

## PERSONAL INFORMATION



## Francesco Malfasi

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Sex Male | Date of birth 30/12/1988 | Nationality Italian

## EDUCATION AND TRAINING

2018 Ph.D (XXX cycle) in “Chemical and Environmental Science”  
Project title: “Manipulation experiments for the assessment and monitoring of climate change impacts on vegetation of in alpine and polar ecosystems”  
University of Insubria, Department of Science and High Technology

2010 - 2012 Second Degree of Environmental Science  
Thesis Title: “Impacts of climate change on high altitude shrub vegetation. Cases study in Upper Valtellina”  
University of Insubria

Mark  
110/110 Lode:

2007 - 2010 Bachelor Degree of Analysis and Management of Natural Resources  
Thesis Title: “Analysis of CO<sub>2</sub> fluxes of target species in two different site in Upper Valtellina within subalpine and alpine zones”  
University of Insubria

Mark  
110/110 Lode

## ANTARCTIC and ARCTIC RESEARCH WORK

## 25 Nov 2017 – 08 Apr 2018 XXXIII Italian Antarctic Expedition

Programma Nazionale di Ricerche in Antartide (PNRA)  
Researcher within the project: “Climate Change impacts on Vegetation – Permafrost ecosystems in maritime Antarctic and the Antarctic Peninsula” (PNRA16\_00224).  
Signy Research Station (British Antarctic Survey), 10 Dec 2017 – 01 Apr 2018

## 5 Jan 2017 – 23 Feb 2017 XXXII Italian Antarctic Expedition

Programma Nazionale di Ricerche in Antartide (PNRA)  
Collaborator within the environmental assessment project of the airstrip (under construction) at Boulder Clay. Mario Zucchelli Station (PNRA), Terra Nova Bay, 10Jan 2017 – 14 Feb 2017

## 15 Feb – 20 Apr 2016

## XXI Italian Antarctic Expedition

Programma Nazionale di Ricerche in Antartide (PNRA)  
Researcher within the project: “Interactions between permafrost and climate and his importance for biodiversity along a latitudinal gradient in maritime Antarctica” (PEA 2013/C1.01).  
Signy Research Station (British Antarctic Survey), 28 Feb 2016 – 5 Mar 2016

## 15 Jan – 25 Mar 2015

## XXX Italian Antarctic Expedition

Programma Nazionale di Ricerche in Antartide (PNRA)  
Researcher within the project: “Interactions between permafrost and climate and his importance for biodiversity along a latitudinal gradient in maritime Antarctica” (PEA 2013/C1.01).  
Signy Research Station (British Antarctic Survey), 27 Jan 2015 – 16 Mar 2015

18 Dec – 29 Mar 2014	<b>XXIX Italian Antarctic Expedition</b> Programma Nazionale di Ricerche in Antartide (PNRA) Researcher within the project: "Permafrost and climate change" (PEA 2013-C1.01) Rothera Research Station (British Antarctic Survey), 1 Jan 2014 – 22 Mar 2014
5 Jun – 11 Jul 2013	<b>Arctic field campain</b> University of Insubria Researcher within the project: "Climate change impacts on the sensitive system permafrost-vegetation: spatial variability of active layer thickness, vegetation and CO <sub>2</sub> fluxes (SPAALVECO)" - RIS Id: 5844 "Dirigibile Italia" Research Station (Italian National Research Council), Ny-Alesund (Svalbard Is.)
5 Jan – 20 Mar 2011	<b>XXVI Italian Antarctic Expedition</b> Programma Nazionale di Ricerche in Antartide (PNRA) Researcher within the project: "Permafrost and climate change" (PEA 2013-C1.01) Rothera Research Station (British Antarctic Survey), 5 Jan 2011 – 20 Mar 2011
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RESEARCH AND DIDACTIC EMPLOYMENTS	
01 Jan 2019– 31 Dec 2019	Post-doc research grant; project title: "Assesment of the responses of sensitive alpine ecosystems to climate changes" University of Insubria, Department of Theoretical and Applied Science
01 Nov 2017– 31 Dec 2018	Contract on "Assessment of climate change impacts on vegetation and permafrost in Antarctica"" University of Insubria, Department of Theoretical and Applied Science
a.y. 2017/2018 a.y. 2016/2017 a.y. 2015/2016	Contract in support the lectures "Plant biodiversity and climate change" (BIO/02) University of Insubria, Department of Science and High Technology
15 May – 15 Nov 2014	Contract on "Assessment of climate change impacts in alpine environment through <i>in situ</i> manipulation experiments following the International Tundra Experiment design" University of Insubria, Department of Theoretical and Applied Science
15 Dec 2013 – 15 Apr 2014	Contract on "Vegetation and CO <sub>2</sub> fluxes analysis in Antarctic ecosystems - Rothera Research Station (British Antarctic Survey)" University of Insubria, Department of Theoretical and Applied Science
10 Feb – 10 Mar 2014	Contract on "Data analysis of Arctic field campaign, Svalbard Islands, Summer 2013" Istituto di Biologia Agroambientale e Forestale (IBAF) – National Research Council (CNR)
a.y. 2013/2014	Contract in support the lectures: "Climate change impact"(GEO/04) and "Plant biodiversity and climate change" (BIO/02) University of Insubria, Department of Science and High Technology
2 Jan – 30 Oct 2013	Contract on "Technical support to the elaboration of National Adaptation Strategy to Climate Changes" Euro-Mediterranean Centre on Climate Changes S.C.a r.l., Via Augusto imperatore, 16 – 73100 Lecce

Contributor within "Climate Changes and Terrestrial Ecosystems" chapter, coordinated by Prof. Marino Gatto (Politecnico di Milano)

- 5 Jan – 5 Jun 2011      Contract on "Study of CO<sub>2</sub> fluxes in polar cryotic environment"  
University of Insubria, Department of Structural and Functional Biology (DBSF)

#### FURTHER INFORMATIONS

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- Publications
- Cannone, N., Convey, P., **Malfasi, F.**, 2018: "Antarctic Specially Protected Areas (ASPA): a case study at Rothera Point providing tools and perspectives for the implementation of the ASPA network". *Biodiversity and Conservation*, DOI: 10.1007/s10531-018-1559-1.
- Cannone, N., Corinti, T., **Malfasi, F.**, Gerola, P., Vianelli, A., Vanetti, I., Zaccara, S., Convey, P., Guglielmin, M., 2017: "Moss survival through *in situ* cryptobiosis after six centuries of glacier burial". *Scientific Reports*, 7: 4438; DOI:10.1038/s41598-017-04848-6.
- Guglielmin, M., Convey, P., **Malfasi, F.**, Cannone, N., 2016: "Glacial fluctuations since the "Medieval Warm Period" at Rothera Point (western Antarctic Peninsula)". *The Holocene*, 26, 154–158.
- Cannone, N., Augusti, A., **Malfasi, F.**, Pallozzi, E., Calfapietra, C., Brugnoli, E., 2016: "The interaction of biotic and abiotic factors at multiple spatial scales affects the variability of CO<sub>2</sub> fluxes in polar environments". *Polar Biology*, 39, 1581–1596.
- Malfasi, F.**, Convey, P., Cannone, N.: "Plant community distribution and biodiversity assessment for environmental change detection at Rothera Point, Adelaide Island, Antarctic Peninsula", SCAR XXXIV Open Science Conference, 2016, Abstract book, ISBN 978-0-948277-32-0, p. 361.
- Malfasi, F.**, Convey, P., Cannone, N., Guglielmin, M.: "Spatial variability of Active Layer Thickness under different soil and vegetation conditions at Anchorage Island, Marguerite Bay, Maritime Antarctica", SCAR XXXIV Open Science Conference, 2016, Abstract book, ISBN 978-0-948277-32-0, p. 467.
- Cannone, N., Dalle Fratte, M., **Malfasi, F.**, Convey, P., Guglielmin, M.: "Ecosystem carbon fluxes and plant communities distribution at Anchorage Island, Marguerite Bay: connections and climatic feedbacks in an Antarctic environment", SCAR XXXIV Open Science Conference, 2016, Abstract book, ISBN 978-0-948277-32-0, p. 296.
- Castellari, S., Venturini, S., Giordano, F., Ballarin Denti, A., Bigano, A., Bindi, M., Bosello, F., Carrera, L., Chiriacò, M.V., Danovaro, R., Desiato, F., Filpa, A., Fusani, S., Gatto, M., Gaudioso, D., Giovanardi O., Giupponi C., Gualdi S., Guzzetti F., Lapi M., Luise A., Marino G., Mysiak J., Montanari A., Pasella D., Pierantonelli L., Ricchiuti A., Rudari R., Sabbioni C., Sciortino M., Sinisi L., Valentini R., Viaroli P., Vurro M., Zavatarelli M., 2014: "Elementi per una Strategia Nazionale di Adattamento ai Cambiamenti Climatici". Ministero dell'Ambiente e della Tutela del Territorio e del Mare (MATTM), Roma, ISBN 9788887728071.
- Dalle Fratte, M., Cannone, N., **Malfasi, F.**, 2014: Long-term vegetation dynamic in relation to climate change in Italian Central Alps", p. VII, in atti del 109° Congresso Società Botanica Italiana (International Plant Science Conference).
- Malfasi, F.**, Pignatti, S., Cannone, N., 2014: "Shrubs and trees encroachment in response to climate warming in an high elevation alpine environment (Italian Central Alps)", p. 101, in atti del 109° Congresso Società Botanica Italiana (International Plant Science Conference).
- Cannone, N., Guglielmin, M., Gambillara, R., **Malfasi, F.**, 2013: "Relationships between biosphere and cryosphere in a climate change frame at Ny-Alesund – CCT", p. 22 in "11th Ny-Alesund Science Managers Committee Seminar", ISSN 2239-5172.
- Augusti, A., Cannone, N., **Malfasi, F.**, Pallozzi, E., Brugnoli, E., Calfapietra, C., 2013: "Carbon fluxes in Arctic plant species: photosynthetic performances, isotopic signature and VOCs emissions", p. 26 in "11th Ny-Alesund Science Managers Committee Seminar", ISSN 2239-5172.
- Malfasi, F.**, Cannone, N., 2013: "Impatti del cambiamento climatico su sviluppo e diffusione delle vegetazioni arbustive di alta quota". La Palinologia nel 2013 - Modena, Università degli Studi di Modena e Reggio Emilia, 27-29 Maggio 2013.

## Oral presentations

**Malfasi, F.**, Convey, P., Cannone, N.: "Plant community distribution and biodiversity assessment for environmental change detection at Rothera Point, Adelaide Island, Antarctic Peninsula", SCAR XXXIV Open Science Conference - Kuala Lumpur, 22-26 August 2016.

**Malfasi, F.**, Convey, P., Cannone, N., Guglielmin, M.: "Spatial variability of Active Layer Thickness under different soil and vegetation conditions at Anchorage Island, Marguerite Bay, Maritime Antarctica", SCAR XXXIV Open Science Conference - Kuala Lumpur, 22-26 August 2016.

Cannone, N., Dalle Fratte, M., **Malfasi, F.**, Convey, P., Guglielmin, M.: "Ecosystem carbon fluxes and plant communities distribution at Anchorage Island, Marguerite Bay: connections and climatic feedbacks in an Antarctic environment", SCAR XXXIV Open Science Conference - Kuala Lumpur, 22-26 August 2016.

Dalle Fratte, M., Cannone, N., **Malfasi, F.**: "Long-term vegetation dynamic in relation to climate change in Italian Central Alps", 109° Congresso Società Botanica Italiana (International Plant Science Conference) - Firenze, 2-5 Sep 2014.

**Malfasi, F.**, Cannone, N.: "Impatti del cambiamento climatico su sviluppo e diffusione delle vegetazioni arbustive di alta quota", La Palinologia nel 2013 - Modena, Università degli Studi di Modena e Reggio Emilia, 27-29 May 2013.

## Poster presentations

**Malfasi, F.**, Pignatti, S., Cannone, N.: "Shrubs and trees encroachment in response to climate warming in a high elevation alpine environment (Italian Central Alps)", poster n. 101, 109° Congresso Società Botanica Italiana (International Plant Science Conference) - Firenze, 2-5 Sep 2014.

## Grants

AntEco session - Early Career Researcher Grant - SCAR XXXIV Open Science Conference, Kuala Lumpur, 22-26 Agosto 2016

ANTPAS session - Early Career Researcher Grant - SCAR XXXIV Open Science Conference, Kuala Lumpur, 22-26 Agosto 2016

## Conferences and workshops

"XXXV SCAR Biennial Meetings - IASC Open Science Conference - 2018 Arctic Observing Summit" – Davos (Switzerland), 15-26 June 2018 (day pass: 21-22 June 2018);

ANTPAS Workshop "1st International Workshop on Antarctic permafrost, periglacial processes and soils - From an Expert Group to a Research Program, Varese (Italy), 4-5 October 2017;

"XXXIV SCAR Biennial Meeting including the 2016 Open Science Conference" – Kuala Lumpur Convention Centre, Kuala Lumpur (Malaysia), 22-26 August 2016;

"Impacts of Climate Change on Ecosystem Services" – Milano, Politecnico di Milano, 23 Jun 2015;

"109° Congresso Società Botanica Italiana - International Plant Science Conference (IPSC)" – Firenze, 2-5 Sep 2014

"Milano-Bicocca e i Cambiamenti Climatici: Ricerca, Formazione, Divulgazione" – Milano, Università degli Studi Milano-Bicocca, 9 Apr 2014;

"High Summit 2013. International Conference on Mountains and Climate Change" – Lecco, Ev-K2-CNR presso Politecnico di Milano (Polo Territoriale di Lecco), 23-25 Oct 2013;

"La Palinologia nel 2013: ponte tra paleoecologia ed ecologia per la comprensione dei cambiamenti globali indotti dall'impatto antropico nel Mediterraneo" - Modena, Università degli Studi di Modena e Reggio Emilia, 27-29 Maggio 2013;

"Cambiamento climatico: analisi ed impatti su specie ed ecosistemi vegetali", Società Botanica Italiana, Gruppo di Ecologia - Varese, Università degli Studi dell'Insubria, 18 Apr 2012;

"IV Giornata Nazionale dei Giovani Geomorfologi", Associazioni Italiane di Geografia Fisica e Geomorfologia - Como, Università degli Studi dell'Insubria, 28-30 Sep 2011.

## Summer schools and short courses

"European Dendroecological Fieldweek 2016"; lecturers: Dr. Kerstin Treydte (WSL, Birmensdorf, Switzerland), Prof. Tom Levanic (Slovenian Forestry Institute), Prof. Andrej Smuc (University of Ljubljana), Kranjska Gora, Slovenia, 12-18 Settembre 2016.

"Summer school on Alpine Plant Life", lecturers: Prof. Christian Körner, Prof. Jürg Stöckling, Dr. Erika Hiltbrunner, ALPFOR Research Station, Furka Pass, 20-25 Luglio 2015.

"Corso intensivo di Geomorfologia Periglaciale", visiting professor: Hugh M. French, Como, Università degli Studi dell'Insubria, 25-26 Maggio 2011;

"Sicurezza nel campionamento in montagna", 'Università degli Studi dell'Insubria, Valmalenco (SO), 15-18 Marzo 2010.

#### PERSONAL SKILLS

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##### Communication skills

- Italian (native); English (fluent); Spanish (basic)
- good communication skills gained through my working and travelling experiences, both in homeland and in foreign countries
- good ability of integration and cooperation within multicultural contexts

##### Organisational / managerial skills

- good capacity in organization and good sharing sense, gained through studying and working groups

##### Computer skills

- excellent knowledge in most Microsoft Office™ tools
- excellent knowledge and experience in geographic information systems (QGIS, GRASS GIS, ArcGis) and Global Positioning System (GPS), Google Earth
- good use of statistical softwares (Statistica ®; XLSTAT)
- competent with tree-ring analysis devices and softwares (LINTAB 6, TSAPWin, Rinntech)
- good knowledge in dataloggers (Gemini; Hobo Onset; Decagon Devices) and data analysis;
- experience in automatic weather station downloading and maintenance

Faloppio, 8<sup>th</sup> January 2019

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