



## *Patuxent Science Meeting 2004 Poster Abstract*

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### **Evaluation and Comparison of Techniques for Monitoring Meso-Mammal Populations in A Coastal Ecosystem**

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Four different techniques were evaluated within Cape Cod National Seashore in Massachusetts: remote camera-infrared sensor systems, hair traps, track plates, and cubby boxes (i.e., a covered track-plate). Sampling was conducted throughout the park and the study period ran for about 18 months. The sites and the manner in which the equipment was tested fall into three broad categories. Initial sampling periods were devoted solely to testing and evaluating the logistics and mechanics of each technique. Finally, all techniques were employed in randomly selected sites. All sampling points have been referenced with a hand-held GPS device. To date, 13 species have been detected by all of the sampling techniques combined. Out of 9 potential target carnivore species, the sampling techniques have documented 7 species. This does not include the possible documentation of the short-tailed weasel (*Mustela erminea*), which would be the first documented occurrence of this species within the boundaries of CACO (species has been documented on Cape Cod but outside of park boundaries). Remote cameras documented six target species, cubby boxes five (in addition to short-tailed weasel), hair traps five, and open track plates documented three target species. In addition to the six carnivore species detected, white-tailed deer (*Odocoileus virginianus*), eastern cottontail (*Sylvilagus floridanus*), gray squirrel, (*Sciurus carolinensis*), red squirrel (*Tamiasciurus hudsonicus*), and eastern chipmunk (*Tamias striatus*), *Peromyscus* spp. (species verification uncertain).