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Letter to a Young Scientist

Patience, Persistence, and Learning from Failures will Prevent Naysayers from Having the Last Word

By Stephen W. Kress, PhD [1]

Dr. Stephen Kress, *known widely as* "Puffin Man*," is a native of Bexley, Ohio. He grew up poking around in the lakes, streams, woods, and parks of central Ohio, always seeking something new and interesting under that next rock or down that next trail. Early on he connected with mentors—including several individuals now considered to be legendary in the study of Ohio's natural history—and took part in the Science Day events (science fairs) sponsored by The Ohio Academy of Science. Always benefiting from the collaborations with mentors and peers, he went on to attend The Ohio State University and received a PhD from Cornell University. After a few career twists and turns, his interests gradually focused on birds and bird conservation efforts. Dr. Kress started his decades-long "dream" career at the National Audubon Society in 1982 and has now become a world authority on seabird restoration and an advocate for public engagement in wildlife conservation. Retired, he lives in New York State.*

I was never much of a carpenter—a reality that explained why my childhood collection of snakes and salamanders often escaped the confines of their homemade cages in my family's home in Bexley, Ohio. My Lithuanian-born grandmother would sometimes try to comfort my mother by saying, "don't worry—he'll outgrow this thing." Wisely, my parents embraced my passion, even though it was totally foreign to their suburban lifestyle. Even though my mom would shriek when she encountered a snake on the stairs or a frozen bird tucked among pies in the freezer, she would still dutifully drive me to every nearby metropolitan park so that I could roam the swamps and streams looking for Fairy Shrimp, Wood Frogs, turtles, and the occasional Blue-tailed Skink. Fortunately, this was a simpler time when parents could let their children explore nature without worrying about their safety. Likewise, my dad, a businessman, unknowingly set me on my career path as a biologist by taking me on fishing adventures to local streams and farm ponds. I am sure my parents wondered what would become of their nature-loving son, but their support and encouragement was key to enabling my future life's work.

Finding Early Peer Companions

My "partner in crime" for these youthful adventures was Howard (Mac) Albin, a neighborhood friend who shared my enthusiasm for wading into vernal pools, flipping rocks for Dusky Salamanders, and seining Big Darby Creek for darters. Without someone to share discoveries and revel in the glory of these beautiful places, I may not have discovered the Ohio countryside. Our friendly competition to best one another with our herpetological and fish collections was a big part of my motivation for exploring nearby streams and forests. Mac was always the hands-down winner of our dueling menageries, as he took care to notice habitat details and replicate these at home. His crowning accomplishment was a darter tank complete with motor-driven paddlewheels that created a riffle habitat so convincing that flamboyant Greenside Darters flourished there! I am convinced that peer companions who share the nature-loving gene are a key part of legitimizing and sustaining an interest in wildlife and the outdoors through childhood, adolescence, and beyond.

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As a ten-year-old, I was also fortunate to befriend interpretive naturalists at (what are now) the Columbus and Franklin County Metro Parks. Their "Junior Explorer" weekend program for kids gave me my first insight into a wide range of Ohio's natural history, and eventually led to my first job tending the trailside wildlife menagerie at Blacklick Woods. Through these encounters, I realized that it was possible to have a nature-based outdoor career.

My focus on birds began in middle school when the Metro Park naturalists introduced me to some of Ohio's legendary naturalists, including Edward Thomas, Milton Trautman, and Irving Kassoy. Soon after, I joined the Wheaton Club, a group of central Ohio professional biologists who were thrilled to have a younger member in their mostly graybeard group.

Finding friends who shared my values and interests was key to sustaining my conservation biology career track.

Commending Stick-to-it-ness

I found far less inspiration within the public schools I attended, with the exception of my 7th grade science teacher Zale Thorla. This dynamic teacher encouraged me to enter the District Science Day that was (and still is) operated by The Ohio Academy of Science. For my project, I settled on building a chicken egg incubator from homemade items such as a wooden box and an incandescent light bulb. However, I was frustrated when batch after batch of eggs failed to hatch. I recall showing my latest hopeful incubator redesign to a cousin who told me "this will never work." Incensed by his discouraging words, I became obsessed with proving him wrong. Doubling down with even more modifications to my homespun incubator, I vowed to keep at it until it worked. I was ecstatic when eggs finally began to hatch! So was Mr. Thorla, who commended my "stick-to-it-ness." My egg-hatching contraption scored a red ribbon at the Science Day—but the real prize was the especially sweet taste of proving my naysayer cousin wrong. From this experience I learned a key life lesson to share: persistence, patience, and the determination to continue following repeated failure is an important part of becoming a scientist. These qualities have served me well ever since.

My first position with Audubon was a humble summer dish-washing position at (what is now) the Greenwich Audubon Center in Greenwich, Connecticut.

Starting a Career by Washing Dishes

Following the advice of the Metro Park naturalists, I began college at The Ohio State University as a zoology major with an emphasis on natural history. My goal was working toward a master's degree in wildlife management. In the basement of the Botany and Zoology Building, I found kindred spirits among the other undergraduates. My academic mentor was Dr. E. Eugene Good, who taught courses in wildlife management and served as faculty advisor to the "Field Biologists Forum"—a student group with whom I shared my passion for wildlife. This geeky group was less interested in Buckeye football than in searching for Spotted Salamanders in the nearby swamps. Just like the Junior Explorers and Wheaton Club, finding friends who shared my values and interests was key to sustaining my conservation biology career track.

My first position with Audubon was a humble summer dish-washing position at (what is now) the Greenwich Audubon Center in Greenwich, Connecticut. This and subsequent summer teaching positions with the Audubon camp in Wisconsin and the Sunbury Shores Arts and Nature Centre in St. Andrews, New Brunswick, led me to the Hog Island Audubon Camp in Maine in 1969. It was during these Audubon summers that I began thinking more deeply about wildlife stewardship and wildlife restoration.

Unexpected Detours and Opportunities

My plans for graduate school were abruptly changed in 1968 when the Vietnam War draft halted my progress toward an advanced degree. Rather than enlist, I accepted a position as assistant director of (what is now) the Glen Helen Outdoor Education Center—then part of Antioch College—in Yellow Springs, Ohio, which provided a teaching deferment. There I found that I enjoyed training the teacher-naturalists at Glen Helen, which also

offered resident outdoor education sessions for children. My passion for nature helped me find this oasis during an otherwise turbulent time. Glen Helen also provided a field lab for my master's degree research in wildlife management, where I studied the response of upland nesting birds to the disturbance caused by children on and off trails. I made the most of my four years at Antioch, teaching an ornithology class on campus and founding the Glen Helen Raptor Center, which thrives to this day. This sanctuary from the Vietnam War not only provided me with an opportunity to learn more about my own interests but also taught me an important lesson: look for and accept new opportunities that come your way, especially if they align with your interests.

In science, it is normal for new ideas to be challenged by critics and doubters. But if one learns from each failure, patience and persistence can yield extraordinary outcomes.

From Side Project to Dream Position

My Antioch years set the stage for returning to graduate school in 1972. Cornell University was my first choice because of its reputation for excellence in ornithology. I was fortunate that Dr. James Tate, a Hog Island ornithology instructor, was also an assistant director at the Cornell Lab of Ornithology. With his encouragement, I was accepted into a PhD program within the Cornell Natural Resources Department. I initially hoped to follow my dream of restoring Atlantic Puffins to the Maine coast. But when Dr. Tate lost his position at Cornell, I instead decided to focus on the education interests I had acquired at Antioch. I switched to a major in outdoor education, while pursuing puffin restoration as a sideline. That "side" project blossomed into a full-time "dream" position with the National Audubon Society for the remainder of my career. Eventually I became vice president for bird conservation and founder of Project Puffin®. Now, 50 years later, I am retired from Audubon, but Project Puffin continues to thrive (Kress and Jackson 2015).

No Such Thing as a Straight Career Path

My career as a conservation biologist, environmental educator, author, speaker, and entrepreneur has taken me down unexpected and unexplored paths. My work in seabird restoration involved inventing and demonstrating new management techniques such as seabird chick translocation and *social attraction*, the use of decoys and audio recordings to attract seabirds to safer nesting habitats. These techniques increase the number of safe nesting colonies, thus reducing the risk of extinction when "all the eggs are in one basket." These methods help reduce threats to seabird populations—including predators, human disturbance, and climate change. For many species, this can make the difference between survival and extinction. Beginning with our first project of restoring puffins to their historic home on Maine's Eastern Egg Rock, the use of these methods has now spread around the world, benefiting about a third of all seabird species (Spatz et al. 2023). Project Puffin has trained hundreds of early-career biologists and served as the focus of many articles and documentaries. It has prevailed despite the many naysayers, some of whom said it was impossible to bring puffins back to former nesting islands. In science, it is normal for new ideas to be challenged by critics and doubters. But if one learns from each failure, patience and persistence can yield extraordinary outcomes. The rewards of such success are sweet for those that follow their dreams.

Literature Cited

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Learn more about Project Puffin at: https://seabirdinstitute.audubon.org

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