

# ENVIRONMENTAL Science

TOWARD A SUSTAINABLE FUTURE 13E



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## Dedication

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This edition is dedicated to Sylvia Earle (1935–), marine scientist and tireless advocate for the environment. An oceanographer, explorer, author, company founder, and lecturer, Earle has lived out a fantastic dream to study the oceans, and fearlessly pursued that goal when opportunities for women were limited. After receiving her Ph.D. in 1966, Earle was a research fellow at Harvard and then moved to Florida, where she took underwater research dives, setting records for women’s depth diving, and leading an all-female team of aquanauts in an underwater research project. While she has many other accomplishments as well, Earle is particularly noted for being Chief Scientist at the National Oceanic and Atmospheric Administration from 1990 to 1992, and a National Geographic Explorer-in-Residence since 1998. Earle has founded three companies, which produce robotics and other ocean exploration equipment.

In 1998, Earle was named the first “Hero for the Planet” by *Time* magazine. In 2009, she won a TED prize, which come with money to carry out a vision for global change. She used that opportunity to launch a nonprofit, Mission Blue, which aims to establish what Earle calls “hope spots,” or marine protected areas around the globe. It is an honor to dedicate this book to someone who is such a good scientist and has done so much to help the environment. Earle represents the themes of sound science, stewardship, and sustainability in a way few people do. She is a real hero for our time. In her own words, she calls upon us to act to protect the ocean:

*“People ask: Why should I care about the ocean? Because the ocean is the cornerstone of Earth’s life support system, it shapes climate and weather. It holds most of life on Earth. Ninety-seven percent of Earth’s water is there. It’s the blue heart of the planet—we should take care of our heart. It’s what makes life possible for us. We still have a really good chance to make things better than they are. They won’t get better unless we take the action and inspire others to do the same thing. No one is without power. Everybody has the capacity to do something.”*

– Sylvia Earle in the film *Bag It: Is Your Life Too Plastic?*  
(Paramount Classics 2010)

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