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A Quantitative Look at Enrichment in Malaysian Sun Bears through the Use of Matching and Contrast

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Poster Presentation P11

**A QUANTITATIVE LOOK AT ENRICHMENT IN MALAYSIAN SUN BEARS
THROUGH THE USE OF MATCHING AND CONTRAST**

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Behavioral enrichment for captive wild animals has become increasingly important in the operation of zoos. A substantial amount of literature has developed studying enrichment. Unfortunately, many of these captive wild animal studies have failed to take advantage of modern behavioral theories and quantitative methods of data analysis. The present study was an attempt to merge the fields of quantitative behavior analysis and behavioral enrichment. The subjects were two Malaysian sun bears (*Helarctos malayanus*). A foraging task was designed using four "enrichment tubes" (two white, and two pink) constructed out of PVC pipe and loaded with a peanut butter/popcorn mix. The tubes were concealed within the exhibit, and the bears were then able to search out and open the tubes. The experimental design involved a contrast procedure that was made up of three parts: a baseline phase, a contrast phase, and a recovery phase. The baseline phase began with equal reinforcer in all tubes. In the contrast phase, the reinforcer was removed from one set of tubes. In the recovery phase, all of the tubes were again loaded with the same amount of reinforcer. Behavior was observed for half-hour sessions each day. The results of the study have implications for both the fields of quantitative behavior analysis and captive animal enrichment.