Col de la Porte

Model: GEOtop v3.0 Compiler: gcc version 4.8.4 (Ubuntu 4.8.4-2ubuntu1~14.04.1) Processor: Intel(R) Core(TM) i7-5500U CPU @ 2.40GHz Author: Stefano Endrizzi (stefano.end@gmail.com),Emanuele Cordano (emanuele.cordano@rendena100.eu) Date: 25-11-2016

Name: ColdelaPorte Description: Simulation 1D over the Col de la Porte dataset to test the capability of GEOotp to simulate snow depth, snow water equivalent, soil temperature.

Results published in: First result with GEOtop v 2.0 are illustrated in the report XXX (Endrizzi et al. (2014) , supplemantary material). The following simulated variables have been tested against observations:

- Liquid Precipitation Intensity (Rain);
- Solid Precipitation Intensity (Snow);
- Snow Height (Snow Dapth);
- Snow Water Equivalent;
- Soil Temperature at 10 cm depth;
- Soil temparature at 20 cm depth;
- Soil Temparature at 50 cm depth;
- Surface Temparature ;
- Albedo .

Simulation duration:

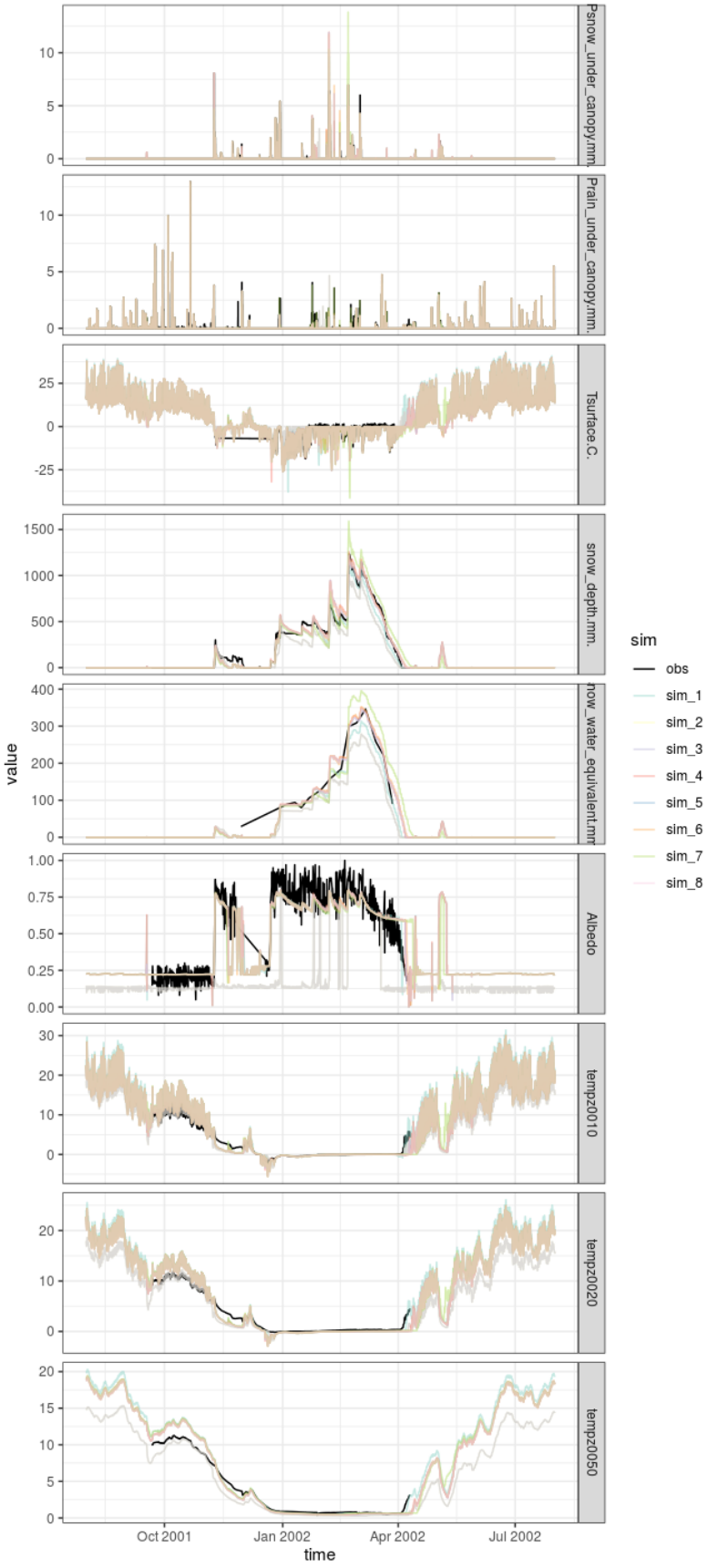
```
InitDateDDMMYYYYhhmm   = 01/01/1997 00:00
EndDateDDMMYYYYhhmm    = 31/12/2011 23:00

### Output:
PointOutputFile = "output-tabs/surface"
```

Observations:

Snow heigth mm, Snow Water Equivalent mm(NOT FOUND), T surface C, T soil 10cm C,T soil 20cm C,T soil 50cm C see Morin et al. (2012).

Winter 2001/2002

Here is a comparison plot:

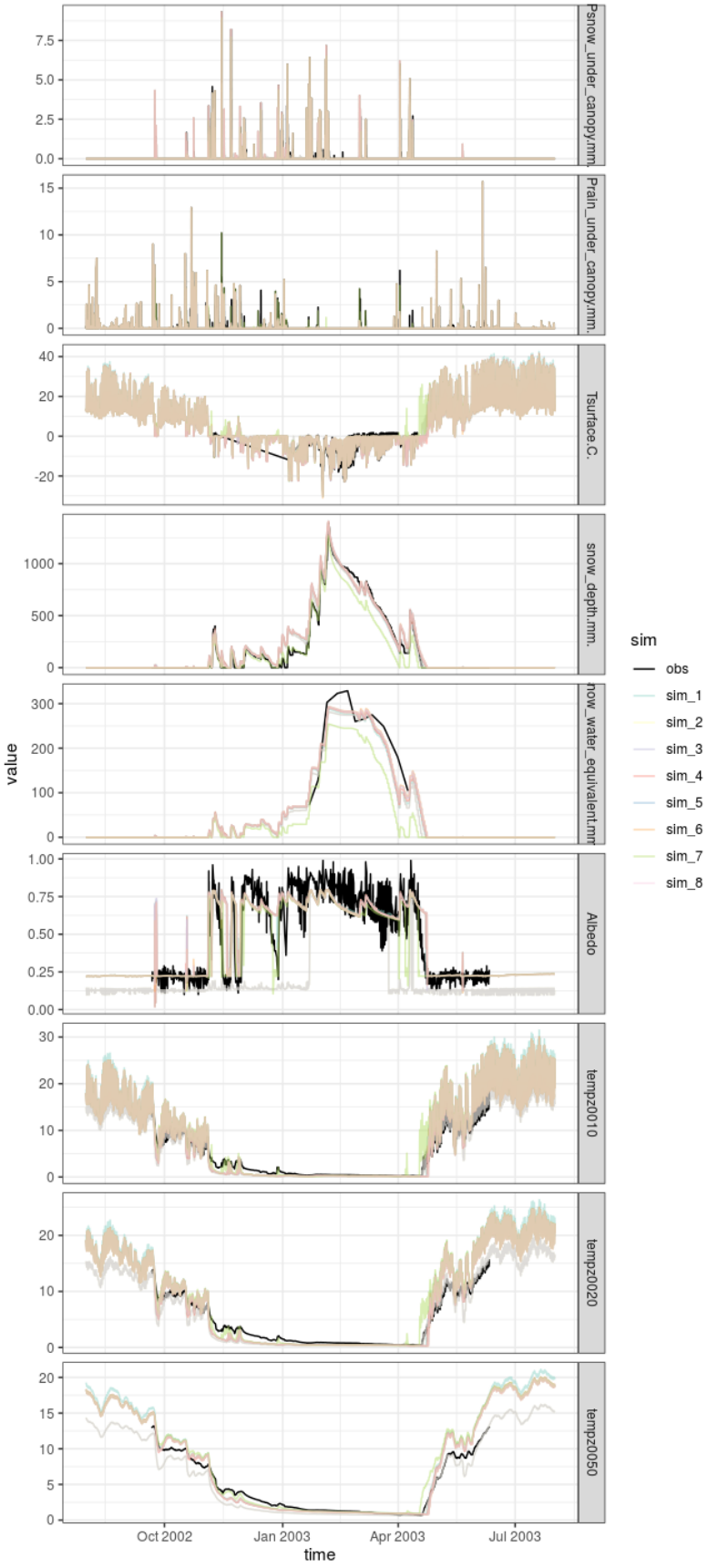

Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
snow_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
time
Oct 2001
Jan 2002
Apr 2002
Jul 2002
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.02	0.03	0.00	0.00	
obs	RMSE	0.18	0.24	0.00	0.00	
obs	KGE	0.84	0.89	1.00	1.00	
sim_1	MAE	0.04	0.09	1.80	39.70	
sim_1	RMSE	0.29	0.44	2.80	58.69	
sim_1	KGE	0.49	0.62	0.73	0.88	
sim_2	MAE	0.04	0.11	2.48	74.62	
sim_2	RMSE	0.26	0.50	3.59	109.77	
sim_2	KGE	0.61	0.51	0.66	0.67	
sim_3	MAE	0.04	0.11	2.48	74.62	
sim_3	RMSE	0.26	0.50	3.59	109.77	
sim_3	KGE	0.61	0.51	0.66	0.67	
sim_4	MAE	0.05	0.11	1.93	35.45	
sim_4	RMSE	0.34	0.50	2.73	57.19	
sim_4	KGE	0.35	0.52	0.77	0.92	
sim_5	MAE	0.05	0.11	1.96	32.69	
sim_5	RMSE	0.34	0.50	2.87	53.12	
sim_5	KGE	0.35	0.52	0.74	0.96	
sim_6	MAE	0.05	0.11	2.12	33.02	
sim_6	RMSE	0.35	0.50	3.21	52.25	
sim_6	KGE	0.30	0.52	0.69	0.95	
sim_7	MAE	0.05	0.11	2.12	56.79	
sim_7	RMSE	0.38	0.50	3.36	82.81	
sim_7	KGE	0.19	0.54	0.66	0.85	
sim_8	MAE	0.05	0.11	1.96	32.69	
sim_8	RMSE	0.34	0.50	2.87	53.12	
sim_8	KGE	0.35	0.52	0.74	0.96	

Winter 2002/2003

Here is a comparison plot:

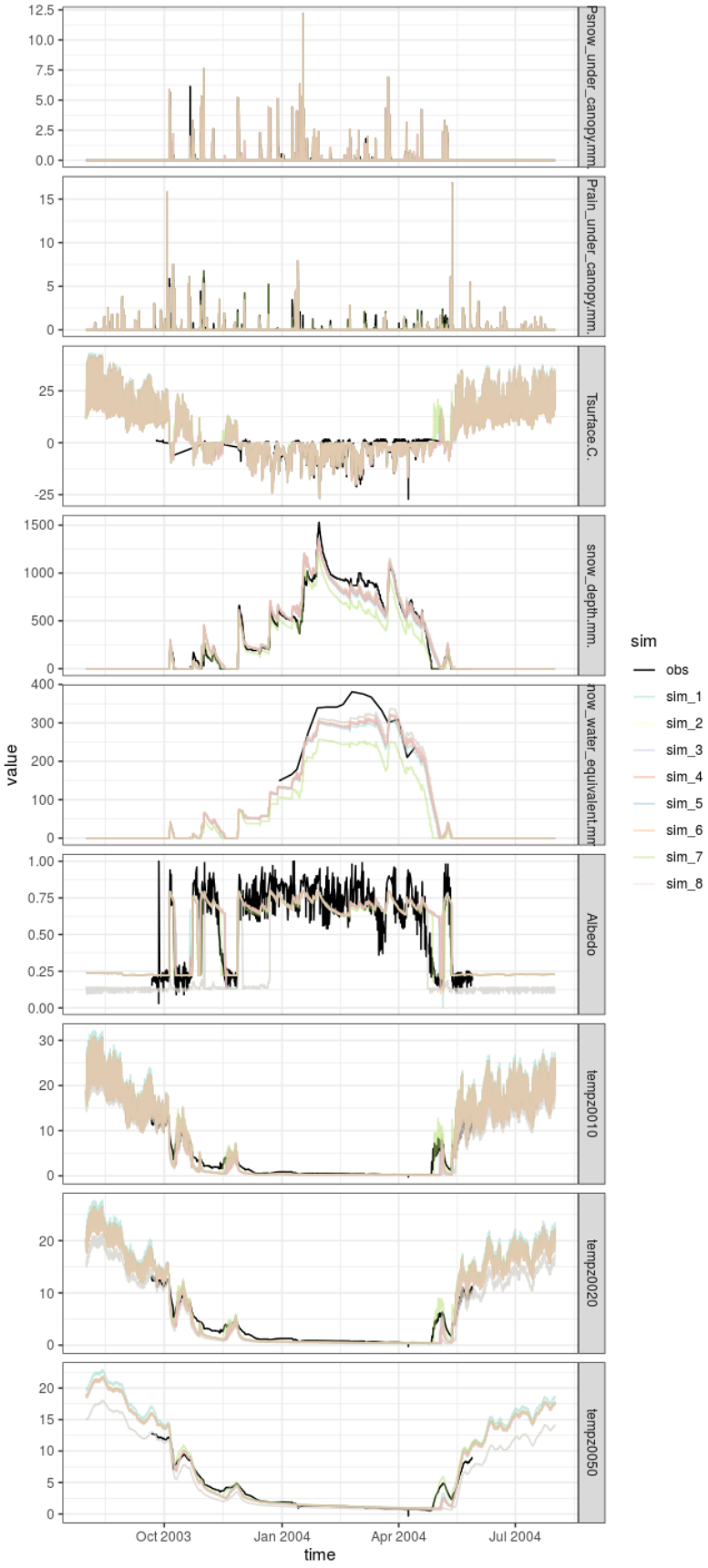

Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
snow_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
time
Oct 2002
Jan 2003
Apr 2003
Jul 2003
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.03	0.05	0.00	0.00	
obs	RMSE	0.25	0.37	0.00	0.00	
obs	KGE	0.75	0.81	1.00	1.00	
sim_1	MAE	0.07	0.13	1.59	41.63	
sim_1	RMSE	0.40	0.61	2.09	70.46	
sim_1	KGE	0.35	0.48	0.88	0.89	
sim_2	MAE	0.07	0.14	1.82	35.17	
sim_2	RMSE	0.34	0.66	2.57	60.56	
sim_2	KGE	0.46	0.37	0.84	0.93	
sim_3	MAE	0.07	0.14	1.82	35.17	
sim_3	RMSE	0.34	0.66	2.57	60.56	
sim_3	KGE	0.46	0.37	0.84	0.93	
sim_4	MAE	0.08	0.15	1.92	42.59	
sim_4	RMSE	0.45	0.67	2.65	73.22	
sim_4	KGE	0.25	0.37	0.85	0.87	
sim_5	MAE	0.08	0.15	1.87	42.88	
sim_5	RMSE	0.45	0.67	2.59	75.05	
sim_5	KGE	0.25	0.37	0.86	0.86	
sim_6	MAE	0.08	0.15	1.85	42.42	
sim_6	RMSE	0.45	0.67	2.56	74.94	
sim_6	KGE	0.25	0.37	0.87	0.86	
sim_7	MAE	0.07	0.15	1.81	52.08	
sim_7	RMSE	0.40	0.68	2.51	87.90	
sim_7	KGE	0.42	0.40	0.85	0.77	
sim_8	MAE	0.08	0.15	1.87	42.88	
sim_8	RMSE	0.45	0.67	2.59	75.05	
sim_8	KGE	0.25	0.37	0.86	0.86	

Winter 2003/2004

Here is a comparison plot:

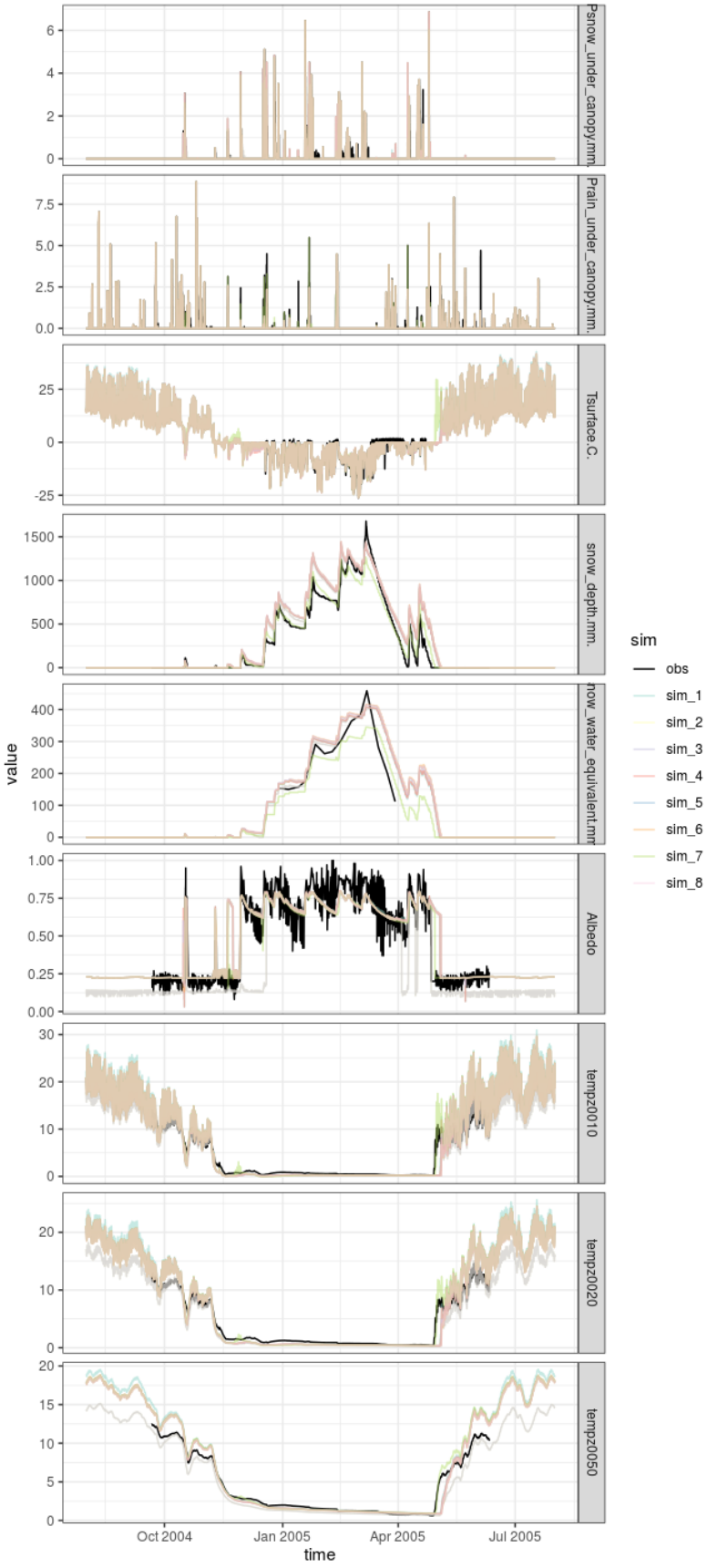

Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
now_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
time
Oct 2003
Jan 2004
Apr 2004
Jul 2004
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.04	0.04	0.00	0.00	
obs	RMSE	0.28	0.35	0.00	0.00	
obs	KGE	0.75	0.74	1.00	1.00	
sim_1	MAE	0.08	0.10	1.43	66.53	
sim_1	RMSE	0.43	0.55	1.99	91.76	
sim_1	KGE	0.38	0.39	0.90	0.90	
sim_2	MAE	0.08	0.11	1.61	57.40	
sim_2	RMSE	0.41	0.57	2.33	83.33	
sim_2	KGE	0.44	0.33	0.88	0.94	
sim_3	MAE	0.08	0.11	1.61	57.40	
sim_3	RMSE	0.41	0.57	2.33	83.33	
sim_3	KGE	0.44	0.33	0.88	0.94	
sim_4	MAE	0.09	0.11	1.68	64.19	
sim_4	RMSE	0.48	0.58	2.41	88.80	
sim_4	KGE	0.31	0.33	0.87	0.92	
sim_5	MAE	0.09	0.11	1.66	62.63	
sim_5	RMSE	0.48	0.58	2.38	86.69	
sim_5	KGE	0.31	0.33	0.87	0.92	
sim_6	MAE	0.09	0.11	1.66	61.65	
sim_6	RMSE	0.48	0.58	2.37	85.53	
sim_6	KGE	0.31	0.33	0.87	0.93	
sim_7	MAE	0.08	0.12	1.64	103.74	
sim_7	RMSE	0.45	0.58	2.34	146.30	
sim_7	KGE	0.42	0.37	0.88	0.71	
sim_8	MAE	0.09	0.11	1.66	62.63	
sim_8	RMSE	0.48	0.58	2.38	86.69	
sim_8	KGE	0.31	0.33	0.87	0.92	

Winter 2004/2005

Here is a comparison plot:

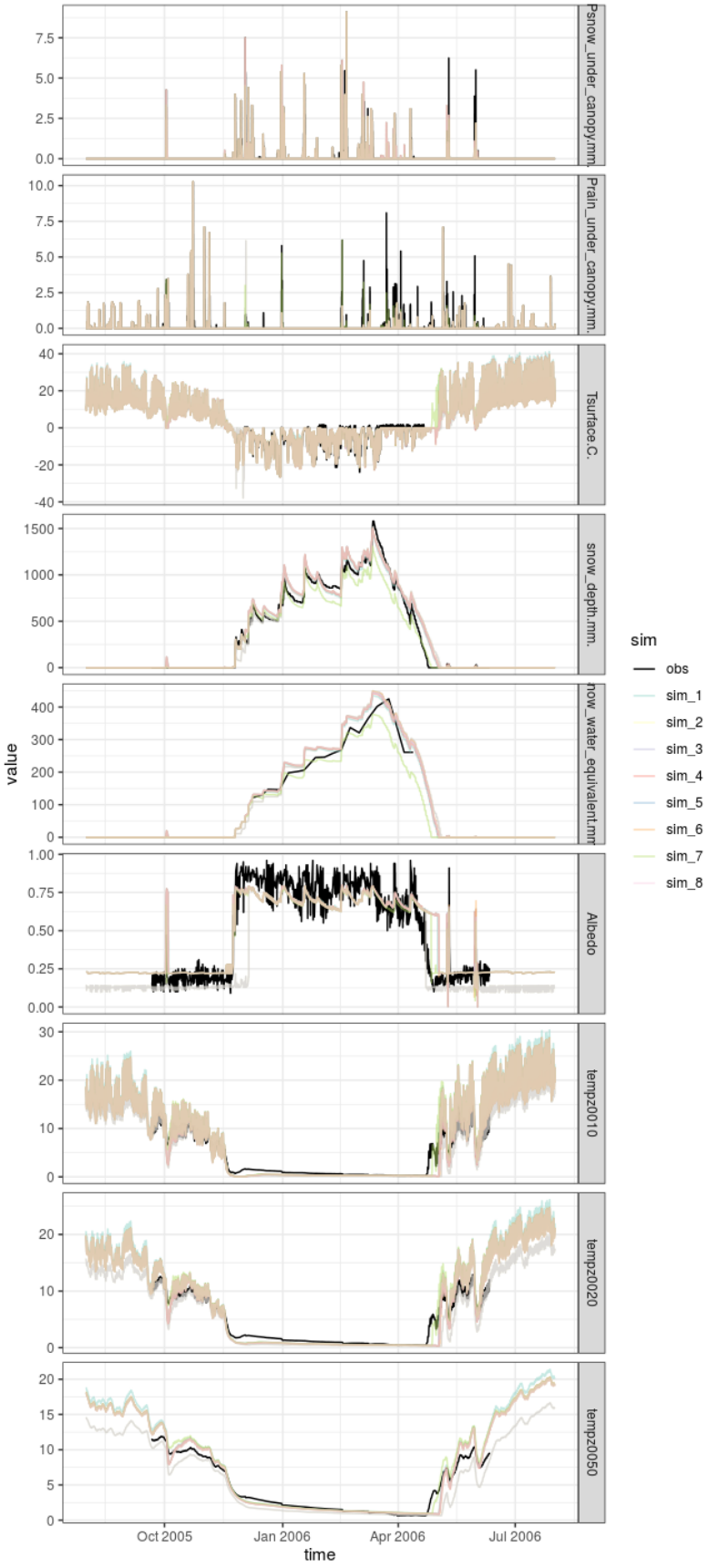

Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
now_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
time
Oct 2004
Jan 2005
Apr 2005
Jul 2005
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.03	0.04	0.00	0.00	
obs	RMSE	0.21	0.27	0.00	0.00	
obs	KGE	0.80	0.88	1.00	1.00	
sim_1	MAE	0.06	0.10	1.36	89.77	
sim_1	RMSE	0.32	0.46	1.90	140.73	
sim_1	KGE	0.50	0.61	0.93	0.75	
sim_2	MAE	0.06	0.11	1.70	84.39	
sim_2	RMSE	0.32	0.50	2.45	136.07	
sim_2	KGE	0.53	0.53	0.90	0.76	
sim_3	MAE	0.06	0.11	1.70	84.39	
sim_3	RMSE	0.32	0.50	2.45	136.07	
sim_3	KGE	0.53	0.53	0.90	0.76	
sim_4	MAE	0.07	0.11	1.72	93.31	
sim_4	RMSE	0.35	0.51	2.47	144.96	
sim_4	KGE	0.44	0.53	0.90	0.73	
sim_5	MAE	0.07	0.11	1.69	99.30	
sim_5	RMSE	0.35	0.51	2.41	154.14	
sim_5	KGE	0.44	0.53	0.90	0.71	
sim_6	MAE	0.07	0.11	1.68	99.84	
sim_6	RMSE	0.35	0.51	2.39	155.74	
sim_6	KGE	0.44	0.53	0.91	0.71	
sim_7	MAE	0.06	0.11	1.68	44.02	
sim_7	RMSE	0.32	0.51	2.41	79.23	
sim_7	KGE	0.56	0.58	0.90	0.92	
sim_8	MAE	0.07	0.11	1.69	99.30	
sim_8	RMSE	0.35	0.51	2.41	154.14	
sim_8	KGE	0.44	0.53	0.90	0.71	

Winter 2005/2006

Here is a comparison plot:

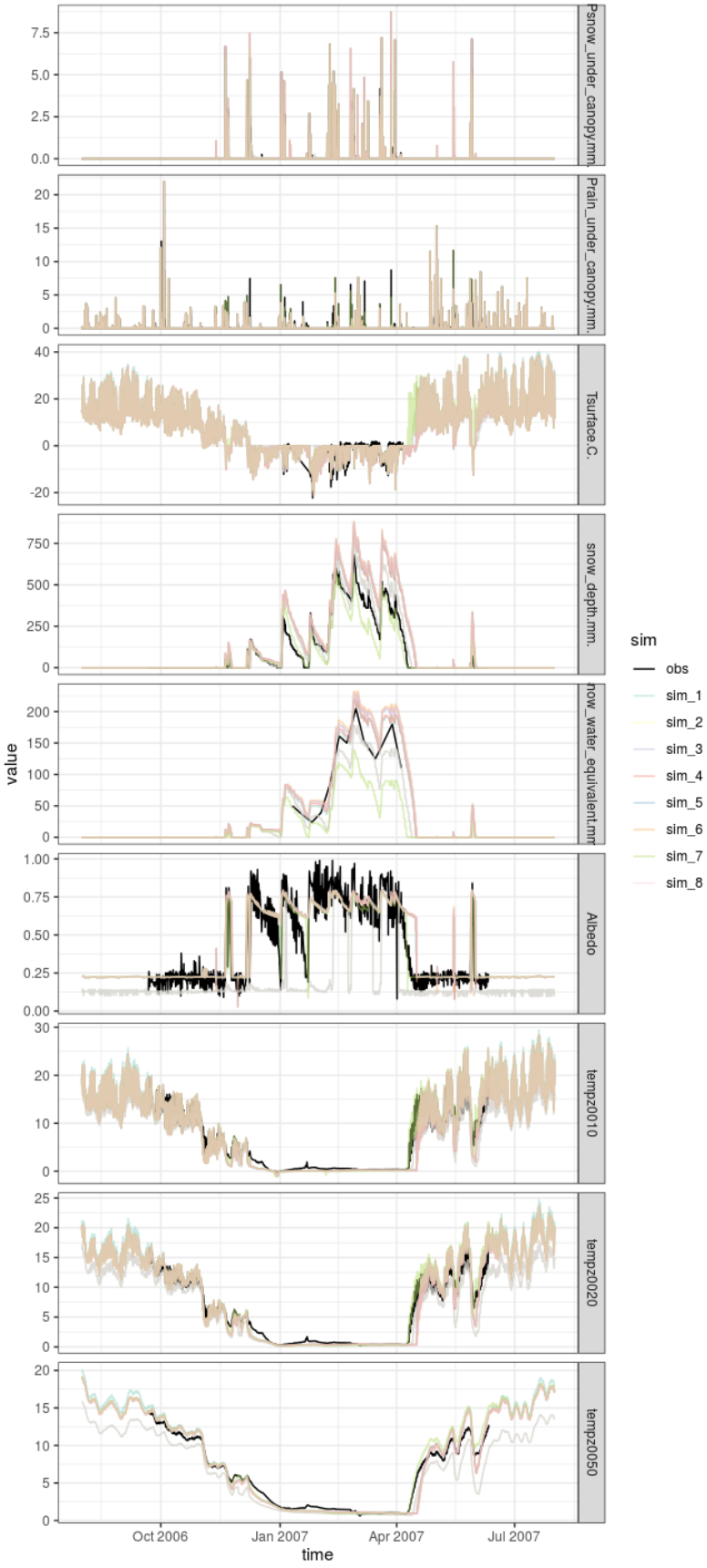

Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
now_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
time
Oct 2005
Jan 2006
Apr 2006
Jul 2006
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.03	0.04	0.00	0.00	
obs	RMSE	0.25	0.28	0.00	0.00	
obs	KGE	0.72	0.81	1.00	1.00	
sim_1	MAE	0.06	0.08	1.46	49.18	
sim_1	RMSE	0.36	0.42	1.98	75.31	
sim_1	KGE	0.40	0.44	0.94	0.95	
sim_2	MAE	0.07	0.09	1.90	53.97	
sim_2	RMSE	0.38	0.46	2.85	88.79	
sim_2	KGE	0.38	0.34	0.88	0.94	
sim_3	MAE	0.07	0.09	1.90	53.97	
sim_3	RMSE	0.38	0.46	2.85	88.79	
sim_3	KGE	0.38	0.34	0.88	0.94	
sim_4	MAE	0.07	0.09	1.82	51.94	
sim_4	RMSE	0.40	0.46	2.59	79.99	
sim_4	KGE	0.30	0.35	0.90	0.93	
sim_5	MAE	0.07	0.09	1.78	53.88	
sim_5	RMSE	0.40	0.46	2.53	83.57	
sim_5	KGE	0.30	0.35	0.90	0.92	
sim_6	MAE	0.07	0.09	1.77	54.50	
sim_6	RMSE	0.40	0.46	2.51	84.93	
sim_6	KGE	0.30	0.35	0.90	0.92	
sim_7	MAE	0.06	0.09	1.76	61.92	
sim_7	RMSE	0.36	0.47	2.51	100.76	
sim_7	KGE	0.47	0.44	0.91	0.82	
sim_8	MAE	0.07	0.09	1.78	53.88	
sim_8	RMSE	0.40	0.46	2.53	83.57	
sim_8	KGE	0.30	0.35	0.90	0.92	

Winter 2006/2007

Here is a comparison plot:

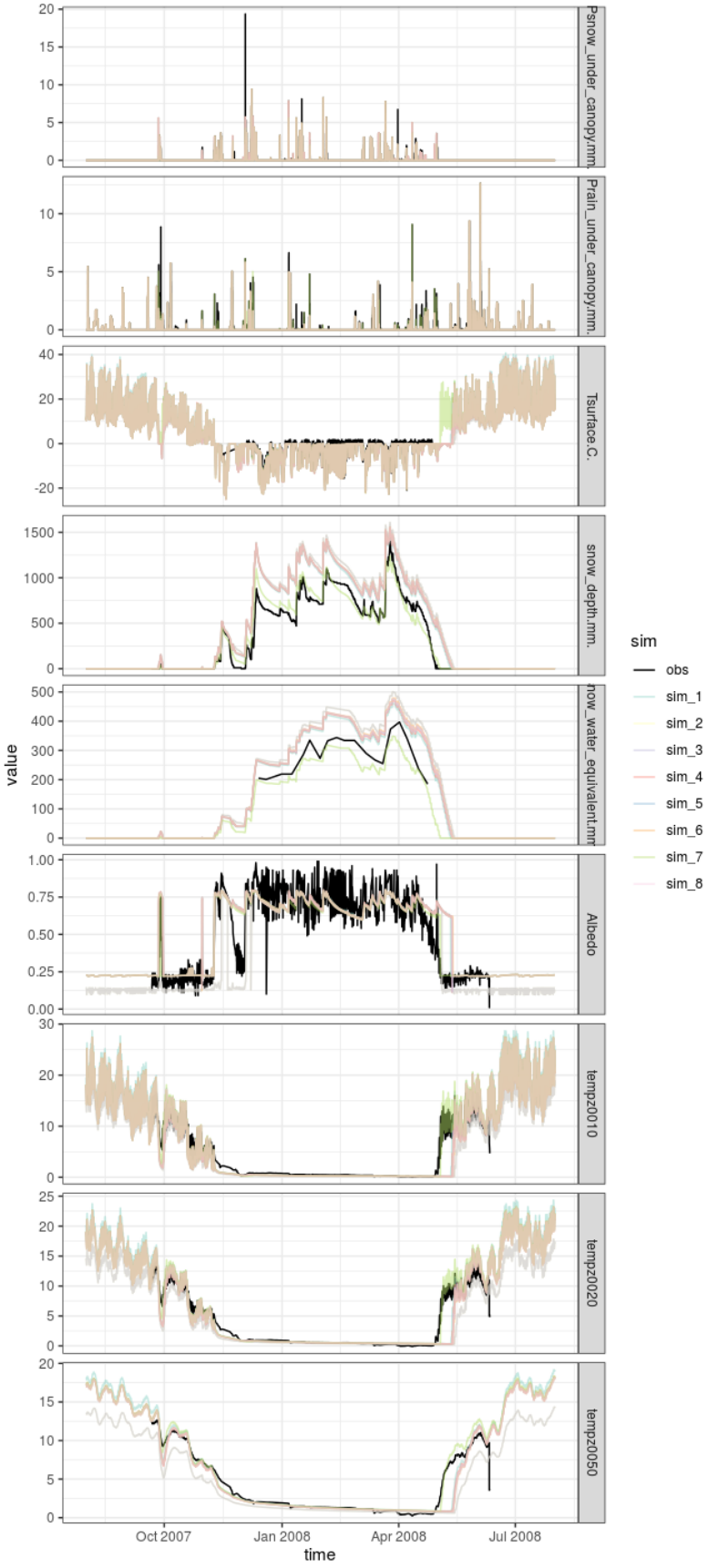

Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
now_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
time
Oct 2006
Jan 2007
Apr 2007
Jul 2007
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.03	0.06	0.00	0.00	
obs	RMSE	0.25	0.44	0.00	0.00	
obs	KGE	0.70	0.80	1.00	1.00	
sim_1	MAE	0.07	0.18	1.55	58.13	
sim_1	RMSE	0.43	0.79	2.07	101.53	
sim_1	KGE	0.13	0.36	0.83	0.38	
sim_2	MAE	0.07	0.20	1.86	35.03	
sim_2	RMSE	0.37	0.82	2.72	61.80	
sim_2	KGE	0.26	0.29	0.70	0.72	
sim_3	MAE	0.07	0.20	1.86	35.03	
sim_3	RMSE	0.37	0.82	2.72	61.80	
sim_3	KGE	0.26	0.29	0.70	0.72	
sim_4	MAE	0.08	0.20	1.81	60.74	
sim_4	RMSE	0.46	0.83	2.50	104.49	
sim_4	KGE	0.06	0.29	0.78	0.35	
sim_5	MAE	0.08	0.20	1.77	65.18	
sim_5	RMSE	0.46	0.83	2.47	112.13	
sim_5	KGE	0.06	0.29	0.79	0.29	
sim_6	MAE	0.08	0.20	1.75	67.36	
sim_6	RMSE	0.46	0.83	2.45	115.51	
sim_6	KGE	0.06	0.29	0.79	0.27	
sim_7	MAE	0.06	0.21	1.72	29.93	
sim_7	RMSE	0.38	0.85	2.43	53.82	
sim_7	KGE	0.37	0.32	0.78	0.76	
sim_8	MAE	0.08	0.20	1.77	65.18	
sim_8	RMSE	0.46	0.83	2.47	112.13	
sim_8	KGE	0.06	0.29	0.79	0.29	

Winter 2007/2008

Here is a comparison plot:

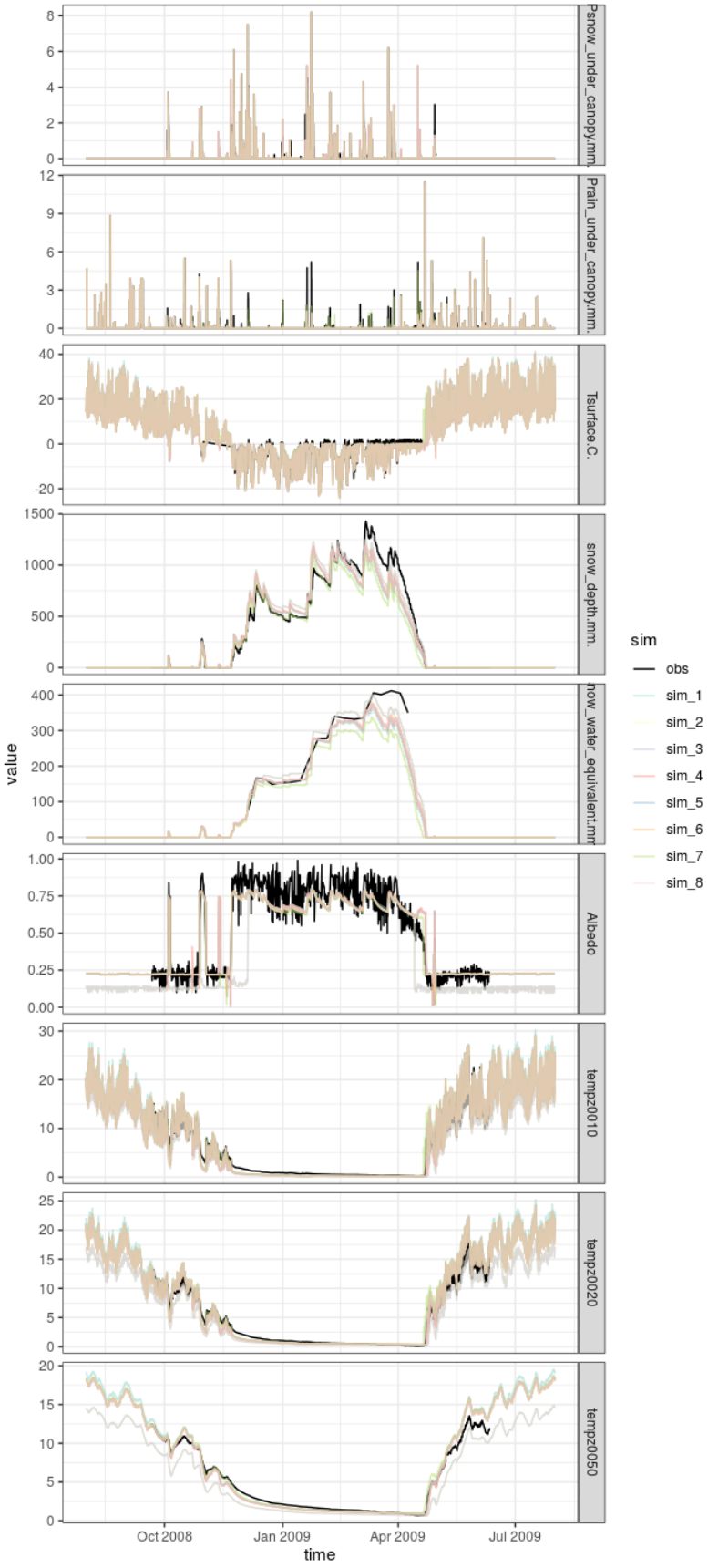

Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
now_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
time
Oct 2007
Jan 2008
Apr 2008
Jul 2008
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.04	0.04	0.00	0.00	
obs	RMSE	0.32	0.29	0.00	0.00	
obs	KGE	0.77	0.83	1.00	1.00	
sim_1	MAE	0.09	0.10	1.68	173.82	
sim_1	RMSE	0.44	0.47	2.35	228.77	
sim_1	KGE	0.48	0.49	0.69	0.50	
sim_2	MAE	0.09	0.11	1.98	218.39	
sim_2	RMSE	0.47	0.50	2.78	278.09	
sim_2	KGE	0.46	0.40	0.68	0.37	
sim_3	MAE	0.09	0.11	1.98	218.39	
sim_3	RMSE	0.47	0.50	2.78	278.09	
sim_3	KGE	0.46	0.40	0.68	0.37	
sim_4	MAE	0.10	0.11	1.99	186.14	
sim_4	RMSE	0.49	0.51	2.80	242.24	
sim_4	KGE	0.41	0.41	0.67	0.47	
sim_5	MAE	0.10	0.11	1.94	190.68	
sim_5	RMSE	0.49	0.51	2.74	247.22	
sim_5	KGE	0.41	0.41	0.68	0.45	
sim_6	MAE	0.10	0.11	1.93	193.24	
sim_6	RMSE	0.49	0.51	2.73	249.96	
sim_6	KGE	0.41	0.41	0.68	0.45	
sim_7	MAE	0.08	0.12	1.91	56.28	
sim_7	RMSE	0.45	0.53	2.71	81.30	
sim_7	KGE	0.55	0.47	0.69	0.97	
sim_8	MAE	0.10	0.11	1.94	190.68	
sim_8	RMSE	0.49	0.51	2.74	247.22	
sim_8	KGE	0.41	0.41	0.68	0.45	

Winter 2008/2009

Here is a comparison plot:

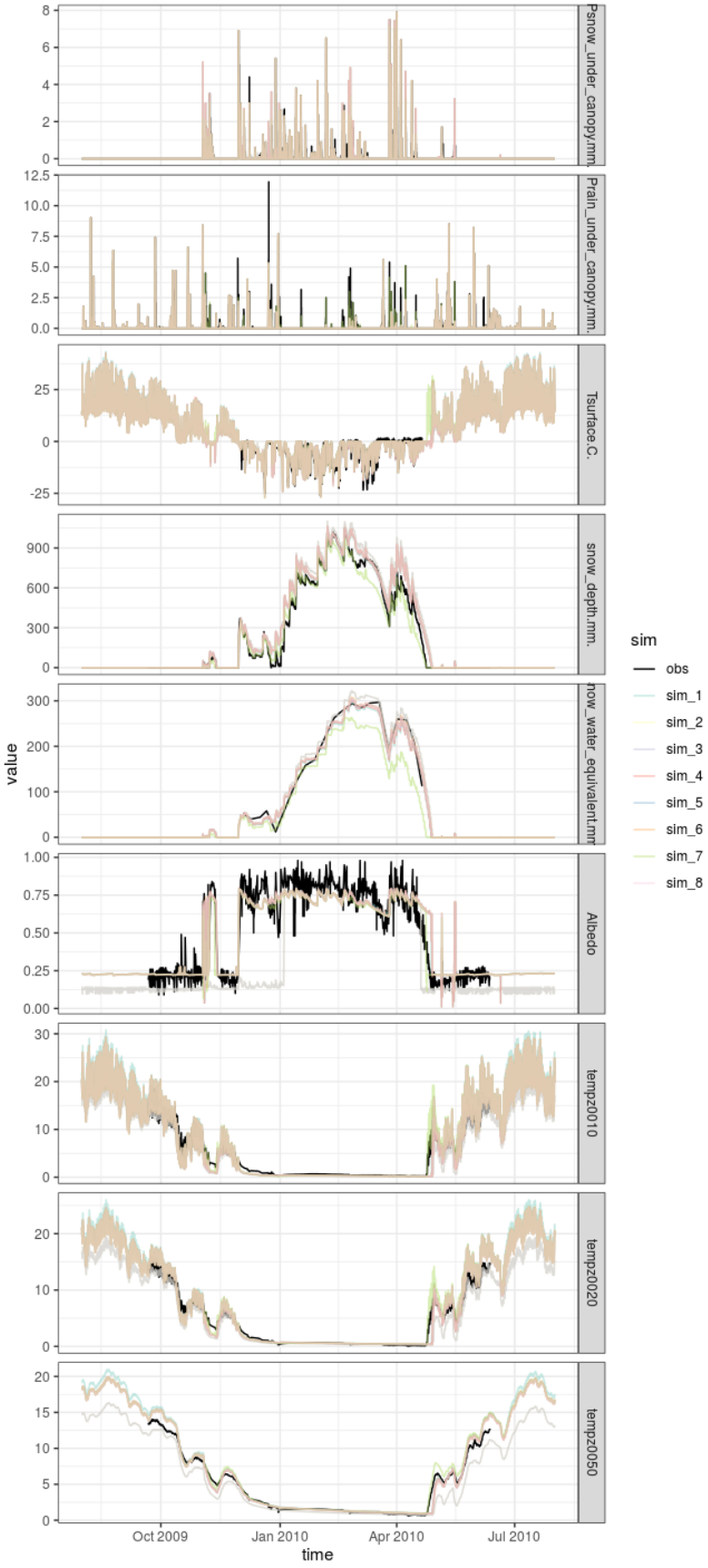

Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
now_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
time
Oct 2008
Jan 2009
Apr 2009
Jul 2009
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.03	0.02	0.00	0.00	
obs	RMSE	0.24	0.20	0.00	0.00	
obs	KGE	0.74	0.92	1.00	1.00	
sim_1	MAE	0.06	0.08	1.43	67.12	
sim_1	RMSE	0.33	0.45	1.97	112.81	
sim_1	KGE	0.47	0.59	0.85	0.88	
sim_2	MAE	0.06	0.09	1.82	60.06	
sim_2	RMSE	0.34	0.48	2.55	90.59	
sim_2	KGE	0.47	0.51	0.82	0.96	
sim_3	MAE	0.06	0.09	1.82	60.06	
sim_3	RMSE	0.34	0.48	2.55	90.59	
sim_3	KGE	0.47	0.51	0.82	0.96	
sim_4	MAE	0.07	0.09	1.82	63.45	
sim_4	RMSE	0.37	0.49	2.52	104.33	
sim_4	KGE	0.39	0.52	0.81	0.90	
sim_5	MAE	0.07	0.09	1.79	61.19	
sim_5	RMSE	0.37	0.49	2.49	100.74	
sim_5	KGE	0.39	0.52	0.81	0.91	
sim_6	MAE	0.07	0.09	1.79	59.79	
sim_6	RMSE	0.37	0.49	2.48	98.26	
sim_6	KGE	0.39	0.52	0.81	0.91	
sim_7	MAE	0.06	0.10	1.76	77.71	
sim_7	RMSE	0.35	0.49	2.45	140.77	
sim_7	KGE	0.48	0.55	0.83	0.78	
sim_8	MAE	0.07	0.09	1.79	61.19	
sim_8	RMSE	0.37	0.49	2.49	100.74	
sim_8	KGE	0.39	0.52	0.81	0.91	

Winter 2009/2010

Here is a comparison plot:

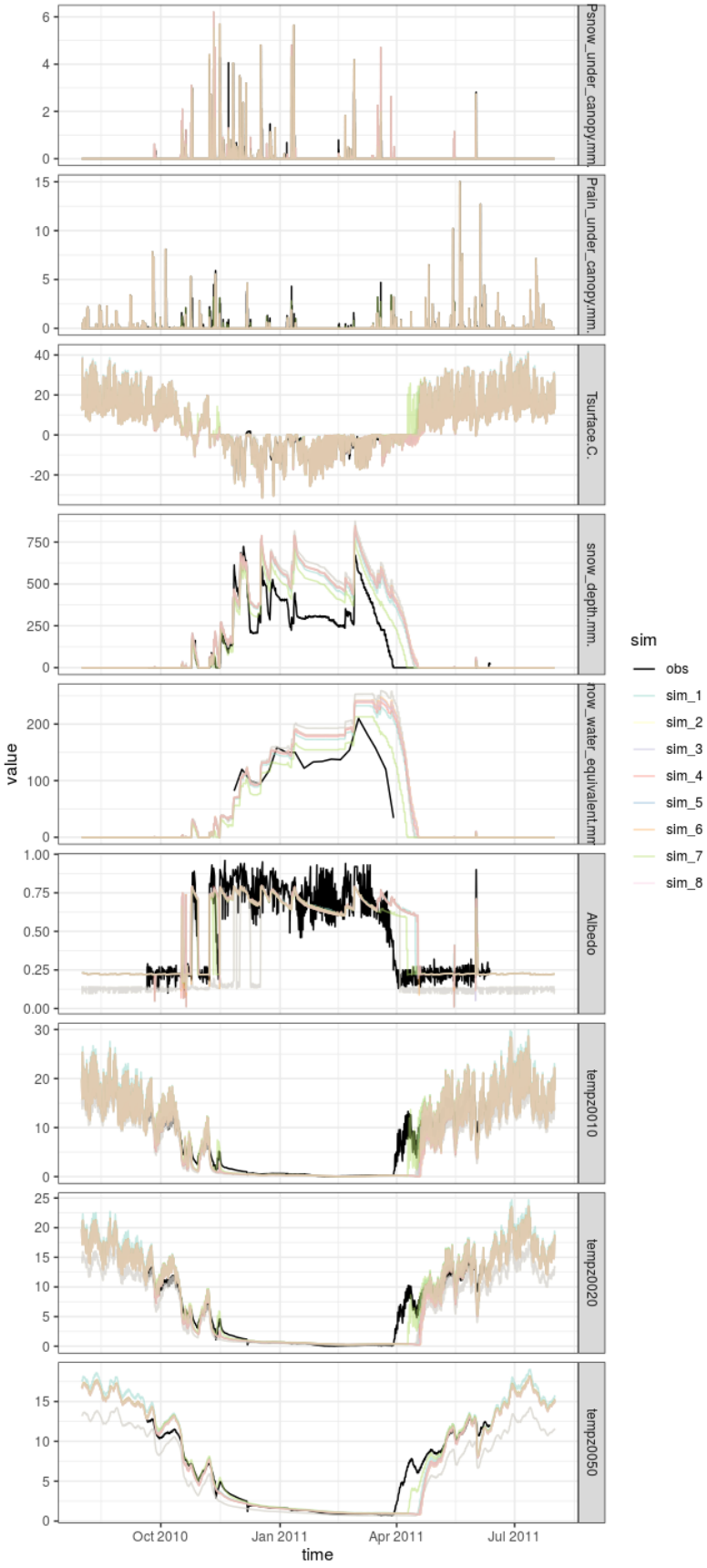

Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
now_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
Oct 2009
Jan 2010
Apr 2010
Jul 2010
time
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.03	0.05	0.00	0.00	
obs	RMSE	0.23	0.32	0.00	0.00	
obs	KGE	0.78	0.83	1.00	1.00	
sim_1	MAE	0.07	0.11	1.71	42.50	
sim_1	RMSE	0.39	0.53	2.27	70.27	
sim_1	KGE	0.34	0.48	0.84	0.86	
sim_2	MAE	0.08	0.12	2.04	65.78	
sim_2	RMSE	0.41	0.59	2.82	100.40	
sim_2	KGE	0.31	0.37	0.80	0.75	
sim_3	MAE	0.08	0.12	2.04	65.78	
sim_3	RMSE	0.41	0.59	2.82	100.40	
sim_3	KGE	0.31	0.37	0.80	0.75	
sim_4	MAE	0.08	0.12	1.99	44.83	
sim_4	RMSE	0.44	0.60	2.75	74.33	
sim_4	KGE	0.23	0.37	0.83	0.84	
sim_5	MAE	0.08	0.12	1.96	47.61	
sim_5	RMSE	0.44	0.60	2.70	78.70	
sim_5	KGE	0.23	0.37	0.83	0.83	
sim_6	MAE	0.08	0.12	1.96	47.95	
sim_6	RMSE	0.44	0.60	2.69	79.21	
sim_6	KGE	0.23	0.37	0.84	0.82	
sim_7	MAE	0.07	0.13	1.96	33.04	
sim_7	RMSE	0.41	0.60	2.71	55.91	
sim_7	KGE	0.38	0.41	0.82	0.90	
sim_8	MAE	0.08	0.12	1.96	47.61	
sim_8	RMSE	0.44	0.60	2.70	78.70	
sim_8	KGE	0.23	0.37	0.83	0.83	

Winter 2010/2011

Here is a comparison plot:


Psnow_under_canopy.mm.
Prain_under_canopy.mm.
Tsurface.C.
snow_depth.mm.
now_water_equivalent.mm
Albedo
tempz0010
tempz0020
tempz0050
value
time
Oct 2010
Jan 2011
Apr 2011
Jul 2011
sim
obs
sim_1
sim_2
sim_3
sim_4
sim_5
sim_6
sim_7
sim_8

Goodness of fit:

sim	gof	Psnow_under_canopy.mm.	Prain_under_canopy.mm.	Tsurface.C.	snow_depth.mm.	snow_water
obs	MAE	0.02	0.04	0.00	0.00	
obs	RMSE	0.18	0.33	0.00	0.00	
obs	KGE	0.78	0.83	1.00	1.00	
sim_1	MAE	0.05	0.11	2.10	108.06	
sim_1	RMSE	0.30	0.57	2.71	157.02	
sim_1	KGE	0.29	0.49	0.72	0.30	
sim_2	MAE	0.05	0.13	2.52	132.09	
sim_2	RMSE	0.26	0.61	3.29	192.40	
sim_2	KGE	0.43	0.40	0.72	0.13	
sim_3	MAE	0.05	0.13	2.52	132.09	
sim_3	RMSE	0.26	0.61	3.29	192.40	
sim_3	KGE	0.43	0.40	0.72	0.13	
sim_4	MAE	0.06	0.13	2.45	118.34	
sim_4	RMSE	0.32	0.62	3.17	170.88	
sim_4	KGE	0.23	0.40	0.70	0.22	
sim_5	MAE	0.06	0.13	2.44	120.67	
sim_5	RMSE	0.32	0.62	3.15	174.23	
sim_5	KGE	0.23	0.40	0.69	0.21	
sim_6	MAE	0.06	0.13	2.44	121.96	
sim_6	RMSE	0.32	0.62	3.15	176.17	
sim_6	KGE	0.23	0.40	0.68	0.20	
sim_7	MAE	0.05	0.13	2.42	75.24	
sim_7	RMSE	0.28	0.62	3.13	112.35	
sim_7	KGE	0.48	0.43	0.70	0.55	
sim_8	MAE	0.06	0.13	2.44	120.67	
sim_8	RMSE	0.32	0.62	3.15	174.23	
sim_8	KGE	0.23	0.40	0.69	0.21	

References

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