

## **APECS-Brazil E&O activities summary report**

### **The Role of APECS-Brazil**

The Association of Polar Early Career Scientists (APECS) is an international and interdisciplinary organization for ECS, students, educators, and others with interests in Polar Regions. The association started in the context of the 4th International Polar Year (IPY 2007-2008) where both scientific and public interests in Polar Regions increased mainly with the focus on global climate changes and their impacts in the near future. APECS members intend to promote the development of research networks, stimulate educational activities and public literacy campaigns.

Since 2009, the Brazilian National Committee from APECS (*Associação de Pesquisadores e Educadores em Início de Carreira sobre o Mar e os Polos - APECS-Brazil*) develops several activities to promote interdisciplinary research as well as international cooperation by creating opportunities to ECS. It also brings polar and marine science closer to elementary and high school students and society as a whole, in order to spread information on importance of these environments and mainly to stimulate future generations of polar and marine researchers.

### **APECS-Brazil activities in 2014**

#### The I Scientific Journey: Brazil and the Antarctic Treaty

During the XXXVII ATCM, held in Brasília, APECS-Brazil organized activities in Brazilian schools and to general society around the country aiming promoting discussions related to the importance of the Antarctic for the planet.

The "I Scientific Journey: Brazil and the Antarctic Treaty" gathered more than 60 professors, researchers and about 3000 students from a dozen of Brazilian schools. Based on material distributed by the Governmental body responsible for the execution of the Brazilian Antarctic Program (SECIRM/PROMAR), at least 20 activities - from conferences, workshops, reading to creating texts - were developed in classes. All activities focused on the Antarctic Treaty as an agreement to ensure that Antarctica is used for peaceful purposes only, international cooperation and freedom scientific investigation, and that scientific observations and results from Antarctica shall be exchanged and made freely available.

### **Main Events**

The "XII International Polar Week" and the "II Workshop on Career Development" took place in October in Southern Brazil altogether with the Photo Exhibition Brazil/Portugal: Glances over a Frozen Continent. More than a dozen researchers from Brazil and Portugal developed activities with more than 700 elementary and high school students, watched by 40 thousand students from more than 30 schools of Brazil and abroad.

In September, the "III APECS-Brazil Symposium: Integrating the Scientific Community from Pole to Pole" gathered in Rio de Janeiro 80 researchers and teachers as well as more than 200 participants from 20 institutions all over Brazil and abroad. Researchers from Brazil, the United States, Spain, Portugal, Chile, Argentina and England, gave twenty talks being five broadcasted live on internet. Short courses and poster presentation were also included in the event.

One of the innovations of the III APECS-Brazil Symposium was to promote the participation of educators from all over Brazil as guests of the event. Teachers from all over Brazil were able to integrate the event as participants and learn more about the reality of Brazilian polar science. These teachers will be responsible for helping to spread the importance of Antarctic research conducted by Brazilian researchers; integrating the PEEP Project (see below).

### **Photo Exhibition details**

Photo Exhibition Brazil/Portugal: Glances over a Frozen Continent were composed by 25 pictures from Brazilian-ECS and 10 pictures from ECS from APECS-Portugal. The exhibition was scheduled to be itinerant, and may occur in different environments as we provide five copies of the pictures. Since 2014 the exposition happen in 12 environments (events, schools, universities) and about 50thousand people visited the exposition. Schools, events and other places may require exposure committing to send a small report with number of visitors and photos of the exhibition, and also to send the material of exhibition (pictures) to other local that will host the event. As product the APECS-Brazil produce a Catalogue of the Exhibition Glances over a Frozen Continent which is distributed to public schools throughout Brazil .

### **Antarctic Day Celebration**

Antarctica Day is an annual event proposed by "Our Spaces - The Foundation for the Good Governance of International Spaces" since 2009. The event is an opportunity to integrate diverse nations that can work together peacefully, using science as a global language of cooperation, and inspire future generations (<http://www.apecs.is/outreach/antarctica-day.html>).

On the 1<sup>st</sup> December 2014, APECS-Brazil announced numerous activities to celebrate the Antarctic Day in schools around Brazil (<http://www.apecsbrasil.com/eventos/dia-da-antartica/a2014/>). Students attended lectures and participated of discussions on the importance of Antarctica and the Antarctic Treaty. The activities were recorded in social media as well as in Our Spaces website, where a world map was depicted with the location of all participants. The activity a Book for Antarctica developed initially form APECS-Brazil in 2013 was adopted by other countries and encourage advanced students to create their own books that demonstrate a small research project on a particular Antarctic topic. The traditional activity “Antarctic Flags” incentives the students to draw or use the best way to express their questions, thoughts, and knowledge concerning any part of this continent. The draws representing “Flags for Antarctica” made by students from Brazil and around the world was sent to Antarctica to celebrate Antarctic Day.

The great innovation in celebrating Antarctic Day 2014 was the Antarctica Day Challenge on Facebook, developed by APECS-Brazil and performed by APECS members around the world. More than a thousand of pictures and draws were posted in Facebook timelines in December 1<sup>st</sup> inviting all to think about the importance of the Antarctic to the planet.

### **Official project**

In 2013 APECS-Brazil launched the long term project Researcher-Educator and Educator-Researcher Training Program (PEEP Project). The main objective is integrating researchers and educators by training workshops in scientific research and outreach activities in order to encourage formation of the future leader generation in science and education in Brazil.

Initially the PEEP project investigated the knowledge about the poles of educators, researchers and students involved in the proposal through an initial evaluation questionnaire. Analysis of the responses was the basis for the definition of the working groups that are developing activities to be implemented in the classroom in order to promote the discovery of the poles.

In September 2014 the 1<sup>st</sup> PEEP Workshop meeting took place during the "III APECS-Brazil Symposium". It included the participation of elementary and high school educators all over Brazil, from Amazon to South region in integrating activities with ECS. About 30 collaborators discussed the importance of scientific knowledge and ways to adapt the information generated by researchers to schools and general society. After initial discussions, we composed 17 mixed working groups (educators and scientists) and they started designed activities to be applied in schools during the next Polar Weeks, to be held in May and September 2015. The evaluation and discussion on the produced materials will occur during the 2<sup>nd</sup> PEEP Training Workshop in July 2015. We intent to do two additional meeting totalizing 4<sup>th</sup> Training Workshops until 2016.