

Sweet Home grad earns international science award



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James J. McCarthy is seen aboard a ship passing by an Antarctic iceberg. McCarthy's climate-change research has taken the Arctic to the Antarctic for more than the last 40 years. McCarthy, a graduate of Sweet Home High School, now is a professor at Harvard University and a recent co-winner of the Tyler Prize in Environmental Achievement.

Harvard University Professor James McCarthy has spent more than 40 years studying the effects of climate change on the world's oceans — from the Arctic to the Antarctic — and says that change is occurring at an alarmingly rapid pace.

But McCarthy, a 1962 Sweet Home High School graduate, also believes there is hope for the future, because today's young people will make the changes needed to slow that change and begin reversing its negative effects.

For his dedication to science, McCarthy — the Alexander Agassiz Professor of Biological Oceanography — has been named a co-recipient of the Tyler Prize in Environmental Achievement, considered the Nobel Prize for environmental science.

He will share the \$200,000 award that comes with the recognition with fellow scientist Paul Falkowski, a professor of geological and marine science at Rutgers University. They will be honored May 3 at a ceremony in Washington, D.C.

McCarthy said the two men have known each other for several years and have attended many of the same scientific conferences.

"Paul has worked more in the biophysical level and I work more with chemical and nutrient impacts," he said. "We have been quite aware of each other's work, but only once have we had our names on the same paper and that was put together by an author who brought our work together."

The Tyler Prize was established in 1973 by philanthropists John and Alice Tyler. It recognizes individuals in the fields of environmental policy, health, air and water pollution, ecosystem disruption, loss of biodiversity and energy resources.

“It’s still a surprise to me,” McCarthy said of the recognition. “I’m honored in part because I have worked with many of the people who were my mentors, my heroes and are prior recipients. Being in their company in this way never crossed my mind.”

Much of McCarthy’s research has focused on how climate change affects plankton productivity in the world’s oceans. He said he’s spent about five years of his life on ships somewhere in the world conducting research.

Julia Marton-Lefevre, chair of the Tyler Prize Committee, said, “Climate change poses a great challenge to global communities. We are recognizing these two great scientists for their enormous contributions to fighting climate change through increasing our scientific understanding of how Earth’s climate works, as well as bringing together that knowledge for the purpose of policy change.”

VALUED EDUCATION

McCarthy grew up in a home where education and exploration were valued. His father, also Dr. James J. McCarthy, was a chiropractor and his mother, Errilla, was a schoolteacher and community volunteer.

Young McCarthy was a Boy Scout and explored the forests, rivers and streams surrounding the community. When he was about 10, he received a microscope as a present.

“My dad and I spent a lot of time with that microscope,” McCarthy said. “I remember him helping me make a homemade centrifuge and teaching me how to swirl it over my head on a string.”

He also remembered talking about world travel with his father, who had served in the South Pacific during World War II.

“I asked him if he thought I would ever see such places and he was very encouraging that I would,” McCarthy said.

After high school, he enrolled at the Catholic-based Gonzaga University in Spokane and his parents encouraged him to participate in a year-abroad study trip in Florence, Italy, even though they also had a daughter in college at the time.

“Every time I wanted to try something different as a child, they always were supportive,” McCarthy said.

McCarthy, 74, earned a degree in biology from Gonzaga and a doctorate from the Scripps Institution of Oceanography in San Diego, where he met his future wife, Sue, a biologist.

While teaching at Johns Hopkins University, McCarthy began researching the effects of

nitrogen pollution in the oceans. Since 1974 he has taught and conducted research at Harvard. He is currently teaching part-time and co-writing a textbook as he nears full-time retirement.

He has been active in many areas at Harvard and said that unlike some other institutions, the university embraces cross-discipline interactions.

“Here, I have worked with physicists and chemists. I have lectured in the business and medical schools and people from those schools have lectured to our students in environmental sciences,” McCarthy said.

McCarthy is chairman emeritus of the Union of Concerned Scientists and in 2001 co-chaired the Intergovernmental Panel on Climate Change, which in 2007 shared the Nobel Prize with former Vice-President Al Gore.

Gore said of McCarthy, “His ability to effectively and eloquently communicate the importance and risks of the climate crisis are unparalleled.”

According to a biography on the Union of Concerned Scientists website, McCarthy is a Fellow of the American Association for the Advancement of Science, a Fellow of the American Academy of Arts and Sciences and a Foreign Member of the Royal Swedish Academy of Sciences.

He received the New England Aquarium’s David B. Stone award for distinguished service to the environment and the community and the Museum of Science Walker Prize for meritorious published scientific investigation and discovery.

Gonzaga University recognized McCarthy in 1993 with its Distinguished Alumni Merit Award, and in 2008 he delivered the O’Leary Distinguished Scientist Lecture, which honors the late Father Timothy O’Leary, who taught chemistry at the university and whom McCarthy admired and considers a mentor.

NOT ALL 'GLOOM'

As serious as McCarthy sees climate change, he adds it should not be looked at entirely as “doom and gloom.” Progress is being made, he said, sometimes in “leaps and bounds.”

He said that if countries can reduce their reliance on carbon-based fuels by just 2 percent per year, significant climate change improvements will result.

“A decade ago, no one would believe that 35 percent of Iowa’s electrical power comes from wind turbines,” he said. “In Oklahoma, it’s 20 percent and no state is developing more wind energy resources than Texas.”

McCarthy said that capitalization of old, coal-fired power plants will continue to wind down and new plants will not be constructed.

“Look at how efficient home appliances have become,” he said. “In California, the population has grown dramatically since the 1980s, but power consumption has not increased greatly due to energy-efficient appliances and enhanced building codes.”

McCarthy is also encouraged by the values of today’s young people.

“In the 1980s, especially during the dot-com era, it was all about making lots of money,” he said. “Today, our students understand that climate change is real and it will be up to them to do something about it. Only a few of our students will be scientists, but they will go into business, education, public services and they understand that this will have to be solved by their generation. I won’t live long enough to see it tidied up, but they will live to see great change. They are committed to this and they will not walk away from it.”

McCarthy also pointed to vehicles that are significantly more fuel efficient and produce far less pollution than in the past. He remembered his father driving a car that got about 10 miles per gallon. Today, vehicles get 35 and 40 mpg as a norm.

The last time McCarthy was in Sweet Home was four years ago, for his mother’s funeral. He has a brother, Richard, a chiropractor in Cottage Grove, and had two sisters, Susan and Anna, who lived in Oregon.

He and his wife have two grown sons, one a medical professional in Texas and the other an actor in New York City.

When asked if he would take on the same career if he had it to do over, McCarthy said it was a question that had never entered his mind.

“I’ve been incredibly lucky,” McCarthy said. “I’ve had great fortune in my personal life and my career. I guess I’ve just always been at the right place at the right time.”

In retirement McCarthy said he will likely put his time and effort into “sources and organizations that I think are doing a good job understanding science and influencing decision makers.”