



BSR Conference 2009  
**Reset Economy. Reset World.**

## Sylvia Earle: Update on the Blue Planet

Breakout Session Summary  
Thursday, October 22, 2009 | 11 a.m.-noon

### Speakers

- » **Sylvia Earle**, Oceanographer, Explorer, Author, Lecturer, Deep Ocean Exploration and Research
- » **Ryan Schuchard**, Manager, Environmental Research & Innovation, BSR (moderator)

### Highlights

- » Earle emphasized the important role oceans play in sustaining all life forms, and highlighted several alarming trends in the degradation of the health of the world's oceans, which are tied to human activity.
- » Earle encouraged people to use their power to change behavior—including reducing consumption and preventing waste from ending up in the ocean.

### Memorable Quotes

*"We are changing the ocean, changing the planet, and changing our ability to have a prosperous future."* —Sylvia Earle

*"In the past 50 years, we have caused more disruption to the systems than any period before."* —Sylvia Earle

*"We know the situation, but we aren't taking the action needed."* —Sylvia Earle

### Overview

As an active diver for more than 50 years, Earle has observed first hand the many changes that have taken place in the world's oceans during the past few decades. Earle remarked that these changes are a concern if we consider the vital role the ocean plays. The ocean generates 70 percent of the oxygen people breathe. It acts as a major carbon sink. Without the ocean, there would be no life, so changes to the marine ecosystem have a ripple effect on all living creatures.

"If only we had known 50 years ago what we know now, we might have a jumpstart on the most challenging issues facing the world today," said Earle. Earle's explorations continue to show dramatic changes as a result of human activity. Humans have extracted more than 90 percent of the sharks and big fish because, according to Earle, "we have the means to find them, take them, and market them." Marine areas that were once productive, healthy ecosystems filled with diverse wildlife have become dead zones.

Human extraction of sea creatures is just one of the many concerning trends. Another trend Earle highlighted is the increasing amount of debris in the ocean and the increased use of plastics. Onetime use of materials and improper disposal of those materials has "crowded us out of space." Earle cited the growing garbage patch in the Pacific Ocean, which is believed by some to be bigger in area than the state of Texas. A five-year sustainable seas expedition initiative, funded by the Goldman Foundation and supported by hundreds of partners, is one example of efforts to better understand and measure the health of ocean life.



Armed with information on the current state of marine life, Earle emphasized the need to take action. “We didn’t realize that there were limits to the land, air, and ocean. But now we know, and it’s our responsibility to do something about it. There is no excuse.”

Earle believes that conservation and protection measures are critical to reversing the damage done over the past 50 years. Only one percent of the ocean is protected under current regulation. Earle cited the protection regulation in California which will protect 20 percent of coastal areas as a step in the right direction.

Earle went on to say that the ocean presents the greatest known diversity of life forms—not just on earth, but in the universe. There are 35 divisions of animal life in the world. While only 15 of these divisions live on land, 15 different divisions can be represented in a single swallow of a whale shark.

Earle challenged the notion that natural systems and resources can be measured in discrete increments of tons, such as oil, coal, rubber, or fish. Rather, all of the world’s resources contribute to a healthy planet and humankind, and thus, must be thought of in terms of a system. The global economy, health, and security are all dependent on the health of the ocean.

In speaking about solutions, Earle encouraged decreasing consumption of sea creatures, in particular, giving more consideration to the fact that many sea creatures have taken decades to grow, yet humans capture and consume them in the matter of minutes. Earle cited several examples of over-consumption of specific marine life—such as parrot fish, groupers, orange roughy, and lobsters—which serve critical roles in the marine ecosystem, yet are being over fished. Tracking devices have helped scientists understand current conditions and the response needed to reverse the damage.

Armed with the knowledge of the impact humans are having, Earle suggested that a critical piece in the solution is changing human behavior and thinking. Humans should not wait to be told something is endangered before taking action. Earle used coral bleaching and rising levels of carbon dioxide in the atmosphere as examples of dangerous trends that will be irreversible if behaviors do not change. Yet, Earle noted, “The good news is, if we start protecting the reef, we can slow down the warming trend and create better resilience.”

Earle closed by saying, “We have control over the future. What do we want it to be?”

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