



E-Newsletter | July 2014

Women and Water

Oceanographer Sylvia Earle told many fascinating stories when she served as one of the panelists at the April 2014 National Women's Hall of Fame's 'Conversation with Great Women.' Her life purpose parallels the life purpose of Ruth Patrick: to ensure that the water on the earth is in good health and good for humans. Dr. Earle's focus has been the oceans while Ms. Patrick's focus has been fresh water.



Sylvia Alice Earle

Sylvia Alice Earle was the first woman to serve as the Chief Scientist at the National Oceanic and Atmospheric Administration (NOAA). Called "Her Deepness" by the New Yorker and the New York Times, "Living Legend" by the Library of Congress, and the first "Hero for the Planet," Earle is an oceanographer, explorer, author, and lecturer with experience as a field research scientist. She is the author of many books about the ocean, including *Sea Change: A Message of the Oceans* and, most recently, *Ocean: An Illustrated Atlas*, with Linda K. Glover.



Ruth Patrick

Earle has led more than 60 expeditions and logged more than 6,000 hours underwater, including leading the first team of women aquanauts during the Tektite Project in 1970. At that time, a record was set for solo diving to a depth of 1,000 meters (3,300 feet). Earle's research concerns marine ecosystems with special emphasis on exploration and the development and use of new technologies for access and effective operations in the deep sea and other remote environments. She has been inducted into the National Women's Hall of Fame.

Ruth Patrick's efforts were in the field of limnology, the study of freshwater ecosystems. Her work led to the methods by which the environmental health of rivers and streams is evaluated today. Her particular expertise was diatoms, single-celled algae that are a basic food source for organisms living in fresh water. She invented the diameter, to measure the kinds and numbers of diatoms. This process revealed both the type and the extent of pollution in a body of water. Her method of measurement has been used around the world to help determine water quality.

In the early 1950s, one of Patrick's significant projects was to collect baseline data on the water quality of the Savannah River, prior to the opening of the Savannah River Plant. With her team, she was able to diagnose the health of a river or stream by analyzing plant life and animal species. Her studies contributed significantly to the developing field of ecology, and established for the first time a set of aquatic indices that could be used to describe the health of water systems and the impact of industrialization.

Patrick was a woman working in a male-dominated field; she was in the vanguard of scientists introducing the concept of biodiversity. Today, when scientists talk about biodiversity as a key indicator of ecosystem health, they call it the "Patrick Principle." Patrick has also been inducted into the National Women's Hall of Fame.

We know that all of us are the beneficiaries of the efforts of many women like Sylvia Earle and Ruth Patrick. We are proud to stand on their shoulders.

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Her Story: A Timeline of the Women Who Changed America

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