Go Fish: An Analysis of Fish Consumption among Tularosa Phase Sites

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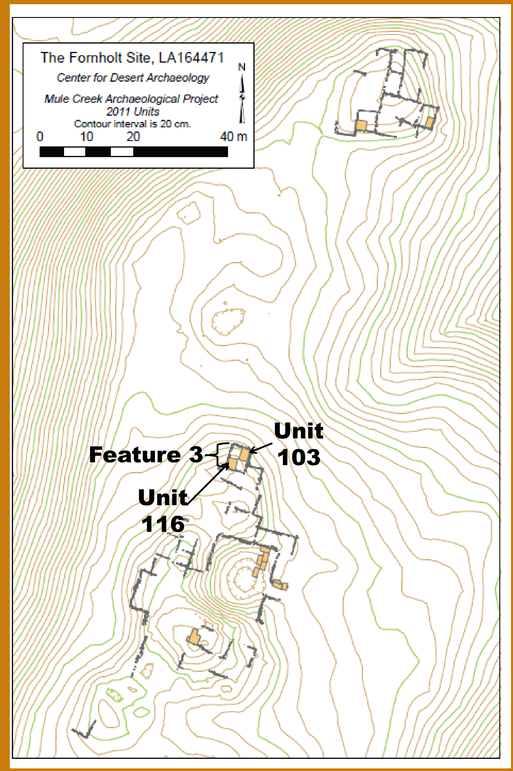
Introduction

During the 2011 Mule Creek Archaeological Project (MCAP 11) field season at the Fornholt site (LA164471) in the Mule Creek area of New Mexico, the presence of fish within the archaeological record was detected. Nelson and LeBlanc (1986) argue that the low frequency or absence of fish remains at sites represents a lack of consumption by prehistoric people. Therefore the presence of these remains *in situ* with remains of fauna used for dietary consumption at the site prompted further investigation into the significance of these remains. An examination of site reports for other sites with Tularosa Phase components support Nelson and LeBlanc's (1986) conclusion due to no mention of fish remains or report an extremely low frequency as compared to other faunal remains. Adding to the significance of fish remains is the fact that the Fornholt site is currently tens of kilometers away from perennial rivers and creeks from which to obtain fish. This implies that either fish resources were brought to the site from distant sources or a wetter environment existed during this phase of the site's habitation (A.D. late 1200s-early 1300s). The goal of this preliminary research is to gain a better understanding of dietary consumption by the residents of the site during its Tularosa Phase component and suggest considerations for future research on dietary habits at sites with Tularosa Phase components.

Research Questions

- Does the size of the mesh used for screening artifacts from matrix affect the interpretation of faunal remains present?
- In comparison to other faunal remains, what proportion of the faunal record is fish during the Tularosa Phase at the Fornholt site?
- What role did fish play in the lives of the individuals inhabiting the Fornholt site during the Tularosa Phase?
- Given the semi-arid conditions surrounding the Fornholt site today, what does the presence of fish bones indicate about the ecosystem during the Tularosa Phase?

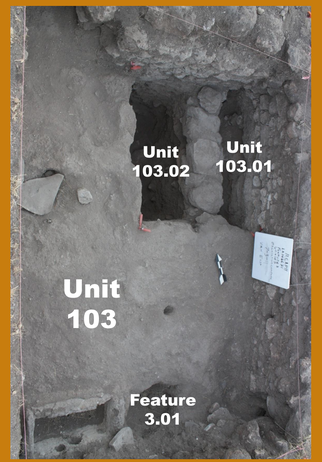


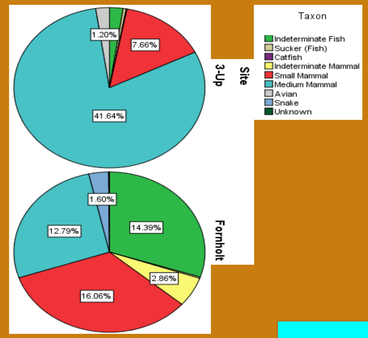
Acknowledgements

I would like to thank Katherine Dungan, Karen Schollmeyer, Arleyn Simon, and Deb Huntley for their help and guidance on this project.

Methods

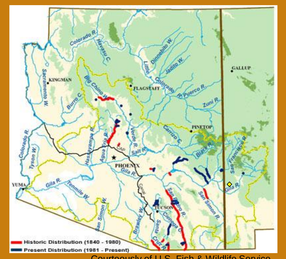
To determine the frequency of faunal remains at sites with Tularosa Phase components, three methods were used. A literature review of previous excavation reports was conducted for sites in the Mule Creek area. For the 3-Up site, a combination of literature review of the site report and statistical analysis using SPSS 19 was conducted. For the Fornholt site, all faunal remains excavated, including fragments, were identified at a general taxon level then statistically analyzed using SPSS 19 to determine the percentage each type of faunal remain represented within the total faunal assemblage.





Comparison of the Fornholt site to the 3-Up site also in the Mule Creek area. The findings here suggest that there is fish consumption variability even between sites in close proximity and inhabited at the same time.

Historic and Modern Gila Chub Habitat



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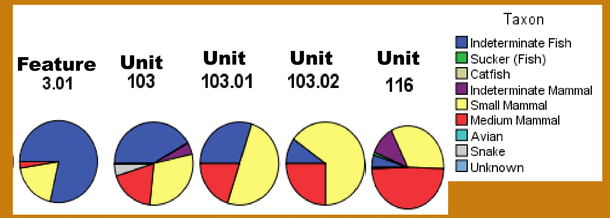
Gila Chub



Comparison of components of Feature 3 at the Fornholt site in which faunal remains were recovered. Feature 3.01 represents a bell-shaped pit and Unit 3.01 is a possible plaster lined storage bin. This suggests that although less frequent than mammal remains, fish remains comprise a significant portion of the faunal assemblage from Feature 3.

Conclusion

- The absent or limited faunal reports from sites with Tularosa Phase components excavated prior to the Mule Creek area excavations indicate that excavation focus and methods may have misrepresented the faunal record at those sites. ***During future excavations, in addition to the used of ¼" mesh screening, window screen should be used to screen areas of high fauna remains (e.g., pits) to ensure small faunal remains, like fish bones, are not missed.***
- Although mammal remains make up a large proportion of the faunal record at Mule Creek area sites, the much higher frequency of fish remains at the Fornholt site as compared to the 3-Up site indicates the proportion of fish remains to other faunal remains is variable.
- The lack of faunal evidence at many sites with Tularosa Phase components and minimal excavations at the Fornholt site make it hard to interpret the role fish played in the lives of individuals during the Tularosa Phase. The preliminary results from the Fornholt site do indicate that fish resources may have been a significant portion of their faunal diet, after small mammals(e.g., rabbit) consumption. Nelson and LeBlanc's (1986) assertion that fish were not used is rejected for this site.
- One species of fish identified among the faunal assemblage from Feature 3.01 was a Gila Chub. As the Gila Chub habitat map shows, this species is no longer found in the Mule Creek area. Either these remains were brought in from a distant source or a much wetter environment existed during the Tularosa Phase allowing for a much larger habitat. ***Future research at the Fornholt site should include a focus on reconstructing the ecosystem surrounding the site.***