We hope this guide will help deer hunters by encouraging a greater understanding of the various subspecies of mule deer found in California and explaining effective hunting techniques for various situations and conditions encountered throughout the state during general and special deer seasons.

> Second Edition August 2002

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

DEPARTMENT OF FISH AND GAME L. Ryan Broddrick, Director

WILDLIFE PROGRAMS BRANCH David S. Zezulak, Ph.D., Chief

Written by John Higley

Technical Advisors: Don Koch; Eric Loft, Ph.D.; Terry M. Mansfield; Kenneth Mayer; Sonke Mastrup; Russell C. Mohr; David O. Smith; Thomas B. Stone

> Graphic Design and Layout: Lorna Bernard and Dana Lis

> > Cover Photo: Steve Guill

Funded by the Deer Herd Management Plan Implementation Program

TABLE OF CONTENTS

Introduction	5
Chapter 1: The Deer of California	7
Columbian black-tailed deer	8
California mule deer	8
Rocky Mountain mule deer	9
Southern mule deer	9
Inyo mule deer	9
Burro mule deer	9
Other deer?	9
California's deer population	10
Chapter 2: Deer Hunting by Region	13
Southern California deserts	14
Southwest region	15
Central coast ranges	16
Eastern Sierra Nevada	16
Western Sierra Nevada	17
Northeast region	
The Cascades	
Northwest region	
Where can I hunt?	
How much public land is there?	19
Chapter 3: Deer Hunt Options	21
How do you plan a deer hunt in California?	22
What kind of deer do you want to hunt?	
Special Additional Hunts	
How far do you want to travel?	
When should you hunt?	
Access to the zone you want to hunt	
How much do you want to spend?	
Do you want a wilderness experience?	
What climatic conditions do you prefer?	
Where are the most deer?	
Creating a tradition	
Chapter 4: Migratory or Resident Deer	
Timing a migration trail hunt	
Chapter 5: Where the Deer Are	33
Attitude adjustment	33
Finding deer	34
Secret spots	
Tough country	
Hunt the edges	
Speaking of clear cuts	
Speaking of burns	
Chapter 6: Hunting Strategies	37
Spot-and-stalk	
Stillhunting	
Stand-hunting	41
Deer drives	
Tracking	
Using the roads	43

TABLE OF CONTENTS CONTINUED

Chapter 7: Basic Equipment	45
Deer rifles	45
Optics	46
Choosing a bow	
Choosing a muzzleloader	
Handguns	
Blades and saws for deer hunters	
Day packs, fanny packs and pack frames	48
Clothing	48
Footwear	49
Camping gear	49
Carry-along gear	50
Necessities for backpacking	50
Chapter 8: Making the Shot	
Can you get any closer?	
Aiming for a kill	
Aiming straight	
Watch and listen	53
Confirm your shot	53
Tracking a wounded deer	53
Approaching your deer	54
Chapter 9: After the Shot	55
Field dressing	
Getting your deer to camp	
In camp	
Keeping your deer in camp	
Getting your deer home	
Pesky critters	61
What's that?	61
Taxidermy tips	62
Photographing your deer	63
Chapter 10: Venison on the Table	65
Should you age your venison?	65
Venison as nutritious food	
The uses of venison	65
The taste of venison	66
Chapter 11: Safety and Ethics	69
Reporting game violations	
CHAPTER 12: PURSUING THE EXCEPTIONAL BUCK	
Scoring organizations	
Black-tailed deer range according to Boone & Crockett	
To take a prime buck	
Chapter 13: Deer of California	
Appendix One	
General hunting information from DFG	
General information from USDA Forest Service	
Map sources	
Useful publications, videos, etc.	
- · · · · · · · · · · · · · · · · · · ·	

INTRODUCTION

To SAY THAT California hunters enjoy an exceptional array of deer hunting opportunities is no understatement. The state's six subspecies of mule deer inhabit high desert foothills, alpine meadows, coastal mountains, and many places in between. In no other western state does such a variety of deer hunting possibilities exist. It's little wonder that deer are the most popular, and accessible, big game animal in the state.

Besides being the hunters' favorite, deer are obviously important to the economy. Literally millions of dollars are spent annually for hunting licenses and deer tags by the state's 150,000 plus deer hunters. That money is important to wildlife management programs for deer and other wildlife. In addition to funding general wildlife management activities, 54 percent of all deer tag fees are funneled specifically into deer projects via the Deer Herd Management Plan Implementation Program, which was created by law enacted in 1984.

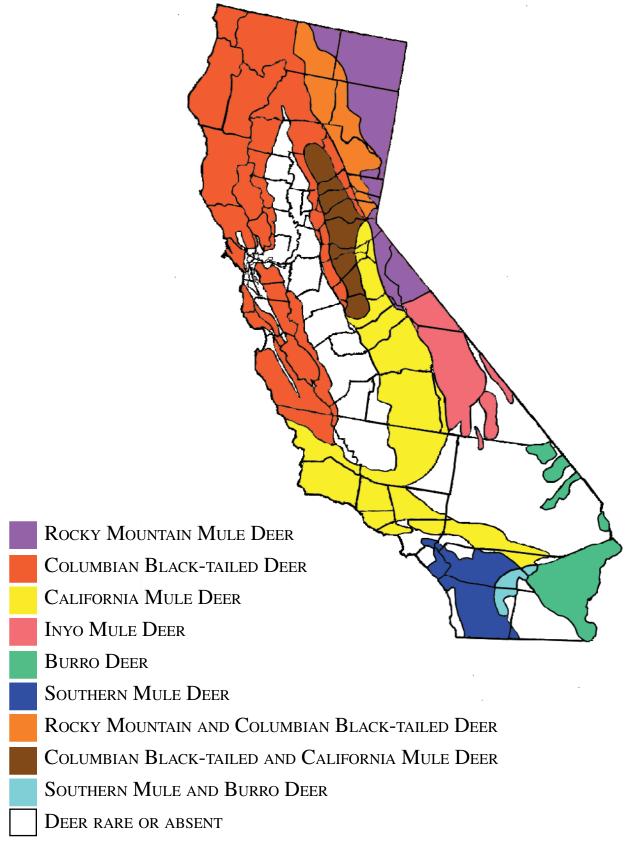
Deer hunters also spend millions of additional dollars on equipment, travel, provisions and lodging. One study by the California Department of Fish and Game (DFG), on the impact of deer hunting, estimates that deer hunters help support nearly 8,000 jobs in the private sector. In a University of California study it was estimated that in 1986, California's deer were worth approximately \$445 million in both hunting and non-hunting arenas. Facts and figures simply underscore the relative importance of deer to Californians. To most big game hunters, however, the opportunity to harvest a deer is not measured in monetary terms. Deer hunting is a very basic experience; a chance to pit your brain and muscle against the challenges provided by nature, such as the wariness of the game, difficult terrain, and variable weather. By fulfilling the role of predator, as human beings have done for eons, a deer hunter becomes a part of the natural process of life and death.

Deer hunting may be the hardest work a hunter does all year, but successful or not, participating in the sport joins a thoughtful hunter spiritually with his or her ancestors. Meanwhile the material rewards, in the form of tangible accomplishments and venison on the table, are great.

While the variety of deer hunting opportunities keeps things interesting it can also be confusing, especially to the hunter entering an area for the first time. Recognizing habitat characteristics is just one ingredient of successful deer hunting. Among other things, hunters must also understand the behavior of deer and the best hunting tactics for different situations.

There's a whole lot more, of course, and that's why this guide came about. The DFG would like to foster a better understanding of deer hunting in California while encouraging old hands and newcomers alike to participate in the pastime. Hopefully this guide, *HUNTING DEER IN CALIFORNIA*, will contribute to your enjoyment of deer hunting for many years to come.

DEER DISTRIBUTION IN CALIFORNIA



CHAPTER 1:

THE DEER OF CALIFORNIA

WHEN MOST hunters discuss the deer they hunt they normally talk about mule deer or blacktails without any elaboration except, perhaps, for noting the size of the last buck they killed or failed to get. That's not surprising. Most of us simply do not have the expertise of a big game biologist nor do we need to know the most minute details about the deer we encounter.

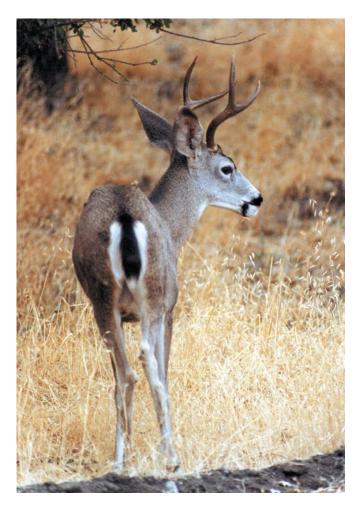
On the other hand, it's a good idea for hunters to have a basic understanding of the deer in California. While you may not be able to identify each and every subspecies (there is some overlap in several areas), at least you'll know that there are recognizable differences in the deer that reside in the various geographical regions.

According to the DFG, six subspecies of mule deer are found in California: Columbian blacktailed deer (Odocoileus hemionus columbianus), Rocky Mountain mule deer (O.h. hemionus), California mule deer (O.h. californicus), Inyo mule deer (O.h. inyoensis), burro mule deer (O.h. eremicus), and southern mule deer (O.h. fuliginatus).

Deer of one sort or another occupy roughly 88,000 square miles of habitat or 56 percent of the land in California. Some of the state's deer herds are resident animals that spend their entire lives in a particular area where everything they need in the way of food, cover, and water is available all year. Other herds are migratory. That is, they range high into the mountains during the summer and migrate down to winter range in the fall.

Summer range for migratory deer is usually high in elevation (from 5,000 to 10,000 feet), under public ownership, and is typically vast. By contrast, lower-elevation winter range, some public and some private, is more limited in scope and more susceptible to the type of alterations (particularly human development) that may make it unsuitable for deer. Simply put, the amount and quality of winter range generally determines the size, health, and future of many of the state's deer herds.

It is interesting how much the basic habits of deer in California differ from region to region from the type of preferred habitat to the general



The most numerous deer in California are Columbian black-tailed deer which range throughout the coastal mountains and along the west slope of the Cascade-Sierra Nevada Range. *DFG photo*.

Rocky Mountain mule deer are the biggest deer in California and the third most abundant subspecies. DFG photo.

herd movements within that habitat. Additionally, the breeding season, or rut, occurs at slightly different times from north to south. Depending on the geographical area involved, the rut may take place anywhere from October (coastal mountains) through January (southern deserts). These factors are all taken into consideration, along with several other factors, when seasons and quotas are set by the Fish and Game Commission.

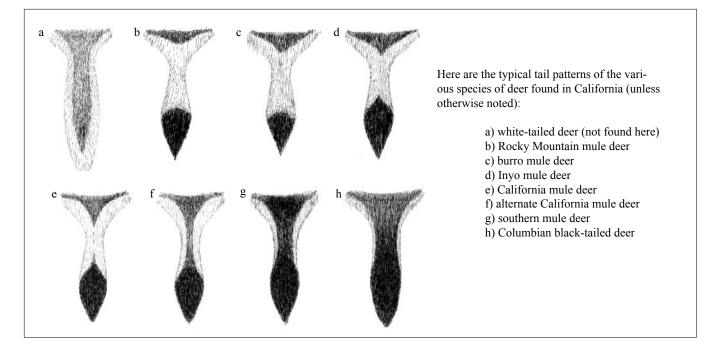
The most numerous deer in California are COLUMBIAN BLACK-TAILED DEER. They range throughout the coastal mountains from Oregon roughly to Santa Barbara, and along the west slope of the Cascade-Sierra Nevada range to Calaveras County, and south along the foothills of the Sierra Nevada to Mariposa County.

The second most abundant subspecies of deer in the state is the California Mule Deer. They are



found along the west slope of the Sierra Nevada from Sierra County south into Kern County and from northern Orange County to San Benito and Monterey counties. California mule deer also are found in the Tehachapi, San Gabriel and San Bernardino mountains.

ROCKY MOUNTAIN MULE DEER are the largest deer in California and the third most abundant subspecies. Rocky Mountain mule deer range throughout the West and spill over into the Golden State in Modoc, Lassen, Shasta and Siskiyou counties. They



DEER OF CALIFORNIA

are also found along the east slope of the Cascade-Sierra Nevada chain to southern Mono County. Some Rocky Mountain mule deer were transplanted from Modoc County to parts of the desert mountains in San Bernardino County in 1948, where they still eke out an existence today.

SOUTHERN MULE DEER OCCUPY portions of San Diego, Orange and western Riverside counties while the INYO MULE DEER (which may soon be classified differently based on new information) reside in Inyo, southern Mono and northeastern Kern counties.

BURRO MULE DEER (which have been combined with the desert mule deer, *O.h. crooki*) inhabit the southeastern deserts in San Bernardino, Riverside and Imperial counties, especially along the California and Arizona sides of the Colorado River.

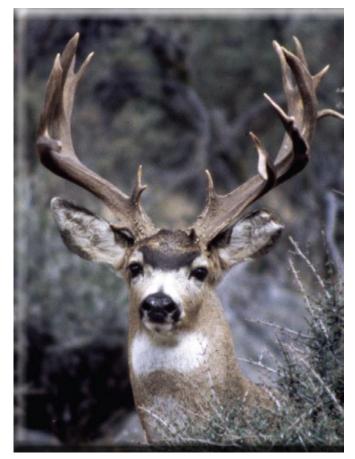
From a hunter's perspective, the easiest way to identify the subspecies of deer that's harvested is to match the hunt location with the known general range of each subspecies (see range and tail pattern illustrations on pages 6 and 8 respectively).

At the risk of confusion, it should be noted that the deer themselves have trouble recognizing one another, or perhaps they don't care. Except for the desert areas, ranges often overlap and where they do it is inevitable that the various subspecies will interbreed. Thus, the buck of your dreams may very well be a hybrid.

As a general rule, adult Rocky Mountain mule deer have the largest antlers and weigh the most of the six subspecies. There are exceptions, but characteristically pure strain black-tailed deer are the smallest of the various subspecies in California.

While the die is cast genetically as to an individual animal's features, ultimately its body and antler size, and growth rate (within the framework of a particular subspecies) are determined by the quality of the habitat in which it lives. Studies (including a recent study of captive deer) have shown that deer that do not have a nutritious food supply will not develop on par with deer that have access to optimum high quality forage.

OTHER DEER? You may have heard some hunters talk of hunting blue deer or red deer as if they're unique subspecies but that is not the case. What these hunters are seeing are deer before and after



Good habitat is the key to the well-being of the state's deer herds. Photo by Willy Onarheim.

they shed their summer and winter coats (or pelage). In the summer, mule deer are reddish-brown and black-tailed deer are even a bit redder. By contrast, a mule deer's winter coat is grayish-brown while a black-tailed deer's coat varies from warm brown to gray-brown. It's reasonable to assume that a graybrown deer could appear to have a hint of blue (to some folks) given the right conditions—thus the term blue deer comes into play.

One more thing. Contrary to what you might have read or heard, there are no free-roaming whitetailed deer (*Odocoileus virginianus*) in California, which isn't to say that there never have been. DFG records show that in the past there have been occasional sightings of whitetails in the northeast portion of the state. They have never become established here, however, and the last confirmed sighting was more than 50 years ago. So, while there are some white-tailed deer in portions of Oregon, Washington, Idaho, and several other western states, you won't find them in the Golden State.

CALIFORNIA'S DEER POPULATION: In the 2000 Environmental Document on Deer Hunting, the DFG estimates that the total population of deer in California is more than 511,000 animals. That is fewer deer than were estimated to be present in the 1950s, perhaps, but probably more than there were prior to the mid-1800s.

The California Gold Rush of 1849 marked the beginning of a dramatic change in California. According to one study, the greatest initial effect on deer was from market hunting to supply venison for mining camps. In 1852, it was said that there were human occupants on every gravel bar of the Trinity River from Salyer to Carville. Similar congregations were present in the Mother Lode region and even on the east slope of the Sierra Nevada.

Miners shot deer for meat year-round and deer range was altered by logging, grazing, burning and

clearing. Some of the changes ultimately benefited the deer but the initial impacts caused a decline in overall numbers.

Historic game laws, hunting license requirements, and restrictions on hunting contributed to the increase of deer first noted between 1910 and 1920. In effect, legislation and enforcement allowed the deer to benefit from the improved habitat created by the intrusions of man, including the large-scale burning and logging mentioned above. More recently, however, improved fire suppression techniques have reduced the amount of deer habitat that had previously been open. At the same time, human activity has usurped prime deer habitat for agricultural uses, subdivisions, freeways, reservoirs and shopping centers.

In addition to habitat that is lost permanently, or at least for the foreseeable future, there are



Adult does of any subspecies are not as big as mature bucks of the same type as this comparison of two Rocky Mountain mule deer illustrates. *DFG photo*.

DEER OF CALIFORNIA



various other things that affect deer herds on a more immediate basis. Disturbances such as fires can actually renew some deer habitat despite their conflicts with other land uses. Prescribed burns, set deliberately in certain areas to improve habitat on small tracts of land, can also be beneficial. Old browse (brush) supports far fewer deer than new, young browse, which is much more nutritious.

Meanwhile, weather variations can help or hurt

Deer hunting has been a popular pastime in California for a long time. *Photo circa 1940*.

deer herds depending on severity and duration. A prolonged drought, for instance, can eliminate vital water sources and stress browse plants on both summer and winter ranges. Harsh winter weather can keep deer from their winter food supply on some areas and cause a die-off to occur due to starvation. Numerous other factors take a toll on deer herds including predators, poaching, highway mortality, overgrazing by livestock and deer, and disease.

Through it all, however, habitat is the key to the long-term health of deer herds. Natural causes of mortality have always been a part of the overall picture wherever big game such as deer are found. Animal populations can adjust accordingly, providing the critical habitat they need still exists.

Although there have certainly been many changes in the overall landscape of California, especially during the last 150 years, there are still plenty of surprisingly good deer hunting opportunities, both on public and private land. Somewhere between the southern desert region and the Oregon border there's bound to be a deer hunting situation that will appeal to you.



This house was built on deer range. *DFG photo*.



DEER HUNTING BY REGION

FOR ADMINISTRATIVE purposes, the Department of Fish and Game is divided into six land-based regions. Region 1 includes eight northern counties covering the width of the state from the Oregon border south to Tehama County; Region 2 extends east from the west side of the Central Valley to the Nevada border; Region 3 serves 14 counties along the western edge of the state from Mendocino County south to San Luis Obispo County; Region 4 includes 9 central counties from Stanislaus County south to Kern County; Region 5 covers the southern coast, from Santa Barbara south to San Diego County; and Region 6 includes the five eastern-most counties from Mono down to Imperial. (There is also a Region 7, the Marine Region, which includes the entire California coastline.)

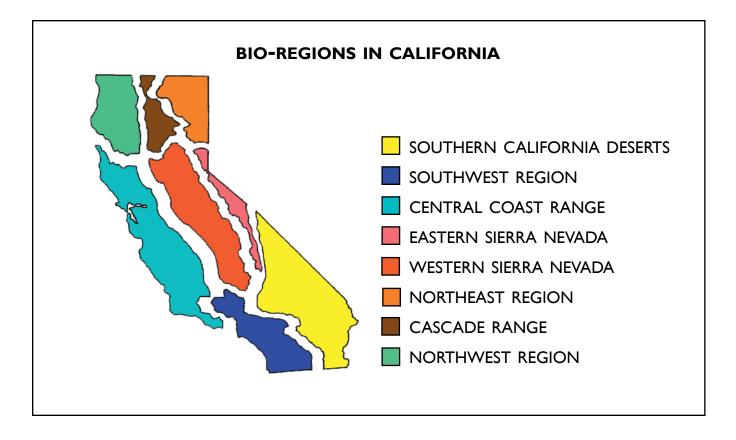
Knowing which of these administrative regions contains the area you plan to hunt is helpful because then you can acquire additional information by direct contact with the appropriate DFG regional office. This is especially important if you are going to hunt a particular area for the first time and haven't the foggiest notion of where to start looking for concentrations of deer. Hunting information is also available online at www.dfg.ca.gov/about/ hunting.

Because California covers an enormous area, stretching from the Pacific Ocean to the Cascade and Sierra Nevada ranges and from the Oregon border to Mexico, deer hunters encounter a wide variety of hunting situations. To help understand the different scenarios it is useful to separate the state into a series of informal bio-regions, each with individual characteristics that hunters should take into consideration. While hunters may not recognize the specific regional differences in the combinations of plants indigenous to various locations, they can and should know how the interior southern mountains differ from the coastal mountains and so on.

For our purposes here, the state will be divided into the following bio-regions: the Southern California Deserts, the Southwest Region, the Central Coast Range, the Eastern Sierra Nevada, Western Sierra Nevada, the Northeast Region, the Cascade Range, and the Northwest Region. Bioregions have been determined by soils, plant life, and weather patterns that influence deer and other wildlife.



Black-tailed buck. DFG file photo ...



Let's take a look at the bioregions and see what makes them unique from the hunter's standpoint.

SOUTHERN CALIFORNIA DESERTS: This region is part of the area known as the Mojave/Sonoran Desert bioregion, a land of little rain and sparse vegetation that extends into southern Nevada and southwestern Arizona. On the west, east and north fringes of the southern portion of the Mojave Desert there's a small number of deer that provide unique hunting opportunities for California hunters. On the west side of Imperial County, for instance, there are southern mule deer and on the east side, burro (or desert) mule deer eke out an existence. In the desert mountains from the Clark Mountains to the South Providence Mountains, there are also Rocky Mountain mule deer which were introduced from Modoc County several decades ago.

Hunting in this region is not easy. The overall population of deer is low and the animals are scattered in zones D-12, D-17 (Riverside, Imperial and San Bernardino counties and portions of Los Angeles, Kern and Inyo counties) and the southern part of X-9c (also Inyo County). Throughout the desert region the deer are scattered in isolated pockets of favorable habitat in the desert mountains and in the breaks along the Colorado River. The annual harvest in either of the D zones is usually less than 100 bucks, and in the desert portion of X-9c it's also low.

It is not uncommon to go all day without finding a trace of deer in this land. Some hunters revel in the challenge presented by the desert-dwelling mule deer and a few diehards take bucks in the arid mountain ranges of the region nearly every year. Local hunters are the most successful because they have ample opportunity to learn where the deer are located and how to hunt the area effectively.

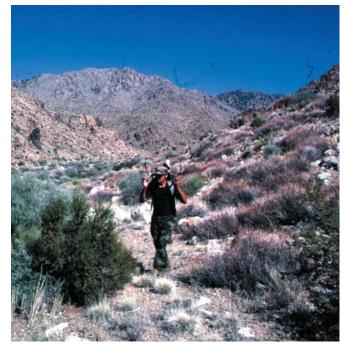
Zone D-17 is the second largest deer zone in the state after zone A. Incidentally, the make-up of zone D-17 has been altered somewhat by the recently established Mojave National Preserve, and vehicle access within that area is now restricted. Be sure to double-check with the Region 6 office of the DFG before hunting the desert for the first time.

DEER HUNTING BY REGION

SOUTHWEST REGION: For the most part, the southern California mountains, including the San Gabriel and San Bernardino mountains, the San Jacinto Mountains and the mountains of northeastern Ventura County and San Diego County, can be classified as part of the extensive Woodland/ Chaparral Province. This is an area characterized by warm, dry summers and rainy winters. Vegetation ranges from oak woodlands to vast amounts of chaparral, meaning a blanket of shrubs that can be almost impenetrable in places. Throughout much of the region the hills are steep and the footing uncertain.

This area, as most California residents know, is very susceptible to wildfires, which commonly sweep through the hills in the summer and fall. Often the fires burn mature vegetation allowing new growth which can benefit deer in some locations. Thus, some recovering fire sites attract both deer and hunters.

California mule deer are most common in this bioregion, although there are also southern mule deer in its southwestern portion. Included in this area are such zones as D-10 through D-14 (except D-12) and zones D-15, D-16 and D-19. Hunter success in the region varies from place to place but generally it averages around 10 percent or slightly higher. Generally speaking, water (usually found in the canyons) or lack of it will determine, along with preferred vegetation, where the deer will be from year to year.



Even the arid hills of the southern deserts offer deer hunting possibilities. *Jim Matthews photo*.

Even today it is possible for a southern California deer hunter to drive into the Angeles, San Bernardino or Cleveland national forests for a day or weekend of deer hunting. Once again, a few hunters seem to get their deer every year because they're familiar with an area and recognize the kinds of places that attract deer on a regular basis. Also important is knowledge of road closures (which are initiated from time to time) and areas with permanent firearm restrictions.

As one DFG biologist says, "Serious hunters have learned the value of pre-hunt scouting in the southern mountains. It helps to spend your limited hunting time where you know there are some deer. It also helps to get a map and note where the roadless areas are so you can get away from most of the general recreation seekers."

The San Gabriel Mountains, in the Southwest Region, still offer deer hunting opportunities in southern California. *John Higley photo*.



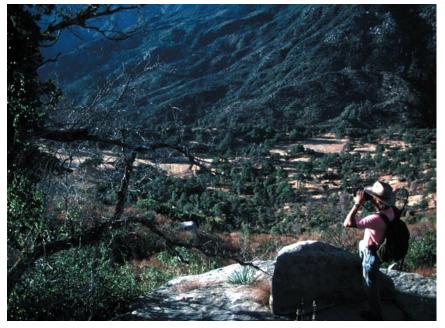
This hunter is glassing for black-tailed deer in the mountains of the Central Coast Range. Bob Robb photo.

CENTRAL COAST RANGE: These mountains are also part of the Woodland/Chaparral Province. They extend roughly from Ventura County north to Mendocino, and harbor numerous black-tailed deer in the north and California mule deer in the south. This region is included in massive zone A, and most of it consists of private land. Many hunters flock to the Los Padres National Forest and military lands.

Coastal deer rut earlier than most of the other deer in the state so zone A is open to archery hunting in July and for general hunting in August. You won't find an earlier rifle deer season anywhere else in the West. If you think that sounds like a warm time of year, you're right. Heat, of course, plagues hunters regularly in California, even during September and October.

EASTERN SIERRA NEVADA: This region is well liked by deer hunters, especially those from southern California. The Sierra Nevada Range is situated





on the western edge of the Great Basin bioregion, which extends east to Utah's Wasatch Range. In California, this region is characterized by sagebrush, juniper, and pinyon in the lowlands and pine forests ending above timberline on alpine ridges. Rocky Mountain mule deer call this largely arid habitat home, inhabiting the mountains in the summer and the foothills in the winter.

Several hunt zones are scattered throughout the region, including zones X-7a through X-12 and

> the northern portion of X-9c. This area, stretching roughly from Sierra County on the north to Inyokern on the south, presents a variety of hunting opportunities to those who are drawn for tags. Hunting takes place at various elevations on the east slope of the Sierra Nevada Range, in foothill regions and in the White Mountains which rise to the east of Owens Valley. Thanks to an abundance of public land, access to hunting areas in this region is rarely a problem.

western sierra nevada: Generally speaking, the western

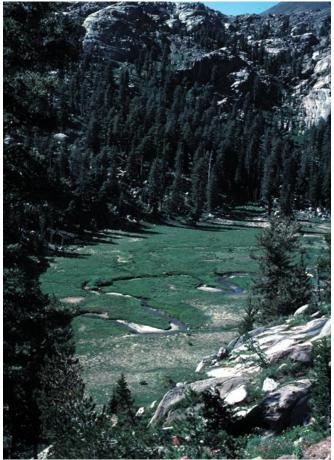
The east slope of the Sierra Nevada Range appeals to many mule deer hunters. *Alison Torres photo.*

portion of the Sierra Nevada Range can also be classified as part of the Woodland/Chaparral Province. The Vegetation is different here than on the eastern slope of the Sierra because the west slope gets significantly more rainfall. Due to some overlap of territory, the distinction between blacktailed deer and California mule deer is blurred in a good portion of the area. he deer hunting zones in this region, which is bordered on the west by State Route 99 and on the east by the Sierra crest, are zones D-3 through D-9. There's good public access via national forest lands throughout the western Sierra Nevada and tags for individual zones are plentiful. Hunter success is between 10 and 14 percent, depending on the zone hunted and a host of other variable factors.

NORTHEAST REGION: This diverse area includes portions of the Northern Mountains Province and the Sagebrush Steppe Province, which extends east to Nevada. Sagebrush dominates much of this semiarid region but there are extensive sweeps of bitter-brush as well. Much of the Northeast Region is comparatively open with rocky peaks and draws, and wide open spaces with bitterbrush

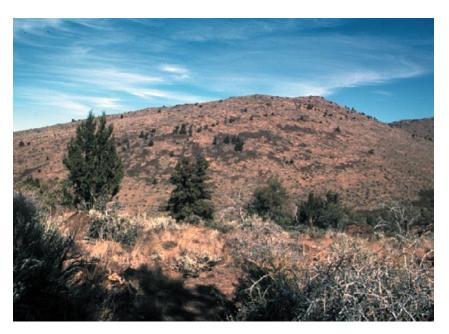
and some juniper dotted hills.

On the northeast side of the region, the Warner Mountains extend into California from Oregon. This area has some timber, meadowlands, and a few places decorated with quaking aspen. The whole range is very similar to popular hunting



The Western Sierra Nevada region has California mule deer. *J. Mark Higley photo.*

spots in such states as Colorado and Idaho. The South Warner Wilderness, between U.S. Highway 395 and Surprise Valley, is very popular with horse



packers although some stout hunters do gain access to the area by foot. The Northeast Region encompasses parts of Plumas, Lassen, Siskiyou and Modoc counties and zones X-1 through X-6b. Access to the region is generally good due to extensive tracts of public land.

THE CASCADES: The Cascade Range borders the west side of the northeastern region and extends to the foothills of the northern Sacramento Valley. The mountainous areas, which are classified as the Northern Mountains

This sagebrush and juniper country is typical of portions of the Northeast Region that are home to Rocky Mountain mule deer. *John Higley*



The Cascade Range is home to numerous black-tailed deer and some Rocky Mountain mule deer as well. John Higley photo.

Province, naturally differ from the east-side lowlands in that there are many varieties of trees and some extensive timberlands. The region has mainly black-tailed deer with some overlap of Rocky Mountain mule deer in parts of Modoc, Lassen, Shasta and Siskiyou counties.

The zones included in the Cascades are C-1 through C-4. Hunter success throughout the area varies from year to year depending on how the deer are doing and how cooperative the weather conditions are. Generally, the C zones provide better success figures than the state average but a smaller percentage of success than most X and B zones. Depending on the zone, hunters will be on national forest or private timber company land, much of which is open to the public.

NORTHWEST REGION: Finally, there's the Northwest Region, which can also be classified as part of the Coastal Rain Forest Province extending roughly from Mendocino County through Oregon, Washington, and into British Columbia.

This is a lush, forested area with redwoods,

Douglas fir, mixed evergreens, and oaks toward the interior. Timber blankets the slopes of interior mountains, eventually giving way to rugged, rocky alpine ridges in higher elevations. Black-tailed deer reign supreme throughout this part of the state, which extends roughly from the brushy foothills near Interstate 5 west to the Pacific Ocean.

The northern portion of zone A extends into this region which includes zones B-1 through B-6. The B zones have a lot to offer to deer hunters, including plenty of public land and lots of deer. Depending on where you are in the B zones you can hunt accessible national forest lands, wilderness areas, and if you obtain written permission, private land.

WHERE CAN I HUNT? This is one question naturally asked by many prospective deer hunters each year. Well, you might be surprised by the vast amount of public land available in this crowded state. With few exceptions, most hunt zones offer adequate access to national forest or Bureau of Land Management (BLM) lands. In addition, state forests and some

DEER HUNTING BY REGION

private timber company lands are open to the public. There's plenty of public land but state game refuges and national, state, and city parks are closed to hunting.

SO, HOW MUCH PUBLIC LAND IS THERE? Roughly 45 percent of the Golden State consists of federal public lands. For starters, there are 17 national forests with a grand total of nearly 20 million acres, including 4 million acres of designated wilderness areas.

If you want to hunt deer in the mountains of southern California (the Southwest Region) there is, as was mentioned earlier, the Angeles, San Bernardino, and Cleveland national forests. The southern portion of the Los Padres National Forest also comes into play in the northern portion of Ventura County (zone D-13). If you'd rather go to the Eastern Sierra Nevada you'll find the sprawling Inyo and Toiyabe national forests waiting. In the Central Coast Ranges the Los Padres National Forest offers public access, and in the Northwest Region there's the Mendocino, Six Rivers, Klamath and Shasta-Trinity national forests.

In the Western Sierra Nevada we have the El Dorado, Stanislaus, Sierra, Sequoia, and Tahoe national forests. In the Cascade and Northeast regions, there are the Shasta-Trinity, Plumas, Lassen and Modoc national forests.

Depending on where you want to hunt you can stay in designated campgrounds, camp in unimproved areas or, in some cases, head for a nearby motel. There are campsites on every national forest and every individual forest map has an appropriate listing. Maps may be obtained from the U.S. Forest Service.

In addition to national forests, the BLM manages nearly 19 million acres of land in the state. Much of it is located in the Southern California



The mountains of the Northwest Region have more black-tailed deer per square mile than any other area. J. Mark Higley photo.

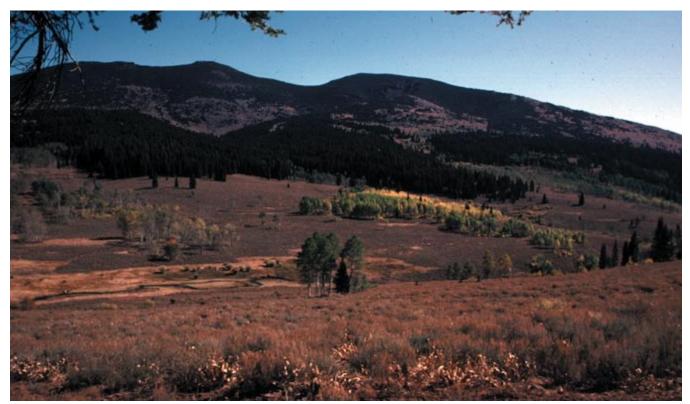
deserts but there is an impressive amount of BLM land all along the eastern edge of the state from Mexico to the Oregon border. A smattering of BLM land is also scattered throughout the rest of California. Although some BLM land has no deer, areas that do are a real boon to hunters.

If you find yourself hunting burro mule deer in San Bernardino County, you will be on BLM land. If you hunt Rocky Mountain mule deer in the Sagebrush Steppe Province in the Northeastern Region, you will be on BLM land, and if you hunt the foothills of the Eastern Sierra Nevada or Great Basin areas, chances are good that you'll be on BLM land again.

Incidentally, the BLM has campgrounds in some locations but normally you can expect to make do with the BYOW (bring your own water) routine and few improvements. Check with the BLM for maps of their areas.

These words offer only a thumbnail sketch of general conditions in the informal bio-regions described herein. Because conditions change, hunters new to any region should get updated information on the specific areas they plan to hunt, as well as the current status of the deer herds within those areas.

When the danger of wildfires is especially high, as it is at times in the fall, it's important to check with public land agencies regarding possible road and fire closures that may affect your access to certain hunting areas. Be sure to check for firearms restrictions near developed areas as well. *NOTE: For pertinent addresses, more information, and map sources, refer to the appendix at the end of this book.



Also in the Northeast Region, the South Warner Mountains offer good hunting for Rocky Mountain mule deer. John Higley photo.

DEER HUNT OPTIONS

IN 1970, A RESIDENT deer tag cost \$10. You could buy a second tag for the coastal mountains and northwestern California, where the limit was two bucks, forked horn or better, as it is even today. With a general deer tag you could start hunting in the coastal mountains in August, in what was then known as the early deer season, and keep hunting in other parts of the state until late October or early November, depending on the region you selected. In other words, you could hunt anywhere in the state, anytime during the open season, until your tag was filled.

The first regular season quota hunt in the state took place in 1978 in zone X-5b. Prior to that time more than 3,300 hunters descended annually on the wide open sagebrush region in eastern Lassen County and hunting was definitely a competitive proposition. With the quota system the number of tags was cut to a maximum of 500, and hunter success soon climbed from 15 percent to 47 percent. Almost overnight, zone X-5b acquired a reputation as the place where a hunter might see more bucks than in other zones.

Obviously, there were some complaints. Some hunters who weren't drawn for what used to be a favorite spot had to look for new places to hunt, but those who got tags were very pleased with the system.

Since its beginning in 1978, the zone system has spread throughout California. Its implementation has resulted in more intensive deer management and carefully controlled hunter distribution. Today, there are no fewer than 17 X zones, 6 B zones, 4 C zones, 16 D zones, and one huge A zone. There are quotas for each zone, but they are most restrictive in the X zones.

Tags for the low-quota X zones are coveted by mule deer hunters and most X zone quotas are filled in an annual drawing in early June. All AreaSpecific archery tags and special Additional Hunt tags are also available through the drawing.

Tags for A, B, C and D zones are issued on a first-come, first-served basis, and you can also list any one of them as your alternate selections when you enter the drawing for the low-quota hunts. As of 1999-2000, any Additional Hunt tags that are left over after the drawing are also issued on a first come, first served basis after September 1st.

For many years hunters had to choose which zone, or zones, they wanted to hunt and then acquire the proper tag(s) through a special application procedure. In an effort to allow more



A "B" tag is the only tag this hunter needs to hunt in any one of the 6 northern California B zones, a vast amount of country totaling hundreds of square miles. *John Higley photo.*



Some Additional Hunts offer either-sex or antlerless deer (doe) hunting. *John Higley photo*.

flexibility, however, the DFG decreed in 1992 that a single B zone tag would cover all the B zones.

The increased opportunity was expanded in 1994 when it was announced that a C zone tag would allow you to hunt in any or all of the newly established C zones (C-1 through C-4).

At this time, most tags (for zones A, B, C-2, C-3, and D) allow for the use of archery equipment during archery season; during the general season a rifle, authorized pistol or revolver, crossbow or bow can be used. Presently there are only Area-specific archery seasons in zones C1 and C4 and all X zones, but you can use all general methods, including bows, during the regular season. Archery-only tags, which are also available, confine hunters to archery equipment while at the same time open up more hunting opportunities. Archers are not allowed to use archery-only tags for Area-specific hunts.

Finally, in addition to general deer season tags, there are limited tags for a variety of special hunts. Called Additional Hunts, these seasons offer antlerless, either-sex and special buck hunting opportunities over and above general seasons. Included in the selection are general equipment hunts, junior hunts, and hunts especially for archery, muzzleloading rifles, shotguns and crossbows.

To learn about any notable procedural changes that might take place in the future, including new hunt selections, any hunts dropped for one reason or another, or changes that are made in certain zones, consult the most recent copy of the mammal hunting regulations booklet.

SO, JUST HOW DO YOU PICK A ZONE AND PLAN A DEER HUNT IN CALIFORNIA? It really isn't difficult but there are a few things to consider before making your choice. Here are some sample questions to ask yourself before you decide what to do.

WHAT KIND OF DEER DO YOU WANT TO HUNT, MULE OR BLACK-TAILED DEER? Remember, Rocky Mountain mule deer are creatures of the X zones and overall the quotas in the most popular X zones are low. On the other hand, they occur in some beautiful country! To some hunters, Rocky Mountain mule deer are the most spectacular deer of all, and their habitat, along the eastern edge of the state from Mono County north, is the most appealing. These hunters put in for an X zone tag each year, as can you, but usually they're prepared to fall back on a "Plan B" if they aren't picked in the drawing.

There are D zones with California mule deer

DEER HUNT OPTIONS

where getting a tag is not a problem, but most of the terrain involved is far different than anything you'll encounter in typical mule deer country. Of course, if you really want to try something different, there's always the option of hunting burro mule deer in the southeast desert region.

Black-tailed deer country is very different from typical mule deer habitat but it has its own appeal for some hunters. Generally, black-tailed deer prefer much more cover, which they use to their advantage, but in some areas there is also some alpine hunting available early in the general season. Blacktailed deer are numerous, which helps make up for their elusiveness, and tags are readily available for the zones they inhabit.

DO YOU DAYDREAM ABOUT BEING DRAWN FOR AN ADDITIONAL HUNT? Nothing wrong with that. It doesn't cost anything to put in for any special deer hunt and there are always plenty of general season options left, if you aren't drawn for any of your first choices.

Additional Hunts are perfect for those hunters who prefer general equipment hunts with something special added, such as later-than-usual opening and closing dates. Some Additional Hunts also focus on opportunities for archery, muzzleloaders, or a combination of the two.

Another option is junior hunts, which offer special opportunities for qualified young hunters between the ages of 12 and 16. Junior tag holders must be accompanied by a licensed, non-hunting adult, thereby opening the door for parents and kids to enjoy a special experience. You aren't guaranteed an Additional Hunt tag but by all means read the regulations carefully and make your selection accordingly. After all, someone has to be drawn, and it might as well be you.

HOW FAR DO YOU WANT TO TRAVEL AND HOW MUCH TIME DO YOU HAVE? Each year hunters draw tags for unfamiliar areas hundreds of miles from home. If they get enough good advice (perhaps from a biologist in the DFG regional office that oversees the area their tag covers), study enough maps, and set aside several days for hunting in addition to travel time, they may have a chance to find some deer even without scouting the area in advance. Fail to do research, though, and the dark cloud of frustration may very well be lurking on the horizon.

Hunters looking for a wilderness deer hunting experience can find it in several Golden State locations, like the Trinity Alps Wilderness shown here. John Higley photo.



The best option for hunters with only a little time to scout may be to stick to an area close to home, even if the overall population of deer there is low. If you have only a couple of days prior to the season, you may be able to scout out a backyard location and actually find a concentration of deer that will make hunting worthwhile even if you're able to hunt just on weekends.

There are no guarantees, of course, and hunting close to home probably won't be as exciting as a longer trip to an area that is more remote. Just the same, familiarity is often the primary key to success no matter where you hunt.

Here's an interesting situation. Many California hunters who hunt other parts of the West as nonresidents, are happy to mount a major expedition to a neighboring state and spend a good portion of their yearly vacation in the process. Yet the same hunters will travel all night Friday to a distant part of California and expect to find a buck on the weekend. That's possible, of course, but it is highly unlikely. Normally, it's foolish to take a long trip for a short hunt unless you have been to the area before and already know it well.

WHEN SHOULD YOU HUNT? Studies show that most deer are harvested on the opening weekend of the season. A few more are taken on succeeding weekends, especially toward the end of the season when time is running out and more hunters are again in the field. Some hunters, though, actually prefer to hunt between the opening and closing weekends when there is less competition. Mostly, they are the hunters who have taken the time to learn the areas they hunt. They feel confident in their ability to find the deer in a particular area at anytime during the season and they know how to adjust for changing climatic conditions.

WHAT ABOUT ACCESS TO THE ZONE YOU WANT TO HUNT? Access makes a difference. Ask yourself, is there plenty of public land or is it mostly private? In case of the latter, do you have a contact already or do you think you can get written permission to trespass? For instance, some hunters are able to gain access to private land through friends or relatives or simply by asking a landowner. In most zones there's plenty of public land, in a few it's limited.



Some Additional Hunts focus on opportunities for short-range firearms such as muzzleloaders. *John Higley photo*.

Physical access is another thing to think about. Do you need a four-wheel-drive vehicle to get where you want to go or will two-wheel-drive do? What about using pack animals or a mountain bike? Is shoe leather your ticket to good hunting country? If so, will you have to hike a lot or a little? It all makes a difference in the long run.

HOW MUCH DO YOU WANT TO SPEND? Obviously, the most inexpensive hunt is one that you make on your own on public land, however there are other ways to go. Some hunters band together and lease hunting rights to private property while still others arrange to hunt with a guide (who probably has private land at his or her disposal, too). Some would view leased land or guided hunts as being too expensive, but in either case your chances for success usually improve greatly on lightly hunted private land.

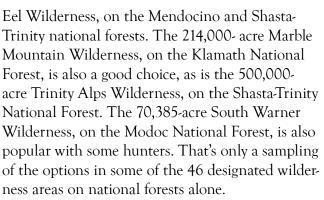
As of the year 2000, 67 landowners were enrolled in the Private Lands Management Program

(PLM) whereby they are obligated to implement a 5-year management plan to improve habitat for a variety of wildlife according to guidelines approved by the DFG. Because of their involvement in habitat work, and because deer are currently the primary-emphasis species on licensed areas, some landowners get a specific number of deer tags which can be marketed in the form of fee hunting-opportunities. A very small percentage of the state's annual deer harvest occurs on PLM lands but those hunters who are willing to pay the price for such hunts normally enjoy a high quality hunting experience.

The intent here is not to downplay public hunting opportunities but to show some of the various options available in this state and to let you make the choice. Certainly, most hunters opt for do-ityourself hunts on public land which can be very enjoyable and rewarding in their own right. The choice is yours!

DO YOU WANT A WILDERNESS EXPERIENCE? Yes, there are plenty of wilderness areas with deer in California. However, if you plan on hunting in a remote area your physical condition will be a prime consideration. Whether you hike or use horses, mules or llamas, you will normally work hard for a wilderness buck. Some of the best wilderness hunting is found in the 162,824-acre Yolla Bolly-Middle

Junior hunts provide excellent opportunities for young, first-time hunters. *File photo*.



Admittedly, some are small areas and some don't have many, if any, deer. To double-check, contact the nearest regional office of the DFG.

WHAT CLIMATIC CONDITIONS DO YOU PREFER? That's a trick question, of course. General California deer seasons begin as early as the middle of August (zone A) where you can expect blazing summer temperatures. Even seasons that open in late September and October are beset by hot weather some years—but that's part of living in California, isn't it?

To beat the heat you have to learn to live with it, as most zone A hunters do, or hunt in the Sierra Nevada, Cascades and other mountainous regions, if that option is open to you. If all else fails, pray for rain or simply hunt the tag end of the season(s) when crisp fall nights and cooler

Hunting close to home may not sound exciting but it can be fruitful as these hunters will attest. John Higley photo.





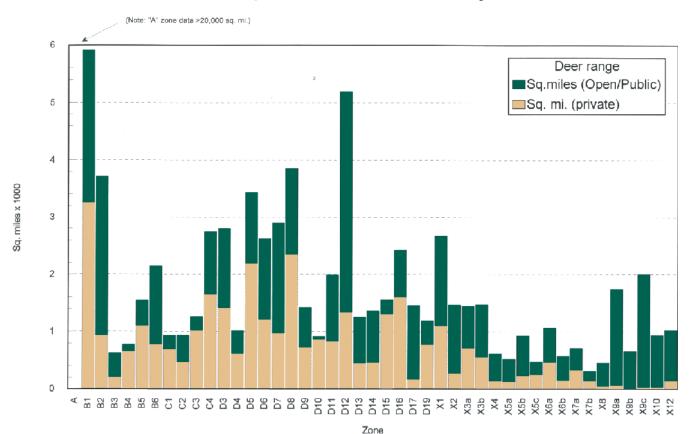
days usually prevail.

While hot, dry weather discourages some deer hunters, it should be noted that other hunters actually have come to terms with it, and they manage to harvest their share of deer despite it. Bowhunters, of course, get the brunt of the heat during their early seasons but you never know when a warm spell will heat up the general rifle seasons as well.

WHERE ARE THE MOST DEER? This could be looked upon as another trick question. While hunters naturally gravitate toward areas of perceived abundance when they can, and the actual number of deer in a particular zone is important, the bottom line is whether or not there are at least a few deer where you happen to be hunting. It's safe to say that some hunters in every zone are either very happy or mildly discouraged, depending on a variety of factors which put them in the right place at the right time—or the wrong place.

That said, hunters are normally interested in knowing something about herd dynamics in the zone(s) they intend to hunt. When the deer population is up and the buck-to-doe ratio is high, hunters will naturally see more animals and the overall percentage of success will climb accordingly.

The final herd estimation is based on several factors including the overall range-carrying capacity,

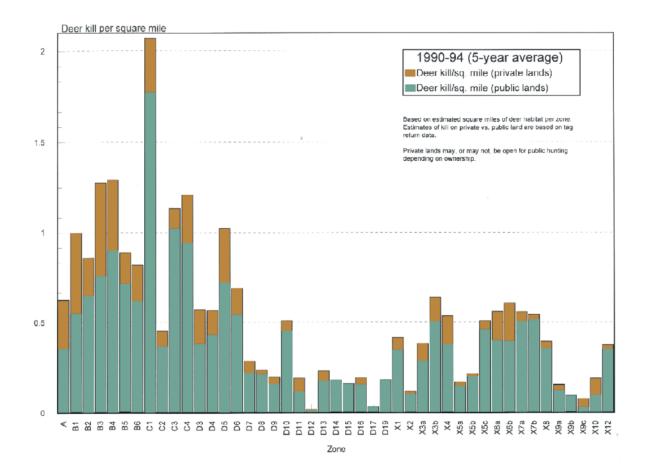


Total square miles of deer habitat by zone

spring fawn ratio (fawns produced per 100 does), the buck-to-doe ratio, buck harvest, doe harvest and incidental loss to nonhunting causes.

What you have to remember is that things are always in a state of flux in nature. There are always factors that contribute to the expansion or decline of a particular deer herd. For that reason the figures in the accompanying table represent only an average from past years. They will, nonetheless, give you some idea of how the deer herds vary from area to area even today. CREATING A TRADITION. Some families or groups of friends have established deer hunting traditions among themselves. There are some folks who have been hunting the same spots for generations, making deer hunting an important part of their yearly activities. It gives them something they can work together for and look forward to with anticipation.

You, too, can establish such a tradition, but to do so in a practical manner you should pick a deer zone for which you can acquire tags every year.





Northern California bucks. Steve Guill photo.

CHAPTER 4:

MIGRATORY OR RESIDENT DEER?

ONE OF THE FIRST things a hunter has to do is determine if the deer in a particular area are migratory or resident animals. Resident deer remain in the same general area all year while migratory deer move from summer to winter range and back each year—meaning that they won't be everywhere at once. For obvious reasons, then, making the distinction between migratory and resident deer is important to hunters. For example, if you choose to hunt on winter range on opening day before the



This resident black-tailed buck browses on oak leaves. DFG photo.

annual migration begins, chances are good that you won't find even a track. You have to adapt and go to where the deer are at a particular time.

Generally speaking, the deer of the southern California mountains, the southern deserts and the coast ranges are resident animals. There are also some resident deer living around foothill reservoirs, in the riparian habitat along rivers, and in some agricultural areas.

Many resident deer inhabit areas that are on private land while most migratory deer spend some of their time high in the mountains on public land. Most of the deer of the Sierra Nevada Range, the Cascade Range, and the other northern mountains as far west as the Trinity and Marble mountains, are migratory and move up and down with the seasons. That goes for both mule and black-tailed deer, depending on the region.

If you hunt the A, B-1 or B-4 zones, you'll be hunting mostly resident deer. The same is true if you hunt practically anywhere south of Bakersfield.

The biggest difference in the behavior of resident and migratory deer is that resident deer spend their entire lives within a few square miles of habitat, while migratory deer inhabit separate ranges at different altitudes that are sometimes many miles apart. Resident deer stay put, which means that the deer you see today will be somewhere close-by tomorrow. Whether or not you can find them is, of course, another matter.

Actually, it's possible to pattern resident deer somewhat, especially if they aren't under a lot of hunting pressure. The deer will bed down in the same general areas, get their water and feed in certain places, and generally use the same trails to and from current food sources and bedding areas. Once you know their habits you will be well



When the timing is right hunters may see deer migrating on well-beaten trails. DFG photo.

on your way toward tagging a resident buck, or a doe if that's what your tag calls for.

While migratory deer may shift areas completely because of weather changes, resident deer just change their normal routine while remaining within a certain area. If you bump a resident buck one day but can't harvest the animal, it may be a good idea to back off and leave him alone for awhile. If the buck wasn't too scared he'll probably bed down in the same general area again, giving you a chance to find him on another day. At that time, it would be best to plan your approach carefully and try to avoid another accidental, and usually fruitless, meeting.

The key to finding migratory deer during the first part of the open season is to go high, if possible, and hunt the deer in the areas where they spend the summer. Where there is road access into the mountains this is not a problem. However, in many cases you'll have to hike or ride horseback into a productive area. Regardless, you should think about, and take into account, the natural movement of the deer in a particular location.

Some long-time deer hunters in northern California will tell you that the deer begin to migrate during the first full moon in September. Whether or not that's true, there are obvious changes in the deer density on some parts of their summer range shortly after the opening weekend of hunting season in September. It's not unusual for migratory deer to completely vacate certain areas during the first half of the season while they remain in at least fair numbers, for whatever reason, in others.

When a deer hunter learns to recognize the changes that take place as the season progresses, he or she can adjust accordingly by switching locations as needed. For instance, some hunters know certain areas well enough to predict where the deer will be on opening day, two weeks later, during stormy weather and on the final weekend of the hunt. Even though the deer may move many miles, they are tied somewhat to a basic routine.

There are several factors involved in the



Tracks in fresh snow tell this hunter that numerous deer are moving through the area. John Higley photo.

annual migration of deer throughout the state. It is widely believed that the first fall storms are what really trigger the movement, but many deer herds do start downhill at around the same time each fall, storms or no storms. The movement, however, may not be as sudden or complete if there is no inclement weather to hurry it along.

In the fall, deer may respond to food availability as well as to changing weather. Rainfall immediately starts the fall green-up and thus creates a new food source for the deer at lower elevations. Migratory deer that summer in the mountains above foothills dotted with oak trees (generally not the situation with deer in the Eastern Sierra or the Northeast Region) seem to know instinctively when acorns are abundant and they may start to vacate their summer range early to take advantage of a substantial acorn crop. Some years they stop in the acorn producing oaks and stay there as long as the weather cooperates and the food is available.

Hunters who key on food sources, such as acorns, learn to identify which oaks are producing and which are not. For instance, some years black oaks will produce acorns in abundance; other years it may be live or blue oaks. Obviously, hunters in the know can save time by going directly to the most likely areas once they realize that the migration is, indeed, under way.

What all of this means is that the deer have several options open to them within the annual

migration cycle. Certainly, they will move out of the high country in the fall, but they may not move all at once, and they may not wind up on the lower end of their range while the hunting season is open. Then again, they may ...

It's a fair bet that any downslope movement will be slight during the opening days of any deer season in the state. The situation can change rapidly, however, and the hunter who does not recognize the signs may very well miss out on the best opportunity to harvest a buck.

To see if the migration is under way, some



An established deer trail like this will show the effects of heavy use during migration. John Higley photo.

hunters simply drive the back roads and look for well used trails with lots of tracks that are usually going downhill. Remember, though, the deer do contour a lot while moving and sometimes follow ridgetops, but the end result is a downward move. Incidentally, driving back roads and looking for deer sign is not the same as road hunting, which is not really hunting at all. Rather, finding sign is just one more step in locating a productive place to hunt.

A serious hunter who is familiar with a migration trail or two will go out of his or her way to hunt them whenever a fall storm hits. A savvy hunter will not wait until conditions improve because the movement may stop abruptly when the sun comes out. Some deer will be down but others will still be high, and while they'll move down periodically, it will take another siege of inclement weather to really get them moving again. If the weather is too nice, some deer that are already down may adjust by going back to higher elevations.

Careful observation should tell you if the deer are still moving downslope, if they are hanging around in a particular area, possibly because of acorns, or if they are already on winter range. Some years the majority of deer arrive on winter range at around the same time. So if tracks and deer sightings, or lack thereof at higher elevations, indicate that the deer are lower, that's where you should be, too.

TIMING A MIGRATION TRAIL HUNT. Timing is of critical importance if you are watching a migration corridor for moving deer.

If you are watching trails, arrive early in the morning, preferably before sunrise, so you can intercept the deer that are passing early. Sometimes there is movement during the middle of the day but generally the deer will be most active early and late. During the middle of the day, when most of the deer are resting, you may be able to find some animals if you hunt known bedding areas adjacent to trails.

Obviously, by the number of fresh tracks on them, you can tell if the trails in an area are currently being used. For example, if it rained yesterday and you discover a number of sharp, clear tracks today, you will undoubtedly see deer using the paths if you wait around long enough. Speaking of tracks, there are some hunters who go so far as to wipe out all the sign on a short section of migration trail so they can tell at a glance the next time around if a mass move has started.

As you can imagine, watching migration corridor trails can be a very effective tactic. But you've got to be flexible enough to be in position at the proper time. Being two days early, or late, won't work.



This hunter is searching for resident deer in northern California. Robert Waldron photo.

CHAPTER 5:

Where the Deer Are

BECAUSE CALIFORNIA is such a large state it is sometimes difficult for hunters, who are drawn for areas far from home, to scout for deer prior to the season. That is unfortunate, for it puts you at something of a disadvantage, unless you've hunted the zone before and feel confident in your ability to find deer there.

appropriate maps and actually visiting the area prior to opening day.

Although scouting can be work it is rarely unpleasant. Sometimes it's possible to combine pre-hunt scouting with other activities such as a late summer mountain fishing trip, or camping.

ATTITUDE ADJUSTMENT. Remember, though,

If you hunt near home you can sometimes explore new places even while the season is on and if you have to travel some distance to unfamiliar territory you can do the same thing if you allow enough time to do so. One problem is that many California deer hunters are basically "week-



that the velvet antlered bucks seen hanging around a backcountry camp, or out in the meadows during the summer, may be gone like last evening's campfire smoke as soon as their antlers harden.

True, early season bowhunters may still find some of them living the good

end warriors." They save their longer hunting vacation time for trips to out-of-state destinations, rather than spending more time at home.

Some California hunters take their scouting seriously of course, and that has got to be a benefit to them when the season opens, especially if they're drawn for a special hunt in unfamiliar country. These dedicated hunters usually start by collecting information from the regional DFG office that oversees the area they'll be hunting in, then getting the life, but as one bowhunting DFG biologist says, "Some of the mature bucks seem to have a change in attitude before the rifle season rolls around. The increased human presence just before opening day seems to alert them and it usually pushes them into fringe areas. On top of that the smart bucks become nocturnal and start moving around mostly at night. That's why they get to be more than a couple of years old."

In the summer, while their antlers are

growing, it's not unusual for several bachelor bucks to hang out together. Bowhunters often see such groups, and early season rifle hunters may catch a glimpse of several bucks keeping each other company. While there are exceptions, that situation usually changes shortly after the start of the general season. Most of the bucks that live through the opening weekend in heavily hunted areas become extremely wary. But, they are not phantoms. They still have to eat, drink, rest, and in some cases migrate, and they do make mistakes which sometimes benefit hunters.

FINDING DEER. Obviously, the first thing you have to do to become a successful buck hunter is to find some deer. In the higher reaches of the Sierra Nevada, the sagebrush and lava country in the northeast part of the state and practically any other open area, that may be as easy as getting to a vantage point and glassing for deer with binoculars or a spotting scope during the early morning or late afternoon. Be patient and scan each basin, draw, and ridge thoroughly and eventually you will find a place the deer prefer. If you suspect that a certain area holds bucks based on past experience, but don't see the animal you really want, go with your instincts and hunt the terrain methodically anyway and see what happens.

In the chaparral-covered mountains of southern California, the deer are usually scattered and hard to see from a distance because of the brushy terrain. They can be spotted across canyons and draws sometimes but one of the best ways to home in on a potential hunting spot is to look for basic deer signs such as tracks and droppings. Drive the back roads and look for tracks along the edges, glass from the overlooks at daybreak and dusk, and better yet hike the firebreaks away from the roads until you find a concentration of sign. Put the tracks together with a water source and browse plants such as chamise, and maybe some patches of live oak, and you will, as they say, "be among them."

Remember, the deer won't be everywhere at once. They have definite preference for certain spots, even if all the terrain looks basically the same to you. Sometimes finding the right feed is all it takes to find a substantial number of deer. On the high desert, for instance, bitterbrush is a favorite food plant that can be recognized from a distance in a sea of sagebrush. In another area the key might be chamise, mountain whitethorn, *Ceanothus*, a stand of acorn-producing oak trees or a dozen other things depending on the location.

SECRET SPOTS. Here's an interesting observation from a DFG biologist regarding one aspect of deer behavior that hunters are apt to encounter in the field at almost anytime.

"Bucks and does do intermingle sometimes, but chances are good that the biggest bucks will not be in a place where you find the highest concentration of does and fawns. It's always fun to see a lot of deer but it may be to

> your advantage to look for a buck in a remote place where he might go to live a more solitary existence, at the same time avoiding human predators."

Those words ring true. Before the annual breeding season (or rut) many bucks, especially big ones, like to get away from the crowd. Most likely you'll find them in what might be called a secret place, a secluded location that happens to meet their basic needs for

High protein browse like this attracts many deer to recovering burn sites. John Higley photo.





These black-tailed deer are in the oak-dotted foothills of their winter range in Tehama County. DFG photo.

food, water and cover.

"To get a buck in the northeast X zones you should hunt the ridgetops at daybreak on opening day," says one DFG biologist, "and watch for the deer to cross from sidehills with southern exposure to north facing slopes as soon as they realize what's going on. Later in the season, if you don't see a buck at daybreak or dusk, spend most of your time hunting the north facing slopes where the bucks usually seek out a cool spot to bed down and hide whether it's in the rocks, brush or timber."

TOUGH COUNTRY. There are probably more deer in northern California, from Interstate 5 west, than anywhere else in the state. However, there's also a difficult mixture of timber and brush to deal with, and the terrain is very steep. Visibility in many places is poor, which discourages some hunters and actually encourages others who have learned how to hunt it effectively.

Experienced timber/brush hunters have faith most of all in the well used trails they find, in the nipped browse plants they notice, the tracks around waterholes and the deer beds they come across. They hunt alpine areas where appropriate, timber when they have to, and the openings, such as clear cuts or burn sites when they can. They wait for the deer to come to them or go after the bucks via planned deer drives. And, by virtue of the numbers of deer, they are normally very successful.

"In this part of northern California most of the hills are steep and brushy and tough to hunt," Smith said. "The terrain hinders predatory animals and humans but there are hunters who are quite successful and they're the ones who learn an area so well that they can predict, by considering weather conditions and food sources, where the deer will be at a particular time."

HUNT THE EDGES. Deer are normally creatures of the edges. Depending on the location, they may spend part of their time in deep timber, or other areas where there isn't much to eat, but eventually they will come out to feed on brushy slopes and in other openings such as agricultural fields, clear cuts in the forests, meadows and recovering burn sites.

SPEAKING OF CLEARCUTS. Clearcuts, while not as prevalent as they once were, also provide good deer feed unless steps, such as spraying, are taken to eliminate the new brush, which sometimes happens. When the feed is present such openings in the forest draw deer like a magnet, and as a bonus they provide good visibility for hunters.

SPEAKING OF BURNS. California is famous for its wildfires, and while some such incidents are

truly tragic, many burn areas provide prime, high protein new growth deer feed within a year or two of the fire. Actually, some deer might utilize a burn site almost immediately. They'll roll in the ashes to rid themselves of parasites and feed on any useful browse remaining inside the perimeter. If there are living islands of cover within a burn some deer might stay there all of the time, otherwise they'll move in and out of the area on a daily basis.

Sometimes there's an incredible number of deer in an accessible burn area on opening day and usually there's no lack of hunters either. Typically, a burn will produce good hunting for anywhere from 2 to 10 years after the incident, or until the area becomes too overgrown to support high numbers of deer again. In addition to wildfires, which may cover thousands of acres, the DFG (sometimes in cooperation with other government agencies) conducts some prescribed burning of much smaller parcels especially for the benefit of deer. They are also good places to hunt.

Bucks and does intermingle at times but the biggest bucks may be in a more secluded location. DFG photo.



CHAPTER 6:

HUNTING STRATEGIES

DEER HUNTING IS NOT a cut and dried proposition. There are so many situations in so many different types of terrain that to say that one hunting method is always best is, well, naive. Actually, the hunting method that works best one day may be completely wrong on another. After all, most hunts offer a variety of situations, each calling for you to do something different.

Among other things, in this chapter we'll talk about stillhunting, stand hunting, spot and stalk hunting, deer drives and tracking. Even before getting into each method of hunting individually, though, lets look at some typical deer hunting situations that regularly occur in California.

When the moon is full, or when it's really hot, as it often is even during the fall in the foothills of the Golden State, the deer are sometimes hard to find even if abundant deer sign in a particular area tells you they are nearby. Most of the deer simply bed down before sunrise and don't come out until nightfall. If you want to see them you have to be out at the first hint of daylight, when a few of the deer are still feeding or moving toward their bedding areas, and at sunset when they usually start coming out again.

Remember, though, that there are exceptions to this rule of thumb. Deer are ruminants or cud-chewing mammals like cows and goats, etc. After feeding they naturally head for protected spots where they can continue to digest their food without disturbance. However, during mid-morning, they may move around a bit to reposition themselves or get a drink, and the hunter who takes his lunch with him, instead of going back to camp for a snack and a nap, may be in the right place to harvest a buck at noon. Regardless, if you fail to fill your tag, you might be wise to wait until general



hunting conditions improve and then try again.

During hot weather many of the deer will be bedded somewhere on cooler, north facing slopes, seeking relief from the heat and pesky insects. Often that means they'll be tucked away in the timber, or such places as brush patches on breezy side ridges, beneath a canopy of oaks in the bottom of a draw, or in the shade of rock outcroppings.

No matter what, almost always the bucks bed down where they have some sort of escape route available in case of trouble, including the appearance of a human predator. Ordinarily, that means broken terrain, with rocks and brush and finger ridges, that create a variety of escape routes via which they can evade and avoid trouble. When a startled buck gets up he usually disappears in a couple of jumps, either behind a screen of brush or a fold of ground, whereby he can make good his escape without being

seen—by you. Happily for the hunter, a buck's effects do not always work.

There are many different approaches to hunting deer during a typical California summer or, for that matter any other time, and the best



That shiny spot in the distance may be the glint of a buck's antlers or the shine of its nose. John Higley photo.

tactic often depends on the amount of hunting pressure there is in a particular area. That isn't to say that you can't be successful on public land. Thousands of hunters are each year. However, they have to adjust to the behavior of the deer, which react to hunting pressure more on public land than they do where they encounter fewer hunters.

Remember, too, that the hustle of opening weekend soon subsides and a public lands hunter who gets out during the middle of the season may find relatively undisturbed bucks to hunt. It is for that very reason that some hunters ignore opening day and save their serious hunting efforts for later in the season.

Although it's hard not to equate California deer hunting with warm or downright hot weather, changes usually do occur sometime during those seasons that run into late September and October. A biologist in DFG Region 1 who specializes in deer noted that if it starts to rain, after a prolonged warm spell, the best thing to do is to go hunting right away. For some reason the deer will start moving around quite a bit during the first decent rainfall and many bucks are harvested at that time by hunters who aren't afraid of getting wet. However, there can be too much of a good thing. When it's really cold and nasty the deer will often hole up on brushy, south facing slopes and remain inactive until the storm breaks, at which time you should be there, too.

Human beings like to categorize things neatly and along those lines hunters have named their tactics. Whole books have been written on the so-called art of stillhunting, for instance, or stand hunting or—you name it. To say that this approach or that is best under a particular set of circumstances may be a valid observation, but to say that it's the only way to fly is wrong. For example, the dedicated tree stand hunter, who decides to climb down and go to camp for some reason or another, may very well bump into a buck on the way if he doesn't let his or her guard down. You just never know when luck will play a part in your hunting success, but you've got to be on your toes to take advantage of it.

Here are some typical hunting techniques that everyone uses at one time or another to hunt deer.

SPOT AND STALK. Basically, spot and stalk refers to stalking deer that you've spotted from afar with binoculars, a spotting scope or your naked eye. Never use your rifle scope to spot! The spot and stalk technique works anywhere that there is good visibility including high desert areas, rolling rangeland, open foothills, canyon country, brushy slopes and other openings such as the sites of wildfires and clear cut blocks.

Restless hunters, who just can't sit still for very long, would be surprised if they knew what they were missing by not glassing patiently for game whenever possible. Remember, it's always easier to see game when you are stationary and it's always easier for deer to see or hear you when you are on the move.

If you want to see deer a long way off, position yourself as comfortably as possible and glass methodically, watching for any movement or shape that might take the form of a deer. With

binoculars, rest your elbows on your knees, or lean over a rock, a limb or against a tree trunk. In other words, do anything to remain steady while you glass. You must glass while standing at times but that doesn't work for long periods and you won't be steady. Likewise, for the best results, a spotting scope should be mounted on a tripod if at all possible, although you can steady a scope on a rock or limb temporarily and get away with it.

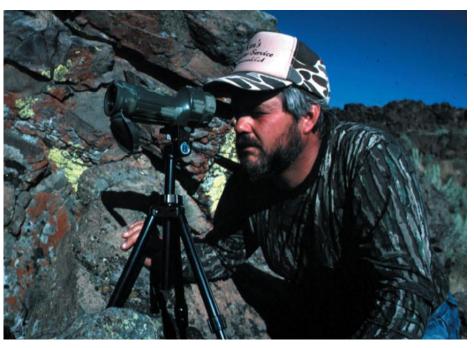
With any optical aid you'll have to rest your eyes occasionally but you'll be able to glass longer with quality optics than you will

with bottom of the line models. Shirt pocket size binoculars are popular these days, and they are useful for some situations where weight and convenience are major factors, but full size binoculars are almost a necessity for prolonged periods of glassing. There will be more on this subject in a later chapter.

Incidentally, while you may have reason to look at a buck with your rifle scope on occasion, that tool is not adequate for serious long distance spotting and it should never be used when you are unsure of the object you want to check out. Never, ever point your rifle at any object that might turn out to be another person.

The use of optics is normally associated with distance, but that's not always the case. Glassing at close range will often reveal deer in tight cover when they would be all but invisible to the naked eye. Scan a brush patch, or a stand of timber, and you'll see the difference. But look for parts of a deer as well as the whole animal, a patch of hair, an antler, an eye and so on. A biologist in DFG Region 1 notes that antler glint is possible to see from a distance when the sun is low in the sky but he also looks for the brief flash of a shiny nose.

"You may not know what you saw at first,"



A hunter in open terrain can save steps by using a spotting scope to locate distant deer. John Higley photo.

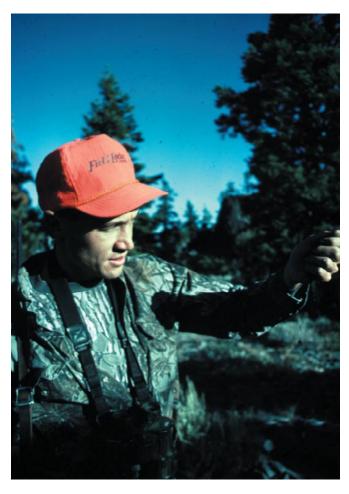
he says, "but if you really study the spot where you thought you saw a flicker of light, you'll probably discover a deer bedded there licking its nose."

Binoculars are almost a necessity while you are actually performing a stalk, as you'll want to keep track of certain landmarks or the deer itself while you close in.

A spot and stalk situation usually occurs when deer are not harassed. Bowhunters often encounter undisturbed animals, as do rifle hunters in low quota zones where the hunting pressure is light. Even in the most popular areas, though, the deer have to be somewhere and during mid-season, when things calm down, spot and stalk may be a viable option at sometime during any hunt.

Generally speaking, spot and stalk hunting

is most effective early and late in the day when the deer are most apt to be out somewhere where they can be seen from a distance. That is not set in stone, however, for there are times when deer will spend the day bedded in a spot



This hunter is using a handful of dust to check the wind direction, a critical factor in stalking deer. John Higley photo.

where an observant hunter can sometimes see them. An undisturbed mule deer in the high desert, for instance, may simply bed down in the shade of a lone juniper tree on a sidehill or in a shady patch of high sagebrush in a protected basin. Find a buck in such a situation and the chances of getting in close enough for a shot are quite good, if you plan the stalk carefully.

Before attempting a stalk on a feeding or bedded deer, mark the animal's position carefully by noting the nearest obvious landmark. Key in on the landmark, and if you do not see the deer leave the area, have faith that it is still there whether you can see it or not. While stalking, always be aware of a deer's senses of sight, smell and hearing. Always stalk against the wind or across the wind and try not to make much noise. Do not move in the open where the deer might see you. If possible keep a fold of land, or a thick brushline, or some other obstruction between you and the game until you get set up for a shot.

When it comes to making mistakes while stalking, and we all do occasionally, rifle hunters have more leeway than bowhunters, simply because they do not have to get as close to wary game. That does not mean that you can be sloppy and get away with it, however.

Bowhunters need to be much closer than rifle hunters so they resort to all sorts of tricks to close the gap, including wearing soft, nearly noiseless clothing, and even removing their boots and completing the final leg of their stalk in their socks. Make that an extra pair of heavy socks—not the ones you wear with your boots because they will inevitably attract pine needles, dirt, sticks and gravel and be miserable to clean.

STILLHUNTING. Stillhunting is a difficult form of hunting that most hunters do not practice often or with enough intensity to be really successful at it. Oddly, the term stillhunting refers to very slow stop-and-go hunting in potential deer holding areas. The basic idea is for a hunter to either spot unalarmed deer first or to get close enough to see the animals when they jump up suddenly from their beds.

It takes a patient hunter to stillhunt effectively. Done correctly, the method is slow and painstaking, calling for a hunter to thoroughly cover very little terrain for each hour of time spent. Typically, you take a few steps then pause to scrutinize your surroundings completely with naked eye and binoculars. Then you repeat the process, which is 20 percent move and 80 percent stop, all over again, always watching the wind direction and making as little noise as possible. Deer will tolerate some sounds, especially if they come from known routes of travel, but if they get a whiff of you they'll usually be gone in a flash. If a deer does not immediately identify you as a hunter it may move only a short distance and stop to try and determine what made the noise

that made it nervous.

When it's nearly impossible to take a quiet step in the woods try walking directly on game trails and you may find the going is much quieter. One savvy hunter interviewed for this book volunteered the observation that in warm weather many deer hole up in large, shady stands of mature live oaks on steep talus slopes where they utilize established trails in the rocky base. The hunter claims that he can move quietly on trails beneath the canopy, and see deer as much as 100 vards ahead, simply because nothing else is growing in the deep shade to block his view. It is cool inside the trees and the deer bed down there during the day so what he says makes sense. What's more, acorns are abundant some years and they act as an added attraction to the deer.

Another hunter mentioned that he commonly stillhunts along the edges of forested areas in the evening when the deer are coming out to feed. He does this by walking in the dry grass along the edge of an opening, which is much quieter than leaves, and watching the edge ahead and on the other side of the opening. He's killed several blacktail bucks in that manner.

Speaking of noise, it is definitely to your advantage to wear something other than new



Tracks will tell you if there are big and/or small deer in an area and if there are deer present at all. Durwood Hollis photo.

blue jeans while stillhunting. Branches scrape loudly across some fabrics but brush others with very little sound. Well aged jeans are better than stiff, new trousers but there's a wide array of hunting clothes these days that are much quieter.

The stillhunter should be aware of a deer's senses and also his own. You may not smell a deer very often before you see it (although it is sometimes possible to do so) but you'd be surprised by how many times you'll hear deer moving before you see them. Be aware of your senses, and use them to your advantage, and you'll see more game.

Many California hunters practice a combination of spot and stalk, stillhunting and ridgerunning. In other words, they hike up or down firebreaks, skid trails and otherwise open ridgetops, looking for deer on the slopes below. In some areas this is a very effective approach to deer hunting, especially if you sit and watch a saddle or hillside at daybreak then move if need be to sit and watch again. In some cases you can see off both sides of a ridge and study the slopes of some finger ridges as well. If you spot a distant buck you can usually figure out a way to get close enough to it for a shot.

As a general rule of thumb you should try to spot deer in the open at daybreak and save your stillhunting efforts for the hours when the deer are bedded down chewing their cud. That means roughly from 10 a.m. on. It pays, of course, to know something about the terrain, and how the deer use it, before you ever attempt this technique. Ask yourself where the deer bed, how you can approach with the breeze in your nose, not their's, and where the deer go when they're jumped. If you have the answers, stillhunting may pay off for you, as it does for some other California hunters each year.

STAND HUNTING. There are two basic kinds of stands commonly utilized by hunters and neither of them have lemonade signs on them. They are tree stands or ground stands (or blinds).

The description of stands includes permanent stands, which are normally used year after year by the same hunter(s) (or anyone else who finds them) and temporary stands which may be no more than a hunter's tree stump seat or a putMany bowhunters, and some riflehunters, use tree stands to hunt deer. If you do, remember to put safety first. Use a sturdy, well-designed stand and wear a safety harness to eliminate the possibility of falling. John Higley photo.

it-up and take-it-down tree stand that basically goes where you go.

Bowhunters often rely on tree stands of one kind or another because being in a tree lifts your scent off the ground and makes it harder for the deer to smell or see you. Some prime locations for tree stands include places along wellused trails leading to and from bedding and feeding areas, and overlooking approaches to sources of water. Trail intersections are also good spots, providing the trails show recent use by deer.

In some cases ground stands also work for bowhunting. Set up downwind from the trail you want to watch and you may have deer walk right past you without smelling you.

Rifle hunters rely less on tree stands than bowhunters but there are times when getting up off the ground is advantageous. In some traditional migration areas in northern California, for instance, there are tree stands that have been in use for years, especially when the first stormy weather prompts a noticeable movement of deer along well used trails.

It should go without saying, but tree stand hunters should always put their own safety first. Use a well designed stand that you are comfortable with and always, *always* use a safety belt while you are up in a tree and a haul line to bring up your rifle or bow.

Usually a rifle hunter's idea of a stand is a pile of rocks or the top of a knob with a view of a trail laced sidehill or a well used saddle below. Some of the most successful migration trail and opening day hunters simply sit and watch from a vantage point for the deer to walk by. The idea on opening day, of course, is to get into position before first light and watch for deer movement when other hunters start beating the brush at dawn. Some hunters go so far as to hike into a spot the night before opening day and wake up right where they want to be.



Hunting from a stand can be a useful technique after opening day, especially if the deer have had a chance to calm down. However, this is only for a patient hunter who is willing to spend hours looking at a sometimes brushy hillside with only quail and squirrels for company. As usual, the prime times for watching for a buck are at first light and dusk. However, if it is hot, and you are close to water, you may get a welcome surprise late in the morning.

DEER DRIVES. One useful technique that has potential at almost anytime during the season is a planned deer drive employing the services of several hunters. The idea is to push the bush, as they say in Canada, and make the deer move enough for someone to see them.

This operation usually calls for drivers and standers. Standers are placed in strategic spots overlooking known escape routes, while drivers move through the cover making the deer get up and move. The deer do not always cooperate, of course, but it is not uncommon for drivers and/ or standers to see bucks that would otherwise escape notice. It goes without saying that drives should be coordinated and directed toward a manageable block of habitat rather than an entire drainage. Hunters must be aware of each other's position and follow strict rules of safety.

Even more popular these days are minidrives involving only two or three hunters. One hunter can sneak quietly along on a ridge or slope while another moves through potential deer holding spots without concern about noise. If a buck moves, chances are good that it will go uphill where it may possibly be seen by the second hunter. A third hunter may be stationed on the opposite hillside or on the slope between the top man and the driver.

Many avid deer hunters use two man deer drives to fill their tags. This method can work well providing you are in deer rich terrain to begin with.

It isn't exactly driving deer but in some areas several hunters can work together on parallel ridges, often moving deer between them. Even when no deer are seen right off the bat, a rock tossed here or there may get them up from their beds and give you a chance. One useful tactic is to carry a predator call and blow it occasionally to make the deer get up so you can see them. In California there are hundreds of places where working parallel ridges is the most practical approach.

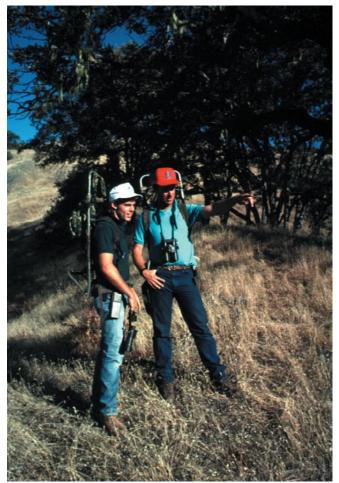
Some hunters swear by the use of deer dogs for deer drives during the general season. That's where the phrase "dogging the brush" (which now applies to human drivers) came from originally. The idea here is for the dog to jump deer and make them move so the drivers and standers can see them. Small dogs that can't catch deer are normally used for this operation, which depends on the canine's sense of smell and its urge to bark, to flush hidden deer. Dogs are not legal to use during the archery deer or archery bear seasons.

NOTE: Be sure to consult the regulations booklet regarding the use of dogs in the area you intend to hunt.

Deer drives are popular with some hunters but to conduct a drive effectively takes some planning and knowledge of a specific area. John Higley photo. TRACKING. This technique has limited application in most parts of the state. There are usually so many tracks that it is all but impossible to sort them out, or the ground is such that the deer simply do not leave tracks that a man can detect. However, there are useful aspects to looking for tracks under certain circumstances.

According to some devoted desert deer hunters, in zones such as D-12, D-17 and even X-9c tracking is the only really effective method of finding a buck. They drive back roads until they find a promising set of fresh tracks then get out of their vehicle and follow the tracks until they find the deer. Obviously the chore isn't easy but the end results are worth the labor as some of those hunters get their bucks every year.

In another situation you may spot a big track, hopefully made by a buck although there's no way to be 100 percent sure, crossing a road or some other opening and that may encourage you and your buddies to put on a drive in hopes of finding that animal.





A buck like this will usually choose a bed that offers comfort and quick escape from predators-including hunters. Steve Guill photo.

Mostly, though, tracking is limited to locating a bunch of tracks somewhere and trying to determine if they were made recently or a month ago. Tracks do tell you if there are big and small deer in an area or if there are deer there at all. The method is sometimes useful while trailing wounded game and that's a subject that will be looked at later.

USING THE ROADS. Considering the abundance of secondary roads and skid trails crisscrossing many popular deer hunting areas, it's little wonder that some hunters do more driving than hiking while deer hunting.

Obviously you need transportation to get to wherever you plan to hunt but actually hunting

from a vehicle is illegal. When you get right down to it, road hunting isn't very effective anyway and it conveys an image to the general public that can be very damaging to the sport.

In part, the regulations state that no person shall pursue, drive, herd or take any bird or mammal from any type of motor-driven air or land vehicles, etc.

For now, remember that deer hunting in California is not a cut and dried affair. Go afield prepared to change tactics according to the weather and the habitat involved. Regardless, it's almost always best to be sitting and waiting somewhere at daybreak and dusk and to try other things during the heat of the day.

BASIC EQUIPMENT

WHILE THE ACT of hunting deer is not necessarily a complicated matter it is an undertaking that takes some thought, preparation and basic equipment. As the years pass experienced hunters usually gather the necessities, as they see them, many of which become as familiar as old friends. A favorite deer rifle just feels right in the field, as does a dependable pair of binoculars or a knife that has been used numerous times for field dressing and skinning chores.

There are many other things, of course, but the point is that different hunters choose many of the same kinds of tools for the various jobs associated with deer hunting. With that in mind, here are a few thoughts on basic equipment to get you started.

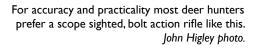
DEER RIFLES. There is a dizzying array of rifle makes, types and calibers to choose from, and many of them meet the official DFG requirements for the hunting of deer—namely that they use centerfire cartridges with soft nose or expanding bullets. Among the various types of rifles that meet the criteria are the bolt action, semi-auto, eral hunting rifles available. Some popular calibers for deer, but certainly not all, include the flat shooting .243, .257, .264 Winchester magnum, .270, .308, 7mm Remington magnum and .30-06. There are hunters who still prefer to hunt

indisputably the most dependable and accurate gen-

with rifles like the .30-30 carbine and a variety of other calibers which are not really suited to long range shooting. That's okay for some hunters, who habitually hunt in terrain where visibility is limited, but a rifle that performs equally well at longer ranges is usually a better choice for the majority. Here's why. At 300 yards a typical 130 grain bullet fired from a .270 drops roughly 9 inches while a 150 grain bullet from a .30-30 falls more than two feet, yet the .270, or another similar caliber, will also be right on target close-up. There are obviously many factors to take into consideration before purchasing a deer rifle and you can sort them out by talking with experienced deer hunters and knowledgeable gun dealers or by reading up on the various

pump action and lever action carbines. Because of the type of terrain most California hunters face, with the real pos-

California hunters face, with the real possibility of a variety of shooting situations any day of the week, most hunters rely on scope-sighted, bolt action rifles, which are







attributes of different calibers.

Bear in mind, though, that the effectiveness of whatever rifle you choose is tied directly to your ability as a hunter to use it. Part of the equation that adds up to success lays in your confidence in your rifle and your performance with it.

Certainly the subject of which bullets to use goes along with any discussion of rifles for deer hunting. A volume could be written on the various choices and opinions as to what's best—but, really, you don't have to be a ballistics expert to make a good choice. Factory made ammunition, available anywhere that bullets can be sold, is entirely adequate for deer hunting anywhere. Simply read the label to see which type of bullets, and weights, the manufacturer recommends for your rifle.

OPTICS. Although a few hunters still prefer to shoot with open sights, for most deer hunting a rifle scope makes very good sense. As with other things, there are many scopes to choose from, depending on your personal preference, and the price you can afford. Regardless, a hunting scope must stand up to poor weather and some normal wear and tear in the field. Some hunters prefer variable scopes such as a 1.5x-6x, 2x-7x or 3x-9x which gives them the choice of different magnification for different situations but many others rely on fixed power scopes such as a 4x, which is about ideal as a middle of the road selection.

No deer hunter should be without a pair of binoculars. Not only is it important to be able to spot deer at a considerable distance, but it is equally

Here are just some of the many types of binoculars used by deer hunters. John Higley photo.

valuable to be able to study the terrain a few yards away when you suspect there might be deer there. Look at a brushy spot, or into shadows in the timber with your naked eye, then study the same spot with your binoculars and you'll be amazed by the additional detail you see.

Again, there are major differences in binoculars. Some miniature types are handy because they're light and they can be tucked away in a shirt pocket

when not in use, but a full size pair will generally gather more light (a function of the size of the objective lens) and be easier on the eyes while glassing for long periods. For daily duty most hunters carry binoculars in the 7x35 to 8x40 class.

Binoculars come in two basic configurations, depending on whether they're the roof prism or porro prism type. Regardless of which type you choose, opt for quality whenever possible. You want binoculars that are comfortable to hold and carry, but more importantly they must be easy on the eyes (meaning coated, high quality lenses) and able to withstand rough handling in the field as well as weather variables. Many hunters like rubber coated binoculars because they don't clank when they contact hard surfaces and they are protected from dings somewhat by the covering.

Last, but not least, there are times when a spotting scope will easily earn its weight in venison. If you plan to hunt in open terrain, such as high desert mule deer country, where long distance glassing is not only possible but a necessity, by all means tote a spotting scope along. Again, there are several types on the market and it's up to you to decide which one is best for you. Generally speaking, a scope that magnifies distant objects 20 times is all you'll need, however some hunters like variable power spotting scopes which magnify from, say, 20x to 45x. Whether or not the higher magnification will be useful depends largely on the prevailing temperature and the presence of heat waves which will blur the picture on any but the coolest days.

CHOOSING A BOW. Without a doubt most bowhunters in California hunt deer with compound bows. The advantages of this type of modern bow, over recurve bows and traditional longbows, are many. They include greater arrow speed (meaning flatter trajectory and better accuracy) and a marked let-off in draw weight at full draw due to a cam and cable system. Of course, there are a few hunters who prefer the less complicated and lighter recurves and longbows, and who would rather hunt with an implement that adds even more challenges to their pursuit of deer.

Regardless of the bow chosen it must meet regulations for deer hunting. All bows used for big game in California have to be able to cast a legal hunting arrow horizontally at least 130 yards. Broadheads must be greater than 7/8" in diameter.

CHOOSING A MUZZLELOADER. Some hunters put in for tags that will allow them to hunt deer during certain limited seasons with muzzleloading rifles. These firearms are gaining in popularity as more short range muzzleloading firearms hunts are set aside in California and elsewhere.

Like bowhunting, there is a lot more to blackpowder hunting than readily meets the eye. However, choosing the right rifle, if you do not have a muzzleloader already, is not difficult. Just remember the regulations, as set by the Fish and Game Commission, call for a rifle of at least .40 caliber that uses blackpowder or Pyrodex with a single ball which is possible during the general seasons. To be legal for deer in California your handgun must fire centerfire cartridges with softnose or expanding bullets. That description is almost too lenient, as some hunters try to hunt with marginal pistols or revolvers. Most serious handgunners prefer calibers of .357, .41 or .44 magnum for deer hunting. Quite often, serious handgunners equip their guns with low power scope sights (made especially for handguns), giving them a more defined sight picture.

Regardless, handgunners owe it to themselves, and to the game, to become proficient with their firearms. That means practice, practice, practice.

BLADES AND SAWS FOR DEER HUNTERS. While it's obvious that a good knife is absolutely necessary for field dressing any kind of game, there are many thoughts as to what constitutes the best knife for different jobs. While there are about as many knife designs available as there are deer tags for certain hunts, bear in mind that in a pinch experienced deer hunters can easily field dress, and even skin a deer, with nothing more than a pocketknife.

Most experienced deer hunters swear by folding or straight belt knives with blades of 3 to 4 inches. Longer knives are used by some, and they have a place for heavy chores, but they are not necessary for processing any deer. No matter what knife you choose be sure to take some sort of sharpener with you in case the blade needs touching up while you work on your deer.

or conical bullet loaded from the muzzle and which is equipped with iron sights. It matters only to you whether the rifle is a flintlock or percussion type. However, percussion rifles are by far the most popular and convenient for big game hunting.

HANDGUNS. Some hunters prefer to hunt their big game with handguns,

Deer hunters have a wide variety of calibers and bullets to choose from. Pictured here are the 7mm. Rem. Mag., .270, .30-06, 25-06 and 30-30. Other popular rounds include the .243, .257 Roberts and .308. *Robert Waldron photo*.



There are several types of saws that a deer hunter might use while working on game in camp or in the field. A saw, such as the popular Wyoming saw, or a similar small saw of a different design, is almost a necessity for backpacking if you want to remove your deer in its lightest form. While you can bone the animal with a knife, you'll need a saw to remove the antlers from the skull unless you want to tote the head out whole. The same saw can be used in camp, or at home, but a full sized butcher's bone saw is a better choice when you don't have to physically carry it around with you.

DAY PACKS, FANNY PACKS AND PACK



A good knife is a necessity for any deer hunter and there are many varieties to choose from. *Robert Waldron photo.*

FRAMES. Although many deer hunters see no use for packs, preferring instead to carry whatever items they need for a day afield in their shirt or jacket pockets, there are others who opt for day packs or fanny packs, which ride on your waist, for a variety of reasons. For one thing, they then have a handy place to stuff whatever items they see a need for on a hunt of short or day long duration, without having them get in the way. There are many types of day and fanny packs but the main thing to remember is that you will be carrying some significant weight in either, and most cheaply made packs will not hold up for long against the strain. Buy a heavy duty day or belt pack and you'll get many seasons of hard use from it.

Pack frames are an important consideration for hunters who get off the beaten track and hunt a long way from the nearest passable road. For one thing you may have to tote your camp with you and for another you may have to cut up a deer and carry it out. As with day packs, do not expect a bargain basement frame to perform very long under heavy loads. Get a good one to start with and it will last for years.

CLOTHING. California deer hunters have a unique set of circumstances to work with. For one thing it's often warm during the season and even when the weather is terrible (but good for hunting) it's usually not unduly cold or snowy. Most rifle hunters get along fine with blue jeans by wearing long underwear underneath if it's cold.

Bowhunters, on the other hand, should consider wearing less abrasive clothing that won't make much noise while brushing against undergrowth on a ticklish stalk. Regardless of what garments you choose, bear in mind that the layered look is definitely in for anyone who intends to move about while hunting. You want to be able to adjust for the warmth after the chill of morning and stay reasonably comfortable when the sun goes down. A vest, jacket and long sleeved shirt are a much better choice than a suit of coveralls, for instance.

Gloves are another necessity and even a light pair of rag wool gloves will add to your comfort during cold weather. Of course, there are many types of gloves, some of which are suitable for extremely harsh conditions, while others are best when the weather is mild.

You'll need a hat, too, and depending on where and when you hunt you can get by with a simple baseball cap, which keeps the sun out of your eyes if nothing else, or any one of several other types of hats that are commonly used in the West. One important reason for wearing a hat is that it helps keep you warm by holding in the body heat normally lost from a bare head.

There currently is no hunter orange requirement for rifle hunters in California, but wearing a vest or hat of this bright color is helpful for two reasons. First, there is an added degree of safety when you can be identified clearly as a human and second the spot of color allows your companions to keep track of you more easily, and you to see them. If you happen to get lost hunter orange will certainly help someone find you quicker than camouflage, and that is an important consideration.

FOOTWEAR. Footwear is crucial, of course. Here again, the choices are many with some hunters preferring ankle high, lightweight hikers, and others opting for calf high leather boots of one design or another. If you can, break in your boots thoroughly before you hunt with them and don't think that just because a new pair fits like a glove on flat ground that they'll meet your expectations in rough terrain. There's nothing like a steep slope to start blisters on your feet or make even your toes hurt like mad.

Questions to ask yourself include, what type of sole design is best for your needs? Most hunters go for lug soles and well defined heels because of steep terrain which may be made of slippery decomposed granite or covered with obstacles such as rocks or blown down trees and limbs. Smooth soles will often turn a bed of leaves or pine needles into a dry land ski run when you least expect it.

Whether or not you'll want high top insulated boots, or comparatively lightweight hikers, may depend on the kind of hunting you do most. Bowhunters, for instance, are usually out during warm weather where foot warmth is not critical.

Socks are an important part of your footwear and there are many brands and types to choose from. Generally speaking, you'll want to wear two pairs of socks to keep your boots from rubbing. Sock choice depends on the situation you're in at the moment and the way your boots fit to begin with, but many hunters wear a polypropylene inner sock, which wicks moisture away from the foot, and a wool outer sock for warmth and bulk.

CAMPING GEAR. Obviously some thought has to go into setting up a deer camp, if only for a weekend near home. The gear you need for a particular outing depends on how and where you're going to camp. For instance, if you plan to stay in a tent you'll need different gear than a person with a truck camper or travel trailer, even if you are all



You can carry enough items in a daypack to keep hunting all day long. Robert Waldron photo.

in the same established campground. And a person who camps out in a more remote, but unimproved location, has still other considerations. A backpacker, or back country camper with pack stock, has still other needs.

Plan according to your needs but always be prepared for a range of different conditions, even if the weather is favorable at the moment. A go-light backpack hunter, with no way to keep himself or his gear dry during an afternoon thunder shower, is not going to be thrilled with the experience and the same goes for staying passably warm on a chilly morning. Wind, rain, cold, heat and occasionally snow (not likely but certainly possible in the Sierra Nevada and higher parts of the northern mountains), all have an undesirable affect if you are not prepared for them.

CARRY ALONG GEAR. Any hunter who covers a lot of ground during a day's hunt will want to

have some necessary goodies in his or her pack to make things go easier and for the sake of safety. You should always have certain items on hand, such as at least a quart of water (especially important during hot weather to ward off dehydration), a small flashlight with fresh batteries plus extra batteries and bulb (in case darkness closes in before you get back to camp) and snacks (to hold you over in between meals).

If you aren't familiar with the area you're hunting, a map and compass are good to have, providing you know how to use them together. Take a length of nylon rope, which may come in handy, and toilet paper. A space blanket can be used as a temporary shelter if, perchance, you get stuck somewhere and have to stay out all night. For cold, inclement weather, you need some way to start a fire such as waterproof matches and a candle. Another item that may be useful is a small first aid kit complete with any medication you need and aspirin. In some places you should take a snakebite kit along, as well. Oh, and toss in a short length of string and a pen/pencil so you can fill out and attach your deer tag.

That may sound like a lot of stuff for a brief hunt but you can obviously subtract any items you don't think you need. You can also add things as you see fit. For instance, it pays to tote along a game bag or two if there's a chance that you'll have to leave a deer carcass behind while you go for help, and it wouldn't hurt to have an extra knife on some occasions or a roll of bright surveyor's tape to mark your way back to the deer. When the smell of rain is in the air a lightweight rain jacket or poncho is also welcome.

NECESSITIES FOR BACKPACKING. In addition to many of the items mentioned above a backpack hunter needs to consider some more stuff. Weight is definitely a major factor here, so the question is whether or not to carry some sort of tent shelter along. If the weather reports are favorable, and you believe them, you can simply spread out a ground cover (to protect your sleeping bag from gravel, pine pitch and the like) and sleep on the ground.

However, if you're not the trusting type when it comes to weather predictions, and if you don't especially like being miserable in an unexpected rainstorm, take a lightweight tent with a rainfly (about 4 or 5 pounds) or a weatherproof bivy sack (about 2 pounds). If the rain clouds gather you'll be glad you have something more than a fir tree over your head.

Of course, you'll want a lightweight, but warm sleeping bag and, possibly, a single-burner stove for cooking freeze dried foods. You can get by with a single pot to cook with on a short outing and a cup and a set of eating utensils will round out the kitchen. Some backcountry hunters nowadays take water purification tablets or a filter along to purify the water they use for drinking while others simply rely on boiling it before use.

You will probably need a jacket, heavy sweater or down vest to keep you warm enough in the morning to hunt effectively, especially if you're above 5,000 feet elevation in September. Above all, remember that you're hunting for a reason and you may have to tote a deer off the mountain with you in addition to whatever you have in the way of gear. That is not an impossible chore if you are prepared to skin and bone out your buck on the spot (to reduce its weight as much as possible) and if you don't overload yourself in the first place. Just the same you should be prepared to make two trips out with your venison and camping gear depending on your location and your physical condition.

While we're at it, here's something to mull over. Many hunters prefer to go light, and that's all right for some circumstances, however stuff happens sometimes and a short hunt may turn into a night long ordeal when you least expect it for reasons you can't predict. Being prepared is the best policy whenever you head off into a vast chunk of real estate, especially if it's roadless, rugged public land.

CHAPTER 8:

Making the Shot

WITH A MODERN high-powered rifle suitable for deer hunting it is possible to shoot effectively at a deer hundreds of yards away, depending, of course, on the situation at hand. The bullets from some popular deer rifles, sighted-in to strike a couple inches high at 100 yards, will only be a few inches low after flying the length of three football fields. In many cases, however, any deer you see will be a lot closer. The range of a shot is often dictated by the terrain which may be wide open, timbered or smothered with brush.

Situations vary, to be sure, but there are some points to ponder even before you spot a legal deer somewhere and envision your tag on it. Here are a few of them:

CAN YOU GET ANY CLOSER? Bowhunters, of course, usually try to get within 40 yards of an unsuspecting deer, no matter what kind of terrain. While longer shots are made occasionally, some of the best archers simply won't shoot at a deer more than 30 yards away.

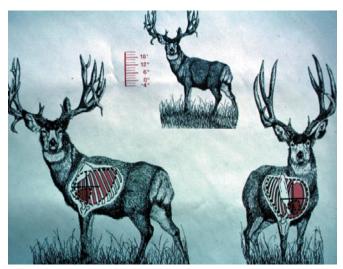
If your shot placement is perfect you'll hit the deer in the lungs and while it might run away, it won't usually go more than 100 yards. If the bullet is high it may hit the spine, and a bullet that strikes low will probably hit the heart. If the bullet breaks a front shoulder and penetrates the chest, you'll still get your deer but will lose some meat. If the deer hunches up then walks or bounds away it was probably hit in the paunch. The best bet is to shoot again if you can. Otherwise you may have some real work to do to find the animal. In any event, a deer hit in the spine will drop on the spot, though it might require a finishing shot, and a deer shot in the heart may run frantically for 50 to 100 yards. Some hunters deliberately aim for the neck but the target area is small and a bullet that merely passes through flesh without hitting the neck bone may not put the deer down. One long-time California archer tells of seeing a deer with a neck wound simply walk away without

Many rifle hunters also refrain from taking extraordinarily long shots if they see any way to get closer to a distant deer. If they feel the deer is simply too far away for decent shot placement, they pass for the time being and look for another opportunity. More power to them.

AIMING FOR A KILL. Under general hunting circumstances, the best way to kill a deer is to aim for the front third of its body, specifically the area just behind the front shoulder, roughly halfway between the spine and the brisket. That way your bullet can be a bit high or low and still land in the vitals.



In a perfect world every shot would be made at a deer standing broadside in the open. In actual hunting circumstances a deer may be partially shielded by cover and angling toward or away from the hunter. DFG photo.



To ensure a quick, humane kill, a hunter must place his or her shot in a deer's vital organs which lay in the front third of its body.

showing obvious signs of a hit. Ideally, a deer you want to shoot will present a standing broadside target less than 200 yards away. Realistically, though, there are many variables which work against such a picture-perfect situation. Under normal circumstances the animal may, indeed, be broadside, but there's a very good chance that it will be quartering toward or away from you, facing directly away, or looking right at you.

It may also be partially shielded by protective cover of some sort. The question that should always be asked under these circumstances is whether or not you should shoot at all. The answer depends on your ability to put your bullet in whatever vital spot is exposed, and that depends on your composure and familiarity with your rifle. In other words, you should shoot your rifle enough to know that it is accurate before each season begins. Otherwise you won't know if it's you or the rifle if you miss a deer, and that bit of doubt will gnaw at you constantly while you're hunting.

AIMING STRAIGHT. While it may be necessary to shoot offhand at a deer in some situations, most veteran hunters know the value of using a rest of some sort whenever possible. To put it mildly, the human body is not a stable shooting platform, and a standing hunter who tries to hit a deer a couple hundred yards away will learn that in a hurry. For that reason when you see a deer that you want to shoot, it is far better to rest your rifle against a tree trunk, across a branch or a rock, or on some other solid object. Cushion the front end with your hand, hat, day pack, or whatever, and it will shoot almost as accurately as it does from a bench rest. Some hunters carry a built-in rest with them in the form of folding shooting sticks that attach to their rifles.

If you don't have shooting sticks and can't find a natural rest, quickly assume a sitting, prone, or kneeling position to steady yourself to some degree. Most hunters feel at least a twinge of excitement in the presence of a legal buck and a rest also helps to overcome or moderate nervousness. Remember, too, that no one is twisting your arm to make you shoot. A chancy shot is usually not worth the gamble.

Of course, there is the question of



A wise hunter recognizes the importance of using a rest whenever possible to make a shot. *Robert Waldron photo.*



The next best thing to using a rest is to shoot from a prone or sitting position. John Higley photo.



Even if you think a deer is dead, approach it carefully and make sure before you put your rifle down. John Higley photo.

shooting at a deer on the run. Should you or shouldn't you? That depends on a variety of circumstances including your shooting ability, the range involved, and the amount of cover between you and the deer. Always be sure of your target and beyond, a very difficult task when shooting at a running deer. Some innovative hunters solve the movement problem occasionally by blowing on a deer call, which will often stop either a buck or doe in its tracks. There are several so-called deer calls on the market but the one you need is the type that duplicates the bleat of a fawn in distress. It's worth a try.

WATCH AND LISTEN. After the shot a deer may simply vanish, as if hit by lightning, or it may react by running away. In the former case, the animal was probably knocked off its feet even before you recovered from the rifle's recoil and refocused your eyes on its position. Before you celebrate, mentally mark the spot where you last saw the deer, especially if it was some distance away. Look for a particular tree, a pile of rocks or another landmark that you can keep your eye on while you close in. That way, finding the deer usually won't be difficult even if it was 300 yards distant.

Before you move, though, watch the spot for a few minutes just in case the deer gets up again. Never assume the animal is dead until you're standing over the carcass. When a deer bolts instantly and you know it's hit, it may very well be making a death run. If you can see the animal, watch it until it falls and then mark that spot so you can get to it quickly. If it runs out of sight, listen for any unusual noise and you may hear the deer crash blindly through the brush or blowdowns, a sign that it's mortally wounded. You might even hear it drop.

CONFIRM YOUR SHOT. A hunter owes it to himself and the deer to follow up every shot, including the questionable ones that you might write off too quickly as misses. Again, note the spot where the deer was standing, walking or running when you fired, then go to that spot and double-check. Ask yourself, is there any blood, hair or other evidence of a hit? Can you see where the bullet struck the ground or plowed into something else such as a rock or a branch? Only when you are satisfied that you missed clean, should you continue hunting.

TRACKING A WOUNDED DEER.

Unfortunately, not all shots kill instantly. At some time during your hunting career you may wound a deer that escapes momentarily only to die later. That sort of thing will haunt any thoughtful hunter. On the other hand, if you make every effort to recover the animal you may succeed in doing so. If you don't find the deer, at least you know you made an honest effort and looking in the mirror later won't be as difficult. First, go to where the deer was when you shot and look for anything that will indicate where the animal was hit. If you find frothy blood, it may be a lung shot and the deer won't be far away. Bright red blood indicates a muscle wound, which may or may not be superficial, and stomach material means the deer was hit in the paunch. In the case of the latter example, it may be best to wait awhile and let the deer bed down before going after it. Otherwise some rifle hunters believe it's a good idea to go after a wounded deer quickly before the effects of your shot wear off.

Bowhunters, of course, face a different situation and many of them prefer to leave an animal alone for up to an hour before going after it, even if they think the deer is hit in a vital spot. An arrow does not shock like a bullet, but it does continue to cause hemorrhaging as long as it remains in place.

If you find even a small amount of blood where the deer was standing when you shot, by all means make every effort to follow it to the animal. Get down on hands and knees, if necessary, and look for drops or splashes of blood on the ground, leaves, weeds and brush. Be sure to mark each spot of blood with surveyor's tape, toilet paper, or something else as you go so you can retrace the path and start again, should you lose the trail accidentally.

Remember, not all wounds cause

extensive bleeding but some are fatal anyway. When all else fails, make loops around the path you think the deer took so you can cover more ground thoroughly, and always be alert for a wounded animal that is ready to try to escape again. Use your binoculars from a vantage point in open terrain and you may spot the deer lying dead in the timber or brush.

APPROACHING YOUR DEER. Okay, the deer is definitely down. Now what? Obviously, you've got to move in and start working on the animal. First, however, you've got to make sure that it is dead. If possible, approach the deer from behind or the side, and either toss a small pebble at it or touch it with your rifle barrel to see if there's any reaction. Some hunters touch its eye with a stick or their rifle barrel just to make sure, but don't lean over and use your hand because that puts you in a vulnerable position should the deer only be stunned.

If the animal's eyes are closed or if they blink, be aware because the deer is still alive. You may have to shoot it again to finish it, so be alert and ready to do so. Aim for the heart, lungs, or neck. Remember, though, a neck shot is only a good idea if you have no other choice and if you do not plan to have the deer mounted. Some hunters have been known to try to bleed a still-living deer by cutting its neck. That's an extremely dangerous and foolish thing to do—and it's unnecessary. There



will be more on the subject of cutting the neck in the fielddressing section in chapter nine.

A buck running away offers only a poor shot at best. John Higley photo.

CHAPTER 9:

After the Shot

CONGRATULATIONS, you've made a good shot and the deer is dead. Now, as the saying goes, the work begins. First, however, unload your gun, set it aside in a safe place, *fill out your tag properly and put it on the animal* (remember, also, to return the report card portion of your tag to the DFG if you kill a deer). All right, you're ready to start the chores at hand. Bear in mind that different hunters often approach similar things in different ways. But no matter how you perform the following tasks, the idea is to field dress your deer, get it back to camp or home, and render the carcass into edible meat.

If nothing else, a hunter should take pride in the care of a deer by keeping the meat as clean and fresh as possible in the field. Your good care of the meat will impress the most jaded butcher and it will be reflected in the finished product that eventually reaches your table. Okay, let's roll up our sleeves and get busy with the following subjects.

FIELD DRESSING. The concept here is simple—remove the deer's entrails so the carcass can cool and the meat won't spoil. Basically this means making a cut from the pelvic area to the sternum (breastbone) and removing everything inside. Some hunters start by cutting a deer's neck to bleed it but this step is

> The first thing to do after you harvest a deer is to fill out your tag correctly and attach it to the animal. John Higley photo.

unnecessary. When shot, most deer bleed internally and the blood comes out during the gutting process. Cutting the neck also leaves a scar that will be visible if you plan to have the deer mounted. The actual field-dressing process only takes a few minutes once you know the routine. Here's one way to go about it.

1. Position the deer on its back with its head pointed uphill if there's at least a slight slope. (On



really steep ground you may want to tie the animal in place with a short length of rope).

2. With a buck, start by cutting the penis and scrotum away from the body to where the penis emerges from the pelvis (some hunters simply cut the organ off at this point—others leave it attached until later in the field-dressing process).

3. Next, using a sharp, thin knife blade, make a cut around the anus about three inches deep, following the pelvic channel carefully with the blade, and taking care not to puncture the bladder.

NOTE: If you do puncture the bladder, don't panic. Most of the liquid (urine) will be flushed out with the blood and you can clean the entire carcass thoroughly when you get the meat to camp or home, if you live close-by. Incidentally, this step is made easier if you have a friend pull the hind legs forward to lift the rear end slightly off the ground. If you're alone, you can still perform the task but it will be a bit more awkward.

4. Now make a short, shallow cut through the abdominal wall just above the pelvis, being careful not to slice into the intestines. Insert the index and middle fingers of your free hand into the opening and use them to lift the skin and depress the intestines as you make a cut to the breastbone. It is important not to cut the hide any farther if you intend to have the head mounted (see the section on taxidermy tips that follows).



If possible, position a deer with its head pointed slightly uphill, as this hunter has done, to make field dressing easier.



Start field dressing a buck by cutting the sex organs away from the body.



After cutting around the anus make a shallow cut through the abdominal wall. Then, using the index and second fingers of your right (or left) hand, lift the skin and depress the intestines as you make a cut to the breastbone.

5. Next, note the thin wall of muscle, called the diaphragm, that separates the intestines from the heart and lungs. Cut it free from the rib cage and reach far enough into the cavity to grasp the windpipe and esophagus with your free hand. Being very careful with your knife, lest you cut yourself, reach in and sever them.



Next reach in and cut away the thin wall of muscle that restrains the intestines—but be careful lest you cut yourself in the process.

6. Now you're ready to pull the intestines out and onto the ground behind the deer, or you can lay the deer on its side and roll the innards out that way. If you've reamed the pelvic area properly, the anus, bladder, and bowel should come loose, too.



After the intestines are out, and if they are undamaged, cut away the heart (shown here) and liver, and set them aside.

7. If you want to save them, remove the heart and liver from the viscera mass and lay them aside on a clean rock or bush (later you can carry them out in a plastic bag but take them out of the bag in camp to let them cool). Then lift the deer by the front end and let the remaining blood pour out the back. Field dressing is now complete.

GETTING YOUR DEER TO CAMP. Some hunters will do practically anything to get an animal out



Next, pull the intestines out and onto the ground behind the deer, or roll the animal on its side and roll the innards out. Photos by John Higley



This hunter has boned out his deer, and is packing only the meat and antlers back to camp with a sturdy pack frame. *John Higley photo.*

whole and that usually means dragging the deer over hill and dale, sometimes for hours on end. There's nothing wrong with that approach but the magazine photographs you see of a stout hunter dragging a deer along by one antler are just a wee bit deceptive. Don't try that on steep or rocky ground! If you must drag a deer, get a buddy to share the load. Make the job easier for both of you by using a simple two-man deer drag to lessen the pain. There are several types of drag cables with hand grips on the market and they do help with the chore.

NOTE: If you plan to drag your deer, to move it to a road or camp, you can ward off some of the dirt that would otherwise get inside the body cavity. Simply take a couple of stitches in the open belly skin and tie it together with pieces of string or rope.

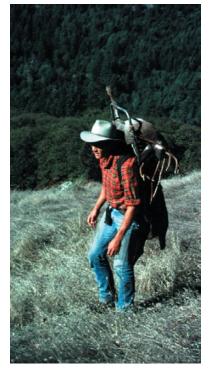
Of course, there are other ways to get your deer from point A to point B. Sometimes a stout hunter can carry a deer out on his back, either draped across his shoulders or tied to a pack frame. Anytime you put a deer, or part of one on your back, for safety's sake be sure to cover a portion of the animal with a hunter orange garment.

Despite the attitude of some hunters, deer do not have to be removed whole, and there are times when they simply can't be moved very far in one piece. If the deer is in a really bad spot, one alternative to dragging is simply to cut it in half to lessen the load. With your knife cut around the carcass between the third and fourth ribs (counting from the rear forward), and sever the spine where the vertebrae join. Then you can make a pack out of the hindquarters by cutting handholds between the tendons and bone.

Either tote one-half out at a time or leapfrog the load, moving one half a hundred yards or so and going back for the other. You will not stay clean doing this, incidentally, but that's not the main consideration here. Most of the meat will still be protected by the hide, and whatever dirt accumulates can be washed off and trimmed away later.

As was mentioned in chapter seven, there are

Some small deer can be packed out whole. John Higley photo.



times when a backpacking deer hunter should know how to process his deer on the spot in order to pack it out. Depending on the size of the deer, you may choose to simply quarter the animal and pack out the pieces that way, or you can skin and bone it out completely, reducing your load significantly. Completely boned, a buck that weighed 140 pounds alive will produce around 60 pounds of boned meat. You add to your load with the weight of the cape and head. Another option is to skin the head and saw the skull plate off, leaving the antlers intact.

The idea, of course, is to save the usable



These hunters are using a deer drag to move their buck back to camp. Durwood Hollis photo.

meat, the antlers, and perhaps the cape while discarding the skeleton, skull, bloodshot meat, and unwanted portion of the hide.

If you think you might be in a situation that calls for processing a deer where it lays, it is a good idea to carry along a breathable cloth game bag or two, some small diameter nylon rope, a couple of plastic garbage bags or a small tarp, and a small game saw. As you bone the meat, place the chunks in a bag to protect them from flies, keep them clean, and let them cool off. Once cool, you can wrap the meat in a tarp and lash it directly to your pack frame or place it in a plastic garbage bag and haul it out in your pack bag. To minimize the risk of spoiling, remove the meat from the plastic bag as soon as you reach your vehicle or camp.

IN CAMP. When you get the deer to camp, hang the carcass either by the head or by the Achilles tendons in the rear legs. You can use a stout stick or a gambrel for this. If the head is not to be mounted, slit the sternum with a knife (some hunters use a small meat saw for this but it's easy to cut through the cartilage beside the sternum where the ribs connect) and continue your cut up the neck to the throat. Remove the rest of the windpipe and prop the ribs open to hasten cooling. Then split the pelvic bone with a small saw or hatchet and make sure the channel is clean. Remember there is no specific order that you must follow to perform these acts. You can develop your own routine.

Some hunters like to skin their deer as soon as it's hanging. Others prefer to leave the skin on as long as the deer is in camp. Generally, though, it's a good idea to skin your deer promptly if the weather is warm because that will allow the meat to cool quicker. When it's cold, leaving the hide on won't make that much difference and it's actually better if you intend to age the meat (see chapter ten). In any event, the skinning process isn't that difficult and it's easiest when the deer is warm (also see "Pesky Critters" in this chapter).

If the deer is hanging head up, start from the neck and work down. If it is hanging nose down, start by skinning the hindquarters and work forward from there. Incidentally, your job will be easier if you skin the rear legs enough to expose the



This hunter is skinning his buck in camp. Durwood Hollis photo.

Achilles tendons before you hang the carcass. That's also a good time to remove the lower legs below the hocks, which leaves the tendons intact. You'll want to remove the front legs at the knees, as well. No matter which direction you go, from front-toback or back-to-front, the skinning process is much the same. For this illustration we'll start with the hindquarters.

Assuming you've already cut the lower hind legs off, slit the skin down the inside of each hind leg to the open belly. Then slice the skin down the back of the front legs and angle the cut to meet the incision you made for field dressing. Skin out the hams, severing the tail bone, and begin skinning the back. Now grasp the skin with one hand, and pull and push it down the back and sides with your fist. Use your knife whenever the going gets tough.

Keep skinning until you reach the upper neck and then cut the muscle all around the neck at the base of the head, cutting as deep as your knife will go. Then have a friend hold the carcass in position while you twist the head until it breaks loose from the body.

Once you have the deer completely skinned, cut away any bloodshot meat and damaged tissue around the bullet wound, and wipe down the body



An important part of the meat preparation process involves cutting away as much bloodshot tissue as possible. John Higley photo.

cavity with a damp rag if it's not yet clean. If there is a lot of dirt, hair, or spilled bladder or stomach contents, it's a good idea to wash the whole carcass off with a hose if you have one handy. If not, at least wipe the carcass down with a wet rag and clean the meat as much as possible that way. Water, even lots of it, won't hurt anything as long as the meat is then allowed to dry before it's transported or hung in a cooler.

KEEPING YOUR DEER IN CAMP. In cold weather, keeping your deer in camp is not a problem. Simply hang it on a "meat pole" in a shady spot and it will keep for days without spoiling. However, if the nights are cool and the days warm hang the deer only at night and put it in a cool place during the day. Wrap it in a tarp and cover it with your sleeping bag to keep the temperature down. If it's warm all night, quarter the animal and put the meat into a large cooler or better yet, take it home or to a meat locker right away.

NOTE: In warm weather, any deer carcass hanging, with or without skin, should be protected with a fly-proof game bag of some sort. Quality storebought game bags are perfect but some cheap, lightweight cheesecloth bags tend to rip and tear easily. Just make sure that air can circulate through the bag used on your deer—that, of course, rules out plastic. To help deter flies, wipe the carcass down with a solution of vinegar and water.

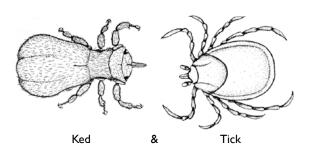
GETTING YOUR DEER HOME. Ultimately you have to get your deer home, and like everything else connected with deer hunting there are many ways to accomplish the task. A lot depends on how far you have to go, how warm it is, what kind of vehicle you have to transport the carcass, and whether the animal is in one piece or cut up. It is important not to put the meat close to a heat source such as the motor, the bottom of an automobile trunk, or a pickup truck bed which can transmit warmth from the drive train. Instead, put the meat on top of something such as a foam mat protected by a tarp. If it's a hot day, cover the carcass with bedding to keep it cool while you travel.

PESKY CRITTERS. There's one aspect of

handling a dead deer that hasn't yet been covered. That's the presence of parasites that all deer have to some degree, and the ever-present yellowjackets (or meat bees) that seem to come from miles around to pester you while you work. Yellowjackets are a real pain on warm days when they are apt to be very numerous—especially if you happen to be near a nest without knowing it. During cool weather you may not see even one.

What can you do about yellowjackets? Unfortunately, not very much. Most experienced hunters just work around them and try not to crush one accidentally or strike out at them, thus prompting painful stings.

Ticks and fleas are another matter. Some



deer have a lot of them, some have only a few. Regardless, one advantage of skinning your deer while it's still warm is that you will automatically dispose of these "critters" at the same time. Once the hide is cold the parasites look for another warm-blooded host and that could easily be you.

Also present on deer are keds. Keds are tick look-alikes that pose no threat to humans. Keds are usually bigger than ticks, and they move faster. They feed on blood and they are host-specific. In other words, if you find them on deer, that's the only animal on which they will feed. Ticks are another matter altogether. If you pick up a tick from a deer, chances are it will look for a soft, moist place on your body and dig in. That is not an appealing prospect as some ticks are known to spread disease to humans. Worst of the lot these days is probably *Ixodes pacificus*, a pinhead-size tick that is known to carry Lyme disease.

Not every *Ixodes* tick bite will result in Lyme disease, of course. However, no tick bite is all that pleasant either. No matter how carefully you work around a deer, you may acquire some ticks and the object is to get rid of them promptly. If you find a tick crawling on you, simply brush it off. If you find one already attached, grasp it at the point of attachment and pull it off, being careful not to squeeze the body or break part of the head off in your skin which can result in infection. Use clean tweezers if you have them.

Whenever you're in potential tick country, whether you handle a deer or not, you're apt to get ticks on your body. The best bet is to take a few minutes at the end of each day and do a body search, removing any ticks as soon as you find them.

WHAT'S THAT? Every once in awhile a hunter will notice that a deer has some strange wart-like growths somewhere on its body or some even stranger larva-like tubes in its nose. The first question that comes to mind is, I wonder if the meat is bad? Well, there are a lot of unsightly things that afflict deer and every other living thing for that matter, and no, most of them do not affect the meat.

The tube-like things in a deer's nose are probably botfly larvae which are about to be expelled from the body. They don't look good to you, and probably didn't feel good to the deer but they won't hurt you. Neither will the unsightly growths, which are caused by some sort of virus. Called papillomas, they are not known to be transmittable to humans.

Most hunters will not encounter such things in a lifetime of deer hunting, but if you do, remember they are normally not a cause for concern when it comes to eating the venison.

NOTE: In a rare case, a deer might be very sick and heavily infested with any number of things. If you are really concerned, report your kill to a DFG biologist or game warden as soon as possible and have it inspected.

TAXIDERMY TIPS. If you want to have a head-and-shoulder mount made of your buck, you will have to revise some of the things you read in the previous sections. First, do not cut the sternum and remove the windpipe until you have

removed the cape. Instead, cut the hide around the body a few inches behind the front legs. Make your cuts from the inside-out, taking care not to cut and damage hair. Next, make a straight cut up the back of the neck to the base of the head and skin out the front half of the deer. You can then remove the head, leaving as little of the neck attached as possible. You should now have the head, with the cape attached, separated from the rest of the body.

What you do with the cape and head now depends on which options are open to you. Here are some basic do's and don'ts of cape care:

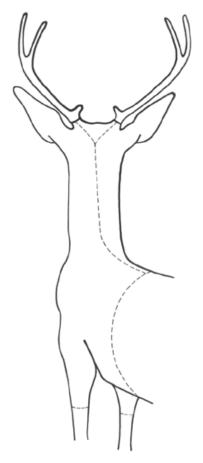
1. As was noted earlier in the section on field dressing, do not cut a deer's throat to bleed it. If the animal is dead, nothing will be accomplished, and if it's not dead it's a very dangerous thing to do. In any event, cutting the neck will ruin the cape.

2. Do not drag the deer across rough ground because the hair will rub off in spots and patching is not always possible.

3. For a head-and-shoulder mount, leave plenty of hide for the taxidermist. Cut the skin around the body several inches behind the front shoulders.

4. If you're going right home you can just put the cape, head attached, in the freezer or take it directly to a taxidermist. Freezing is also the best idea if the weather is warm. A frozen hide will keep for months.

5. If you can't get the cape to a taxidermist or put in a freezer right away, you have some extra work to do. *If you know how, by all means skin out the head at this time.* Then remove all of the flesh from the hide. Spread out the hide and liberally salt it with a couple pounds of fine store-bought salt. Remember, salting on top of flesh does no good. Salt the hide two or three times over a couple of days, then roll it up and keep it cool. Do not store it in a plastic bag where air cannot circulate. Do not tie the rolled cape with wire as the hair will be damaged. Do not attempt to dry the cape in the sun or near a fire.



Proper cuts for caping.

6. Before you salt the cape, wash it if it's bloody. A bath won't hurt anything and it may improve the quality of the mount later.

7. If you can, learn how to skin out a head by practicing on game you don't intend to mount. A taxidermist may be able to give you some pointers—especially when it comes to turning the ears and lips, which may be necessary for a prolonged stay in camp.

PHOTOGRAPHING YOUR DEER. Most hunters tote some sort of camera along on their hunts these days. There are many types available, from small point-and-shoot, viewfinder cameras to 35mm single lens reflex cameras, with an elaborate array of lenses and setting selections for almost every situation. No

AFTER THE SHOT



When you photograph your deer, think about the final results and try different positions. John Higley photo.

matter how simple or complex the photographic outfit you have, though, the resulting photos still depend on your approach to taking them.

It is unfortunate that so many hunters film their deer in a haphazard manner. Not everyone thinks like a professional photographer, of course, but if your game is to be recorded on film and shown proudly to anyone who will take a look, an attempt at displaying the game tastefully will give eye -pleasing dividends that will paint you as a caring individual with real respect for his or her quarry.

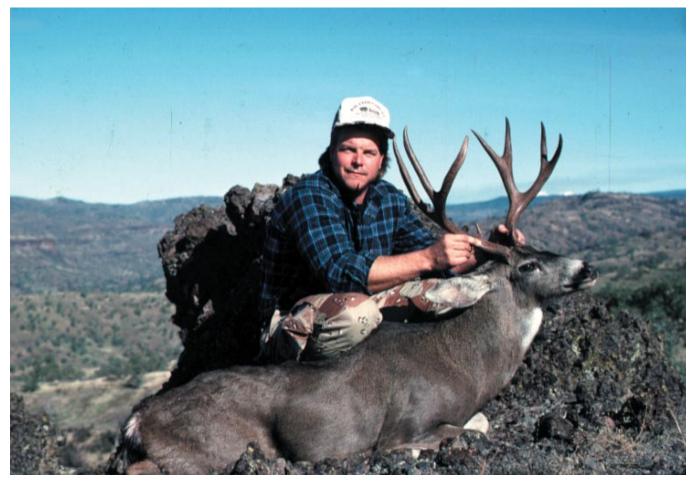
For that reason, this will not be a discussion about the best cameras or film for this use and that, but rather a look at photographing yourself and your game in ways that will result in pleasing slides or prints. Pictures should not cause squeamish individuals to flee from your presence after a mere glance at your treasured photo album.

While important, how you pose your own deer is ultimately not as crucial as exactly what you display in the final picture. For example, if the animal's nose and mouth are bloody or full of dirt, why not try to wipe them clean before taking a picture? A rag or paper towels, and a little water from your canteen, often makes all the difference. The used cloth or paper towels can then be placed in a plastic bag and disposed of later. Often a dead deer's tongue hangs out of its mouth, and that isn't a pleasant sight. Push it back in if possible. Otherwise remove it.

When you photograph your deer or a friend's, place the animal in natural surroundings if possible. The bed of a pickup truck, or the oil stained floor of a garage, doesn't do much for the aesthetics of the finished product. Try folding the deer's legs under the body (not always necessary, of course) and find an angle that won't show major wounds. If the animal has been field dressed, try shooting photos from the front or hide a portion of the body behind some natural barrier such as a low shrub, rocks, or a mound of soil. Make sure the pile of entrails and any other distracting items, are out of the photo.

To emphasize a buck's antlers, try sitting behind rather than in front of the animal. Take care that the tines contrast with the background well enough to be seen clearly. Don't hold the antlers in such a way that the rack is hiding your face or a tine appears to be poking your eye(s), nose or mouth.

Do take several photos and do try different poses. If the weather is nice, photograph the deer in the sunlight, and if your face is in shadow, tilt your hat back or take it off so your eyes will show. If shadows are still a problem and you have a flash attachment on hand, use it to fill in the dark spots. If you have an adjustable camera, bracket your shots one stop in either direction for insurance, no matter what the built-in light meter says. Instead of three or four photos, go ahead



This hunter has a photo of his prize worth framing. John Higley photo.

and shoot half a roll of film while you have the opportunity. Move in close for full-frame shots, then move back a bit and shoot more film. Extra photos won't cost that much and chances are good that one of your pictures will be better than the rest.

It is a hassle, but even if you're alone you can do a fair job of picture taking, if you happen to have a small tripod on hand and a camera with a timed shutter-release. For tripod photos, stand some sticks up where you plan to kneel or sit, and look at them through the viewfinder to check height and make sure you're not going to cut something important out of the shot—like your head or half the buck's antlers.

Deer are always easier to film when they're fresh and pliable. Immediate on-site photos are not always possible, however, especially if the kill is made just before dark. Even if you have to move the animal, or hang it, you can take decent photos the following day—if you take the time to put the deer into a pleasing position wherever it is, in the field, camp, or sometimes even at home.

CHAPTER 10:

VENISON ON THE TABLE

To GET VENISON READY for the table, some hunters prefer to debone, cut and wrap their own meat, while others simply let a butcher do the final preparation for them. There's nothing wrong with either approach. If you want to do it yourself you can get instructions from videos, books or, perhaps, a willing friend. Before you start rendering the meat into usable portions, though, there is one other thing to consider. That's the question of aging deer meat. Let's take care of that subject right now.

SHOULD YOU AGE YOUR VENISON? Shortly after a deer dies, its muscles contract with rigor mortis which causes toughening of the meat. The aging process allows certain enzymes to break down some of the complex proteins in the muscle and, up to a point, that usually results in better flavor and tenderness. Under ideal conditions, when a deer is killed and chilled promptly, it can be aged at temperatures between 34 and 37 degrees Fahrenheit (F) for about 7 days before it's cut and wrapped. Preferably, this kind of aging is done with the hide on, or in a cooler with high humidity, to minimize drying during the process. In lieu of other facilities, some hunters simply age their skinned venison quarters on a shelf in a refrigerator.

Seldom, however, are ideal conditions present in the Golden State, where most deer hunting is done in warm weather. Unless it is taken to a cooler immediately, a deer killed here usually ages very rapidly in the field. Aging is fast if the temperature is above 40 degrees F, and a deer held at 65 degrees F for one day has already aged long enough, according to a University of Wyoming study on aging big game. The study shows clearly that a deer-size big game animal should NOT be aged if it was shot during warm weather and not chilled rapidly, if gunshot areas are extensive, and if the animal was severely stressed prior to the kill. Meat that is to be ground or made into sausage of some sort should not be aged, either.

VENISON AS NUTRITIOUS FOOD. Without going into the subject of nutrition in detail, let's just say that venison trimmed of fat compares favorably with very lean beef as a source of protein in the human diet. The cholesterol content of domestic and wild meat is about the same across the board.

The conclusion of a study conducted by the University of Wyoming, states, "Overall, game meat and range-grazed beef are slightly lower in fat than grain-fed beef. However, when the outside fat is trimmed, and portion size is controlled, all of these meats can fit into a fat-reduced, balanced, diet."

Of course, there are no additives in game meat because it is produced naturally in non-domestic circumstances, and that fact also appeals to most hunters.

THE USES OF VENISON. There are many uses for venison and you can find some way to utilize all of the edible meat. Roasts, steaks and chops are standard cuts, of course, but some venison can also be used as stew meat, ground meat, or made into jerky, salami or sausage. The heart and liver often provide traditional camp dinners but they can easily be served at home.

Generally speaking, you can make steaks and roasts from the rump and hindquarter meat, blade roasts from the front shoulders and chops from the backstrap (or loin). Neck meat, shank meat and trimmed meat scraps can be ground for sausage or hamburger, made into salami or utilized as stew meat. Meat trimmed from the ribs can be ground or used as soup stock. Jerky is best when made from the same cuts that are normally used for rump roast or steaks. *If you decide to butcher your own meat, as* For a color poster and instruction manual call: The Home Butch'r Shop, Gordon Gribling, Jr., 5570 S.W. McVey, P.O. Box 1043, Redmond, OR 97756, 1.800.637.9002

many California deer hunters do, there are books, videos and pamphlets on the subject that are most helpful. Some of them are listed in the appendix.

THE TASTE OF **VENISON.** There are some simple tricks that are worth noting when it comes to cooking venison. Some hunters like venison as is but many prefer to trim the meat of ALL fat before cooking. It's well known that what some people think of as an undesirable "wild" taste is usually concentrated in the fat. Remove everything white and a delicious, mild piece of meat will remain-even if the

Primal Cuts for Boning Elk or Deer Shank Burger - Stew Sirloin Tip Steaks - Best cut 3/4" thick, cook until just done. Don't over cook game! Round Steak or Roast Three large segments Top, Bottom & Eye of Flank Round - Best for steaks Burger 3/4" thick Sirloin Steaks - 3/4" thick To cook start on high, finish on Medium until just done Loin & Tender Loin Shoulder & Rib Butter fly Steaks 3/4" thick Burger - Stew - Jerky for burger add 25% + Fresh pork back fat. Always! Trim off the outside! Removing dirt, hair & blood! This is a must for an appetizing meal that we want to enjoy!

meat is from a late season buck that might be in the throes of the annual rut.

For really mild meat, some game cooks soak their venison in cold water for about an hour to draw off some of the remaining blood before cooking. They pat the meat dry then go ahead and fix it as planned. Most cooks don't bother with soaking and simply prepare it as is. Again, it's up to the individual and in any event it is fun to experiment from time to time and try new things.

As you might imagine, there are all sorts of options for stove-top cooking, and the same goes for roasting, making stews (let your imagination guide you) or barbecuing. The recipes herein were donated by real hunters who like to prepare venison meals several times a month. The recipes are a small sampling of the possibilities—but they will give you some good ideas to start with.

VENISON ON THE TABLE



Many good meals, like this hearty stew, begin with venison. John Higley photo.

REAL HUNTER'S VENISON QUICHE

deep-dish 9-inch frozen pie shell
 lb. ground venison
 small onion, diced
 cloves garlic, minced
 1/2 tsp. seasoned salt
 1/2 tsp. pepper
 1/4 tsp. sage
 2 cup fresh mushrooms, sliced
 cup sharp cheddar cheese, grated
 eggs
 can evaporated milk
 olive oil
 4 servings of cooked rice or noodles

Preheat oven to 425 degrees. Let pie shell reach room temperature, then prick bottom and sides with a fork. Bake until crust begins to brown about 5 minutes. Brown venison, onions, garlic and seasonings in large skillet (add olive oil if necessary to keep from burning). When cool, spoon mixture into pie shell and pat lightly. Sprinkle mushrooms and cheese evenly on top. Beat eggs and milk until blended and pour over top. Bake 20 minutes or until set, then reduce heat to 350 degrees and bake until top is golden brown, about 25 minutes. Let stand and cool for 10 minutes, cut into wedges. Serves 4.

SIMPLE VENISON WITH MUSHROOMS

2 to 3 small steaks per person, cut 1/2 inch thick, and trimmed of all fat
1/2 stick butter or margarine (4 Tbsp.)
2 cloves garlic, diced
Pepper and salt to taste
1/2 medium yellow onion, diced (optional)
1/2 cup fresh, sliced mushrooms per person
1/8 to 1/4 cup red wine (optional)
Flour
1 cup water (approximately)

Melt half the butter or margarine in a large skillet. Saute mushrooms, garlic, and onion, and set aside. Tenderize meat with a mallet, and season lightly with salt and pepper. Dredge meat in flour and brown in the rest of the butter or oil. Remove meat from pan and add the wine (optional) and water to make light gravy. For thicker gravy, mix about a tablespoon of flour with a small amount of water and stir the paste into the sauce. Season gravy to taste. Return the meat, mushrooms and onion to the pan and simmer, covered, for about 15 minutes or until done. Serves 3 or 4.

FANCY VENISON PICATTA

1-1/2 lbs. venison backstrap, trimmed and sliced across the grain into 1/4 inch steaks
1/2 cup flour
1/2 tbsp. salt
1/2 tbsp. seasoned pepper
1/4 cup butter or margarine
3/4 cup dry white wine
2 tbsp. fresh lemon juice
1/4 cup fresh snipped parsley
2 tbsp. capers, drained

Mix flour with salt and pepper, and dredge venison slices in it. Melt butter in a large skillet over medium heat, add venison and brown on both sides. Add wine and simmer for 2 to 3 minutes. Using a slotted spatula or spoon, transfer venison slices to a platter and keep warm in the oven. Add remaining ingredients to skillet. Cook mixture on medium heat for approximately 3 minutes, stirring constantly, and scraping the

sides and bottom of the pan. Serve sauce over venison slices. Serves 3 or 4.

GREEN CHILE STEW

1 lb. venison stew meat
1 can diced green chilies (7 oz.)
1 can kidney beans (15 oz.)
2 cans peeled tomatoes (16 oz. ea.)
1 can pinto beans (15 oz.)
1 cup flour
4 cloves garlic, diced
1/4 cup fresh cilantro
1 tsp. pepper
1/4 cup olive oil
Cut meat into 3/4" chunks and dredge in

flour. In a Dutch oven or large skillet, saute garlic in olive oil until golden; add meat and brown. Reduce heat and add remaining ingredients. Simmer 1 hour, stirring occasionally. Serves 4.

SIMPLE VENISON MARINADE

1/4 cup white wine1 cup zesty Italian salad dressing4 tbsp. Worcestershire sauce

Prior to barbecuing inch-thick venison steaks, try marinading them in this mixture for at least 5 hours. Then barbecue steaks over hot coals about 5 minutes per side. The meat should still be pink (but not raw) in the middle.

VENISON STROGANOFF

1 lb. venison, cubed
1/2 cup flour, seasoned with salt and seasoned pepper
1 large yellow onion, sliced
1/2 cup red table wine
4 tbsp. olive oil
1/2 lb mushrooms, sliced
3 stalks celery, chopped
1 can cream of mushroom soup (8 oz)
1/2 cup whole milk
2 cups sour cream

Dredge venison in seasoned flour. In a medium skillet, brown venison and onion in olive oil. Add wine and simmer 10 minutes. Place meat, onion and wine in a large pot or crock pot. Add mushrooms, celery, mushroom soup, milk, and one cup sour cream; mix thoroughly. Simmer for 2 or 3 hours. About 45 minutes before done, add remaining sour cream. Salt and pepper to taste. Serve over rice or noodles. Serves 4.

ANYTHING GOES STEW

1-1/2 lbs. venison stew meat, cubed and trimmed of fat
6 to 8 medium potatoes, pared and cubed
5 large carrots, pared and sliced into rounds
1-1/2 medium yellow onions, sliced and quartered
1 handful diced bell pepper
2 cloves garlic, sliced
1 tsp. rosemary leaves
1 tsp. oregano leaves
6 whole cloves
1 tbsp. Kitchen Bouquet (optional)
Any other seasonings you like
Salt and pepper to taste
Flour, oil, water

Brown meat in oil in large Dutch oven or similar deep pot. Add water to cover, toss in some onion, the garlic, cloves, and other seasonings. Simmer gently for 1 hour or longer (meat should be tender). Add more water if needed (level should be a couple inches above meat). Mix some flour and water into a paste. Add enough to thicken the juice into light gravy. Add Kitchen Bouquet. Taste to make sure you're satisfied, then add vegetables and simmer until tender, stirring occasionally. Serves 4—twice.

Clearly, venison meals can be as simple or as fancy as you desire. The main thing is not to be snowed by complicated recipes that indicate that you have to use only this or that ingredient in specific amounts. Let your imagination guide you and you won't be disappointed. Venison is good food, made all the more enjoyable if you are responsible for acquiring it through the challenging act of hunting.

CHAPTER 11:

SAFETY AND ETHICS

CONTRARY TO some views, hunting is one of the safest types of outdoor recreation, ranking even lower on the injury scale than baseball or tennis. That said, hunters recognize that even a single accident involving firearms is one too many. To make hunting even safer, the California Department of Fish and Game requires that all resident first-time hunters, regardless of age, complete hunter safety training or pass a comprehensive equivalency test before purchasing a hunting license.

There are three major causes of hunting accidents: hunter judgment, safety violations, and lack of skill or aptitude. Most accidents involve oneself or a companion, and nearly all can be attributed to carelessness. Responsible hunters always observe the ten commandments of shooting safety which are listed on the following page.



California's hunter safety course requirement for all first-time hunters has made a basically safe sport even safer. John Higley photo.



Doing things in a safe manner is always important while hunting deer or any other game. John Higley photo.

In reality, the commandments are only telling you to use common sense in the handling of firearms.

While most of the following rules do not apply to archery gear, the fact is that bowhunters must be just as careful as rifle hunters in many ways. Broadheads are inherently sharp and they must be protected in a proper quiver where the heads are not exposed. A bowhunter should not have an arrow nocked on the string until a shot is imminent, nor should a bow be drawn when someone is in front of the archer. Additionally, always hoist your bow and arrows into a tree stand with a length of rope—after you're settled in place and have your safety harness connected. Obviously, you must *never* take a questionable shot with an arrow as it can be just as lethal to another human as a bullet.

Ten Commandments of Shooting Safety

- 1. Always control the direction of your firearm's muzzle. Carry your firearm safely, keeping the safety on until you're ready to shoot. Keep your finger off the trigger until you're ready to shoot.
- 2. Identify your target and what is beyond it (for instance, don't shoot at a deer on top of a ridge with nothing to stop the bullet's flight if you miss). Know the identifying features of the game you hunt.
- 3. Always treat every firearm as if it is loaded.
- 4. Always be sure the barrel and action are clear of obstructions before you hunt. This is also true during the hunt if the barrel accidentally comes into contact with the ground, snow, mud, etc. Use the proper ammunition for the firearm you are carrying.
- 5. Unload firearms when not in use. Firearms should be carried empty in transit to and from shooting areas.
- 6. Never point a firearm at anything you do not want to shoot. Do not use a rifle scope as a binocular to identify an object that you are not sure of. You may be pointing your rifle at another human. Avoid all horseplay with firearms.
- 7. Never climb a fence or tree, jump a ditch or log, or traverse otherwise difficult terrain with a loaded firearm. Never pull a firearm toward you by the muzzle.
- 8. During practice make sure your backstop is adequate. Never shoot a bullet at water or a flat, hard surface.
- 9. Store firearms and ammunition separately beyond the reach of children or careless adults.
- 10. Avoid alcoholic beverages or other mood-altering drugs before hunting or while shooting.



Even hunters using archery equipment must always put safety first. *File photo*

Hunters are constantly faced with ethical questions in the field, and usually they're alone and have no audience to approve or disapprove of their actions. It is difficult to regulate ethics by law so it is largely up to the individual to decide what is and what is not proper in his or her interaction with other hunters and the game being pursued.

The concept of fair chase obviously applies to the hunter's relationship with the game and is a primary ingredient in any honest hunting exercise. Simply put, fair chase means that the hunter respects his or her quarry and will not take unfair advantage of it during the act of hunting, even if such a situation presents itself. That said, here are some rules that should be an integral part of every hunter's code of ethics.



Hunters must seek permission to hunt on private property whether it's posted or not. John Higley photo.

A HUNTER'S CODE OF ETHICS

- 1. When hunting private land, I will consider myself an invited guest of the landowner, seeking permission to hunt and conducting myself so that I, and others, may be welcome in the future.
- 2. I will not misuse or abuse public property upon which the future of hunting depends. Indiscriminate shooting, littering, and other acts of vandalism destroy these places for everyone.
- 3. I will obey the rules of safe gun-handling and will courteously but firmly insist that others who hunt with me do the same.
- 4. I will obey all game laws and regulations, and will insist that my companions do likewise.
- 5. I will do my best to acquire those marksmanship and hunting skills which assure clean, sportsmanlike kills.
- 6. I will support conservation efforts which can assure good hunting for future generations.
- 7. I will pass on to younger hunters the attitudes and skills essential to a true outdoor sports person.



This hunter is sighting in his rifle, which is always a good idea before embarking on a deer hunt. John Higley photo.

The ethical hunter recognizes the need for these laws which help perpetuate hunting. Poaching is an activity contrary to regulated hunting—it actually amounts to stealing from legitimate hunters and other people who value wildlife resources.

Hunters should take pride in their role in the conservation of wildlife and wildlife habitat. Sportsmen and sportswomen will not, and cannot, accept poaching as a normal part of the outdoor scene. Neither should they ignore the actions of those people identified as slob hunters for the latter damage the reputation of all hunters simply by association.

Safety and ethics go hand in hand. When both are properly observed they contribute greatly to your personal self-esteem and your image, as seen by others. Ideally, hunting teaches responsibility not only to yourself and fellow hunters, but to wildlife resources, as well.

REPORTING GAME VIOLATIONS. In this day and age it's important that we do not ignore violations in the field involving California's fish and wildlife resources. That's why the CalTIP program (which stands for Californians Turn In Poachers) became reality. If you witness a poaching incident, or have information regarding such a violation, dial the toll-free Department of Fish and Game number 1-888-DFG-CalTIP (888-334-2258). This number is answered 24 hours a day, seven days a week.

Your identity will be protected. You will not have to give your name and you won't be required to testify. You will be assigned a code number and that will be your only way to identify yourself. If and when the information leads to an arrest, you may claim your reward—an amount up to \$1,000.

CHAPTER 12:

Pursuing the Exceptional Buck

WITHOUT A DOUBT, most deer hunters davdream about putting their tag on a truly exceptional buck sometime during their hunting career. Some hunters eventually get such a buck by pure luck. Others devote most of their deer hunting time specifically to locating what, in their view, are better-thanaverage bucks. Occasionally they are successful at putting themselves in the right place at the right time, but by and large, the vast majority of the legal bucks tagged in California are young deer of average size. When you think about it, there's really nothing wrong with that.

The biggest deer in the state are, of course, Rocky Mountain mule deer, which range throughout the West and inhabit the eastern edge of California roughly from Mono County north to the Oregon border and east to Nevada. It is interesting to note that even in the good old days of few restrictions, California's mule deer have not made much of a



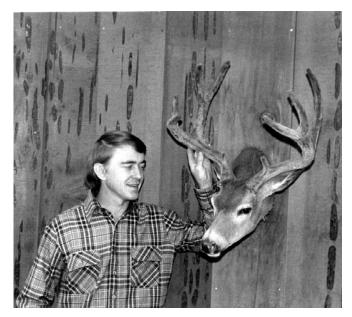
splash in the record books. However, that does not mean that there are no large, mature bucks taken in California, only that they don't score well

California produces some outstanding bucks but, by and large, most legal bucks tagged are young deer of average size like this forked horn black-tailed deer. DFG photo.



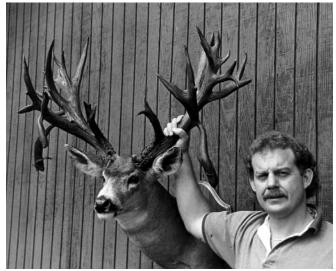
according to the Boone & Crockett Club (B&C) or Pope and Young measurement systems.

Perhaps the biggest limiting factor, in the availability of high-scoring mule deer bucks in California, is the limited number of Rocky Mountain mule deer present here to begin with. When you consider how many thousands of mule deer bucks are taken throughout the West, and how few actually qualify for the book, you must conclude that very few deer in any herd develop antlers that score well from the standpoint of B&C. Finding



Left: This is the only typical mule deer entry from California in the Boone and Crockett records. It was taken in 1943 by Sulo Lakso in Lassen County. *John Higley photo*.

Below: This magnificent nontypical mule deer was taken in Shasta County in 1987 by Artie McGram. Currently it is #8 in the Boone and Crockett all time records. *DFG photo*.



one of those mossyhorn monsters is a lot like winning the lottery—you always have high hopes but the odds really aren't very good, are they?

In the 1991 edition of the official *Records of Elk and Mule Deer* (published by B&C), the state of Colorado has 167 entries in the typical mule deer category while Nevada, a state also known for big mule deer bucks, has only 10. Nevada, which has far more Rocky Mountain mule deer than California, obviously produces scads of big once-in-a-lifetime bucks that do not score well for B&C. The difference between Nevada and Colorado, besides a lower buck harvest in Nevada, may be attributed, in part, to the configuration and symmetry of the antlers found in various regions.

Meanwhile, California has only one typical mule deer listed, a buck killed by a hunter named Sulo Lakso in Lassen County in 1943. Interestingly, the buck was not recognized as a candidate for the B&C records until 1987!

Incidentally, the body size of these record bucks doesn't mean a thing and you'll find that adult mule deer in good condition from California compare favorably with same age bucks from any

Bowhunter Cliff Dewell with a Pope and Young blacktail from Siskiyou County. John Higley photo.

other western state. That said, it's entirely possible that other potential record-book mule deer bucks were taken occasionally in the old days by hunters who simply tossed the antlers in the barn or discarded them.

The obvious question is, have our deer gotten smaller? Probably not. While it's true that there were some absolutely monstrous deer (body-wise) reported in the 1930s, including a confirmed report of a buck from Lassen County that apparently weighed 320 pounds field-dressed, some reports from that time indicate that there were actually fewer deer to begin with. And certainly there was less hunting pressure. To produce really big-bodied and big-antlered mule deer takes a combination of good feed, proper minerals and longevity. A buck's antlers really don't reach their full potential until the animal is between 4 and 7 years of age. One DFG biologist explains it this way, "I've kept track of some of the biggest bucks taken in northern California and I've seen a pattern. Genetics are important, but it appears that genetics dictate the configuration of a buck's antlers while nutrition has a lot to do with size. However, there's more to it. Not only does a buck have to have the right genes and nutrition, but he also has to live long enough to develop fully, and very few California bucks have that opportunity."

Surprisingly, California hunters have done a bit better with mule deer bucks in the non-typical category, placing 4 in the B&C book, including a monster buck taken by Artie McGram in Shasta County in 1987. McGram's buck is currently listed as number 8 in the all-time B&C records. Other nontypical bucks include two from Modoc County and one from Mariposa County, which



This outstanding buck, with an antler spread of 30-3/4 inches was taken in 1993 in eastern Tehama County by Jim Phelps. Jennifer White photo.

was killed in 1972. The Mariposa buck, taken by Harold Laird, is currently number 4 in the book.

All of this is not meant to discourage you from looking for a big buck when you have a tag for one of the areas that might produce such an animal for you. Just remember, "exceptional" is in the eye of the beholder and the truth of the matter is that the vast majority of the large mule deer taken throughout the West simply do not score well enough to be entered in the pages of the B&C records book. That brings up another point. Perhaps there is too much emphasis these days on how well a particular buck scores and too little emphasis on the rewards of an enjoyable, challenging hunting experience, successful or not.

When you get right down to it, a big adult of any of the subspecies of mule deer found in California is truly exceptional even if it isn't qualified to enter the book. Bear in mind that the only subspecies of mule deer listed in the records separately from mule deer are Columbian black-tailed deer and they qualify only if they come from an area specified by B&C. Any black-tailed deer outside of the area must be measured as a mule deer because the deer in question is apt to be a hybrid of the two. (See the black-tail deer range description that accompanies this chapter.)



This very respectable black-tailed buck did not make the records book but hunter Murial Owens was delighted anyway. John Higley photo.



In the black-tailed deer department,

After scouting in the Yolla Bolly Wilderness, hunter Brad Pitt took this record-book blacktailed buck in 1994. Brad Pitt photo.

Records of North American Big Game			BOON	BOONE AND CROCKETT CLUB			Old Milwaukee Depot 250 Station Drive Missoula, MT 59801		
Minimum Score: Awards All-time mule 180 190 Columbia 125 135 Sitka 100 108			TYPICAL MULE AND BLACKTAIL DEER			Kind of Deer			
G + (G3	G2 H3	E		M		DETATL MEASUR	OF POINT EMENT	
F	- Y	У.) _Н4					Abnormal	Points	
E and		<u>~н</u> 2 ні		A.	V _E		Right Antler	Left Antler	
						Subtotals			
						Total to E.			
	SEE O	THER SIDE FO	OR INSTRUCTIONS		Column 1	Column 2	Column 3	Column 4	
A. No. Points o Right Antle			No. Points on Left Antler		Spread Credit	Right Antler	Left Antler	Difference	
B. Tip to Tip S	pread		C. Greatest Spread		$>\!$	\geq	$\geq \leq$	\geq	
D. Inside Sprea Main Beams	id of		(Credit May Equal Bu Longer Antler)	t Not Exceed		\succ	\succ	\triangleright	
E. Total of Lengths of Abnormal Points				\succ	$>\!$	$>\!$			
F. Length of Main Beam				$>\!$					
G-1. Length of First Point, If Present				\succ					
G-2. Length of Second Point				$>\!\!<$					
G-3. Length of	Third P	oint, If Pre	esent		$>\!\!<$				
G-4. Length of Fourth Point, If Present				$>\!$					
H-1. Circumference at Smallest Place Between Burr and First Point				\geq					
H-2. Circumference at Smallest Place Between First and Second Points					\succ				
H-3. Circumference at Smallest Place Between Main Beam and Third Point					\geq				
H-4. Circumference at Smallest Place Between Second and Fourth Points					\geq				
TOTALS									
Column	1	Exa	act Locality Where Kil						
ADD Column	2	Dat	te Killed:	B	y Whom Killed				
Column	3	Pre	esent Owner:						
Lotumin									
Subtota	ı	Owr	ner's Address:						
			ide's Name and Address	:					

OFFICIAL SCORING SYSTEM FOR NORTH AMERICAN BIG GAME TROPHIES

California fares quite well. In fact, the 1991 edition of *Records of Elk and Mule Deer* shows 236 entries from this state, 174 from Oregon, 112 from Washington and 15 from British Columbia. These numbers change a bit with each passing year as more bucks are added, but California is more than holding its own even today.

Black-tailed deer are numerous and they have a better chance of reaching their full potential due to the terrain they inhabit. Their preferred habitat varies widely, from roadless alpine areas to vast scrub oak brush fields, but it all has one thing in common, it's very difficult to hunt. The task is not impossible, however, and there are some hunters who have dedicated themselves to the hunting of large, mature black-tailed deer with fairly good success. Record-book bucks are still very much the exception rather than the rule, of course, but you can rest assured that there are still some of them around. You just have to find them and that's always easier said than done.

Without a doubt, the best counties to hunt for big black-tails are Trinity, Siskiyou, Mendocino and Tehama; and some of the best areas include the Yolla Bolly-Middle Eel, Trinity Alps, and Marble Mountain wilderness areas.

There is one thing worth repeating about bigger-than-average bucks. As one biologist indicated in chapter six, there's a tendency for hunters to overemphasize the spots with high concentrations of deer. While there may, indeed, be some very big bucks in such a spot with the does and fawns, there is a tendency for the least accessible places to produce the biggest of the big bucks. That makes sense, because it is the way a buck has learned to live that allows him to live to a ripe old age in the first place.

Bowhunters also do well in this state in some of the same areas mentioned above. Their deer usually are entered, not in the B&C records, but those kept by the Pope and Young Club, the archer's counterpart to B&C. Trophy archery-killed black-tailed deer have been recorded in 18 counties, the best overall being Trinity, Mendocino and Siskiyou.

Incidentally, while the Boone and Crockett Club is the best-known records keeping organization, it is not alone in the field. Safari Club International (SCI) uses a different measurement system and it is not unusual for deer to make its "book" that would not score well according to B&C. SCI also has a category for archery in which almost any bow-killed deer can be entered.

SCORING ORGANIZATIONS:

Boone & Crockett Club Old Milwaukee Depot 250 Station Dr. Missoula, MT 59801-2753

Pope and Young Club P.O. Box 548 Chatfield, MN 55923

Safari Club International 4800 W. Gates Pass Rd. Tucson, AZ 85745

BLACK-TAILED DEER RANGE ACCORDING TO

BOONE & CROCKETT. Beginning in Siskiyou County at the Oregon-California border, the boundary lies between townships R8W and R9W M.D.M., extending south to and along the Klamath River to Hamburg, then south along the road to Scott Bar, continuing south and then east on the unimproved road from Scott Bar to its intersection with the paved road to Mugginsville, then south through Mugginsville to State Highway 3, which is then followed to Douglas City in Trinity County from which the line runs east on State Highway 299 to Interstate 5. The line follows Interstate 5 south to the area of Anderson, where the Sacramento River moves east of Interstate 5, following the Sacramento River until it joins with the San Joaquin River, which is followed to the south border of Stanislaus County. The line then runs west along this border to the east border of Santa Clara County. The east and south borders of Santa Clara County are then followed to the south border of Santa Cruz County which is then followed to the edge of Monterey Bay.

TO TAKE A PRIME BUCK. Exceptional deer are sometimes taken in California quite by accident. The hunters most apt to be successful, however, are those who are willing to work hard toward that goal.

Record Big Ga	s of North Amer me	BOONE AND CROCKETT CLUB					250	ilwaukee Depo Station Driv ula, MT 5980
Minimu	m Score: Award 225			NON-TYPICAL MULE DEER				
							Abnormal	Points
		63 E H H H H H H H H H H H H H H H H H H H			AN AN	A	Right Antler	Left Antle
		OTHER SIDE F	OR INSTRUCTIONS	<i>\</i>	Column 1	TAIL OF POINT FASURE MENT Subtotals Total to E Column 2	Column 3	Column 4
A. No. Rig	Points on ht Antler		No. Points on Left Antler		Spread Credit	Right Antler	Left Antler	Difference
B. Tip	to Tip Spread		C. Greatest Spread		$>\!$	$>\!\!\!\!>$	\succ	\geq
D. Inside Spread of Main Beams			(Credit May Equal But Not Exceed Longer Antler)			\geq	\geq	\geq
E. Total of Lengths of Abnormal Points				\geq	\geq	>	\triangleleft	
F. Length of Main Beam					>>			
G-1. L	ength of First	Point, If Pr	esent		\leq			
G-2. Length of Second Point					>			
G-3. L	ength of Third	Point, If Pro	esent		<>			
G-4. L	ength of Fourth	Point, If P	resent		<>			
	-		ace Between Burr and Fi	ret Point	>			
	and the later of t		ace Between First and S		\Leftrightarrow			
					\langle			
			ace Between Main Beam a		\langle			
nº4. C	recumerence at		ace Between Second and	Fourth Points	\geq			
		TOTALS						
	Column 1		act Locality Where Kill					
ADD	Column 2		e Killed:	By	Whom Killed:			
	Column 3		esent Owner:					
Subtotal Owner's Address:								
SUBTRA	CT Column 4	Gui	de's Name and Address:					
	Subtotal	Ren	marks: (Mention Any Abn	ormalities or l	Inique Qualiti	es)		
Add Lir								

OFFICIAL SCORING SYSTEM FOR NORTH AMERICAN BIG GAME TROPHIES

79

They scour maps looking for out-of-the-way spots in areas that are known to produce big bucks, they scout new areas prior to the season(s), and make the most of tags for special opportunity hunts when they are drawn for them. And more importantly, perhaps, they have no qualms about passing up legal bucks that do not meet their personal goals. It's an old adage, but true, that a real trophy hunter is more likely than not to go home empty-handed after a long, tiring, and sometimes uneventful hunt.



Two bucks near Bishop. Photo by Don L. Johnson.

CHAPTER 13:

DEER OF CALIFORNIA

(Historical Perspective of Deer in the Golden State)

EARLY EUROPEAN settlers found fewer deer in California than we have today. Things began to change rapidly in favor of deer about the time of the Gold Rush in the mid-1800s. As settlers rushed to California, heavy timber harvesting, slash fires, and wildfires opened the forests and created vast areas where young shrubs flourished. The stage was set for deer populations to increase.

However, while the habitat was rapidly improving, unregulated killing of deer for meat and hides prevented herds from filling the newly created habitats. Many settlers, particularly miners, abandoned their diggings in favor of the more lucrative market hunting and commercial deer hunting camps that were operated throughout California from 1850 until the early 1900s. One writer reported that 35,000 deer hides were shipped by a single firm in Redding in 1880.

Meanwhile, the habitat was there waiting for the deer to respond and population increases were forthcoming. In 1893, the deer season was reduced to six weeks and, in 1901, a limit of three bucks was in place. The limit was reduced to two bucks in 1905. A hunting license was required in 1907 and the revenue was used to employ wardens to enforce the regulations. Around 1910, a perfect time to be a deer, the population eruption began. By the late 1940s, the state's deer population had increased from less than 300,000 to more than a million. Biologists began to report widespread evidence of overpopulation including winter losses, damage to food plants, and a reduction in fawns. In 1956, in an effort to reduce deer herds, hunters were allowed to take one deer of either sex during the last days of the season in 35 counties. The statewide harvest that year was approximately 108,000 deer of which 38,000 were does.

Interestingly, the large deer kill in 1956

was followed by a significant increase in fawns. This response was expected because the notable doe harvest removed excess deer that the habitat couldn't support. The does remaining after the hunt produced more fawns because of less competition for forage. The large fawn-crops of 1957 resulted in more 2-year-old bucks in 1959. That led to record buck-harvests then and in 1960, in spite of concern by some that the herds had been decimated in 1956.

Because of public opposition to the antlerless deer harvest in 1956, legislation was passed giving 37 county boards of supervisors the authority to veto subsequent doe hunts. Today California has the dubious distinction of being the only state in the nation where doe hunts cannot always be carried out even when such hunts are biologically justified.

California deer, along with herds in most other western states, began to decline in the early 1960s. Biologists had predicted the downward trend in the 1940s because of severe damage to forage plants due to overpopulation of deer and the maturing of the habitat.

While much debate has gone on about the causes, considerable evidence exists to indicate that deer habitat quality is still in a steady decline due primarily to the loss of forage plants that grow in the wake of fires or logging. Fire and logging clear the forest of mature vegetation and allow the regrowth of shrubs and herbaceous plants that deer need for forage. In other words, a significant reduction in wildfires due to modern fire suppression capabilities and changes in forest practices designed to control brush, have resulted in losses of deer habitat. Ultimately, deer numbers are determined by the amount of good habitat available to them.

81

Good habitat consists of three components: food, cover and water. Each of these elements is important but research shows that food quality and quantity usually limit deer numbers even when the other components are adequate. Deer are primarily browsers and their most important food consists of young shrubs. Not surprisingly, some brush species are much more important than others. For example, manzanita, a plant that most hunters are familiar with, supplies cover but has very little forage value to deer. On the other hand, shrubs in the rose family, known as *Ceanothus*, are very important and of high value. In the drier, eastern areas of California, bitterbrush is a major component in the diet of mule deer.

Deer also depend on herbaceous or "weedy" plants such as clovers, particularly during the spring and summer months. In the fall, acorns are also important to them in many parts of the state.

Prime forage is not only palatable to deer but nutritious as well. Good food produces energy and contributes bone and tissue for growth and reproduction. Studies have shown that for optimum growth, deer require a diet with at least 16 percent digestible protein and preferably 20 percent during their early, rapid growth years. According to surveys,

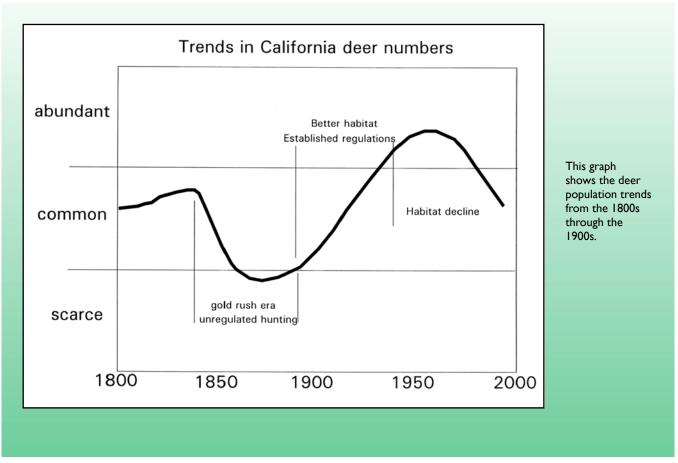


This photograph was taken in 1935 from English Peak in the Marble Mountain Wilderness on the Klamath National Forest. This was a time when disturbances such as fire, logging, and even grazing created an ideal situation for deer throughout northern California. Here we see a mixture of cover created by timber and plenty of openings where deer browse could grow.



When this photograph was taken in 1992, again from English Peak, the changes that occurred during the ensuing 57 years were obvious. With the emphasis on fire suppression and timber production, the area is now in a state of advanced plant succession. In other words, deer food is scarce and that is reflected in overall deer numbers.

DEER OF CALIFORNIA



many of the plants on California deer ranges provide only 10 percent protein. Deer on such lowprotein diets may only obtain 60 or 70 percent of their potential growth. In a poor forage situation, undernourished deer typically have fewer fawns and the overall population declines.

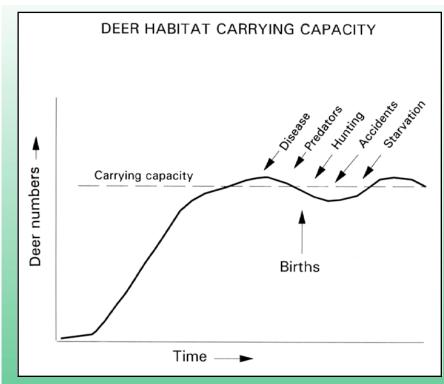
Habitats are said to have a carrying capacity. If the habitat is good and the deer are below the carrying capacity, the deer will produce more fawns thus filling the capacity. When the habitat declines for one reason or another, deer numbers also drop.

When deer numbers are low, hunters often suggest restricting hunting seasons and bag limits, or call for predator control to let the herds build up. While these suggestions are well intentioned, they do not take into account the intricate balance between deaths, births and carrying capacity. It is this balance between births and deaths that usually create the controversy over how deer are managed. Biologists know that in most cases if deaths are reduced by restricting hunting or reducing predators, the herd balances itself through increased adult losses via factors such as starvation, disease and declining births.

Efforts to "save" deer and stockpile them fail because reducing losses from one decimating factor shifts those losses to another. The bottom line is that the herd cannot exceed the carrying capacity of its habitat, at least for long.

A common tool used in deer management is to harvest animals of both sexes so that the herd can be lowered to a level slightly below the carrying capacity of the habitat. When this is achieved, deaths due to other causes are reduced. Fawn production and survival increases as the herd attempts to fill the void created by the removal of the adults through hunting. Because the deer are held to a level below the habitat capacity, there is little or no competition for food and individual animals are bigger. Of special interest to hunters, the bucks also grow bigger antlers.

With a better understanding of how deer regulate their populations around a habitat carrying capacity, we turn our attention to the factors



The carrying capacity graph illustrates how deer populations reach carrying capacity and then level off. The decimating factors that remove deer are shown trying to push the population down while births add to the herd. The closer the deer population comes to the carrying capacity, the more deer are lost to decimating factors. As deer numbers reach or exceed the habitat capacity (food supply) the deer get smaller and the bucks grow smaller antlers. This is a form of population control that has evolved to prevent herds from overpopulating and damaging their habitats-at least for long periods.

that regulate that capacity. Carrying capacity is rarely stable. Short-term changes occur as a result of weather and man's activities on the land. A wildfire, for example, might temporarily reduce the habitat on a summer range until the shrubs resprout and produce an increase in food above the level prior to the burn. The deer that use the area will respond to the changes by increasing in numbers.

Periodic droughts may also reduce the growth of important food plants and affect the carrying capacity of the range. Dramatic, but temporary, changes can also occur when heavy winter snows cover feeding areas for a prolonged period of time, causing deer to starve.

Winter snows, drought and wildfire result in short-term trends in habitat capacity. More important are the long-term trends in the ability of California wildlands to support deer. Look carefully at the habitat photographs on page 82. One was taken in 1935, well into the period when deer were increasing throughout the state, and the other was taken 57 years later, in 1992, from the same location. Note the changes that occurred during that time period. Without disturbances such as lightning fires that create openings in the trees which allow young vegetation to grow, shrubs mature and trees begin to dominate. As the canopy closes it reduces the moisture and sunlight reaching the forest floor. The habitat thus supports fewer deer.

While the photographs illustrate these changes in only one area, work throughout California and other western states confirms the shifts in habitats from mixed shrubs and trees to large areas dominated by second-growth trees and decadent brush fields. This unnatural process came about largely because of the suppression of wildfires since the middle of this century.

Land managers are beginning to recognize the problems associated with the continuing suppression of natural life-giving fires on the landscape. Not only deer but many other species of plants and animals depend on periodic cleansing of the land (via fire) to create the needed mosaics of openings in the vegetative cover. Finally, we must change our attitudes about fire and learn how to reintroduce this totally natural force into the strategies we use to manage habitats.

Appendix

GENERAL HUNTING INFORMATION FROM THE DEPARTMENT OF FISH AND GAME:

Region 1:	601 Locust, Redding, CA 96001	(530) 225-2300
	619 Second St., Eureka, CA 95501	(707) 445-6493
Region 2:	1701 Nimbus Rd., Rancho Cordova, CA 95670	(916) 358-2900
Region 3:	7329 Silverado Trail, Box 47, Yountville, CA 94599	(707) 944-5500
	411 Burgess Dr., Menlo Park, CA 94025	(415) 688-6340
	20 Lower Ragsdale, Suite 100, Monterey, CA 93940	(408) 649-2870
Region 4:	1234 East Shaw Ave., Fresno, CA 93710	(559) 243-4005
Region 5:	4949 Viewridge Dr., San Diego, CA 92123	(858) 467-4201
	407 W. Line St., Bishop, CA 93514	(760) 872-1171
Region 6:	4775 Bird Farm Road	
C	Chino Hills, CA 91709	(909) 597-0923
Headquarte		(916) 653-7664
License and	Revenue Branch: 3211 S St., Sacramento, CA 95816	(916) 227-2244 or
	(91	6) 227-2177

HUNTING DEER IN CALIFORNIA GENERAL INFORMATION FROM USDA FOREST SERVICE OFFICES BY DFG REGION:

Region 1:

Klamath National Forest 1312 Fairlane Rd., Yreka, CA 96097 (916) 246-5222

Lassen National Forest 55 S. Sacramento St., Susanville, CA 96130 (916) 257-2151

Modoc National Forest 441 N. Main St., Alturas, CA 96101 (916) 233-5811

Shasta-Trinity National Forest, 2400 Washington Ave., Redding, CA 96001 (916) 246-5222

Six Rivers National Forest 507 E. Street, Eureka, CA 95501 (707) 442-1721

Region 2: El Dorado National Forest 100 Forni Rd., Placerville, CA 95667 (916) 622-5061

Lassen National Forest 55 S. Sacramento St., Susanville, CA 96130 (916) 257-2151

Stanislaus National Forest 19777 Greenly Rd., Sonora, CA 95370 (209) 532-3671

Tahoe National Forest Highway 49 & Coyote St., Nevada City, CA 95959 (916) 265-4531

Toiyabe National Forest Carson Ranger District 1536 S. Carson St., Carson City, NV 89701 (702) 882-2766 Region 3:

Los Padres National Forest, Santa Lucia District 1616 Carlotti Dr., Santa Maria, CA 93454 (805) 925-9538

Mendocino National Forest 420 East Laurel St., Willows, CA 95988 (916) 934-3316

Region 4: Sequoia National Forest 900 W. Grand Ave., Porterville, CA 93257 (559) 784-1500

Sierra National Forest Federal Bldg.,1130 O. Street, Fresno., CA 93712 (559) 487-5155

Region 5:

Angeles National Forest 701 N. Santa Anita Ave., Arcadia, CA 91006 (818) 577-0050

Cleveland National Forest 880 Front St., San Diego, CA 92188 (852) 293-5050

Inyo National Forest 873 N. Main St., Bishop, CA 93514 (760) 873-5841

Los Padres National Forest 6144 Calle Real, Goleta, CA 93117 (805) 683-6711

San Bernardino National Forest 144 N. Mt. View Ave., San Bernardino, CA 92408 (714) 383-5588

MAP SOURCES

Obviously, if you are going into a new area to hunt, the first step in learning about the land, and the access to it, is to get a good set of maps. One way to get detailed maps for any of the national forests of California is to contact the USDA Forest Service Public Affairs Office. Ask for a list of maps and a price sheet, then order what you need. Besides maps for individual national forests, the Forest Service also has some very good topographic maps available for some of the major wilderness areas. Contact:

> USDA Forest Service Public Affairs Office 630 Sansome St., San Francisco, CA 94111 (415) 705-2874

In addition to the Public Affairs Office, you can also get maps for the forest you plan to visit by contacting or visiting the main office of a particular forest or a ranger district office.

The Bureau of Land Management also has maps for the land it administers. Ask for a Map Index and price list, then place your order accordingly. Contact:

> Bureau of Land Management Federal Office Bldg. 2800 Cottage Way, Room E-2841 Sacramento, CA 95825 (916) 979-2800

Topographic maps are always helpful in hunting situations and maps of this type are available from the U.S. Geological Survey. In addition, some sporting goods stores and book stores have a supply of topo maps for a particular region so you might be able to get them closer to home if you look around a bit. Contact:

> U.S. Geological Survey Distribution Center Denver Federal Center, Building 810 Box 25286 Denver, CO 80225 (303) 236-7477

Ask for an Index of Topographic Maps for California and order the maps you need.

USEFUL PUBLICATIONS, VIDEOS, ETC.

<u>Complete Game Care Guide</u>, by Durwood Hollis Publisher: The Brunton/Lakota Co., 620 E. Monroe St., Riverton, WY 82501.

Sausage and Jerky Handbook, by Eldon R. Cutlip Contact: Eldon's Products, Box 145, Grangeville, ID 83530.

Easy Deer Cutting (video). Contact: Eldon's Products.

<u>Primal Cuts for Boning Elk and Deer</u> (poster) The Home Butch'r Shop, Box 1043, Redmond, OR 97756 (instruction manual available).

<u>The Mule Deer Carcass</u> (B-589R—Field) <u>Skinning and Boning Big Game</u> (B-884R—Field/ Busboom). <u>Aging Big Game</u> (B-513R—Field). All pamphlets are available from: The University of Wyoming, Bulletin Room, Box 3313, Laramie, WY 82071.

California Deer Association P.O. Box 6981 San Jose, CA 95150

<u>The Mule Deer Foundation</u> 1005 Terminal Way, Suite 140 Reno, NV 89502 1-(800) 344-BUCK