



# Book Review: Vanishing Fish: Shifting Baselines and the Future of Global Fisheries

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## A Book Review on

### Vanishing Fish: Shifting Baselines and the Future of Global Fisheries

Daniel Pauly (Vancouver, BC; Berkeley: Greystone Books), 2018, 289 pages, ISBN: 978-1-77164-398-6. Foreword by Jennifer Jacquet.

Being familiar with the work of Daniel Pauly, *Vanishing Fish* is not a surprise. It was anticipated to put fisheries management in its place(s) and, using Pauly's own words, to ensure "[fisheries in the future] to perform well not only in operational and financial terms but also in ecological terms." There are many good scientific books on fishes and fisheries out there and there have also been written several popular books on fish. *Vanishing Fish* it is not a typical book<sup>1</sup> but rather a collection of scientific papers with added notes and scientific history, many anecdotes and heavy criticism of practices detracting from the public good and jeopardizing ocean health. However, *Vanishing Fish* is neither a popular scientific book but contains proper, hard-core fisheries science in simpler wording and within social and economic context. Pauly was among the first scientists who sound the alarm on the effects of fishing on marine populations globally, and here we are now, 30 years later, still dealing with the bad status of global fisheries and the ways to halt overfishing and rebuild them. *Vanishing Fish* encompasses his long scientific experience and deep knowledge into a single, coherent text that reads really well and is representative of his strong personality.

The reader knows he/she is about to read a very stimulating book by just looking at the contents and the careful selection of words of the chapter headings, some of which are spikes in the heart of known misleading views in the field. Each of the 22 chapters contains a part of Pauly's scientific accomplishments and passions of the last 25 years, with some of his early work, prior to 1995, described in the three autobiographic chapters. The chapters do not seem to follow a chronological or significance order but they are somehow wisely placed in the right order and context when read. The length among chapters is uneven, which is good, some issues are more important than others. I have the feeling though, that readers would like more details in particular chapters (myself in the *Fishing more and catching less* chapter). The perspective of *Vanishing Fish* is global, as is Pauly's research, but with many local examples across various aspects of fisheries science, a feature of his wide view on the subject.

The toxic conditions prevailing in global fisheries after the World War II and their consequences for marine populations, biodiversity, and ecosystems are described early in the book with solid scientific evidence supported by numerous cases from all the oceans, seas and continents of the world. Pauly argues against high-trophic level aquaculture, whaling, subsidies that promote overfishing and hyper-industrial fishing and in favor of marine protected areas and clearly supports

<sup>1</sup>Glad to know that the book was printed on ancient-forest-friendly paper.

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the smaller fisheries and fishers. Pauly's expectations on local communities for sustainable fishing are high; I wish he is proven right but there are still people (*Homo sapiens*) involved in these communities. For every bad management practice Pauly offers an antidote, which he acknowledges that cannot be a panacea and applied everywhere. He describes all the concepts and theories he is known for in fisheries science (shifting baseline syndrome, fishing down, oxygen limitation theory among others) but also touches many social (gender and geographical inequalities), ethical (fishing rights, whaling), and political issues (ITQs, academic freedom). If something is missing, although clearly implied in *Worrying about whales* chapter, it is a comment on "balanced harvesting theory" and its potential links with whaling and the fishmeal industry.

Pauly's writing is provocative, sarcastic, humorous, often ironic and always direct; he makes no effort to mask his feelings about fringe characters or merchants of doubt and what he considers bad or superfluous science and denounces all duplicitous management decisions. He puts overfishing denialists next to creationists and climate change denialists debating with whom he considers a waste of time. He mentions twice, but implies several times, that "*this is an issue I cannot be neutral.*" Why be? It is the scientist's duty to dare and publish. In many parts of the book, Pauly powerfully criticizes the work, views and acts of scientists, organizations, and nations but with the same ease he acknowledges and credits the work of contemporary and past fisheries scientists and the input his former students and colleagues had in his career and publications.

There aren't any figures and tables in the book. There are, however, 702 numbered comments, references, and endnotes and a (very) helpful (for non-fisheries experts) glossary. The text is full of metaphors, analogies, and examples from everyday life. I was impressed by the number of words of Greek origin Pauly used in his book, some of which (e.g., hermeneutics, monosyllabic), although common in Greek, I had not idea they are used in English. Pauly is the godfather to many new words and concepts in fisheries science; he reveals that "Aquacalypse" was not one of them. I believe that "stock" remains a convenient short way of expressing the ecologically correct "exploited fish populations" but "yield" may easily change to "catch." As a polymath; Pauly often mentions historical and fictional characters, mythological heroes, refers to the habits of ancient civilizations and cites classical writers and books, even Hollywood movies. Evolution, geology, and other scientific disciplines are nicely linked to the exploitation of marine organisms and ecosystems in several parts of the book.

I really enjoyed reading the autobiographic texts and anecdotal notes that expand on published items and, I think, most of them are didactic for the next generations of scientists,

while some of them require digging into the original publication, prequels and sequels as well as rebuttals and replies to fully comprehend. The parallel commentary of *Vanishing Fish* is intriguing and drags you to the endnotes. Pauly's writing (and thinking) is absorbing and keeps the interest going on throughout the book. The elegant foreword by Jennifer Jacquet, a dynamic former Pauly's student and now faculty at the New York University, describes his character through snapshots of his career and predisposes the reader that he/she is about to swim to the fascinating sea of fisheries science.

The book has already gained the attention of scientific and mass media and will surely be placed on the shelves of professors and researchers. However, these guys, us, have read most of the papers already and probably are keen on reading the anecdotes, comments, and endnotes that will later be discussed in lectures and lab meetings, along with the "proper" teaching and mentoring duties. The advice at the end of each chapter and Pauly's stereoscopic view of science are precious. Indeed, the true value of this book is for early career marine scientists, postgraduate, and doctorate students that will read it, understand it, work hard, love fisheries science, and join the battle in the war against the dark side (or Mordor or evil or undistinguished "gentlemen" or fringe characters). And when they grow and gain positions and power they will make sure that there will still be a future for fisheries and oceans. I am sure that this was one of Pauly's hidden ambitions when writing this book. In that sense, after reading nearly 300 pages about all the battles scientists have fought for conserving marine ecosystems, the end of the book, the very last words, leave you with a bitter taste.

The author of *Vanishing Fish* is Daniel Pauly a daring, outspoken Professor at University of British Columbia, Canada, who shifted the baseline in fisheries science and improved the way we look at marine ecosystems and their inhabitants. Pauly is the most productive and most highly cited fisheries scientist of all times and managed to change the science of fisheries and the nature of marine conservation biology.

## AUTHOR CONTRIBUTIONS

AT wrote the book review.

**Conflict of Interest:** The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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