EXPEDITION PREVIEW Follow the Journey May 2011







The i2P team will visit **Salar de Uyuni**, a truly unique landmark situated in the South Western Corner of Bolivia. Lying between mountains, volcanoes and lakes, the Salar de Uyuni is home to more than half of the World's lithium reserves. With an area of 10,000 square kilometers and barely one meter of elevation across the entire flat, this incredible area is also used by NASA to calibrate satellites (including those that detect changes in polar ice sheets).

EXPEDITION BOLIVIA: LA RUTA DE SAL

The fourth stage of the i2P World Expedition Series will take our Experiential Learning Program to the landlocked South American country of Bolivia, a land rich in history, minerals, and incredibly contrasting geography. Five Youth Ambassadors will be selected to join Ray Zahab, along with fellow i2P ambassadors and adventurers. Bolivia is a country that, prior to colonization, was part of the ancient Incan Empire, and its geography varies from the peaks of the Andes in the West to the lowlands of the Amazon Basin to the East. Youth Ambassadors will run an average of a marathon per day for up to one week, a total of 200+ miles – in a quest to experience this incredible country as few have ever done before. The Education Program for this expedition will examine the world of chemistry (in conjunction with the United Nations International Year of Chemistry [IYC]) and the role that it plays in the region. The IYC is a worldwide celebration of chemistry and its contributions to the well-being of humankind. Under the unifying theme "Chemistry — Our life, our future" IYC 2011 will offer a range of interactive, entertaining and educational activities for all ages, reaching across the globe, with opportunities for public participation at the local, regional, national and international level.

Along the way, the i2P team will visit Salar de Uyuni, a truly unique landmark situated in the South Western Corner of Bolivia. Lying between mountains, volcanoes and lakes, the Salar de Uyuni's various layers of salt and water are home to more than half of the World's lithium reserves (lithium is the element used to make the battery for the computer on which you are reading this right now). With an area of 10,000 square kilometers and barely one meter of elevation variation across the entire surface, the Salar de Uyuni is also one of the most uniformly flattest areas on the planet. This unique feature allows NASA to calibrate satellites (including those that detect changes in polar ice sheets) that monitor global phenomena such as climate change. Seasonal flooding creates a surreal mirror effect, which not only reflects the surrounding landscape, but allows the area to be easily seen from space, and the area is home to a unique "Train Graveyard", which contains dozens of abandoned colonial trains.

- TRAIN GRAVEYARD

As with all i2P Youth Ambassador expeditions, the team will push themselves beyond any physical and mental boundaries they have placed upon themselves to discover that they are truly capable of achieving the impossible.

The World Expedition Series is designed to transport students to remote and contrasting locales around the world. To date, the Series has seen young adventurers trek among glaciers containing millions of liters of water in the Canadian Arctic, across the desolate sands of the Sahara, and through the dense and lush jungle of the Amazon.

The 2011 Bolivian Expedition will demonstrate once again why the i2P Education Resource program has been touted by Apple Distinguished Educators as truly "21st Century learning," and "ground breaking". The i2P web-team will be utilizing streaming video during the expedition to allow students to communicate directly with the adventurers as they traverse this unique landscape. i2P's Educational Coordinator, Dr. Ewan Affleck, will again team up with educators, scientists, and advisers to create a captivating curriculum of educational resource modules which have proven extremely successful for teachers and students alike.

The five i2P Youth Ambassadors will be the direct conduits of information back to thousands of students following intently from around the world. After the successful inauguration of the i2P Exploratory Program in the Amazon, the Youth Ambassadors will once again be the lead researchers for an experiential learning program like none other on the planet. The Exploratory Program will see students from around the globe ask questions for which the five Youth Ambassadors will be tasked to find the answers.

This expedition will see the i2P team pass near mountains and volcanoes, across the world's largest salt flat and an area incredibly rich in minerals, past a train graveyard that is a relic of the past, and visit La Paz, the world's most elevated capital city – all the while bringing thousands of students along for the ride!

EXPEDITION INFO



Follow this incredible expedition online from May 12-24, 2011.



SALAR DE UYUNI

EDUCATION PROGRAM

"THE WORLD OF CHEMISTRY"

In honor of the International Year of Chemistry (see: IYC 2011) i2P will take the principles of chemistry out of the classroom and into the laboratory of the natural world. Chemistry is the science of matter, and how matter changes in different environments and conditions.



CURRICULUM: Bolivia's Salar de Uyuni, the world's largest salt flat nestled high in the Andes Mountains is an ideal location to explore the world of chemistry. Adjacent to the Salar are a series of lakes filled with magnesium, sulfur, manganese, boron, copper and arsenic. At almost 12,000 feet elevation the change in atmospheric pressure impacts how matter and chemical reactions behave in this environment.



EDUCATION RESOURCE: The Expedition Bolivia team will set out in the second week of May 2011. After acclimatizing to the elevation for a few days in the capital of Bolivia, La Paz, the team will set out for south western Bolivia and the Salar De Uyuni. Once en route daily updates from the field will be posted on the i2P website. These posts will include:

- Daily chemistry experiments, that employ the natural elements of the Salar de Uyuni to illustrate basic principles of chemistry. These experiments will be lead by Dr. George Agnes, chemist and faculty member at Simon Fraser University.
- Daily video blogs from the five youth ambassadors.
- A daily question & answer quiz linked to the chemistry curriculum.
- Daily webcasts that link the expedition team to participating schools, and allow school children to interact live with expedition team members.

EXPEDITION FEATURES

This is the second consecutive i2P Youth Expedition that has been in partnership with the United Nations' Educational, Scientific, and Cultural Organization (UNESCO). This year's theme is Chemistry, and In honor of the International Year of Chemistry i2P will take the principles of chemistry out of the classroom and into the fabulous laboratory of the natural world. Assisting with the project i2P welcomes the partnership and support of Simon Fraser University (SFU) (http://www.sfu.ca/). Dr George Agnes, chemistry professor and SFU Dean of Graduate Studies will be joining the i2P expedition team travelling to Bolivia. Under Dr. Agnes' supervision daily chemistry experiments will be conducted from the field and transmitted back to participating schools by internet technology."





For more information, please visit: http://www.chemistry2011.org/

SCIENCE OF THE RUN: Greg Wells, Ph.D. will be providing daily physiology exercises during the expedition, to illustrate the effects of endurance exercise and elevation on human biochemistry. Dr. Wells is a scientist and physiologist who specializes in health and performance in extreme conditions. Most recently, Dr. Wells was the host of the Gemini-Award winning "Superbodies" segments for Canada's national Olympic broadcast and the on-camera sport science and sport medicine analyst for the CTV Broadcast Consortium, ABC News and ABC's 20/20 during the 2010 Vancouver Olympics.

EXPERIENCE THE EXPEDITION: A live and interactive website is the portal to every impossible2Possible Expedition! With each new project our dedicated team of volunteers works very hard to provide new and improved features. All content is free, and schools have access to all content at no charge- including live video conferencing during the i2P Expeditions. For weeks leading up to Expedition Bolivia, video, photos, social media and blogging will be updated daily. Every minute during the Expedition, Youth Ambassadors will film and photograph the Expedition from their perspective and everything they experience while on their journey.



VIDEO/PHOTO JOURNALS

LIVE TRACKER



FACEBOOK/ TWITTER



LIVE VIDEO CONFERENCING



EXTRAORDINARY ACTS



THE EXPEDITION TEAM



RAY ZAHAB i2P Founder



DR. GREG WELLS Exercise Physiologist / Assistant Professor, University of Toronto



DR. EWAN AFFLECK i2P Science and Education Director



DR. GREG AGNES Chemistry Professor/Associate Dean of Graduate Studies, Simon Fraser University



BOB COX i2P Executive Director



HANNAH MCKEAND Explorer



TAMARA BANKS Youth Ambassador Alum/ **Expedition Guide**



FERG HAWKE Professional Ultramarathoner



JOHN ZAHAB Youth Ambassador Fitness Advisor/ Expedition Guide



BARBARA DAVILA Santiago, Chile



BRANDON SAND Saskatoon, SK



Euclid, OH





JESSICA SUVAK ASHLEY HASSARD RYAN MONTGOMERY



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