

more attention to chronic change. The current procedures, as exemplified in the 2010 Action Plan, place too much emphasis on measurements, thereby excluding the “small brown birds” so difficult to study. Perhaps more use can be made of “expert opinion” so the plight of Australia’s small brown birds can be brought to public notice before it is too late (for an example of how to do this, see <http://www.youtube.com/watch?v=GyUmptgs4sU>). I would also like attention paid to the longer term threats of climate change, growing human populations, urbanization, and more intensive agriculture. None of these is listed as a threat to the taxa listed in the Action Plan, yet all have significant impacts on Australia’s avifauna. The survival of many taxa is in doubt as a result of changing climates, fragmented landscapes, and more intensive use of resources by people (Ford *et al.* 2001; Kingsford and Watson 2011; Thomas *et al.* 2004).

Every conservation biologist should be familiar with the content and conclusions of the 2010 Action Plan. As Graeme Hamilton says in his Foreword, “. . . this book describes a tragedy.” Unless we know what that tragedy is and its magnitude we cannot take effective action. The book describes more than a tragedy; it gives direction to the future and identifies gaps in our knowledge that conservation

biologists should be working hard to fill. If the tragedy becomes a disaster, it will only be because we failed to take action. Garnett, Szabo, and Dutson have informed us of the actions we need to implement, now it is up to us.

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The Atlas of Coasts & Oceans: Ecosystems, Threatened Resources, Marine Conservation

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OCEANS cover 70% of Earth, but the impact of humans on the world’s seas and oceans is boundless. Boundless in the sense that human impacts begin on the land at the headwaters of every creek, stream, and river flowing to the sea and extend without interruption along and across every coast and estuary to the most remote and deepest parts of the oceans. Human impacts are carried with waters flowing to the sea, in the air blowing across continents, and in every vessel, regardless of size or number of occupants, that ventures out from the land. No ocean escapes the impact of humanity and nowhere at sea is there any longer wilderness.

The Atlas of Coasts & Oceans is a summary of the impacts of people on the world’s oceans, their resources, and on other people using the oceans. The text is presented in six parts. The first, “People and coasts” describes the settlement of people along the coasts and their impact on shorelines. Half the world’s people live on or near the coast. “Major threats to ocean resources” summarizes the effects people have on marine ecosystems, including the open ocean, fisheries, seagrass, mangroves, and coral reefs. Only 20% of potentially exploitable fish stocks

have the potential for greater production; 40% of global fisheries have “collapsed”, with trends showing 100% will have collapsed by 2050. There are now in excess of 400 “dead zones”, coastal areas that have become “eutrophic” as a result of excessive inputs of nutrients from agriculture, industry, and sewage (treated and untreated). Dead zones affect about 250 000 km² of coastal areas around the world, with the most extensive areas along the east and gulf coasts of the United States, northern Europe, Japan, and southeast Asia. “Trade, commerce, and tourism” discusses shipping, the extraction of energy from the sea (oil, gas, wind, tide, and waves), tourism, and mariculture. Ninety percent of the world’s commerce is shipped by sea and oil spills, dredging, and the translocation of exotic marine life have significant impacts on marine life. Between 70 and 80 percent of mangrove forests in Vietnam and the Philippines have been cleared to establish prawn (shrimp) farms. If you buy imported prawns in Australia, you are contributing to the destruction of the world’s most productive natural ecosystems along with the people who previously relied upon them for their livelihoods. “Climate change” presents the impacts of human-induced global warming on the world’s oceans. Among the impacts are more extreme weather events, loss of polar ice, and rising sea levels. Although the conventional forecast is for a sea level rise of 20–90 cms by 2100, studies at Princeton and Harvard universities have found that the polar ice sheets are more vulnerable than thought and a sea level rise of six to nine meters is possible with a 2°C

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increase in average global temperatures. Half of Bangladesh, Florida, entire island states, and most of the world's shipping infrastructure would be underwater. "Seas in conflict" treats piracy and conflicts between nations over disputed islands. Piracy is described as a "growth industry", with 153 vessels boarded, 49 hijacked, and 120 fired upon in 2009. Most attacks occur in the Indian Ocean, Red Sea, and Gulf of Aden, but there were 37 in the Caribbean, a statistic not found in cruise liner brochures. The sixth and final part, "Management of coastal and marine areas" presents information on national and international efforts to protect the seas. Although there are ~5000 marine protected areas (~2.6 million km²), they protect less than one percent of the world's oceans. Protected areas and international agreements on managing the ocean's

resources suffer from a lack of enforcement and good will, as Japan's efforts at "scientific whaling" testify.

The Atlas of Coasts & Oceans is a great little book. It is well-written, superbly illustrated, and informative. There are plenty of maps highlighting major issues, so that those of us who are geographically challenged can read and relax. As a starting point in understanding the extent of human impacts on the oceans, *The Atlas of Coasts & Oceans* is excellent. There is a good glossary of technical terms. Sources of information for each section, including web sites, are given enabling the reader to easily pursue details. It does help to see the funny side of the world's looming environmental catastrophe and I thoroughly enjoyed leafing through the text and chuckling.

The Sound of a Wild Snail Eating

Elisabeth Tova Bailey 2011
The Text Publishing Company, Melbourne.
Pp. 174 8781921758126 ISBN
Price \$22.95 AUD paperback

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THIS is not the typical textbook analysed for its usefulness to conservation biology usually presented in these pages. It is that occasional and unexpected book with the potential to inform and encourage conservation biology. In reviewing this book I was excited to see if it could achieve one of the aims it clearly sets out to achieve – to bring readers closer to snails and malacology. I am always searching for avenues of writing that can simultaneously enliven specialists and generalists in any area of biology and conservation. This book clearly falls under this criterion and with this in mind I asked can it show the way for conservation biologists to write along similar lines to broaden the reading base that can be informed by our discipline. Can we learn something from reading it that we can communicate to others?

Elisabeth Tova Bailey lives in Maine, USA and this is undoubtedly where her wandering in the woods brought her close enough to the beauty of the forest to eventually encourage her to get close enough to a snail. Once I took my young niece to a forest and I encouraged her to come and have a closer look at a rainbow coloured beetle, its body and elytra finished with a brilliant metallic lustre – whereupon she told me while raising her foot into the air, "I'll stomp it!" My niece had been brought up in suburbia. E. T. Bailey's essays and short stories have been published in *Missouri*, *Northwest* and the *Sycamore Reviews*. She has received nominations for Pushcart Prizes and a Notable Essay Listing in *Best*

American Essays. This book, *The Sound of a Wild Snail Eating*, won the Natural History category in the US Outdoor Book Awards and the 2011 John Burroughs Medal, which is awarded to the author of a distinguished book of natural history, annually, since 1926.

The narrative follows the author's observations of a snail (White-lipped Forest Snail *Neohelix albolabris*) taken from the woods near her home and placed beside her bed as she remains prostrate through a debilitating illness. Without locomotive abilities and through the languid monotony of her bland room watching the coming and goings of others from her horizontal position she spies a snail in a pot of violets beside her bed. The snail provides the focal point to ponder a greater natural world without, while her disease allows her to ponder another world within her own body. She (E. T. Bailey) hears the snail eating and we begin a journey of snail anatomy, behaviour and physiology that is juxtaposed with her illness and isolation both themes entwined on one hand with the memory of a more active lifestyle with its many social interactions and on the other hand general ecological and evolutionary ideas. Bailey's level of language is easy throughout, gently introducing specific terms such as radula and pneumostome with asides to adequately paint them into a general and larger theme of 'nature'. In describing the narrative above I have uncovered the narrative's or author's conceptual framework. E. T. Bailey has written a book of non-fiction (so far as I can tell) that progresses along a temporal axis from the past to the present; the author's life juxtaposed with the snail's life. Unsurprisingly she has been inspired by the comparison that she cannot help but draw between their two lives and the broader juxtaposition of Gastropods and *Homo sapiens*. This framework is appropriate when trying to bring

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