



International
Science Council

Paper No: 15 Agenda item: 4.3.2

SCAR Group

Bedmap3

Person
Responsible:

Peter Fretwell

XXXVII SCAR Delegates Meeting

India, September 2022

Bedmap3 Action Group

2020-22 Report

Summary

Report Author(s)

Peter Fretwell, UK

Summary of activities from 2020-22

Since the group was set up in 2019, there has been agreement on a standardized list of attributes and metadata needed for geophysical data for incorporation into Bedmap3 and the agreement from all international parties on the FAIR sharing of data.

The geophysical data collection and standardization phase is now complete and publication of the dataset will follow soon. The analysis of the bed topography model is also ongoing and should be complete in the next few months.

Summary Budget 2021 to 2024

	2021	2022	2023	2024
	Spent	Allocated	Request	Request
(US\$)	Nil	\$2000	\$2000	

Progress and Plans

Outcomes/Activities Summary

(1-3 sentence summary of each major activity or outcome)

- There have been a number of international meetings since the set-up of the group. The first AGM at the SCAR conference in Incheon in 2019 where the conversation on the requirements for the standardization of data was initiated. This was followed by a group meeting held at the IGS meeting at Stanford in September 2020 where the requirements were refined. Due to the pandemic no face-to face meeting has been held in 2021, but an online AGM was held in September 2021. Also several updates on the state of the project have been sent to members over the last year. The major output of these meetings has been the agreement on a standardized list of attributes and metadata needed for geophysical data for incorporation into Bedmap3 and the agreement from all international parties on the FAIR sharing of data.
- During this period the geophysical data (mainly radio echo sounding and seismic data) from the international community has been collected, standardized, metadata harvested and ingested into a web browser. The data collection and standardization phase is now complete and publication of the dataset will follow this summer. The analysis of the bed topography model is also ongoing and should be complete in the autumn.

Group Cash Flow

(Since previous report to Delegates in 2020)

Purpose/Activity	Allocation	Amount spent		
		2020	2021	2022

Future Plans

Budget

Planned use of funds for 2022 to 2024

(one row per activity)

Year (YYYY)	Purpose/Activity	Amount (in USD)	Contact Name	Contact Email
2022	Attendance at RINGS conference as requested by RINGS chair K. Matsuoka	Estimated \$1500	P. Fretwell	ptf@bas.ac.uk
2023	Publication of Bedmap3 topographic map	\$2500	P. Fretwell	ptf@bas.ac.uk
TOTAL		\$4000		

Membership

Leadership

Role	First Name	Last Name	Affiliation	Country	Primary Language	Email	Date Started
Chair	Peter	Fretwell	British Antarctic Survey	UK	English	ptf@bas.ac.uk	2020

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

Other members

First Name	Last Name	Affiliation	Country	Primary Language	Email
Martin	Siebert	Imperial	UK	English	m.siebert@imperial.ac.uk
Joohan	Lee	KOPRI	Korea		joohan@kopri.re.kr
Mathieu	Morlighem	Dartmouth	US		mathieu.morlighem@dartmouth.edu
Dustin	Schroeder	Stanford	US		Dustin.M.Schroeder@stanford.edu
Kirsty	Tinto	Columbia	US		tinto@ldeo.columbia.edu
Cui	Xiangbin	PRIC	China		cuixiangbin@pric.org.cn
Frank	Pattyn	ULB	Belgian		fpattyn@ulb.ac.be
Sergey	Popov	PMGE	Russia		spopov67@yandex.ru
Kenny	Matsuoka	NPI	Norway		kenichi.matsuoka@npolar.no
Duncan	Young	Texas	US		duncan@ig.utexas.edu
Alan	Aitken	UWA	Australia		alan.aitken@uwa.edu.au
Hamish	Pritchard	BAS	UK		hpri@bas.ac.uk
Olaf	Eisen	AWI	Germany		Olaf.Eisen@awi.de
Jason	Roberts	UTAS	Australia		J.L.Roberts@utas.edu.au
Jamin	Greenbaum	UCSD	US		jsgreenbaum@ucsd.edu
Sun	Bo	PRIC	China		sunbo@pric.org.cn
Daniel	Steinhage	AWI	Germany		Daniel.Steinhage@awi.de
Fabien	Gillet-Chaulet	UGA	France		fabien.gillet-chaulet@univ-grenoble-alpes.fr

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

Additional information (optional)

Notable Papers

(Five to ten most notable papers)

1. BEDMAP3: FAIR sharing of ice bed, surface and thickness datasets for Antarctica

This paper is due to be submitted in late summer by the group and will highlight the release of the standardized dataset and web-application that will give free access to sixty years of geophysical data, collected by the whole Antarctic science community.

2. BEDMAP3: new gridded datasets of ice thickness, bed topography and surface elevation of Antarctica.

This paper is in preparation and will be submitted in autumn 2022. It will be similar to the highly successful Bedmap2 compilation.

Direct support from outside organisations received for your activities

(Numbered list with values indicated if direct cash support. Please restrict in-kind support to substantive in-kind support only)

None

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

(Numbered list of substantive collaborations)

Within SCAR

1. RINGS
2. AntArchitecture

Outside SCAR

- 1.

Outreach, communication and capacity-building activities

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

These plans will become evident when we publish later this year. At present we have plans for a Bedmap3 paper map publication, a 3d model and others.

Contributions to equality, diversity, and inclusion (EDI)

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