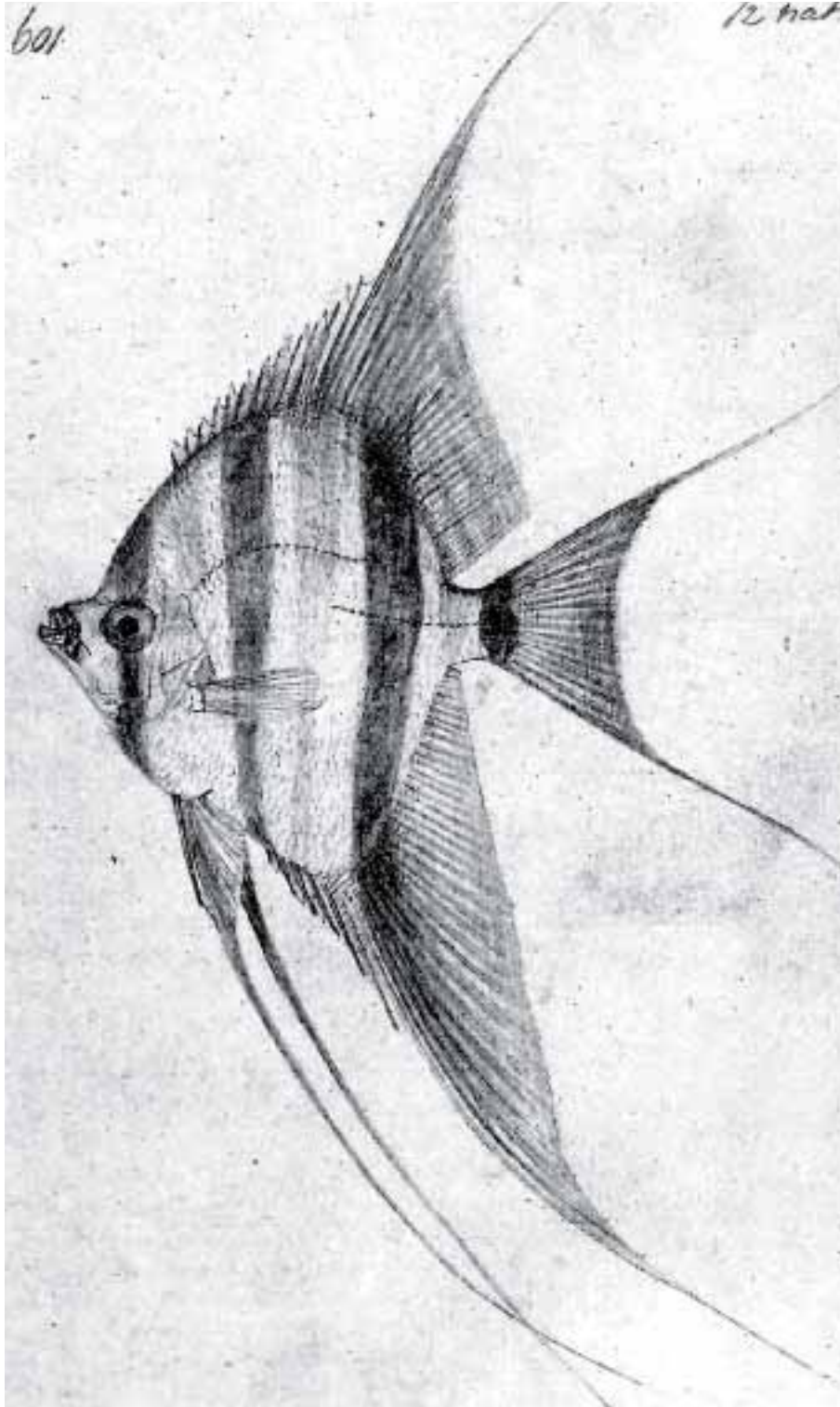


Tales from the Trenches | The colorful characters, epic adventures, and personal struggles that fill the history of science don't always find their way into classrooms. HHMI investigator Sean B. Carroll wants to change that. So he wrote a textbook, published last summer, in which the history of evolutionary science unfolds through some of its most memorable stories. At the start of Chapter 2, the reader meets Alfred Russel Wallace, a nineteenth-century scientist who voyaged to the Malay Archipelago and the Amazon. Despite some dramatic setbacks like the ones described here, Wallace made seminal contributions to the field of evolution, including a novel concept of natural selection.



It was time to pack up and go home.

Alfred Wallace was two thousand miles upriver from the Atlantic Ocean, on the Rio dos Uaupés tributary of the Amazon—further than any European had ever gone. Since arriving in May 1848, he had spent nearly four years exploring and collecting, but had been laid up the last three months with yellow fever. He was too exhausted to go on. His younger brother, Herbert, who accompanied him up to the Rio Negro, had long before turned back. Unbeknownst to Wallace, Herbert was stricken with yellow fever and died before he could board a boat to England.

Wallace had accumulated a large menagerie of live animals—monkeys, macaws, parrots, and a toucan—that he hoped to take all the way to the London Zoo. Their upkeep was killing him. Besides the animals, he also had a couple of years' worth of specimens, both with him and stored downriver, that he had not yet been able to ship to England for sale.

Wallace began to dream of green fields, neat gardens, bread and butter, and other comforts of home. On July 12, 1852, he boarded the brig *Helen* with thirty-four live animals, many boxes of specimens and notes, and set sail for England.

"I'm afraid the ship's on fire; come and see what you think of it." Just after breakfast, three weeks out of port and somewhere east of Bermuda, the captain of the *Helen* was concerned enough to visit Wallace in his cabin. And rightfully so—smoke was pouring out of the hold.

The crew tried, but could not douse the smoldering blaze. The captain ordered down the lifeboats. Wallace, still weak from his bout with yellow fever, looked on as if the scene was a feverish dream. It wasn't. He reentered his hot, smoky cabin and salvaged a small tin box and threw in some drawings, some notes, and a diary. He grabbed a line to lower himself into a lifeboat, slipped, and seared his hands on the rope. His pain was compounded when his injured hands hit the salt water. Once in the lifeboat, he discovered it was leaking.

Wallace watched his animals perish, and then the *Helen*, along with all of his specimens.

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