The Tangled Tree: A Radical New History of Life

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Longlisted for the National Book Award for Nonfiction and A New York Times Notable Book of 2018

Nonpareil science writer David Quammen explains how recent discoveries in molecular biology can change our understanding of evolution and life's history, with powerful implications for human health and even our own human nature.

In the mid-1970s, scientists began using DNA sequences to reexamine the history of all life. Perhaps the most startling discovery to come out of this new field-the study of life's diversity and relatedness at the molecular level-is horizontal gene transfer (HGT), or the movement of genes across species lines. It turns out that HGT has been widespread and important. For instance, we now know that roughly eight percent of the human genome arrived not through traditional inheritance from directly ancestral forms, but sideways by viral infection-a type of HGT.

In The Tangled Tree David Quammen, "one of that rare breed of science journalists who blends exploration with a talent for synthesis and storytelling" (Nature), chronicles these discoveries through the lives of the researchers who made them-such as Carl Woese, the most important little-known biologist of the twentieth century; Lynn Margulis, the notorious maverick whose wild ideas about "mosaic" creatures proved to be true; and Tsutomu Wantanabe, who discovered that the scourge of antibiotic-resistant bacteria is a direct result of horizontal gene transfer, bringing the deep study of genome histories to bear on a global crisis in public health.

"Quammen is no ordinary writer. He is simply astonishing, one of that rare class of writer gifted with verve, ingenuity, humor, guts, and great heart" (Elle). Now, in The Tangled Tree, he explains how molecular studies of evolution have brought startling recognitions about the tangled tree of life-including where we humans fit upon it. Thanks to new technologies such as CRISPR, we now have the ability to alter even our genetic composition-through sideways insertions, as nature has long been doing. The Tangled Tree is a brilliant guide to our transformed understanding of evolution, of life's history, and of our own human nature. David Quammen's fifteen books include The Tangled Tree, The Song of the Dodo, The Reluctant Mr. Darwin, and Spillover, a finalist for the National Book Critics Circle award. He has written for Harper's, The Atlantic, Rolling Stone, The New York Times Book Review, Outside, and Powder, among other magazines, and is a contributing writer for National Geographic. He wrote the entire text of the May 2016 issue of National Geographic on the Greater Yellowstone ecosystem-the first time in the history of the magazine that an issue was single-authored. Quammen shares a home in Bozeman, Montana, with his wife, Betsy Gaines Quammen, an environmental historian, along with two Russian wolfhounds and a cross-eyed cat. Visit him at DavidQuammen.com. "[Quammen] is our greatest living chronicler of the natural world....There are vivacious descriptions on almost every page." -- Parul Sehgal, The New York Times

"David Quammen's diligently researched and deeply considered overview of what's been going on recently in evolutionary biology is illuminating. wondrous, and gripping. Also scary when it comes to thinking about the evolution of Homo sapiens. This is stunning, first-rate

journalism." -- Barry Lopez, author of Arctic Dreams

"There's no one who writes about complex science better than David Quammen. The Tangled Tree is at once fascinating, illuminating, and totally absorbing." -- Elizabeth Kolbert, author of the Pulitzer Prize-winning The Sixth Extinction

"Quammen has written a deep and daring intellectual adventure. . . . The Tangled Tree is much more than a report on some cool new scientific facts. It is, rather, a source of wonder." -- Thomas Levenson, The Boston Globe

"Utterly absorbing.... Changed the way I see life." -- Scott Simon, NPR

"David Quammen proves to be an immensely well-informed guide to a complex story.... Indeed he is, in my opinion, the best natural history writer currently working. Mr. Quammen's books... consistently impress with their accuracy, energy and superb, evocative writing." -- David Barash. The Wall Street Journal

"In The Tangled Tree, celebrated science writer David Quammen tells perhaps the grandest tale in biology. . . . He presents the science - and the scientists involved - with patience, candour and flair." -- John Archibald, Nature

One of Science News' Favorite Books of the Year

"[Quammen] writes like the director of a summer blockbuster: blasts of rich detail, quick cuts, not a second wasted." -- Lois Beckett, The Guardian

"The Tangled Tree is a thrilling story of some of biology's most incredible discoveries, and a rich portrait of the fascinating people behind them. This is David Quammen at his best: funny, tenacious, lucid, charming, and relentlessly compelling." -- Ed Yong, author of I Contain Multitudes

Other Books

New England Journal of Education,

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