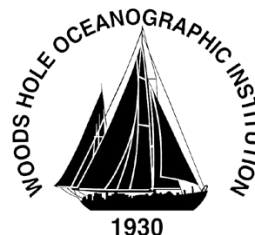

Woods Hole Oceanographic Institution
Biology Department Seminar



Thursday, August 22, 2024 – 12:00 Noon

**One of These Things is Not Like the Other:
Untangling the Roles of Heterogeneity, Inequality,
and Chance in Demographic Outcomes**

Hal Caswell

Emeritus Research Scholar, WHOI

Let's think about demographic outcomes, especially in things like longevity, health, and lifetime reproduction. These outcomes vary among individuals. Understanding that variation is a challenge for evolutionary biology (where it might just provide the raw material for natural selection), human demography (where it might be a form of social inequality) and public health (where it might inform health care policies). Some of the variance is due to actual differences among individuals, differences that mean they experience different rates of survival, reproduction, and growth. Let's call that heterogeneity. Some of the variance is due to chance; let's sound sophisticated and call that stochasticity. We are confronted with a challenge: how to partition variance into the contributions of heterogeneity and stochasticity. I will show some results of these calculations. Some of them may be surprising.

HYBRID! **In Person:** Redfield Auditorium **Zoom:** <https://whoi-edu.zoom.us/j/97000865816> Meeting ID: 970 0086 5816 **By phone:** Find your local number: <https://whoi-edu.zoom.us/u/adlvMow3LQ>