

## **Do More With Less: the Value of Developing a Collaborative Approach to Nutrition-based Research**

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### Abstract

In the last decade, there has been a gradual awareness that basic research on nutritional physiology and digestive strategies is essential for improving the management and care of zoo animals. However, few small or medium-sized AZA zoological institutions have been able to commit the financial resources and meet the logistical needs to staff and conduct these types of critical studies. Many smaller zoological institutions look to the larger AZA zoological institutions, nutrition-related consultants, and/or AZA conservation and management programs for guidance and support to assist them in addressing basic research concerns in the nutritional sciences.

Because of the Memphis Zoo's recent broad commitment to elicit a better understanding of the foraging strategy and nutritional ecology of giant panda (*Ailuropoda melanoleuca*), we spent a great deal of time reviewing the various service-related options available within and outside of AZA. Options were ranked based on several variables: financial sustainability, services provided, disciplines offered, adaptability, and benefits to the entire animal collection. After careful review, the Memphis Zoo chose to develop a collaborative approach to nutrition services that would enlist the support of several academic institutions and government agencies. The collaborative program has now entered its third year. Although, this approach required the Memphis Zoo to make substantial financial commitments in the first year, the returns for this investment and the benefits to the animal collection have been better than initially anticipated. This collaborative approach to our nutritional services ensures that the zoo has access to a wide variety of services, including expertise across a number of scientific disciplines, access to laboratory equipment and analyses that would be cost-prohibitive at a zoo of our size, and the flexibility to adapt and expand our research programs to meet our changing needs.