



Corrigendum to
**“A 16-year record (2002–2017) of permafrost, active-layer,
and meteorological conditions at the Samoylov Island
Arctic permafrost research site, Lena River delta,
northern Siberia: an opportunity to validate
remote-sensing data and land surface, snow, and
permafrost models” published in Earth Syst. Sci. Data,
11, 261–299, 2019**

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In the original article, we provided some wrongly processed liquid precipitation data between 1 July 2009 and 11 September 2018. These have now been corrected and are provided as a new dataset (<https://doi.org/10.1594/PANGAEA.905236>). We also reprocessed all data and performed some additional quality flagging. This does not change the original data but provides additional quality flags. Furthermore, the new processed data set includes an additional year of data, until the end of 2018 (all time-series in the collection). Details on the errors, reprocessing and new datasets are provided below.

In the original data collection (<https://doi.org/10.1594/PANGAEA.891142>), some liquid precipitation data between 1 July 2009 and 11 September 2018 were incorrectly processed and displayed (Fig. 2 in the original article). Thus, the associated meteorological data of level 1 and 2 (Boike et al., 2018, level 1: <https://doi.org/10.1594/PANGAEA.891138>; level 2: <https://doi.org/10.1594/PANGAEA.891139>) are partly incorrect. Precisely, the files for level 1 and level 2 data (met_lv1_2009.dat, met_lv1_2010.dat, met_lv1_2014.dat to met_lv1_2018.dat, met_lv2.dat) have incorrect values in column Prec from 1 July 2009 02:00:00 to 3 October 2009 09:30:00, 22 July 2010 13:30:00 to 26 July 2010 00:30:00, 11 April 2014 07:00:00 to 30 September 2014 05:30:00, 6 May 2015 03:00:00 to 27 September 2015 10:30:00, 26 April 2016 02:30:00 to 24 September 2016 04:00:00, 11 June 2017 12:00:00 to 19 September 2017 04:30:00, and 12 January 2018 00:30:00 to 11 September 2018 22:30:00.

This was due to a change in the precipitation gauge setup due to a complete destruction of the gauge sometime in autumn 2009. The broken Environmental Measurements ARG100 gauge was exchanged for an R. M. Young Company 52203 tipping bucket gauge on 26 July 2010. The required adaption of the multiplication factor (i.e. from 0.2 to 0.1) was not performed for the final calculation of the precipitation data.

1 Adjustments in the mean annual meteorological variables

Averages were recalculated for the years and periods where full data sets were available. The mean annual air temperature 1998–2017 was calculated as -12.3°C but includes years with missing data (1998, 2000–2003, 2005, 2006, 2009, 2010). Including only years with full data records (1999, 2004, 2007–2017), the mean annual air temperatures is -11.7°C . Similarly, the mean monthly temperatures of the warmest month (July) is computed as 9.4°C (average of years 1999, 2004, 2005, 2007, 2008, 2011–2017) and for the coldest month (February) -31.7°C (average of months of 1999, 2000, 2004, 2005, 2007, 2008, 2011–2017). The average summer rainfall (June–October) was 145.2 mm (average of years 1999, 2003–2008, 2011–2017).

2 Updated quality check and additional data until 2018

In addition to the corrections described above, we performed an additional quality check of soil data sets (level 1 and level 2) that are included in the new version of the data collection (Boike et al., 2019, <https://doi.org/10.1594/PANGAEA.905236>). Additional flagging of soil temperature data was carried out for soil temperatures of level 2 for the period 1998–1999. Figure 2 has been updated with the revised data set. The old figure also includes data for soil bulk electrical conductivity (I) from 2010–2015 which do not fulfil the quality criteria. These data were flagged in the original data series (flag 6: consistency; Table 3 in the original article), and accidentally plotted in Fig. 2 of the original article. They are now excluded in the revised Fig. 1 (I) in this corrigendum since only data with flag 0 (“all quality tests passed”) are included.

Please note that the data described and analyzed in the original paper include the data until December 2017, but the new version of the data on PANGAEA includes data until December 2018.

3 Data availability

The link to the original data collection is <https://doi.org/10.1594/PANGAEA.891142>, contained the following data sets and cannot be accessed anymore (“access restricted”):

1. Boike, J., et al.: Calm data at station Samoylov (2002–2018, level 1, version 1), <https://doi.org/10.1594/PANGAEA.892372>, 2018.
2. Boike, J., et al.: Meteorologic data at station Samoylov (2002–2018, level 1, version 1), <https://doi.org/10.1594/PANGAEA.891138>, 2018.
3. Boike, J., et al.: Meteorologic data at station Samoylov (2002–2018, level 2, version 1), <https://doi.org/10.1594/PANGAEA.891139>, 2018.
4. Boike, J., et al.: Soil data at station Samoylov (2002–2018, level 1, version 1), <https://doi.org/10.1594/PANGAEA.891140>, 2018.
5. Boike, J., et al.: Soil data at station Samoylov (2002–2018, level 2, version 1), <https://doi.org/10.1594/PANGAEA.891141>, 2018.

The new data collection with the corrected data sets has the following DOI: <https://doi.org/10.1594/PANGAEA.905236>. This collection contains the following individual data sets:

1. Boike, J., Nitzbon, J., Anders, K., Grigoriev, M. N., Bolshiyarov, D. Y., Langer, M., Lange, S., Bornemann, N., Morgenstern, A., Schreiber, P., Wille, C., Chadburn, S., Gouttevin, I., and Kutzbach, L.: Calm data

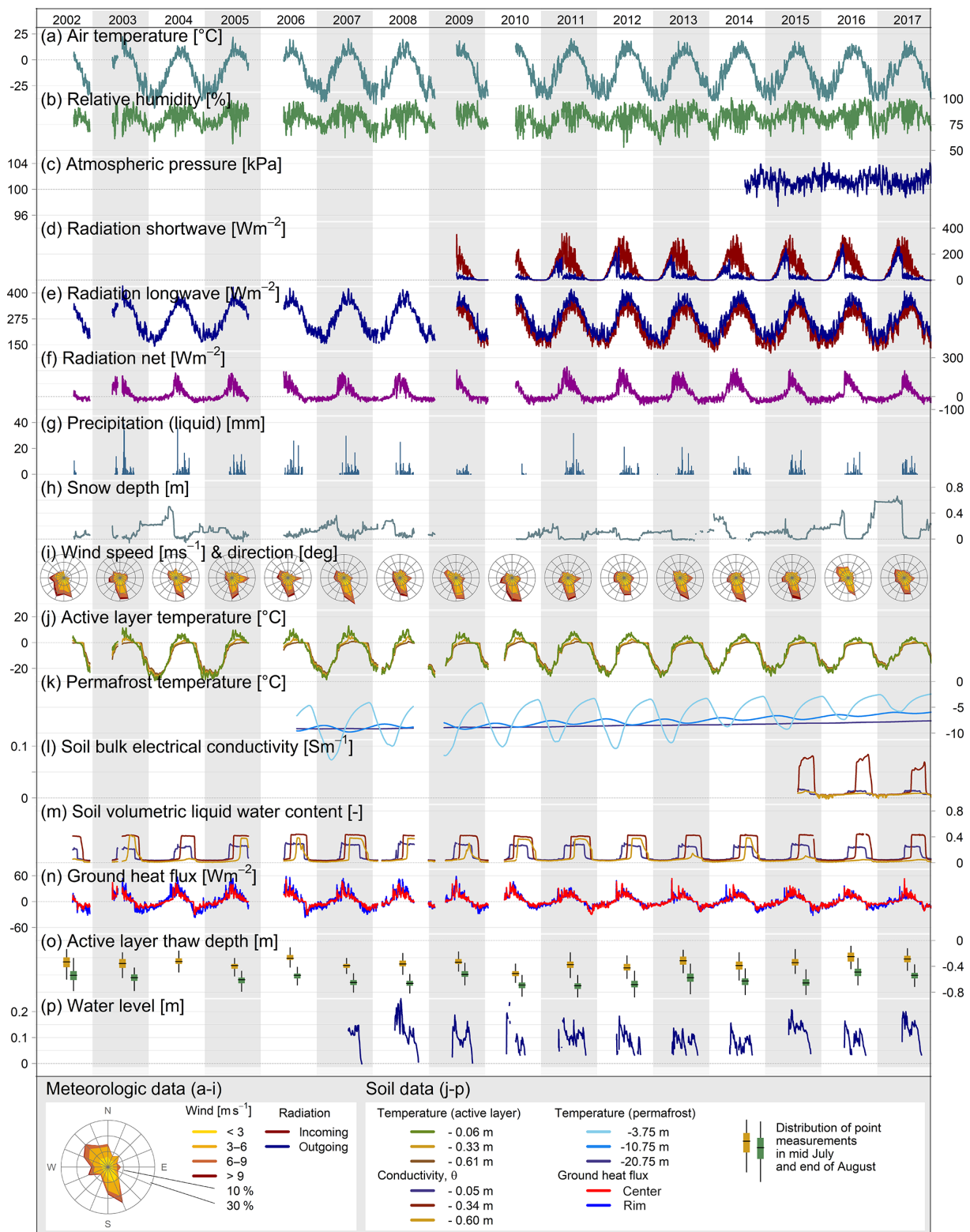


Figure 2. Time series (daily mean values) of Samoylov data presented in the original article: **(a)–(i)** meteorological data and **(j)–(p)** soil data. Seasonal average active layer thaw depth **(o)** was measured at the 150 data points on the Samoylov CALM grid. Precipitation **(g)** and soil bulk electrical conductivity **(l)** were corrected. This figure replaces Fig. 2 in the original article.

at station Samoylov (2002–2018, level 1, version 1), <https://doi.org/10.1594/PANGAEA.892372>, 2018.

2. Boike, J., Nitzbon, J., Anders, K., Grigoriev, M. N., Bolshiyarov, D. Y., Langer, M., Lange, S., Bornemann, N., Morgenstern, A., Schreiber, P., Wille, C., Chadburn, S., Gouttevin, I., and Kutzbach, L.: Meteorologic data at station Samoylov (2002–2018, level 1, version 201908), <https://doi.org/10.1594/PANGAEA.905230>, 2019.
3. Boike, J., Nitzbon, J., Anders, K., Grigoriev, M. N., Bolshiyarov, D. Y., Langer, M., Lange, S., Bornemann, N., Morgenstern, A., Schreiber, P., Wille, C., Chadburn, S., Gouttevin, I., and Kutzbach, L.: Meteorologic data at station Samoylov (2002–2018, level 2, version 201908), <https://doi.org/10.1594/PANGAEA.905232>, 2019.
4. Boike, J., Nitzbon, J., Anders, K., Grigoriev, M. N., Bolshiyarov, D. Y., Langer, M., Lange, S., Bornemann, N., Morgenstern, A., Schreiber, P., Wille, C., Chadburn, S., Gouttevin, I., and Kutzbach, L.: Soil data at station Samoylov (2002–2018, level 1, version 201908), <https://doi.org/10.1594/PANGAEA.905233>, 2019.
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Please note that the first (CALM dataset) is identical to the original data submission. To download the entire dataset as one zip file, we decided to copy it to the new archive.

References

- Boike, J., Nitzbon, J., Anders, K., Grigoriev, M. N., Bolshiyarov, D. Y., Langer, M., Lange, S., Bornemann, N., Morgenstern, A., Schreiber, P., Wille, C., Chadburn, S., Gouttevin, I., and Kutzbach, L.: Measurements in soil and air at Samoylov Station (2002–2018), PANGAEA, <https://doi.org/10.1594/PANGAEA.891142>, 2018.
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