The George B. Saul II Lecture Funds presents

Steve Palumbi
Stanford University

Public Lecture
Thurs. Sept. 29 • 4:30 PM • MBH 216

The ocean teems with life that thrives under difficult situations in unusual environments. This illustrated lecture based on the popular book *The Extreme Life of the Sea*, takes the audience to the absolute limits of the aquatic world—the fastest and deepest, the hottest and oldest creatures of the oceans. It dives into the icy Arctic and boiling hydrothermal vents, and exposes the eternal darkness of the deepest undersea trenches to show how marine life thrives against the odds. It brings to life the sea’s most extreme species, and reveals how they succeed across the wide expanse of the world’s global ocean. We’ll see the world’s oldest living species, narrate how flying fish strain to escape their predators, how predatory deep-sea fish use red search lights only they can see to find and attack food, and how at the end of their lives, mother octopuses dedicate themselves to raising their young. We’ll also discuss how ocean adaptations can inspire innovative commercial products—such as fan blades modeled on the flippers of humpback whales—and how climate change and overfishing could pose the greatest threat yet to our planet’s tenacious marine life.

Science Talk:
Friday, Sept. 30 • 12:30 PM • MBH 216

Many of the ocean’s most fascinating species are under threats ranging from over fishing and habitat destruction to global climate change. How can knowledge of the DNA of these species help in their protection? Written into the genomes of any species are records about what species it is, where it lived, what it is adapted to, and what future conditions it might be able to survive. I’ll illustrate some of these points with new genomic data from New England invasive crabs, west coast sea urchins and Pacific corals. The tools of genomics open up detailed study of adaptation for many species for which genetic data were never previously available.

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