

edited by Mitch Leslie

## FUN

### Science With a Beat

Why do people sound like Pavarotti when they sing in the shower, but like one of the caterwauling losers on *American Idol* the instant they step out? What causes those annoying snippets of pop songs—experts call them “earworms”—to lodge in our brains? For an entertaining riff on sound and perception, tune in to the Science of Music from the Exploratorium in San Francisco. A tiled shower boosts low frequencies and turns up the volume and reverb, making the voice sound richer and blurring mistakes. As for those infuriating earworms, researchers don’t know why they take up residence, but they might be the brain’s attempt to complete a musical phrase. The site’s interactive demos include one that whisks you off to the kitchen to illustrate how much we rely on optical information to help us identify sounds—a phenomenon called visual dominance. With your eyes closed, it can be hard to distinguish the hum of a refrigerator from the wheeze of an accordion.

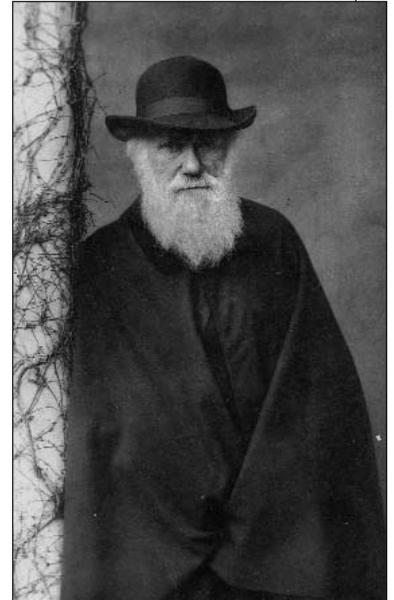
[www.exploratorium.edu/music](http://www.exploratorium.edu/music)



## RESOURCES

### The Darwin Reader

Before *The Origin of Species* put the Victorians off their tea, Charles Darwin was famous as the author of a popular travelogue and a heap of scientific publications. Thanks to historian John van Wyhe of the University of Cambridge, U.K., you can browse most of Darwin’s oeuvre at this site, which holds transcripts of papers, letters, books, and other writings. The collection includes lesser known works such as the unpublished 1842 and 1844 essays in which he first sketched his ideas on evolution through



natural selection. You can also delve into the hard-to-find first edition of *The Origin of Species*, which the late paleontologist Stephen Jay Gould described as the most coherent statement of Darwin’s argument, free of the hedging of later editions. Even his quotidian publications can provide insight into his thinking. In an 1855 *Gardeners’ Chronicle* blurb, for instance, he noted that some seeds could survive 6 weeks’ immersion in salt water, suggesting a way for plants to colonize remote islands without the need for a divine landscaper.

[pages.britishlibrary.net/charles.darwin](http://pages.britishlibrary.net/charles.darwin)

## DATABASES

### One-Stop Taxonomy

For years, experts have dreamed of a single Web site that would unite all knowledge of the world’s living things. Last month, an effort to do just that debuted: the Global Biodiversity Information Facility’s (GBIF’s) new Biodiversity Data Portal. The site lets users simultaneously search over 1 million taxonomic records from museum collections, botanical gardens, and global storehouses such as FishBase. Whether you’re curious about a mushroom, a newt, or the bacterium that causes tetanus, the portal provides the latest on classification and nomenclature. Some of the 30-plus linked data sources allow you to browse collection and observation records and use them to map species’ distributions. Others, such as CephBase, also list details such as diet and size for creatures like the white-spotted octopus (*Octopus macropus*, below). GBIF, a consortium of more than 30 countries, hopes that more museums and other organizations will connect their databases.

[www.gbif.net/portal](http://www.gbif.net/portal)

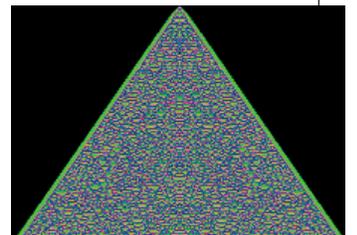


## WEB TEXT

### Is Complexity Simple?

Two years ago in *A New Kind of Science*, physicist and software entrepreneur Stephen Wolfram asserted that simple mathematical rules govern complex patterns, from the intricacies of animal anatomy to the structure of the universe. Although some critics lauded the book’s claim to revolutionize scientific thinking, others blasted it as a rehash of old ideas. If you haven’t read Wolfram’s tome, this site from his company lets you peruse it for free. Completing the registration allows you to browse the 1280 pages and download supplementary material such as demo programs and images.

[www.wolframscience.com/nkonline](http://www.wolframscience.com/nkonline)



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