



**SCAR Sub-Group**

SG / SC

Person  
Responsible:

**ANTPAS**

GS

Mauro  
Guglielmin &  
Marc Oliva

## **XXXVII SCAR Delegates Meeting**

**India, September 2022**

# **Antarctic Permafrost, Soils and Periglacial Environments (ANTPAS)**

## **2020-22 Report**

### **Summary**

#### **Report Author(s)**

Mauro Guglielmin (Italy), Marc Oliva (Spain)

#### **Summary of activities from 2020-22**

ANTPAS activities since 2020 were very restricted by the pandemic situation.

Some ANTPAS members conducted research in Antarctica in January-February 2021 and 2022 in Maritime Antarctica or in December in Victoria Land, basically performing the monitoring activities of permafrost and active layer boreholes. Research was very limited, particularly in 2021, as field activities were cancelled in the frozen continent.

Some other ANTPAS members made essentially the maintaining of the permafrost monitoring network in Northern and Southern Victoria Land as well as in Signy Island and Rothera Station.

In 2022 the situation has started to go back to normality and ANTPAS members have developed again field activities. We expect that the situation will even improve in 2023 and ANTPAS researchers can continue to foster permafrost research in Antarctica promoting sessions and seminars in regional and international meetings.

#### **Summary Budget 2021 to 2024**

	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
	Spent	Allocated	Request	Request
(US\$)	0	5726	2500	7000

## Progress and Plans

### Outcomes/Activities Summary

- Promotion of internships for early career researchers, with three grants to favour mobility of young ANTPAS researchers to international research centres and universities. In particular resulted winner of the grants “Flavia Ferrari (Univ. Viscosa, Brasil); Ivan Alekseev (Univ. Saint Petersburg, Russia) and Maria Sotille (Univ. Rio Grande do Sul, Brasil).
- Organization of the session “Periglacial and paraglacial environments in Antarctica” within the 6th European Conference on Permafrost. International Permafrost Association. Puigcerdà (Catalonia), 19-24 June 2023.

### Group Cash Flow

(Since previous report to Delegates in 2020)

Purpose/Activity	Allocation	Amount spent		
		2020	2021	2022
	5726	'0	0	
Grants for Internship				5715

### Future Plans

ANTPAS has been organized a session dedicated to Antarctic permafrost and a ANTPAS meeting during the next 6<sup>th</sup> European Conference on Permafrost while would like to organize a session on the same topics and the annual ANTPAS meeting during the next SCAR OSC conference in 2024 as well as will organize a session also during the next IPA conference in Canada in 2024 to reinforce the liaison with the IPA.

## Budget

### Planned use of funds for 2022 to 2024

Year (YYYY)	Purpose/Activity	Amount (in USD)	Contact Name	Contact Email
2023	<b>ANTPAS Meeting and session during 6th European Conference on Permafrost</b>	2500	Mauro Guglielmin	mauro.guglielmin@uninsubria.it
2024	<b>ANTPAS meeting and session during XXXVI SCAR OSC Pucon Chile</b>	3500	Mauro Guglielmin	mauro.guglielmin@uninsubria.it
2024	<b>Antarctic session 12th International Conference on Permafrost</b>	3500	Mauro Guglielmin	mauro.guglielmin@uninsubria.it
<b>TOTAL</b>		9500		

## Membership

### Leadership

Role	First Name	Last Name	Affiliation	Country	Primary Language	Email	Date Started
Co Chair	Mauro	Guglielmin	Univ. Insubria	Italy	Italian	Mauro.guglielmin@uninsubria.it	
Co-Chair	Marc	Oliva	Univ. Barcellona	Spain	Spanish	marcoliva@ub.edu	
Secretary	Megan	Balks	Univ. Waikato	New Zealand	English	megan.balks@earthbrooke.co.nz	

(Please identify early-career researchers with \* in first column)

### Other members

First Name	Last Name	Affiliation	Country	Primary Language	Email
Christel*	Hansen	Univ. Pretory	South Africa	English	antpasscar@gmail.com
Ian	Meiklejohn	Univ Rhodes	South Africa	English	i.meiklejohn@ru.ac.za
Jeronimo	Lopez-Martinex	Univ. Madrid	Spain	Spanish	jeronimo.lopez@uam.es
Goncalo	Vieira	Univ. Lisbon	Portugal	Portoguese	vieira@campus.ul.pt
Andrei	Abramov	Russian Academy of Sciences	Russia	Russian	forestpro@gmail.com
Joe	Levy	Univ. Texas	USA	English	joe.levy@utexas.edu
Nicoletta	Cannone	Univ. Insubria	Italy	Italian	Nicoletta.cannone@uninsubria.it
Carlos	Schaefer	Univ. Vicosa	Brasil	Portoguese	carlos.schaefer@ufv.br
Dan	Morgan	Vanderbilt Univ	USA	English	dan.morgan@vanderbilt.edu
Berry	Lyons	lyons.142@osu.edu	USA	English	
Filip*	Hrbacek	Masaryk University, Brno	Czech Rep	Czech	hrbacekfilip@gmail.com

(Please identify early-career researchers with \* in first column)

There are another 170 researchers in the world that at least one time attended the ANTPAS meeting

## Additional information (optional)

(Please add any more detail here that you wish on activities, papers published, linkages, etc, since the last report to Delegates in 2020)

### Notable Papers

(Five to ten most notable papers – see the example below, which includes a brief statement [shaded] indicating the link to the group)

1. Hrbáček, F.; Oliva, M.; Abramov, A.; de Pablo, M.A.; Ramos, M.; Vieira, G.; Goyanes, G.; Hansen, C.; O'Neill, T.; Lacelle, D.; Ponti, S.; Guglielmin, M.; Pastirikova, L.; Schaefer, C. & Francellino, M. (submitted). Variability of active layer and permafrost thermal regime and thickness in Antarctica. *Earth-Science Reviews*.

This work has been written during the pandemics in order to summarize the current state of knowledge of permafrost (and active layer) state in Antarctica. It constitutes a summary paper carried out by ANTPAS members that is expected to be a reference for future researchers working on permafrost science in Antarctica.

2. Cannone, N., Malfasi, F., Favero-Longo, S.E. Convey, P., Guglielmin, M, Acceleration of climate warming and plant dynamics in Antarctica. *Current Biology*, 2022 Apr 11;32(7):1599-1606.e2. doi: 10.1016/j.cub.2022.01.074.

This work has been written during the pandemics by almost all members of ANTPAS and enhance the role of Climate Change in Antarctica and its effects on the permafrost ecosystems

### Major collaborations your group has with other SCAR groups and with organisations/groups beyond SCAR

(Numbered list of substantive collaborations)

#### Within SCAR

1. International Permafrost Association
2. European Polar Board

#### Outside SCAR

1. X

### Outreach, communication and capacity-building activities

(Provide a numbered list of no more than half a page)

### Contributions to equality, diversity, and inclusion (EDI)

(Any specific actions the group has undertaken to advance EDI within the group and/or within SCAR)

## SCAR Fellowship Reviewers

First Name	Last Name	Email	Principal Expertise
Mauro	Guglielmin	mauro.guglielmin@uninsubria.it	Permafrost; Climate Change
Marc	Oliva	marcoliva@ub.edu	Permafrost, Geomorphology
Nicoletta	Cannone	Nicoletta.cannone@uninsubria.it	Vegetation, Climate Change