

“Hidden in Plain Sight: The Natural History Collections of the Fresno State Biology Department”



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3:00 – 4:00 PM

Science 2, room 109

For further information: www.csufresno.edu/biology

Abstract: Hundreds of people walk through the Science 1 building on the Fresno State campus every day. Students in the common areas study next to dioramas of local ecosystems full of taxidermied animals and preserved plants; lecturers teach in classrooms where their students share space with shelves full of fish in jars and cabinets full of pinned insects. Yet even many of the faculty and staff who work in the building are unaware of the sheer number, age, and value of the natural history collections in the Biology department. In this seminar, I will give an overview of the department’s collections, by sharing a bit about their history and their current and possible uses in research and teaching, and I will explore the topic of scientific specimens and biodiversity collections in general.

In particular, I will focus on the Fresno State Herbarium, a 40,000-specimen collection of pressed dried plants dating back to the 1890s, which provides a record of habitat change in the Central Valley and the Sierra Nevada. Natural history collections are increasingly being recognized on a global scale as repositories of unique, irreplaceable physical objects that can be put to purposes the original collectors could never have imagined. Past and present-day scientists collect whole physical specimens of organisms for a variety of reasons, and often the associated label data recorded at the time of collection is at least as valuable as the specimen itself. Many initiatives have begun to digitize collections: to capture an image of the specimen and transcribe its label data into searchable online databases. This transformation of physical archives into virtual records permits scientists all over the world to easily study individual specimens, and also to aggregate biodiversity data to tackle large-scale ecological and evolutionary questions about the number of species on earth, the mechanisms of community assembly, the likely impacts of climate change over time, and countless other research topics. The Fresno State Herbarium recently joined an NSF-funded digitization initiative, the California Phenology Thematic Collections Network, which is aimed at capturing changes in flowering time over the 20th century in California ecosystems. Soon, the value of our biodiversity collections will no longer be hidden.

Bio: Dr. Waselkov is an Assistant Professor of Biology at California State University - Fresno.