GEORGE MASON UNIVERSITY COLLEGE OF SCIENCE BIOLOGY DEPARTMENT SEMINAR Spring 2015

Kristofer M. Helgen, Department of Vertebrate Zoology and Department of Paleobiology, National Museum of Natural History, Smithsonian Institution

"Natural-history-museum-based Biology for the 21st Century"

Studies characterizing biological variation and diversity, which are enormously valuable to science and society, have for centuries been the mainstay biological usage for natural history museum collections. Even with rapidly changing technology, especially involving genomic techniques, these traditional uses (systematics, biogeography) remain the principal collections-based disciplinary emphases for biological research programs in natural history museums. Studies relevant to modern environmental change, and health and disease, among others, also represent important uses for museum collections, but these receive less focal attention within natural history institutions, collections, or researcher-led research programs. Very large economic (and other) impacts of rapidly changing environments, climates, and disease landscapes in the Anthropocene highlight a need for organized efforts to expand natural history research programs to incorporate additional uses of collections as "core business" that can complement studies of systematic biology. Indeed, critical documentation of Anthropocene impacts, and the future of natural history museums, including public impressions of their relevance, may depend on it.

TUESDAY April 21, 2015 3:00-4:15 PM Exploratory Hall Room 3301