

Report to the Tinker Foundation

Martha T Muse Prize for Science and Policy in Antarctica

2009 - 2013

Submitted by the Scientific Committee on Antarctic Research
By Dr Renuka Badhe on 23rd May 2014

1. Brief Overview

This Narrative Report summarises the activities and accomplishments of the Martha T. Muse Prize for Science and Policy in Antarctica from 2009-13, as administered by the Scientific Committee on Antarctic Research (SCAR) for the Tinker Foundation.

The Prize was established by the Tinker Foundation in honour of its long-time leader Ms. Martha Twitchell Muse, and as a lasting legacy of the International Polar Year 2007- 2008 (IPY). Each year over (initially) a five-year period a Prize winner will be selected and awarded \$100,000 of unrestricted funds by the Tinker Foundation. The Prize is to recognize an early to mid-career researcher, in any field of Antarctic science or policy, who has demonstrated exceptional capabilities and the potential for significant creativity and leadership in the future. The Prize winner can be from any country and work in any field of Antarctic science or policy. The goal is to recognize outstanding and important work being done by the individual and to call attention to the importance of understanding Antarctica in the Earth system. The provision of this substantial, unrestricted financial prize will allow the recipient to pursue intellectual, scientific, and/or personal activities at a critical time in his or her career. The goal is to identify tomorrow's leaders of Antarctic science and policy and improve the chances of them realizing their potential.

2. Project Activities

The main activities undertaken in the first five years of the Prize were:

- The design and maintenance of the Prize website (www.museprize.org) including the ability for nominations to be made completely on-line.
- Selection of the members of the Prize Selection Committee (two of whom rotate off each year), and Chair of the Selection Committee (once every three years)
- Promotion and publicity of the Prize by the use of traditional advertising (through the journals Nature, Polar Record and Antarctic Science), mailing lists (National Academy of Sciences mailing list, SCAR mailing lists, listservers etc.) and e-mailings to individuals.
- Compilation and assignment of Nominations in advance of the Selection Committee Meeting, including the design of the Evaluation forms etc. required and the development of the procedures involved in

- selecting a Prize winner.
- Organisation and running of the Selection Committee Meetings (2009 – Polar Research Board (PRB) USA; 2010 – Darwin College, Cambridge, UK; 2011 – Korea Polar Research Institute, South Korea; 2012 – Redpath museum, Montreal via IPY Montreal, 2013 – INACH, Punta Arenas, Chile)
 - Organisation and running of the Prize and associated Ceremonies (2009 – IPY Oslo; 2010 – American Geophysical Union, San Francisco, USA; 2011 – World Conference on Marine Biodiversity, Aberdeen, UK; 2012 – SCAR Open Science Conference, Portland, USA; 2013 - American Geophysical Union, San Francisco, USA)

3. Project Accomplishments

The major accomplishments of the first five years of the Prize was the establishment and continuation of the Prize and the infrastructure required (e.g. website, Selection Committee) that culminated in the selection of the Prize Winners:

2009: Professor Steven Chown from Stellenbosch University in South Africa,

2010: Associate Professor Helen Fricker, Scripps Institute of Oceanography, USA;

2011: Dr Jose Xavier, Institute of Marine Research, Coimbra, Portugal,

2012: Dr Steve Rintoul, CSIRO Fellow, CSIRO Marine and Atmospheric Research, Australia, and

2013: Prof Martin Siegert, University of Bristol, UK.

4. Internal/External Factors Influencing Project and Problems Encountered

SCAR has been coordinating Antarctic Research and providing advice to policy makers since 1958. This provided a strong base of contacts and experience within the SCAR Secretariat that was essential in setting up the Prize. However, as recognized in an earlier report, SCAR had less experience in Social Sciences. Since 2010, the SCAR Social Sciences Action Group has been active, and one of its members (Daniela Liggett) was a member of the Martha Muse Selection Committee for 2010, 2011 and 2012.

External partners (e.g. the US Polar Research Board, the Antarctic Treaty Secretariat, the Scott Polar Research Institute, the IPY, various National Antarctic Programs) were also engaged to reach out to the full extent of the Antarctic community for advertisement and dissemination of information regarding the Prize.

A minor issue was that some of the Nominees for the Prize were too advanced in their careers to be contenders for the Prize. The text on the website was modified to make this clearer. In 2010, Committee members

noted that the nominations still differed in their layout considerably. Hence, on advice of the Committee members, a template nomination package was provided for the 2011 cycle. In the 2012 cycle, one Committee member resigned a few days before the Selection Committee meeting due to personal health issues, however the Committee agreed that for the 2012 round, they would divide the extra nominees from the 6th member.

Other adjustments to the website were also made to improve efficiency based on feedback received from the Committee members, SCAR Executive Committee, and others.

The founding chair of the Prize Selection Committee, Diane McKnight, was involved in the initial committee that worked with the Tinker Foundation and the Polar Research Board to outline the details of the Prize. The current Chair, Dr Ian Allison, was a member in the 2009 Selection Committee, which has helped to ensure the original aims of the Prize were realized.

5. Unanticipated Results

There were no unanticipated results in the first five years of the Prize.

6. Target Audience

The target audience are the many researchers, policy makers and educators involved in Antarctic Science and the conservation of Antarctica. By helping the careers of key individuals it is hoped that the Prize will also have an influence by increasing awareness of Antarctic matters to the general public and others.

7. Short-term Impact of the Project

Since 2009, the Prize has gained esteem both within the Antarctic community and the general scientific community. This is underlined by the Prize ceremonies, which have been held at extremely prestigious conferences aimed at both the Antarctic and the non-Antarctic community. The 2010 Ceremony was held at the American Geophysical Union conference in San Francisco, attended by more than 18,400 people from around the world. Similarly, the 2011 Ceremony was held at the World Conference on Marine Biodiversity (WCMB), and the Martha Muse Prize Ceremony was held with the Opening Ceremony of the WCMB, sharing the platform with Jean-Michel Cousteau, amongst others. The 2012 Ceremony was held at the SCAR Open Science Conference, which is the biggest Antarctic Science and Policy Conference and regularly attracts participants from more than 40 countries. The 2013 ceremony was held at the AGU again, which had more than 20,000 registered participants.

The Prize has certainly had a positive effect on all the Prize Winners' careers. In particular since two of the winners, Professor Chown and Dr Xavier are from South Africa and Portugal respectively, rather than one of the traditional "big players" in Antarctic Research this has been seen in a very positive light by both scientists and the media.

8. Longer-term Effects of the Project

The Martha T Muse Prize is intended to be a lasting legacy of the IPY. The goal of the Prize is to provide recognition of the important work being done by key individuals and to call attention to the significance of understanding Antarctica in a time of change.

9. Project Publications (and other products)

A short hand-out with details of the Prize, several pull-up type posters, etc have been prepared to be used at various relevant Conferences and meetings. For the 2012 SCAR Open Science Conference, volunteer t-shirts were partially sponsored, which included the name of the Prize and the website being widely displayed within the conference. Other merchandise, like scarves, have been produced to further increase advertising.

A poster was presented at IPY 2012 and was also displayed at the SCAR meetings in Portland, which included a section highlighting the winners. Over the past 5 years, several other posters/handouts have been prepared and displayed at various conferences and meetings, for example at the Antarctic Treaty Meetings, Antarctic related conferences including the SCAR conferences, UNFCCC conference, etc.

10. Project's Value as a Model or Demonstration of New Techniques

Even at this early stage some of the lessons learnt from this project have been utilized by SCAR, for example some of the procedures for rating the Martha T. Muse Prize Nominations are being used in the SCAR Medals and Awards schemes.

11. Project Personnel

Administrative Organisation

Dr Michael Sparrow and Mrs Rosemary Nash from the SCAR Secretariat in Cambridge, UK, were responsible for setting up and administering the Prize in year 1 (2009). Since February 2010, Dr Renuka Badhe and Mrs Rosemary Nash have been responsible for the same.

The activities included:

- Design and maintenance of the prize website (www.museprize.org), social networking sites (Facebook and LinkedIn), etc.
- Promotion and publicity of the prize, including advertising in journals, mailings, announcements, etc.
- Creation and maintenance of the six-member Selection committee, development of evaluation forms, checklists, guidelines etc.
- Administrative support associated with the Selection Committee meetings, conference calls, associated meeting reports, financial management of the project, etc.

On occasion, advice was also provided by the SCAR President, Dr Mahlon “Chuck” Kennicutt, and since 2010, Dr Mike Sparrow, Executive Director, SCAR.

Selection Committee

The Selection Committee for the Prize consists of six members of the Antarctic Community representing as highly respected and diverse backgrounds (geopolitically, by discipline and by gender) as possible. A general call for nominations to the committee was made and the final selection made by Tinker Foundation based on recommendations made by SCAR. From 2009 – 2013, the committee consisted of:

Prof Diane McKnight (Chair), United States. Background in biogeochemistry, hydrology, aquatic ecosystems (2009, 2010, 2011)

Dr Ian Allison, Australia. Background in glaciology, climate policy, Antarctic Treaty (Member 2009, Chair 2012, 2013, 2014)

Dr Jose Retamales, Chile. Background in engineering, logistics, Committee of Managers of National Antarctic Programs (COMNAP) (2009)

Dr Olav Orheim, Norway. Background in glaciology, climate, policy, Antarctic Treaty (2009)

Dr Rasik Ravindra, India. Background in climate, glaciology, logistics, Committee of Managers of National Antarctic Programs (COMNAP), SCAR (2009, 2010)

Prof Angelika Brandt, Germany. Background in biodiversity, zoology (2009, 2010, 2011)

Dr Daniela Liggett, Germany, New Zealand. Background in environmental management, Antarctic tourism, co-chair of the SCAR Social Science Action Group (2010, 2011, 2012)

Dr Alexander Klepikov, Russia. Background in physical oceanography of the Southern Ocean, polar ocean modelling, and polar climate dynamics (2010, 2011, 2012)

Prof Moon Young Choe, South Korea. Background in Geology and Sedimentology (2011)

Prof John Turner, United Kingdom. Background includes the synoptic and mesoscale weather systems of the polar regions, Antarctic precipitation, sea ice variability and the impact of the Antarctic 'ozone hole' (2011, 2012, 2013)

Dr Roberta Marinelli, USA. Background includes biological oceanography, ocean acidification, education and outreach. She is currently the Director of the Wrigley Wrigley Institute for Environmental Studies. (2012, 2013, 2014)

Mr Dongmin Jin, Korea. Background includes Antarctic policy and governance, International law, and Data management. (2013, 2014, 2015)

Prof Peter Barrett, New Zealand. Background includes geology, offshore drilling to study history of Antarctic climate and ice sheet behaviour. (2013, 2014, 2015)

Prof Mauricio Mata, Brazil. Background includes physical oceanography, modelling and remote sensing of meso/large-scale oceanic processes in the Southern Ocean. (2013, 2014, 2015)

Dr Huigen Yang, China. Background includes Space physics, and aurora observations, Antarctic policy, and bi-polar issues. (2014)

Additional assistance for the first year of the Prize was provided by the US Polar Research Board, in particular by Ms Jodi Bostrom. The US Polar Research Board also hosted the first committee meeting. Ms Renate Rennie from the Tinker Foundation has also taken an active role in the proceedings, including attending the Selection Committee Meetings, and the Prize Ceremonies.

12. Project Budget

The original project budget proved to be a reasonable estimate of the costs involved, though as agreed with Renate Rennie, a modified budget was approved for years 3-5 of the Prize in 2011. In summary the improvements to the original budget are:

- an increase in the advertising budget for high impact journals, and their websites to \$10k to allow the targeting of additional audiences.
- an increase in the travel budget for the committee meeting to \$21,000. Because of the location of some of the committee meetings, flight costs were more expensive than originally envisaged and it was suggested that the members of the committee should be allowed to travel premium economy rather than taking the cheapest economy seats. Two days rather than one are also required for the Selection Committee to make the final selection of the Prize Winner.
- An increase from two weeks to four weeks staff time to deal with evaluation forms, checklists, guidelines and dealings with the new selection committee (including conference calls and associated meeting reports), reviewing award expenditures, mainlining award records and assessing the performance of the system.
- Addition of a merchandise budget, \$5k for mugs, mousemats, etc to help in additional advertising of the Prize
- Addition of a merchandise and stationery budget (\$2k) for the Selection Committee members, as well as provision for one special meal for all Committee members and associated staff helping with the meeting admin (\$2k).
- Addition of a budget for Award venue, food, and related costs of ceremony (\$10k) and a budget for an Award Commemoration Dinner (\$5k).

13. Project Impact on the Administrative Organisation, SCAR

SCAR's Mission is "to be the leading independent organisation for facilitating and coordinating Antarctic and Southern Ocean research, and for identifying issues emerging from greater scientific understanding of the region that should be brought to the attention of policy makers". As part of this mission, recognizing and encouraging the leaders in Antarctic science and policy of the future plays a strong part and thus the ideals behind the Martha T. Muse Prize resonate strongly with SCAR's aims.

14. Project Activities Beyond Grant Period

A Colloquium in legacy of Martha T Muse and honouring the first 5 winners of the Muse Prize was held at Queenstown, NZ, in May 2014, in conjunction with the first SCAR Antarctic and Southern Ocean Horizon Scan. The reports for both these projects will be provided separately.