



## EVOLUTION

***Darwin's Rival: Alfred Russel Wallace and the Search for Evolution.*** By Christiane Dorion; illustrated by Harry Tennant. 2020. Candlewick Studio. (ISBN 978-1-5362-0932-7). 64 pp. Hardcover, \$24.99.

On June 18, 1858, Charles Darwin was dismayed to receive a manuscript from a young naturalist that explained evolution through natural selection – the very same idea on which Darwin had been laboring in secret over the previous two decades. “I never saw a more striking coincidence,” he lamented to his friend the geologist Charles Lyell. “So all my originality, whatever it may amount to, will be smashed.” Lyell and the botanist Joseph Hooker subsequently arranged for the presentation, and later the publication, of the young naturalist’s manuscript, preceded by previously unpublished material of Darwin’s establishing his priority. So it was that Alfred Russel Wallace became evolution’s second banana.

In *Darwin's Rival*, Christiane Dorion provides middle school readers with a lively, lucid, and accurate narrative of Wallace’s life, with a focus on his initial contribution to evolution. Briskly disposing of his first 25 years in three pages, she then devotes 15 pages to his expedition to the Amazon (1848–1852), where he and his friend Henry Bates (the namesake of Batesian mimicry) hoped both to advance their biological knowledge and to line their pockets

by discovering exotic species to sell to institutional and private collectors. The latter ambition foundered, literally, when the ship bringing Wallace back to England caught fire and had to be abandoned, along with the bulk of Wallace’s painstakingly acquired specimens.

“Wallace vowed that he would never venture to sea again,” Dorion wryly observes. “But within days of being back home, he was already thinking about his next expedition” (p. 23): to the Malay Archipelago (1854–1862). That next expedition was more successful, both financially and scientifically. Wallace collected more than 125,000 specimens, made the biogeographical observations that led to the recognition of the Wallace line between Southeast Asia and Australia, and, in a fever, had the insight that led to the manuscript he sent to Darwin. Understandably, given the audience, Dorion’s treatment of natural selection is undetailed, eliding the subtle differences between Darwin’s and Wallace’s ideas.

After describing the publication and reception of Darwin’s and Wallace’s papers in 1858, Dorion devotes only six paragraphs to the rest of Wallace’s long life – he died in 1913. On one hand, it’s a shame. Part of the reason why Wallace is so fascinating a character is the diversity of his interests and activities. In addition to evolution and biogeography, he contributed to the nascent fields of astrobiology, environmental science, and epidemiology, while dabbling in mesmerism, phrenology, and spiritualism, as well as tackling a host of social issues. On the other hand, it would be unreasonable to fault a short book about Wallace for focusing on what is, after all, unquestionably his best-known achievement.

There is little with which to take issue in the text, perhaps because George Beccaloni, the director of the Alfred Russel Wallace Correspondence Project, served as the historical consultant. But it is a bit misleading for Dorion to write that Darwin arrived at the idea of evolution by natural selection

“by studying his notebooks and the many specimens he had gathered years earlier on his voyage on the *Beagle*” (p. 52), since he also relied on specimens and observations from a wide network of correspondents. In the glossary, the definitions of *extinct* and *species* are wrongly confined to animals and plants, and the definition provided for *common ancestor* is actually a definition of *most recent common ancestor*.

The handsome oversized volume is appealingly illustrated by Harry Tennant, who mainly uses a limited and subdued palette of blues, browns, and greens, even when it must have been a temptation to expand the chromatic range, as with the plate of arrayed beetles (pp. 34–35). No page is without its illustration, often of a flamboyant animal, and there is a generous helping of two-page spreads, typically landscapes and seascapes (the burning brig *Helen* on pp. 24–25 is especially striking). There are also a number of helpful and attractive maps; particularly compelling is the map labeled “Wallace’s and Darwin’s Routes to Evolution” (pp. 54–55), which could serve as the springboard for a fascinating discussion.



Glenn Branch  
National Center for Science Education  
Oakland, CA 94610  
branch@ncse.org

## FURTHERING EDUCATION

***A Field Guide to Grad School: Uncovering the Hidden Curriculum.*** By Jessica McCrory Calarco. 2020. Princeton University Press. (ISBN 9780691201092). 480 pp. Paperback, \$17.95.

My own PhD diploma is over a decade old, and I teach in a high school rather than a graduate program. However, I think everyone who teaches or mentors in academic settings, not just those contemplating