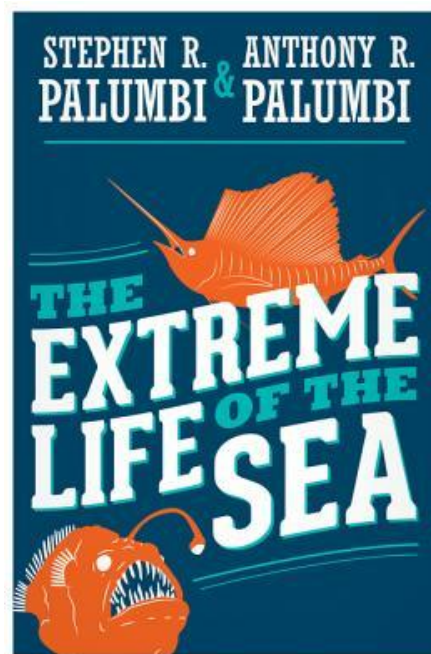




The Extreme Life of the Sea

Stephen R. Palumbi , Anthony R. Palumbi

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The ocean teems with life that thrives under difficult situations in unusual environments. *The Extreme Life of the Sea* takes readers to the absolute limits of the ocean world--the fastest and deepest, the hottest and oldest creatures of the oceans. It dives into the icy Arctic and boiling hydrothermal vents--and exposes the eternal darkness of the deepest undersea trenches--to show how marine life thrives against the odds. This thrilling book brings to life the sea's most extreme species, and tells their stories as characters in the drama of the oceans. Coauthored by Stephen Palumbi, one of today's leading marine scientists, *The Extreme Life of the Sea* tells the unforgettable tales of some of the most marvelous life forms on Earth, and the challenges they overcome to survive. Modern science and a fluid narrative style give every reader a deep look at the lives of these species.

The Extreme Life of the Sea shows you the world's oldest living species. It describes how flying fish strain to escape their predators, how predatory deep-sea fish use red searchlights only they can see to find and attack food, and how, at the end of her life, a mother octopus dedicates herself to raising her batch of young. This wide-ranging and highly accessible book also shows how ocean adaptations can inspire innovative commercial products--such as fan blades modeled on the flippers of humpback whales--and how future extremes created by human changes to the oceans might push some of these amazing species over the edge.

An enhanced edition is also available and includes eleven videos.

The Extreme Life of the Sea Details

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From Reader Review The Extreme Life of the Sea for online ebook

B. Rule says

This book is full of truly fascinating information. However, I found parts of the telling to be a chore. The book is written by a father/son team, one a marine biologist and the other a "writer and blogger". The seams between the contributions are often visible, where chapters or sub-chapters open with the author painting a vivid scene... in a totally unnecessary and gravely silly way totally unrelated to the facts to be relayed. Okay, thanks guy, you can skip the immersive prose account of how I feel to find myself at the bottom of the sea. Let's just get to the description at hand, shall we? Certain stock phrases and "writerly" touches show up throughout. I stopped counting the number of times a species is described as having "needle teeth". Regardless of my annoyance at these stylistic touches, the species described are truly extreme and bizarre. You'll learn amazing stuff about the sequential hermaphroditism of clownfish, the heating system of swordfish eyes, and the way that male anglerfish latch on as parasites to the female until his brain and other organs liquefy and dissolve, leaving essentially only a pair of enslaved gonads. Some of the book is very well written, including the cogent environmental warnings in the final chapter. If you can get over the occasional nepotistic infelicities of the prose, this is definitely worth a read.

Bill says

Overall, I found this a little bland, although I would recommend this as an introductory survey on marine life for a young reader around 10 to 15 years old. It is very clearly written (but suffers from several grammatical errors that escaped the editing process), and focusses on the adaptive strategies of marine life while purposely glossing over the environmental impact of humans on that life. The final chapter does cover environmental issues, but in an optimistic light that is fairly rare in books of this type.

I did not care much for Palumbi's choices of description; they tended to refer to pop culture rather than to terrestrial animals the reader may be familiar with. So a giant Isopod is "about the size of a bag of Doritos," and sea anemones "look like tiny replicas of the Great Sarlacc in *Return of the Jedi*." I didn't find these references particularly helpful, but a young adult reader might find them entertaining.

R K says

Very informative and educational. Went through the entire ocean highlighting the ways in which life has evolved to survive in its environment. How the mysteries of the ocean are constantly being brought forward. Did get a bit boring at times but did interest me in reading more about different types of animals.

a hooded figure from your friendly neighbourhood dog park says

audiobook

Eva says

Ever had the feeling that nowadays we know our world so well that there are no real surprises left? No unknown depths where no camera crew has been before? The Extreme Life of the Sea might prove you wrong.

The sea is the earth's largest habitat and has so many things to offer that only in the last few decades scientists managed to solve some of its mysteries. Still, there are depths of the deep sea yet to be explored and research is ongoing.

This book contains the things we already know about the many different life forms in this extreme habitat. Stephen R. Palumbi and Anthony R. Palumbi aim to give us a *"delighted sense of wonder at every mystery, and a spark of joy at each discovery, in every creature in creation"*.

Instead of just one page after the other of fun facts about the sea, the authors managed to integrate lots of scientific knowledge into compelling short descriptions and episodes. The broader context is not left out and the book gives a great overall understanding of the sea's importance to our world.

And there are just so many examples of how alien this marine world is and how many bizarre characters inhabit it - some with quite unusual concepts for reproduction or food consumption.

Wonders and discoveries indeed!

Giovani Rodriguez-ceja says

The Extreme Life of the Sea was an engaging book. It provides the reader with an abundant amount of knowledge over the history of the Ocean life's evolutionary changes. Despite all the scientific knowledge it has to offer, it's not as tedious or perplexing as one may perhaps find a science textbook to be. As the name might imply, the book covers the extremes of marine biology. The fastest, the deepest, the hottest, the oldest, the strongest, the biggest, etc. Apart from the history of the Ocean's evolution, and modern marine biology, the books also covers conservational messages, talking about what the future oceans and shores may look like at the turn of the century. And that's assuming if the populace doesn't make the required changes to conserve the ecosystems. Over all, I'd recommend it to all my friends, and those with some interest in marine life. You don't need to be someone that's very science-oriented just to enjoy or understand this book, as it's written with a fluid narrative style.

Angie says

Eventually, I will give this a second try. I found it difficult. I actually loved the pop culture examples that another Good Reader found distracting. For me, this was so far afield of what I know about and the sea life is so contextually unfamiliar that the pop culture gave me analogies that I spoke my language. But, about 60% of the way through, it became a chore. to continue. That's probably unfair as it was well-written, so at some point hence it'll be worth a reboot in the reading rotation.

william ferry says

Interesting book documenting extremes (hot, cold, large, small etc.) in oceans.

Urey Patrick says

Extreme Life of the Sea is a collection of fascinating facts and explanations of marine life forms, ranging from whales to bacteria and all sizes and types in between. The authors explain complex biological functions and evolutionary adaptations in layman's language – easily understood, informative to the utmost, and engrossingly organized and explained. Seal deep diving, swordfish ability to see well at great depths, bacterial life in the rifts and sulfuric sea spouts, breeding strategies and mechanisms, giant squid - the deepest, shallowest, oldest, coldest, fastest, smallest, oddest... and so much more. Every chapter, and every sub-chapter within, offers new subjects and absorbing information about some species or marine life form. If you have an interest in marine life, this is a great little book to read!

To their credit, the authors avoid using the subject matter as a clarion call to the crusade against climate warming... until the last chapter, devoted to just that. Although climate change is unquestionably real (could there be a more obvious point?) and the earth's climate has unquestionably warmed since the last Ice Age and continues to do so in gradual fits and starts (equally obvious), the evidence that human activity is to blame is not so clear – even doubtful as modern science continues to explore and learn. It is not settled science – science seldom if ever is...

See: Christopher Monckton (<http://wattsupwiththat.com/2014/11/07...>) pointing out some of the fundamental evidence:

Since October 1996 there has been no global warming at all.

This fact is a severe embarrassment to the warmists, who admit that they have no explanation for it. Monckton notes some additional salient facts:

- * The global warming trend since 1900 is equivalent to 0.8 C° per century. This is well within natural variability and may not have much to do with us.
- * The fastest measured warming trend lasting ten years or more occurred over the 40 years from 1694-1733 in Central England. It was equivalent to 4.3 C° per century.
- * Since 1950, when a human influence on global temperature first became theoretically possible, the global warming trend has been equivalent to below 1.2 C° per century.
- * In 1990, the IPCC's mid-range prediction of near-term warming was equivalent to 2.8 C° per century, higher by two-thirds than its current prediction of 1.7 C°/century.
- * The global warming trend since 1990, when the IPCC wrote its first report, is equivalent to below 1.4 C° per century – half of what the IPCC had then predicted.
- * The IPCC's predicted 4.8 C° warming by 2100 is well over twice the greatest rate of warming lasting more than ten years that has been measured since 1950.

Lauren Mach says

This book was gifted to me by a friend, and despite the 3 star rating I really liked the vast majority of it. However, I disliked almost every chapter ending with essentially, okay we showed you all of these super cool sea creatures and here's how they're all going to die due to global climate change. The last chapter focuses specifically on how global climate change and reads like a eulogy of the ocean. While I understand that educating people on global climate change is important, I do not think it should be done using fear

tactics that have never and will never work. The author's would have been much better served by focusing on the success stories of marine reserves.

5 stars if you don't read the last section of every chapter, the last chapter, and the epilogue.

Deborah Ideiosepius says

In this nicely written, beautifully researched book a father and son, Marine Biologist and Diver collaborate to share with it's readers some of the beauties, wonders and weirdnessess of the marine environments. As a diver and a marine biologist (by training, if not by trade) this book charmed me. Many of the thing in it were not new to me but they were written with clarity, and humour so that it felt like a pleasant refresher about those animals I was familiar with and a fascinating exploration into those I knew less about.

The books chapters are titled with the types of 'extremes' to be found therein: For example chapter four is 'the smallest'. Within each chapter are a heap of different sections each addressing individual animals or habitats or conditions. This makes for very good reading in my opinion, as you can finish a section and think on it for as long or as short a time as you have at your disposal before moving on to the next.

I believe the science is very suitable for general readers, but the scientific information is also there in the notes and index where all the further reading you could possibly want is on offer for those of a more scientific bent who would like to follow up.

In the final chapter we review as all books of the kind tend to, the effects on the marine environments of human impact and global warming. Though this is generally depressing reading I found this chapter less so than I expected since the descriptions were both more matter of fact and interesting than I had expected.

This was a most wonderful book! It took me a long time to read because after a while I started allocating portions, so that it would not pass to fast, I would read a section and carry it with me through the day, something interesting to ruminate upon when there was nothing better to occupy my mind, so it was a very slow read but not for any bad reason. Though I got it out of the library I think I will purchase it just so that it will be there to read whenever I want to re-read a section. Also, purchasing power! I'm happy to pay for such a good book and I hope to encourage more of the same.

Kam Yung Soh says

A fascinating book about the oceans and the creatures that live in it and depend on it directly. The writing feels a bit clumsy here and there, but the amount of amazing facts revealed more than make up for it.

The book is separated into chapters, each one concentrating on a particular aspect of the ocean, with little overlap between the chapters. The first chapter looks at how it all began and how early life in the sea may have looked and lived. It then moves on to the most ancient forms of life like trilobites, the nautilus and sharks and shows why they are still around.

The chapter on the smallest creatures in the sea is eye opening: quantities like trillions are throw around and does not exaggerate the scale and quantity of tiny sea creatures that live, out of our sight. The deepest sea creatures are next to be described, followed by those that live in the shallows and tides, probably one of the

most challenging environments to live in: always between being harmed by the environment or by other creatures.

The oldest are next and here, we are shown just how difficult it is to determine how old a particular marine dweller really is and why this is such an important question as it determines how well a marine species can survive being harvested as food by us.

The fascinating adaptations made by those who live the fastest or migrate the longest are next in line, followed by even more amazing adaptations used by those who live in the hottest and coldest marine environments. Those that make unusual adaptations to survive and breed are also featured.

In closing, the authors look at what is in store for the ocean in the future and it does not look good; for us. For despite global warming and ocean acidification, the oceans should survive: but it may be us that does not, for the ocean may not be able to provide us with the food we need any more.

Terran says

I enjoyed this book much more than I expected to. Pop science often falls flat -- it's hard to walk that thin line of being simultaneously accurate, up-to-date, and compelling. The Palumbis managed to pull it off quite well in this book.

It's a whirlwind tour of a number of "gee whiz" (and some "holy sh*t") facets of sea life. But rather than being either a dry recitation of facts or an edutainment-style tabloid, it manages to treat its subjects with reverence, delight, wonder, beauty, and depth.

Chapters are arranged thematically, focusing on "the oldest", "the smallest", "the largest", "the deepest", and so on. Within each, they bring out a zoo of sea life, ranging from single-celled archaea to blue whales, and everything in between. They only give a few pages to each, but they manage to develop some life for each in that brief treatment. And they manage to pepper in clearly well researched and state-of-the-art scientific knowledge, without rendering it tedious. (I don't have the book handy to precisely cite some of their factoids, but there are some truly mind-boggling things here, like that the oceans turn over more carbon mass in something like a day than there is entire biomass on the surface.)

To their credit, they restrain most of the panic about the threats to the oceans for the last chapter. I suppose it's a public service to highlight issues like rising temperatures, acidification, and fertilizer runoff. And they raised some points that I was previously unaware of. (For example, most ocean life has far less thermal regulation ability than we do, and is precisely evolutionarily tuned to a very narrow thermal band, and so is critically threatened by temperature changes of only a few degrees.) But still, I'm already painfully aware of a lot of the devastation and threats -- reading more about it these days is an exercise in masochism. :-(

Still, on balance, I really enjoyed this book. It renews my desire to go see as many of these beautiful and strange creatures as I can in person. Highly recommend.

Besides, this book taught me about the critter with the most wonderful scientific name ever: *Osedax mucofloris*: the bone-eating snot-flower worm. Sea life is awesome.

Shaitanah says

Interesting, informative and written in an entertaining, vivid and accessible way.

Chris says

Disappointed this is written for a very general public. Best for middle schoolers
