15th ANNUAL HEINZ AWARDS

RECIPIENT BACKGROUNDER

P. Dee Boersma, Ph.D., 62, Seattle, Washington

P. Dee Boersma, Ph.D., is honored as a 15th annual Heinz Award recipient for her extensive field studies on penguins and other sea birds, research that has led to a greater understanding of the human impact on marine ecosystems and for advocating conservation through education. She is the executive editor of *Conservation* magazine – an award winning publication dedicated to conservation science.

Dr. Boersma has spent her career traveling from the equator to Antarctica to study penguins and their capacity to adapt to unpredictable environments. She considers penguins to be marine sentinels, sounding the alarm on environmental threats to ocean ecosystems.

Dr. Boersma, Wadsworth Endowed Chair in Conservation Studies at the University of Washington in Seattle, began her scientific career in the Galapagos Islands, where her dissertation research demonstrated how radical changes in ocean productivity, caused by the 1972 El Niño event, dramatically shaped the breeding biology of the Galapagos penguin. Her work in Alaska on seabirds showed that Fork-tailed Storm-petrels could be used to detect petroleum from oil spills up to 75 miles from their breeding colonies. For the past 25 years, Dr. Boersma and her students, working with the Wildlife Conservation Society, have studied the Magellanic penguin at its largest breeding site in Punta Tombo, Argentina, collecting data used to plan effective conservation measures. They determined that in the last decade, climate-induced change has forced the penguins to swim about 25 miles farther each day in search of food. This work drew public attention to the effects of commercial petroleum dumping in Argentina that resulted in oil tanker routes being moved farther offshore as well as significant industry modifications. Her work was featured in the 2008 PBS Documentary *Eden at the End of the World*.

As the impact of global climate change on biodiversity continues to unfold, Dr. Boersma's research indicates that penguins are at great risk. In the Western Antarctic peninsula, the warming air temperatures, which have risen six degrees over the past 50 years, have led to more rain and less snow. This seemingly subtle change endangers the newborn and very young chicks who have not developed the insulating plumage that would normally keep them dry. From a scientific perspective, she has employed studies of seabirds to improve our understanding of climate-change impact on the environment. Moreover, she has shared her passion and understanding of penguins to attract public attention to environmental issues.

Said Teresa Heinz, chairman of the Heinz Family Foundation:

"As a pioneer in an area of research that has been largely overlooked, Dr. Boersma has helped decipher compelling warning signs about our environment – signs that we must pay heed to in the days ahead. For her no detail was too small to show the long-term effect on the creatures with which we share this planet. The penguins showed her where we needed to pay attention and work to improve their world and ours. We are proud to honor her with one of this year's Heinz Awards."

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