Desert deer investigation launched

In the southern-most, arid reaches of the state, a sparsely populated, comparatively mysterious subspecies of mule deer, also called the burro deer, has lived for centuries, seldom seen and little known by the few who visit or live in this vast, sweltering region. But that's about to change. During a six-day operation conducted in May 1999,

By Vernon C. Bleich

Department of Fish and Game (DFG) wildlife biologists captured, fitted with radio-telemetry collars, and then set free 22 desert mule deer(19 females and 3 males)in the torrid Imperial County desert. That event marked the beginning of an intensive, five-year effort to determine deer movements and habitat selection throughout those lonely reaches the burro mule deer inhabit.

DFG biologists will investigate where and when burro deer move, primarily to determine the responses of the deer to the development of artificial water sources, also called guzzlers. The telemetry study will allow DFG biologists to evaluate deer use of the 70 or so guzzlers in the deserts of Imperial County. Biologists have long suspected that deer benefit from human-made catchments, storage and drinker systems that provide reliable sources of water during the hot, low-desert summers where 115°F day-time temperatures are the norm. What is not

DFG photo courtesy of Nancy Andrew

DFG photos courtsey of Nancy Andrew

Above, netted deer are handled immediately upon capture.

A black face mask is placed over the eyes of each captive deer in order to reduce visual stimuli

After radio collars were applied and prior to release, deer were placed into a pickup and transported to a location removed from the central processing area.

known for certain is which water sources are used most frequently, and where future systems might best be positioned. This study will provide an opportunity to evaluate responses of deer to the placement of additional water sources. The resulting information is necessary to more effectively make use of limited funds.

In addition, this investigation will provide important demographic information about the deer population. At present, the number of deer inhabiting the study zone is not known; a more precise estimate of population size will be one result of this investigation. Biologists also expect to learn how deer best survive on the parched desert, what they eat and where they find food, when and where they give birth, and how many young survive to adult age, along with some answers to ways that deer and bighorn sheep share habitat where both occur simultaneously.

The study area, which is approximately 250 square miles in size, extends from Highway 78 on the north to Interstate Highway 8 near the border with Mexico on the south, and from County Road S34 on the west to the Colorado River on the east. South-state biologists and wardens, volunteers from Desert Wildlife Unlimited (a local conservation organization), and DFG wildlife capture experts from its Wildlife Investigations Laboratory in Rancho Cordova, captured deer in various locations throughout the study area using a net-gun fired from the open doorway of a rapidly maneuvering helicopter. Once a deer was caught in the net, it was transported a short distance to a central processing area where biologists attached a radio-collar,

DFG photos courtesy of Nancy Andrew

to which the animals are exposed during handling.

This female mule deer has been placed in the bag and is being readied for transport to the central processing area.

Many animals buck wildly upon release but quickly settle down and trot off to suitable, nearby habitat.

acquired body measurements, blood, and other samples, and then released it to again roam the desert. Biologists will attach additional radio collars throughout the duration of the study as collared deer die. Eventually, more than 30 deer will be monitored on a daily basis.

The study is being carried out in deer zone D-12, also known as the Colorado River Zone. This area is increasingly popular and typically produces trophy deer. During the 1998 deer season, 950 buck tags were issued for zone D-12, resulting in a hunter success rate of approximately three percent. Size of the typical buck taken in this zone is, however, among the largest in the state, and 81 percent of all animals taken during 1998 had at least three antler points on a side. In contrast, the statewide zone average for three-point bucks was 43 percent.

Funds for this project have been provided by the DFG's Deer Herd Management Plan Implementation Program from the sale of deer tags, the Fish and Game Preservation Fund, and the Imperial County Fish and Game Commission. Cooperating with DFG personnel on this project will be biologists from the University of Arizona and Texas Tech University, who will be supported by the Welder Wildlife Foundation of Sinton, Texas.

Dr. Vernon C. Bleich is a Senior Wildlife Biologist with the Department's Inland Deserts and Eastern Sierra Region, stationed in Bishop, Inyo County. For the past nine years, he has directed the Round Valley Project, an intensive study of mule deer population dynamics and deer-predator relationships. Results of that investigation currently are being readied for publication in peer-reviewed scientific journals.