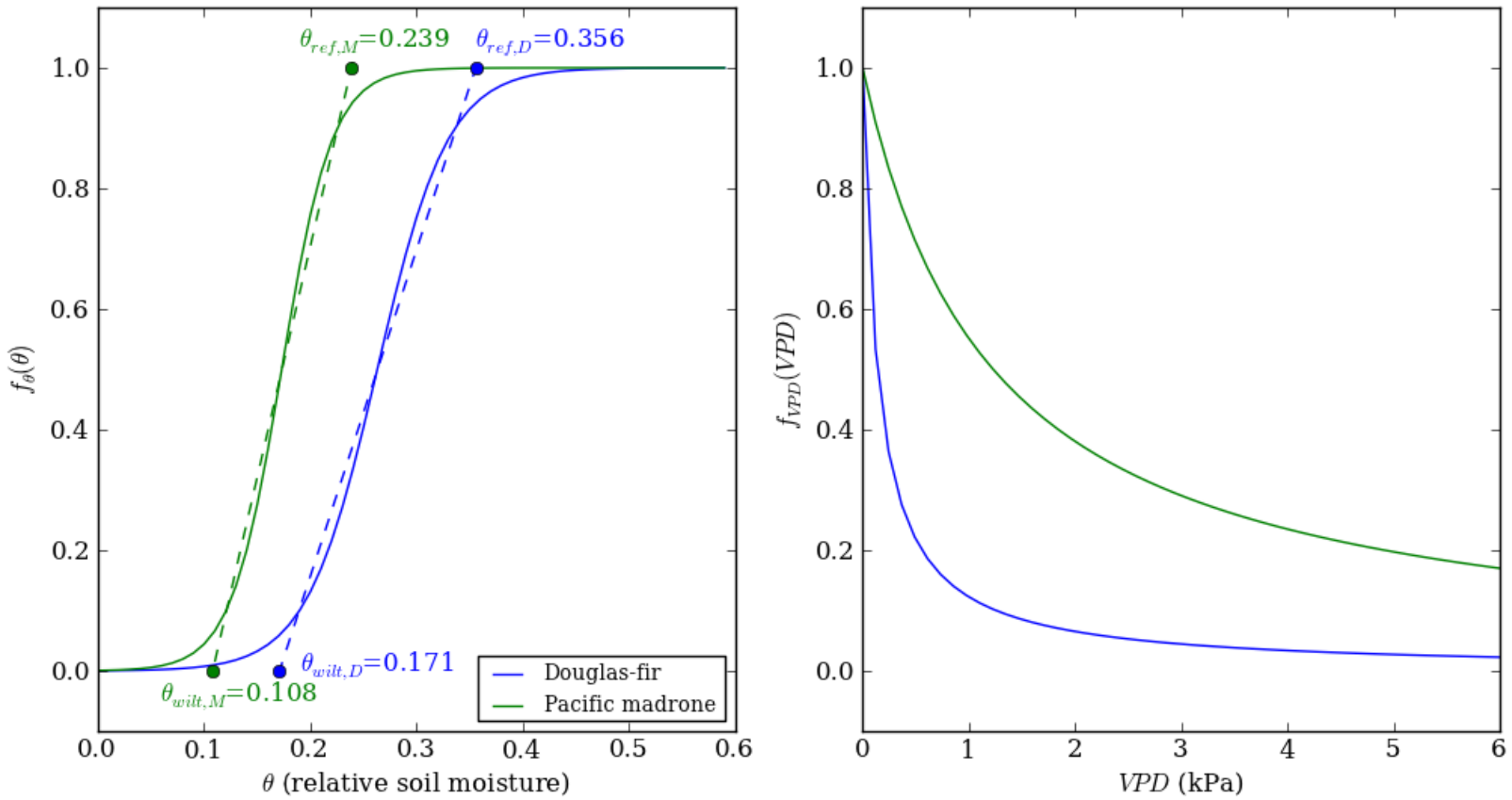


Table 1. Stomatal response parameters for Douglas-fir and Pacific madrone, as in **Equation XX**

Species	g_{cmax}/α (kPa^{-1})	D_o (kPa)	β (unitless)	θ_o (unitless)	γ ($(W/m^2)^{-1}$)
Douglas-fir	7.23	0.14	30	0.263	5.44E-04
Pacific madrone	1.02	1.23	42	0.173	7.20E-04

Figure 2.

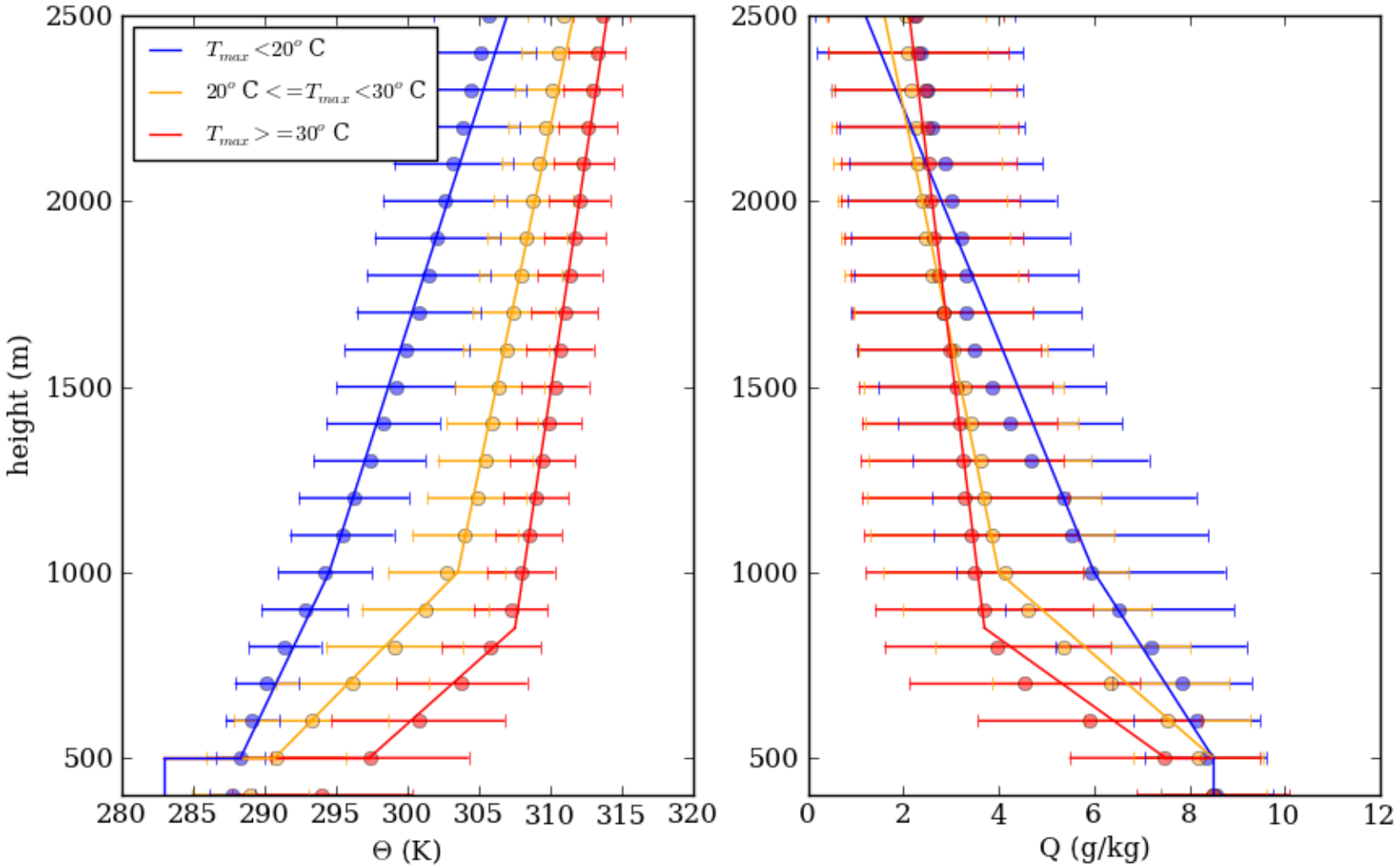

T_{max} <20° C
20° C <= T_{max} <30° C
T_{max} >=30° C
height (m)
2500
2000
1500
1000
500
280
285
290
295
300
305
310
315
320
Θ (K)
0
2
4
6
8
10
12
Q (g/kg)

Table 2.

Variable	Range tested	
	1-D model	WRF
Relative soil moisture		
Synoptic conditions	3 free troposphere lapse rates (Figure XX)	LIST RANGE OF DAYS TESTED
Stomatal response	1. f_theta parameters differ by species, f_VPD and f_rad the same between species (set to douglas fir parameters); 2. f_VPD parameters differ by species, f_theta and f_rad the same between species (f_theta set to madrone parameters, f_rad set to douglas fir parameter); 3. f_theta, f_VPD, and f_rad parameters differ by species	1. f_theta parameters differ by species (theta_ref and theta_wilt shown in Figure XX and Table XX), default Noah f_VPD parameters for needleleaf evergreen forest; 2. f_theta and f_VPD parameters vary by species (listed in Table XX)

Figure 3. WRF model domain and experimental region.
NOT MADE YET.

Figure 4.

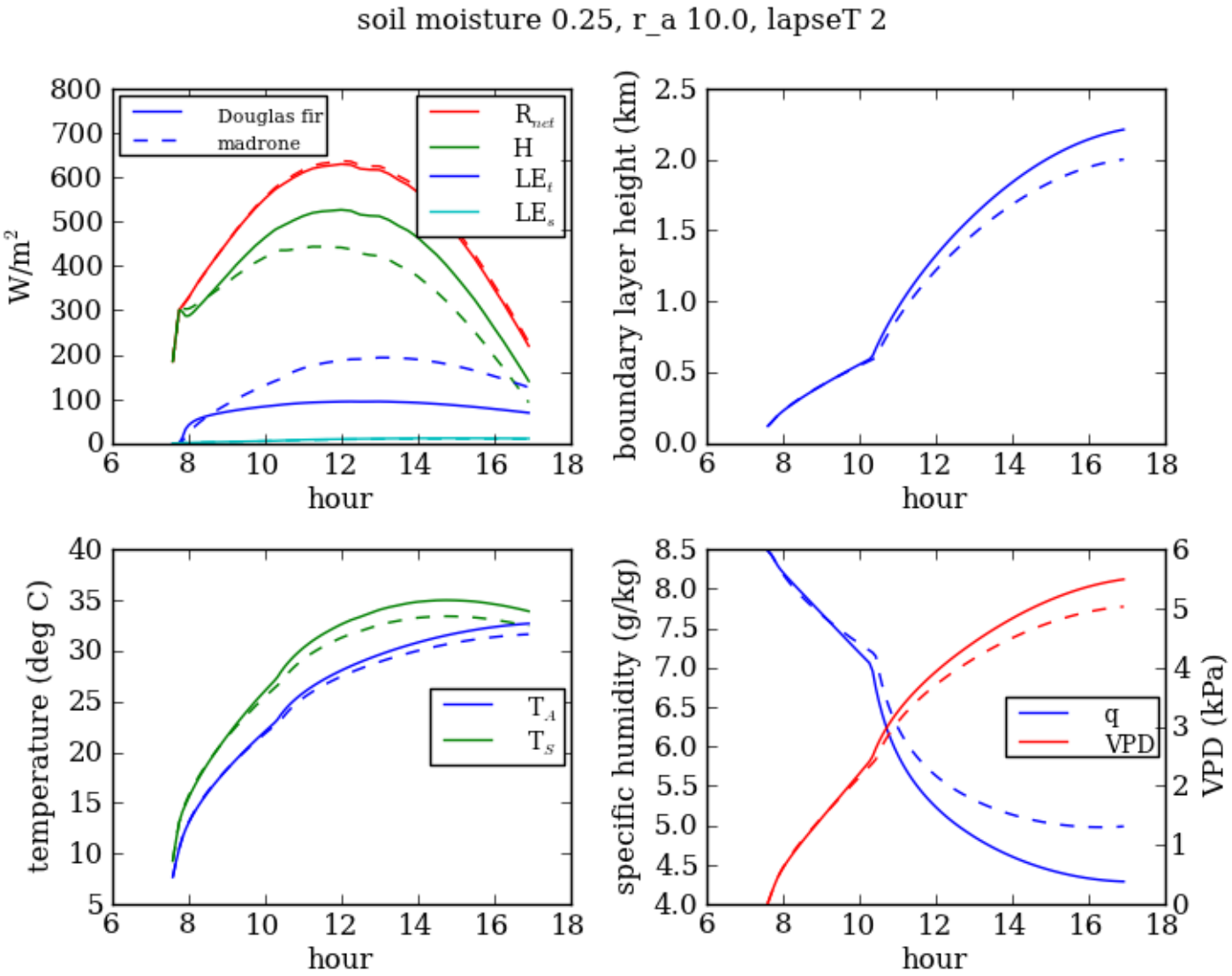

soil moisture 0.25, r_a 10.0, lapseT 2
Douglas fir
madrone
R_{net}
H
LE_t
LE_s
W/m^2
hour
boundary layer height (km)
hour
temperature (deg C)
T_A
T_S
hour
specific humidity (g/kg)
q
VPD
VPD (kPa)
hour

Figure 5.

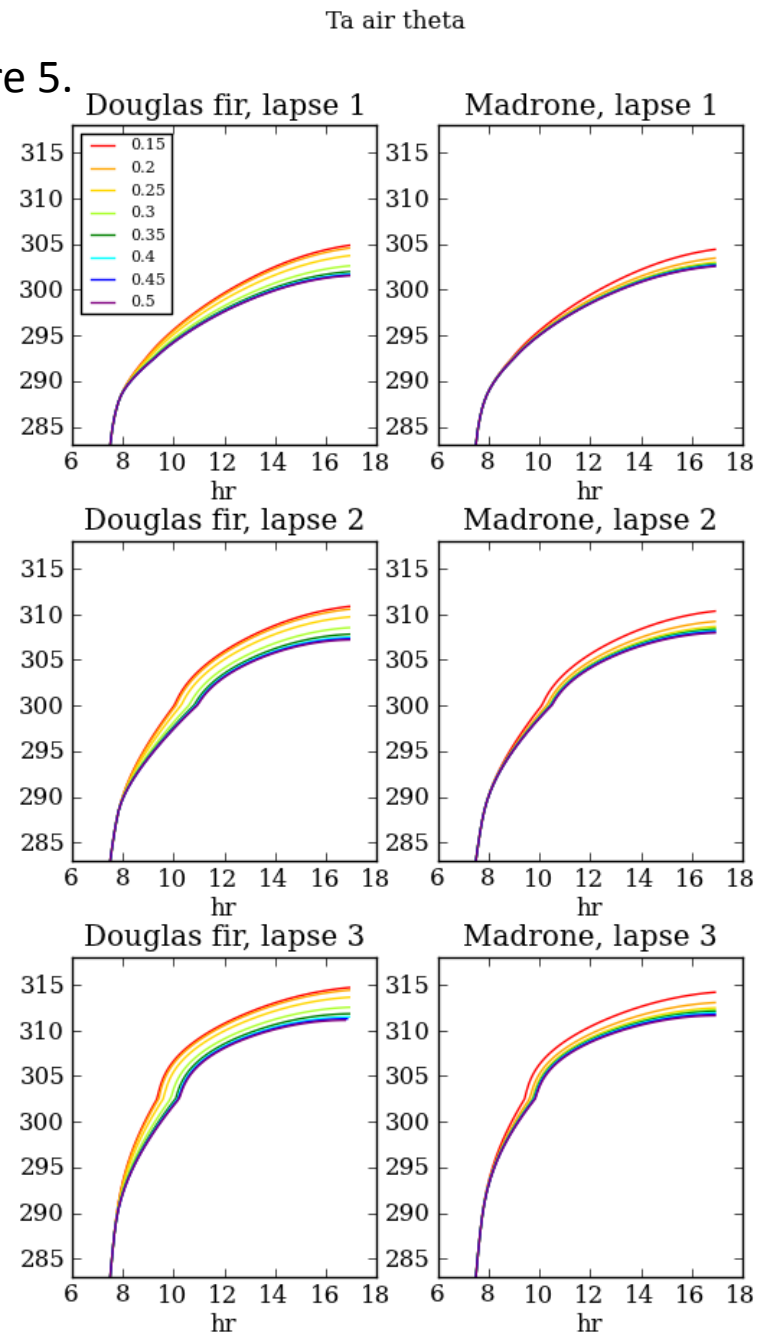


Figure 6.

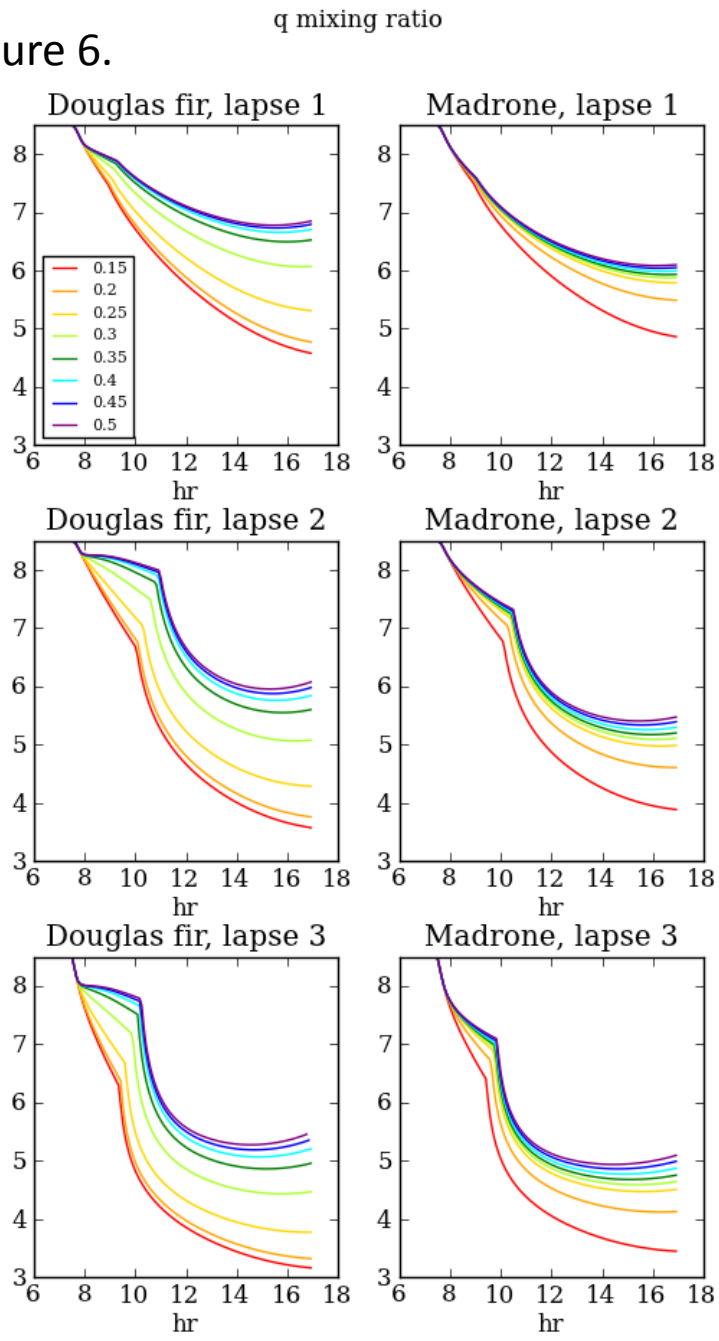


Figure 7.

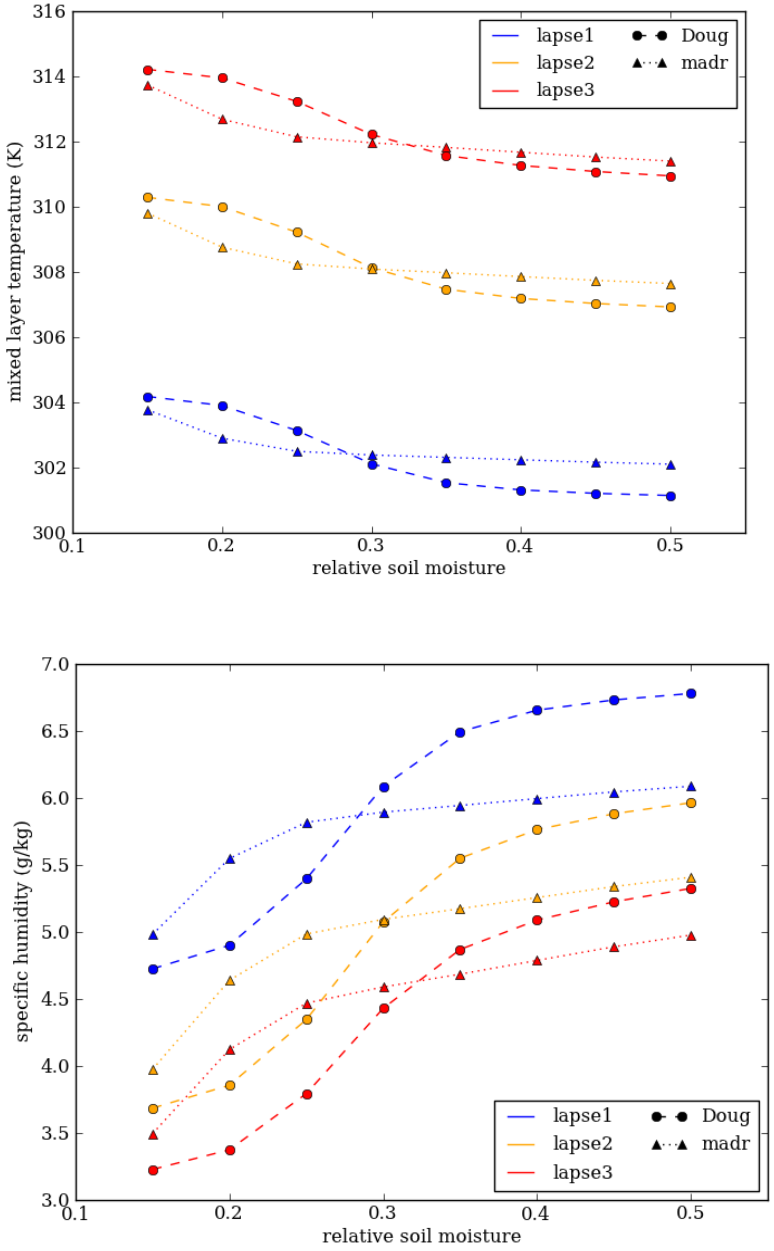

mixed layer temperature (K)
relative soil moisture
lapse1
lapse2
lapse3
Doug
madr
specific humidity (g/kg)
relative soil moisture
lapse1
lapse2
lapse3
Doug
madr

Figure 8.

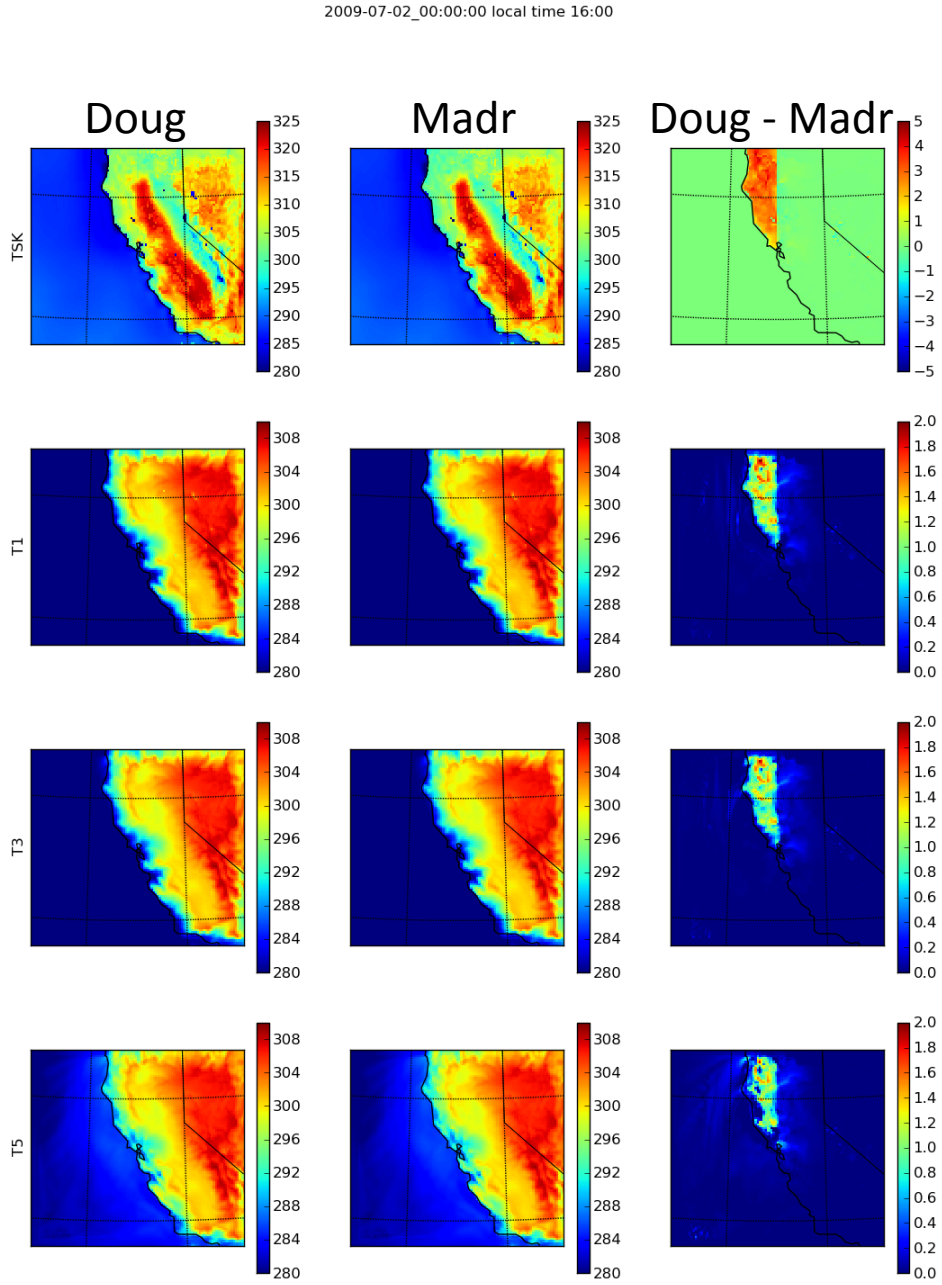

2009-07-02_00:00:00 local time 16:00
Doug
Madr
Doug - Madr
Skin T
T atm lev 1
T atm lev 3
T atm lev 5
TSK
T1
T3
T5

Figure 9.

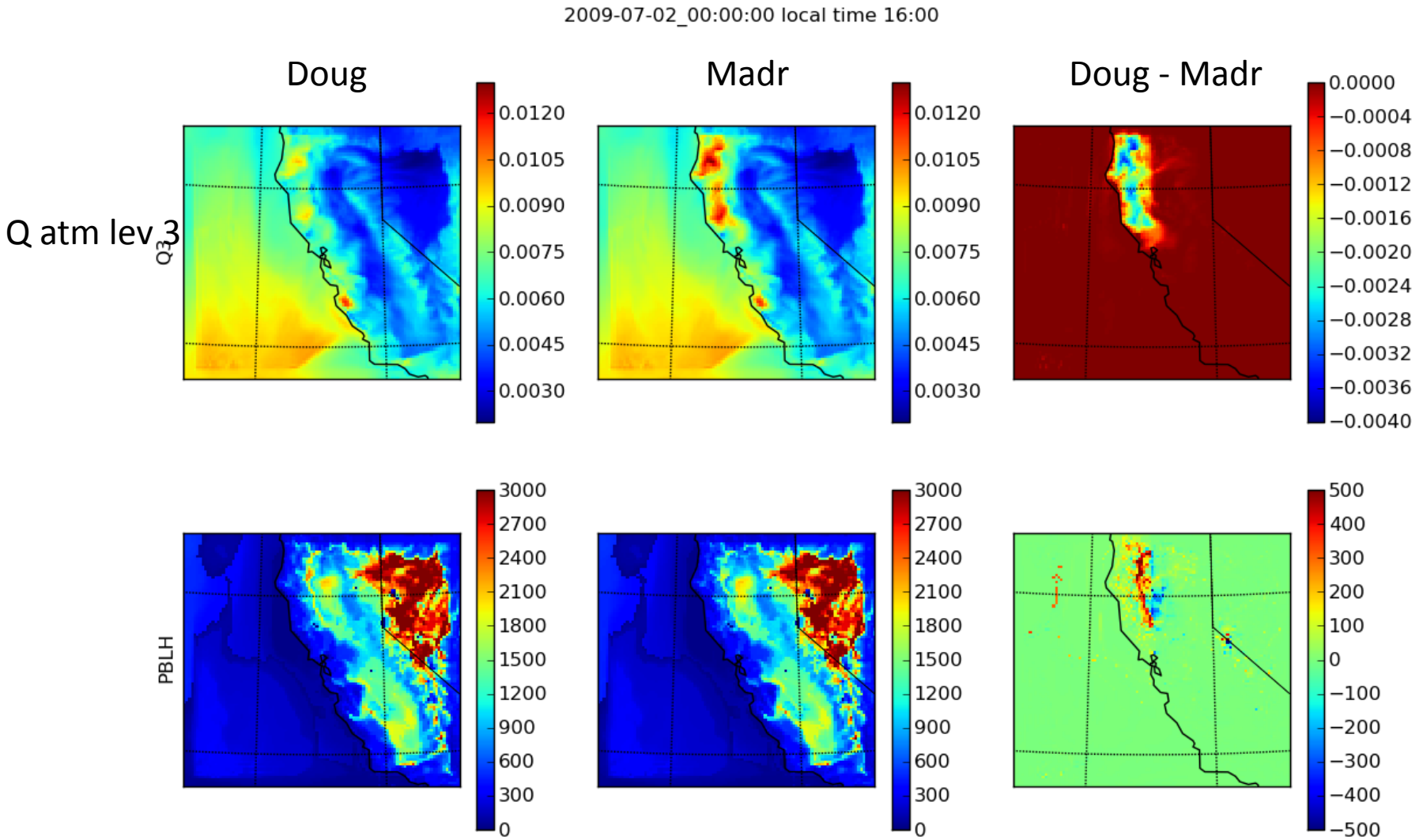
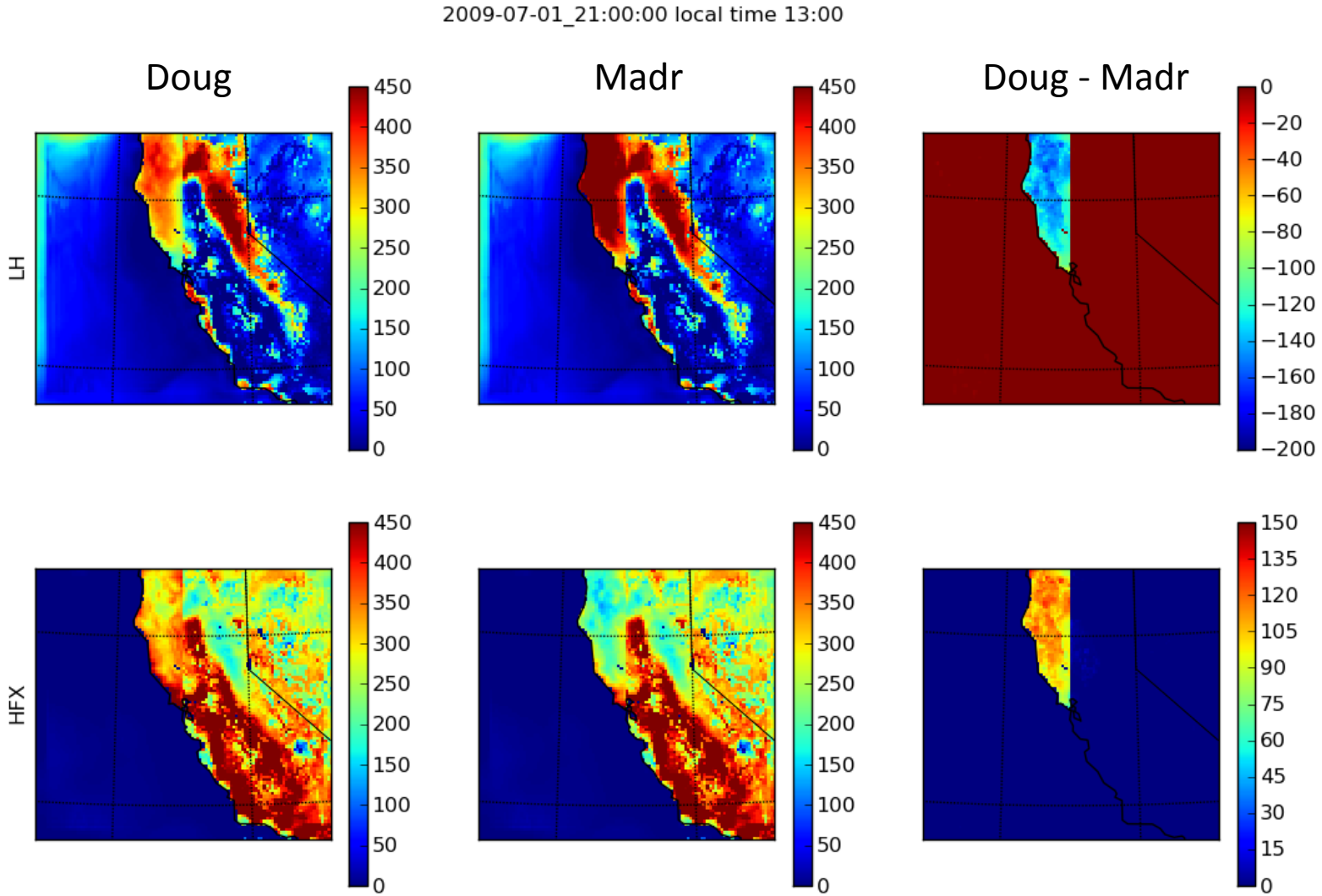

2009-07-02_00:00:00 local time 16:00
Doug
Madr
Doug - Madr
Q atm lev 3
Q3
0.0120
0.0105
0.0090
0.0075
0.0060
0.0045
0.0030
0.0000
−0.0004
−0.0008
−0.0012
−0.0016
−0.0020
−0.0024
−0.0028
−0.0032
−0.0036
−0.0040
PBLH
3000
2700
2400
2100
1800
1500
1200
900
600
300
0
500
400
300
200
100
0
−100
−200
−300
−400
−500

Figure 10.


2009-07-01_21:00:00 local time 13:00
Doug
Madr
Doug - Madr
LH
HFX
450
400
350
300
250
200
150
100
50
0
−20
−40
−60
−80
−100
−120
−140
−160
−180
−200
135
120
105
90
75
60
45
30
15