REED, Melissa (Georgia State University) QUESTIONS ON THE DIVERGENCE OF RHINOPITHECUS BIETI

My purpose in this paper is to give a possible reason as to how and why *Rhinopithecus bieti* (otherwise known as the Yunnan or Black-and-White snub-nosed monkey), as one of these endangered Asian colobines, has diverged so drastically from the rest of its rhinopithecine cousins *R. avunculus*, *brelichi*, *roxellana*, and *strykeri*. I drew from the work done by many researchers over the past 20 years. Based on this review of the extant literature, which includes molecular biology and ecological analyses, and morphological studies we can look at how the genus diverged and the possible routes the ancestors of the extant species took to get to their current habitats before their paleoenvironments fragmented. It is very difficult to conclusively say which of the many possible routes they took since the fossil record dating to the Pleistocene era is too insufficient to give us any conclusion as to the historical distribution of the genus (Jablonski 1998: 28). Yet, I concluded that *R. bieti* diverged during the late-Pleistocene and Miocene eras by means of the fragmentation of their paleoenvironments due to climate change, the intense seasonality and elevation of their Himalayan habitat, and their home range sizes which may have aided in the divergence in their diet. With the current trajectory of climate change as it is and the encroachment of humans on *R. bieti*'s habitats, the status of *R. bieti* and its evolutionary cousins as endangered species can be predicted to worsen unless extreme measures are taken to ensure their survival.

KEY WORDS: biological anthropology, primates, *Rhinopithecus bieti*, evolutionary divergence, paleoenvironments, climate change