Biologists Gather New Information on Deer Populations at the NNSS



Biologists are compiling results from a recent set of mule deer surveys on and around the Nevada National Security Site (NNSS), hoping to shed light on deer behavior and habitat, as well as answer questions about their fluctuating numbers over the years.

On October 12, 2011, NNSS biologists concluded a fourth round of mule deer sampling for the year.

During this round, which spanned over three nights, researchers recorded mule deer locations with Global Positioning Systems (GPSs) along two main routes at the NNSS: one in the north-central portion of the site known as Rainier Mesa, and the other in the northwestern region of Pahute Mesa. In addition to deer locations, surveyors recorded information on deer population densities as well as habitat types.

NNSS biologists, who have performed annual surveys on the mule deer since 1985, are studying the deer as part of a larger environmental monitoring program established to protect the air, water, cultural artifacts, plants, and animals on and surrounding the NNSS. Although mule deer are not identified as a threatened species, they are considered a prevalent food source for predators at the NNSS and are an important link in the chain of survival in the region.



Surveys have indicated significant differences in mule deer numbers over the past five years. In 2006, deer observations totaled 573, which is considerably higher than in more recent years where total observations ranged from around 250 to 400. Discerning a pattern in these fluctuations, however, is difficult, explained NNSS biologist Kent Ostler. "Numbers have fluctuated only moderately from 2009 to the present," said Ostler. "There appears to be no distinctive trend in deer numbers since that peak in 2006."

One pattern that is emerging for the deer is their location. Recent surveys are reporting a higher density of deer on Rainier Mesa while noting moderately consistent numbers on Pahute Mesa.

"Water levels and availability of plant life in these areas may explain this variability," said program manager, Kathryn Knapp of the U.S. Department of Energy's National Nuclear Security Administration, Nevada Site Office. "Species like mule deer will cluster in areas that provide safety and food." Recent surveys reveal that mule deer on the NNSS are using woodlands mostly for cover and shrub lands mostly for grazing.

Official results of the mule deer surveys are currently being calculated and will be presented in the annual *Ecological Monitoring and Compliance Report* due out in the spring of 2012. Past reports are available on the <u>Nevada Site Office</u> website. To view comprehensive results for all NNSS monitoring programs, refer to the <u>Nevada National Security Site Environmental Monitoring</u> Report.



NNSS Biologists Make Cub Discovery

In early October 2011, biologists photographed this puma cub near its den on the NNSS. They came across the cub unexpectedly while tracking the baby's mother to update her GPS collar—a device that is helping researchers gain information on the behavior of pumas in the area. Scientists were extra careful when approaching the cub as its mother had likely gone out for a hunt and would soon be returning to her den.

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