Response to B. Raup

(Original comments are in bold, our replies are in standard font.)

I realize that it is fairly common in the literature to see mass balance numbers expressed in terms of “m w.e. yr⁻¹”, but this mix of SI units with a discipline-specific abbreviation goes against best practices as outlined by the U.S. National Institute of Standards and Technology (NIST). The document at http://www.nist.gov/pml/pubs/sp811/ recommends putting the abbreviation in the text rather than in the units (see section 7.5), such as, “Mera Glacier has been losing mass at a water-equivalent rate of - 0.1myr⁻¹,” rather than “Mera Glacier has been losing mass at a rate of - 0.1mw.e. yr⁻¹.” Following such best practices makes our literature more accessible to those coming from other fields.

It is a good point but this unit is now so well used and accepted in our community that we prefer to keep this way to express our mass balance results. This unit mm w.e. or m w.e. is also recommended p. 66 in the recent Glossary of Glacier Mass Balance and related Terms (IIHP-VII, Technical Documents in Hydrology, N°86, IACS Contribution n°2, UNESCO, 2011). Actually, the best way to express mass balance values should be in kg m⁻². We believe that expressing mass balance data in m w.e. yr⁻¹ is still very simple and accessible even for people coming from other fields.