

Polar Educators International Newsletter December 2017

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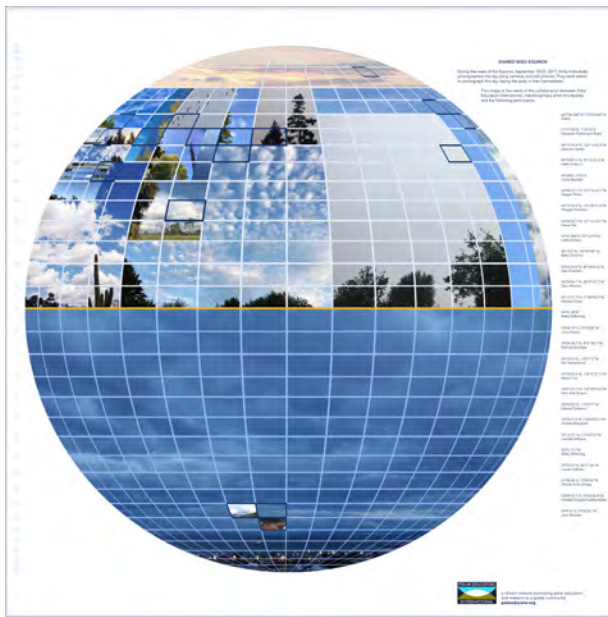
www.polareducator.org



Happy 2018 to all! Hope this finds you well, content, and in a polar frame of mind. PEI ExComm is very proud to share with you the latest collaboration for Polar Week,

Shared Skies Equinox, by artist Kim Abeles. The high resolution is available for download at

www.polareducator.org. Members that contributed sky photographs for the creation of this image will be receiving a framable poster shortly; thank you for your participation!



PEI Rovereto Workshop 2017 brought together many members from all parts of the world. It was an amazing opportunity to connect and reconnect with other members and to lay the groundwork for new collaborations. The dates are still being worked out for the next PEI workshop in 2019, but the site has been chosen as Cambridge, UK. Start making plans...

from PEI Rovereto, Spring 2017:



Plans are well underway for the PEI Workshop as part of Polar2018 to be held in Davos, Switzerland in June 2018. If you are planning to attend, make sure to arrange for housing through the conference website www.polar2018.org. If you have specific questions, email polareducators@gmail.com

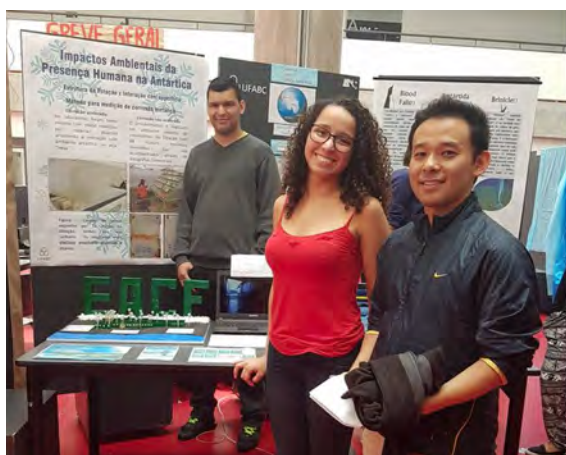


PEI Brazil- Dr. Sílvia Dotta, contributor

Quebrando o gelo, a Ciência na Antártica

Em comemoração ao dia da Antártica, alunos da Universidade Federal do ABC, sob a coordenação da Profa. Dra. Sílvia Dotta, realizaram uma exposição para mostrar como são realizadas as pesquisas científicas na Antártica. A exposição contou com 12 estandes, cada um criado por um grupo de alunos da disciplina Educação Científica

Sociedade e Cultura. Foram apresentados os processos científicos para se estudar, plantas, animais, história, fósseis, minerais, aquecimento global, impactos da presença humana, dentre outros. A exposição foi visitada por estudantes universitários, estudantes do ensino médio e professores do ensino básico. Para os alunos foi uma oportunidade ímpar de compreender os desafios para a formação de uma cultura científica e superá-los por meio de muita criatividade e inovação.



O Projeto Antártica da Universidade Federal do ABC, tem sido um exemplo de práticas multidisciplinares de Educação Científica e popularização da ciência. Trata-se de um projeto que articula pesquisa, ensino e extensão por meio de uma rede de pesquisadores antárticos e professores do ensino básico brasileiro.

O curso Antártica ou Antártida? é uma das ações desse projeto que teve sua terceira



turma concluída em 1 de dezembro. Participaram 45 professores de várias regiões do Brasil e de Portugal. Uma das



atividades do curso foi o desenvolvimento de um projeto polar em sala de aula. Aproximadamente 1600 crianças, adolescentes e adultos foram contempladas com essas atividades e puderam aprender um pouco sobre o continente gelado e suas influências em nossas vidas.

Breaking the ice, Science in Antarctica

In commemoration of Antarctica Day, students of the Federal University of ABC, coordinated by Professor Sílvia Dotta, held an exhibition to show how Antarctic scientific research is carried out. The exhibition counted on 12 stands, each one created by a group of students within the disciplines of Scientific Education, Society, and Culture. Presentations centered on the scientific processes to study plants, animals, history, fossils, minerals, global warming, impacts of human presence, among others. The exhibition was visited by university students, high school students and primary school teachers. For the students, it was a unique opportunity to understand the challenges faced in the formation of a scientific culture and to overcome them through creativity and innovation in science communication.

The Antarctic Project of the Federal University of ABC, has been an example of multidisciplinary practices of Scientific Education and popularization of science. It is a project that articulates research, teaching and extension through a network of Antarctic researchers and teachers of Brazilian basic education.

The Antarctic course is one of the actions of this project that had its third group completed on December 1st. Forty-five teachers from various regions of Brazil and Portugal participated. One of the course activities was the development of a polar project in the classroom. Approximately 1,600 children, adolescents and adults engaged in these activities and were able to learn a little about the icy continent and its influences in our lives.

RESEt, Research & Education Svalbard Experience, an Exciting Expedition and Collaboration in Learning

By Betty Trummel (U.S.) and Matteo Cattadori (Italy)

When my Italian colleague, Matteo Cattadori and I met as part of the ANDRILL (Antarctic DRILLing Project) in 2006, little did we know that ten years later we would still be collaborating and working together on exciting educational projects. Through the years we've visited each other's classrooms and have taken part in professional development presentations in both the U.S. and Italy. Our involvement in Polar Educators International as part of the Council and Executive Committee continually reinforces our commitment to polar science education.

Exactly ten years later we managed to answer to one question that has always puzzled every polar teacher or educator: "What might happen to a whole class of students when they are engaged in a real polar expedition?" This opportunity came with the

RESEt (Research and Education Svalbard Experience <http://resetsvalbard.altervista.org/>) a 3-year long project aimed at planning, organizing and funding a polar expedition with scientific-educational purposes.

The whole project was carried on with a class of the high school Liceo Fabio Filzi (Rovereto, Trento, Italy) consisting of 19 girls and 2 boys and it was aimed at strengthening the initiative and independence of female students in order to let them be ready for post diploma and career decisions more focused on personal attitude and wishes than on social and cultural conditionings.

The first two years of RESEt had been entirely devoted to fundraising activities such as: crowdfunding, partnership and sponsorship research, small activities (like homework help, babysitting, cake and cheese selling, etc.), and communication on local and national media (see press section on the website <http://resetsvalbard.altervista.org/project/rassegna-stampa/>). Thanks to the help of parents, more than 30 sponsors and nearly 500 single donations, we finally bought the flight tickets 1 June 2016.

In July, our travel path took us from Bologna, Italy to Oslo, Norway and north to the archipelago which is Svalbard...to Longyearbyen, a town of about 2,000 residents. This remote outpost is a place where scientists are constantly studying the effects of climate change, and its impact on the plants, animals, glaciers, and land of the Arctic region.

During our week in Svalbard, we took part in a 3-day, approximately 23 mile backpacking trip to explore the flora and fauna, glaciers, fjords, climate and landscape of the Longyearbyen area. Students recorded sights sounds, impressions, and knowledge to store for use after the expedition. Many had never donned a large backpack before, and even though the lack of a trail and difficult terrain made for a tough 3 days, they remained enthusiastic and did not lose track of their goals. They were eager to learn at every moment!

A small group of students had the chance to visit the Italian Arctic station "Dirigibile Italia" managed by the Italian National Research Council (CNR) <http://www.dta.cnr.it/index.php/it/> that strongly supported the entire project with a senior scientist (Federico Giglio) that accompanied the group for the entire expedition and by supporting the scientific work and measures we performed both in Italy and in the environment while in Svalbard.

One of the most important achievements of this project is the wide consensus that students not only managed to gather in their territory and in different forms to promote and collect economic resources, but worked (and succeeded) to encourage the participation of the whole local community to support this idea of an educational project. It was the key point of a unique and incredible experience for them (and for educators) that goes beyond the walls of a classroom and impacts them for life.

The story of the RESEt experience is now told in a professional documentary film that has been presented in April 2017 at the 65th edition of the Trento Film Festival of Mountains. This movie has been displayed in several other film and adventure festivals around the world (International Mountain Film Festival of Ushuaia and Bansko Festival). The trailer can be seen online here <https://vimeo.com/209925951>

Other sponsors are supporting the opportunity to view this movie for free in all Italian schools during the current school year, the complete list is available at this address <http://resetsvalbard.altervista.org/partners/>

Portuguese Fall Polar Week 2017

More than 15000 students and 400 teachers reached during the last polar week in Portugal- Patrícia Fialho Azinhaga, contributor

Polar science and polar regions were the topic on Portuguese schools from 9 to 13 October. During this week, Portuguese scientists have been in touch with the general public, particularly with students and teachers, talking and discussing their research and the importance of Polar science and Polar Regions.



15073 students, 7 scientists and 427 teachers and educators from Portugal and Brazil were involved in the several activities developed by PEI Portugal and APECS Portugal during the fall polar week. Among the activities carried out are the talks in schools and universities (27), Skype calls (1), University open days (2), Science Fair (1) and discussion panels on polar science and education (2).

Parallel to these activities the exhibition on the polar regions continues to be circulated by the schools in coordination with the Institute of Education and Citizenship (IEC), which was visualized by about 7000 students in the last 6 months.

The polar week continues to be an activity greatly appreciated by Portuguese schools for its positive impact, which is why the request of scientists in schools has been growing. The next polar week will be held in March and the requests are already several.





Cooler Classes

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Short Notes on Activities in Germany 2017

Polar Educators Germany Meeting 2017

The major meeting in 2017 was held in Erlangen, southern Germany on the 22. September 2017. Topics were future activities, startup of two publications and necessary cooperation between science and education. One talk was about the first experiences with a new project (Buoy project of Dr. Stefanie Arndt see below) by Daniel Gueffroy and a second talk was about a long-term project on an alpine glacier by Werner Hasler.



The meeting was part in a workshop of the Special Priority Program *Antarctic Research* of the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG). In between the science talks we had a talk about the STEP Project (Matteo, Italy and Rainer, Germany) and two hands on-activities also for researchers (Monika Kallfelz: Experiments, Jana Dömel: DNA analyses).



APECS Germany had also a joint workshop in Erlangen on possibilities for future professions. Rainer was invited speaker and talked about chances and challenges to become an educator.

Buoy Project



Dr. Stefanie Arndt (AWI and APECS Germany) had the idea for a new project: Students paint polar pictures and send them to Stefanie. She coordinates the distribution of the pictures onto polar buoys in the Arctic and Antarctica. While the buoys are drifting with the pictures, the students get information from “their” buoy about position, covered distance, temperature and more. The students learn a lot about the questions behind the buoy drifting, about polar climate and polar ocean currents.

Polar Educators Germany Newsletter

Six Newsletters were spread to the members in 2017: March (No 37), May (No 38), June (No 39), August (No 40), September (No 41), November (No 42). The Newsletter is in German.

<https://www.polarforschung.de/arbeitskreise/ak-polarlehrer/>



PEI Workshop Rovereto, Italy 11.-14. April 2017

Five students of the Freie Waldorfschule Hannover-Bothfeld and Rainer took part at the Rovereto Workshop. It was one of the activities of the STEP Project.



New Website of the German Society for Polar Research



It is the website of the society which houses the Polar Educators Germany. It is in German but some contents are also in English:

<https://www.polarforschung.de/>

<https://www.polarforschung.de/arbeitskreise/ak-polarlehrer/>

PEI USA

PEI USA was proud to have impressive representation at the American Geophysical Union (AGU) Fall Meeting in New Orleans last month! AGU is the largest earth and space science meeting in the world and brings together global earth and space science community for a week to discuss emerging trends and the latest research. Our presence at this meeting continues to establish PEI as a valuable resource for polar science communication, education and outreach. PEI members presenting at AGU included: Betsy Wilkening, Louise Huffman, Kelly McCarthy, Susan Meabh Kelly, Adeena Teres, Janet Warburton, Elizabeth Eubanks, Heidi Roop, Jillian Worssam, Alex Eilers, and Jim Madsen. In addition to the presentations, PEI held

an important meeting to inform members of important updates and projects. Feedback from the PEI meeting at AGU highlights the importance of doing what we do.



-“The PEI meeting I attended at AGU was the first I was able to be a part of and the experience was a wonderful way for me to reconnect with fellow PolarTREC teachers and meet other amazing polar educators, both formal and informal. I was really excited to share and hear ideas about how colleagues are still incorporating polar education into their classrooms and communities through all disciplines and it was exciting to be a part of the vision of the future of the U.S. PEI members.”

-“The AGU meeting reinforced the value of getting polar educators and research together. I like the three-legged stool metaphor—we need funding, researchers, and formal and informal educators to have a functioning community. PEI can play a central role raising awareness, leveraging resources, and building connections.”

The next opportunity for PEI USA gatherings will be NSTA Atlanta (National Conference) on March 15–18, 2018. If you are planning to attend, please contact Betsy, and/or Julia to coordinate arrangements, presentation schedules, and social media posting.

Centro de investigación Antártica



SEMANA ANTÁRTICA

En el contexto de la celebración del Día de la Antártica Chilena el centro de Investigación Antártica de la Dirección de Programas Antárticos de la Umag, comenzó sus actividades desde el día 30 de Octubre con una Itinerancia Educativa Antártica en la Universidad Privada de Santa Cruz de la Sierra UPSA en Bolivia, el profesor Alfredo Soto, coordinador de la Unidad de Vinculación con el medio efectuó una clase para alumnos de Ecología de dicha Universidad del altiplano con temas vinculados al continente blanco.

Itinerancia Educativa Antártica en Perú

Por una invitación de parte de la Pontificia Universidad Católica del Perú .el profesor Alfredo Soto se trasladó a la ciudad de Lima y efectuó también una clase para alumnos de Ingeniería acerca del Continente Antártico y el llamado a la juventud por interiorizarse de la importancia del Continente Antártico hacia la comunidad global sobre todo en lo que se refiere a sus impactos en el clima mundial





Día de la Antártica Chilena

La Universidad de Magallanes celebró el Día de la Antártica Chilena en la Escuela Manuel Bulnes, quien el año pasado en esta misma fecha se adjudicó el Sello Antártico y en esta oportunidad toda la comunidad educativa lo celebró con sus aportes artísticos y musicales en presencia de investigadores y docentes antárticos que dieron realce a la celebración

Exploradoras Polares

Un pequeño grupo de estudiantes del Colegio Francés de Punta Arenas acompañadas por su profesora Claudia Vera, participaron en una especie de itinerancia con exposiciones antárticas en las que destacaron “Los Pingüinos Antárticos”, “El relieve Antártico” y “El Cambio Climático en la Antártica”. Quienes participaron como oyentes fueron los investigadores del Centro de Investigación Antártica de la Umag. (Domo Antártico)



Sello Antártico para Jardín Infantil “Josefina Braun” de la Fundación Integra.

Entrega oficial del Sello Antártico al Jardín Infantil de la Fundación Integra, "Josefina Braun"....después de un año y meses de arduo trabajo en que se plasmaron capacitaciones al personal, visitas pedagógicas, muestras y exhibiciones en efemérides antárticas, celebración de los 100 años de la gesta del Piloto Pardo y muchas otras actividades, consideramos que la comunidad del Jardín Infantil ha sido fielmente "antartizados".....Felicitaciones!!!!!!

Charlas Antárticas a Colegio Don Bosco de Argentina

Visita al Domo Antártico de la Umag por Alumnos del Colegio Don Bosco de la ciudad de Ushuaia, Rep. Argentina. Actividades lúdicas antárticas, Actividad de sensoramiento remoto y actividades con la Química Antártica, Dirección de Programas Antárticos. Dr. Carlos Cárdenas, Dr. Pedro Cid y Prof. Alfredo Soto.



Informaciones: concursoalbaterra@gmail.com

Podrán participar de este concurso los estudiantes de primero a cuarto año medio del Colegio Juan Bautista Contardi.

Recepción de trabajos hasta el jueves 1 de junio del 2017 a las 00:00 horas.

La temática de las redacciones debe estar relacionada con el continente antártico, en formato de cuento, poesía y oda.

ALBA TERRA
Concurso Literario

Antártica

and a parting thought from Alfredo Soto (with permission)...



Google translation:

.... Antarctic vortices absorb musical dreams...
the singing of the penguins makes them feel...
like the purr of the crabeater seals...
we are coming out
to sing the subtle chant...
there we go eternal ice...
with several small beings...
all together and huddled
with a gentle heart...

Thank you for all you do!