Chris Talbot – Resiliency Statement, University of Oregon Ecology & Evolution PhD

Background

Growing up amid constant upheaval, I learned early on that resilience isn't just about surviving change but finding ways to thrive before, during, and after it. My first lesson in rapid environmental change was on my 4th birthday. Despite my parents' best efforts, we couldn't make rent. Migrating from shelter to shelter, we slept on family members' couches for months. Amidst the chaos, I discovered a stable microhabitat that nurtured my growth. My first refuge was John Ball Zoo. A sanctuary for my curiosity, the zoo ignited my fascination with the living world. After zoo visits, my mother says, I begged for wildlife encyclopedias as bedtime stories.

My second lesson in rapid environmental change was at age 7 when our new TV disappeared overnight. Such disturbances became a long-term constant in our domestic ecosystem, my father pawning off everything for his next high. There was only one thing he never touched – the old hand-me-down computer I got from my grandparents. My second refuge was that computer, offering a digital ecosystem of endless possibilities. My creativity thrived as I played games, met people, and learned to code.

My third lesson in rapid environmental change was when I transferred schools three times in 7th grade. My divorced mother translocated my sibling and me from one apartment to the next to keep us safe from our estranged father. Thankfully, a new interest made school transitions easier: My third refuge was the band room. Band offered a stable, predictable environment and community. For the first time, I began learning to properly socialize, work in a team, and wholeheartedly pursue a goal.

In high school, after my father took his life, I struggled to stay afloat. Not even those refuges that once provided comfort and safety could keep me going. Faced with a 1.7 GPA, I dropped out and resigned to grueling 12-hour warehouse shifts. But that sucked. I was tired and bored. Something had to change. GED? *Check*. Community college enrollment? *Check*. Three part-time jobs to make ends meet? *Check*.

While repeated disturbances marred my childhood, I adapted by seeking safe refuge in stable environments. Uncertainty at home drove me to grow diverse interests, providing broad knowledge and curiosity. I developed the resilience and adaptability that now comprise my greatest strengths. My childhood experiences were, unbeknownst to me, evolving me into a specialist in resilience to change. It's almost poetic, then, that I would find my calling in studying *biological adaptation to rapid change*.

Diversity of Economic Backgrounds in Academia

Diversity in academia prevents research bias, drives innovation, and enriches communities. While there is a long history of wealthy, white men dominating academic circles, diversity initiatives have shown slow but steady success in improving this problem. Yet, income diversity in higher education has stagnated or, in some cases, worsened. The average undergraduate still comes from just as much financial privilege as they did a decade ago.

Coming from a low-income family, I struggled with many hurdles that my higher-income peers did not. Working 80+ hours a week as I balanced full-time class and full-time work was my norm. Naturally, my need for independent financial stability while paying tuition and fees impacted my ability to dedicate my full attention and brainpower to homework and studying. This problem began in community college but was especially prominent when I transferred to the

University of Michigan. I often worked over 40 hours a week outside of full-time courses to afford tuition and rent my first year.

Research experience was out of the question early on – when would I have the time? While my peers were thriving academically, volunteering in labs and writing publications, I could only survive. I was fortunate to come across supportive mentors who had funding available to support me in my pursuit of research experience. These mentors allowed me to pursue research full-time, allowing me to pay my rent while pursuing science as a career. Had I not come across such great mentors with the funding to support me, I would not have the research experience, skills, or network I have today.

As a PhD student, I plan to address income inequality in science by including undergraduates in my research process. By seeking funding to pay research assistants, I will provide access to academia to students who may otherwise be unable to afford to volunteer for research experience. Providing low-income students a path to academia will pave the way for greater community engagement and trust in science. I hope also to create paths towards a balance of financial stability and career fulfillment for fellow students from low-income backgrounds.

Importance of Community

Refuges like band were crucial to my overcoming adversity. Access to diverse perspectives, large support networks, and intellectually and socially stimulating activities were essential for my success despite adversity. Having beaten the odds and completed a college degree, the first in my family to do so, I now seek to provide similar opportunities to future generations. I've tutored adult learners in math and language arts at community college, led field trips for various age groups at Matthaei Botanical Gardens, and mentored community college transfer students at Michigan. Everyone deserves a safe refuge, regardless of background, age, or identity. Involving diverse individuals enriches our communities and fosters an environment where everyone feels valued.

Looking ahead, I will engage in community engagement activities unique to the University of Oregon. In particular, I'm interested in spearheading a program dedicated to funding early research opportunities in Ecology & Evolution for low-income high school students near the University of Oregon. Broad metrics of diversity in academia are improving, indicating a shift away from the wealthy white male dominance of academic circles. Yet, the diversity of economic backgrounds in higher education is stagnating or worsening. Programs like Hui Undergraduate Research Scholars at Oregon are crucial for facilitating access to research for low-income and underrepresented students once they are in college. I would like to complement the Hui program by developing a parallel for high school students, as the inequity of access to science begins before students are at an undergraduate institution. By encouraging low-income high school students to pursue academia and supporting them once they start their journey, we can offer fulfilling careers to individuals from adverse backgrounds and facilitate broader engagement and understanding of science.

While my academic journey has had its ups and downs, these experiences have strengthened my resilience and determination. They taught me the importance of aligning my work with my passions, ultimately leading me to a path where I can contribute meaningfully to science and society. I look forward to continuing to foster vibrant, inclusive environments at the University of Oregon and beyond as I study rapid environmental change, something close to my heart.