Corrigendum: “The GOrddard SnoW Impurity Module (GOSWIM) for the NASA GEOS-5 Earth System Model: Preliminary Comparisons with Observations in Sapporo, Japan”

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In Yasunari et al. (2014), there were errors in Fig. 3. They inadvertently compared the simulated particulate organic matter (POM or OM) in snow to the measured organic carbon (OC) in snow by Aoki et al. (2011). Strictly speaking, the model mass ratio between POM and OC was a factor of 1.4 as mentioned for the GEOS-4 treatment in Colarco et al. (2010), which is a typical OM/OC mass conversion treatment on atmospheric aerosol discussion (e.g., Chin et al. 2009). Yasunari et al. (2014) actually did treat the POM mass in their OC snow-darkening calculations in the model because of using the POM depositions from the GOCART module in GEOS-5 as they were. Therefore, the modeled OC mass concentrations in snow in Fig. 3 of Yasunari et al. (2014) should have been divided by 1.4 (or the observed pure OC by Aoki et al. (2011) should be multiplied by 1.4) for proper comparisons. However, this treatment had minor impact on the discussions and conclusions by Yasunari et al. (2014). Hence, we just briefly mention this point here for readers as a corrigendum. The OC, which was referred in Qian et al. (2015) and Yasunari et al. (2015) on the GEOS-5 related descriptions and/or the discussions on snow-darkening effect, also represented POM (or OM) mass in snow as well.

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