Boundary-Layer Meteorology (2019) 172:481–484
https://doi.org/10.1007/s10546-019-00436-5

CORRECTION

Correction to: Atmospheric Stability Effects on Wind Fields and Scalar Mixing Within and Just Above a Subalpine Forest in Sloping Terrain

Sean P. Burns[1,2] · Jielun Sun[3] · Donald H. Lenschow[1,4] · Steven P. Oncley[1] · Britton B. Stephens[1] · Chuixiang Yi[5] · Dean E. Anderson[6] · Jia Hu[7] · Russell K. Monson[7,8]

Published online: 6 March 2019

Correction to: Boundary-Layer Meteorol (2011) 138:231–262 https://doi.org/10.1007/s10546-010-9560-6

We recently noticed a mistake in Fig. 1b of Burns et al. (2011). While it does not affect or change any of the main results in the 2011 paper, it does misrepresent the location of the Niwot Ridge Subalpine Forest AmeriFlux site [US-NR1; Blanken et al. (1998-present)] relative to the Continental Divide. There were two mistakes in creating Fig. 1b of Burns et al. (2011). First, the peak labeled as the "Continental Divide" was not actually the Continental Divide. Second, the east–west distances calculated from the US-NR1 main tower were not correct. (The distances were incorrectly calculated as though the site was located at the equator.) The incorrectly plotted elevation profile is shown in Fig. 1a. In Fig. 1b, we have included two corrected east/west transect lines, one 300 m north of the US-NR1 main tower [as used in Burns et al. (2011)], and one due east/west of the main tower. These corrected transects reveal that the distance from the US-NR1 main tower to the divide is on the order of 8 km, and the elevation of the Continental Divide is closer to 3800 m, not 3600 m as described in Burns et al. (2011).

The original article can be found online at https://doi.org/10.1007/s10546-010-9560-6.

✉ Sean P. Burns
sean@ucar.edu

1 National Center for Atmospheric Research, P.O. Box 3000, Boulder, CO 80307-3000, USA

2 Department of Geography, University of Colorado, Boulder, USA

3 NorthWest Research Associates, Boulder, CO, USA

4 Scientific Aviation, Inc., Boulder, CO, USA

5 School of Earth and Environmental Sciences, Queens College, New York, USA

6 U.S. Geological Survey, Denver, CO, USA

7 School of Natural Resources and the Environment, University of Arizona, Tucson, USA

8 Department of Ecology and Evolutionary Biology, University of Arizona, Tucson, USA

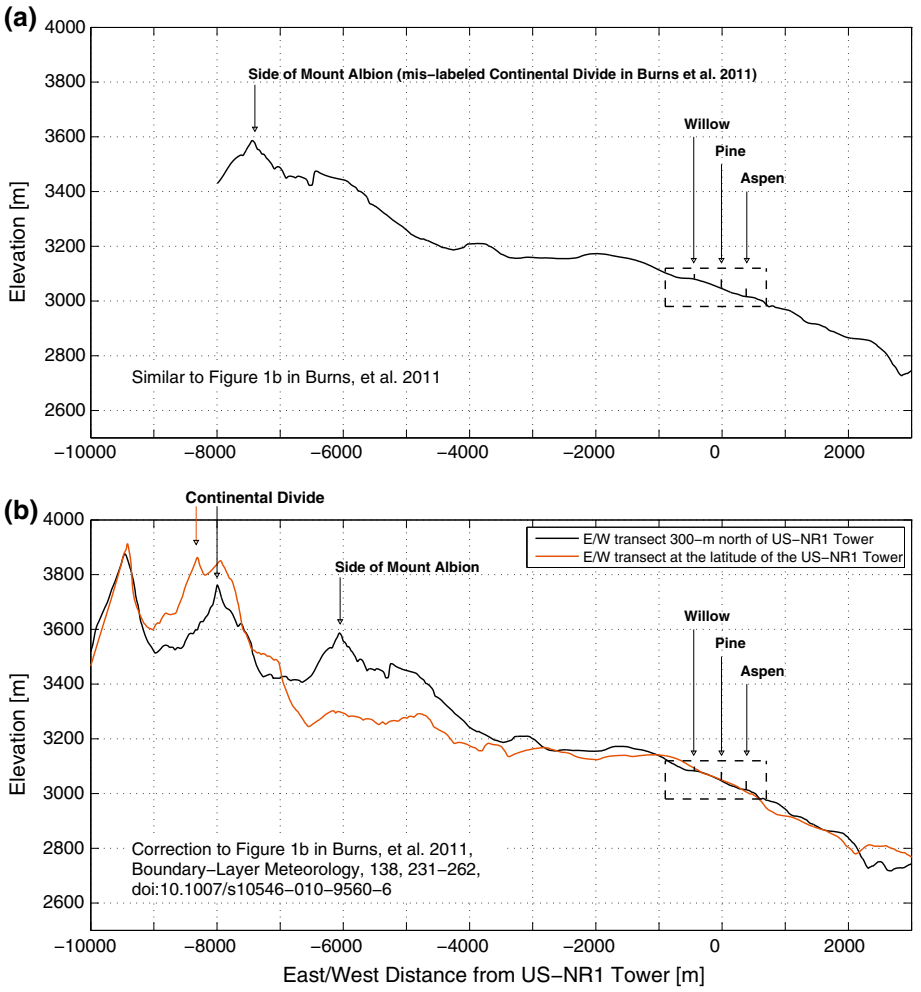

Fig. 1 East/West elevation transects near the Niwot Ridge Subalpine Forest AmeriFlux site (US-NR1) showing the location of the Willow, Pine, and Aspen towers during the 2004 Carbon in the Mountains Experiment (CME04) as well as the Continental Divide. Distances along the x-axis are relative to the US-NR1 main tower, with negative values indicating locations west of the US-NR1 main tower. In (**a**), the incorrect transect from Fig. 1b of Burns et al. (2011) is shown. In (**b**), two corrected east/west elevation transects are shown; one located 300 m north of the US-NR1 main tower and one due east/west of the main tower as described in the legend. Note that in Burns et al. (2011) the US-NR1 main tower was called "NWT"

In order to double-check our distance measurements, and to better identify the topographic features shown in Fig. 1b, we have included a USGS topographic image overlaid with the corresponding transect lines in Fig. 2. Based on this view, it is clear that the peak labeled as "Continental Divide" in Fig. 1b of Burns et al. (2011), was actually the east/west transect passing over the southern flank of Mount Albion at around 6 km west of the US-NR1 main tower. The other prominent feature to note is that the highest elevation from these two transects occurs at around 9.5 km west of the US-NR1 main tower (as shown in Fig. 1); however, this is not the Continental Divide, but instead a ridgeline that runs to the northwest from North Arapaho Peak ending at an isolated peak south of Wheeler Basin (see Fig. 2).

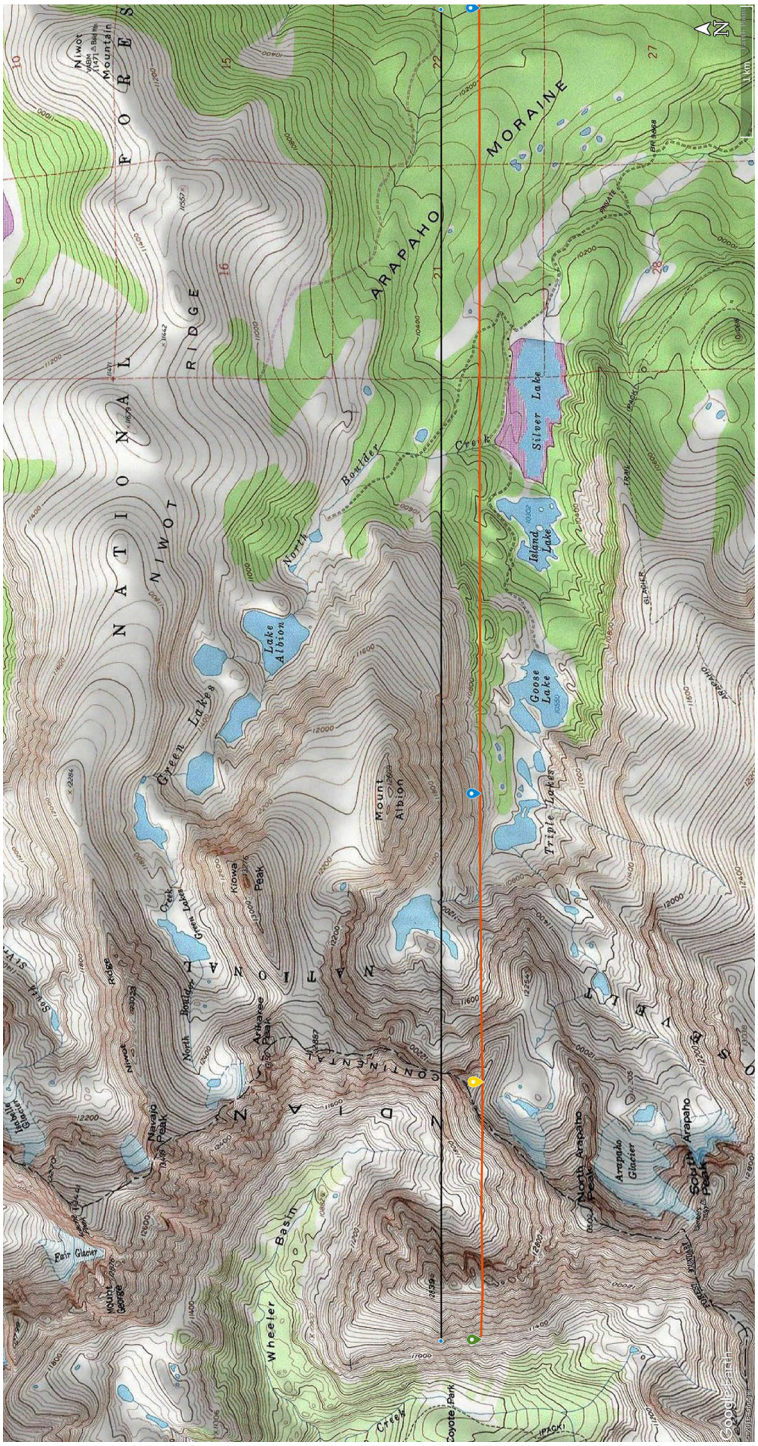

Fig. 2 A Google Earth (©2019 Google) image showing the topographic features to the west of the Niwot Ridge Subalpine Forest AmeriFlux site (US-NR1). Map data are provided by the US Geological Survey (USGS). The black line represents the transect 300 m north of the US-NR1 main tower, while the orange line is at the same latitude as the US-NR1 main tower. These are the same transects shown in Fig. 1b. The green, yellow, and blue symbols mark distances of 10 km, 8 km, and 6 km west of the US-NR1 main tower which is the blue symbol at the right edge of the map. The Continental Divide is a labeled, dashed line running north/south along the high peaks

Within this erratum, the current affiliation of the authors has been used, and, when available, ORCID iDs have been added.

References

Blanken PD, Monson RK, Burns SP, Bowling DR, Turnipseed AA (1998-present) Data and information for the AmeriFlux US-NR1 Niwot Ridge Subalpine Forest (LTER NWT1) Site, AmeriFlux Management Project, Lawrence Berkeley National Laboratory, California. https://doi.org/10.17190/AMF/1246088

Burns SP, Sun J, Lenschow DH, Oncley SP, Stephens BB, Yi C, Anderson DE, Hu J, Monson RK (2011) Atmospheric stability effects on wind fields and scalar mixing within and just above a subalpine forest in sloping terrain. Boundary-Layer Meteorol 138:231–262. https://doi.org/10.1007/s10546-010-9560-6