Corrigendum: high resolution mapping of ice mass loss in the gulf of alaska from ...

Health & Medicine

A Corrigendum on

High Resolution Mapping of Ice Mass Loss in the Gulf of Alaska From Constrained Forward Modeling of GRACE Data

by Doumbia, C., Castellazzi, P., Rousseau, A. N, and Amaya, M. (2019). Front. Earth Sci. 7: 360. doi: 10. 3389/feart. 2019. 00360

In the original article there was an error in [the glacier mass loss rate from Larsen et al. (2007) and Berthier et al. (2010) and also in the method used by Gardner et al. (2013)]. The values in the article of Larsen et al. (2007) and Berthier et al. (2010) are in km ^{3} /year water equivalent (w. e.). We converted them into Gt/year but that was not necessary because km ^{3} /year (w. e.) is equivalent to Gt/yr. Also, Gardner et al. (2013) did not use spaceborne altimetry data (e. g., ICESat) over the entire Gulf Of Alaska (GOA) area to estimate glacier mass loss but they used several published GRACE estimates.

A correction has been made to the Introduction, paragraph 2:

“ Numerous studies focused on estimating the ice mass loss over specific continents, regions, or Mountain ranges. For example, Larsen et al. (2007) investigated glacier changes in southeast Alaska and northwest British Columbia over the period 1948–2000 and 1982/1987–2000, respectively. By combining the results from these periods, they estimated an average ice mass loss rate of 16. 7 ± 4. 4 Gt/year. In the Canadian Rocky Mountains, Castellazzi et al. (2019) estimated a total of 43 Gt of glacial mass loss over the period 2002–2015. Over the entire Gulf Of Alaska (GOA) area, Gardner et

al. (2013) found 50 ± 17 Gt/year of glacier mass loss based on several published GRACE estimates over the period 2003–2009. Berthier et al. (2010) obtained 41. 63 ± 8. 6 Gt/year of glacier ice loss from Digital Elevation Models (DEM) for the period 1962–2006. Larsen et al. (2015) used airborne altimetry to estimate glacier mass loss rate over the period 1994–2013 and found 75 ± 11 Gt/year."

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

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