



*Supplement of*

## **A 7-year dataset for driving and evaluating snow models at an Arctic site (Sodankylä, Finland)**

**Richard Essery et al.**

*Correspondence to:* Richard Essery ([richard.essery@ed.ac.uk](mailto:richard.essery@ed.ac.uk))

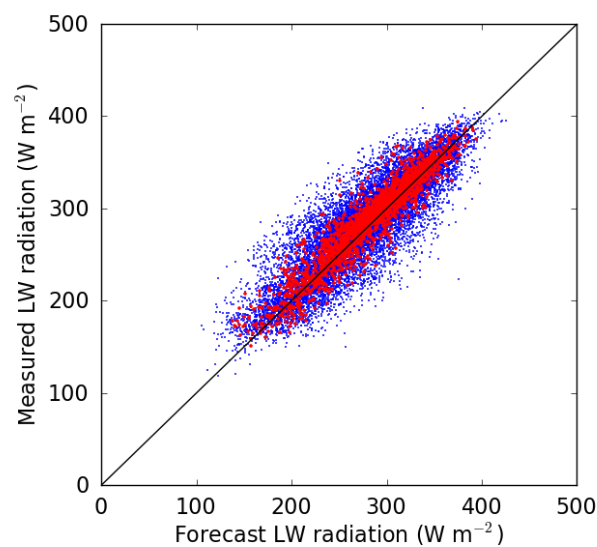
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# A 7-year dataset for driving and evaluating snow models at an arctic site (Sodankylä, Finland)

Richard Essery, Anna Kontu, Juha Lemmetyinen, Marie Dumont and Cécile B Ménard

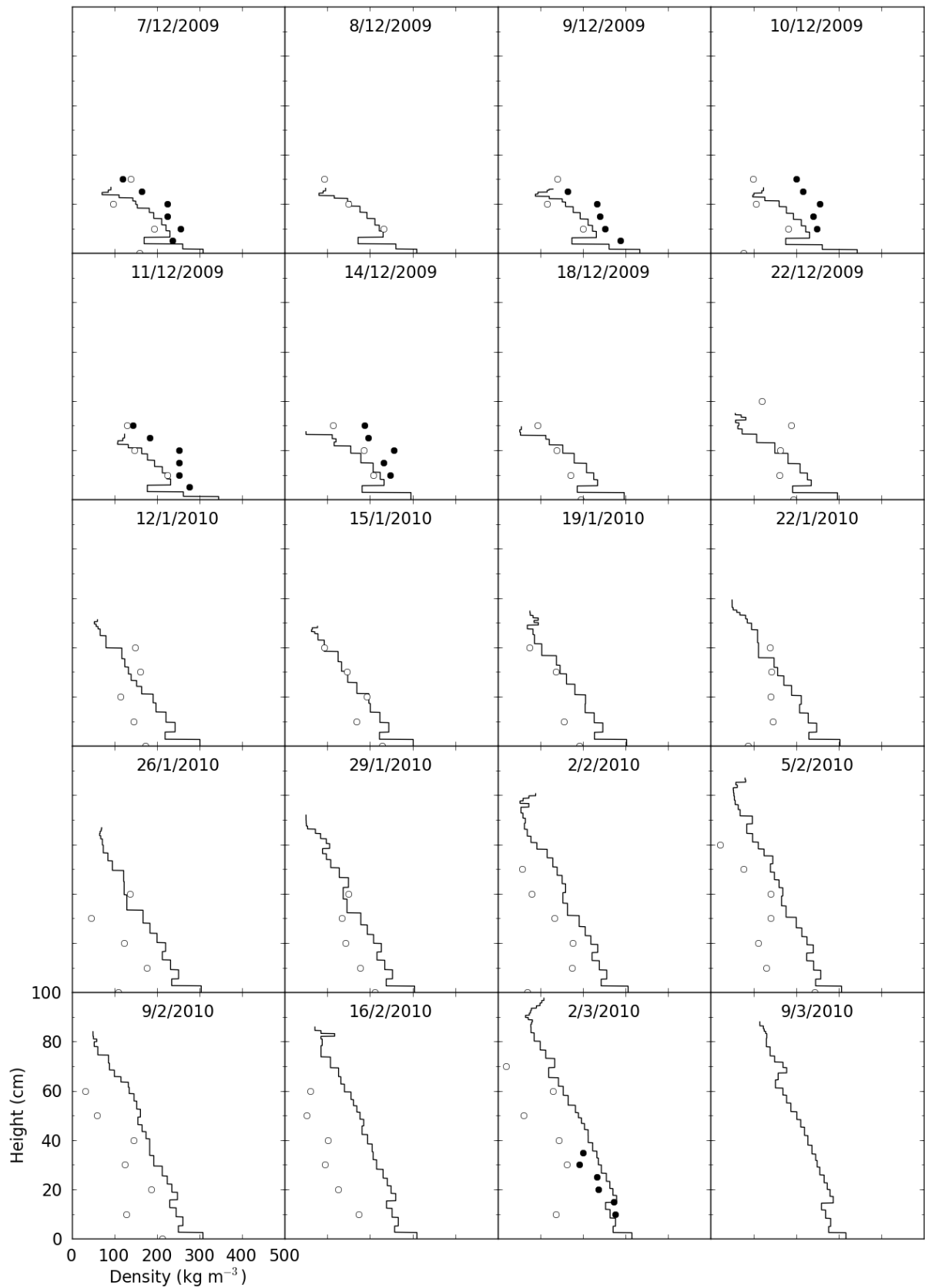
## Supplementary figures

**Figure S1.** Scatter plot and statistics comparing in situ measurements and ERA-Interim forecasts of longwave radiation averaged over periods of 3 hours (blue dots) and a day (red dots).

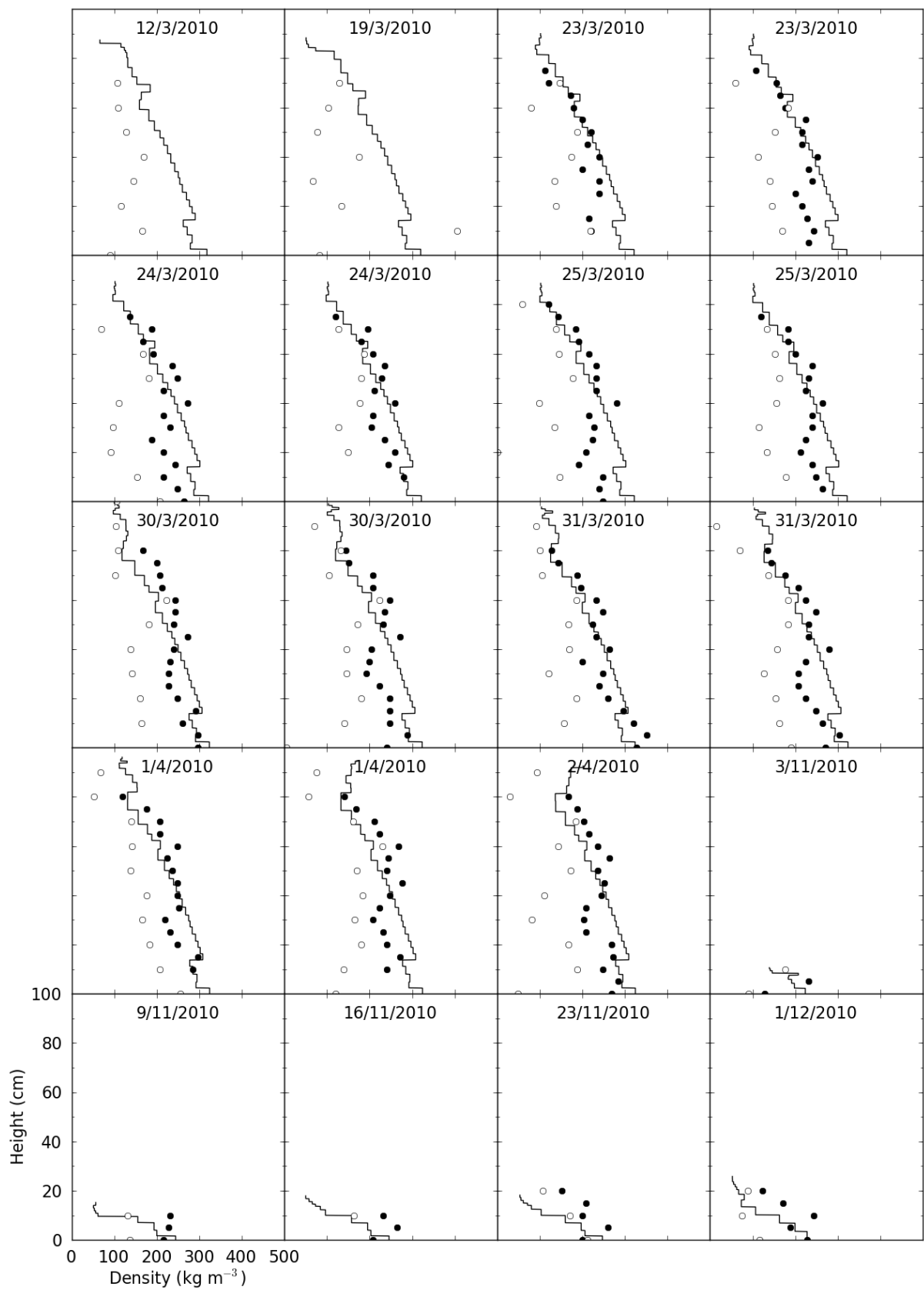


Period	Bias ( $\text{W m}^{-2}$ )	Root mean square error ( $\text{W m}^{-2}$ )	Correlation
3 hours	-5.1	26.7	0.88
24 hours	-5.1	16.9	0.94

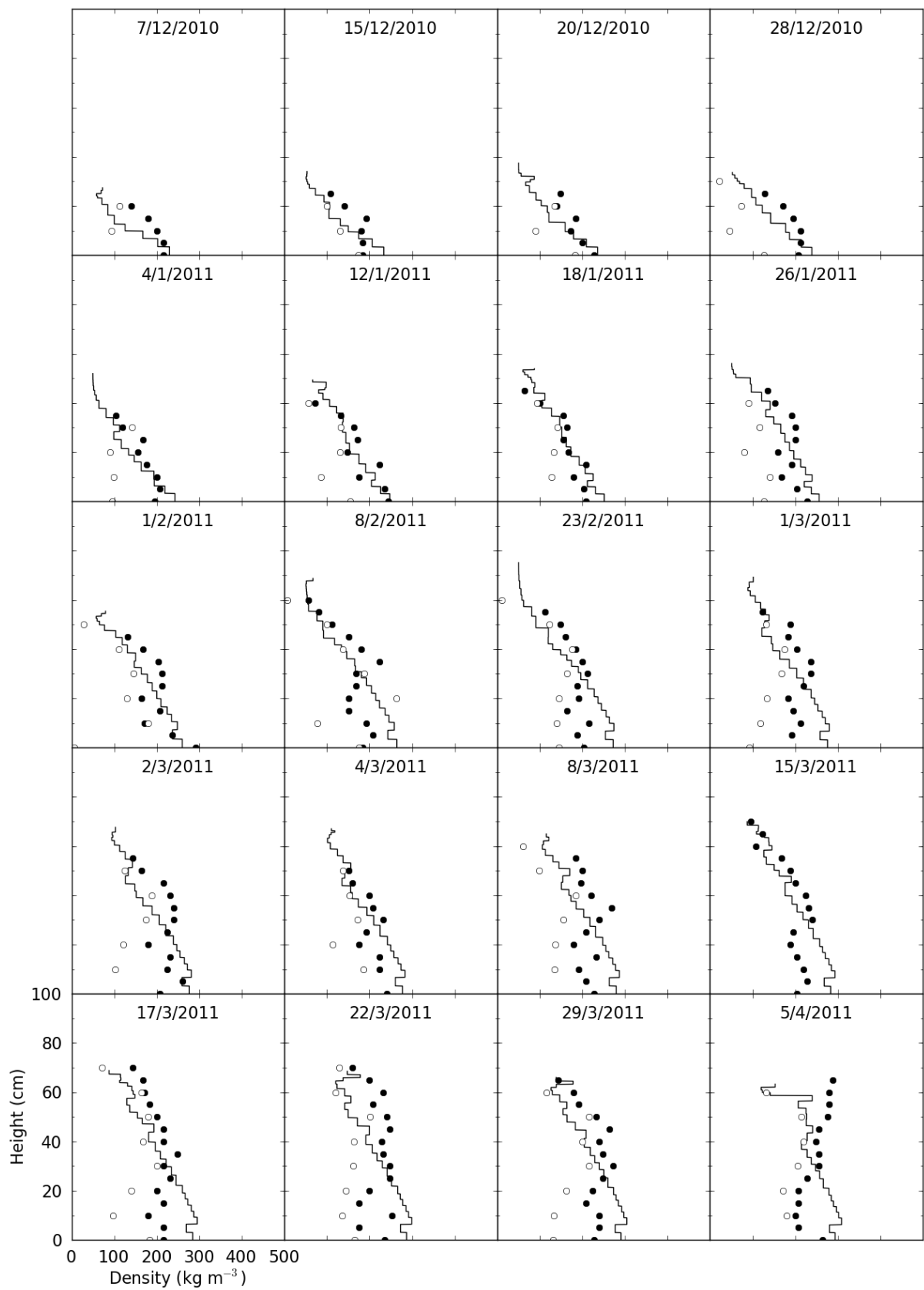
**Figure S2.** Profiles of snow density from manual measurements (black dots), dielectric measurements (white dots) and Crocus simulations (lines).



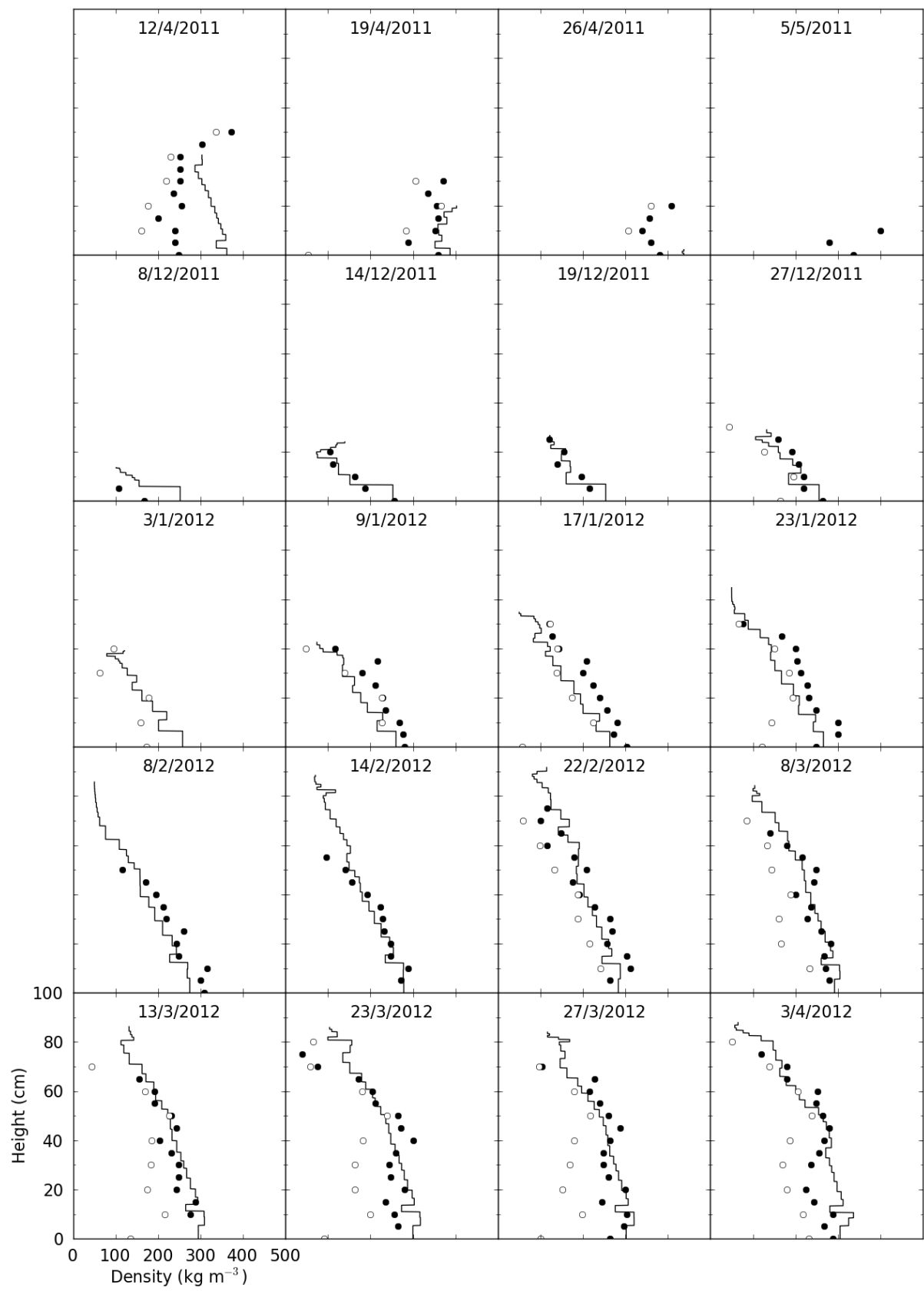
**Figure S2. Continued**



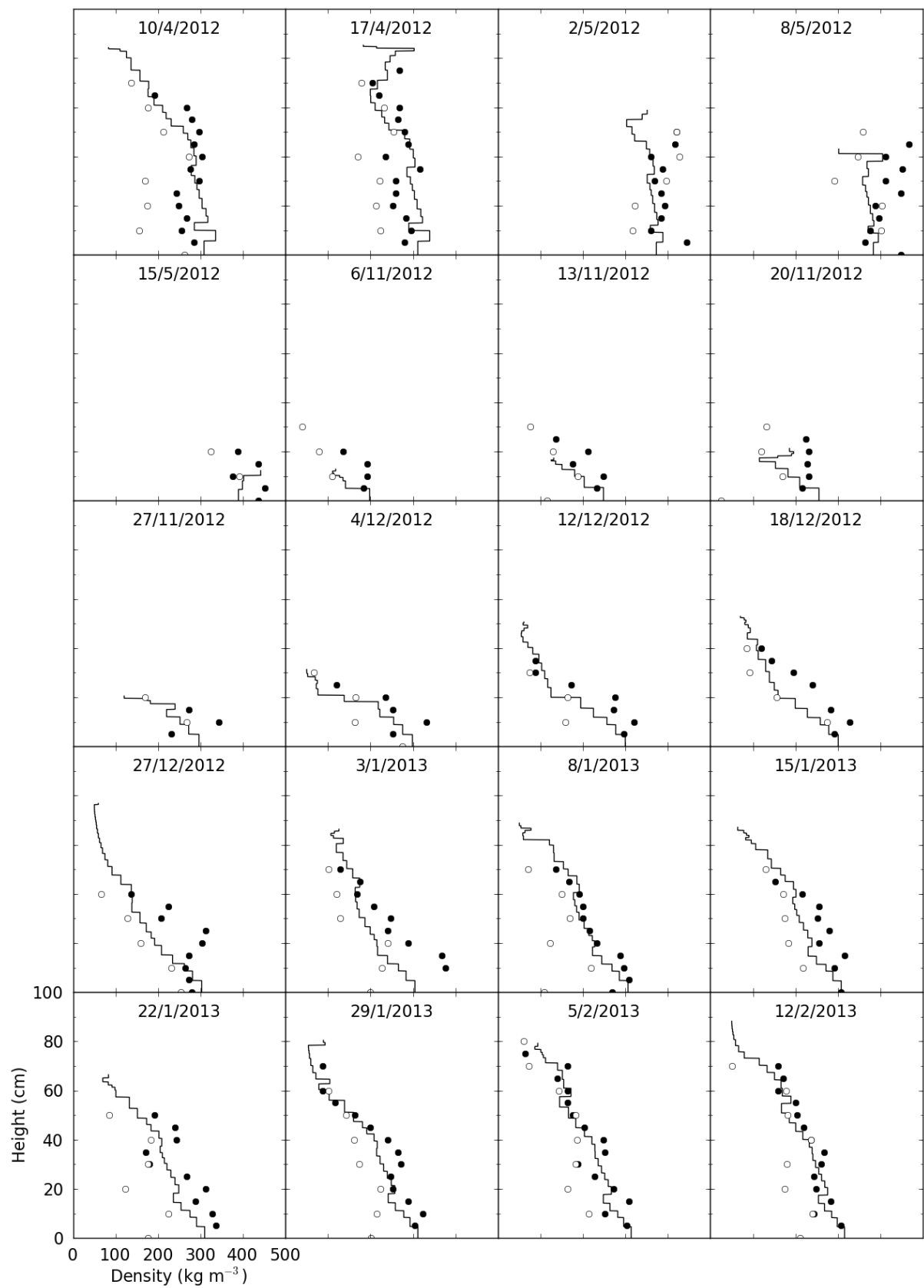
**Figure S2.** Continued



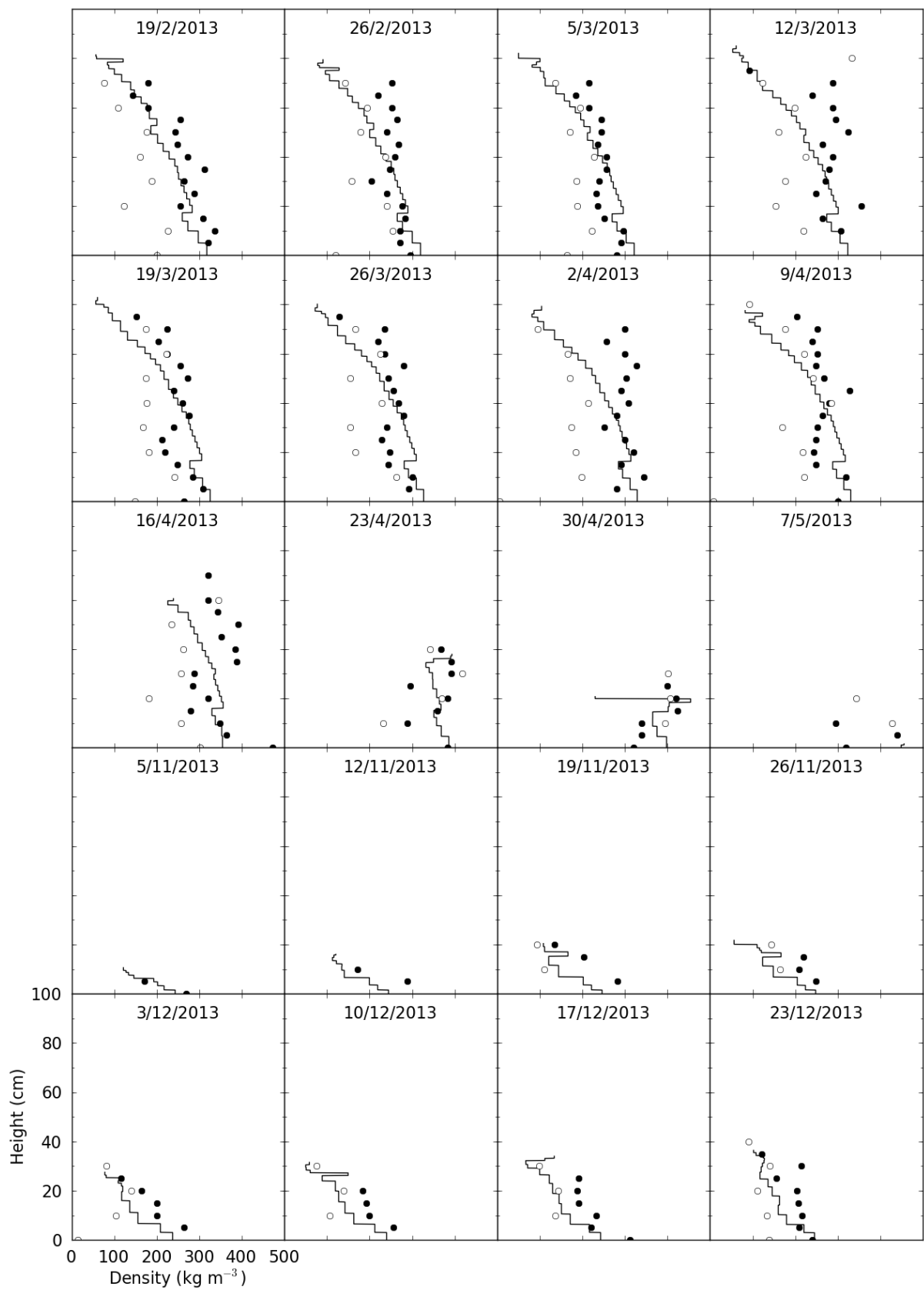
**Figure S2.** Continued



**Figure S2.** Continued

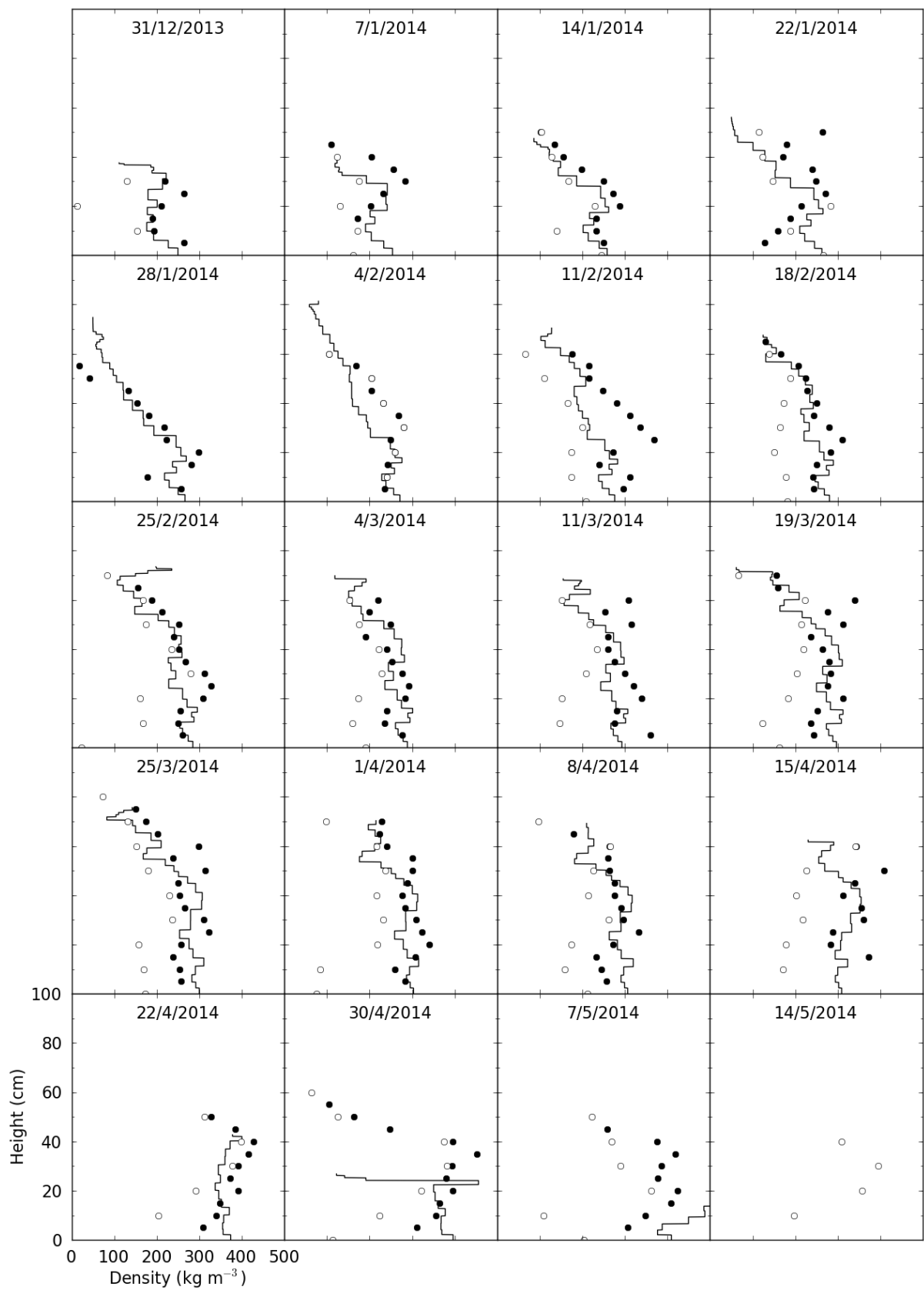


**Figure S2.** Continued

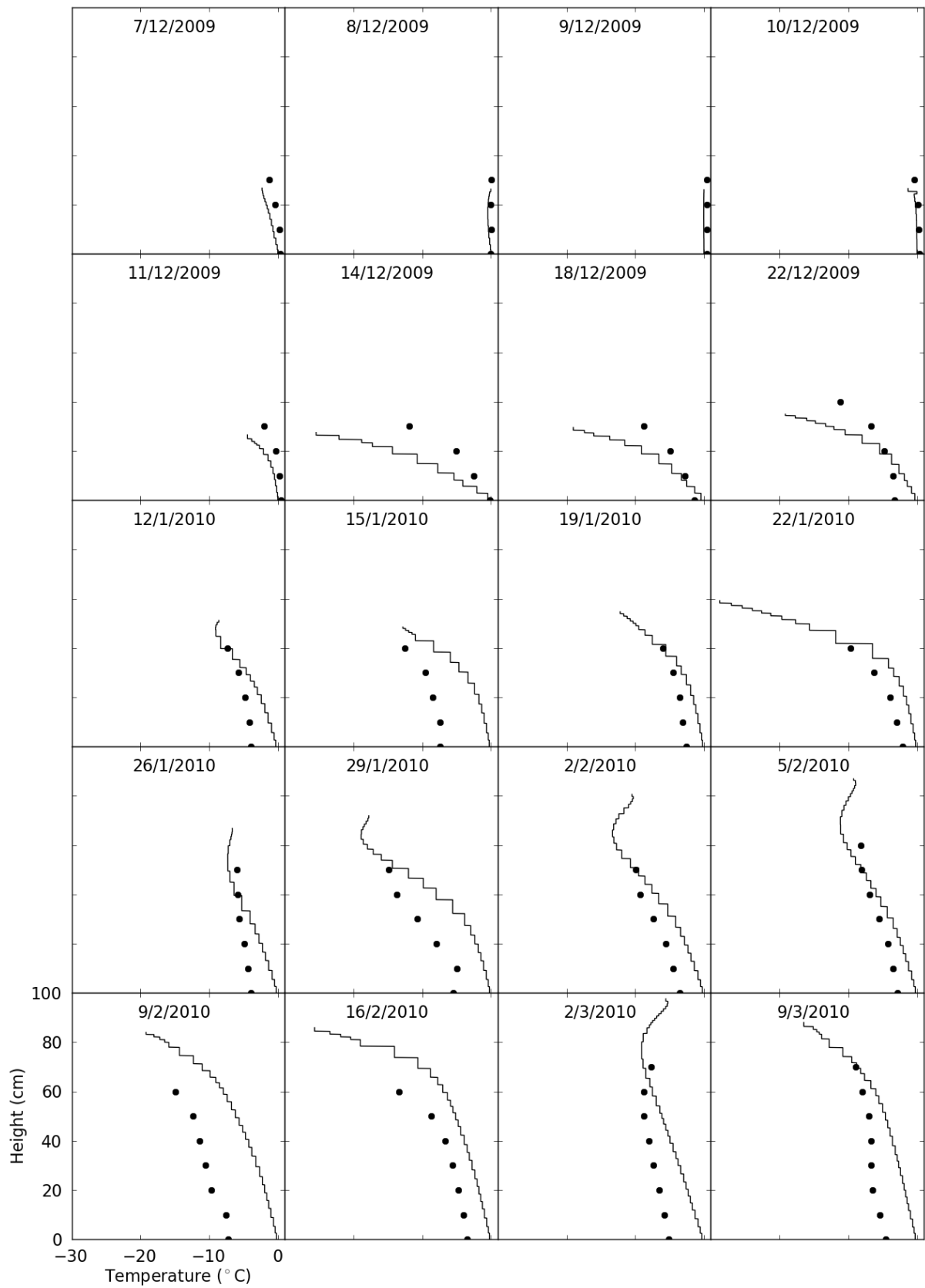




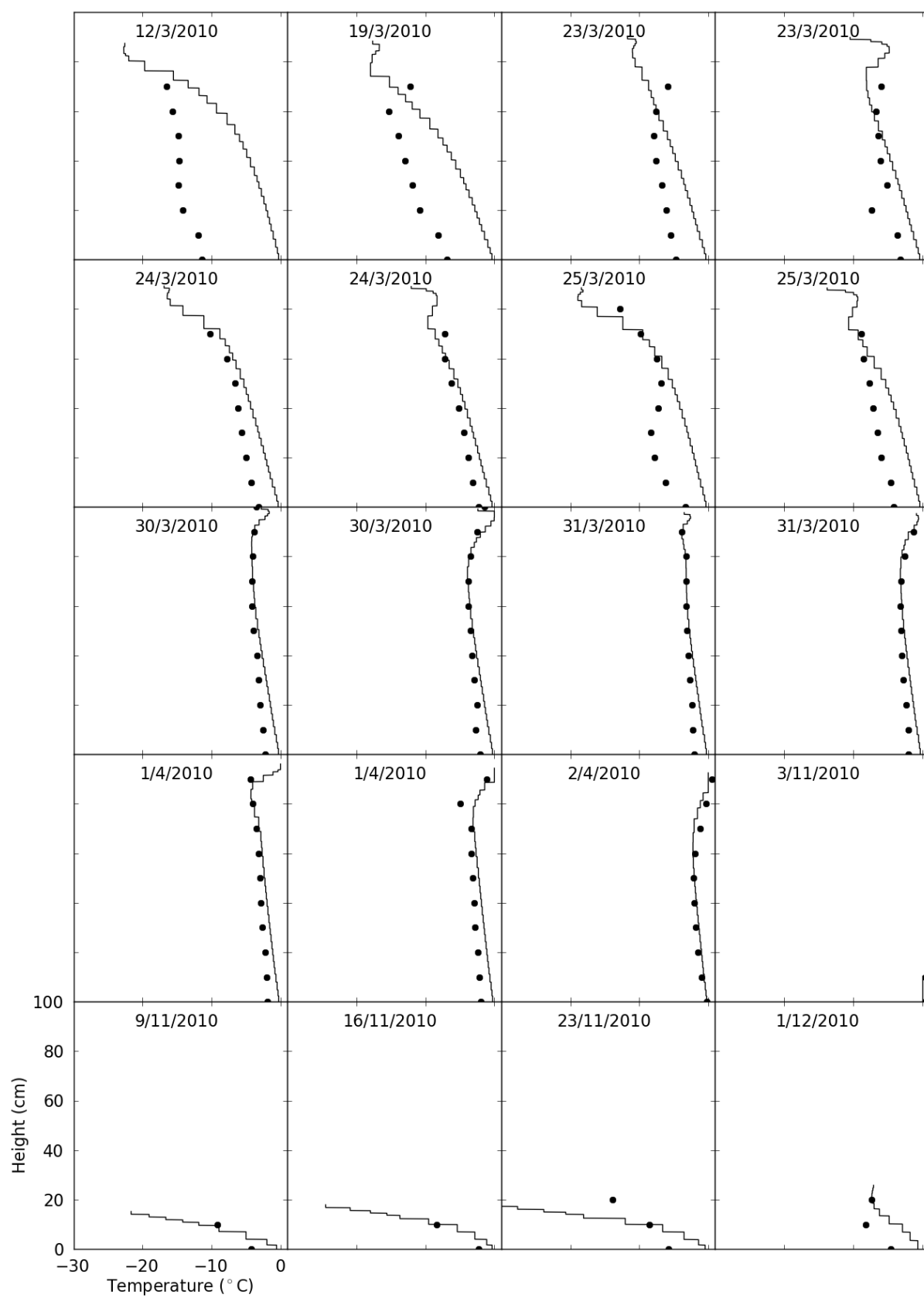
**Figure S2. Continued**



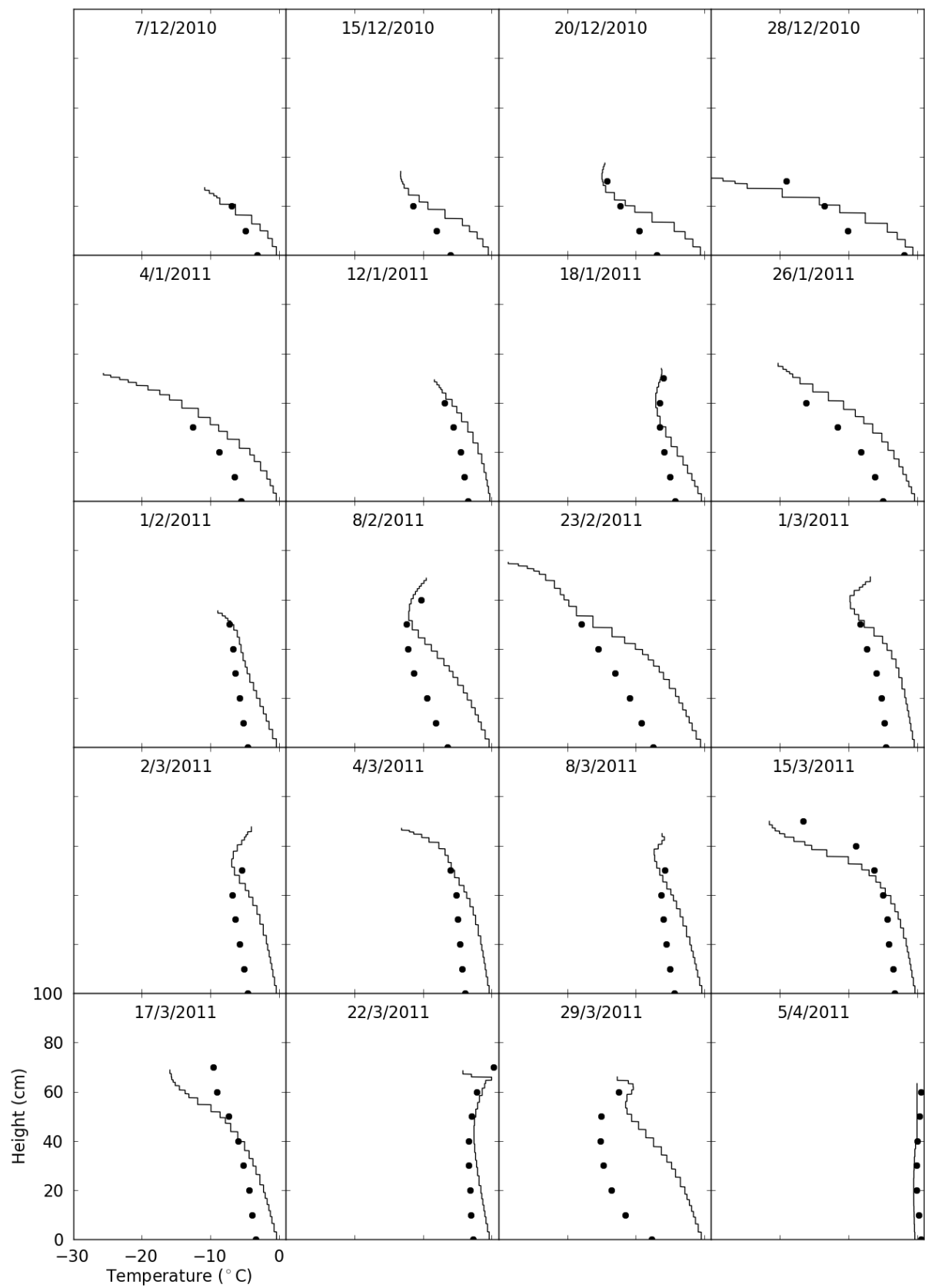
**Figure S3.** Profiles of snow temperature from manual measurements (black dots), thermistors (white dots) and Crocus simulations (lines).



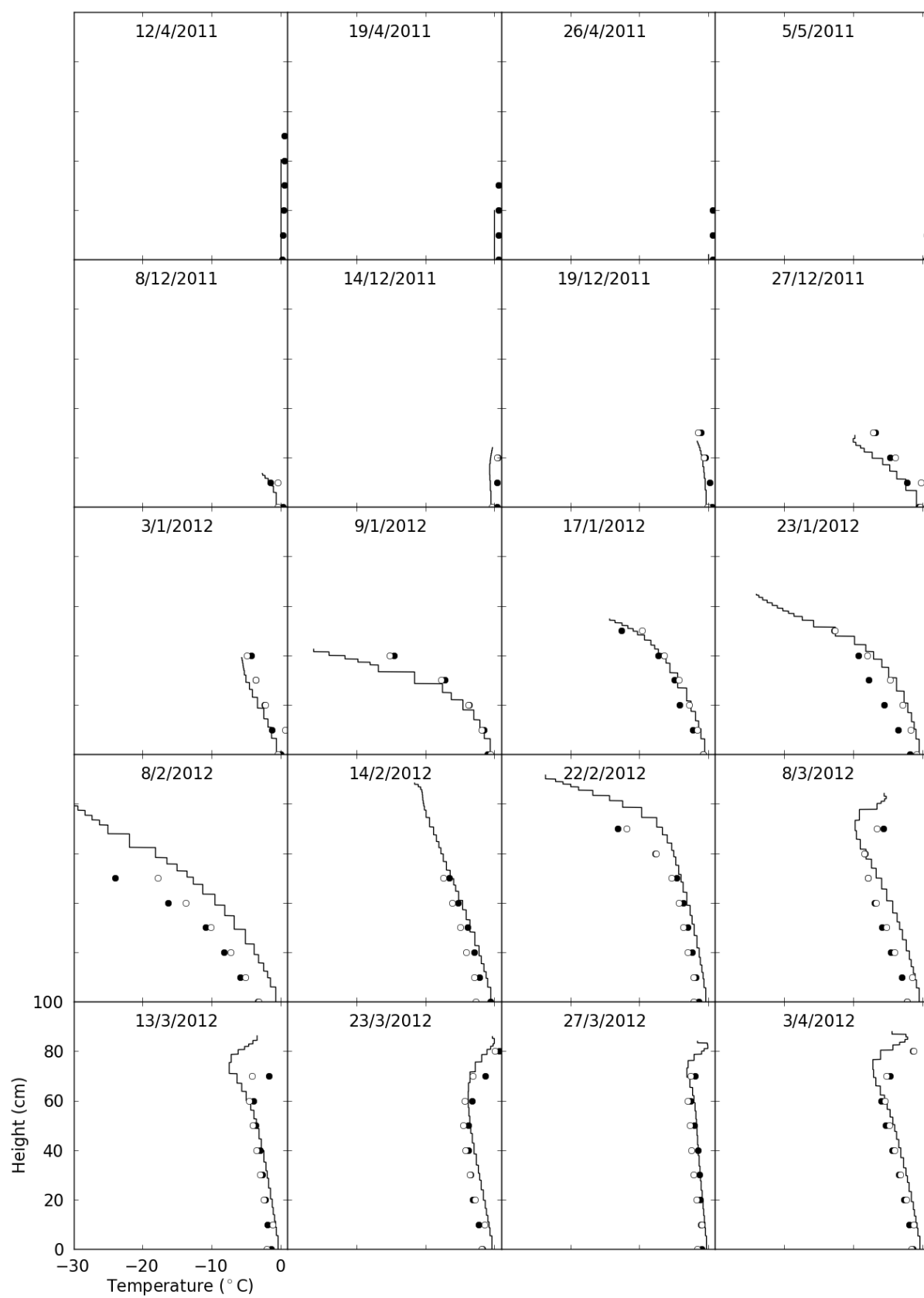
**Figure S3.** Continued



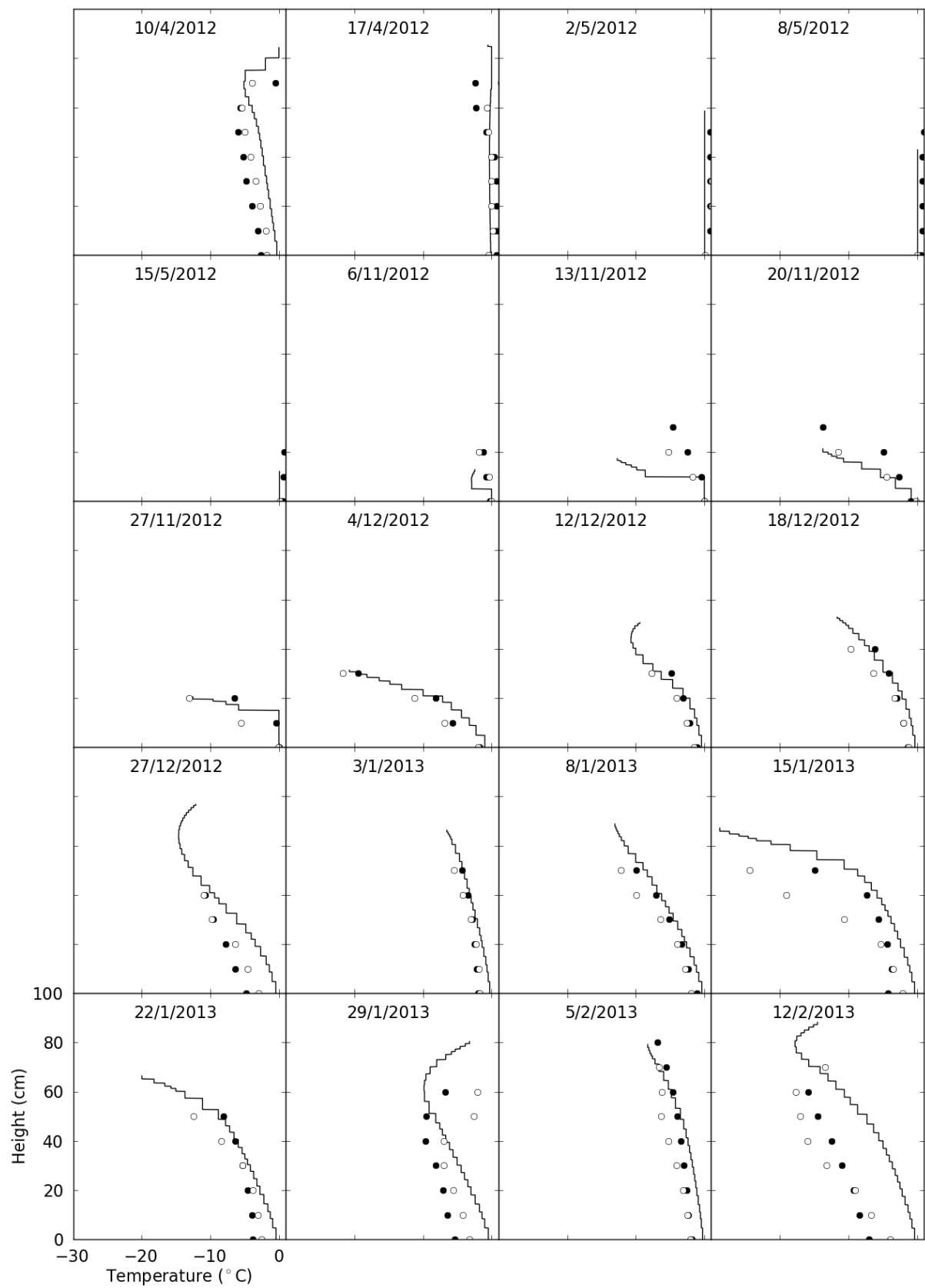
**Figure S3.** Continued



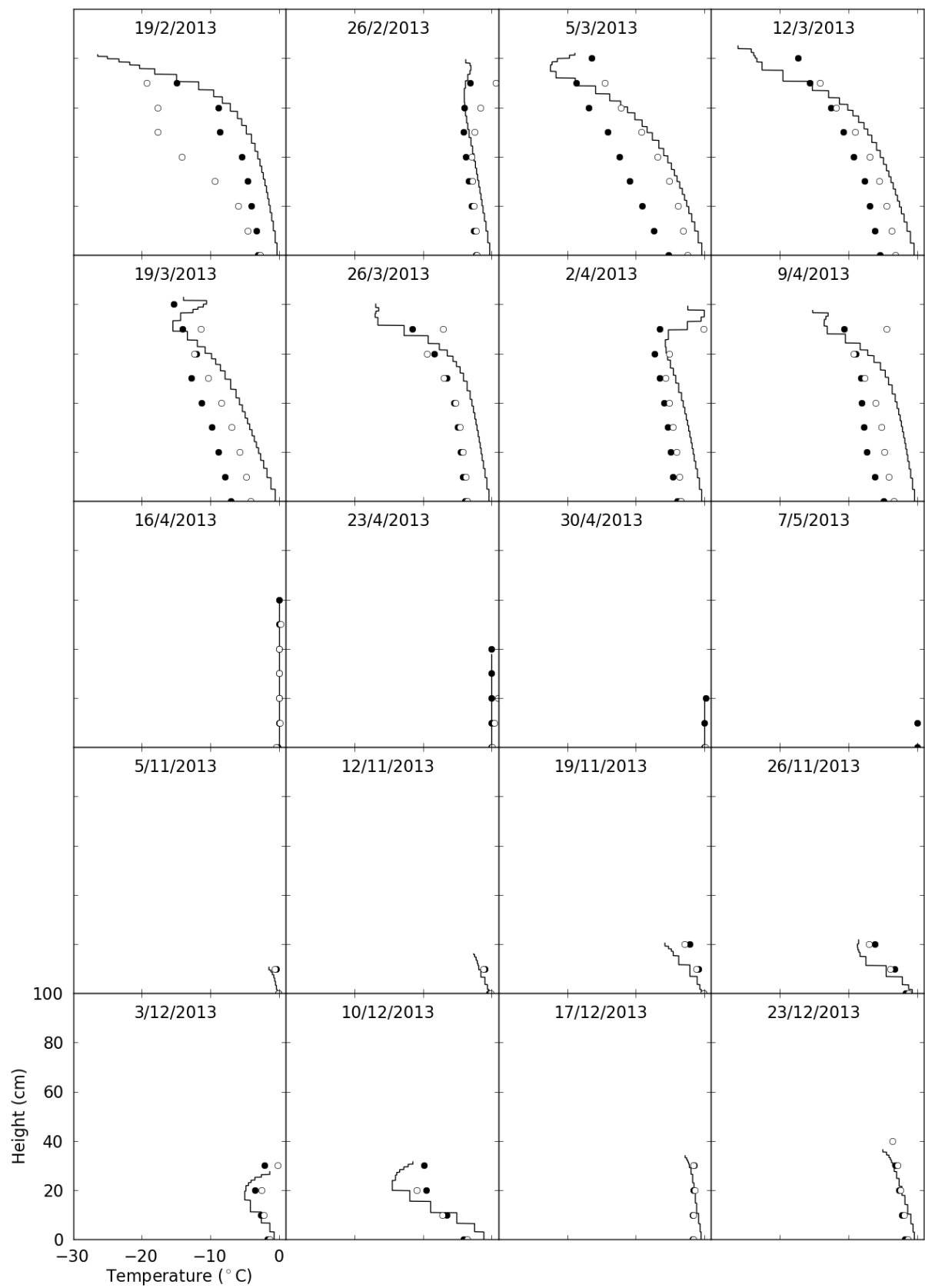
**Figure S3. Continued**



**Figure S3.** Continued



**Figure S3. Continued**



**Figure S3.** Continued

