

Retreat of Mediterranean glaciers since the Little Ice Age: Case study of
Ghiacciaio del Calderone (Central Apennines, Italy)

Maurizio D. Orefice¹, Massimo Pecci² and Claudio Smiraglia³ *

Servizio Geologico Italiano, Italy¹

Productive Settlements and Interaction with the Environment Department,
Italy²

Università di Milano, Dipartimento di Scienze della Terra, Italy³

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maxpecci@tin.it

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*Please see the full list of authors under the **Notes to readers** at the end of this article.

Abstract

Ghiacciaio del Calderone is the only glacier in the Italian Apennines and the southernmost glacier in Europe in a strong reduction phase. In this paper, the authors present a tentative synthesis of the evolution of the glacier, with a particular focus on evaluating the variations in area and thickness ranging from the end of the Little Ice Age to the present. The analysis was performed in a GIS environment, using available data for georeferencing (mainly from recent topographic maps) and for the reconstruction (from historical documents and old topographic maps) of the variations of the glacier in the last two centuries. The resulting values, reconstructed and/or calculated, covering the period since the end of the Little Ice Age, of about 36 m of ice thickness and of about 59,000 m² of ice surface area represent the glacier loss by 1990.

Notes to readers

Please find the full list of authors below:

Maurizio D Orefice
Servizio Geologico Italiano
Via Curtatone 3
00187 Rome
Italy

Massimo Pecci
Italian Glaciological Committee
ISPESL - DIPIA
Via Urbana 167
00184 Rome
Italy

Claudio Smiraglia
Italian Glaciological Committee
Università di Milano
Dipartimento di Scienze della Terra
Via Mangiagalli 34
20133 Milan
Italy

Renato Ventura
Servizio Geologico Italiano
Via Curtatone 3
00187 Rome
Italy

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