Evaluation of the "Peeper" Video Probe to Examine Burrows and Subsurface Activity of Burrowing Mammals[TWS]

Dennis L. Flath and Ryan L Rauscher
Wildlife Division, Montana Fish, Wildlife and Parks, P.O. Box 173220
Bozeman, MT 59717-3220

We used the "Peeper" video probe (Christensen Designs, Manteca, CA) to examine burrow structure, complexity and use by pygmy rabbits (*Brachylagus idahoensis*) and black-tailed prairie dogs (*Cynomys ludovicianus*) in southwestern Montana. The probe proved useful on pygmy rabbit burrows but of little use on prairie dog burrows. Utility of the probe on different burrow types is described. Advantages and disadvantages of the current technology are recorded. We attempted to locate pygmy rabbit maternity burrows or nests, and determine occupancy rate but were unsuccessful. However, the probe was useful for pygmy rabbits and we' learned a great deal about burrow structure and complexity without excavation. Fifteen rabbits (both *B. idahoensis* and *Sylvilagus nuttallii*) were observed in burrows and behavioral response to burrow intrusion recorded. No other vertebrate species were observed. Due to limited mobility, not every burrow could be completely examined. Prairie dog burrows were deep, steep and penetrated rocky soils. Thus, mobility of the probe and cable length were not suitable for examining prairie dog burrows.