



A REPORT TO THE BOARD OF THE ANTARCTIC TREATY SUMMIT

The Association of Polar Early Career Scientists (APECS) coordinated an essay competition to encourage young researchers to ponder questions of environmental change and other challenges facing the polar regions from a policy perspective. Young researchers were asked to share their thoughts and opinions focusing on how to better integrate science and policy, and on the needs for new policy dealing with current issues in the Antarctic as well as the Arctic. The winner of this essay competition will receive a full travel fellowship to represent the new generation of polar researchers at the Antarctic Treaty Summit.

In the following, a brief overview will be given of the requirements for the essay competition, the various stages of planning, review and decision-making by the contest coordinators and the final winners.

The requirements for the essay competition

Participants were advised to address one of the following topics in their essays:

1. Describe a major lesson that has arisen from the last 50 years of Antarctic Treaty System policy-making, and explain how it could be applied to another global or international commons of your choice.
2. What is the largest challenge the Antarctic Treaty System will face in the next 50 years, and how can scientists and policy-makers work together to start overcoming that challenge?
3. What example of science-policy interactions from outside of Antarctica holds important lessons for the Antarctic, and how could those lessons be applied?
4. What aspect of the *1991 Protocol on Environmental Protection to the Antarctic Treaty* do you think is the most significant for regulating human activities in Antarctica and why?
5. What are the most important steps scientists and policy makers can take together to increase international science collaborations and data sharing?

Aside from submitting their 1000-word essays, the participants were asked to provide demographic information (e.g. career stage and educational background) and a brief biographic sketch outlining their career objectives, their interest in the Antarctic Treaty System and how they fit the "early-career" status.

Planning, review and decision-making

1. Early Stages

The project was initiated through a conversation between APECS members and Paul Berkman at the Scientific Committee for Antarctic Research Open Science meeting in St. Petersburg, Russia in July 2008. The contest was seen as a way to let early career scientists participate in the Antarctic Treaty Summit and contribute their views and ideas at the same time. Following the election of a new APECS Executive Committee in September/October 2008, planning for the essay competition began in earnest in January. Abovementioned essay questions were worked out such that participants could choose to address a variety of Antarctic science-policy issues. Reviewers for the contest were solicited and a final review team was formed. A flyer was created and emails were sent to the APECS membership and various other listservs at the end of January, and the due date for entries to the essay contest was set at 15 March 2009.

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2. Entries

The majority of the 15 submissions in total arrived around the due date.

In some cases, it was a challenge to identify exactly which question was being addressed. (In future contests, we should require that participants clearly note which question they are answering.) Based on our approximations, the most popular questions tended to provide more specific guidance to the participant and encouraged them to discuss what they knew about Antarctica rather than general science-policy interactions. Questions 1, 2, and 4 comprised 13/15 of the entries.

The participants came from a variety of backgrounds. There were a good disciplinary mix of people with predominantly physical or biological scientific interests and those with predominantly social science interests (roughly nine participants had backgrounds in biological/engineering/physical sciences and six in policy/law/social sciences). This shows APECS has the capability to access early career researchers interested in both science and policy.

The participants' career stages varied from high-school level through post-graduate researchers (four identified as High School students, two as college undergraduates, five as graduate students or becoming graduate students, and four doing post-graduate work).

Nationalities also varied and were further complicated by the transnational flow of students across borders (at least six had lived in countries other than the ones they were currently based in). This reveals a great deal of international mobility on the part of today's early career researchers. In terms of original citizenship, the group broke down as follows:

Table 1: Number of participants per nationality

Nationality	Number
South Korea	4
USA	4
Australia	2
India	2
Canada	1
Israel	1
New Zealand	1

The essay contest truly drew out a wide range of polar early career researchers of different nationalities. This being said, there were no entrants from Europe, South America, or Africa - so these are clearly areas that we should look to expand outreach activities in.

We did not ask for information about gender, although it appears that there was a mix of males and females.

3. Review

Each of the four reviewers evaluated the essays based on their own impressions and both scored and ranked them in order of their preference. The 37-point system (see Appendix for scoring details) judged the candidates not only on the quality of their essay, but also took into account their interest in integrating science and policy, career stage, and whether they were from a developing country. This data was collated by Daniela Liggett and then shared with all of the reviewers.

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We employed two methods to obtain a final ranking of the candidates. The first was by averaging all scores given by each of the reviewers and ranking them from highest to lowest. The second method employed assigned points to the essays ranked one through five by each reviewer (1st rank = 5 points → 5th rank = 1 point) and tallying up each participant's points. Both systems yielded similar results

4. Decision-making

The review panel held a conference call on 4 May 2009 to discuss the results. One reviewer was unable to attend, but had sent his comments in prior to the call. While each reviewer's ranking differed slightly from those of the others, there was general agreement on the top candidates.

It was decided that the clear winner was a Rhodes Scholar from the Massachusetts Institute of Technology, who suggested that the principles of the Antarctic Treaty's Article IV be applied to the Siachen glacier in the disputed region of Kashmir.

It was also agreed-upon that the group would recognize two runners-up who might be eligible for more support if it became available. The judges then agreed upon students at the University of Tasmania and Minjok Leadership Academy (High School) for two honorable mentions. The Australian student's essay called for the application of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) principles to the high seas. The South Korean student's essay cautioned about the spread of commercial exploitation into Antarctica through bioprospecting and suggested that an "Antarctic Science and Research Organization for Biological Prospecting" (ASROBP) could help to keep this in check.

Reflections on the overall process

Overall, we felt that this was a wonderful collaboration with the Antarctic Treaty Summit Board and thank them for the opportunity to both include and incorporate early career researchers into their meeting. We look forward to participating in the Antarctic Treaty Summit in person and reporting back to the APECS membership about it. This essay contest proved to be an excellent use of APECS talent and resources, and we hope to be able to build upon this success in the future should funding and opportunities become available to support such another endeavor.

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[APECS Polar Science Policy Essay Contest](#)

Appendix: Original Announcement of the Essay Contest (with Guidelines)



APECS Polar Science Policy Essay Contest for travel to the 2009 Antarctic Treaty Summit

With the changing climate in the Polar Regions comes an increasing need for better cooperation between scientists and policy makers. As early career researchers, we have an important challenge not only to do great science but to find ways to work with policy makers to set the direction of cooperation in the Arctic and Antarctic. We need to share our thoughts on environmental and political issues with our leaders so they can shape policy that will represent the views of young people throughout the world.

As part of this challenge, APECS, together with the organizers of the Antarctic Treaty Summit, are asking all young researchers to share their thoughts and opinions in form of an essay focusing on how to better integrate science and policy, and on the needs for new policy dealing with current issues in the Antarctic as well as the Arctic. Winners will receive a travel fellowship to represent the new generation of polar researchers at the Antarctic Treaty Summit, which will be held in Washington, DC **30 Nov – 3 Dec, 2009**. Deadline for submissions is **15 March 2009**.



Set forth as a legacy from the last International Polar Year (the International Geophysical Year), the Antarctic Treaty was established by seven claimant and five non-claimant signatories in 1959 and now engages 46 nations, representing nearly 90% of humankind.

This *Antarctic Treaty Summit: Science-Policy Interactions in International Governance* (<http://www.atsummit50.aq/>) will serve as a forum for discussing this resilient document and its impacts. This is a unique international, interdisciplinary and inclusive project, endorsed by the International Polar Year.

The goals of the conference include:

- Assessing lessons learned from the Antarctic Treaty System during the past five decades that have legacy value for international governance in general;
- Revealing precedents for cooperative planetary-scale governance from one of our civilization's international spaces (i.e., outer space, deep sea and Antarctica);
- Establishing broad public awareness around the world about the visionary goals, strategies and achievements that have emerged from the Antarctic Treaty "in the interest of all mankind".

To ensure the voices of early career professionals are included in this important summit, the Association of Polar Early Career Scientists (APECS) is asking for essay submissions from young professionals interested in science-policy interactions. The essays will be peer-reviewed and entered into a competition for travel scholarship funds to attend the summit and present the essay as part of a panel discussion. Furthermore, the essays will be published in the proceedings for this meeting and on the APECS website (<http://arcticportal.org/apecs>) to highlight the ideas of early career researchers and professionals. Publication of a special journal issue of the top essays is also under consideration.

[APECS Polar Science Policy Essay Contest](#)

The Antarctic Treaty Summit has guaranteed travel funds for one student, and an undetermined number of runners-up may also obtain travel grants when more funding becomes available. In addition to attending the summit, travel scholarship winners are asked to write a one-page summary of the meeting to be shared with the APECS membership.

The essays should address one of the following topics:

6. Describe a major lesson that has arisen from the last 50 years of Antarctic Treaty System policy-making, and explain how it could be applied to another global or international commons of your choice.
7. What is the largest challenge the Antarctic Treaty System will face in the next 50 years, and how can scientists and policy-makers work together to start overcoming that challenge?
8. What example of science-policy interactions from outside of Antarctica holds important lessons for the Antarctic, and how could those lessons be applied?
9. What aspect of the *1991 Protocol on Environmental Protection to the Antarctic Treaty* do you think is the most significant for regulating human activities in Antarctica and why?
10. What are the most important steps scientists and policy makers can take together to increase international science collaborations and data sharing?

Essays are limited to 1000 words, should be single spaced, using at least 10-point Times New Roman or Arial font and written in English. If English is not your first language, this will be taken into consideration. Citations may be provided on a separate page if needed and should not count against the word limitations. Each individual participant may only submit one application and select only one essay question to answer.

Essays are to be submitted as a .pdf-file to APECSinfo@gmail.com by March 15, 2009.

Questions regarding the essay contest should be directed to APECSinfo@gmail.com.

With your essay, please submit the following information, which does not count toward the word limit:

Contact Information

Name
Department and Institution
Mailing Address
City, State/Province/Region
Country
Email address & telephone number

Career Stage (select one)

- High School Student
 College Student
 Graduate Student
 Postdoctoral Researcher
 Assistant Professor
 Lecturer
 Other - Please specify:

Educational Background

Please list all degrees, institutions, and years attended

Brief Biography

You should answer the following questions in 300 words or less:

- Describe the stage of your career and why you feel you fit the 'early career' status.
- What are your career objectives?
- What is your interest in the Antarctic Treaty System?
- What else should we know about you?