THE TAPHONOMY OF OWL-DEPOSITED FISH REMAINS

Virginia I. Cannon, (Jack M. Broughton),
Department of Anthropology

Ancient animal remains excavated at Homestead Cave in northern Utah provide the richest record of small vertebrate history in North America and have allowed for the derivation of significant climatic and biogeographic interpretations. These interpretations hinge upon an understanding of how the bones were brought to the cave. While previous studies suggest that owls were responsible, large quantities of fish are present in the deposit, and fish are infrequent components in owl diets. As no previous research exists on the taphonomy of owl-deposited fish remains for comparison with Homestead Cave fauna, I report here the first such study. For pellets of modern barn owls (Tyto alba) collected at Bitner Ranch in northwestern Nevada, my analysis revealed that tuft chub (Gila bicolor) comprised 73% of the animals identified as eaten by the owls. Following established standards for diagnosis of digestive traces on six common skeletal elements in fish assemblages, I then recorded the taphonomy of fish bones from Bitner Ranch and Homestead Cave. Taphonomic patterns are similar between the two collections. Though Homestead Cave remains are more fragmentary and stained, these differences are likely due to post-depositional processes. In general, data for Homestead Cave is not inconsistent with an owl-based origin.