

Interactive comment on “Decay of a long-term monitored glacier: the Careser glacier (Ortles-Cevedale, European Alps)” by L. Carturan et al.

Anonymous Referee #3

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This paper presents a comprehensive overview of the recession of Careser glacier from the earliest systematic observations in the late nineteenth century to the present day. The future decay of the glacier and its eventual demise over the next decades is estimated from current thinning rates and ice thickness data. The paper makes use of an excellent dataset including several decades of direct and geodetic mass balance observations, snout fluctuation records, ice thickness measurements and aerial photographs. Few glaciers have such extensive and detailed observations over such a long period. Although no new methods are introduced, this synthesis provides a valuable insight into the behaviour of a medium-sized alpine glacier in a warming climate, as well as highlighting the impending loss of long term glacier observation series at many

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“benchmark” glaciers. The scientific and written quality of the paper is very good and I only have a few points of clarification for the consideration of the authors.

Technical corrections

3295, 6, ‘records’

3296, 27 and 3297, 7, replace ‘series’ with ‘sites’

3300, 9, please explain what is meant by ‘over the largest area’

Page 3300, justify the use of density values of 900 kg m⁻³ and 600 kg m⁻³ for ice and firn, respectively.

3304, 29, replace ‘consumption’ with ‘loss’

3307, 21, do you mean ‘Holocene’ rather than ‘Olocene’?

3307, 24, replace ‘concause’ with ‘cause’

3308, 20-26, split this very long sentence into 2 or 3 shorter sentences

Figure 1, make the lat/lon labels larger on the upper panel and the text on the lower panel needs to stand out more clearly against the background.

Figure 8 caption, replace ‘above’ with ‘upper’ and ‘below’ with ‘lower’

Figure 10 caption, replace ‘above’ with ‘upper’

Figure 11, the line labelling needs to be clearer using larger or darker font

General point: most of the figures are lacking a scale

Interactive comment on The Cryosphere Discuss., 7, 3293, 2013.

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