



# A Curator's Perspective on the Evolutionary Morphology and Paleoecology of Birds

May 17<sup>th</sup> (Tuesday): 4-5pm ET

## Prof. Helen James



... in which we first consider the evolutionary morphology of the head in the adaptive radiation of Hawaiian Honeycreepers, including how internal structures, such as a tubular tongue and retroarticular process of the mandible, evolve in concert with the evolution of external beak shape. We then discuss the Quaternary paleontology of the honeycreepers and other Hawaiian birds in relationship to our understanding of extinction risk in the Anthropocene. Finally, we briefly discuss upcoming research on the problem of how to pack an embryo into an egg, and the constraints that egg size and shape may pose to ontogenetic growth patterns in birds. The objective of this informal talk is not to review prior research but to stimulate collaborative thinking about research projects that have not yet been tackled.

Prof. Helen James is Curator-in-Charge of the bird collection at the Smithsonian National Museum of Natural History. She studied archaeology and biological anthropology as an undergraduate at the University of Arkansas, and obtained her PhD in Zoology from Oxford University. She is interested in the history of vertebrate evolution and extinction in the context of Pacific island ecosystems, especially the Hawaiian Islands. More recently, her research has addressed the ecological roles of seabirds, both at their breeding colonies on islands, and at sea where they are important oceanic predators.

Hosted by the [Soft Math Lab](#).

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