

EXHIBITION

The ends of the Earth

'Polar-Palooza', a travelling roadshow celebrating the International Polar Year 2007–2009, highlights the scientific passion of those working on Arctic and Antarctic research, along with their ecological concerns.

According to Nordic mythology, life began with fire and ice. Yet, in the past two centuries, one species has shifted the planetary balance to fire, and the gases from these flames now warm the Earth and threaten not only the colder twin of the proverbial source of life, but also the global geophysical processes that have sustained this life comfortably for the past ten thousand years.

It is in these precarious times that the International Council for Science and the World Meteorological Organization have established the 4th International Polar Year. With support from the US National Science Foundation and NASA, the science media organization Passport to Knowledge has produced a science roadshow called 'Polar-Palooza', which will visit cities across the United States through 2008.

The multimedia show brings real science with real scientists to educators, students, and the general public, with equal doses of ecological concern and scientific passion for the questions that polar research can address. Teacher workshops, multimedia performances, and more intimate 'meet the scientist' discussions are given by a changing roster of presenters.

In Oakland and Berkeley, the presentation was given by Michael Castellini, a wildlife biologist; Ralph Harvey, a geologist; Orville Huntington, wildlife biologist and hunter; Kathy Licht, a



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geologist; and Darlene Lim, a limnologist. It allowed the general public to grasp the beauty and unforgiving nature of the diverse polar regions of Earth, provided a sense of how changes in these regions will affect all of us, and — maybe most importantly — gave a firsthand human perspective of how changes in these regions are already changing the lives of the nearly 4 million Arctic inhabitants.

The focal point of 'Polar-Palooza' is an hour-long video presentation narrated live

by the presenters and accompanied by the multitude of sounds that the polar regions produce. The show gives a tour through the varied environments that fall under the polar umbrella, from the polar bears of the north to the penguins of the south. It highlights the beauty of life in these far away places, but also documents the rapid climatic changes that are occurring there and the effect of such changes on us all — graphics illustrate changes in ocean levels relative to the Golden Gate



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Bridge and Fisherman's Wharf (though, to San Franciscans, the loss of this tourist mecca may be considered a mixed curse).

The sheer joy and excitement of field science balanced the more sobering examples of current and potential climate change impacts, most beautifully exemplified by visual and audio presentations from the Antarctic field work of Ralph Harvey (meteorite hunting) and Kathy Licht (glacial geology). My ten year old son Johan, when asked which of the scientists he most wanted to follow, replied immediately that he wanted to be a meteorite hunter (maybe it was the opportunity to drive a snowmobile).

Indeed, if there is a complaint to be made about the programme, it is that many children — and adults — would like to know more about what life is like out on the polar ice. A brief hands-on session with Antarctic gear helped, but more film footage and discussion could captivate the younger audience. Despite cargo planes and satellite phones, Antarctic science still shares much in common with

the expeditions of Shackleton, Scott and Amundsen. These excursions are grand adventures of the first order.

The most impressive testimonial was that of Orville Huntington, biologist and indigenous community leader from the remote Athabaskan community of Huslia, Alaska. Huntington's video and narrative describing changes in climate, and the effect on the wildlife on which people depend, was riveting. He told of how these changes were prophesized in traditional story telling, and that the rapidly changing world presents a challenge to communities tied for generations to a predictable rhythm of the seasons: "it's hard for [...] elders because [...] they were supposed to help us understand things, and if there is something they don't understand, they can't pass that on because they don't understand why their prediction thing wouldn't work". When asked if the Huslia community would move as the Arctic permafrost melts, Huntington calmly replied: "No, we don't have any place to go. We will just stay and adapt."

In a large exhibition hall outside of the auditorium in which Huntington spoke there is a scale model exhibit of our solar system. In a vast expanse of space hovers our tiny planet Earth, which is separated by immense distances from a small assortment of intolerably cold or hot planets, moons, and asteroids that comprise our isolated solar system. Like Huntington and the village of Huslia, we will all have to stay, and adapt, on this planet. The key is to learn the lessons of our scientific elders, amplify their voices, and pass their knowledge on to our children in order to maintain the planetary balance of fire and ice. We have nowhere else to go.

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Polar-Palooza was at the Chabot Space and Science Center in Oakland and the Lawrence Hall of Science in Berkeley, California, USA, 26–28 October 2007. <http://passporttoknowledge.com/polar-palooza>