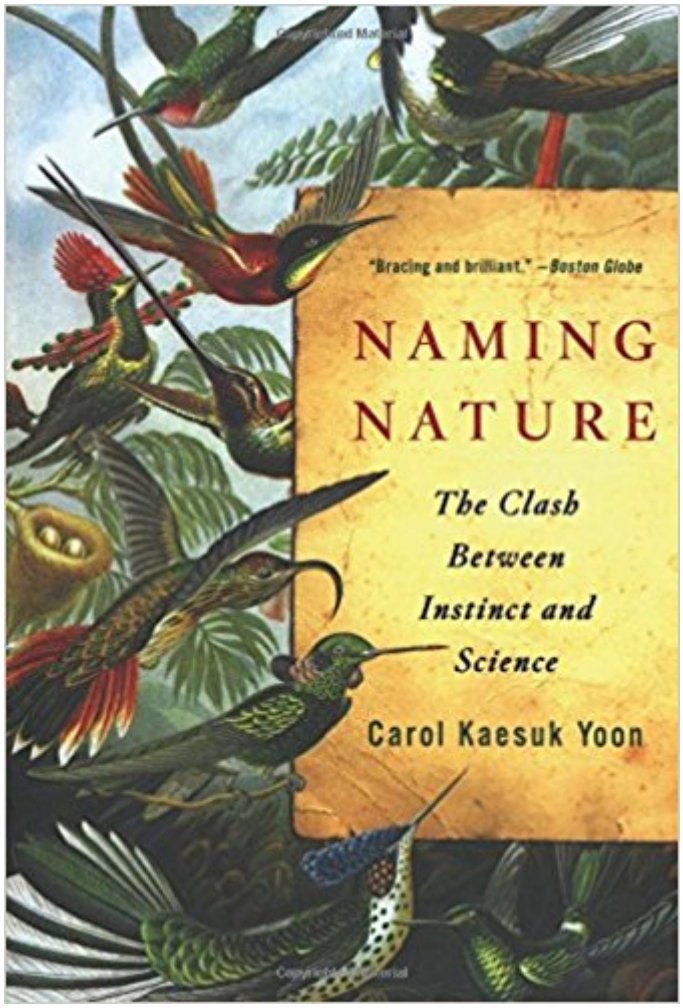
Naming Nature: The Clash Between Instinct And Science



Synopsis

Finalist for the 2009 Los Angeles Times Book Prize in Science and Technology. Ã¢â ¬Å“A lively blend of popular scientific history and cultural criticism.Ã¢â ¬Â•Ã¢â ¬â ¢New York Times Book Review Biologist Carol Kaesuk Yoon explores the historical tension between evolutionary biology and taxonomy. Carl Linnaeus struggled in the eighteenth century to define species in light of their mutability while still relying on intuitive, visual judgments. As taxonomy modernized, it moved into labs, yielding results counterintuitive to humanityÃ¢â ¬â„¢s innate predisposition to order the world. By conceding scientific authority to taxonomists, Yoon argues, weÃ¢â ¬â„¢ve contributed to our own alienation from nature. 27 black-and-white illustrations

Book Information

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Customer Reviews

Starred Review. In this entertaining and insightful book, New York Times science writer Yoon sets out to document the progression of the scientific quest to order and name the entire living worldÃ¢â ¬â •the whole squawking, scuttling, blooming, twining, leafy, furry, green and wondrous mess of it from Linnaeus to present-day taxonomists. But her initial assumption of science as the ultimate authority is sideswiped by her growing interest in umwelt, how animals perceive the world in a way idiosyncratic to each species, fueled by its particular sensory and cognitive powers and limited by its deficits. According to Yoon, Linnaeus was an umwelt prodigy, but as taxonomists began to abandon the senses and use microscopic evidence and DNA to trace evolutionary relations, nonscientists' gave up their brain-given right (and tendency) to order the living world, with

the devastating result of becoming indifferent to the current mass extinctions. Yoon’s invitation for laypeople to reclaim their umwelt, to take one step closer to the living world and accept as valid the wondrous variety in the ordering of life, is optimistic, exhilarating and revolutionary. (Aug.) Copyright Ã Â© Reed Business Information, a division of Reed Elsevier Inc. All rights reserved. --This text refers to an out of print or unavailable edition of this title.

Ã¢â ¬Å“A beautiful riddle of a book.Ã¢â ¬Â• - Time Out New YorkÃ¢â ¬Å“Impossible to put down.Ã¢â ¬Â• - BooklistÃ¢â ¬Å“Starred Review: Superb.Ã¢â ¬Â• - Kirkus ReviewsÃ¢â ¬Å“A sensuous delight to read.Ã¢â ¬Â• - O, The Oprah MagazineÃ¢â ¬Å“Starred Review: Optimistic, exhilarating, and revolutionary.Ã¢â ¬Â• - Publishers WeeklyÃ¢â ¬Å“Bracing and brilliant.Ã¢â ¬Â• - Boston GlobeÃ¢â ¬Å“Ingenious . . . compelling.Ã¢â ¬Â• - San Francisco Chronicle

Although the premise of the book - our instinctual categorization of the world is at odds with scientific reality, and why this matters - is intriguing, Yoon never finds any momentum in her exposition. The first couple chapters begin promisingly enough, and the discussion of Linnaeus is charming and readable. However by the time I reached the midway mark and Yoon was still harping on about our "umwelt," her casual (bordering on the juvenile) style grew irritating. Contrary to being "impossible to put down," I had no desire to continue. Ashame, because I truly enjoy Yoon’s NYTimes contributions and was looking forward to this book.

Great insight into the human psyche, and had times that made me laugh out loud. HIGHLY recommend if you are interested in understanding human nature, how we learn and what we are losing with our focus on material goods.

Fascinating stuff, but a bit seemed like it could have been edited better to tighten the whole thing up.

Our natural affinity for living things is transferred to brands and logos as we become more disconnected from nature itself. Argues for personal bonds with natural things, guided by our instincts.Provides a history of taxonomy from Linnaeus to Phylocodes. Appropriates the term ’umwelt’ to describe the way we perceive nature through our senses.

Like another reviewer, I read the piece in the NY Times and enjoyed it enough that I pre-ordered the Kindle edition of this book. I’m very glad I did. As a records and information manager I have

experience with a different kind of taxonomy - ordering documents in ways that allow the right information to be found by the right person at the right time - but there are enough similarities to the struggles in ordering and naming living things that I could feel kinship with the various players discussed in this book. The writing style the author uses is elegant and clear. Themes and phrases are repeated multiple times and help each new segment build upon the one before it. What could have been annoying repetition was instead a kind of binder that held all the little pieces of the narrative together from start to finish. I can highly recommend this book to others as just a good read or as a history of how things are named. I enjoyed it for both.

Really loved this book! I am in the Horticulture field, butnot an academic, and an amateur in the area of taxonomy. It heldmy interest, was quite informative and well written.

To set the record straight at the start, I am a taxonomist, as well as an ecologist. My specialty is in spiders, of which I've described and named 14 species. I also have some interest in microscopic organisms, especially diatoms. I am quite aware of the problems associated with defining species and also aware that taxonomy is difficult to explain to the layman, and even to some biologists. The world is not organized for our convenience, but it is, I think, of use to at least try to understand what is meant by kingdom, phylum, class, order, species, and populations, even if we decide that some categories are a bit on the fuzzy side. After all evolution has not stopped (even for humans) and thus many species and even higher classifications may seem a bit blurry.It is with this background (and probable biases) that I examined Carol Kaesuk Yoon's new book "Naming Nature: The Clash Between Instinct and Science." I was impressed by the many positive reviews that were listed and saw even more on the book website, including at least one scientist I know. Unfortunately in reading the first part of the book I quickly became uneasy. She has invoked the ethological term "umwelt" to define the natural instinct to name things and believes that the re-reinstatement of "instinctive" classifications for organisms (which make whales fish and cassowaries mammals) would make people appreciate nature more. While I think I see her point, I tend to also think, like Quentin Wheeler in another on-line review of the book, that her suggestion does not really solve the problem. In the early 19th Century a U.S. court ruled that for commercial and tax purposes a whale was a fish. Do we not find it easier to kill a fish than a mammal? Is it possible that using "umwelt" principles animal life would become less valuable? Re-instating misconceptions because species and other taxonomic categories are difficult is, in my mind, not the answer. I am quite happy for local peoples to call their local organisms what they want to call them, but scientific concepts of

taxonomy, even if changing radically at times, are important not only to the scientists (as Yoon recognizes), but to our whole species as well. I feel very uneasy about her approach and wonder if she will be upset when a whaler takes one of those dumb "fish."As to her discussion of taxonomy and systematics, I have to admit that like her I was at first a bit put off by cladists, but I have come to think (even noting the difficulties involved in defining shared derived characteristics and the turmoil caused by the results of DNA analysis) cladistics is by far the best game in town. To be fair Yoon does note the utility of the science and resulting phylogenetic trees, but worries that scientists, by not embracing the "umwelt" classifications, are cutting themselves off from a public that simply does not care about such esoteric things. She instead invokes gut feelings. Because of my own personal history I tend to mistrust uninformed gut feelings because I have seen how they can lead one astray. I don't discount them totally, but I prefer to use gut feelings when I have informed myself as much as possible. We do not live in a nice neat perfectly ordered world, but I am suspicious of any philosophy that throws what we do know, even if it is very little, to the wind in favor of a dumbing down.There are, of course, other ways of classifying organisms. We could classify them by ecological association and place horned larks and prairie dogs together, a sort of "spruce-moose" biome classification. We could classify organisms by their edibility (as many native peoples did for obvious reasons) or by whether they were venomous or poisonous, or useful for folk medicine. I doubt that any scientist would be too disturbed by these alternate classifications, as long as it was noted that they did not reflect genetic relatedness.Yoon is right that we need to continue to explore and describe new species (alpha taxonomy), no matter how well we can actually do this. It is possible that I am not correctly understanding her arguments, but some of her ideas are pretty jarring. Her suggestion that an early French classification of snakes, crocodiles and slugs as insects should be taken as a valid concept strikes me as not an example of native "umwelt" but of a really quirky way of interpreting nature. I felt very disturbed upon reading her final paragraph when she describes an orca jumping as "the biggest, blackest, most fantastic fish I'd ever seen under a gorgeous blue sky." I have seen orcas myself in the San Juan Islands and I will wager that their being mammals awed me at least as much as her seeing them as fish!

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