

***Interactive comment on “Early last glacial maximum in the Southern Central Andes reveals northward shift of the westerlies at ~39 ka” by R. Zech et al.***

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This is an excellent paper presenting new ages for maximum glacial extent in the Northern Andes, markedly earlier than the Northern Hemisphere fullglacial maximum. This has major implications in terms of interhemispheric climate linkages. The paper also discussed the implications their data have on the latitudinal position of the Southern Westerlies, a long standing debate. My only concern is the authors' assumption that precipitation is the parameter in this region for glacier movements. Luckman and Villalba (2001) showed that instead temperature is related to glacier advances during the Little Ice Age period by comparison of climate reconstructions from tree ring

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data and dated moraines (Assessing synchronicity of glacier fluctuations in the western Cordillera of the Americas during the last millennium; in Markgraf, ed. Interhemispheric Climate Linkages). Perhaps the authors could discuss this aspect. Vera Markgraf October 28, 2010

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