



**SCAR SG**    **Life Sciences**

Paper 13    Agenda item 7

Person    Yan Ropert-  
Responsible:    Coudert

## **SCAR Executive Committee Meeting 2019**

**Plovdiv, Bulgaria, 29-31 July 2019**

# **SCAR Life Sciences Group**

## **2018-19 Report**

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

Yan ROPERT-COUDERT, France  
Ian MacDONALD, New Zealand  
Marc SHEPANEK, USA

### **Summary paragraph**

Following Davos, several workshops from several groups were held: an ISSA Long Term Ecological Research and Monitoring Workshop to which several nations participated and which had a strong involvement of ANTOS; IUCN workshop on Important Marine Mammal Areas; the Monaco Open Ocean Week; the Marine Ecosystem Assessment for the Southern Ocean workshop. In the coming months, there will be several other meetings, including for the new AGs, Plastic and SKAG, involving early-career scientists in the process.

One major change was the re-allocation of 5000U\$, initially planned for a BEPSII summer school, to 2 BEPSII workshops in 2019. Matching funds have been obtained from two groups (+60U\$).

No specific recommendation to the Secretariat. We are still looking forward to seeing the new financial reporting system in action.

## Sub-group updates

*Please include any information that has changed since the SCAR 2018 Delegates meeting, following the headings below.*

### Sub-group – what has been achieved?

Sub-group	Activity
<b>ISSA (and ANTOS)</b>	October 2019, a ISSA Long Term Ecological Research and Monitoring Workshop was held in New Zealand (representatives from Australia, New Zealand, France, UK and South Africa and pre-workshop input from colleagues in South America). A white paper to help guide and grow integrated subantarctic research efforts is in preparation.
<b>EGBAMM (+LS)</b>	Several members attended the IUCN workshop on Important Marine Mammal Areas (IMMA) in October 2018, which led to 15 candidates IMMAs to be sent to review (now in revision phase).
<b>LS</b>	LS heads attended several workshops, including the Monaco Open Ocean Week at the end of March 2019 where the preliminary results of the IMMA workshop were discussed, and a workshop in 3-7 June 2019 in Woking, UK that completed the first MEASO (Marine Ecosystem Assessment for the Southern Ocean) stage. LS is also part of the executive committees for the organisation of SCAR OSC in Hobart 2020 and of MEASO.
<b>SKAG</b>	Preparing a manuscript “Is krill fishery management in Antarctica adaptable to climate change?” and working on webpage
<b>ANTOS</b>	Meetings were held with a new vendor in Canada that has the experience of integrating marine sensor systems in polar environments. They will develop a prototype telemetered (iridium) system needed for the near-shore component of ANTOS.
<b>BEPSII</b>	A workshop held 15-17 May at LOCEAN, Paris, France to finalize BEPSII Task 3.3, i.e. the inter-comparison of 1-D sea-ice biogeochemical models.
<b>Remote Sensing</b>	Publication of the outcomes of the workshop “Drones in Polar Biology” during SCAR Biology Symposium 2017 (Mustafa et al. 2018) + IP10 of XLII ATCM (Prague 2019, submitted by Germany, Portugal, Spain, SCAR). Consultancy for Ukraine National Scientific Antarctic Center on the establishment of a drone monitoring program of Penguin colonies and vegetation at Argentine Islands (workshop during IX International Antarctic Conference, Kiev, 12-16 May 2019).
<b>EGABI</b>	Maintained active and up-to-date the Southern Ocean Diet and Energetics Database and established a SCAR GitHub presence to be available to other SCAR groups.

<b>ImPACT</b>	Group has expanded to include 25 active members from 14 nations. 4th quarter (2018) and 2nd quarter (2019) meetings have been held. Two 'living' databases have been generated detailing the current projects and activities of group members, as well as member sample archives, to facilitate cross group collaboration and streamlining of methods. As a group, ImPACT has endorsed research applications of its members to the Italian Antarctic Research Programme for activities aligning with the objectives of ImPACT. ImPACT members have partnered on two major research applications to the Australian Antarctic Science scheme and the Australian Research Council respectively, for activities directly in line with the objectives of ImPACT.
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### Sub-group – what lies ahead?

<b>Sub-group</b>	<b>Activity</b>
<b>OA</b>	Developing a science paper from the submitted report.
<b>ISSA</b>	Subantarctic forum at SCAR 2020 to bring in Policy, Manager, and Scientist perspectives and needs. "What can we learn from the Subantarctic" and "What are the challenges for the Subantarctic". Plus, what are the next steps for ISSA: Expert Group or a preproposal for an SRP?
<b>SKAG</b>	First annual meeting on 15 <sup>th</sup> and 16 <sup>th</sup> June 2019 in Concarneau, France.
<b>PLASTIC</b>	A workshop will be held at the University of Hull, UK, 28-30 <sup>th</sup> October 2019.
<b>LS/EGBAMM</b>	Presentation of the relevance of the Biogeographic Atlas of the Southern Ocean, the IMMA and the RAATD project to the SCAR-CEP workshop in Prague, Czech Republic, on 26 <sup>th</sup> June 2019.
<b>ANTOS</b>	2-3 workshops planned later in 2019 to work on the final touch to the Database prior to it becoming open access; to develop a terrestrial survey protocol to assist new ANTOS participants in obtaining the critical baseline data needed prior to the installation of a Tier 1-3 system. The Italian National Programme will install 4 new ANTOS Tier 1 systems (with new sensors measuring the bioactivity of known endolithic communities) in 4 locations near to Terra Nova Bay and French participants to the ISSA meeting have expressed interest in installing 3 towers at Kerguelen.
<b>BEPSII</b>	A collaborative paper based on the workshop analyses is in progress, results to be presented at the IGS Symposium on Sea Ice in August 2019 in Winnipeg, Canada, and paper submitted for the special issue of Annals of Glaciology for the IGS.

<b>EGABI</b>	A workshop on biological traits will be held in March 2020 in the frame of the Register of Antarctic Marine Species + an international course “Tools for Southern Ocean Spatial Analysis and Modelling” will be organized in Belgium in September 2019 in the frame of the SCAR/rOpenSci initiative.
<b>ImPACT</b>	It is requested that AG funding be used to cover i) A scientific visit for HDR student to another ImPACT member institute, or ii) to cover non-Antarctic travel costs of HDR students or members undertaking Antarctic sampling towards the objectives of ImPACT in the 2019/2020 Antarctic season.

## Budget

### Changes to planned use of funds for 2019 and 2020

Year (YYYY)	Purpose/Activity	Amount (in USD)	Contact Name	Contact Email
<b>2019</b>	Initially planned for a summer school, money will be used for 2 workshops (one already done in March 2019 and one to come later in the year)	5000	Jacqueline Stefels	j.stefels@rug.nl
<b>Total</b>		<b>5000</b>		

## Membership

### Changes to Sub Group Leadership since 2018 Delegates Meeting report

Role	First Name	Last Name	Affiliation	Country	Email	Date Started	Date Term is to End

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

### SCAR Fellowship Reviewers

First Name	Last Name	E-mail	Principal Expertise
<b>Yan</b>	ROPERT- COUDERT	Yan.ropert- coudert@cebc.cnrs.fr	Seabird and marine mammal ecology

## Additional information (optional)

### Outreach, communication and capacity-building activities

*Brief highlights of any activities undertaken since the SCAR Delegates meeting in 2018.*

The SCAR/rOpenSci initiative from EGABI is gathering momentum in building the Antarctic/Southern Ocean R community. They are preparing a “Tools for Southern Ocean Spatial Analysis and Modelling” international course, to be held in Belgium in September 2019.

### 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. Ropert-Coudert Y, Chiaradia A, Ainley D, Barbosa A, Boersma PD, Brasso R, Dewar M, Ellenberg U, García-Borboroglu P, Emmerson L, Hickcox R, Jenouvrier S, Kato A, McIntosh RR, Lewis P, Ramírez F, Ruoppolo V, Ryan PG, Seddon PJ, Sherley RB, Vanstreels RET, Waller LJ, Woehler EJ, Trathan PN (2019) Happy Feet in a Hostile World? The Future of Penguins Depends on Proactive Management of Current and Expected Threats. *Frontiers in Marine Science* 6 : 248.
2. Ropert-Coudert Y, Van de Putte A, Reisinger R, Bornemann H, Charrassin JB, Costa DP, Danis B, Huckstadt L, Jonsen I, Lea MA, Thompson D, Torres L, Trathan P, Wotherspoon S, Ainley D, Alderman R, Andrews-Goff V, Arthur B, Ballard G, Bengtson J, Bester M, Blix AS, Boehme L, Bost CA, Boveng P, Cleeland J, Constantine R, Crawford R, Dalla Rosa L, PJN de Bruyn, Delord K, Descamps S, Double MC, Emmerson L, Fedak M, Friedlaender A, Gales N, Goebel M, Goetz K, Guinet C, Goldsworthy S, Harcourt R, Hinke J, Jerosch K, Kato A, Kerry K, Kirkwood R, Kooyman G, Kovacs K, Lawton K, Lowther A, Lydersen C, Lyver P, Makhado A, Márquez M, McDonald B, McMahon C, Muelbert M, Nachtsheim D, Nicholls K, Nordøy E, Olmastroni S, Phillips R, Pistorius P, Plötz J, Pütz K, Ratcliffe N, Ryan P, Santos M, Southwell C, Staniland I, Takahashi A, Tarroux A, Trivelpiece W, Wakefield E, Weimerskirch H, Wienecke B, Xavier J, Raymond B, Hindell M (in press) The retrospective analysis of Antarctic tracking data project. *Nature Scientific Data*.
3. Mustafa, O., Barbosa, A., Krause, D. J., Peter, H. U., Vieira, G., & Rümmler, M. C. (2018) State of knowledge: Antarctic wildlife response to unmanned aerial systems. *Polar Biology*, 41(11), 2387-2398.

This work provides a comprehensive overview of developments in remote sensing based on RPAS in the Antarctic region. It was the outcome of the AG-Remote Sensing's meeting in Kuala Lumpur, October 2016.

**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)*

- Matching funding has been obtained through an internal grant to Sharon Robinson (ANTOS Committee Member) from the University of Wollongong (~\$28K) to develop an ANTOS terrestrial survey protocol.
- Matching funding has been obtained from WWF-UK by EGBAMM to finance the salary of Ryan Reisinger for 6 months (~ 34 US\$) to finish working on the RAATD project.
- Matching funding (~\$20K) from BELSPO, Belgium, for EGABI project “Tools for Southern Ocean Spatial Analysis and Modelling”

**Major collaborations your Science Group has with other SCAR groups and with organisations/groups beyond SCAR**

*(Numbered list of substantive collaborations)*

**Within SCAR**

1. ICED
2. APECS

**Outside SCAR**

1. IUCN
2. MEASO
3. WWF-UK
4. Agence Française pour la Biodiversité (AFB)