

## Dr. Jeffrey Michael Knowles

Jeffrey Michael Knowles was a scientist, sailor, waterman, musician, engineer, programmer, friend, brother, and son. There will never be another like him.

Jeff was born on August 25, 1988, and grew up on Aquidneck Island and Narragansett Bay. He graduated with honors from Pennfield School, St. George's School, and then Brown University with a Bachelor of Science degree in neuroscience. Next, he completed his doctoral studies and dissertation at the University of California at San Francisco. Jeff was preparing to defend his research and receive his degree when he died — where, in large measure he lived — on the waters of San Francisco Bay. He will receive his Ph.D in neuroscience posthumously.

Jeff's most recent scientific focus was auditory processing mechanisms in song-birds. He hoped to later translate his findings to similar systems in the human brain. Jeff's research will live on; his laboratory colleagues will use his data and papers as a springboard for future work.

Jeff's 29 years and 9 months were so packed with adventure, enthusiasm, innovation, and friendship that they could never be chronicled fairly. Nonetheless, some anecdotes:

- When Jeff was five, a sick and angry raccoon climbed a tree in the neighborhood. As the police arrived to perform the ugly job of getting it down by rifle, Jeff realized what would happen and quickly herded the other kids inside, so they wouldn't have to see.
- On Thanksgivings during his time in San Francisco, Jeff would lead his friends on expeditions into the wilderness of Big Sur, and cook turkey on a hot spring.
- Jeff raced the famous "Bridge to Bridge" sailing race on a Vanguard 15 dinghy that he named the *Jackaro*. He removed the mast, and somehow flew two kite-sails at once on the same set of lines. He would sometimes take less-amphibious friends from his lab on rides on the boat, always terrifying them. He also used this small sailboat (less successfully) for shark fishing from time to time, as well as for adventures (these were more successful) to camp and show his friends nighttime bioluminescence from small organisms called dino-flagellates.
- As a youth sailing coach, Jeff taught young sailors not just how to race, but also how to cruise, raft-up their boats, and celebrate life on the water. He usually did this while sitting in his coach boat, wearing a straw hat, reading the *Wall Street Journal*, and plotting the end of capitalism.
- Occasionally, Jeff would volunteer to coach the Brown sailing team after he graduated. He was known to disable the system that sounds a series of horns to count down to each race. Instead, he would replicate these sounds on his trumpet to let the competitors know how much time was left to the start.

- Trumpet in hand, Jeff busked regularly on the streets of Newport, Providence, and San Francisco. He did this not for money, but just for his love for playing music in front of people.
- Combining his love of music and surfing, Jeff launched a website called *SwellSpect* that translated ocean swell data from offshore buoys into sound. (Why read the surf report when you can listen to the waves instead?) *SwellSpect* is available at <http://www.swellspect.com>.
- Before turning to songbirds, Jeff's earlier research focused on echolocation mechanisms in bats. In support of that work, Jeff would stalk the graveyards and other dark spaces of Newport to capture new test subjects. He offered a free bat-removal service — in the interest of science — to neighbors and friends with infestations in their garages or attics. (At this time, anyone who asked Jeff what he did for a living got the same short response: “batman”).
- Among Jeff's inchoate business ventures was a crabbing operation: he would tend his unlicensed crab pots on San Francisco's ocean beaches, sometimes by kiteboard. The fun probably outstripped the economics of this operation.
- During a storm in San Francisco, Jeff was featured on the local news while traveling along a beachfront road on a skateboard, powered by a windsurfer sail. He was in a blazer, with patches on the elbows for additional padding and aesthetics. His mast and rigging

were held together with painter's tape (either because it was all he could find or to enhance the degree-of-difficulty of the operation).

Jeff was an expert at taking all things in life just the right amount of seriously. Most of all, and more than any vignette can show, Jeff had a deep and lasting effect on everyone who knew him, even briefly. As one friend put it, “it was clear to everyone that Jeff was brilliant, but one never felt dumb being around him.”

A short life must be mourned especially. Jeff packed more into his laps of the sun than most could hope to in a century. Still — because of the richness of his life — his death is a profound blow to all who knew him. We will never move on, but hope with time the pain will ebb and leave behind Jeff's joy in life so that we can enjoy and learn from it.

Jeff died on June 7, 2018. He leaves behind his parents Tony and Judy; his brother Matt; and family, friends, and disciples on several continents.

Two of Jeff's favorite charities are Sail Newport (<http://www.sailnewport.org>) and Sail to Prevail (<http://www.sailtoprevail.org>).

As Jeff once closed an email to his friends:

*If you have any questions, then look to the sea and you will know the answer.*

*Your Captain, JMK.*