crustaceans for the aquarium trade on the premise that collecting specimens at this stage of their lives is more sustainable than collecting adults. Chapter 17 reports on how paying attention to nutrient concentration can help optimize macroalgal growth rates for more efficient mariculture.

This volume challenges the common mantra of coral reef conservation that managing coral reefs is really managing people, not reefs. Goreau and Trench take us into a world of technology that amplifies biology and initiates ecological self-restoration using low voltage electrical current through metal frames to enhance the skeletal growth of reef corals and other calcifying organisms. Electrical gradients, a universal property of all life are used to make biochemical energy metabolites that are the energy currency of the cell, Goreau explains (p. 283). The Biorock process, the author suggests, supplements the voltage gradient thus enhancing cellular metabolism and increasing an organism's net biophysical energy, a concept roughly analogous to Net Primary Productivity in ecological energetics.

The case studies are impressive demonstrations suggesting that electrified iron frames can be used to restore beaches, generate beautiful reefs, and grow more oysters. The Biorock Reef in Pemuteran is one of the most luxuriant reefs I have personally seen in Bali. Its framework is mostly overgrown with large, luxuriant coral colonies that are home to hoards of fish. But there was no "control reef" for the demonstration project. One colleague suggested that the corals grew very well due to the iron framework, not electricity. It would have been very simple to have built a control reef; a similar iron frame sans electricity. The tough love of data-driven science demands that demonstration projects be supported by experimental data including controls but, unfortunately, like Pemuteran, very few of the case studies presented in this volume contain experimental controls or are augmented by controlled laboratory investigations.

Although it is difficult to imagine electrifying the Great Barrier Reef or Florida Keys Reef Tract, electricity, and possibly magnetism, may hold significant promise for coral reef restoration at targeted sites. But as fascinating and potentially significant it may be, in Goreau's own words, "Much more work is needed on the fundamental biophysics and biochemistry to determine the optimal electrical and magnetic field conditions for each species" (p. 287).

PHILLIP DUSTAN, *Biology, College of Charleston, Charleston, South Carolina*

VITAL SIGNS, VOLUME 20. *The Trends That Are Shaping Our Future.*

By Worldwatch Institute; Project Director: Michael Renner. Washington (DC): Island Press. $19.99 (paper). xv + 150 p.; ill.; no index. ISBN: 978-1-61091-456-7. 2013.

Worldwatch has published *Vital Signs* annually since 1992 with the aim of providing a concise analysis of recent global trends in environment and development. Replete with up-to-date charts and data, *Vital Signs* presents the latest evidence supporting the Worldwatch view that current global trends represent Peak Production from a Planet in Distress. Trends in energy, transportation, climate, food systems, the global economy, and population are reviewed from this perspective in a brief narrative form supported by well-presented charts and data from a wide array of sources.

Worldwatch helped to pioneer interdisciplinary policy-oriented global environmental analysis in the 1970s—one reason why *Vital Signs* and Worldwatch's lengthier *State of the World* reports must now compete with a wide array of publications covering similar ground, such as those of the World Resources Institute, United Nations, and others. As with other Worldwatch publications, *Vital Signs* combines critical analyses of well-known environmental and social challenges, such as global climate change and food security, with emerging issues that may not have received significant attention, like shortfalls in U.N. funding or the rise in Internet advertising.

For anyone looking for the most recent data describing global trends from the Worldwatch point of view, *Vital Signs* is an excellent resource. For those aiming more broadly, *Vital Signs* presents a stimulating jumping off point for further research.

ERLE C. ELLIS, *Geography & Environmental Systems, University of Maryland, Baltimore County, Baltimore, Maryland*

IGNORING NATURE NO MORE: THE CASE FOR COMPASSIONATE CONSERVATION.

Edited by Marc Bekoff. Chicago (Illinois): University of Chicago Press. $110.00 (hardcover); $40.00 (paper). xxix + 419 p.; index. ISBN: 978-0-226-92533-2(hc); 978-0-226-92535-6 (pb). 2013.

WILDLIFE MANAGEMENT AND CONSERVATION: CONTEMPORARY PRINCIPLES AND PRACTICES.

Edited by Paul R. Krausman and James W. Cain III. Published in affiliation with The Wildlife Society by Johns Hopkins University Press, Baltimore (Maryland). $99.50. xiii + 342 p.; ill.; index. ISBN: 978-1-4214-0986-3 (hc); 978-1-4214-0987-0 (eb). 2013.

This volume is designed to serve as a textbook for undergraduate wildlife curricula and as a reference for students and practicing professionals. The book covers