Solid Earth Discuss., 6, C552–C553, 2014 www.solid-earth-discuss.net/6/C552/2014/

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6, C552-C553, 2014

Interactive Comment

Interactive comment on "Dedradation of buried ice and permafrost in the Veleta Cirque (Sierra Nevada, Spain) from 2006–2013" by A. Gómez-Ortiz et al.

Dr Oliva

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We acknowledge the interest of the reviewer and we have taken into account his observations.

Regarding the origin of the ice in the Veleta cirque, we have adapted the text to his comments. For example, in subsection 2.1 we have intoduced this idea:

These still-surviving remains of frozen bodies are the heir of the Little Ice Age period (XIV-XIX centuries), although their formation may have started earlier, even during the Medieval Warm Period (Oliva and Gómez-Ortiz, 2012).

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We don't really understand the comments about the rock glaciers and its relation with precipitation and glacier dynamics. The factors controlling glacier advance/retreat (mainly summer temperatures and precipitation as snow) are others than those controlling the kinematics of rock glaciers (topography, origin of the internal ice, thermal state of permafrost, etc). In this sense, we are aware of the dynamics of the rock glaciers in the Alps; some references have been cited in the text and others are taken in mind (Humlun, 1998; Haeberli et al., 2006; Kääb et al., 2007; Delaloye et al., 2010, etc).

Of course the therm "Dedradation" in the title is an errata and has been changed to "Degradation".

Interactive comment on Solid Earth Discuss., 6, 1037, 2014.

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Interactive Comment

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